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FINAL
SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT

FOR THE

PROPOSED MASTER PLAN UPDATE DEVELOPMENT ACTIONS

AT

SEATTLE-TACOMA INTERNATIONAL AIRPORT

Volume 2 - Appendices C-2 through F

This statement is submitted for review pursuant to the requirements of Section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq); E.O. 11990, Protection of Wetlands; E.O. 11998, Floodplain Management; 49 USC Subtitle VII; 42 U.S.C. 7401 et seq; Department of Transportation Act Section 4(f) - 49 USC 303 (c); 49 U.S.C. 47101 et seq; Washington State Environmental Policy Act (RCW 43.21C); and other applicable laws. This Supplemental Environmental Impact Statement (SEIS) is a combined National Environmental Policy Act and Washington State Environmental Policy Act (SEPA) document. With regard to SEPA requirements, this Supplemental EIS represents the third step of a phased environmental review which began with publication of the 1992 Flight Plan Final EIS, which assessed alternatives for addressing regional aviation needs, and the issuance of the Final EIS for the Master Plan Update. This Final Supplemental EIS also contains a final conformity analysis, as required by the Clean Air Act amendments.

The Port of Seattle, operator of Seattle-Tacoma International Airport, has prepared a Master Plan Update for the Airport. The Plan shows the need to address the poor weather operating capability of the Airport through the development of an 8,500 foot long third parallel runway (Runway 16X/34X), separated by 2,500 feet from existing Runway 16L/34R, with associated taxiways and navigational aids. Other needs include: extension of Runway 34R by 600 feet; establishment of standard Runway Safety Areas for Runways 16R/L; development of a new air traffic control tower; development of a new north unit terminal, Main Terminal improvements and terminal expansion; parking and access improvements and expansion; development of the South Aviation Support Area for cargo and/or maintenance facilities; and relocation, redevelopment, and expansion of support facilities. The EIS assesses the impact of alternative airport improvements, including installation of navigational aids, airspace use, and approach and departure procedures. With the exception of the 34R runway extension, the proposed improvements would be completed during the 1997-2010 period, with initial 5-year development focused on the proposed new parallel runway, and existing passenger terminal, parking and access improvements. The proposed improvements and their alternatives would result in wetland impacts, floodplain encroachment, stream relocation, impacts to locally significant historical sites, social, noise, water, and air quality impacts.

This Supplemental EIS was prepared to address the environmental impacts that could result if the most recent growth in aviation activity levels continues.

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APPENDIX C-2

AIR QUALITY

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APPENDIX C-2

AIR QUALITY

This appendix presents the detailed results and methodology used in preparation of the air quality analyses presented in **Section 5-2, "Air Quality"**. Included is a description of the air quality models, input assumptions, methodology, and results of the analyses.

This analysis supplements the analysis presented in the Final Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport dated February, 1996 (Final EIS). Applicable sections in the Final EIS include Chapter IV, Section 9 "Air Quality", Appendix D, and Appendix R. The information presented in this appendix focuses on the assumptions or conditions which have been revised due to the new data described in Chapter 2 of the Supplemental EIS.

During the agency review and public comment period, a number of errors were discovered in the air quality analysis. The analysis contained in this Final Supplemental EIS reflects responses to these comments and a thorough quality assurance review of the data input to the models. While the quantity of air emissions has changed over the levels presented in the Draft Supplemental EIS, the conclusions of the Draft are supported by the revised analysis contained in this Final Supplemental EIS.

This appendix includes a discussion on the source data modeled and detailed results of the air pollutant emissions inventory, EDMS dispersion analysis, and roadway intersection dispersion analysis presented in **Section 5-2 "Air Quality"** of this study.

1. SOURCE DATA MODELED

The type of sources modeled and basic modeling protocol for this analysis are the same as that used for the Final EIS air quality analysis. The airport-related sources modeled include aircraft operations, motor vehicles, on and off-airport related auto parking as well as long-term public and private off-airport lots, employee parking and rental cars, the main taxicab and limousine staging areas, aircraft maintenance activities, on-airport fuel storage facilities, the terminal Heating and Cooling facility, and aircraft ground run-ups.

The following summarizes the sources modeled. Because the new forecasts focus particularly on changes in future aircraft activity, a detailed description of changes in aircraft operations as modeled by this analysis is provided separately in Section 2 "Aircraft Sources" following this section.

(A) Vehicular Traffic, Roadways, and Parking Lots

The analysis includes consideration of all motor vehicles including private automobiles, rental cars, taxis, limousines, and buses. The analysis considers traffic volumes and movements within the terminal area and surrounding airport area. A description of the surface transportation system is contained in **Section 5-1, "Surface Traffic Analysis"** and **Appendix C-1**. For the air quality analysis, roadway traffic is based on the peak month (August) and peak hour traffic volumes with the new forecast. The heaviest traffic conditions of the day on the roadways in the vicinity of the Airport peaks between 5:00 p.m. and 6:00 p.m. due to regional traffic rush-hour. Use of the peak month, peak hour, p.m. peak period traffic volume for the air quality analysis is consistent with that used for the Final EIS air quality analysis and represents a worst case operating condition. Accordingly, the traffic volumes used for the air quality analysis are greater than the design day traffic volumes used in preparation of the surface traffic analysis as included in **Appendix C-1**.

In addition to the terminal area roadways, over 20 major roads and highways represented by 84 separate roadway segments were modeled. As requested by the air quality agencies at the outset of the EIS, all major roads within a mile of the Airport were considered.

In addition to roadway sources, airport related parking facilities were modeled including the main terminal parking garage, airport employee parking lots, and an estimated 9,500 parking spaces in off-airport remote public and private lots. The parking traffic volumes (i.e., movements in and out of each lot) were adjusted based on the new forecast and revised Surface Traffic Analysis.

(B) Heating and Cooling Facilities

The Airport uses natural gas fueled boilers to heat and cool the terminal buildings. Fuel usage was increased over that considered in the Final EIS analysis based on the forecast percent increase in passenger enplanements presented in Chapter 2.

(C) Training Fires

No training fires are to be conducted at the Airport after 1996. Therefore, as for the Final EIS analysis, training fires were not considered for the new forecast analysis.

(D) Petroleum Fuel Storage Tanks

Fuel usage was increased based on the forecast increase in aircraft operations based on peak hour refueling capacity. As in the Final EIS, all airport and tenant fuel storage facilities were considered including those used by Northwest, Delta, and United Airlines.

(E) Maintenance Facilities

Maintenance activities are routinely performed at Sea-Tac, such as aircraft repainting and the removal and repair of aircraft engines. Most of the maintenance activity is related to surface coating of aircraft support vehicles; there is no routine major aircraft repainting or maintenance activity conducted at the Airport. As a reasonable worst case approach, the Final EIS analysis considered the highest volume of activity identified for all permitted facilities. This activity was increased based on the forecast increase in aircraft activity.

(F) Aircraft Engine Run-Up Maintenance Activity

Aircraft engine maintenance checks are conducted at Sea-Tac and are included in the air quality analysis. A total of nine run-ups by a B-747 per day were considered in the analysis for both the Do-Nothing and "With Project" conditions. The assessment includes five minutes at full takeoff power for one engine and fifteen minutes idle power. The B-747 aircraft was modeled as it produced the highest total pollutant emissions of all aircraft types conducting run-ups, and which is expected to continue to operate at the Airport through the study planning horizon. A review of the run-up data indicated that the conduct of such a large number of run-ups by a B-747 would be highly unusual. Accordingly, the EIS analysis represents a reasonable worst case evaluation of aircraft ground run-ups. The EDMS model was adjusted to enable the effect of full power takeoff thrust to be modeled (without adjustment, the EDMS model only considers idle thrust).

Each of the data sources modeled was adjusted based on the change in aircraft operations or passenger enplanements levels presented by the new forecast. For example, as aircraft activity and passenger enplanements increased, a comparable increase in fuel usage, terminal energy requirements, and aircraft maintenance activities could also be expected to increase. The peak period of motor vehicle activity was also considered for all terminal and area roadways and parking activity. The increase in airport-related activity was based on the expected percent increase in activity over that considered for the Final EIS.

2. AIRCRAFT SOURCES

As indicated in Chapter 2, forecasts of aircraft activity are predicted to be grow faster than was anticipated by the Master Plan Update forecast. As for the Final EIS, considerations of project phasing, runway use, taxi distances, and use of a new third parallel runway were re-examined for this analysis and is documented in Chapter 2.

This section presents the data input assumptions for aircraft activity and type, runway use, time-in-mode, and departure queue delay. The additional environmental analysis is based on the consideration of two separate operating conditions as follows:

Peak Operating Conditions - During preparation of the Final EIS, several test case analyses were conducted that identified the conditions which resulted in the highest pollutant concentrations (see page D-34 Appendix D of the Final EIS). These conditions included the peak hour aircraft departure activity, peak departure delay, and activity by all aircraft types in use at the Airport (not just the aircraft types occurring during the peak departure hour). Therefore, to present the maximum pollutant concentrations possible, the dispersion analysis includes consideration of the peak operating conditions as a test case analysis. As shown by the test case evaluation, these conditions *cannot occur at the same time* resulting in an extreme overestimation of pollutant concentrations. As a further worst case assumption, this evaluation assigns no operational benefit to departure delay with the availability of a new third parallel runway.

Average Annual Departure Delay - The FAA's 1996 Capacity Enhancement Study identifies a significant delay reduction benefit with the availability of a new runway - particularly during poor weather conditions. Therefore, an emissions inventory analysis was prepared that focuses on expected aircraft related emissions based on the FAA's Capacity Enhancement Study findings. Each of the activity assumptions identified for the peak operating condition described above were applied to this analysis. This analysis differs only in the use of average annual departure delay identified by the FAA's Capacity Enhancement Study.

The following sections focus on the key input assumptions for aircraft activity used in the additional environmental air quality analysis.

(A) Aircraft Activity:

The dispersion and emissions inventory analyses are based on the Peak Month Average Day (PMAD) and peak hour level of departure activity. **Table C-2-1** presents the comparison of aircraft operations levels for the Do-Nothing and "With Project" conditions. For comparison purposes, the forecast change in total annual operations, the PMAD and Average Annual Day (AAD) level of activity, and the peak hour of total operations (arrivals and departures) are included. As shown, there are minor differences between the year 2000 and 2005 Do-Nothing and "With Project" activity levels. By 2010, however, the PMAD "With Project" condition is expected to accommodate approximately five percent more daily activity than for the Do-Nothing condition.

The largest number of peak hour departures that can be accommodated at Sea-Tac Airport in good weather is about 60 departures or about one departure per minute. To accommodate the peak number of aircraft departures, a number of conditions must exist including good weather and excellent pilot visibility. Also needed is an aircraft fleet mix (the type of aircraft wanting to depart) that includes few large aircraft, and a high percentage of small, quick turning single or twin-engine propeller aircraft, and some turboprop aircraft (*see below the discussion on the aircraft departure separation requirements and the effect of the current noise abatement procedures on departure capacity*). Accordingly, the peak number of departures that can occur is dependent upon the type and size of the aircraft involved, among other factors.

During preparation of the Final EIS, hourly aircraft activity counts maintained by the FAA Air Traffic Control Tower personnel over approximately an entire year were reviewed to identify the peak hour level of aircraft departures. Based on this data, a peak hour of 63 aircraft departures was identified (note that this level of activity was not able to be confirmed based on a review of supporting radar data; the highest level of peak hour departures to be confirmed was 59). For the entire period for which records were reviewed, no other hour exceeded 59 departures. For this analysis, the peak departure hour was considered to be 64 (1 more than identified by the Tower counts to be conservative), with or without a third parallel runway.

Table C-2-1

AIRCRAFT OPERATIONS
COMPARISON OF DO-NOTHING AND "WITH PROJECT"

	Do-Nothing			With Project		
TOTAL OPERATIONS (Arrivals and Departures)	2000	2005	2010	2000	2005	2010
Annual	409,000	445,000	460,000	409,000	445,000	474,000
Peak Month/Average Day (PMAD)[1/]	1,246	1,341	1,360	1,246	1,352	1,423
Average Annual Day (AAD)	1,121	1,219	1,260	1,121	1,219	1,299
Peak Hour Total Operations	78	82	82	78	94	99
DEPARTURE ACTIVITY						
During Peak Hour Total Operations[2/]	46	50	52	46	50	54
Peak Hour--Departures[1/ 3/]	64	64	64	64	64	64

[1/] Evaluated for the additional air quality analysis.

[2/] Highest hourly departures during hour of peak total operations -- comparable to Final EIS level of departure activity.

[3/] Departure capacity is typically about one aircraft departure per minute. Historic records indicate peak departure activity of 59 aircraft departures (possibly 63 but undocumented). Therefore, for worst case conditions, a maximum peak hour departure capability of 64 departures is assumed with or without a new runway.

Source: Landrum & Brown, Inc., 1996.

[illegible]

Table C-2-1 includes the estimated level of departure activity during the peak hour of total operations. This level of departure activity is comparable to that evaluated by the Final EIS, and is a level of activity that can reasonably accommodate all aircraft types in use at the Airport. Departure activity during the peak hour of total operations is less than for the peak departure hour (i.e., 46 departures as compared to 64). However, to maximize pollutant concentrations the peak departure hour level of activity and use by all aircraft types was considered for this analysis.

(B) Aircraft Type:

This analysis is based on all aircraft types which use the Airport. **Tables C-2-2** presents the aircraft modeled for the peak hour departure activity. Activity levels are presented for the Do-Nothing and "With Project" alternatives. Aircraft type considered for this analysis is based on the annual aircraft fleet in use at the Airport (all aircraft types).

Aircraft activity has changed at the Airport over the past five years, and the forecast changes in aircraft fleet and activity are expected to continue to evolve. In 1990, approximately 28 percent of all aircraft activity occurred by the larger 3-4 engine jet aircraft such as the B-747, DC-10, and L-1011. By 1994, activity at the Airport had evolved to where these types of aircraft represented only 12 percent of total activity. At the same time, activity by medium sized jets (i.e., MD-80, B-737) increased 61 percent reflecting the growth in activity by high frequency, low fare/no frills airlines.

Approximately 30 percent of the activity occurred by turboprops. Based on the new forecasts, these same trends are expected to continue for 2000, 2005, and 2010.

This analysis is based on the average annual fleet - or, all aircraft types which use the Airport during the year. As described in the Final EIS, the actual aircraft fleet operating during the peak departure hour differs considerably from the average annual aircraft fleet in use at the Airport. The actual aircraft types occurring during the peak departure hour includes few of the larger 3-4 engine jet aircraft and more of the 2-engine medium sized jets, and light single and twin engine propeller and turboprop aircraft in comparison to the annual fleet (all aircraft types) in use at the Airport.

Use by larger aircraft would require greater spacing between aircraft, and therefore could be expected to result in fewer peak hour departures. Also, the existing noise abatement procedures (described below) restrict peak hour activity by not allowing fanning of departures. As a result, the aircraft type occurring during a peak departure hour is substantially different than would occur on an annual basis and would result in less emissions in comparison to modeling the entire fleet.

Therefore, as a worst case assumption, this analysis assumes use of the entire aircraft fleet and a peak hour number of aircraft departures. This condition is applied even though actual operating data indicates this does not occur today, and that the Airport's unique operating environment effectively limits such a condition from occurring.

(C) Runway Use, Use of a New Runway, and the Effect of the Existing Noise Abatement Procedures on Departure Capacity:

The Final EIS described how a third parallel runway would be used and its effect on peak hour departure capacity. Also, the effect of the existing noise abatement procedures on departure capacity was also discussed. These issues were revisited for the additional environmental analysis to re-establish the anticipated peak operational conditions.

Runway Use: The air quality analysis considers that about 3-4 percent of all departures would occur on the proposed new parallel runway. This consideration is slightly higher than for the average runway end utilization with the proposed third runway as presented in (**Appendix C-3, Noise Analysis Runway Use, Table C-3-14**). The air quality analysis is based on the runway use configuration determined to be worst case with respect to air quality (south flow). Runway use is generally consistent with that modeled for the Final EIS.

Use of a Third Parallel Runway (for departures): A third parallel runway is needed to reduce arrival delay incurred during poor weather conditions. With the availability of a third runway at Sea-Tac, it is expected that existing Runway 16L/34R and the proposed new runway would be used for arrivals. Departures would occur on the existing runways (16R/34L and 16L/34R). On occasion, a small percentage of departures would occur on the proposed new runway. Such usage is likely to be associated with periods when the existing runways are closed for repair and maintenance, or other unusual conditions. As indicated above, the air quality analysis considers that about 3-4 percent of all departures would occur on the proposed new parallel runway. Additionally, the proposed runway length does not provide sufficient runway length to be used for departure by a number of the larger aircraft including the B-747, DC-10, MD-11, L-1011, or B-767.

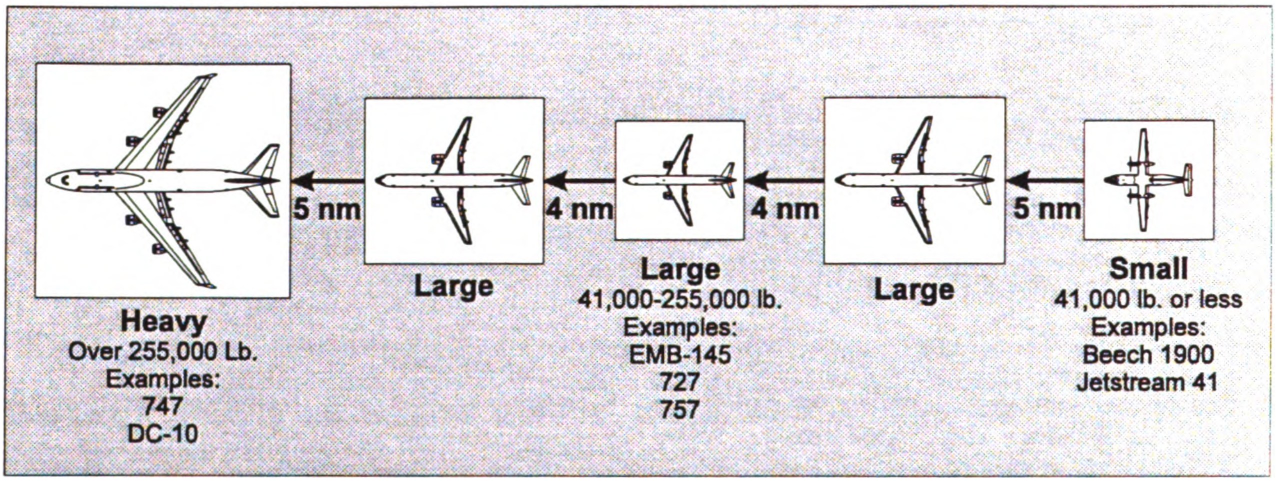
Constraints on Peak Hour Departure Capacity Posed by the Existing Noise Abatement Procedures: Peak hour departure capacity is constrained by the existing noise abatement procedures. The current "straight-out" noise abatement departure procedures require that departing jets essentially maintain runway heading until the aircraft reaches five miles or 3,000 feet altitude prior to initiating turns. This procedure is designed to keep departing aircraft in the narrowest flight path possible to minimize the population exposed to departure noise. This in turn affects departures due to the need to maintain adequate spacing (both lateral between the two runways, and in-trail between aircraft) for a considerable distance from the Airport. Combined, the required in-trail separation and maintenance of the "straight-out" noise abatement departure procedures would greatly restrict the useful departure capacity of a third runway.

The noise abatement procedures do not restrict operations by light single and twin engine piston aircraft and some turboprops through the Dash 8. Once these types of aircraft reach 1,000 feet, they can then be turned outside of the noise abatement corridor. Accordingly, during the peak departure hour, a new third parallel could be used for the small, propeller engine aircraft that are able to turn quickly once sufficient altitude has been reached. Therefore, maximum peak hour departure activity is dependent upon a peak hour aircraft mix that includes a high percentage of the smaller, propeller aircraft.

Exhibit C-2-1 illustrates the separation requirements based on aircraft types. The larger the aircraft, the greater the departure separation requirements. For example, a large aircraft such as the B-747 requires 5 nautical miles separation before the next aircraft is allowed to depart. The large aircraft category includes the B-747, A-340, B-767, and even the B-757. Medium sized aircraft such as the B-737, MD-80, DC-9 require 3 miles of in-trail separation.

EXHIBIT C-2-1

Aircraft Separations Standards



Accordingly, due to aircraft spacing requirements, it is highly unlikely that the peak hour of departure activity could accommodate many of the heavy and large jet aircraft. Nonetheless, as a worst case condition, this analysis assumes use by all aircraft types during the peak departure hour.

(D) <u>Time-In-Mode/Aircraft Departure Queues</u>

Table C-2-3 presents the time in mode by aircraft type used in the dispersion and inventory analysis. For each aircraft a time in operations mode (taxi/idle/delay, takeoff, climbout, and approach) was determined. Taxi-in and taxi-out times were based on a determination of existing airfield taxi distances and aircraft speed. Taxi routings were based on observed operational patterns. The average taxi distance was then calculated by applying the existing or future runway use based on a constant taxi speed of 15 knots. Taxi/idle time is not expected to change dramatically with the availability of a new runway due to the very similar runway utilization and taxi times used. Different taxi routes were assigned to the various aircraft types based on their typical operating capabilities. Accordingly, a change in aircraft fleet with the new forecast did result in a minimal change in taxi time.

Table C-2-4 presents a comparison of aircraft departure delay available for use in this analysis. The dispersion analysis is based on the average peak hour departure delay (i.e., 10 minutes) to identify the maximum pollutant concentrations. The emission inventory analysis is based on the Capacity Enhancement Study average annual departure delay. For the Final EIS, departure queue delay time was based on the output of the Capacity Enhancement Study simulation analysis. The departure queue lengths used in the Final EIS analysis were not changed for this analysis. The following summarizes the comparison of aircraft departure delay:

Table C-2-4

COMPARISON OF AIRCRAFT DEPARTURE DELAY

	Do-Nothing			"With Project"		
	2000	2005	2010	2000	2005	2010
FEIS Departure Delay[1]	2.89	N/A	4.93	2.75	N/A	4.69
FAA Capacity Enhancement Study[2]	2.35	4.45	7.11	2.35	2.98	3.07
Peak Hour Departure Delay[3]	10.00	10.00	10.00	10.00	10.00	10.00

[1] Highest hourly-average annual delay per aircraft departure. [Source: Mr. Darryl Stout, Operational Research Analyst, Aviation Capacity Branch, FAA Capacity Enhancement Study, October 1994]

[2] Average annual delay per departure based on the change in aircraft activity presented by the new forecasts. Linear interpolation of data presented in pages 14-30 of Data Package #12 of the FAA's Capacity Enhancement Study.

[3] Field observation during the peak hour of activity (South Flow) indicated an average of 6-10 minutes delay per departure; as a worst case assumption, no delay reduction benefit is assumed "With Project".

Source: Landrum & Brown, Inc., 1996.

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Peak departure hour delay - To model worst case-peak operating conditions a peak hour departure delay of 10 minutes for every departure was considered for the EDMS dispersion analysis. During preparation of the Final EIS, field observation confirmed that each aircraft departure during the peak departure hour experienced an average of 6-10 minutes of departure delay (time spent idling at the end of the runway) waiting to depart. This was observed for south flow conditions only; the average departure delay during north flow conditions for the peak hour was considerably less (as observed, less than 3 minutes per departure).

Field observation confirmed that the length and time spent in the departure queue can vary substantially, with some aircraft experiencing more delay while others would proceed unimpeded from the gate to the end of the runway. Observation further indicated that beyond 10 minutes queue time, the length of the departure queue does begin to interfere with terminal access. Therefore, an average of 10 minutes departure delay was considered as a reasonable worst case condition applicable to the peak departure hour.

Additionally, an average of 10 minutes departure delay time was considered to be a reasonable worst case condition *during the peak departure hour* even for the "With Project" condition. This assumption applies no benefit with a new runway by reducing departure delay. However, as described earlier, a new runway would provide considerable benefit in reducing departure delay *on an annual basis*.

Accordingly, each aircraft departure was assigned over 18 minutes of time on the ground (approximately 8 minutes taxi-idle time, and 10 minutes queue time) during the peak departure hour for both the "With Project" and Do-Nothing conditions.

Average Annual Departure Delay - As indicated, during the course of the year departing aircraft experience a wide range of delay, from an average of 10 minutes delay per departure during the peak departure hour (as described above) to virtually no ground delay as the aircraft proceeds unimpeded from the gate to the end of the runway and takeoff. During these times total taxi and departure delay time averages 5-7 minutes or less.

The result is that not all aircraft line up in a queue waiting to depart - even during the peak departure hour. Accordingly, departure delay is more typically defined as average departure delay experienced during the course of the year, not just the delay occurring during the peak departure hour.

Table C-2-4 presents the average departure delay. As shown, the average departure delay increases from about 2 minutes in the year 2000 to over 7 minutes by 2010 for the Do-Nothing condition. "With Project", departure delay substantially decreases particularly as operations increase by the year 2010. With a new runway, the average departure queue delay is expected to be reduced substantially from about 7 minutes to 3 minutes.

Accordingly, for the aircraft emissions inventory, each aircraft departure was assigned a total of about 15 minutes of time on the ground (8 minutes taxi-idle time, and 7 minutes departure queue time, for the 2010 Do-Nothing condition).

Comparison to the Final EIS - **Table C-2-4** also presents the departure delay time used in the Final EIS analysis. The Final EIS analysis was based on the highest hourly average departure queue delay as considered by the FAA's Capacity Enhancement Study (this delay was slightly higher than the average annual delay).

Based on the new forecasts, the 2010 Do-Nothing condition average departure delay exceeds the Final EIS delay time by 31 percent (7.11 minutes versus 4.93 minutes for the Final EIS). This occurs because departure delay is expected to increase substantially as operations increase in the future based on the new forecasts without the benefit of a third parallel runway forecast. The average "With Project" annual departure delay for the year 2010 is slightly less than that considered by the Final EIS (3.07 minutes as compared to 4.69 minutes for the Final EIS).

3. AIR POLLUTANT EMISSIONS INVENTORY

An aircraft and airport-related emissions inventory was performed using the FAA's Emissions and Dispersion Modeling System (EDMS) computer model Version 944.[1/] The emissions inventory is based on peak activity and the FAA's Capacity Enhancement Study departure delay. Future pollutant emission inventories were prepared based on the new forecast for the years 2000, 2005, and 2010 for the Do-Nothing (Alternative 1) condition as well as for the "With Project" condition. **Table C-2-5** presents the results of the future pollutant inventories. As shown, airport related emissions are generated by a wide variety of sources. The primary emission sources include motor vehicles (roadways and parking lots), and to a lessor extent aircraft and aircraft ground support vehicles.

Table C-2-6 presents a comparison of aircraft emissions for the Supplemental EIS and Final EIS. As shown, based on the higher operation levels presented by the new forecasts, the emission inventory for the additional environmental evaluation is greater than for the Final EIS. For the year 2000, the Do-Nothing and "With Project" emissions would be identical as there would be no difference in aircraft activity or delay. By 2005, however, the "With Project" emissions would be expected to be 9 percent less for CO than for the Do-Nothing condition; 10 percent less for VOC; and three percent less for NOx. By 2010, the change in emissions would be 16 percent less CO; 14 percent less VOC; and one percent

1/ U.S. Department of Transportation, Federal Aviation Administration, Emissions and Dispersion Modeling System (EDMS), Version 944. Use of the EDMS was confirmed with USEPA, PSAPCA, Ecology, and PSRC, May, 1994. The EDMS is approved for use in airport air quality analysis by USEPA and is included in the "Guidance on Air Quality Models" in 40 CFR, Part 51, Appendix W.

less NOx. The results indicate that the "With Project" emissions would be less than for the Do-Nothing condition.

4. DISPERSION ANALYSIS

A dispersion analysis was performed using the FAA's Emissions and Dispersion Modeling System (EDMS) computer model.[1/] For the Final EIS dispersion analysis, two levels of detailed dispersion analysis were conducted: a screening analysis which reasonably incorporates "worst case" operational and meteorological conditions; and a more detailed 'refined' analysis that considers actual operational characteristics and meteorological conditions. For this Supplemental EIS, the findings of the screening analysis remain consistent and are unchanged with the new forecast. Accordingly, this analysis describes the results of the refined dispersion analysis based on the new forecast and peak operating conditions.

(A) Refined Dispersion Analysis Methodology

The input assumptions associated with the peak operating conditions for aircraft and motor vehicles as well as all sources in Sections 1 and 2 identified above were used for the refined dispersion analysis to identify the maximum pollutant concentrations. This includes the evaluation of peak month average day, peak hour aircraft departure activity by all aircraft types using the Airport, and includes consideration of peak hour departure delay. The EDMS refined analysis methodology includes two primary inputs over the screening analysis. The first involves use of "temporal" factors that provide an indication of hourly, weekly, and monthly activity or utilization for each of the different pollutant sources. The hourly temporal factors used in the Final EIS analysis were revised based on the forecast change in aircraft activity. **Table C-2-7** presents the hourly temporals used in this evaluation. Additionally, the refined analysis applies actual weather data. The refined analysis is based on actual wind speed and wind direction, and other meteorological conditions for each of the 8,670 hours in a year based on data obtained from the National Oceanic and Atmospheric Administration (NOAA). Based on the evaluation of five years meteorological data (1988 through 1993) conducted for the Final EIS, this evaluation focused on 1993 meteorological conditions as a worst case evaluation.

(B) Dispersion Analysis Receptor Locations

The Final EIS screening dispersion analysis was used to identify receptor locations modeled in the refined dispersion analysis. For the screening analysis, pollutant contours or isopleths were prepared (lines of equal pollutant concentrations). The pollutant contours were created using a grid of 400 receptor locations equally spaced at approximately 300 meters apart. The pollutant contours indicate that pollutant concentrations gradually decrease with distance from the Airport and the highest concentrations occur next to the Airport. The contours indicate that off-airport the pollutant of concern relative to the ambient air quality standards is NO_2. Appendix D of the Final EIS presents illustrations of the NO_2 and CO contours.

With a higher level of activity as identified by the new forecasts, the overall shape of the pollutant contours would not change. Therefore, the areas of potential highest concentrations as identified by the Final EIS analysis are consistent and applicable to this analysis for the purposes of locating the closest ambient receptor locations of potential highest pollutant concentrations. The Final EIS receptors were located off the ends of the runways or at the edge of Airport property ("fenceline") – or at the closest publicly accessible locations possible. Accordingly, the receptor locations modeled for the Supplemental EIS are the same as for those modeled in the Final EIS.

The following lists the receptor locations modeled for the refined dispersion analysis:

Receptor 1 - Existing Terminal, South End
Receptor 13 - Existing Terminal, North End at Terminal Hotel
Receptor 4A - Sea-Tac Reservoir
Receptor 5A - Highline Nurseries
Receptor 9A - Sea-Tac Industrial Park
Receptor 10A - Des Moines Creek Park
Receptor South 154th Street
Receptor Future South 154th Street
Receptor South 188th Street East
Receptor South 188th Street West

These locations are consistent with the receptor locations modeled for the Final EIS analysis and are shown in **Exhibit 5-2-4**. Although each of the revised receptor locations can be considered 'ambient' and publicly accessible, none are located in residential areas. The 154th Street receptor is located on the north side of the Airport approximately 650 feet (200 meters) north of Runway 16L. Airport property is located on either side of 154th Street along its entire length in the Airport area. South 188th Street travels through the Airport and under Runway 34R. Receptors were located on South 188th Street on either side of the entrances to the 188th Street tunnel under Runway 34R. Airport property is located on either side of the roadway in these areas. The receptor locations were identified in consultation with the USEPA.

(C) <u>Addition of Background Concentrations</u>

The background concentration is a level of pollutant concentration that is not directly attributable to the emissions from any one source. Background concentrations for CO and NO_2 were added to the estimated concentrations determined by the dispersion modeling. The background concentrations used in the Final EIS analysis are also used in this analysis, and no adjustment (i.e., reduction in emissions due to future improvements in motor vehicle emissions) in the background is applied for the future years.

The following background concentrations were added to the results of the dispersion modeling:

Carbon Monoxide (CO) - 5.0 ppm for the 1-hour CO
3.5 ppm for the 8-hour CO

Nitrogen Dioxides (NO_2) - 0.02 ppm for the annual NO_2:

(D) <u>Results of the Refined Dispersion Analysis</u>

Table C-2-8 presents the results by receptor for each source considered (airport, roadway, and background). The following summarizes the results of the refined dispersion analysis:

1-Hour Carbon Monoxide Concentrations - As for the Final EIS, the results indicated that 1-hour CO concentrations would be well below the Ambient Air Quality Standard of 35 ppm at all receptor locations. Except at the 154th Street and 188th Street receptor locations, aircraft contributions to carbon monoxide would be minimal.

8-Hour Carbon Monoxide Concentrations - As for the Final EIS, except in the terminal area, all 8-hour CO concentrations would be well below the Ambient Air Quality Standard of 9 ppm at all receptor locations. In the terminal areas, CO concentrations are due entirely to motor vehicle traffic on the terminal roadways. "With Project" the 8-hour CO concentrations would be less than for the Do-Nothing condition, and are also less than the CO standard.

Annual Nitrogen Dioxide Concentrations - As for the Final EIS, all "With Project" NO_2 concentrations would be less than for the Do-Nothing condition, or are less than the Ambient Air Quality Standard of 0.053 ppm. As for the Final EIS, the highest NO_2 concentrations would be at receptor locations at the ends of the runways at South 154th Street and South 188th Street.

Nonetheless, prolonged public exposure at these locations would not be expected relative to the longer-term annual standard. All other receptor locations would be below the NO_2 standard.

(E) **Comparison to the Final EIS**

Table C-2-9 presents a comparison of pollutant concentrations for the new forecasts relative to the Master Plan Update forecast. As shown, the results of the additional environmental evaluation are consistent with the results identified by the Final EIS. With the increase in aircraft activity identified by the new forecasts, receptor concentrations for CO and NO_2 would be slightly higher or the same as concentrations identified for the Final EIS. As expected with the evaluation of peak hour activity, the 1-hour CO concentrations would be 10-25 percent higher than for the Final EIS depending on receptor location. Nonetheless, the 1-hour CO concentrations would remain well below the 1-hour CO standard.

5. INTERSECTION DISPERSION ANALYSIS

This section describes the roadway intersection air quality analysis summarized in **Section 5-2, "Air Quality"**. The analysis identifies Carbon Monoxide concentrations for select roadway intersections.

The basis for the intersection air quality analysis is to represent worst case conditions that are created by motor vehicle activity and meteorological conditions and which result in the highest concentrations of air pollutants. The intersection analysis focuses on emissions generated by motor vehicles in the immediate vicinity of an intersection. Carbon Monoxide is usually the pollutant of greatest concern related to transportation sources because it is the pollutant emitted in the greatest quantity for which short-term health standards exist. The intersection dispersion analysis was performed with the CAL3QHC air quality computer model.

(A) Intersection Dispersion Analysis Methodology

The intersection analysis is based on peak month (August), p.m. peak hour roadway traffic data based on the new forecast analysis. The heaviest traffic conditions of the day in the airport area peaks between 5:00 p.m. and 6:00 p.m. The actual traffic volumes used, intersection signalization, and other intersection characteristics were based on level of service (LOS) computations for each intersection similar to the data presented in **Appendix C-1**.

Vehicle emission rates were determined through use of the USEPA mobile source emission program MOBILE5a. **Table C-2-10** presents the MOBILE5a and CAL3QHC input assumptions used in the intersection analysis. For each intersection, the following were identified: traffic volumes for left and right turns and through traffic; level of service determinations; signal cycle lengths; number of traffic lanes available; and vehicle speed.[2/]

The selection of intersections to model was based on the methodology described in the USEPA's Carbon Monoxide modeling guidelines. This methodology identifies selecting the intersections with level-of-service D or worse (or that worsen "With Project") based on those intersections with the highest traffic volumes. Accordingly, four highly congested intersections were modeled including International Boulevard (SR 99) and South 160th Street; International Boulevard and South 170th Street; International Boulevard and South 188th Street; and, International Boulevard and South 200th Street. Additionally, the South 154th Street and 24th Street intersection was modeled as operating conditions worsen at this intersection "With Project" due to development of the North Employee parking lot located on 24th Street north of SR518.

[2/] August p.m. peak hour roadway traffic volumes, signalization and level of service provided by INCA Engineers, Inc., and available through the FAA's Administrative Record.

(B) Intersection Analysis Receptor Locations

The receptors modeled for the intersection analysis were located just over three meters (12 feet) from the roadway in accordance with "Guidelines for Modeling Carbon Monoxide from Roadway Intersections". The number and location of receptors as modeled were located so as to uniformly locate receptors along the four corners of the intersection. Typically, receptors located at the corner of the intersection result in the highest Carbon Monoxide concentrations. Only the highest concentration for each alternative at each intersection is presented.

(C) Addition of Background and Airport Sources Concentrations

The background concentrations added to the results of the areawide dispersion modeling as identified in **Section 4 (C)** of this Appendix were also included in the results of the intersection dispersion analysis. The carbon monoxide background for the 1-hour concentration is 5.0 ppm, and 3.5 ppm for the 8-hour concentration applied to all the future years. In addition, Carbon Monoxide contributions by aircraft sources were also added to the concentration identified at each intersection if applicable. Except at the South 154th Street and 24th Street intersection, contributions by aircraft sources are minimal.

(D) CAL3QHC Intersection Dispersion Analysis Results

Table C-2-11 presents the results of the intersection analysis for both oxygenated and regular gasoline fuel. Consistent with the Final EIS, future Carbon Monoxide concentrations at each of the intersections modeled are expected to exceed the AAQS, with or without the proposed improvement. At each intersection, the "With Project" condition would be expected to result in a maximum concentration equal to or below the Do-Nothing condition. The use of oxygenated fuels would be expected to reduce emissions by 10-20 percent.

Table C-2-2

Seattle-Tacoma International Airport
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PEAK HOUR DEPARTURES 1/

AIRCRAFT	1994 EXISTING	2000 DO-NOTHING	2000 "WITH PROJECT"	2005 DO-NOTHING	2005 "WITH PROJECT"	2010 DO-NOTHING	2010 "WITH PROJECT"
A300	0.19	0.80	0.80	1.36	1.37	1.93	1.97
DC10	1.67	2.06	2.06	1.26	1.26	0.51	0.49
DC8	0.19	0.34	0.34	0.84	0.83	0.92	0.98
L1011	0.56	N/A	N/A	N/A	N/A	N/A	N/A
747	0.74	0.69	0.69	0.74	0.74	0.92	0.89
767	0.74	2.52	2.52	2.94	2.94	4.17	3.73
757	2.78	6.17	6.17	6.72	6.72	7.51	6.98
DC9	2.04	1.83	1.83	1.47	1.47	1.52	1.57
MD80	8.17	9.25	9.25	8.81	8.81	7.92	8.35
727	2.23	1.83	1.83	N/A	N/A	N/A	N/A
737	0.84	N/A	N/A	N/A	N/A	N/A	N/A
737-300	7.89	13.38	13.38	15.32	15.32	15.45	15.73
1ENGPIST	0.84	0.91	0.91	0.84	0.83	0.81	0.78
2ENGPIST	1.67	1.94	1.94	1.78	1.78	1.51	1.47
C130H	0.09	N/A	N/A	N/A	N/A	N/A	N/A
CNA441	0.19	0.11	0.11	0.10	0.10	0.10	0.11
DHC6	4.83	6.63	6.63	5.77	5.76	4.78	5.12
SF340	8.26	15.31	15.31	15.42	15.43	15.24	15.14
LEAR 35	N/A	0.23	0.23	0.21	0.22	0.20	0.20
CL600	N/A	N/A	N/A	0.42	0.42	0.51	0.49
Total	43.92	64.00	64.00	64.00	64.00	64.00	64.00

N/A = Not applicable
1/ The SEIS air quality dispersion analysis is based on peak month, peak hour departure activity by all aircraft using the Airport.

Note: Do-Nothing = Alternative 1; "With Project" = Alternative 3

Aircraft types represented:

Large Jet - 3-4 Engines	Large Jet - 2 Engines	Medium Jet - 2 Engines	Business Jet	Turboprop	Twin Engine Piston	Single Engine Piston
727=727EM2	A300=A300, A310	DC9=F28MK4	CNA441=CNA441	DHC6=DHC6	2ENGPIST=BEC58P	1ENGPIST=COMSEP
747=B747-400	767=B767-300, B767JT9	757=B757PW, B757RR	LEAR35=LEAR 35	SF340=DHC8, DHC830, HS748A		
DC10=DC1040, MD11GE		737-300=B737-300, B-737-3B2, B737-400, B737-500, A320	CL600=CL601			
DC8=DC870		MD80=F100, MD82, MD83				

Source: Landrum & Brown Inc., 1997.
P:\SEA\POSTFEIS\AIRQUAL\APPX_C-2\TBLC2-2R.XLS]Peak Hour

Table C-2-3

Seattle - Tacoma International Airport
Supplemental Environmental Impact Statement

TIME IN MODE (MINUTES)

Future (2000) Do-Nothing

Aircraft Type	Takeoff [1]	Climbout [1]	Approach [2]	Taxi In/Out	Average Annual Departure Delay [3]	Peak Hour Departure Delay [4]
HEAVY	0.7	1.51	2.74	8.9	2.35	10
JET	0.7	1.51	2.74	8.2	2.35	10
PROP	0.5	1.71	3.08	7.5	2.35	10

Future (2000) With Project

Aircraft Type	Takeoff [1]	Climbout [1]	Approach [2]	Taxi In/Out	Average Annual Departure Delay [3]	Peak Hour Departure Delay [4]
HEAVY	0.7	1.51	2.74	8.9	2.35	10
JET	0.7	1.51	2.74	8.2	2.35	10
PROP	0.5	1.71	3.08	7.5	2.35	10

Future (2005) Do-Nothing

Aircraft Type	Takeoff [1]	Climbout [1]	Approach [2]	Taxi In/Out	Average Annual Departure Delay [3]	Peak Hour Departure Delay [4]
HEAVY	0.7	1.51	2.74	8.9	4.45	10
JET	0.7	1.51	2.74	8.2	4.45	10
PROP	0.5	1.71	3.08	7.5	4.45	10

Future (2005) With Project

Aircraft Type	Takeoff [1]	Climbout [1]	Approach [2]	Taxi In/Out	Average Annual Departure Delay [3]	Peak Hour Departure Delay [4]
HEAVY	0.7	1.51	2.74	9.0	2.98	10
JET	0.7	1.51	2.74	8.3	2.98	10
PROP	0.5	1.71	3.08	7.5	2.98	10

Future (2010) Do-Nothing

Aircraft Type	Takeoff [1]	Climbout [1]	Approach [2]	Taxi In/Out	Average Annual Departure Delay [3]	Peak Hour Departure Delay [4]
HEAVY	0.7	1.51	2.74	8.9	7.11	10
JET	0.7	1.51	2.74	8.2	7.11	10
PROP	0.5	1.71	3.08	7.5	7.11	10

Future (2010) With Project

Aircraft Type	Takeoff [1]	Climbout [1]	Approach [2]	Taxi In/Out	Average Annual Departure Delay [3]	Peak Hour Departure Delay [4]
HEAVY	0.7	1.51	2.74	9.7	3.07	10
JET	0.7	1.51	2.74	8.3	3.07	10
PROP	0.5	1.71	3.08	7.5	3.07	10

[1] Default values presented in AP-42.
[2] Adjusted by mixing height specific to the Sea-Tac area.
[3] Departure queue time based on average annual delays per departure. Linear interpolation of data presented in pages 24-30 of Data Package 12 of the Federal Aviation Capacity Enhancement Study, June 1995.
[4] Based on field observation of peak hour departure delay.

Source: Landrum & Brown Inc., April, 1997.
[illegible]

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Seattle-Tacoma International Airport
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EMISSIONS INVENTORY
2000 DO-NOTHING VS. 2000 "WITH PROJECT"
(TONS PER YEAR)

2000 DO-NOTHING

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	19,822	1,670	2,394	1.84	12.19	23,900.03
Parking Lots	280	22	20	0.01	0.10	322.11
Heating Plants	4	1	16	0.07	0.34	21.41
Surf. Coating	0	4	0	0.00	0.00	4.00
Tank Farms	0	18	0	0.00	0.00	18.00
Grnd. Sup. Equip.	599	132	115	2.49	7.23	855.72
Aircraft	1,266	312	1,476	54.99	0.04	3,109.03
TOTALS	21,971	2,159	4,021	59.40	19.90	28,230.30

2000 "WITH PROJECT"

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	19,701	1,659	2,366	1.81	12.03	23,739.84
Parking Lots	274	21	19	0.01	0.10	314.11
Heating Plants	4	1	17	0.07	0.36	22.43
Surf. Coating	0	4	0	0.00	0.00	4.00
Tank Farms	0	18	0	0.00	0.00	18.00
Grnd. Sup. Equip.	599	132	115	2.49	7.23	855.72
Aircraft	1,266	312	1,476	54.99	0.04	3,109.03
TOTALS	21,844	2,147	3,993	59.37	19.76	28,063.13

TONS PER YEAR DIFFERENCE

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	-121	-11	-28	-0.03	-0.16	-160.19
Parking Lots	-6	-1	-1	0.00	0.00	-8.00
Heating Plants	0	0	1	0.00	0.02	1.02
Surf. Coating	0	0	0	0.00	0.00	0.00
Tank Farms	0	0	0	0.00	0.00	0.00
Grnd. Sup. Equip.	0	0	0	0.00	0.00	0.00
Aircraft	0	0	0	0.00	0.00	0.00
TOTALS	-127	-12	-28	-0.03	-0.14	-167.17

Source: Landrum & Brown, Inc., April 1997.
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Seattle-Tacoma International Airport
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EMISSIONS INVENTORY
2005 DO-NOTHING VS. 2005 "WITH PROJECT"
[TONS PER YEAR]

2005 DO-NOTHING

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	21,978	1,851	2,652	2.03	13.50	26,496.53
Parking Lots	334	26	23	0.02	0.11	383.13
Heating Plants	4	1	16	0.07	0.34	21.41
Surf. Coating	0	4	0	0.00	0.00	4.00
Tank Farms	0	20	0	0.00	0.00	20.00
Grnd. Sup. Equip.	649	143	124	2.69	7.79	926.48
Aircraft	1,672	495	1,626	62.65	0.04	3,855.69
TOTALS	24,637	2,540	4,441	67.46	21.78	31,707.24

2005 "WITH PROJECT"

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	21,813	1,838	2,646	2.03	13.46	26,312.49
Parking Lots	331	26	23	0.02	0.11	380.13
Heating Plants	5	1	19	0.08	0.40	25.48
Surf. Coating	0	4	0	0.00	0.00	4.00
Tank Farms	0	20	0	0.00	0.00	20.00
Grnd. Sup. Equip.	649	143	124	2.69	7.79	926.48
Aircraft	1,524	447	1,613	60.54	0.04	3,644.58
TOTALS	24,322	2,479	4,425	65.36	21.80	31,313.16

TONS PER YEAR DIFFERENCE

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	-165	-13	-6	0.00	-0.04	-184.04
Parking Lots	-3	0	0	0.00	0.00	-3.00
Heating Plants	1	0	3	0.01	0.06	4.07
Surf. Coating	0	0	0	0.00	0.00	0.00
Tank Farms	0	0	0	0.00	0.00	0.00
Grnd. Sup. Equip.	0	0	0	0.00	0.00	0.00
Aircraft	-148	-48	-13	-2.11	0.00	-211.11
TOTALS	-315	-61	-16	-2.10	0.02	-394.08

Source: Landrum & Brown, Inc., April 1997.
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Seattle - Tacoma International Airport
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EMISSIONS INVENTORY
2010 DO-NOTHING VS. 2010 "WITH PROJECT"
(TONS PER YEAR)

2010 DO-NOTHING

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	20,636	1,773	2,391	2.17	14.43	24,816.60
Parking Lots	343	26	21	0.02	0.12	390.14
Heating Plants	4	1	16	0.07	0.34	21.41
Surf. Coating	0	4	0	0.00	0.00	4.00
Tank Farms	0	21	0	0.00	0.00	21.00
Grnd. Sup. Equip.	687	151	133	2.88	8.35	982.23
Aircraft	2,014	640	1,802	70.80	0.05	4,526.85
TOTALS	23,684	2,616	4,363	75.94	23.29	30,762.23

2010 "WITH PROJECT"

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	20,702	1,780	2,417	2.20	14.60	24,915.80
Parking Lots	351	27	22	0.02	0.13	400.15
Heating Plants	5	1	21	0.09	0.46	27.55
Surf. Coating	0	5	0	0.00	0.00	5.00
Tank Farms	0	21	0	0.00	0.00	21.00
Grnd. Sup. Equip.	704	155	135	2.92	8.47	1,005.39
Aircraft	1,698	552	1,784	66.66	0.05	4,100.71
TOTALS	23,460	2,541	4,379	71.89	23.71	30,475.60

TONS PER YEAR DIFFERENCE

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
Roadways	66	7	26	0.03	0.17	99.20
Parking Lots	8	1	1	0.00	0.01	10.01
Heating Plants	1	0	5	0.02	0.12	6.14
Surf. Coating	0	1	0	0.00	0.00	1.00
Tank Farms	0	0	0	0.00	0.00	0.00
Grnd. Sup. Equip.	17	4	2	0.04	0.12	23.16
Aircraft	-316	-88	-18	-4.14	0.00	-426.14
TOTALS	-224	-75	16	-4.05	0.42	-286.63

Source: Landrum & Brown, Inc., April 1997.

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COMPARISON OF AIRCRAFT EMISSION INVENTORIES[1/]
(TONS/YEAR)

SOURCES	CO	VOC	NOx	SOx	PM_{10}	TOTAL
2000 FSEIS Do-Nothing	1,266	312	1,476	55	0.04	3,109
2000 DSEIS Do-Nothing	1,160	286	1,350	50	0.04	2,846
2000 Final EIS Do-Nothing	976	229	1,234	44	0.04	2,483
2000 FSEIS With Project	1,266	312	1,476	55	0.04	3,109
2000 DSEIS With Project	1,160	286	1,350	50	0.04	2,846
2000 Final EIS With Project	986	232	1,234	44	0.03	2,496
2005 FSEIS Do-Nothing	1,672	495	1,626	63	0.04	3,856
2005 DSEIS Do-Nothing	1,507	447	1,469	56	0.04	3,479
2005 Final EIS Do-Nothing	N/A	N/A	N/A	N/A	N/A	N/A
2005 FSEIS With Project	1,524	447	1,613	61	0.04	3,645
2005 DSEIS With Project	1,350	392	1,441	54	0.04	3,237
2005 Final EIS With Project	N/A	N/A	N/A	N/A	N/A	N/A
2010 FSEIS Do-Nothing	2,014	640	1,802	71	0.05	4,527
2010 DSEIS Do-Nothing	1,780	566	1,598	63	0.04	4,007
2010 Final EIS Do-Nothing	1,245	341	1,525	51	0.04	3,162
2010 FSEIS With Project	1,698	552	1,784	67	0.05	4,101
2010 DSEIS With Project	1,518	494	1,598	60	0.04	3,670
2010 Final EIS With Project	1,249	342	1,524	51	0.03	3,166

[1/] SEIS emissions based on Peak Month/Average Day, Peak Hour departure activity by all aircraft and the FAA's Capacity Enhancement Study average aircraft departure delay.

Source: Landrum & Brown, Inc., April, 1997

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Seattle - Tacoma International Airport
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AIRCRAFT DEPARTURE TEMPORALS
HOURLY, DAILY AND MONTHLY

Hourly	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
0	0.06	0.06	0.06	0.06	0.06	0.06
1	0.03	0.03	0.06	0.06	0.06	0.06
2	0.16	0.16	0.16	0.16	0.12	0.16
3	0.02	0.02	0.02	0.02	0.02	0.02
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.08	0.08	0.08	0.08	0.08	0.08
6	0.73	0.73	0.76	0.75	0.77	0.80
7	1.00	1.00	1.00	1.00	1.00	1.00
8	0.85	0.85	0.98	1.00	1.00	1.00
9	0.54	0.54	0.56	0.47	0.68	0.62
10	0.54	0.54	0.56	0.57	0.56	0.61
11	0.73	0.73	0.76	0.89	0.71	0.88
12	0.60	0.60	0.64	0.53	0.66	0.61
13	0.78	0.78	0.82	0.86	0.79	0.92
14	0.68	0.68	0.82	0.78	0.85	0.88
15	0.47	0.47	0.53	0.53	0.62	0.59
16	0.58	0.58	0.62	0.63	0.62	0.64
17	0.57	0.57	0.62	0.63	0.62	0.63
18	0.50	0.50	0.53	0.53	0.51	0.53
19	0.60	0.60	0.66	0.67	0.71	0.75
20	0.39	0.39	0.47	0.47	0.53	0.49
21	0.44	0.44	0.48	0.49	0.54	0.59
22	0.16	0.16	0.19	0.20	0.22	0.22
23	0.23	0.23	0.29	0.29	0.33	0.33

Daily	2000, 2005, & 2010
Sunday	0.90
Monday	0.93
Tuesday	0.99
Wednesday	1.00
Thursday	0.97
Friday	0.90
Saturday	0.84

Monthly	2000, 2005, & 2010
January	0.83
February	0.75
March	0.84
April	0.82
May	0.87
June	0.94
July	1.00
August	1.00
September	0.90
October	0.87
November	0.83
December	0.86

Source: Landrum & Brown, April, 1997

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AIRCRAFT RUN-UP TEMPORALS

Hourly	2000, 2005, & 2010
0	0.00
1	0.00
2	0.05
3	0.05
4	0.12
5	0.17
6	0.35
7	0.94
8	0.72
9	0.83
10	1.00
11	0.61
12	0.65
13	0.78
14	0.48
15	0.48
16	0.60
17	0.28
18	0.12
19	0.12
20	0.28
21	0.17
22	0.00
23	0.06

Daily	2000, 2005, & 2010
Sunday	0.90
Monday	0.93
Tuesday	0.99
Wednesday	1.00
Thursday	0.97
Friday	0.90
Saturday	0.84

Monthly	2000, 2005, & 2010
January	0.38
February	0.48
March	0.70
April	1.00
May	1.00
June	0.61
July	0.38
August	0.75
September	0.67
October	0.75
November	0.25
December	0.63

Source: Landrum & Brown, April, 1997

P:\SEA\POSTFEIS\AIRQUAL\TEMPORLS.XLS]Heating

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Seattle - Tacoma International Airport
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ROADWAY TEMPORALS
HOURLY, DAILY AND MONTHLY

Hourly	2000, 2005, & 2010
0	0.21
1	0.14
2	0.10
3	0.08
4	0.13
5	0.31
6	0.58
7	0.77
8	0.71
9	0.63
10	0.68
11	0.79
12	0.91
13	0.89
14	0.91
15	0.99
16	1.00
17	0.99
18	0.86
19	0.69
20	0.62
21	0.63
22	0.52
23	0.41

Daily	2000, 2005, & 2010
Sunday	0.93
Monday	0.89
Tuesday	0.89
Wednesday	0.92
Thursday	0.96
Friday	1.00
Saturday	0.93

Monthly	2000, 2005, & 2010
January	0.81
February	0.87
March	0.91
April	0.92
May	0.93
June	0.96
July	0.99
August	1.00
September	0.95
October	0.92
November	0.89
December	0.86

Source: Landrum & Brown, April, 1997

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Seattle - Tacoma International Airport
Supplemental Environmental Impact Statement

MAIN PARKING GARAGE TEMPORALS
HOURLY, DAILY AND MONTHLY

Hourly	2000, 2005, & 2010	Daily	2000, 2005, & 2010	Monthly	2000, 2005, & 2010
0	0.12	Sunday	0.90	January	0.83
1	0.08	Monday	0.93	February	0.75
2	0.03	Tuesday	0.99	March	0.84
3	0.03	Wednesday	1.00	April	0.82
4	0.07	Thursday	0.97	May	0.87
5	0.26	Friday	0.90	June	0.94
6	0.39	Saturday	0.84	July	1.00
7	0.38			August	1.00
8	0.41			September	0.90
9	0.54			October	0.87
10	0.72			November	0.83
11	0.83			December	0.86
12	0.88				
13	0.71				
14	0.68				
15	0.64				
16	0.78				
17	0.89				
18	0.83				
19	0.87				
20	1.00				
21	0.86				
22	0.69				
23	0.32				

Source: Landrum & Brown, April, 1997

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Table C-2-7
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Seattle - Tacoma International Airport
Supplemental Environmental Impact Statement

EMPLOYEE PARKING LOTS TEMPORALS
HOURLY, DAILY AND MONTHLY

Hourly	2000, 2005, & 2010	Daily	2000, 2005, & 2010	Monthly	2000, 2005, & 2010
0	0.17	Sunday	0.90	January	1.00
1	0.11	Monday	1.00	February	0.95
2	0.04	Tuesday	1.00	March	0.94
3	0.16	Wednesday	1.00	April	0.95
4	0.69	Thursday	1.00	May	0.96
5	0.93	Friday	1.00	June	1.00
6	0.55	Saturday	0.84	July	0.98
7	0.53			August	0.95
8	0.43			September	0.95
9	0.34			October	0.91
10	0.30			November	0.90
11	0.46			December	0.93
12	0.64				
13	1.00				
14	0.68				
15	0.38				
16	0.36				
17	0.28				
18	0.17				
19	0.25				
20	0.48				
21	0.39				
22	0.21				
23	0.38				

Source: Landrum & Brown, April, 1997

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Table C-2-7
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Seattle - Tacoma International Airport
Supplemental Environmental Impact Statement

HEATING PLANT TEMPORALS
HOURLY, DAILY AND MONTHLY[1/] [2/]

Hourly	2000, 2005, & 2010
0	1.00
1	1.00
2	1.00
3	1.00
4	1.00
5	1.00
6	1.00
7	1.00
8	1.00
9	1.00
10	1.00
11	1.00
12	1.00
13	1.00
14	1.00
15	1.00
16	1.00
17	1.00
18	1.00
19	1.00
20	1.00
21	1.00
22	1.00
23	1.00

Daily	2000, 2005, & 2010
Sunday	1.00
Monday	1.00
Tuesday	1.00
Wednesday	1.00
Thursday	1.00
Friday	1.00
Saturday	1.00

Monthly	2000, 2005, & 2010
January	0.90
February	0.76
March	0.92
April	0.67
May	0.61
June	0.46
July	0.43
August	0.39
September	0.40
October	0.50
November	0.62
December	1.00

[1/] Monthly temporals based on therm purchases by Port of Seattle in 1993; data provided by Port of Seattle; June 14, 1994
[2/] The hourly temporals have been revised to "1".

Source: Landrum & Brown, April, 1997

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Seattle - Tacoma International Airport
Supplemental Environmental Impact Statement

FUEL STORAGE TEMPORALS
HOURLY, DAILY AND MONTHLY [1/]

Hourly	2000, 2005, & 2010	Daily	2000, 2005, & 2010	Monthly	2000, 2005, & 2010
0	1.00	Sunday	1.00	January	1.00
1	1.00	Monday	1.00	February	1.00
2	1.00	Tuesday	1.00	March	1.00
3	1.00	Wednesday	1.00	April	1.00
4	1.00	Thursday	1.00	May	1.00
5	1.00	Friday	1.00	June	1.00
6	1.00	Saturday	1.00	July	1.00
7	1.00			August	1.00
8	1.00			September	1.00
9	1.00			October	1.00
10	1.00			November	1.00
11	1.00			December	1.00
12	1.00				
13	1.00				
14	1.00				
15	1.00				
16	1.00				
17	1.00				
18	1.00				
19	1.00				
20	1.00				
21	1.00				
22	1.00				
23	1.00				

[1/] The hourly, daily and monthly temporals have been revised to "1".

Source: Landrum & Brown, April, 1997

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Seattle - Tacoma International Airport
Supplemental Environmental Impact Statement

SURFACE COATING TEMPORALS
HOURLY, DAILY AND MONTHLY [1/]

Hourly	2000, 2005, & 2010	Daily	2000, 2005, & 2010	Monthly	2000, 2005, & 2010
0	1.00	Sunday	1.00	January	1.00
1	1.00	Monday	1.00	February	1.00
2	1.00	Tuesday	1.00	March	1.00
3	1.00	Wednesday	1.00	April	1.00
4	1.00	Thursday	1.00	May	1.00
5	1.00	Friday	1.00	June	1.00
6	1.00	Saturday	1.00	July	1.00
7	1.00			August	1.00
8	1.00			September	1.00
9	1.00			October	1.00
10	1.00			November	1.00
11	1.00			December	1.00
12	1.00				
13	1.00				
14	1.00				
15	1.00				
16	1.00				
17	1.00				
18	1.00				
19	1.00				
20	1.00				
21	1.00				
22	1.00				
23	1.00				

[1/] The hourly temporals have been revised to "1".

Source: Landrum & Brown, April, 1997

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Table C-2-8
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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

1-HOUR CARBON MONOXIDE (CO)
CONCENTRATIONS WITH BACKGROUND LEVEL (ppm) [1]
PEAK ACTIVITY [2]

	1	13	4A	5A	9A	10A	Existing 154th St.	Future 154th St.	188th St. (EAST)	188th St. (WEST)	Pref. NUT
2000											
Airport Sources (Do-Nothing)	0.1	0.1	3.4	1.9	2.4	3.2	9.0	N/A	4.8	1.6	0.1
Roadway Sources (Do-Nothing)	11.5	8.3	2.5	2.8	2.5	2.3	3.2	N/A	3.5	3.9	3.4
Background	5.0	5.0	5.0	5.0	5.0	5.0	5.0	N/A	5.0	5.0	5.0
Total: 2000 Do-Nothing	16.6	13.4	10.9	9.7	9.9	10.5	17.2	N/A	13.3	10.5	8.5
Airport Sources (With Project)	0.1	0.1	3.4	1.9	2.4	3.2	N/A	5.8	4.8	1.6	0.1
Roadway Sources (With Project)	11.4	8.2	2.6	2.8	2.6	2.2	N/A	3.0	3.5	3.9	3.9
Background	5.0	5.0	5.0	5.0	5.0	5.0	N/A	5.0	5.0	5.0	5.0
Total: 2000 With Project	16.5	13.3	11.0	9.7	10.0	10.4	N/A	13.8	13.3	10.5	9.0
2005											
Airport Sources (Do-Nothing)	0.1	0.1	3.6	2.2	2.6	3.6	9.6	N/A	5.1	1.7	0.1
Roadway Sources (Do-Nothing)	12.9	9.3	2.8	3.1	2.8	2.5	3.5	N/A	4.0	4.5	3.8
Background	5.0	5.0	5.0	5.0	5.0	5.0	5.0	N/A	5.0	5.0	5.0
Total: 2005 Do-Nothing	18.0	14.4	11.4	10.3	10.4	11.1	18.1	N/A	14.1	11.2	8.9
Airport Sources (With Project)	0.1	0.1	2.9	2.4	1.8	2.8	N/A	4.1	4.0	4.6	0.1
Roadway Sources (With Project)	11.1	8.0	2.8	3.1	2.5	2.6	N/A	3.6	4.0	4.0	4.0
Background	5.0	5.0	5.0	5.0	5.0	5.0	N/A	5.0	5.0	5.0	5.0
Total: 2005 With Project	16.2	13.1	10.7	10.5	9.3	10.4	N/A	12.7	13.0	13.6	9.1
2010											
Airport Sources (Do-Nothing)	0.1	0.1	3.7	2.5	2.6	3.8	9.8	N/A	5.5	1.7	0.1
Roadway Sources (Do-Nothing)	13.5	9.6	2.8	2.9	2.8	2.5	3.4	N/A	3.7	4.4	4.0
Background	5.0	5.0	5.0	5.0	5.0	5.0	5.0	N/A	5.0	5.0	5.0
Total: 2010 Do-Nothing	18.6	14.7	11.5	10.4	10.4	11.3	18.2	N/A	14.2	11.1	9.1
Airport Sources (With Project)	0.1	0.1	3.0	2.4	1.7	3.8	N/A	4.5	2.5	5.0	0.1
Roadway Sources (With Project)	11.8	8.5	2.7	3.0	2.5	2.5	N/A	3.5	3.8	3.9	3.9
Background	5.0	5.0	5.0	5.0	5.0	5.0	N/A	5.0	5.0	5.0	5.0
Total: 2010 With Project	16.9	13.6	10.7	10.4	9.2	11.3	N/A	13.0	11.3	13.9	9.0
Ambient Air Quality Standard	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0

N/A = Not Applicable

[1] Background = 5.0 ppm
[2] Peak Month Average Day, peak hour departures (64), all aircraft types in use at the Airport, peak hour aircraft departure delay (10 minutes)

Receptors: 1=Terminal-South; 13=Terminal Hotel; 4A=SeaTac Reservoir; 5A=Highline Nurseries; 9A=Sea-Tac Industrial Park, 10A=Des Moines Creek Park; Ex.154th=Existing South 154th Street; 188th East=South 188th Street, East Receptor; 188th West=South 188th Street, West Receptor; Pref. NUT=Preferred Alternative, North Unit Terminal. Receptor locations are illustrated in Exhibit 5-2-4.

Do-Nothing = Alternative 1; "With Project" = Alternative 3

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

8-HOUR CARBON MONOXIDE (CO)
CONCENTRATIONS WITH BACKGROUND LEVEL (ppm) [1]
PEAK ACTIVITY [2]

	1	13	4A	5A	9A	10A	Existing 154th St.	Future 154th St.	188th St. (EAST)	188th St. (WEST)	Pref. NUT
2000											
Airport sources (Do-Nothing)	0.0	0.0	0.8	0.4	0.5	0.6	3.0	N/A	0.7	0.2	0.0
Roadway Sources (Do-Nothing)	5.2	3.5	1.0	1.1	1.3	1.3	0.9	N/A	2.0	2.0	1.4
Background	3.5	3.5	3.5	3.5	3.5	3.5	3.5	N/A	3.5	3.5	3.5
Total: 2000 Do-Nothing	8.7	7.0	5.3	5.0	5.3	5.4	7.4	N/A	6.2	5.7	4.9
Airport Sources (With Project)	0.0	0.0	0.8	0.4	0.5	0.6	N/A	1.4	0.7	0.2	0.0
Roadway Sources (With Project)	5.1	3.5	0.9	1.1	1.3	1.3	N/A	1.1	2.0	2.0	1.5
Background	3.5	3.5	3.5	3.5	3.5	3.5	N/A	3.5	3.5	3.5	3.5
Total: 2000 With Project	8.6	7.0	5.2	5.0	5.3	5.4	N/A	6.0	6.2	5.7	5.0
2005											
Airport sources (Do-Nothing)	0.0	0.0	0.8	0.4	0.5	0.6	3.3	N/A	1.3	0.2	0.0
Roadway Sources (Do-Nothing)	5.9	4.0	1.1	1.2	1.4	1.4	1.0	N/A	2.3	2.3	1.7
Background	3.5	3.5	3.5	3.5	3.5	3.5	3.5	N/A	3.5	3.5	3.5
Total: 2005 Do-Nothing	9.4	7.5	5.4	5.1	5.4	5.5	7.8	N/A	7.1	6.0	5.2
Airport Sources (With Project)	0.0	0.0	0.6	0.3	0.4	0.5	N/A	1.0	1.4	0.8	0.0
Roadway Sources (With Project)	4.9	3.4	1.0	1.2	1.3	1.5	N/A	1.3	2.2	2.1	1.7
Background	3.5	3.5	3.5	3.5	3.5	3.5	N/A	3.5	3.5	3.5	3.5
Total: 2005 With Project	8.4	6.9	5.1	5.0	5.2	5.5	N/A	5.8	7.1	6.4	5.2
2010											
Airport sources (Do-Nothing)	0.0	0.0	0.8	0.5	0.5	0.6	3.4	N/A	1.5	0.2	0.0
Roadway Sources (Do-Nothing)	6.2	4.0	1.0	1.1	1.5	1.4	1.0	N/A	2.2	2.3	1.6
Background	3.5	3.5	3.5	3.5	3.5	3.5	3.5	N/A	3.5	3.5	3.5
Total: 2010 Do-Nothing	9.7	7.5	5.3	5.1	5.5	5.5	7.9	N/A	7.2	6.0	5.1
Airport Sources (With Project)	0.0	0.0	0.7	0.3	0.4	0.6	N/A	1.1	0.7	0.8	0.0
Roadway Sources (With Project)	5.1	3.5	1.0	1.1	1.3	1.4	N/A	1.3	2.2	2.0	1.7
Background	3.5	3.5	3.5	3.5	3.5	3.5	N/A	3.5	3.5	3.5	3.5
Total: 2010 With Project	8.6	7.0	5.2	4.9	5.2	5.5	N/A	5.9	6.4	6.3	5.2
Ambient Air Quality Standard	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0

N/A = Not Applicable

1 Background = 3.5 ppm
2 Peak Month Average Day, peak hour departures (64), all aircraft types in use at the Airport, peak hour aircraft departure delay (10 minutes)

Receptors: 1=Terminal-South; 13=Terminal Hotel; 4A=SeaTac Reservoir; 5A=Highline Nurseries, 9A=Sea-Tac Industrial Park; 10A=Des Moines Creek Park, Ex.154th=Existing South 154th Street, 188th East=South 188th Street, East Receptor; 188th West=South 188th Street, West Receptor; Pref. NUT=Preferred Alternative, North Unit Terminal. Receptor locations are illustrated in Exhibit 5-2-4.

Do-Nothing = Alternative 1; "With Project" = Alternative 3

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

NITROGEN DIOXIDE (NO2)
CONCENTRATIONS WITH BACKGROUND LEVEL (ppm) [1]
PEAK ACTIVITY [2]

	1	13	4A	5A	9A	10A	Existing 154th St.	Future 154th St.	188th St. (EAST)	188th St. (WEST)	Pref. NUT
2000											
Airport Sources (Do-Nothing)	0.001	0.001	0.011	0.004	0.007	0.007	0.064	N/A	0.015	0.009	0.000
Roadway Sources (Do-Nothing)	0.018	0.021	0.007	0.008	0.005	0.008	0.009	N/A	0.018	0.012	0.018
Background	0.020	0.020	0.020	0.020	0.020	0.020	0.020	N/A	0.020	0.020	0.020
Total: 2000 Do-Nothing	0.039	0.042	0.038	0.032	0.032	0.035	0.093	N/A	0.053	0.041	0.038
Airport Sources (With Project)	0.001	0.001	0.011	0.004	0.007	0.007	N/A	0.018	0.015	0.009	0.000
Roadway Sources (With Project)	0.018	0.021	0.007	0.008	0.005	0.008	N/A	0.011	0.018	0.011	0.017
Background	0.020	0.020	0.020	0.020	0.020	0.020	N/A	0.020	0.020	0.020	0.020
Total: 2000 With Project	0.039	0.042	0.038	0.032	0.032	0.035	N/A	0.049	0.053	0.040	0.037
2005											
Airport Sources (Do-Nothing)	0.001	0.001	0.012	0.005	0.007	0.007	0.069	N/A	0.015	0.009	0.000
Roadway Sources (Do-Nothing)	0.021	0.024	0.008	0.009	0.006	0.008	0.011	N/A	0.021	0.013	0.020
Background	0.020	0.020	0.020	0.020	0.020	0.020	0.020	N/A	0.020	0.020	0.020
Total: 2005 Do-Nothing	0.042	0.045	0.040	0.034	0.033	0.035	0.100	N/A	0.056	0.042	0.040
Airport Sources (With Project)	0.002	0.001	0.010	0.005	0.009	0.006	N/A	0.029	0.015	0.017	0.000
Roadway Sources (With Project)	0.019	0.022	0.008	0.009	0.006	0.009	N/A	0.015	0.021	0.013	0.017
Background	0.020	0.020	0.020	0.020	0.020	0.020	N/A	0.020	0.020	0.020	0.020
Total: 2005 With Project	0.041	0.043	0.038	0.034	0.035	0.035	N/A	0.064	0.056	0.050	0.037
2010											
Airport Sources (Do-Nothing)	0.001	0.001	0.013	0.005	0.008	0.008	0.075	N/A	0.016	0.010	0.000
Roadway Sources (Do-Nothing)	0.020	0.023	0.007	0.008	0.006	0.008	0.010	N/A	0.020	0.013	0.019
Background	0.020	0.020	0.020	0.020	0.020	0.020	0.020	N/A	0.020	0.020	0.020
Total: 2010 Do-Nothing	0.041	0.044	0.040	0.033	0.034	0.036	0.105	N/A	0.056	0.043	0.039
Airport Sources (With Project)	0.002	0.001	0.011	0.006	0.009	0.007	N/A	0.031	0.015	0.016	0.000
Roadway Sources (With Project)	0.018	0.021	0.007	0.008	0.006	0.008	N/A	0.014	0.020	0.012	0.016
Background	0.020	0.020	0.020	0.020	0.020	0.020	N/A	0.020	0.020	0.020	0.020
Total: 2010 With Project	0.040	0.042	0.038	0.034	0.035	0.035	N/A	0.065	0.055	0.048	0.036
Ambient Air Quality Standard	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053	0.053

N/A = Not Applicable

1 Background = .02 ppm
2 Peak Month Average Day, peak hour departures (64), all aircraft types in use at the Airport, peak hour aircraft departure delay (10 minutes)

Receptors: 1=Terminal-South, 13=Terminal Hotel, 4A=SeaTac Reservoir, 5A=Highline Nurseries; 9A=Sea-Tac Industrial Park; 10A=Des Moines Creek Park, Ex 154th=Existing South 154th Street, 188th East=South 188th Street, East Receptor; 188th West=South 188th Street, West Receptor; Pref. NUT=Preferred Alternative, North Unit Terminal. Receptor locations are illustrated in Exhibit 5-2-4.

Do-Nothing = Alternative 1; "With Project" = Alternative 3

P: SEA FORTFLS ARQUAL APPX C-2 (TBLC2-8LXLS)FINAL NO2

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

COMPARISON OF TOTAL CONCENTRATIONS WITH BACKGROUND LEVEL (ppm) 1/

	1	13	4A	5A	9A	10A	Existing 154th St.	Future 154th St.	188th St. (EAST)	188th St. (WEST)	Pref. NUT
1-Hour CO											
2000 FSEIS Do-Nothing	16.6	13.4	10.9	9.7	9.9	10.5	17.2	N/A	13.3	10.5	8.5
2000 SEIS Do-Nothing	14.3	12.1	10.9	10.4	9.8	10.2	17.4	N/A	13.3	10.3	8.8
2000 FEIS Do-Nothing	15.6	12.8	8.1	8.2	8.2	8.0	9.9	N/A	9.3	9.5	N/A
2000 FSEIS With Project	16.5	13.3	11.0	9.7	10.0	10.4	N/A	13.8	13.3	10.5	9.0
2000 SEIS With Project	16.5	13.3	10.7	10.4	9.8	10.1	N/A	15.7	13.3	10.4	8.1
2000 FEIS With Project	15.7	12.7	7.9	8.3	8.1	7.8	N/A	8.8	9.2	9.7	N/A
2005 FSEIS Do-Nothing	18.0	14.4	11.4	10.3	10.4	11.1	18.1	N/A	14.1	11.2	8.9
2005 SEIS Do-Nothing	17.5	14.3	11.3	10.8	10.3	10.8	18.1	N/A	14.1	11.1	8.8
2005 FEIS Do-Nothing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2005 FSEIS With Project	16.2	13.1	10.7	10.5	9.3	10.4	N/A	12.7	13.0	13.6	9.1
2005 SEIS With Project	15.2	12.3	10.1	10.1	9.5	9.8	N/A	8.2	8.4	11.9	8.1
2005 FEIS With Project	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2010 FSEIS Do-Nothing	18.6	14.7	11.5	10.4	10.4	11.3	18.2	N/A	14.2	11.1	9.1
2010 SEIS Do-Nothing	18.1	14.5	11.4	10.6	10.2	11.0	18.2	N/A	13.9	10.9	8.7
2010 FEIS Do-Nothing	17.6	13.9	9.0	8.7	9.1	8.6	11.4	N/A	10.3	10.4	N/A
2010 FSEIS With Project	16.9	13.6	10.7	10.4	9.2	11.3	N/A	13.0	11.3	13.9	9.0
2010 SEIS With Project	16.8	13.4	10.8	10.4	9.2	11.1	N/A	13.0	8.6	13.5	8.8
2010 FEIS With Project	16.0	12.9	8.5	8.6	8.4	8.5	N/A	9.4	10.4	10.2	8.2

N/A = Not Applicable
FEIS = Final Environmental Impact Statement; DSEIS = Draft Supplemental Environmental Impact Statement;
FSEIS = Final Supplemental Impact Statement.

1/ AAQS: 1-Hour CO = 35 ppm; 8-Hour CO = 9 ppm; NO_2 = 0.053 ppm.

Source: Landrum & Brown, Inc., 1997

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Seattle-Tacoma International Airport
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COMPARISON OF TOTAL CONCENTRATIONS WITH BACKGROUND LEVEL (ppm) 1/

	1	13	4A	5A	9A	10A	Existing 154th St.	Future 154th St.	188th St. (EAST)	188th St. (WEST)	Pref. NUT
8-Hour CO											
2000 FSEIS Do-Nothing	8.7	7.0	5.3	5.0	5.3	5.4	7.4	N/A	6.2	5.7	4.9
2000 SEIS Do-Nothing	7.7	6.6	5.2	5.0	5.1	5.3	7.4	N/A	6.2	5.6	5.1
2000 FEIS Do-Nothing	8.5	7.1	4.6	4.6	4.9	4.8	4.9	N/A	5.6	5.6	N/A
2000 FSEIS With Project	8.6	7.0	5.2	5.0	5.3	5.4	N/A	6.0	6.2	5.7	5.0
2000 SEIS With Project	8.4	6.9	5.1	5.0	5.1	5.2	N/A	6.0	6.2	5.6	4.9
2000 FEIS With Project	8.5	7.1	4.5	4.7	4.9	4.8	N/A	4.8	5.6	5.7	N/A
2005 FSEIS Do-Nothing	9.4	7.5	5.4	5.1	5.4	5.5	7.8	N/A	7.1	6.0	5.2
2005 SEIS Do-Nothing	9.1	7.4	5.4	5.0	5.4	5.5	7.6	N/A	0.0	5.9	5.1
2005 FEIS Do-Nothing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2005 FSEIS With Project	8.4	6.9	5.1	5.0	5.2	5.5	N/A	5.8	7.1	6.4	5.2
2005 SEIS With Project	7.9	6.5	5.0	4.8	5.1	5.2	N/A	5.6	6.0	6.1	4.8
2005 FEIS With Project	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2010 FSEIS Do-Nothing	9.7	7.5	5.3	5.1	5.5	5.5	7.9	N/A	7.2	6.0	5.1
2010 SEIS Do-Nothing	9.1	7.4	5.3	5.0	5.4	5.4	7.7	N/A	6.4	5.9	5.1
2010 FEIS Do-Nothing	9.5	7.5	4.8	4.7	5.1	5.0	5.5	N/A	6.1	5.9	N/A
2010 FSEIS With Project	8.6	7.0	5.2	4.9	5.2	5.5	N/A	5.9	6.4	6.3	5.2
2010 SEIS With Project	8.5	6.9	5.2	4.9	5.2	5.5	N/A	5.8	6.4	6.3	5.1
2010 FEIS With Project	8.6	6.9	4.7	4.7	5.0	5.0	N/A	5.0	5.9	5.8	4.8

N/A = Not Applicable
FEIS = Final Environmental Impact Statement; DSEIS = Draft Supplemental Environmental Impact Statement;
FSEIS = Final Supplemental Impact Statement.

1/ AAQS: 1-Hour CO = 35 ppm; 8-Hour CO = 9 ppm; NO_2 = 0.053 ppm.

Source: Landrum & Brown, Inc., 1997

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Seattle-Tacoma International Airport
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COMPARISON OF TOTAL CONCENTRATIONS WITH BACKGROUND LEVEL (ppm) 1/

	1	13	4A	5A	9A	10A	Existing 154th St.	Future 154th St.	188th St. (EAST)	188th St. (WEST)	Pref. NUT
Nitrogen Dioxide (NO2)											
2000 FSEIS Do-Nothing	0.039	0.042	0.038	0.032	0.032	0.035	0.093	N/A	0.053	0.041	0.038
2000 SEIS Do-Nothing	0.038	0.040	0.037	0.032	0.031	0.034	0.088	N/A	0.052	0.039	0.040
2000 FEIS Do-Nothing	0.039	0.042	0.035	0.031	0.030	0.033	0.072	N/A	0.052	0.045	N/A
2000 FSEIS With Project	0.039	0.042	0.038	0.032	0.032	0.035	N/A	0.049	0.053	0.040	0.037
2000 SEIS With Project	0.039	0.041	0.037	0.032	0.031	0.034	N/A	0.048	0.052	0.039	0.037
2000 FEIS With Project	0.040	0.042	0.034	0.031	0.031	0.033	N/A	0.054	0.050	0.041	N/A
2005 FSEIS Do-Nothing	0.042	0.045	0.040	0.034	0.033	0.035	0.100	N/A	0.056	0.042	0.040
2005 SEIS Do-Nothing	0.041	0.044	0.037	0.033	0.032	0.035	0.092	N/A	0.055	0.042	0.040
2005 FEIS Do-Nothing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2005 FSEIS With Project	0.041	0.043	0.038	0.034	0.035	0.035	N/A	0.064	0.056	0.050	0.037
2005 SEIS With Project	0.037	0.038	0.035	0.032	0.034	0.032	N/A	0.058	0.052	0.046	0.033
2005 FEIS With Project	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2010 FSEIS Do-Nothing	0.041	0.044	0.040	0.033	0.034	0.036	0.105	N/A	0.056	0.043	0.039
2010 SEIS Do-Nothing	0.040	0.043	0.038	0.033	0.033	0.035	0.069	N/A	0.055	0.042	0.039
2010 FEIS Do-Nothing	0.042	0.044	0.028	0.032	0.029	0.035	0.083	N/A	0.063	0.043	N/A
2010 FSEIS With Project	0.040	0.042	0.038	0.034	0.035	0.035	N/A	0.065	0.055	0.048	0.036
2010 SEIS With Project	0.040	0.041	0.037	0.033	0.034	0.035	N/A	0.062	0.054	0.047	0.036
2010 FEIS With Project	0.040	0.041	0.035	0.032	0.033	0.035	N/A	0.055	0.060	0.047	0.036

N/A = Not Applicable
FEIS = Final Environmental Impact Statement; DSEIS = Draft Supplemental Environmental Impact Statement;
FSEIS = Final Supplemental Impact Statement.

1/ AAQS: 1-Hour CO = 35 ppm; 8-Hour CO = 9 ppm; NO2 = 0.053 ppm.

Source: Landrum & Brown, Inc., 1997

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

MOBILE5a & CAL3QHC MODELING ASSUMPTIONS

MOBILE5a Modeling Assumptions		
Flag	**Variable**	**Value**
PROMPT	Input Prompt	2 = prompting, vertical
IOUNEW	Program Outputs	6 = default
TAMFLG	Tampering Rates	1 = MOBILE5a rates
SPDFLG	Number of Speeds	1 = one speed for all vehicles
VMFLG	VMT Mix	1 = National mix
MYMRFG	Registration Ages	3 = Puget Sound specific
NEWFLG	Basic Exhaust Emission Rates	1 = MOBILE5a
IMFLAG	I&M program	1 = No I&M 2 = I&M Program
ALHFLG	Exhaust Emission Factor Corrections	1 = No corrections
ATPFLG	Anti-Tampering Program	1 = No ATP
RLFLAG	Refueling Emissions	5 = No refueling emissions
LOCFLG	Local Area Parameter	2 = One-time data for all scenarios
TEMFLG	Temperature	1 = MOBILE5a to determine
OUTFMT	Output Format	3 = 112 columns
PRTFLG	Pollutants	4 = HC, CO and NOx
IDLFLG	Idle Emissions	1 = No Idle EFs
NMHFLG	HC Emissions	1 = Total HC EFs
HCFLAG	HC Emissions	1 = Components not printed
ASTMCL	ASTM Volatility Class	C = Puget Sound
Minimum Temperature (°F)		34°F for Puget Sound CO
Maximum Temperature (°F)		50°F for Puget Sound CO
Period 1 RVP[1/] (before controls)		13.7 for CO
Period 2 RVP[1/] (after controls)		13.7 for CO
Period 2 Start Year		2020 for CO
Oxygenated Fuels		1 = Not in use 2 = In use
Alternative Diesel Sales Fractions		1 - MOBILE5a National Average
Reformulated Gasoline		1 = Not in use

[1/] RVP = Reid vapor pressure

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

MOBILE5a & CAL3QHC MODELING ASSUMPTIONS

Oxygenated Fuels Parameters		
Ether Blend Market Share		0.001 (.1 percent)
Alcohol Blend Market Share		0.999 (99.9 percent)
Oxygen Content Ether Blend		0.027 (2.7 percent)
Oxygen Content Alcohol Blend		0.027 (2.7 percent)
RVP Waiver Switch		1 = No waiver granted
Scenario Parameters		
Region		1 = Low Altitude
Year		1994, 2000, 2005, 2010
Speed (mph)		2.5, 25 through 55 (5 mph increments)
Temperature (°F)		45°F for Puget Sound CO
Non-Catalyst Cold Start		20.6 percent for SIP
Catalyst Hot Start		27.3 percent for SIP
Catalyst Cold Start		20.6 percent for SIP
Inspection & Maintenance Program Parameters[2/]		
	Program Start Year	1982
	Stringency Level	28 percent
	First Model Year	1968
	Last Model Year	2020
	Waiver Rate Pre-1981	15 percent
	Waiver Rate 1981 and after	14 percent
	Compliance Rate	90 percent for 1991
	Program Type	1 = Centralized
Inspection & Maintenance Program Parameters (Continued)		
	Inspection Frequency	2 = Biennial for 1991
	Vehicle Types	2/2/2/2 = all subject
	Test Type	2,500/Idle
	Alternative Credits	1 = use MOBILE5a

[2/] Puget Sound Region I&M Program: Weighted average of 83% with I&M Program, 17% without I&M.

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

MOBILE5a & CAL3QHC MODELING ASSUMPTIONS

CAL3QHC Modeling Assumptions		
	Variable	**Value**
	Averaging Time	60 minutes
	Surface Roughness	175 centimeters
	Settling Velocity	0 cm/sec
	Deposition Velocity	0 cm/sec
	Multiplier for feet	0.3048
	Roadway Section	AG = at grade
	Traffic Volume	roadway specific
	Emission Factors	from MOBILE5a
	Source Height	0 feet
	Receptor Location	3-4 meters (12 feet) from lane edge
	Receptor Height	1.8 meters (6 feet) above surface
	Clearance Lost Time	intersection specific
	Average Signal Cycle Length	intersection specific
	Average Red Time	intersection specific
	Saturation Flow	intersection specific
	Traffic Signal Type (Optional)	1 = pretimed
	Arrival Type (Optional)	3 = average progression
	Wind Speed	1.0 meters/sec
	Wind Direction	0° to 350° in 10° increments
	Stability Class	E
	Mixing Height	1,000 meters
	Background CO	8-Hour CO 1995/2000/ 2005/2010 = 3.5 ppm 1-Hour CO 1995/2000/ 2005/2010 = 5.0 ppm

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

Intersection Dispersion Analysis
1-Hour Carbon Monoxide (CO) with Background Level 5.0 PPM

With Regular Unleaded Gasoline

	2000	2005	2010
S. 154th Street and 24th Ave. South	2000	2005	2010
Do Nothing	13.9	15.8	18.5
With Project	13.9	14.5	15.5
International Blvd./SR99 and S. 160th Street	2000	2005	2010
Do Nothing	20.3	20.7	21.3
With Project Mitigation	20.0	19.8	21.2
International Blvd./SR99 and S. 170th Street	2000	2005	2010
Do Nothing	23.1	23.0	23.7
With Project	22.9	21.8	22.6
International Blvd./SR99 and S. 188th Street	2000	2005	2010
Do Nothing	34.9	32.9	33.3
With Project	34.2	32.0	32.8
International Blvd./SR99 and S. 200th Street	2000	2005	2010
Do Nothing	27.9	27.9	29.8
With Project	27.6	26.1	27.7

With Oxygenated Unleaded Gasoline

	2000	2005	2010
S. 154th Street and 24th Ave. South	2000	2005	2010
Do Nothing	12.0	13.6	16.1
With Project	12.1	12.3	13.2
International Blvd./SR99 and S. 160th Street	2000	2005	2010
Do Nothing	16.4	16.7	17.2
With Project	16.4	16.3	17.2
International Blvd./SR99 and S. 170th Street	2000	2005	2010
Do Nothing	18.6	18.5	19.0
With Project	18.4	17.6	18.0
International Blvd./SR99 and S. 188th Street	2000	2005	2010
Do Nothing	27.5	26.0	26.3
With Project	27.2	25.6	25.7
International Blvd./SR99 and S. 200th Street	2000	2005	2010
Do Nothing	22.2	22.4	24.4
With Project	22.1	21.0	22.3

Note: The concentrations include roadway vehicles, airport, and background sources.
AAQS: 1 hour = 35 PPM

P:\SEA\POSTFEIS\AIRQUAL\APPX_C-2\[TBL_C11.XLS]1 Hour

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Seattle-Tacoma International Airport
Supplemental Environmental Impact Statement

Intersection Dispersion Analysis
8-Hour Carbon Monoxide (CO) with Background Level 3.5 PPM

With Regular Unleaded Gasoline

		2000	2005	2010
S. 154th Street and 24th Ave. South				
	Do Nothing	9.3	10.2	11.7
	With Project	9.2	9.7	10.4
International Blvd./SR99 and S. 160th Street		2000	2005	2010
	Do Nothing	14.2	14.4	14.8
	With Project	13.9	13.7	14.7
International Blvd./SR99 and S. 170th Street		2000	2005	2010
	Do Nothing	16.1	16.1	16.5
	With Project	16.0	15.2	15.8
International Blvd./SR99 and S. 188th Street		2000	2005	2010
	Do Nothing	24.3	22.9	23.2
	With Project	23.8	22.2	22.8
International Blvd./SR99 and S. 200th Street		2000	2005	2010
	Do Nothing	19.1	18.7	19.6
	With Project	18.8	17.9	19.1

With Oxygenated Unleaded Gasoline

		2000	2005	2010
S. 154th Street and 24th Ave. South				
	Do Nothing	8.0	8.7	10.0
	With Project	8.0	8.1	8.8
International Blvd./SR99 and S. 160th Street		2000	2005	2010
	Do Nothing	11.5	11.6	11.9
	With Project	11.4	11.3	11.9
International Blvd./SR99 and S. 170th Street		2000	2005	2010
	Do Nothing	13.0	13.0	13.2
	With Project	12.8	12.3	12.5
International Blvd./SR99 and S. 188th Street		2000	2005	2010
	Do Nothing	19.1	18.1	18.3
	With Project	18.9	17.8	17.8
International Blvd./SR99 and S. 200th Street		2000	2005	2010
	Do Nothing	15.1	14.9	15.8
	With Project	15.0	14.3	15.3

Note: The concentrations include roadway vehicles, airport, and background sources.
AAQS: 8 hour = 9 PPM

P:\SEA\POSTFEIS\AIRQUAL\APPX_C-2\TBL_C11.XLS]1 Hour

APPENDIX C-3

AIRCRAFT NOISE IMPACTS

APPENDIX C-3

NOISE IMPACTS

Section 5-3 of the Supplemental Environmental Impact Statement summarizes the noise impacts of the new forecasts and new data that has arisen since publication of the Final EIS. This Appendix provides a detailed description of the methodology and data used in preparing the noise exposure contours. This appendix identifies the data that has changed since the February, 1996 Final Environmental Impact Statement. In addition to presenting the data used in the noise modeling, this appendix provides the grid point data (in DNL and Time Above a Threshold of A-Weighted Sound Level) and Sound Exposure Level (SEL).

To provide direct comparability with the noise exposure data presented in the Final EIS, aircraft noise contours presented in the following sections were generated using the Integrated Noise Model (INM) Version 4.11. The INM is the Federal Aviation Administration's (FAA) state-of-the-art approved computer model which is used to predict the noise impacts from aircraft operations. While INM Version 4.11 was replaced in 1995 by INM Version 5.0, the data bases of the two models are virtually identical and generally result in nearly identical noise contour results beyond the boundaries of an Airport.

In developing noise contours, a substantial amount of information is required to describe the operating characteristics at the Airport. Much of this information is associated with current or planned utilization of the airfield. The Final EIS (Chapter IV, Section 1, and Appendices C and R) presents a detailed description of noise impacts associated with existing and forecast traffic levels available at the time of the completion of the Final EIS document. The Final EIS is hereby incorporated by reference.

(A) FUTURE AIRCRAFT OPERATING CONDITIONS

Noise exposure patterns were projected for three future years: 2000, 2005, and 2010. The Do-Nothing Alternative assumes the completion of previously approved improvements on the airfield prior to the year 2000, including high-speed taxiways from the existing runways. The "With Project" conditions reflect the Master Plan Update improvements discussed in Chapter 2 of the Supplemental EIS. The new forecasts and data now indicate that the third parallel runway would be completed in late 2004, with the first full year of operation being calendar year 2005. Therefore, while the "With Project" noise contours reflect terminal improvements that affect noise contours ground taxiing movements, the primary effect of the proposed improvements is the use of the third parallel runway. As a result, the Do-Nothing and "With Project" noise exposure patterns are essentially the same in the year 2000. Under the "With Project" Alternative for 2000, very minor changes in noise exposure, which are located entirely within the Airport property line, occur due to minor changes in aircraft taxiing patterns associated with the terminal improvements. In the year 2005, the "With Project" Alternative includes the development of a third parallel runway, located about 2,500 feet west of existing Runway 16L/34R, with a length up to 8,500 feet. In 2010, the "With Project" also includes the extension of Runway 16L/34R by 600 feet to the south.

(1) Future Aircraft Operations and Fleet Mix

The new forecasts include the number and mix of operations which are expected to use Sea-Tac in future years.1/ The new forecasts are summarized in **Tables C-3-1, C-3-2** and **C-3-3** for the years 2000, 2005, and 2010 respectively. Specific INM aircraft types for each aircraft selected for modeling were based on current acquisition trends among user carriers. Where the forecasts

1/ *Working Paper 2, Constrained Aviation Forecast Update, Forecast Update, Capacity Analysis and Landside Evaluation for Seattle-Tacoma International Airport*, P&D Aviation, January, 1997.

provided no guidance to the selection of specific INM aircraft types, the nationally dominant type expected within a user group was selected.

The number of average day operations is expected to reach 1,121 operations per day by the year 2000 regardless of whether the Master Plan Update improvements are undertaken. The year 2000 activity is forecast to meet the requirements of Stage 3 noise levels[2/] However, it should be noted that the fleet mix forecast for the year 2000 includes aircraft which have been hushkitted to meet the Stage 3 requirements. By the year 2005, the average number of daily operations is expected to grow to 1,219 and all air carrier aircraft are would be expected to meet Stage 3 requirements, with no hushkitted aircraft. By the year 2010, the number of operations is forecast to reach to 1,299 for the "With Project" or 1,260 in the Do-Nothing. Chapter 2 of the Supplemental EIS summarizes the forecast process and limitations of the existing airfield that would prevent demand in excess of 460,000 annual operations from being accommodated by the existing airfield (the Do-Nothing alternative).

(2) <u>Runway Use</u>

The following summarize the runway use data used in the noise contours for the Supplemental EIS.

1. <u>Do-Nothing (Alternative 1)</u>

The 1996 Capacity Enhancement Study for Sea-Tac presented a series of airfield utilization scenarios under various weather and traffic flow conditions[3/]. A compilation of the data included in the analyses for that study resulted in the forecast runway end utilization for the future Do-Nothing condition. The percentages of use are presented in **Table C-3-5.** They are applicable to all user groups. It is noteworthy that the Capacity Enhancement Study projects traffic at Sea-Tac to operate in south flow (on Runways 16R and 16L) more than 60 percent of the time. The result of this operating pattern is a larger contour pattern to the south of the Airport than to the north, reflecting a greater number of departure operations to the south. In each flow, the east parallel runway (16L/34R) is expected to be used more frequently for departure operations, while the west parallel runway (16R/34L) will be used most frequently for arrivals.

2. <u>"With Project" (Alternatives 2 through 4)</u>

The addition of a new parallel runway by the year 2005 would modify the usage of the existing runway system. The Capacity Enhancement Study evaluated the conditions under which various configurations of runways would be used. Among these was a scenario which presumed that the new runway (Runway 16X/34X) would be used for IFR arrivals in combination with Runway 16L in south flow and Runway 34R in north flow. Furthermore, after extension of Runway 34R to the south between 2005 and 2010, intersection departure requests are expected to become common from that runway. After extension, the intersection of Taxiway H and Runway 16L provides approximately the same length (9,500 feet) for south flow takeoffs as would be

2/ FAR Part 36 sets forth noise levels with which aircraft must comply to legally operate within the United States. Each jet aircraft type has certificated noise levels which are measured at three separate locations under approach, take off and sideline to take off. The noise level allowable under the regulation increases as the size of the aircraft increases. The Regulation establishes categories of aircraft based on the noise level emitted. The quietest group of aircraft fall under the third category, designated as Stage 3. Louder, generally older aircraft types are categorized as Stage 1 or Stage 2 equipment. FAR Part 91 set forth a schedule for the removal of most air carrier aircraft which do not meet Part 36, Stage 3 criteria by the end of the year 1999, with possible extensions until the end of 2003.

3/ Data Package No. 12 of the Airport Capacity Enhancement Plan Update for Seattle-Tacoma International Airport provides detailed operating assumptions for several different weather conditions during both north and south traffic flow for the Do-Nothing and various runway development options. Data is provided at three demand levels from which operating assumptions for the demand presented by the revised forecasts may be interpolated.

available under the current runway layout for takeoffs from the intersection of Taxiway Q and Runway 34R during north flow (9,425 feet).

The scenarios presented in the FAA's Capacity Enhancement Study were assessed to develop a set of runway utilization characteristics. Although the Capacity Enhancement Update did not include departures from Runway 16X/34X, a discussion among FAA, Port, and consultant personnel concluded that a small percentage of the departures in each flow should be assumed for the new runway to reflect those periods when one of the primary runways is unavailable for departures.[4/] The resulting future runway end utilization percentages with a third parallel runway in place are presented in **Table C-3-14**.

A slight change in the usage of the new parallel runway is reflected in the Supplemental EIS in contrast to the runway use in the Final EIS. The difference reflects the Final Capacity Enhancement Update report that was released in 1996, where changes in the runway usage occurred between the release of Data Package 7 and Data Package 12/the Final Report.

With the 600 foot extension to the south of Runway 16L/34R in the year 2010, it is anticipated that many operators will request the use of intersection departures from Runway 34R. It is expected that the greater costs of taxi time and fuel burn to the south end of the extended Runway 34R will encourage operators to request intersection departures when their aircraft may safely conduct them. Therefore, for the year 2010 "With Project" alternative, intersection departures on Runway 34R have been assumed from the intersection of Taxiway Q and the runway. Taxiway Q lies perpendicular to the departure end of Runway 34L and would provide the same departure length that is currently used from Runway 34L (9,425 feet). Furthermore, intersection departure requests are expected to become common from Runway 16L if granted from 34R. The intersection of Taxiway H and Runway 16L was assumed as the location at which intersection takeoffs would be initiated from Runway 16L. That intersection provides approximately 8,900 feet of takeoff length for south flows.

Because intersection departures would result in aircraft flying at lower altitudes over nearby neighborhoods than would full length departures, their use would indicate a worse case condition from a noise perspective. Therefore, for the purposes of the year 2010 "With Project" noise analysis, it was assumed that any aircraft which could safely conduct an intersection departure to the north from the intersection of Runway 34R and Taxiway Q or to the south from the intersection of Runway 16L and Taxiway H would do so. Those aircraft which would require takeoff lengths longer than 9,425 feet to the north and 8,900 feet to the south were assumed to use the full length of the runway under the Do Nothing Alternative. Cumulative takeoff length requirement data presented in the Master Plan Update indicates that 90 to 95 percent of all future operations may safely use the intersection departure.[5/]

(3) Flight Tracks and Track Usage

The following summarize the flight track data used in the noise contours for the Supplemental EIS.

1. Do-Nothing (Alternative 1)

The flight track locations for the future Do-Nothing condition are not expected to differ from the existing flight tracks presented in Appendix C of the Final EIS. The proportion of operations from each runway end assigned to each of the flight tracks of the future Do-Nothing Alternative is presented in **Tables C-3-6, C-3-7, and C-3-8.** These tables detail the percentage of operations

4/ Discussions with the FAA Northwest/Mountain Regional environmental specialist and simulation modeling personnel of the FAA Technical Center resulted in the assignment of 4.1% of all departures to Runway 16X/34X.

5/ Airport Master Plan Update, Technical Memorandum, Preliminary Airside Report, Table 2-3 and Exhibit 2-1, P&D Aviation, May 9, 1994.

for each aircraft category assigned to each flight track for the years 2000, 2005, and 2010, respectively.

2. **"With Project" (Alternatives 2 through 4)**

Flight tracks from existing runways under the future development condition are not expected to differ from the existing flight tracks discussed in Appendix C of the Final EIS. For the purpose of noise assessment, the flight tracks leading to and departing from the proposed new runway were assumed to be subject to the same noise mitigation standards as those associated with existing runways. Therefore, the departure flight tracks related to Runway 16R/34L were duplicated to represent the departure tracks from Runway 16X/34X. Approach tracks to the new runway were also defined based on approach tracks to Runway 16R/34L. The flight tracks from each runway under the "With Project" Alternatives for the years 2005 and 2010 are presented in the Final EIS, Appendix C, Exhibits C-15 and C-16. The flight tracks for the year 2000 "With Project" Alternative are the same as the Do-Nothing condition as presented in the Final EIS, Appendix C, Exhibits C-8 and C-9.

The utilization of flight tracks during the year 2000 is, for the "With Project" Alternative, expected to be the same as the Do-Nothing Alternative, owing to the projected presence of only two runways. By the year 2005, the third parallel runway is projected to be present, and flight tracks from that runway will cause a redistribution of the proportion of operations using each.. Minor variations in the use of flight tracks with three runways in place may be attributed to changes in future aircraft mix and minor adjustments to runway utilization. **Tables C-3-6, C-3-15** and **C-3-16** detail the percentage of future operations for each aircraft category assigned to each flight track in the years 2000, 2005 and 2010 "With Project" cases, respectively. (Note that during the year 2000, the Do-Nothing and "With Project" runway utilization percentages are the same.)

(4) Ground Noise

The following summarize the data used in examining ground noise conditions.

1. **Do-Nothing (Alternative 1)**

Aircraft ground operations under the future Do-Nothing condition will differ from the existing condition detailed in Appendix C of the Final EIS only in so far as the number of operations and years will change and the utilization of the existing runways is modified. The completion of high speed exit taxiways from Runway 16R/34L would result in new inbound taxi routes for all cases without development of a new runway. The usage of the taxiway routings reflects the changes in runway use associated with the future Do-Nothing overflight conditions. These are presented for the years 2000, 2005, and 2010 in **Tables C-3-9, C-3-10, and C-3-11,** respectively. Taxi routes are described in detail in Appendix C of the Final EIS.

The locations for aircraft run-up activity remain consistent with the existing condition, as presented in the Final EIS, Appendix C. However, the number of average day run-ups increases in proportion to the total average day operations for each of the forecast future years (see **Table C-3-12**).

2. **"With Project" (Alternatives 2 through 4)**

Aircraft ground operations under the "With Project" alternatives would change from the Do-Nothing condition with the new Runway 16X/34X (for the years 2005 and 2010), the extension to Runway 34R (in the year 2010), and the changes to the terminals associated with each development alternative (associated with all future years). New taxi routes are included to accommodate the taxi patterns expected with the new development.

Owing to the limitation of INM Version 4.11 to 200 flight tracks within any one scenario, ground tracks were redefined for the "With Project" Alternative evaluations to provide four centroids in areas of significant ground operations. For noise modeling purposes, each of these were connected to each runway end by a taxiway. The centroids used in the assessment of the "With Project" Alternative for the years 2005 and 2010, and the ground movement operations associated with each are:

- Centroid 1 - operations from expanded north satellite and new north unit terminal
- Centroid 3 - operations from central core terminal and expanded south satellite
- Centroid 6 - operations from general aviation area at south end of the Airport
- Centroid 7 - operations from cargo area at north end of the Airport

The number of aircraft using each centroid was determined from an evaluation of the flight schedule for each future year and the most probable locations of various airlines within the new terminal layout. The number and category of aircraft using each taxi track was determined based on the usage of the centroids and the usage of the runways. The proportion of operations assigned to each taxi route by each user group are presented in Tables **C-3-17, C-3-18,** and **C-3-19**. The taxi routes associated with the "With Project" Alternative are presented in Appendix C of the Final EIS.

The locations for aircraft run-up activity remain consistent with the existing condition, however, the number of average day run-ups increases in proportion to the total average day operations for each of the future years. Data for the year 2010 "With Project" Alternative is included on **Table C-3-12**. The run-up operations projected for the Do-Nothing and "With Project" Alternatives are identical for the years 2000 and 2005, as presented in **Table C-3-12**.

* * *

Other data requirements, such as the arrival descent procedure, the departure climb profile, and the noise characteristics associated with the aircraft fleet mix remained unchanged from the analysis presented in the February 1996 Final EIS.

(B) NOISE CONTOURS

Section 5-3 of this Supplemental EIS presents the noise contours that were generated using INM Version 4.11 based on the data described in the previous section

(1) Do-Nothing (Alternative 1)

Exhibits 5-3-2 through 5-3-4 (located in Section 5-3) illustrate the noise exposure pattern for the Do-Nothing (Alternative 1) with the new forecast of aircraft operations for the years 2000, 2005 and 2010 respectively. The revised Do-Nothing noise exposure patterns for all three years are of similar shape and extent. The land area exposed to various sound levels for each future year are presented on **Table C-3-13**. The areas within the several levels of existing noise contours presented in the Final EIS are provided for reference.

For the year 2000, the 65 DNL contour includes 6.81 square miles (including Airport property) and extends from West Marginal Way on the north to 244th Street South on the south, and from just west of SR 99/International Boulevard on the east to 12th Avenue on the west. Its greatest width is approximately 5,900 feet at South 188th Street. The 70 DNL contour reaches from just north of 128th Street South at the northern end to just south of 216th Street at its south end. Directly east and west of the Airport, the contour remains over the Airport or compatibly-used properties. The 75 DNL contour extends from 146th Street South southerly to South 200th Street and remains entirely over Airport property or public right-of-way.

By the year 2005, the 65 DNL contour area decreases to 6.61 square miles or by 3 percent from the year 2000 Do-Nothing. While the average daily total number of aircraft operations increases from 1,121 operations in 2000 to 1,219 operations in the year 2005 (a 9 percent increase), the year 2000 fleet mix includes 32, B-727 hushkitted aircraft which are assumed to be replaced by quieter Stage 3 aircraft by 2005. By the year 2010, the 65 DNL contour would include 7.08 square miles and be 4 percent larger than the year 2000 contour and 7 percent larger than the year 2005 contour. Between 2000 and 2010, the north end of the 65 DNL contour broadens and extends northward by approximately 300 feet and the south end will grow by a similar amount. The 70 and 75 DNL contours would exhibit similar small fluctuations in their locations over the ten year period between 2000 and 2010.

In each future year Do-Nothing case, the presence of aircraft ground activity is noticeable in the shape of the 75 and 70 DNL contours in the vicinity of the various terminal facilities, but ground noise energy would generally be masked by flight noise in the 60 and 65 DNL contours.

(2) "With Project" Alternatives (Alternatives 2 through 4)

The aircraft noise patterns associated with the "With Project" Alternative are presented in **Exhibits 5-3-5 through 5-3-7** for the years 2000, 2005 and 2010, respectively. For noise modeling purposes, this alternative assumes the gradual phasing in of various airfield developments. During the year 2000, development would occur in the terminal complexes and would have an effect on the location of ground noise activity, but the major improvements of a third parallel Runway 16X/34X (with a length of 8,500 feet), and associated taxiways to serve the runways do not appear until the year 2005. The new runway and a 600 foot extension to Runway 16L/34R is assumed in the 2010 "With Project" scenario. In each case, the noise contours assume an all Stage 3 fleet, consisting of 1,121 operations in the year 2000, 1,219 operations in the year 2005, and 1,299 operations in the year 2010.

A comparison of the noise contours associated with the "With Project" Alternative and those of the Do-Nothing alternative provides insight into the effects related to the operation of the proposed new Runway 16X/34X. Adjustments to the way the Airport would be used are reflected in the changes between the two contour sets. Furthermore, the third runway would allow the scheduling of operations sufficient to meet the forecast demand (an additional 42 operations per day beyond those of the year 2010 Do-Nothing alternative). **Table C-3-13** also presents the areas within each noise level for the "With Project" Alternative.

The noise pattern for the year 2000 "With Project" Alternative is largely unchanged from that of the Do-Nothing alternative, since the principal facilities associated with the noise pattern would not be present until the 2004/2005 time frame. Consequently, the description of the extent of the year 2000 Do-Nothing contour suffices for the year 2000 "With Project" Alternative.

In contrast, the With Project noise patterns for the years 2005 and 2010 reflect the presence of the new airfield developments. While the presence of a new runway would cause the shape of the contour for each noise level to shorten, it would also result in a broadening of the shape, particularly adjacent to the Airport but also along the approach and departure corridors.

For the year 2005, the effects on the noise contour pattern associated with the construction of the proposed new runway would be as follows:

- The area exposed to noise above 65 DNL would be greater to the west than for the Do-Nothing alternative, particularly in close proximity to the new runway but also along the western edge of the contour to the north and south of the Airport.
- The length of each contour is expected to be slightly reduced from the Do-Nothing alternative (by as much as 1,000 to 2,000 feet at the north and south end of the 65 DNL

contour), owing to a reassignment of operations to the new runway from the existing runways.

The development of passenger and cargo facilities on the Airport would also result in minor shifts of ground noise patterns along the east side of the noise contours, immediately east of the runways. Development of the South Aviation Support Area (SASA) is reflected in the 75 DNL contour of the 2000 pattern by the presence of a hook extending from the south end of the east parallel runway toward the south and east. Ground noise effects on the contour pattern above 65 DNL remain within existing Airport boundaries or forecast acquisition areas in the SASA vicinity.

A similar comparison of the Do-Nothing and "With Project" alternative contours for the year 2010 yields comparable observations; although, the extent of the westward contour shift is more pronounced. As the number of operations increases toward capacity at the Airport, it is expected that many arrivals to Runways 16R/34L would shift to Runways 16X/34X to provide less intermixing of arrivals and departures on the center runway. Consequently, as more operations are assigned to the proposed new runway, the spikes in the noise contour associated with approaches to that runway are enlarged.

(C) LOCATION IMPACT ANALYSIS

The Integrated Noise Model was used to compute several noise characteristics at individual locations in the Airport environs. As a supplement to the contour analyses, 1,290 sites were identified for additional evaluation. These are the same sites used in the Final EIS. These sites are of seven types:

- 11 locations of the permanent remote noise monitors operated by the Port of Seattle near Sea-Tac Airport,
- 283 noise sensitive facilities (churches, schools, etc.) within the study area, and
- 787 sites located on a regular grid having spacing intervals of 1,320 feet along both north-south and east-west axes.
- 72 locations in the center of parks.
- 63 sites in sensitive residential areas adjacent to surface transportation corridors.
- 18 sites located in parks at points nearest a nearby route of major surface traffic.
- 18 locations were selected to evaluate the effect of surface traffic on noise sensitive facilities.
- 38 historical locations

The coverage of this grid is designed to include with the 60 DNL patterns of the existing and any anticipated future case. Sites are located by X-Y coordinates centered on the Airport Reference Point located between and the two existing runways and approximately midway along the length of Runway 16R/34L. Therefore, Runway 16R/34L lies approximately along the negative 350 X coordinate, and Runway 16L/34R lies approximately along the positive 450 X coordinate. The proposed new runway, being separated from Runway 16R/34L by 1,700 feet, lies approximately along the negative 2,050 X coordinate.

Maps of the grid locations are presented in Appendix C of the Final EIS on the following exhibits. Final EIS Exhibit C-18 indicates the sites located on the regularly-spaced quarter mile grid. Final EIS Exhibits C-19 and C-20 indicate the locations of noise-sensitive facilities for which noise levels have been calculated. Final EIS Table C-26 includes a legend for all of the noise analysis locations except for the 787 regularly spaced locations. The regularly spaced locations can be identified by using the legend included on Exhibit C-18.

Similar to the analysis of noise contours, the Do-Nothing and "With Project" noise impacts are nearly identical in the year 2000. Therefore, the following comparative descriptions will be limited to the differences in noise levels associated with the years 2005 and 2010.

The **Day Night Sound Level (DNL)** was computed at each grid location. A table of comparative DNLs is presented in **Table C-3-20** for each of the revised Do-Nothing and "With Project" Alternative noise assessments. At those sites located at some distance from the Airport, the DNL levels for the "With Project" Alternative are the same and differ only slightly from the Do-Nothing Alternative. This characteristic is a function of the general blending of noise from different point sources as the distance between the source and the receiver increases. Closer to Sea-Tac, the sites are nearer to the noise source and are influenced more by the contribution of ground noise energy to the DNL pattern. The greatest differences between the Do-Nothing and the "With Project" Alternatives in the year 2005 and beyond are present in the area along the extended centerline of proposed Runway 16X/34X.

The **peak Sound Exposure Level (SEL)** indicates the highest level of noise each location would typically experience on an average day of operation. These levels may occasionally be exceeded by some abnormal event, but the levels indicated may be expected daily. **Table C-3-21** indicates the peak SEL for each of the location analysis sites. As a general rule of thumb, the peak SEL is 5 to 10 decibels louder than the peak decibel level experienced at a location. As was true of the DNL comparison above, the "With Project" Alternative will result in identical peak SEL at sites located some distance from the Airport. The peak SEL levels at these sites vary only slightly from those of the Do-Nothing Alternative. However, at sites nearer Sea-Tac, greater variability is present as the noise events associated with separate overflights become more differentiated. In the immediate vicinity of the proposed new runway, the peak SEL values are increased by several decibels. For example, at RMS 5 (Site 5) located approximately 2,400 feet west of Runway 16R, the new runway would result in SELs approximately 14 decibels greater than under the Do Nothing Alternative.

TA, or time above analysis, computes the amount of time a site is exposed to noise in excess of various threshold levels. For this analysis, the threshold levels calculated were 65, 75, 85, 95 and 100 decibels. **Table C-3-22** provides a comparative listing of the times above each threshold level to which each location is exposed for each of the various alternatives in each time period assessed. Since 65 decibels is a relatively low environmental noise level, greater insight into the length of exposure at various levels may be gained by looking at the pattern of distribution at higher threshold levels. As shown starting on page 93 of **Table C-3-22**, the sites which will experience 100 decibels are concentrated along and to either side of the existing runways, generally within a few hundred feet of the runway centerline.

The locations which are exposed to noise above 95 decibels are similarly situated as those having noise levels above 100 decibels. Page 70 of **Table C-3-22** indicates that these locations lie generally within the near vicinity of the runways. As many as three RMS sites are forecast to be exposed to noise above 95 decibels on an average annual day in the future year evaluations. As shown on page 47 of **Table C-3-22**, at noise levels above 85 decibels, the exposure pattern indicates the greatest duration near the runway/taxiway network, with times of exposure decreasing to less than one minute at locations as far as 2 1/4 miles from the airport along the extended centerlines of the runways. Lateral to the runway system, the sites exposed to levels above 85 decibels extend up to 1/2 of a mile east and west of the runways. Eight of the eleven RMS sites are expected to be exposed to noise above 85 decibels for some period of the day.

Page 24 of **Table C-3-23** demonstrates that most grid locations evaluated will be exposed to some period of aircraft noise above 75 decibels, ranging from a few seconds at sites located a mile or more east and west of the Airport to more than six hours per day along the runways. At the RMS sites, those located closest to the runways (Sites 4, 5, and 6) will be exposed to 75 decibels for nearly one hour or more each day by the year 2010. Pages 1 through 23 of **Table C-3-22** indicates that every site which was analyzed will be exposed to aircraft noise above 65 decibels for some portion of the average annual day.

The **Equivalent Noise Level (Leq)** is a measure used to compute the cumulative noise energy to which a site is exposed without the application of a weighting penalty to account of activity during the nighttime hours. **Table C-3-23** provides a comparison of the Leq levels to which each site is exposed. A comparison of these data with the DNL levels indicated in **Table C-3-20** demonstrates that the Leq is approximately three to four decibels less than the DNL. Therefore, the nighttime penalty of the DNL metric is responsible for approximately three to four decibels of the total DNL for the Airport.

Table C-3-13

Seattle-Tacoma International Airport
Additional Environmental Analysis

AREA AFFECTED BY AIRCRAFT NOISE
(Square Miles)

Noise Impacts Based on New Port Forecast

Alternative	DNL 65-70	DNL 70-75	DNL 75 & Greater	DNL 65 & Greater	DNL 60-65	DNL 60 & Greater
Existing (1994)	**6.82**	**3.02**	**2.39**	**12.23**	**14.40**	**26.43**
Do Nothing						
2000	3.86	1.62	1.33	6.81	9.40	16.21
2005	3.78	1.55	1.28	6.61	9.27	15.88
2010	4.08	1.65	1.35	7.08	9.88	16.96
"With Project" Alternative						
2000	3.86	1.62	1.33	6.81	9.40	16.21
2005	3.73	1.55	1.57	6.85	9.01	15.86
2010	4.18	1.75	1.76	7.69	9.95	17.64

"With Project" Alternative in the years 2005 and 2010 assumes the construction of the North Unit Terminal with a new runway length of up to 8,500 feet located 2,500 feet west of existing Runway 16L/34R.

Source: Landrum & Brown, from the Integrated Noise Model, Version 4.11, December 1996.

Table C-3-1

Seattle-Tacoma International Airport
Additional Environmental Analysis

AVERAGE DAY OPERATIONS & FLEET MIX
YEAR 2000

			INM 4.11	Departures		Arrivals	
Aircraft	Category	Stage	Type	Day	Night	Day	Night
Boeing 747-400	Heavy	3	747400	2	4	5	1
Boeing 767-300	Heavy	3	767300	14	1	14	1
Boeing 767-200	Heavy	3	767JT9	5	2	5	2
Airbus A-300	Heavy	3	A300	6	0	5	1
Airbus A-310	Heavy	3	A310	0	1	1	0
McDonnell Douglas DC10-40	Heavy	3	DC1040	13	3	13	3
McDonnell Douglas DC8-70	Heavy	3	DC870	3	0	3	0
McDonnell Douglas MD11	Heavy	3	MD11GE	1	1	2	0
Boeing 727-200 Retrofit	Jet	3	727EM2	16	0	16	0
Boeing 737-300	Jet	3	737300	18	1	17	2
Boeing 737-300	Jet	3	7373B2	40	5	41	4
Boeing 737-400	Jet	3	737400	26	4	22	8
Boeing 737-500	Jet	3	737500	11	2	10	3
Boeing 757-200	Jet	3	757PW	32	10	36	6
Boeing 757-200	Jet	3	757RR	8	4	6	6
Airbus A-320	Jet	3	A320	8	2	8	2
Canadair RJ-601	Jet	3	CL601	0	0	0	0
Fokker F-100	Jet	3	F10065	3	0	3	0
Fairchild F-28	Jet	3	F28MK4	15	1	14	2
Lear 35	Jet	3	LEAR35	1	1	2	0
McDonnell Douglas MD82	Jet	3	MD82	32	7	37	2
McDonnell Douglas MD83	Jet	3	MD83	36	3	35	4
Beech Baron/Twin Engine Prop	Prop	N/A	BEC58P	12	5	12	5
Cessna 441/Twin Engine Prop	Prop	N/A	CNA441	1	0	1	0
Single-Engine Prop	Prop	N/A	COMSEP	7	1	7	1
Metroliner / J31	Prop	N/A	DHC6	56	2	57	1
Dash 8 / Dornier 328	Prop	N/A	DHC8	81	12	79	14
Dash 8-300	Prop	N/A	DHC830	27	2	25	4
Twin Engine Turboprop	Prop	N/A	HS748A	10	2	8	4
Total Day/Night				484	76	484	76
Total Arrivals/Departures				560		560	
Total Operations					1120		

Day: 7:00 a.m. - 9:59 p.m. sea00rv2.scd

Night: 10:00 p.m. - 6:59 a.m.

N/A - Not Applicable

Source: Landrum & Brown, August 1994 OAG schedule, P&D Aviation, 1996, and Airport Capacity Enhancement Study

Table C-3-2

Seattle-Tacoma International Airport
Additional Environmental Analysis

AVERAGE DAY OPERATIONS & FLEET MIX YEAR 2005

Aircraft	Category	Stage	INM 4.11 Type	Departures Day	Departures Night	Arrivals Day	Arrivals Night
Boeing 747-400	Heavy	3	747400	3	4	5	2
Boeing 767-300	Heavy	3	767300	18	0	17	1
Boeing 767-200	Heavy	3	767JT9	7	3	8	2
Airbus A-300	Heavy	3	A300	9	2	10	1
Airbus A-310	Heavy	3	A310	0	2	1	1
McDonnell Douglas DC10-40	Heavy	3	DC1040	8	2	8	2
McDonnell Douglas DC8-70	Heavy	3	DC870	8	0	7	1
McDonnell Douglas MD11	Heavy	3	MD11GE	1	1	2	0
Boeing 737-300	Jet	3	737300	23	0	21	2
Boeing 737-300	Jet	3	7373B2	40	5	41	4
Boeing 737-400	Jet	3	737400	45	6	42	9
Boeing 737-500	Jet	3	737500	11	2	10	3
Boeing 757-200	Jet	3	757PW	39	11	42	8
Boeing 757-200	Jet	3	757RR	9	5	7	7
Airbus A-320	Jet	3	A320	11	3	11	3
Canadair RJ-601	Jet	3	CL601	4	0	4	0
Fokker F-100	Jet	3	F10065	5	0	5	0
Fairchild F-28	Jet	3	F28MK4	13	1	13	1
Lear 35	Jet	3	LEAR35	1	1	2	0
McDonnell Douglas MD82	Jet	3	MD82	33	7	38	2
McDonnell Douglas MD83	Jet	3	MD83	36	3	35	4
Beech Baron/Twin Engine Prop	Prop	N/A	BEC58P	12	5	12	5
Cessna 441/Twin Engine Prop	Prop	N/A	CNA441	1	0	1	0
Single-Engine Prop	Prop	N/A	COMSEP	7	1	7	1
Metroliner / J31	Prop	N/A	DHC6	53	2	54	1
Dash 8 / Dornier 328	Prop	N/A	DHC8	76	8	74	10
Dash 8-300	Prop	N/A	DHC830	45	6	42	9
Twin Engine Turboprop	Prop	N/A	HS748A	10	2	8	4
Total Day/Night				528	82	527	83
Total Arrivals/Departures				610		620	
Total Operations					1220		

Day: 7:00 a.m. - 9:59 p.m. sea05rv2.scd
Night: 10:00 p.m. - 6:59 a.m.
N/A - Not Applicable

Source: Landrum & Brown, August 1994 OAG schedule, P&D Aviation, 1996, and Airport Capacity Enhancement Study

Table C-3-3

Seattle-Tacoma International Airport
Additional Environmental Analysis

AVERAGE DAY OPERATIONS & FLEET MIX
YEAR 2010 UNCONSTRAINED* OPERATION

Aircraft	Category	Stage	INM 4.11 Type	Departures Day	Departures Night	Arrivals Day	Arrivals Night
Boeing 747-400	Heavy	3	747400	5	4	7	2
Boeing 767-300	Heavy	3	767300	24	1	22	3
Boeing 767-200	Heavy	3	767JT9	9	4	11	2
Airbus A-300	Heavy	3	A300	13	3	15	1
Airbus A-310	Heavy	3	A310	0	4	3	1
McDonnell Douglas DC8-70	Heavy	3	DC870	10	0	9	1
McDonnell Douglas MD11	Heavy	3	MD11GE	3	2	4	1
Boeing 737-300	Jet	3	737300	26	0	24	2
Boeing 737-300	Jet	3	7373B2	43	5	44	4
Boeing 737-400	Jet	3	737400	50	6	46	10
Boeing 737-500	Jet	3	737500	12	2	11	3
Boeing 757-200	Jet	3	757PW	43	12	46	9
Boeing 757-200	Jet	3	757RR	10	6	8	8
Airbus A-320	Jet	3	A320	13	3	13	3
Canadair RJ-601	Jet	3	CL601	5	0	5	0
Fokker F-100	Jet	3	F10065	6	0	6	0
Fairchild F-28	Jet	3	F28MK4	14	2	15	1
Lear 35	Jet	3	LEAR35	1	1	2	0
McDonnell Douglas MD82	Jet	3	MD82	33	7	37	3
McDonnell Douglas MD83	Jet	3	MD83	36	3	35	4
Beech Baron/Twin Engine Prop	Prop	N/A	BEC58P	11	4	11	4
Cessna 441/Twin Engine Prop	Prop	N/A	CNA441	1	0	1	0
Single-Engine Prop	Prop	N/A	COMSEP	7	1	7	1
Metroliner / J31	Prop	N/A	DHC6	50	2	50	2
Dash 8 / Dornier 328	Prop	N/A	DHC8	62	8	60	10
Dash 8-300	Prop	N/A	DHC830	66	6	62	10
Twin Engine Turboprop	Prop	N/A	HS748A	10	2	8	4
Total Day/Night				563	88	562	89
Total Arrivals/Departures				651		651	
Total Operations				1302			

Day: 7:00 a.m. - 9:59 p.m. sea10rv2.scd
Night: 10:00 p.m. - 6:59 a.m.
N/A - Not Applicable

Source: Landrum & Brown, August 1994 OAG schedule, P&D Aviation, 1996, and Airport Capacity Enhancement Study

* Unconstrained operation assumes that all forecast demand can be met by airfield facilities.

Table C-3-4

Seattle-Tacoma International Airport
Additional Environmental Analysis

FUTURE AVERAGE DAY OPERATIONS & FLEET MIX
YEAR 2010 CONSTRAINED* OPERATION

Aircraft	Category	Stage	INM 4.11 Type	Departures Day	Departures Night	Arrivals Day	Arrivals Night
Boeing 747-400	Heavy	3	747400	4	5	7	2
Boeing 767-300	Heavy	3	767300	23	1	21	3
Boeing 767-200	Heavy	3	767JT9	13	4	15	2
Airbus A-300	Heavy	3	A300	12	3	14	1
Airbus A-310	Heavy	3	A310	1	3	3	1
McDonnell Douglas DC8-70	Heavy	3	DC870	9	0	8	1
McDonnell Douglas MD11	Heavy	3	MD11GE	3	2	4	1
Boeing 737-300	Jet	3	737300	23	1	22	2
Boeing 737-300	Jet	3	7373B2	42	4	42	4
Boeing 737-400	Jet	3	737400	48	5	43	10
Boeing 737-500	Jet	3	737500	12	2	11	3
Boeing 757-200	Jet	3	757PW	47	11	48	10
Boeing 757-200	Jet	3	757RR	10	6	8	8
Airbus A-320	Jet	3	A320	12	3	12	3
Canadair RJ-601	Jet	3	CL601	5	0	5	0
Fokker F-100	Jet	3	F10065	5	0	5	0
Fairchild F-28	Jet	3	F28MK4	13	2	14	1
Lear 35	Jet	3	LEAR35	1	1	2	0
McDonnell Douglas MD82	Jet	3	MD82	30	7	35	2
McDonnell Douglas MD83	Jet	3	MD83	33	3	32	4
Beech Baron/Twin Engine Prop	Prop	N/A	BEC58P	11	4	11	4
Cessna 441/Twin Engine Prop	Prop	N/A	CNA441	1	0	1	0
Single-Engine Prop	Prop	N/A	COMSEP	8	0	7	1
Metroliner / J31	Prop	N/A	DHC6	45	2	45	2
Dash 8 / Dornier 328	Prop	N/A	DHC8	61	8	60	9
Dash 8-300	Prop	N/A	DHC830	63	6	60	9
Twin Engine Turboprop	Prop	N/A	HS748A	10	2	8	4
Total Day/Night				545	85	543	87
Total Arrivals/Departures				630		630	
Total Operations					1260		

Day: 7:00 a.m. - 9:59 p.m. sea10cn2.scd
Night: 10:00 p.m. - 6:59 a.m.
N/A - Not Applicable

Source: Landrum & Brown, August 1994 OAG schedule, P&D Aviation, 1996, and Airport Capacity Enhancement Study

* Constrained operation assumes the airfield is incapable of serving forecast demand and that operations will be limited to the number which can be served by two runways.

Table C-3-5
Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - RUNWAY USE
FUTURE DO-NOTHING ALTERNATIVE

SOUTH TRAFFIC FLOW: 61.2%

	2000		2005		2010	
Runway	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
16L	10.8%	55.6%	10.9%	55.4%	11.0%	55.1%
16R	50.5%	5.7%	50.3%	5.8%	50.1%	5.9%

NORTH TRAFFIC FLOW: 38.8%

	2000		2005		2010	
Runway	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
34L	28.0%	5.8%	28.0%	5.9%	28.1%	6.0%
34R	10.7%	32.9%	10.8%	32.9%	10.9%	33.0%

Source: Landrum & Brown, from FAA Capacity Enhancement Plan (1996), November 1, 1996

Table C-3-6

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS
DO-NOTHING & WITH PROJECT -YEAR 2000

file: SEAX105

Heavy Departures

Track	Runway	Day	Night
HO18	16L	11%	18%
HD12	16L(I)	15%	5%
HD18	16L(I)	18%	18%
HD32	16L(I)	9%	14%
HD34	16L(I)	3%	*0%
HD11	16R	2%	2%
HD17	16R	2%	2%
HD33	16R	2%	1%
HD01	34L	1%	0%
HD05	34L	4%	*0%
HD21	34L	1%	5%
HD02	34R(I)	26%	8%
HD24	34R(I)	7%	25%
Total**		100%	100%

Jet Departures

Track	Runway	Day	Night
JD12	16L(I)	14%	26%
JD14	16L(I)	1%	7%
JD18	16L(I)	24%	15%
JD32	16L(I)	10%	*0%
JD36	16L(I)	7%	7%
JD11	16R	2%	4%
JD15	16R	1%	1%
JD33	16R	2%	1%
JD01	34L	1%	0%
JD03	34L	1%	1%
JD05	34L	2%	3%
JD21	34L	*0%	1%
JD25	34L	1%	2%
JD02	34R(I)	14%	*0%
JD06	34R(I)	12%	9%
JD20	34R(I)	0%	8%
JD22	34R(I)	1%	0%
JD24	34R(I)	6%	16%
Total**		100%	100%

Prop Departures

Track	Runway	Day	Night
PD12	16L(I)	9%	6%
PD14	16L(I)	2%	1%
PD16	16L(I)	17%	20%
PD32	16L(I)	9%	10%
PD36	16L(I)	2%	2%
PD38	16L(I)	17%	16%
PD11	16R	1%	0%
PD13	16R	*0%	0%
PD15	16R	0%	2%
PD33	16R	3%	1%
PD35	16R	*0%	1%
PD37	16R	2%	2%
PD01	34L	2%	3%
PD03	34L	*0%	0%
PD05	34L	*0%	*0%
PD07	34L	1%	1%
PD21	34L	*0%	*0%
PD23	34L	*0%	*0%
PD27	34L	1%	1%
HD02	34R(I)	13%	15%
PD04	34R(I)	3%	3%
PD06	34R(I)	7%	7%
PD20	34R(I)	2%	2%
PD22	34R(I)	*0%	1%
PD26	34R(I)	7%	5%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
(I)-Intersection Departure

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-6

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - TRACKS
DO-NOTHING & WITH PROJECT -YEAR 2000

file: SEAX105

Heavy Arrivals			
Track	Runway	Day	Night
HA10	16L	6%	8%
HA30	16L	3%	3%
HA32	16L	2%	*0%
HA11	16R	26%	38%
HA31	16R	24%	13%
HA01	34L	15%	21%
HA05	34L	4%	7%
HA23	34L	9%	*0%
HA02	34R	11%	11%
Total**		100%	100%

Jet Arrivals			
Track	Runway	Day	Night
JA10	16L	5%	3%
JA30	16L	5%	2%
JA32	16L	1%	3%
JA34	16L	0%	4%
JA13	16R	21%	13%
JA31	16R	24%	26%
JA33	16R	6%	12%
JA01	34L	19%	19%
JA03	34L	6%	3%
JA23	34L	3%	6%
JA02	34R	*0%	4%
JA04	34R	4%	2%
JA20	34R	5%	2%
JA22	34R	1%	3%
Total**		100%	100%

Prop Arrivals			
Track	Runway	Day	Night
MLSA	16L	6%	7%
PA10	16L	2%	2%
PA30	16L	1%	1%
PA32	16L	2%	1%
PA34	16L	*0%	*0%
PA11	16R	17%	19%
PA31	16R	14%	14%
PA33	16R	16%	15%
PA35	16R	5%	2%
PA03	34L	9%	11%
PA21	34L	8%	8%
PA23	34L	6%	7%
PA25	34L	5%	3%
PA04	34R	4%	3%
PA20	34R	0%	*0%
PA22	34R	3%	3%
PA26	34R	4%	4%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-7

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS
DO-NOTHING-YEAR 2005

file: SEAX106

Heavy Departures			
Track	Runway	Day	Night
HO18	16L	6%	12%
HD12	16L(I)	12%	4%
HD18	16L(I)	25%	28%
HD32	16L(I)	10%	12%
HD34	16L(I)	2%	*0%
HD11	16R	2%	2%
HD17	16R	3%	2%
HD33	16R	2%	2%
HD01	34L	1%	0%
HD05	34L	4%	*0%
HD21	34L	1%	6%
HD02	34R(I)	26%	7%
HD24	34R(I)	7%	26%
Total**		100%	100%

Jet Departures			
Track	Runway	Day	Night
JD12	16L(I)	14%	28%
JD14	16L(I)	1%	7%
JD18	16L(I)	24%	14%
JD32	16L(I)	9%	*0%
JD36	16L(I)	7%	7%
JD11	16R	2%	4%
JD15	16R	1%	1%
JD33	16R	2%	1%
JD01	34L	1%	0%
JD03	34L	1%	1%
JD05	34L	2%	3%
JD21	34L	*0%	1%
JD25	34L	1%	2%
JD02	34R(I)	14%	*0%
JD06	34R(I)	11%	9%
JD20	34R(I)	0%	7%
JD22	34R(I)	1%	0%
JD24	34R(I)	6%	16%
Total**		100%	100%

Prop Departures			
Track	Runway	Day	Night
PD12	16L(I)	9%	5%
PD14	16L(I)	2%	1%
PD16	16L(I)	17%	22%
PD32	16L(I)	8%	11%
PD36	16L(I)	2%	1%
PD38	16L(I)	17%	16%
PD11	16R	1%	0%
PD13	16R	*0%	0%
PD15	16R	0%	2%
PD33	16R	3%	1%
PD35	16R	*0%	1%
PD37	16R	2%	2%
PD01	34L	2%	3%
PD03	34L	*0%	0%
PD05	34L	*0%	*0%
PD07	34L	1%	1%
PD21	34L	*0%	*0%
PD23	34L	*0%	*0%
PD27	34L	1%	1%
HD02	34R(I)	13%	16%
PD04	34R(I)	2%	3%
PD06	34R(I)	8%	7%
PD20	34R(I)	2%	2%
PD22	34R(I)	*0%	1%
PD26	34R(I)	8%	4%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
(I)-Intersection Departure

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-7

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS
DO-NOTHING-YEAR 2005

file: SEAX106

Heavy Arrivals			
Track	Runway	Day	Night
HA10	16L	6%	8%
HA30	16L	2%	3%
HA32	16L	2%	*0%
HA11	16R	29%	35%
HA31	16R	21%	15%
HA01	34L	16%	20%
HA05	34L	3%	9%
HA23	34L	8%	*0%
HA02	34R	11%	11%
Total**		100%	100%

Jet Arrivals			
Track	Runway	Day	Night
JA10	16L	5%	3%
JA30	16L	5%	2%
JA32	16L	1%	3%
JA34	16L	0%	4%
JA13	16R	21%	12%
JA31	16R	23%	27%
JA33	16R	6%	12%
JA01	34L	19%	18%
JA03	34L	6%	3%
JA23	34L	3%	7%
JA02	34R	*0%	5%
JA04	34R	4%	2%
JA20	34R	5%	2%
JA22	34R	1%	3%
Total**		100%	100%

Prop Arrivals			
Track	Runway	Day	Night
MLSA	16L	6%	7%
PA10	16L	2%	2%
PA30	16L	1%	*0%
PA32	16L	2%	1%
PA34	16L	*0%	*0%
PA11	16R	16%	18%
PA31	16R	14%	15%
PA33	16R	15%	15%
PA35	16R	5%	2%
PA03	34L	9%	10%
PA21	34L	8%	8%
PA23	34L	6%	7%
PA25	34L	5%	3%
PA04	34R	3%	3%
PA20	34R	0%	*0%
PA22	34R	3%	3%
PA26	34R	4%	4%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-8

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS
DO-NOTHING-YEAR 2010

file: SEAX107

Heavy Departures			
Track	Runway	Day	Night
HO18	16L	3%	12%
HD12	16L(I)	13%	3%
HD18	16L(I)	28%	31%
HD32	16L(I)	10%	9%
HD34	16L(I)	2%	*0%
HD11	16R	2%	1%
HD17	16R	2%	2%
HD33	16R	2%	2%
HD01	34L	1%	0%
HD05	34L	4%	*0%
HD21	34L	1%	6%
HD02	34R(I)	26%	5%
HD24	34R(I)	7%	27%
Total**		100%	100%

Jet Departures			
Track	Runway	Day	Night
JD12	16L(I)	14%	26%
JD14	16L(I)	1%	7%
JD18	16L(I)	24%	16%
JD32	16L(I)	9%	*0%
JD36	16L(I)	7%	7%
JD11	16R	2%	4%
JD15	16R	2%	1%
JD33	16R	2%	1%
JD01	34L	1%	0%
JD03	34L	1%	1%
JD05	34L	2%	3%
JD21	34L	*0%	1%
JD25	34L	1%	2%
JD02	34R(I)	15%	*0%
JD06	34R(I)	12%	9%
JD20	34R(I)	0%	9%
JD22	34R(I)	1%	0%
JD24	34R(I)	6%	15%
Total**		100%	100%

Prop Departures			
Track	Runway	Day	Night
PD12	16L(I)	9%	5%
PD14	16L(I)	2%	1%
PD16	16L(I)	17%	22%
PD32	16L(I)	8%	11%
PD36	16L(I)	2%	1%
PD38	16L(I)	16%	15%
PD11	16R	1%	0%
PD13	16R	*0%	0%
PD15	16R	0%	2%
PD33	16R	3%	2%
PD35	16R	*0%	1%
PD37	16R	2%	2%
PD01	34L	2%	4%
PD03	34L	*0%	0%
PD05	34L	*0%	*0%
PD07	34L	1%	1%
PD21	34L	*0%	*0%
PD23	34L	*0%	*0%
PD27	34L	1%	1%
HD02	34R(I)	13%	19%
PD04	34R(I)	2%	1%
PD06	34R(I)	7%	7%
PD20	34R(I)	2%	*0%
PD22	34R(I)	*0%	*0%
PD26	34R(I)	8%	4%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
(I)-Intersection Departure

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-8

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS
DO-NOTHING-YEAR 2010

file: SEAX107

Heavy Arrivals

Track	Runway	Day	Night
HA10	16L	6%	7%
HA30	16L	3%	4%
HA32	16L	2%	*0%
HA11	16R	28%	32%
HA31	16R	22%	18%
HA01	34L	16%	18%
HA05	34L	5%	10%
HA23	34L	8%	*0%
HA02	34R	11%	11%
Total**		100%	100%

Jet Arrivals

Track	Runway	Day	Night
JA10	16L	5%	3%
JA30	16L	5%	2%
JA32	16L	1%	3%
JA34	16L	0%	4%
JA13	16R	21%	13%
JA31	16R	23%	25%
JA33	16R	5%	12%
JA01	34L	19%	17%
JA03	34L	6%	4%
JA23	34L	3%	7%
JA02	34R	*0%	4%
JA04	34R	4%	2%
JA20	34R	5%	2%
JA22	34R	1%	3%
Total**		100%	100%

Prop Arrivals

Track	Runway	Day	Night
MLSA	16L	7%	7%
PA10	16L	1%	2%
PA30	16L	1%	*0%
PA32	16L	1%	1%
PA34	16L	*0%	1%
PA11	16R	16%	19%
PA31	16R	14%	14%
PA33	16R	15%	15%
PA35	16R	5%	2%
PA03	34L	9%	11%
PA21	34L	8%	8%
PA23	34L	6%	7%
PA25	34L	5%	3%
PA04	34R	4%	3%
PA20	34R	0%	*0%
PA22	34R	3%	3%
PA26	34R	4%	4%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-15

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2005

file: SEAX108

Heavy Departures

Track	Runway	Day	Night
HD12	16L(I)	6%	2%
HD32	16L(I)	5%	6%
HD34	16L(I)	1%	1%
HD11	16R	12%	12%
HD17	16R	18%	15%
HD33	16R	11%	15%
HT11	16X	1%	1%
HT17	16X	1%	1%
HT33	16X	1%	1%
HD01	34L	2%	0%
HD05	34L	11%	1%
HD21	34L	3%	16%
HD02	34R(I)	21%	7%
HD24	34R(I)	6%	21%
T01	34X	2%	1%
Total**		100%	100%

Jet Departures

Track	Runway	Day	Night
JD12	16L(I)	6%	11%
JD14	16L(I)	1%	3%
JD18	16L(I)	10%	6%
JD32	16L(I)	4%	*0%
JD36	16L(I)	3%	3%
JD11	16R	14%	27%
JD15	16R	9%	6%
JD33	16R	13%	3%
JT11	16X	1%	2%
JT15	16X	1%	*0%
JT33	16X	1%	*0%
JD01	34L	3%	0%
JD03	34L	3%	1%
JD05	34L	6%	7%
JD21	34L	*0%	2%
JD25	34L	2%	4%
JD02	34R(I)	10%	*0%
JD06	34R(I)	8%	6%
JD20	34R(I)	0%	5%
JD22	34R(I)	1%	0%
JD24	34R(I)	4%	11%
T01	34X	2%	2%
Total**		100%	100%

Prop Departures

Track	Runway	Day	Night
PD12	16L(I)	4%	2%
PD14	16L(I)	1%	*0%
PD16	16L(I)	7%	9%
PD32	16L(I)	4%	5%
PD36	16L(I)	1%	1%
PD38	16L(I)	7%	7%
PD11	16R	5%	0%
PD13	16R	1%	0%
PD15	16R	0%	13%
PD33	16R	17%	8%
PD35	16R	2%	4%
PD37	16R	11%	10%
PT11	16X	*0%	0%
PT13	16X	*0%	0%
PT15	16X	0%	1%
PT33	16X	1%	1%
PT35	16X	*0%	*0%
PT37	16X	1%	1%
PD01	34L	5%	7%
PD03	34L	*0%	0%
PD05	34L	1%	1%
PD07	34L	3%	3%
PD21	34L	*0%	1%
PD23	34L	*0%	1%
PD27	34L	3%	2%
HD02	34R(I)	9%	11%
PD04	34R(I)	2%	2%
PD06	34R(I)	5%	5%
PD20	34R(I)	1%	1%
PD22	34R(I)	*0%	*0%
PD26	34R(I)	5%	3%
T01	34X	2%	2%
Total**		100%	100%

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.
Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
(I)-Intersection Departure

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-15

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2005

file: SEAX108

Heavy Arrivals

Track	Runway	Day	Night
HA10	16L	17%	20%
HA30	16L	6%	9%
HA32	16L	5%	*0%
HA11	16R	10%	12%
HA31	16R	7%	5%
HL11	16X	9%	11%
HL31	16X	7%	5%
HA01	34L	11%	13%
HA05	34L	2%	6%
HA23	34L	5%	*0%
HA02	34R	17%	17%
L01	34X	4%	4%
Total**		100%	100%

Jet Arrivals

Track	Runway	Day	Night
JA10	16L	12%	7%
JA30	16L	13%	5%
JA32	16L	3%	7%
JA34	16L	0%	11%
JA13	16R	7%	4%
JA31	16R	8%	9%
JA33	16R	2%	4%
JL13	16X	7%	4%
JL31	16X	7%	8%
JL33	16X	2%	4%
JA01	34L	13%	12%
JA03	34L	4%	2%
JA23	34L	2%	4%
JA02	34R	*0%	7%
JA04	34R	7%	3%
JA20	34R	8%	3%
JA22	34R	2%	4%
L01	34X	4%	4%
Total**		100%	100%

Prop Arrivals

Track	Runway	Day	Night
MLSA	16L	7%	8%
PA10	16L	7%	8%
PA30	16L	6%	5%
PA32	16L	7%	5%
PA34	16L	1%	2%
PA11	16R	5%	6%
PA31	16R	5%	5%
PA33	16R	5%	5%
PA35	16R	2%	1%
PL11	16X	5%	6%
PL31	16X	4%	5%
PL33	16X	5%	5%
PL35	16X	1%	1%
PA03	34L	6%	7%
PA21	34L	5%	6%
PA23	34L	4%	4%
PA25	34L	3%	2%
PA04	34R	5%	4%
PA20	34R	0%	1%
PA22	34R	5%	5%
PA26	34R	7%	6%
L01	34X	3%	3%
PL25	34X	1%	1%
Total**		100%	100%

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-16

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2010

file: SEAX109

Heavy Departures

Track	Runway	Day	Night
HD12	16L(I)	6%	1%
HD32	16L(I)	4%	4%
HD34	16L(I)	1%	*0%
HD11	16R	11%	7%
HD17	16R	15%	13%
HD33	16R	8%	13%
HT11	16X	1%	1%
HT17	16X	1%	1%
HT33	16X	1%	1%
HD01	34L	2%	0%
HD05	34L	10%	1%
HD21	34L	2%	14%
HD02	34R(I)	20%	8%
HD24	34R(I)	5%	20%
T01	34X	13%	15%
Total**		100%	100%

Jet Departures

Track	Runway	Day	Night
JD12	16L(I)	6%	11%
JD14	16L(I)	1%	3%
JD18	16L(I)	11%	7%
JD32	16L(I)	4%	*0%
JD36	16L(I)	3%	3%
JD11	16R	13%	23%
JD15	16R	8%	6%
JD33	16R	12%	4%
JT11	16X	1%	2%
JT15	16X	1%	*0%
JT33	16X	1%	*0%
JD01	34L	3%	0%
JD03	34L	3%	2%
JD05	34L	6%	6%
JD21	34L	*0%	3%
JD25	34L	2%	4%
JD02	34R(I)	10%	*0%
JD06	34R(I)	8%	6%
JD20	34R(I)	0%	6%
JD22	34R(I)	1%	0%
JD24	34R(I)	4%	10%
T01	34X	2%	2%
Total**		100%	100%

Prop Departures

Track	Runway	Day	Night
PD12	16L(I)	4%	2%
PD14	16L(I)	1%	*0%
PD16	16L(I)	8%	9%
PD32	16L(I)	4%	5%
PD36	16L(I)	1%	1%
PD38	16L(I)	7%	8%
PD11	16R	5%	0%
PD13	16R	1%	0%
PD15	16R	0%	11%
PD33	16R	16%	8%
PD35	16R	2%	4%
PD37	16R	10%	10%
PT11	16X	*0%	0%
PT13	16X	*0%	0%
PT15	16X	0%	1%
PT33	16X	1%	1%
PT35	16X	*0%	*0%
PT37	16X	1%	1%
PD01	34L	5%	7%
PD03	34L	*0%	0%
PD05	34L	1%	1%
PD07	34L	3%	3%
PD21	34L	1%	*0%
PD23	34L	*0%	*0%
PD27	34L	3%	2%
HD02	34R(I)	9%	12%
PD04	34R(I)	2%	2%
PD06	34R(I)	5%	5%
PD20	34R(I)	1%	1%
PD22	34R(I)	*0%	*0%
PD26	34R(I)	5%	3%
T01	34X	2%	2%
Total**		100%	100%

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.
Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
(I)-Intersection Departure

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-16

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2010

file: SEAX109

Heavy Arrivals

Track	Runway	Day	Night
HA10	16L	10%	11%
HA30	16L	4%	6%
HA32	16L	3%	*0%
HA11	16R	9%	10%
HA31	16R	7%	6%
HL11	16X	16%	18%
HL31	16X	12%	10%
HA01	34L	10%	11%
HA05	34L	3%	6%
HA23	34L	5%	*0%
HA02	34R	5%	6%
L01	34X	16%	16%
Total**		100%	100%

Jet Arrivals

Track	Runway	Day	Night
JA10	16L	8%	4%
JA30	16L	8%	3%
JA32	16L	2%	4%
JA34	16L	0%	7%
JA13	16R	7%	3%
JA31	16R	7%	9%
JA33	16R	2%	3%
JL13	16X	12%	6%
JL31	16X	13%	16%
JL33	16X	3%	6%
JA01	34L	12%	12%
JA03	34L	4%	2%
JA23	34L	2%	4%
JA02	34R	*0%	2%
JA04	34R	2%	1%
JA20	34R	2%	1%
JA22	34R	1%	1%
L01	34X	16%	16%
Total**		100%	100%

Prop Arrivals

Track	Runway	Day	Night
MLSA	16L	5%	5%
PA10	16L	4%	5%
PA30	16L	3%	3%
PA32	16L	5%	3%
PA34	16L	1%	1%
PA11	16R	5%	6%
PA31	16R	4%	5%
PA33	16R	5%	4%
PA35	16R	1%	1%
PL11	16X	9%	11%
PL31	16X	8%	8%
PL33	16X	9%	8%
PL35	16X	3%	1%
PA03	34L	6%	7%
PA21	34L	5%	5%
PA23	34L	4%	4%
PA25	34L	3%	2%
PA04	34R	2%	2%
PA22	34R	1%	2%
PA26	34R	2%	2%
L01	34X	13%	14%
PL25	34X	3%	3%
Total**		100%	100%

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-13

Seattle-Tacoma International Airport
Additional Environmental Analysis

AREA AFFECTED BY AIRCRAFT NOISE
(Square Miles)

Alternative	DNL 65-70	DNL 70-75	DNL 75 & Greater	DNL 65 & Greater	DNL 60-65	DNL 60 & Greater
Existing	**6.82**	**3.02**	**2.39**	**12.23**	**14.40**	**26.43**
Do Nothing						
2000	3.86	1.62	1.33	6.81	9.40	16.21
2005	3.78	1.55	1.28	6.61	9.27	15.88
2010	4.08	1.65	1.35	7.08	9.88	16.96
With Project						
2000	3.86	1.62	1.33	6.81	9.40	16.21
2005	3.73	1.55	1.57	6.85	9.01	15.86
2010	4.18	1.75	1.76	7.69	9.95	17.64

With Project Alternative in the years 2005 and 2010 assumes the construction of the North Unit Terminal with a new runway length of up to 8,500 feet located 2,500 feet west of existing Runway 16L/34R.

Source: Landrum & Brown, from the Integrated Noise Model, Version 4.11, December 1996.

Table C-3-14
Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - RUNWAY WITH PROJECT ALTERNATIVE

SOUTH TRAFFIC FLOW: 61.2%

	2005		2010	
Runway	Arrivals	Departures	Arrivals	Departures
16L	28.4%	22.9%	17.5%	25.2%
16R	16.9%	35.9%	15.9%	33.5%
16X	16.0%	2.5%	27.7%	2.5%

NORTH TRAFFIC FLOW: 38.8%

	2005		2010	
Runway	Arrivals	Departures	Arrivals	Departures
34L	18.3%	14.4%	17.2%	14.2%
34R	16.7%	22.7%	5.3%	23.1%
34X	3.7%	1.6%	16.4%	1.6%

Source: Landrum & Brown, from FAA Capacity Enhancement Plan (1996), November 1, 1996

Table C-3-15

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2005

file: SEAX108

Heavy Departures

Track	Runway	Day	Night
HD12	16L(I)	6%	2%
HD32	16L(I)	5%	6%
HD34	16L(I)	1%	1%
HD11	16R	12%	12%
HD17	16R	18%	15%
HD33	16R	11%	15%
HT11	16X	1%	1%
HT17	16X	1%	1%
HT33	16X	1%	1%
HD01	34L	2%	0%
HD05	34L	11%	1%
HD21	34L	3%	16%
HD02	34R(I)	21%	7%
HD24	34R(I)	6%	21%
T01	34X	2%	1%
Total**		100%	100%

Jet Departures

Track	Runway	Day	Night
JD12	16L(I)	6%	11%
JD14	16L(I)	1%	3%
JD18	16L(I)	10%	6%
JD32	16L(I)	4%	*0%
JD36	16L(I)	3%	3%
JD11	16R	14%	27%
JD15	16R	9%	6%
JD33	16R	13%	3%
JT11	16X	1%	2%
JT15	16X	1%	*0%
JT33	16X	1%	*0%
JD01	34L	3%	0%
JD03	34L	3%	1%
JD05	34L	6%	7%
JD21	34L	*0%	2%
JD25	34L	2%	4%
JD02	34R(I)	10%	*0%
JD06	34R(I)	8%	6%
JD20	34R(I)	0%	5%
JD22	34R(I)	1%	0%
JD24	34R(I)	4%	11%
T01	34X	2%	2%
Total**		100%	100%

Prop Departures

Track	Runway	Day	Night
PD12	16L(I)	4%	2%
PD14	16L(I)	1%	*0%
PD16	16L(I)	7%	9%
PD32	16L(I)	4%	5%
PD36	16L(I)	1%	1%
PD38	16L(I)	7%	7%
PD11	16R	5%	0%
PD13	16R	1%	0%
PD15	16R	0%	13%
PD33	16R	17%	8%
PD35	16R	2%	4%
PD37	16R	11%	10%
PT11	16X	*0%	0%
PT13	16X	*0%	0%
PT15	16X	0%	1%
PT33	16X	1%	1%
PT35	16X	*0%	*0%
PT37	16X	1%	1%
PD01	34L	5%	7%
PD03	34L	*0%	0%
PD05	34L	1%	1%
PD07	34L	3%	3%
PD21	34L	*0%	1%
PD23	34L	*0%	1%
PD27	34L	3%	2%
HD02	34R(I)	9%	11%
PD04	34R(I)	2%	2%
PD06	34R(I)	5%	5%
PD20	34R(I)	1%	1%
PD22	34R(I)	*0%	*0%
PD26	34R(I)	5%	3%
T01	34X	2%	2%
Total**		100%	100%

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.
Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
(I)-Intersection Departure

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-15

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2005

file: SEAX108

Heavy Arrivals

Track	Runway	Day	Night
HA10	16L	17%	20%
HA30	16L	6%	9%
HA32	16L	5%	*0%
HA11	16R	10%	12%
HA31	16R	7%	5%
HL11	16X	9%	11%
HL31	16X	7%	5%
HA01	34L	11%	13%
HA05	34L	2%	6%
HA23	34L	5%	*0%
HA02	34R	17%	17%
L01	34X	4%	4%
Total**		100%	100%

Jet Arrivals

Track	Runway	Day	Night
JA10	16L	12%	7%
JA30	16L	13%	5%
JA32	16L	3%	7%
JA34	16L	0%	11%
JA13	16R	7%	4%
JA31	16R	8%	9%
JA33	16R	2%	4%
JL13	16X	7%	4%
JL31	16X	7%	8%
JL33	16X	2%	4%
JA01	34L	13%	12%
JA03	34L	4%	2%
JA23	34L	2%	4%
JA02	34R	*0%	7%
JA04	34R	7%	3%
JA20	34R	8%	3%
JA22	34R	2%	4%
L01	34X	4%	4%
Total**		100%	100%

Prop Arrivals

Track	Runway	Day	Night
MLSA	16L	7%	8%
PA10	16L	7%	8%
PA30	16L	6%	5%
PA32	16L	7%	5%
PA34	16L	1%	2%
PA11	16R	5%	6%
PA31	16R	5%	5%
PA33	16R	5%	5%
PA35	16R	2%	1%
PL11	16X	5%	6%
PL31	16X	4%	5%
PL33	16X	5%	5%
PL35	16X	1%	1%
PA03	34L	6%	7%
PA21	34L	5%	6%
PA23	34L	4%	4%
PA25	34L	3%	2%
PA04	34R	5%	4%
PA20	34R	0%	1%
PA22	34R	5%	5%
PA26	34R	7%	6%
L01	34X	3%	3%
PL25	34X	1%	1%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

Table C-3-16

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2010

file: SEAX109

Heavy Departures			
Track	Runway	Day	Night
HD12	16L(I)	6%	1%
HD32	16L(I)	4%	4%
HD34	16L(I)	1%	*0%
HD11	16R	11%	7%
HD17	16R	15%	13%
HD33	16R	8%	13%
HT11	16X	1%	1%
HT17	16X	1%	1%
HT33	16X	1%	1%
HD01	34L	2%	0%
HD05	34L	10%	1%
HD21	34L	2%	14%
HD02	34R(I)	20%	8%
HD24	34R(I)	5%	20%
T01	34X	13%	15%
Total**		100%	100%

Jet Departures			
Track	Runway	Day	Night
JD12	16L(I)	6%	11%
JD14	16L(I)	1%	3%
JD18	16L(I)	11%	7%
JD32	16L(I)	4%	*0%
JD36	16L(I)	3%	3%
JD11	16R	13%	23%
JD15	16R	8%	6%
JD33	16R	12%	4%
JT11	16X	1%	2%
JT15	16X	1%	*0%
JT33	16X	1%	*0%
JD01	34L	3%	0%
JD03	34L	3%	2%
JD05	34L	6%	6%
JD21	34L	*0%	3%
JD25	34L	2%	4%
JD02	34R(I)	10%	*0%
JD06	34R(I)	8%	6%
JD20	34R(I)	0%	6%
JD22	34R(I)	1%	0%
JD24	34R(I)	4%	10%
T01	34X	2%	2%
Total**		100%	100%

Prop Departures			
Track	Runway	Day	Night
PD12	16L(I)	4%	2%
PD14	16L(I)	1%	*0%
PD16	16L(I)	8%	9%
PD32	16L(I)	4%	5%
PD36	16L(I)	1%	1%
PD38	16L(I)	7%	8%
PD11	16R	5%	0%
PD13	16R	1%	0%
PD15	16R	0%	11%
PD33	16R	16%	8%
PD35	16R	2%	4%
PD37	16R	10%	10%
PT11	16X	*0%	0%
PT13	16X	*0%	0%
PT15	16X	0%	1%
PT33	16X	1%	1%
PT35	16X	*0%	*0%
PT37	16X	1%	1%
PD01	34L	5%	7%
PD03	34L	*0%	0%
PD05	34L	1%	1%
PD07	34L	3%	3%
PD21	34L	1%	*0%
PD23	34L	*0%	*0%
PD27	34L	3%	2%
HD02	34R(I)	9%	12%
PD04	34R(I)	2%	2%
PD06	34R(I)	5%	5%
PD20	34R(I)	1%	1%
PD22	34R(I)	*0%	*0%
PD26	34R(I)	5%	3%
T01	34X	2%	2%
Total**		100%	100%

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.
Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
(I)-Intersection Departure

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

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Table C-3-16

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - FLIGHT TRACKS WITH NEW RUNWAY - YEAR 2010

file: SEAX109

Heavy Arrivals

Track	Runway	Day	Night
HA10	16L	10%	11%
HA30	16L	4%	6%
HA32	16L	3%	*0%
HA11	16R	9%	10%
HA31	16R	7%	6%
HL11	16X	16%	18%
HL31	16X	12%	10%
HA01	34L	10%	11%
HA05	34L	3%	6%
HA23	34L	5%	*0%
HA02	34R	5%	6%
L01	34X	16%	16%
Total**		100%	100%

Jet Arrivals

Track	Runway	Day	Night
JA10	16L	8%	4%
JA30	16L	8%	3%
JA32	16L	2%	4%
JA34	16L	0%	7%
JA13	16R	7%	3%
JA31	16R	7%	9%
JA33	16R	2%	3%
JL13	16X	12%	6%
JL31	16X	13%	16%
JL33	16X	3%	6%
JA01	34L	12%	12%
JA03	34L	4%	2%
JA23	34L	2%	4%
JA02	34R	*0%	2%
JA04	34R	2%	1%
JA20	34R	2%	1%
JA22	34R	1%	1%
L01	34X	16%	16%
Total**		100%	100%

Prop Arrivals

Track	Runway	Day	Night
MLSA	16L	5%	5%
PA10	16L	4%	5%
PA30	16L	3%	3%
PA32	16L	5%	3%
PA34	16L	1%	1%
PA11	16R	5%	6%
PA31	16R	4%	5%
PA33	16R	5%	4%
PA35	16R	1%	1%
PL11	16X	9%	11%
PL31	16X	8%	8%
PL33	16X	9%	8%
PL35	16X	3%	1%
PA03	34L	6%	7%
PA21	34L	5%	5%
PA23	34L	4%	4%
PA25	34L	3%	2%
PA04	34R	2%	2%
PA22	34R	1%	2%
PA26	34R	2%	2%
L01	34X	13%	14%
PL25	34X	3%	3%
Total**		100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

* Less than 0.5%
** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on data from Port of Seattle ANOMS data.

Table C-3-17

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - TAXI TRACKS
NEW RUNWAY ALTERNATIVE - YEAR 2000

file: 00WPTAXI

	Heavy		Jet		Prop	
Track	Day	Night	Day	Night	Day	Night
T1AM	12%	4%				
T1XE	3%	1%	3%	3%	4%	2%
T1AH	3%	1%	1%	1%		
T1AL	7%	2%	2%	2%		
T2AM	6%	8%				
T2XE	1%	2%	1%	2%		
T2AH	1%	2%		1%		
T2AL	3%	4%	1%	2%		
T3AM	7%	4%				
T3XE	1%	1%	12%	10%	12%	9%
T3AH	1%	1%	4%	4%		
T3AL	4%	2%	10%	10%		
T7AM	3%					
T7XE	1%			2%	1%	3%
T7AH	1%					
T7AL	2%					
T1XA	1%	1%	1%		1%	
T1XB	12%	6%				
T1XD	7%	4%				
T1XC	1%	1%	1%		1%	
T2XA		2%				
T2XB	5%	19%				
T2XD	3%	11%				
T2XC		2%				
T3XA	1%	1%	2%	2%	2%	2%
T3XB	6%	6%				
T3XD	4%	4%				
T3XC	1%	1%	2%	2%	2%	2%
T7XA		1%				1%

	Heavy		Jet		Prop	
Track	Day	Night	Day	Night	Day	Night
T7XB	2%	6%				
T7XD	1%	4%				
T7XC		1%				1%
T1AJ			4%	3%	5%	6%
T1AF			1%	1%	1%	1%
T2AJ			2%	3%		
T2AF				1%		
T3AJ			18%	19%	18%	16%
T3AF			4%	4%	4%	4%
T7AJ			1%	1%	2%	7%
T7AF						2%
T1DU			5%	5%	6%	3%
T2DU			2%	3%		
T3DU			20%	16%	20%	15%
T7DU			1%	3%	2%	5%
T1AG					1%	1%
T1AK					3%	4%
T3AG					4%	4%
T3AK					10%	9%
T7AG						2%
T7AK					1%	4%
Total **	100%	100%	100%	100%	100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.

** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Source: Landrum & Brown from INM output reports.
Track assignments based on converstations with ATCT and terminal gate allocations.

Table C-3-18

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - TAXI TRACKS
NEW RUNWAY ALTERNATIVE - YEAR 2005

file 05WPTAXI

	Heavy		Jet		Prop			Heavy		Jet		Prop	
Track	Day	Night	Day	Night	Day	Night	Track	Day	Night	Day	Night	Day	Night
T1AM	5%	5%					T6XO						
T1XE	9%	8%	3%	3%	2%	1%	T7XA		3%				1%
T1AP	5%	4%					T7XB		2%				
T1AH	5%	5%	2%	1%			T7XN						
T1AL	6%	5%	2%	2%			T7XD		2%				
T1AQ	1%	1%					T7XC		1%				1%
T3AM	3%	2%					T7XO						
T3XE	5%	3%	8%	7%	8%	6%	T1AJ			2%	1%	2%	2%
T3AP	3%	2%					T1AF			3%	2%	3%	3%
T3AH	3%	2%	6%	7%			T1AS			2%	1%		
T3AL	3%	2%	7%	8%			T1AR						1%
T3AQ	1%						T3AJ			6%	7%	6%	6%
T6AM							T3AF			11%	12%	10%	9%
T6XE	2%			1%	1%	1%	T3AS			6%	7%		
T6AP							T3AR			1%	2%	1%	1%
T6AH							T6AJ						1%
T6AL	1%						T6AF					1%	2%
T6AQ							T6AS						
T7AM							T6AR						
T7XE	1%					1%	T7AJ						1%
T7AP							T7AF						2%
T7AH							T7AS						
T7AL							T7AR						
T7AQ							T1DU			3%	3%	2%	1%
T1XA	9%	14%	4%	4%	4%	2%	T3DU			9%	7%	8%	6%
T1XB	6%	9%					T6DU				1%	1%	1%
T1XN	1%	1%					T7DU						1%
T1XD	6%	9%					T1AT					2%	2%
T1XC	4%	6%	2%	2%	2%	1%	T1AG					2%	2%
T1XO		1%					T1AK					2%	2%
T3XA	6%	5%	13%	11%	13%	9%	T3AT					6%	5%
T3XB	4%	3%					T3AG					6%	6%
T3XN			1%	1%	1%	1%	T3AK					6%	6%
T3XD	4%	3%					T6AT						1%
T3XC	2%	2%	5%	5%	5%	4%	T6AG						1%
T3XO			1%	1%	1%	1%	T6AK					1%	1%
T6XA	1%			1%	1%	2%	T7AT						1%
T6XB	1%						T7AG						1%
T6XN							T7AK						2%
T6XC						1%	Total **	100%	100%	100%	100%	100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
Source: Landrum & Brown from INM output reports.
Track assignments based on converstations with ATCT and terminal gate allocations.

** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Table C-3-19

Seattle-Tacoma International Airport
Additional Environmental Analysis

INM INPUT ASSUMPTIONS - TAXI TRACKS
NEW RUNWAY ALTERNATIVE - YEAR 2010

file 10WPTAXI

	Heavy		Jet		Prop	
Track	Day	Night	Day	Night	Day	Night
T1AM	5%	4%				
T1XE	5%	5%	3%	3%	2%	1%
T1AP	8%	7%				
T1AH	2%	1%	1%			
T1AL	5%	5%	2%	1%		
T1AQ	5%	4%				
T3AM	3%	2%				
T3XE	3%	2%	9%	7%	8%	6%
T3AP	5%	3%				
T3AH	1%	1%	2%	2%		
T3AL	3%	2%	6%	7%		
T3AQ	3%	2%				
T6AM	1%					
T6XE	1%			1%	1%	1%
T6AP	1%					
T6AH						
T6AL	1%					
T6AQ	1%					
T7AM						
T7XE						1%
T7AP						
T7AH						
T7AL						
T7AQ						
T1XA	8%	13%	4%	4%	4%	2%
T1XB	6%	10%				
T1XN	1%	1%				
T1XD	6%	9%				
T1XC	4%	5%	2%	2%	2%	1%
T1XO		1%				
T3XA	6%	6%	12%	11%	12%	8%
T3XB	4%	4%				
T3XN			1%	1%	1%	1%
T3XD	4%	4%				
T3XC	2%	2%	5%	5%	5%	4%
T3XO			1%	1%	1%	1%
T6XA	1%			1%	1%	2%
T6XB	1%					
T6XN						
T6XD	1%					
T6XC	1%					1%

	Heavy		Jet		Prop	
Track	Day	Night	Day	Night	Day	Night
T6XO						
T7XA		2%				1%
T7XB		2%				
T7XN						
T7XD		2%				
T7XC		1%				1%
T7XO						
T1AJ			2%	1%	2%	2%
T1AF			2%	1%	2%	2%
T1AS			3%	2%		
T1AR			2%	1%	2%	2%
T3AJ			6%	7%	6%	5%
T3AF			7%	7%	6%	6%
T3AS			10%	12%		
T3AR			6%	7%	6%	6%
T6AJ						1%
T6AF						1%
T6AS						
T6AR						1%
T7AJ						1%
T7AF						1%
T7AS						
T7AR						1%
T1DU			3%	3%	3%	1%
T3DU			9%	8%	9%	6%
T6DU				1%	1%	1%
T7DU						1%
T1AT					3%	3%
T1AG					1%	1%
T1AK					2%	2%
T3AT					10%	9%
T3AG					2%	2%
T3AK					6%	6%
T6AT					1%	2%
T6AG						
T6AK						1%
T7AT						2%
T7AG						1%
T7AK						1%
Total **	100%	100%	100%	100%	100%	100%

Heavy - Jet - powered aircraft with a takeoff weight of 300,000 lbs or more.
Jets - Jet - powered aircraft with a takeoff weight of less than 300,000 lbs.
Props - All piston or turboprop powered aircraft.
Source: Landrum & Brown from INM output reports.
Track assignments based on converstations with ATCT and terminal gate allocations.

** May not add due to rounding
Day: 7:00 a.m. - 9:59 p.m.
Night: 10:00 p.m. - 6:59 a.m.

Table C-3-20

Seattle-Tacoma International Airport
Master Plan Supplemental Environmental Impact Statement

COMPARATIVE LOCATIONAL ANALYSIS
AIRCRAFT DNL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	64.4	64.4	64.0	63.2	64.4	63.0
2	RMS2	-2533	-18228	62.2	62.2	61.9	62.5	62.3	63.9
3	RMS3	1078	-17868	66.9	66.9	66.1	64.7	66.5	64.6
4	RMS4	141	-9337	75.0	75.0	74.3	73.1	74.6	72.4
5	RMS5	-2718	186	61.9	61.9	62.1	67.7	62.6	70.3
6	RMS6	292	8461	74.0	74.0	73.4	74.2	73.7	74.0
7	RMS7	-1299	16858	67.4	67.4	67.2	66.6	67.5	67.6
8	RMS8	-525	21836	65.9	65.9	65.8	65.1	66.2	65.5
9	RMS9	1958	14969	61.7	61.7	61.4	61.4	61.7	61.8
10	RMS10	-3185	-6305	63.7	63.7	63.7	65.8	64.2	66.8
11	RMS11	2549	6703	64.8	64.8	64.8	64.8	65.3	65.4
12	A22	-7822	17894	50.2	50.1	50.2	50.6	50.5	51.5
13	A23	-7856	16574	50.6	50.6	50.6	51.1	50.9	51.9
14	A24	-7890	15254	52.0	51.9	52.1	52.6	52.3	53.2
15	A25	-7924	13934	52.7	52.7	52.8	53.5	53.0	54.2
16	A26	-7958	12614	52.3	52.3	52.5	54.1	52.7	54.8
17	A27	-7992	11294	52.4	52.4	52.7	54.8	52.9	55.3
18	A28	-8026	9974	52.1	52.1	52.6	55.2	52.8	55.6
19	A29	-8060	8654	52.3	52.3	52.7	54.8	53.1	55.6
20	A30	-8094	7334	53.3	53.3	53.7	54.9	54.3	55.9
21	A31	-8128	6014	55.8	55.8	56.1	56.8	57.0	57.6
22	A32	-8162	4694	55.4	55.4	55.7	56.2	56.5	56.9
23	A33	-8196	3374	53.7	53.8	54.0	55.0	54.6	55.9
24	A34	-8230	2054	52.5	52.6	52.7	54.3	53.2	55.1
25	A35	-8264	734	51.0	51.1	51.2	52.3	51.7	53.0
26	A36	-8298	-586	51.4	51.4	51.6	52.0	52.0	52.6
27	A37	-8332	-1906	53.1	53.1	53.4	53.5	53.8	53.9
28	A38	-8366	-3226	54.8	54.7	55.3	55.9	55.6	56.2
29	A39	-8400	-4546	55.2	55.1	55.7	56.4	56.1	56.6
30	A40	-8434	-5866	54.7	54.7	55.1	55.4	55.6	56.5
31	A41	-8468	-7186	54.8	54.8	55.3	55.4	55.7	57.1
32	A42	-8502	-8506	54.5	54.5	55.0	56.0	55.4	57.0
33	A43	-8536	-9826	53.7	53.7	54.2	54.7	54.6	56.0
34	B10	-6094	33700	52.6	52.6	52.5	52.6	52.8	53.6
35	B11	-6128	32380	52.5	52.5	52.3	52.5	52.7	53.6
36	B12	-6162	31060	52.5	52.5	52.4	52.6	52.7	53.6
37	B13	-6196	29740	52.6	52.6	52.5	52.7	52.8	53.8
38	B14	-6230	28420	52.6	52.6	52.5	52.7	52.8	53.8
39	B15	-6264	27100	52.7	52.7	52.6	52.9	52.9	54.0
40	B16	-6298	25780	52.8	52.8	52.7	53.0	53.1	54.1
41	B17	-6332	24460	53.2	53.2	53.1	53.4	53.4	54.5
42	B18	-6366	23140	53.0	53.0	52.9	53.2	53.3	54.3
43	B19	-6400	21820	52.5	52.5	52.4	52.7	52.7	53.8
44	B20	-6434	20500	52.4	52.4	52.3	52.6	52.7	53.7
45	B21	-6468	19180	52.2	52.2	52.2	52.5	52.6	53.7
46	B22	-6502	17860	52.2	52.2	52.1	52.5	52.5	53.6
47	B23	-6536	16540	52.1	52.1	52.1	52.5	52.5	53.7
48	B24	-6570	15220	52.4	52.4	52.4	52.9	52.7	53.9
49	B25	-6604	13900	53.6	53.6	53.6	54.1	53.9	54.8
50	B26	-6638	12580	53.5	53.5	53.5	54.5	53.8	55.5
51	B27	-6672	11260	53.6	53.6	53.7	55.1	53.9	55.8
52	B28	-6706	9940	54.2	54.2	54.4	56.2	54.6	56.7
53	B29	-6740	8620	54.0	54.0	54.3	56.5	54.6	57.0
54	B30	-6774	7300	55.0	55.0	55.4	57.0	55.9	57.8
55	B31	-6808	5980	56.9	56.9	57.3	58.3	58.0	59.2
56	B32	-6842	4660	56.3	56.3	56.6	57.3	57.3	58.3
57	B33	-6876	3340	54.4	54.5	54.6	55.6	55.2	56.6

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Seattle-Tacoma International Airport
Master Plan Supplemental Environmental Impact Statement

COMPARATIVE LOCATIONAL ANALYSIS
AIRCRAFT DNL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
58	B34	-6910	2020	53.4	53.5	53.5	55.0	54.0	56.0
59	B35	-6944	700	52.4	52.4	52.6	53.7	53.0	54.6
60	B36	-6978	-620	52.9	52.9	53.2	54.0	53.6	54.8
61	B37	-7012	-1940	54.4	54.4	54.8	55.1	55.2	55.9
62	B38	-7046	-3260	56.6	56.6	57.1	57.9	57.4	58.5
63	B39	-7080	-4580	57.4	57.4	57.9	58.5	58.3	59.1
64	B40	-7114	-5900	57.1	57.0	57.5	58.1	57.9	59.0
65	B41	-7148	-7220	56.3	56.3	56.6	57.7	57.1	58.9
66	B42	-7182	-8540	54.5	54.5	54.8	55.6	55.2	56.6
67	B43	-7216	-9860	53.3	53.3	53.5	54.3	53.9	55.6
68	B44	-7250	-11180	53.5	53.5	53.7	53.8	54.0	54.4
69	B45	-7284	-12500	52.0	52.0	52.1	52.6	52.4	52.6
70	B46	-7318	-13820	52.4	52.4	52.5	53.1	52.8	52.4
71	B47	-7352	-15140	52.5	52.5	52.5	52.4	52.7	53.0
72	B48	-7386	-16460	52.1	52.1	52.0	51.9	52.3	52.5
73	B49	-7420	-17780	51.5	51.5	51.4	51.5	51.7	52.1
74	C1	-4468	45546	54.1	54.1	53.9	54.3	54.4	55.4
75	C2	-4502	44226	54.1	54.1	53.9	54.4	54.4	55.4
76	C3	-4536	42906	54.1	54.1	54.0	54.4	54.4	55.5
77	C4	-4570	41586	54.2	54.2	54.1	54.5	54.5	55.6
78	C5	-4604	40266	54.3	54.3	54.1	54.5	54.5	55.6
79	C6	-4638	38946	54.3	54.3	54.2	54.5	54.5	55.7
80	C7	-4672	37626	54.4	54.4	54.2	54.6	54.6	55.7
81	C8	-4706	36306	54.5	54.5	54.3	54.6	54.7	55.8
82	C9	-4740	34986	54.7	54.7	54.5	54.9	54.9	56.1
83	C10	-4774	33666	54.7	54.7	54.6	54.9	54.9	56.1
84	C11	-4808	32346	54.8	54.9	54.7	55.0	55.0	56.2
85	C12	-4842	31026	55.0	55.0	54.9	55.2	55.2	56.4
86	C13	-4876	29706	55.1	55.1	55.0	55.3	55.3	56.5
87	C14	-4910	28386	55.1	55.1	55.0	55.4	55.3	56.5
88	C15	-4944	27066	55.3	55.3	55.2	55.6	55.5	56.8
89	C16	-4978	25746	55.4	55.4	55.3	55.8	55.6	57.0
90	C17	-5012	24426	55.4	55.4	55.3	55.9	55.7	57.1
91	C18	-5046	23106	55.9	55.9	55.8	56.3	56.2	57.6
92	C19	-5080	21786	56.0	56.0	55.9	56.3	56.2	57.6
93	C20	-5114	20466	55.2	55.2	55.1	55.5	55.4	56.8
94	C21	-5148	19146	55.0	55.0	55.0	55.4	55.4	56.7
95	C22	-5182	17826	54.9	54.9	54.8	55.3	55.2	56.6
96	C23	-5216	16506	54.8	54.8	54.7	55.3	55.1	56.6
97	C24	-5250	15186	54.8	54.8	54.6	55.2	55.0	56.5
98	C25	-5284	13866	55.1	55.1	55.0	55.7	55.3	56.9
99	C26	-5318	12546	55.8	55.8	55.7	56.2	56.0	57.3
100	C27	-5352	11226	55.5	55.5	55.4	56.7	55.7	58.0
101	C28	-5386	9906	55.6	55.6	55.6	56.9	55.9	57.9
102	C29	-5420	8586	56.2	56.2	56.3	58.0	56.6	58.8
103	C30	-5454	7266	56.9	56.9	57.2	59.0	57.6	59.7
104	C31	-5488	5946	58.5	58.5	58.8	60.1	59.5	61.0
105	C32	-5522	4626	58.1	58.1	58.4	59.3	59.0	60.4
106	C33	-5556	3306	56.8	56.9	57.0	58.1	57.5	59.3
107	C34	-5590	1986	55.7	55.7	55.9	57.3	56.3	58.5
108	C35	-5624	666	54.8	54.8	54.9	56.4	55.4	57.5
109	C36	-5658	-654	55.3	55.3	55.6	57.0	56.0	58.0
110	C37	-5692	-1974	56.9	56.9	57.2	58.2	57.7	59.2
111	C38	-5726	-3294	58.6	58.6	59.1	60.0	59.5	60.8
112	C39	-5760	-4614	59.0	59.0	59.4	60.6	59.9	61.2
113	C40	-5794	-5934	58.2	58.2	58.4	59.6	58.9	60.3
114	C41	-5828	-7254	57.2	57.2	57.3	58.4	57.8	59.5

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Seattle-Tacoma International Airport
Master Plan Supplemental Environmental Impact Statement

COMPARATIVE LOCATIONAL ANALYSIS
AIRCRAFT DNL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
115	C42	-5862	-8574	56.2	56.2	56.3	57.4	56.7	58.4
116	C43	-5896	-9894	55.8	55.8	55.8	56.4	56.1	57.1
117	C44	-5930	-11214	55.8	55.8	55.8	56.0	56.1	56.5
118	C45	-5964	-12534	55.0	55.0	54.9	55.4	55.2	55.6
119	C46	-5998	-13854	55.6	55.6	55.6	56.3	55.9	55.6
120	C47	-6032	-15174	53.4	53.4	53.4	53.7	53.7	54.3
121	C48	-6066	-16494	53.7	53.7	53.5	53.8	53.9	54.5
122	C49	-6100	-17814	53.7	53.7	53.5	53.9	53.9	54.6
123	C50	-6134	-19134	53.4	53.4	53.3	53.7	53.7	54.4
124	C51	-6168	-20454	53.2	53.2	53.1	53.5	53.5	54.2
125	C52	-6202	-21774	53.1	53.1	52.9	53.3	53.3	54.1
126	C53	-6236	-23094	53.0	53.0	52.8	53.2	53.2	53.9
127	C54	-6270	-24414	52.8	52.8	52.6	53.0	53.0	53.7
128	C55	-6304	-25734	52.7	52.7	52.5	52.8	52.8	53.5
129	C56	-6338	-27054	52.5	52.5	52.3	52.6	52.6	53.3
130	C57	-6372	-28374	52.3	52.3	52.1	52.4	52.5	53.1
131	C58	-6406	-29694	52.2	52.2	52.0	52.2	52.3	52.9
132	C59	-6440	-31014	52.0	52.0	51.8	52.1	52.1	52.7
133	D1	-3148	45512	55.6	55.6	55.4	55.9	55.8	57.1
134	D2	-3182	44192	55.7	55.7	55.5	56.1	55.9	57.3
135	D3	-3216	42872	55.9	55.9	55.7	56.3	56.1	57.5
136	D4	-3250	41552	56.0	56.0	55.9	56.5	56.3	57.8
137	D5	-3284	40232	56.2	56.2	56.0	56.6	56.4	57.9
138	D6	-3318	38912	56.3	56.3	56.1	56.7	56.5	58.0
139	D7	-3352	37592	56.4	56.4	56.2	56.8	56.6	58.1
140	D8	-3386	36272	56.5	56.5	56.3	57.0	56.7	58.3
141	D9	-3420	34952	56.8	56.8	56.6	57.3	57.0	58.7
142	D10	-3454	33632	56.9	56.9	56.8	57.5	57.2	58.9
143	D11	-3488	32312	57.1	57.1	56.9	57.7	57.3	59.1
144	D12	-3522	30992	57.4	57.4	57.2	58.0	57.6	59.4
145	D13	-3556	29672	57.6	57.6	57.5	58.3	57.8	59.7
146	D14	-3590	28352	57.9	57.9	57.7	58.6	58.1	60.0
147	D15	-3624	27032	58.1	58.1	58.0	58.9	58.3	60.3
148	D16	-3658	25712	58.3	58.3	58.2	59.2	58.6	60.7
149	D17	-3692	24392	58.6	58.6	58.5	59.6	58.8	61.2
150	D18	-3726	23072	58.5	58.5	58.4	59.5	58.8	61.0
151	D19	-3760	21752	58.4	58.4	58.3	59.3	58.6	60.9
152	D20	-3794	20432	58.4	58.4	58.3	59.4	58.7	60.9
153	D21	-3828	19112	58.5	58.5	58.4	59.4	58.8	61.0
154	D22	-3862	17792	58.3	58.3	58.2	59.3	58.6	60.9
155	D23	-3896	16472	58.3	58.3	58.1	59.2	58.5	60.8
156	D24	-3930	15152	58.2	58.2	57.9	59.0	58.3	60.7
157	D25	-3964	13832	58.1	58.1	57.8	59.0	58.2	60.6
158	D26	-3998	12512	58.2	58.2	58.0	59.2	58.4	60.8
159	D27	-4032	11192	58.7	58.7	58.6	59.6	58.9	61.2
160	D28	-4066	9872	58.7	58.7	58.5	60.2	58.9	61.8
161	D29	-4100	8552	59.2	59.2	59.2	60.8	59.6	62.3
162	D30	-4134	7232	60.0	60.0	60.1	62.0	60.5	63.3
163	D31	-4168	5912	60.6	60.6	60.8	62.8	61.4	63.8
164	D32	-4202	4592	60.3	60.3	60.5	61.8	61.0	63.1
165	D33	-4236	3272	59.6	59.6	59.8	60.9	60.2	62.4
166	D34	-4270	1952	58.2	58.3	58.4	59.9	58.9	61.3
167	D35	-4304	632	57.5	57.5	57.7	59.5	58.2	60.9
168	D36	-4338	-688	58.2	58.2	58.5	60.6	58.9	61.8
169	D37	-4372	-2008	59.5	59.5	59.8	61.8	60.3	62.8
170	D38	-4406	-3328	60.5	60.4	60.8	63.1	61.3	63.9
171	D39	-4440	-4648	60.8	60.8	61.0	62.7	61.5	63.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
172	D40	-4474	-5968	60.2	60.2	60.3	62.0	60.8	62.6
173	D41	-4508	-7288	59.6	59.6	59.6	61.1	60.1	62.0
174	D42	-4542	-8608	59.0	59.0	59.0	60.1	59.4	61.0
175	D43	-4576	-9928	58.9	58.9	58.8	59.5	59.2	60.1
176	D44	-4610	-11248	58.2	58.2	58.0	58.7	58.4	59.3
177	D45	-4644	-12568	58.0	58.0	57.9	58.6	58.2	58.8
178	D46	-4678	-13888	57.9	57.9	57.7	58.2	58.0	58.9
179	D47	-4712	-15208	57.1	57.1	56.9	57.4	57.2	58.2
180	D48	-4746	-16528	56.4	56.4	56.2	56.8	56.6	57.7
181	D49	-4780	-17848	56.0	56.0	55.8	56.5	56.2	57.3
182	D50	-4814	-19168	55.8	55.8	55.7	56.3	56.1	57.2
183	D51	-4848	-20488	56.0	56.0	55.8	56.3	56.2	57.3
184	D52	-4882	-21808	55.8	55.8	55.6	56.1	56.0	57.1
185	D53	-4916	-23128	55.5	55.5	55.3	55.8	55.7	56.8
186	D54	-4950	-24448	55.3	55.3	55.1	55.6	55.5	56.4
187	D55	-4984	-25768	55.3	55.3	55.1	55.5	55.4	56.3
188	D56	-5018	-27088	55.1	55.1	54.9	55.2	55.2	56.1
189	D57	-5052	-28408	54.9	54.9	54.7	55.0	55.0	55.8
190	D58	-5086	-29728	54.7	54.7	54.5	54.8	54.8	55.6
191	D59	-5120	-31048	54.5	54.5	54.3	54.5	54.6	55.4
192	D60	-5154	-32368	54.3	54.3	54.1	54.4	54.4	55.3
193	D61	-5188	-33688	54.2	54.2	54.0	54.2	54.3	55.0
194	D62	-5222	-35008	54.0	54.0	53.8	54.0	54.1	54.8
195	D63	-5256	-36328	53.8	53.8	53.6	53.8	53.9	54.6
196	D64	-5290	-37648	53.3	53.3	53.1	53.3	53.3	54.1
197	D65	-5324	-38968	53.0	53.0	52.8	53.1	53.0	53.9
198	D66	-5358	-40288	53.5	53.5	53.3	53.6	53.6	54.3
199	D67	-5392	-41608	53.4	53.4	53.3	53.6	53.5	54.4
200	E1	-1828	45478	57.1	57.1	57.0	57.1	57.4	58.2
201	E2	-1862	44158	57.4	57.4	57.3	57.5	57.7	58.6
202	E3	-1896	42838	57.7	57.7	57.6	57.8	58.0	58.9
203	E4	-1930	41518	58.0	58.0	57.9	58.1	58.3	59.3
204	E5	-1964	40198	58.1	58.1	58.0	58.3	58.4	59.4
205	E6	-1998	38878	58.3	58.3	58.1	58.4	58.5	59.6
206	E7	-2032	37558	58.5	58.5	58.4	58.6	58.8	59.8
207	E8	-2066	36238	58.7	58.7	58.6	58.9	58.9	60.1
208	E9	-2100	34918	59.0	59.0	58.9	59.3	59.3	60.6
209	E10	-2134	33598	59.4	59.4	59.3	59.6	59.7	60.9
210	E11	-2168	32278	59.5	59.5	59.4	59.9	59.7	61.2
211	E12	-2202	30958	59.9	59.9	59.8	60.2	60.2	61.5
212	E13	-2236	29638	60.3	60.3	60.1	60.7	60.5	62.0
213	E14	-2270	28318	60.6	60.6	60.5	61.0	60.8	62.4
214	E15	-2304	26998	60.9	60.9	60.8	61.4	61.1	62.8
215	E16	-2338	25678	61.3	61.3	61.2	62.0	61.6	63.5
216	E17	-2372	24358	61.8	61.8	61.8	62.9	62.1	64.4
217	E18	-2406	23038	61.9	61.9	61.8	62.8	62.2	64.4
218	E19	-2440	21718	62.0	62.0	61.8	63.0	62.2	64.7
219	E20	-2474	20398	62.1	62.1	62.0	63.5	62.4	65.2
220	E21	-2508	19078	62.4	62.4	62.2	64.0	62.6	65.8
221	E22	-2542	17758	62.5	62.5	62.3	64.7	62.7	66.7
222	E23	-2576	16438	62.6	62.6	62.3	65.0	62.7	67.1
223	E24	-2610	15118	62.5	62.5	62.1	65.3	62.5	67.4
224	E25	-2644	13798	62.3	62.3	61.9	65.3	62.3	67.4
225	E26	-2678	12478	62.4	62.4	62.1	65.3	62.4	67.5
226	E27	-2712	11158	62.6	62.6	62.3	65.3	62.6	67.5
227	E28	-2746	9838	62.5	62.5	62.3	65.2	62.7	67.4
228	E29	-2780	8518	62.8	62.8	62.7	65.6	63.1	67.8

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Site #	Description	X	Y	SEAX110G 2000 DN	SEAX113G 2000 WP	SEAX111G 2005 DN	SEAX114G 2005 WP	SEAX112G 2010 DN	SEAX115G 2010 WP
229	E30	-2814	7198	62.9	62.9	62.8	65.9	63.3	68.0
230	E31	-2848	5878	63.7	63.7	63.8	68.6	64.3	70.1
231	E32	-2882	4558	63.4	63.4	63.5	67.5	64.0	69.4
232	E33	-2916	3238	63.4	63.4	63.5	66.7	64.0	68.9
233	E34	-2950	1918	62.2	62.2	62.3	65.7	62.8	67.9
234	E35	-2984	598	61.2	61.2	61.4	65.1	61.9	67.1
235	E36	-3018	-722	61.2	61.2	61.4	66.2	61.9	68.4
236	E37	-3052	-2042	61.8	61.8	62.0	67.3	62.5	69.6
237	E38	-3086	-3362	63.1	63.1	63.3	67.8	63.8	70.4
238	E39	-3120	-4682	64.0	64.0	64.1	66.6	64.7	67.5
239	E40	-3154	-6002	63.9	63.9	63.9	66.0	64.4	67.0
240	E41	-3188	-7322	63.3	63.3	63.3	65.0	63.7	66.2
241	E42	-3222	-8642	62.9	62.9	62.8	64.1	63.2	65.3
242	E43	-3256	-9962	62.5	62.5	62.4	63.4	62.7	64.6
243	E44	-3290	-11282	62.1	62.1	61.9	62.8	62.2	64.0
244	E45	-3324	-12602	61.7	61.7	61.5	62.4	61.8	63.4
245	E46	-3358	-13922	60.8	60.8	60.6	61.4	60.9	62.8
246	E47	-3392	-15242	60.4	60.4	60.1	60.9	60.4	62.3
247	E48	-3426	-16562	59.8	59.8	59.6	60.4	60.0	61.9
248	E49	-3460	-17882	59.4	59.4	59.2	60.0	59.6	61.5
249	E50	-3494	-19202	59.1	59.1	59.0	59.7	59.4	61.1
250	E51	-3528	-20522	58.8	58.8	58.7	59.4	59.1	60.9
251	E52	-3562	-21842	58.8	58.8	58.6	59.3	59.0	60.8
252	E53	-3596	-23162	58.7	58.7	58.5	59.0	58.9	60.4
253	E54	-3630	-24482	58.3	58.3	58.1	58.6	58.5	59.8
254	E55	-3664	-25802	58.0	58.0	57.8	58.3	58.2	59.5
255	E56	-3698	-27122	57.7	57.7	57.5	57.9	57.8	59.2
256	E57	-3732	-28442	57.0	57.0	56.8	57.2	57.1	58.5
257	E58	-3766	-29762	56.7	56.7	56.6	57.0	56.8	58.3
258	E59	-3800	-31082	55.1	55.1	55.0	55.6	55.2	57.1
259	E60	-3834	-32402	56.3	56.3	56.2	56.5	56.5	57.8
260	E61	-3868	-33722	56.0	56.0	55.9	56.1	56.1	57.3
261	E62	-3902	-35042	55.6	55.6	55.5	55.7	55.7	56.8
262	E63	-3936	-36362	55.9	55.9	55.7	55.8	56.0	56.9
263	E64	-3970	-37682	56.0	56.0	55.9	56.0	56.1	57.0
264	E65	-4004	-39002	55.9	55.9	55.7	55.9	56.0	57.0
265	E66	-4038	-40322	55.5	55.5	55.4	55.6	55.6	56.7
266	E67	-4072	-41642	55.3	55.3	55.1	55.4	55.4	56.6
267	E68	-4106	-42962	55.3	55.3	55.1	55.3	55.3	56.4
268	E69	-4140	-44282	55.2	55.2	55.0	55.2	55.2	56.1
269	E70	-4174	-45602	54.9	54.9	54.7	54.9	54.8	55.8
270	E71	-4208	-46922	54.6	54.6	54.4	54.6	54.5	55.5
271	E72	-4242	-48242	54.3	54.3	54.2	54.4	54.3	55.3
272	E73	-4276	-49562	53.9	53.9	53.9	54.2	54.0	55.0
273	F1	-508	45444	57.8	57.8	57.9	57.6	58.3	58.3
274	F2	-542	44124	58.3	58.3	58.4	58.1	58.8	58.8
275	F3	-576	42804	58.8	58.8	58.8	58.5	59.2	59.1
276	F4	-610	41484	59.1	59.1	59.2	58.8	59.6	59.5
277	F5	-644	40164	59.3	59.3	59.3	59.1	59.8	59.7
278	F6	-678	38844	59.6	59.6	59.6	59.3	60.0	60.0
279	F7	-712	37524	59.9	59.9	59.9	59.6	60.3	60.3
280	F8	-746	36204	60.2	60.2	60.2	60.0	60.6	60.6
281	F9	-780	34884	60.6	60.6	60.6	60.4	61.0	61.2
282	F10	-814	33564	61.3	61.3	61.3	60.9	61.7	61.5
283	F11	-848	32244	61.3	61.3	61.3	61.1	61.7	61.8
284	F12	-882	30924	61.8	61.8	61.8	61.5	62.2	62.2
285	F13	-916	29604	62.3	62.3	62.3	62.0	62.7	62.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
286	F14	-950	28284	62.8	62.8	62.8	62.4	63.1	63.1
287	F15	-984	26964	63.3	63.3	63.3	62.9	63.6	63.6
288	F16	-1018	25644	63.8	63.8	63.8	63.5	64.2	64.2
289	F17	-1052	24324	64.9	64.9	64.9	64.4	65.3	65.1
290	F18	-1086	23004	65.2	65.2	65.2	64.5	65.6	65.2
291	F19	-1120	21684	65.3	65.3	65.2	64.6	65.6	65.4
292	F20	-1154	20364	65.8	65.8	65.7	65.1	66.1	65.9
293	F21	-1188	19044	66.4	66.4	66.3	65.7	66.7	66.5
294	F22	-1222	17724	67.2	67.2	67.0	66.3	67.4	67.2
295	F23	-1256	16404	67.7	67.7	67.4	66.8	67.8	67.8
296	F24	-1290	15084	67.9	67.9	67.5	67.1	67.9	68.1
297	F25	-1324	13764	68.0	68.0	67.6	67.4	67.9	68.5
298	F26	-1358	12444	68.0	68.0	67.7	67.8	68.0	69.0
299	F27	-1392	11124	68.0	68.0	67.7	68.2	68.0	69.5
300	F28	-1426	9804	68.1	68.1	67.9	68.7	68.2	70.0
301	F29	-1460	8484	68.1	68.1	67.8	69.0	68.2	70.5
302	F30	-1494	7164	68.3	68.3	68.1	70.3	68.5	71.8
303	F31	-1528	5844	69.4	69.4	69.4	75.2	69.9	76.3
304	F32	-1562	4524	69.2	69.2	69.2	74.5	69.7	76.4
305	F33	-1596	3204	69.9	69.9	70.0	75.1	70.4	79.2
306	F34	-1630	1884	68.6	68.6	68.7	72.5	69.2	74.3
307	F35	-1664	564	67.5	67.5	67.5	72.7	68.1	74.6
308	F36	-1698	-756	67.3	67.3	67.3	73.2	67.7	75.3
309	F37	-1732	-2076	68.2	68.2	68.2	76.3	68.7	78.8
310	F38	-1766	-3396	69.4	69.4	69.5	74.8	70.0	77.4
311	F39	-1800	-4716	70.2	70.2	70.3	72.4	70.8	73.2
312	F40	-1834	-6036	69.1	69.1	69.1	70.6	69.5	71.5
313	F41	-1868	-7356	68.4	68.4	68.3	69.5	68.7	70.5
314	F42	-1902	-8676	67.9	67.9	67.8	68.5	68.1	69.5
315	F43	-1936	-9996	67.4	67.4	67.1	67.7	67.4	68.7
316	F44	-1970	-11316	66.7	66.7	66.5	67.0	66.8	67.9
317	F45	-2004	-12636	65.9	65.9	65.6	65.9	65.9	67.0
318	F46	-2038	-13956	65.2	65.2	64.9	65.2	65.2	66.3
319	F47	-2072	-15276	64.7	64.7	64.4	64.7	64.7	65.8
320	F48	-2106	-16596	64.1	64.1	63.8	64.1	64.2	65.2
321	F49	-2140	-17916	63.7	63.7	63.4	63.7	63.8	64.7
322	F50	-2174	-19236	63.1	63.1	63.0	63.2	63.4	64.2
323	F51	-2208	-20556	62.9	62.9	62.8	62.9	63.1	63.9
324	F52	-2242	-21876	62.5	62.5	62.4	62.5	62.8	63.6
325	F53	-2276	-23196	62.4	62.4	62.2	62.2	62.6	63.1
326	F54	-2310	-24516	61.8	61.8	61.7	61.7	62.1	62.5
327	F55	-2344	-25836	61.5	61.5	61.4	61.3	61.7	62.1
328	F56	-2378	-27156	61.3	61.3	61.1	61.0	61.4	61.8
329	F57	-2412	-28476	61.1	61.1	61.0	60.8	61.3	61.6
330	F58	-2446	-29796	60.7	60.7	60.6	60.4	60.9	61.2
331	F59	-2480	-31116	60.4	60.4	60.3	60.1	60.6	60.9
332	F60	-2514	-32436	60.1	60.1	60.0	59.7	60.3	60.6
333	F61	-2548	-33756	59.7	59.7	59.6	59.3	59.9	60.1
334	F62	-2582	-35076	59.3	59.3	59.2	58.9	59.5	59.6
335	F63	-2616	-36396	58.8	58.8	58.6	58.4	58.9	59.1
336	F64	-2650	-37716	58.5	58.5	58.4	58.2	58.7	58.9
337	F65	-2684	-39036	58.4	58.4	58.3	58.1	58.6	58.8
338	F66	-2718	-40356	58.5	58.5	58.4	58.1	58.7	58.8
339	F67	-2752	-41676	58.1	58.1	58.0	57.9	58.3	58.6
340	F68	-2786	-42996	57.7	57.7	57.6	57.5	57.8	58.1
341	F69	-2820	-44316	57.2	57.2	57.1	57.0	57.4	57.6
342	F70	-2854	-45636	56.8	56.8	56.7	56.6	56.9	57.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
343	F71	-2888	-46956	56.4	56.4	56.3	56.3	56.5	56.9
344	F72	-2922	-48276	56.0	56.0	56.0	56.0	56.1	56.6
345	F73	-2956	-49596	55.5	55.5	55.6	55.6	55.7	56.2
346	G1	812	45410	57.1	57.1	57.2	57.0	57.5	57.3
347	G2	778	44090	57.6	57.6	57.7	57.5	58.1	57.8
348	G3	744	42770	58.1	58.1	58.2	57.9	58.6	58.1
349	G4	710	41450	58.4	58.4	58.4	58.2	58.8	58.5
350	G5	676	40130	58.7	58.7	58.7	58.5	59.1	58.7
351	G6	642	38810	59.0	59.0	59.0	58.8	59.4	59.1
352	G7	608	37490	59.3	59.3	59.3	59.1	59.7	59.4
353	G8	574	36170	59.7	59.7	59.7	59.5	60.1	59.8
354	G9	540	34850	60.2	60.2	60.2	60.0	60.6	60.3
355	G10	506	33530	60.8	60.8	60.9	60.6	61.3	60.8
356	G11	472	32210	60.9	60.9	60.9	60.7	61.3	61.0
357	G12	438	30890	61.4	61.4	61.4	61.2	61.8	61.4
358	G13	404	29570	61.9	61.9	61.8	61.7	62.2	61.9
359	G14	370	28250	62.4	62.4	62.3	62.1	62.7	62.3
360	G15	336	26930	62.8	62.8	62.8	62.6	63.2	62.9
361	G16	302	25610	63.4	63.4	63.3	63.2	63.8	63.5
362	G17	268	24290	64.4	64.4	64.3	64.2	64.8	64.4
363	G18	234	22970	64.8	64.8	64.7	64.6	65.1	64.6
364	G19	200	21650	65.2	65.2	65.1	64.8	65.5	65.0
365	G20	166	20330	65.8	65.8	65.6	65.4	66.0	65.6
366	G21	132	19010	66.5	66.5	66.3	66.1	66.7	66.2
367	G22	98	17690	67.3	67.3	67.2	66.9	67.6	67.1
368	G23	64	16370	68.4	68.4	68.1	67.9	68.5	67.9
369	G24	30	15050	69.3	69.3	69.0	68.8	69.4	68.8
370	G25	-4	13730	70.5	70.5	70.2	69.8	70.5	69.8
371	G26	-38	12410	71.5	71.5	71.3	70.7	71.6	70.8
372	G27	-72	11090	72.3	72.3	72.0	71.3	72.4	71.4
373	G28	-106	9770	73.3	73.3	73.1	72.1	73.4	72.3
374	G29	-140	8450	74.9	74.9	74.6	73.2	74.9	73.5
375	G30	-174	7130	75.7	75.7	75.6	74.1	75.9	74.5
376	G31	-208	5810	78.6	78.6	78.6	78.3	79.0	78.7
377	G32	-242	4490	86.4	86.4	86.1	92.7	86.5	92.8
378	G33	-276	3170	87.9	87.9	87.9	90.2	88.2	90.3
379	G34	-310	1850	85.9	85.9	85.7	88.1	85.9	88.2
380	G35	-344	530	85.3	85.3	85.2	86.5	85.4	86.4
381	G36	-378	-790	85.3	85.3	85.2	87.1	85.3	87.2
382	G37	-412	-2110	85.9	85.9	85.4	87.7	85.7	87.9
383	G38	-446	-3430	87.9	87.9	87.6	90.7	88.0	91.1
384	G39	-480	-4750	79.4	79.4	79.4	78.7	79.8	79.0
385	G40	-514	-6070	76.6	76.6	76.5	76.3	76.9	75.8
386	G41	-548	-7390	75.3	75.3	75.2	74.2	75.5	74.6
387	G42	-582	-8710	74.4	74.4	74.1	73.0	74.4	73.0
388	G43	-616	-10030	73.5	73.5	73.1	72.0	73.4	71.9
389	G44	-650	-11350	72.1	72.1	71.8	70.7	72.1	70.7
390	G45	-684	-12670	70.9	70.9	70.6	69.6	70.8	69.5
391	G46	-718	-13990	70.1	70.1	69.6	68.8	70.0	68.7
392	G47	-752	-15310	69.4	69.4	69.0	68.2	69.3	68.0
393	G48	-786	-16630	68.7	68.7	68.3	67.6	68.7	67.4
394	G49	-820	-17950	68.2	68.2	67.8	67.1	68.2	67.0
395	G50	-854	-19270	67.2	67.2	66.9	66.3	67.3	66.2
396	G51	-888	-20590	66.6	66.6	66.3	65.6	66.7	65.6
397	G52	-922	-21910	65.9	65.9	65.7	65.1	66.0	65.1
398	G53	-956	-23230	65.5	65.5	65.3	64.8	65.7	64.7
399	G54	-990	-24550	64.8	64.8	64.6	64.0	64.9	64.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
400	G55	-1024	-25870	64.3	64.3	64.2	63.6	64.5	63.5
401	G56	-1058	-27190	64.0	64.0	63.8	63.2	64.1	63.1
402	G57	-1092	-28510	63.5	63.5	63.3	62.8	63.7	62.7
403	G58	-1126	-29830	63.0	63.0	62.9	62.4	63.2	62.3
404	G59	-1160	-31150	62.6	62.6	62.4	61.9	62.8	61.9
405	G60	-1194	-32470	62.3	62.3	62.2	61.6	62.6	61.6
406	G61	-1228	-33790	61.8	61.8	61.6	61.1	62.0	61.1
407	G62	-1262	-35110	61.4	61.4	61.2	60.7	61.6	60.7
408	G63	-1296	-36430	61.3	61.3	61.1	60.6	61.5	60.6
409	G64	-1330	-37750	60.9	60.9	60.7	60.2	61.0	60.2
410	G65	-1364	-39070	60.4	60.4	60.3	59.8	60.6	59.9
411	G66	-1398	-40390	60.1	60.1	60.0	59.5	60.3	59.6
412	G67	-1432	-41710	59.8	59.8	59.7	59.3	60.1	59.3
413	G68	-1466	-43030	59.2	59.2	59.1	58.9	59.5	58.9
414	G69	-1500	-44350	58.6	58.6	58.5	58.3	58.8	58.3
415	G70	-1534	-45670	58.1	58.1	58.0	57.8	58.3	57.8
416	G71	-1568	-46990	57.6	57.6	57.6	57.4	57.8	57.4
417	G72	-1602	-48310	57.0	57.0	57.0	56.9	57.3	57.0
418	G73	-1636	-49630	56.4	56.4	56.5	56.3	56.7	56.5
419	H1	2132	45376	55.0	55.0	55.0	55.0	55.3	55.4
420	H2	2098	44056	55.4	55.4	55.4	55.4	55.7	55.7
421	H3	2064	42736	55.8	55.8	55.8	55.8	56.2	56.1
422	H4	2030	41416	56.1	56.1	56.0	56.1	56.4	56.4
423	H5	1996	40096	56.3	56.3	56.3	56.3	56.6	56.6
424	H6	1962	38776	56.6	56.6	56.5	56.6	56.9	56.9
425	H7	1928	37456	56.9	56.9	56.8	56.9	57.2	57.2
426	H8	1894	36136	57.2	57.2	57.1	57.2	57.5	57.5
427	H9	1860	34816	57.6	57.6	57.5	57.6	57.9	57.9
428	H10	1826	33496	58.0	58.0	57.9	58.0	58.3	58.3
429	H11	1792	32176	58.3	58.3	58.2	58.3	58.5	58.6
430	H12	1758	30856	58.6	58.6	58.5	58.6	58.8	58.9
431	H13	1724	29536	59.0	59.0	58.9	59.0	59.2	59.3
432	H14	1690	28216	59.4	59.4	59.3	59.4	59.6	59.7
433	H15	1656	26896	59.8	59.8	59.6	59.8	59.9	60.1
434	H16	1622	25576	60.2	60.2	60.1	60.2	60.4	60.5
435	H17	1588	24256	60.8	60.8	60.7	60.8	61.1	61.1
436	H18	1554	22936	61.1	61.1	60.9	61.1	61.3	61.3
437	H19	1520	21616	61.4	61.4	61.2	61.4	61.6	61.7
438	H20	1486	20296	61.8	61.8	61.6	61.8	62.0	62.1
439	H21	1452	18976	62.4	62.4	62.2	62.3	62.5	62.6
440	H22	1418	17656	62.9	62.9	62.7	62.8	63.1	63.1
441	H23	1384	16336	63.4	63.4	63.0	63.2	63.4	63.5
442	H24	1350	15016	64.1	64.1	63.7	63.9	64.1	64.1
443	H25	1316	13696	64.7	64.7	64.3	64.5	64.7	64.7
444	H26	1282	12376	66.3	66.3	65.9	65.9	66.2	66.2
445	H27	1248	11056	67.3	67.3	67.0	67.0	67.3	67.3
446	H28	1214	9736	68.3	68.3	68.0	68.0	68.4	68.3
447	H29	1180	8416	69.5	69.5	69.2	69.0	69.5	69.4
448	H30	1146	7096	70.9	70.9	70.6	70.9	71.0	71.4
449	H31	1112	5776	75.6	75.6	75.3	75.3	76.0	75.8
450	H32	1078	4456	79.3	79.5	79.3	90.6	80.1	91.4
451	H33	1044	3136	81.6	81.6	81.7	83.9	82.3	84.6
452	H34	1010	1816	84.9	84.9	85.0	85.1	85.5	85.7
453	H35	976	496	83.0	83.0	83.2	85.0	83.7	85.5
454	H36	942	-824	82.9	82.9	83.2	83.5	83.6	84.4
455	H37	908	-2144	88.6	88.6	89.2	84.9	89.6	85.6
456	H38	874	-3464	89.0	89.0	89.7	83.4	90.5	83.9

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
457	H39	840	-4784	84.1	84.0	84.5	81.1	85.4	80.8
458	H40	806	-6104	82.3	82.3	82.6	80.8	83.3	81.5
459	H41	772	-7424	74.9	74.9	74.5	72.6	74.8	73.7
460	H42	738	-8744	73.5	73.5	73.0	70.8	73.3	70.8
461	H43	704	-10064	72.7	72.7	72.0	69.9	72.3	69.8
462	H44	670	-11384	71.6	71.6	71.0	69.1	71.3	68.9
463	H45	636	-12704	70.7	70.7	70.1	68.4	70.4	68.1
464	H46	602	-14024	70.0	70.0	69.3	67.8	69.6	67.5
465	H47	568	-15344	69.3	69.3	68.6	67.4	68.9	66.9
466	H48	534	-16664	68.6	68.6	67.9	66.9	68.3	66.3
467	H49	500	-17984	68.1	68.1	67.3	66.4	67.7	65.9
468	H50	466	-19304	66.9	66.9	66.4	65.4	66.8	65.1
469	H51	432	-20624	66.3	66.3	65.8	64.9	66.2	64.6
470	H52	398	-21944	66.0	66.0	65.5	64.6	65.8	64.4
471	H53	364	-23264	65.6	65.6	65.1	64.3	65.5	64.0
472	H54	330	-24584	64.9	64.9	64.5	63.7	64.9	63.5
473	H55	296	-25904	64.4	64.4	64.1	63.4	64.4	63.1
474	H56	262	-27224	64.0	64.0	63.6	62.9	63.9	62.7
475	H57	228	-28544	63.6	63.6	63.3	62.6	63.6	62.3
476	H58	194	-29864	63.1	63.1	62.8	62.2	63.1	61.9
477	H59	160	-31184	62.6	62.6	62.3	61.6	62.6	61.5
478	H60	126	-32504	62.3	62.3	62.0	61.3	62.3	61.1
479	H61	92	-33824	61.9	61.9	61.6	61.0	62.0	60.8
480	H62	58	-35144	61.6	61.6	61.3	60.7	61.7	60.5
481	H63	24	-36464	61.3	61.3	61.0	60.3	61.3	60.1
482	H64	-10	-37784	61.0	61.0	60.6	60.0	61.0	59.8
483	H65	-44	-39104	60.6	60.6	60.3	59.7	60.7	59.5
484	H66	-78	-40424	60.3	60.3	60.0	59.4	60.4	59.3
485	H67	-112	-41744	59.9	59.9	59.7	59.2	60.0	58.9
486	H68	-146	-43064	59.5	59.5	59.2	58.8	59.5	58.6
487	H69	-180	-44384	58.9	58.9	58.6	58.2	58.9	58.0
488	H70	-214	-45704	58.3	58.3	58.1	57.8	58.4	57.6
489	H71	-248	-47024	57.7	57.7	57.6	57.4	57.9	57.1
490	H72	-282	-48344	57.1	57.1	57.0	56.9	57.3	56.6
491	H73	-316	-49664	56.4	56.4	56.4	56.3	56.7	56.1
492	I1	3452	45342	52.6	52.6	52.5	52.6	52.8	53.1
493	I2	3418	44022	52.9	52.9	52.8	52.9	53.1	53.4
494	I3	3384	42702	53.1	53.1	53.0	53.1	53.3	53.6
495	I4	3350	41382	53.4	53.4	53.3	53.4	53.6	53.9
496	I5	3316	40062	53.6	53.6	53.5	53.6	53.8	54.1
497	I6	3282	38742	54.0	54.0	53.8	53.9	54.2	54.4
498	I7	3248	37422	54.2	54.2	54.1	54.2	54.4	54.7
499	I8	3214	36102	54.5	54.5	54.3	54.4	54.6	54.9
500	I9	3180	34782	54.8	54.8	54.6	54.7	54.9	55.2
501	I10	3146	33462	55.0	55.0	54.9	55.0	55.2	55.4
502	I11	3112	32142	55.2	55.2	55.0	55.2	55.4	55.7
503	I12	3078	30822	55.6	55.6	55.4	55.5	55.8	56.1
504	I13	3044	29502	55.9	55.9	55.7	55.8	56.0	56.3
505	I14	3010	28182	56.2	56.2	56.0	56.1	56.3	56.6
506	I15	2976	26862	56.4	56.4	56.3	56.4	56.6	56.9
507	I16	2942	25542	56.8	56.8	56.6	56.7	57.0	57.2
508	I17	2908	24222	57.2	57.2	57.1	57.1	57.4	57.6
509	I18	2874	22902	57.3	57.3	57.2	57.2	57.5	57.7
510	I19	2840	21582	57.6	57.6	57.4	57.5	57.8	58.0
511	I20	2806	20262	57.9	57.9	57.7	57.7	58.1	58.3
512	I21	2772	18942	58.3	58.3	58.1	58.1	58.5	58.6
513	I22	2738	17622	58.7	58.7	58.5	58.5	58.9	59.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
514	I23	2704	16302	59.2	59.2	58.9	58.9	59.3	59.4
515	I24	2670	14982	59.2	59.2	58.9	58.8	59.2	59.4
516	I25	2636	13662	59.5	59.5	59.3	59.1	59.6	59.7
517	I26	2602	12342	59.9	59.9	59.6	59.4	60.0	60.1
518	I27	2568	11022	61.2	61.2	61.0	60.8	61.3	61.4
519	I28	2534	9702	62.5	62.5	62.3	62.1	62.7	62.8
520	I29	2500	8382	63.5	63.5	63.4	63.3	63.8	64.0
521	I30	2466	7062	64.8	64.8	64.7	64.8	65.2	65.4
522	I31	2432	5742	66.5	66.5	66.5	66.2	67.0	66.9
523	I32	2398	4422	68.2	68.3	68.2	67.4	68.8	68.0
524	I33	2364	3102	69.3	69.3	69.4	67.7	69.9	68.5
525	I34	2330	1782	68.2	68.2	68.3	67.1	68.8	67.8
526	I35	2296	462	67.3	67.3	67.4	66.0	67.9	66.7
527	I36	2262	-858	68.1	68.1	68.3	66.6	68.6	67.2
528	I37	2228	-2178	67.5	67.5	67.7	74.6	68.2	75.1
529	I38	2194	-3498	69.1	69.0	69.2	69.6	69.8	70.2
530	I39	2160	-4818	70.0	70.0	70.1	68.6	70.7	69.3
531	I40	2126	-6138	69.5	69.5	69.5	68.1	70.0	68.7
532	I41	2092	-7458	68.4	68.4	68.3	67.7	68.7	68.3
533	I42	2058	-8778	67.8	67.8	67.6	65.7	67.9	66.2
534	I43	2024	-10098	67.5	67.5	67.2	65.0	67.5	65.3
535	I44	1990	-11418	66.6	66.6	66.3	64.1	66.6	64.4
536	I45	1956	-12738	66.1	66.1	65.8	63.7	66.1	63.9
537	I46	1922	-14058	65.7	65.7	65.3	63.3	65.6	63.6
538	I47	1888	-15378	65.2	65.2	64.8	62.9	65.1	63.2
539	I48	1854	-16698	64.8	64.8	64.3	62.6	64.7	62.8
540	I49	1820	-18018	64.5	64.5	64.0	62.4	64.4	62.6
541	I50	1786	-19338	63.9	63.9	63.5	62.0	63.9	62.3
542	I51	1752	-20658	63.8	63.8	63.4	62.0	63.8	62.2
543	I52	1718	-21978	63.3	63.3	62.9	61.6	63.3	61.7
544	I53	1684	-23298	63.1	63.1	62.7	61.4	63.1	61.5
545	I54	1650	-24618	62.8	62.8	62.3	61.1	62.8	61.3
546	I55	1616	-25938	62.4	62.4	62.0	60.9	62.4	61.0
547	I56	1582	-27258	62.1	62.1	61.7	60.6	62.0	60.7
548	I57	1548	-28578	61.9	61.9	61.4	60.4	61.8	60.5
549	I58	1514	-29898	61.5	61.5	61.1	60.1	61.4	60.2
550	I59	1480	-31218	61.2	61.2	60.7	59.8	61.1	59.9
551	I60	1446	-32538	60.9	60.9	60.4	59.5	60.8	59.6
552	I61	1412	-33858	60.6	60.6	60.2	59.3	60.5	59.4
553	I62	1378	-35178	60.3	60.3	59.8	59.0	60.2	59.1
554	I63	1344	-36498	60.0	60.0	59.5	58.6	59.9	58.7
555	I64	1310	-37818	59.7	59.7	59.3	58.4	59.6	58.5
556	I65	1276	-39138	59.5	59.5	59.0	58.2	59.5	58.3
557	I66	1242	-40458	59.2	59.2	58.8	57.9	59.2	58.0
558	I67	1208	-41778	58.9	58.9	58.5	57.7	59.0	57.7
559	I68	1174	-43098	58.7	58.7	58.2	57.5	58.6	57.5
560	I69	1140	-44418	58.3	58.3	57.8	57.1	58.2	57.1
561	I70	1106	-45738	57.8	57.8	57.3	56.7	57.7	56.7
562	I71	1072	-47058	57.2	57.2	56.8	56.3	57.1	56.2
563	I72	1038	-48378	56.6	56.6	56.3	55.9	56.6	55.7
564	I73	1004	-49698	56.0	56.0	55.7	55.5	56.0	55.2
565	J8	4534	36068	51.9	51.9	51.8	51.9	52.1	52.5
566	J9	4500	34748	52.1	52.1	52.0	52.1	52.3	52.7
567	J10	4466	33428	52.3	52.3	52.2	52.3	52.5	52.9
568	J11	4432	32108	52.5	52.5	52.3	52.4	52.6	53.0
569	J12	4398	30788	52.7	52.7	52.5	52.7	52.9	53.3
570	J13	4364	29468	53.0	53.0	52.8	52.9	53.1	53.5

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
457	H39	840	-4784	84.1	84.0	84.5	81.1	85.4	80.8
458	H40	806	-6104	82.3	82.3	82.6	80.8	83.3	81.5
459	H41	772	-7424	74.9	74.9	74.5	72.6	74.8	73.7
460	H42	738	-8744	73.5	73.5	73.0	70.8	73.3	70.8
461	H43	704	-10064	72.7	72.7	72.0	69.9	72.3	69.8
462	H44	670	-11384	71.6	71.6	71.0	69.1	71.3	68.9
463	H45	636	-12704	70.7	70.7	70.1	68.4	70.4	68.1
464	H46	602	-14024	70.0	70.0	69.3	67.8	69.6	67.5
465	H47	568	-15344	69.3	69.3	68.6	67.4	68.9	66.9
466	H48	534	-16664	68.6	68.6	67.9	66.9	68.3	66.3
467	H49	500	-17984	68.1	68.1	67.3	66.4	67.7	65.9
468	H50	466	-19304	66.9	66.9	66.4	65.4	66.8	65.1
469	H51	432	-20624	66.3	66.3	65.8	64.9	66.2	64.6
470	H52	398	-21944	66.0	66.0	65.5	64.6	65.8	64.4
471	H53	364	-23264	65.6	65.6	65.1	64.3	65.5	64.0
472	H54	330	-24584	64.9	64.9	64.5	63.7	64.9	63.5
473	H55	296	-25904	64.4	64.4	64.1	63.4	64.4	63.1
474	H56	262	-27224	64.0	64.0	63.6	62.9	63.9	62.7
475	H57	228	-28544	63.6	63.6	63.3	62.6	63.6	62.3
476	H58	194	-29864	63.1	63.1	62.8	62.2	63.1	61.9
477	H59	160	-31184	62.6	62.6	62.3	61.6	62.6	61.5
478	H60	126	-32504	62.3	62.3	62.0	61.3	62.3	61.1
479	H61	92	-33824	61.9	61.9	61.6	61.0	62.0	60.8
480	H62	58	-35144	61.6	61.6	61.3	60.7	61.7	60.5
481	H63	24	-36464	61.3	61.3	61.0	60.3	61.3	60.1
482	H64	-10	-37784	61.0	61.0	60.6	60.0	61.0	59.8
483	H65	-44	-39104	60.6	60.6	60.3	59.7	60.7	59.5
484	H66	-78	-40424	60.3	60.3	60.0	59.4	60.4	59.3
485	H67	-112	-41744	59.9	59.9	59.7	59.2	60.0	58.9
486	H68	-146	-43064	59.5	59.5	59.2	58.8	59.5	58.6
487	H69	-180	-44384	58.9	58.9	58.6	58.2	58.9	58.0
488	H70	-214	-45704	58.3	58.3	58.1	57.8	58.4	57.6
489	H71	-248	-47024	57.7	57.7	57.6	57.4	57.9	57.1
490	H72	-282	-48344	57.1	57.1	57.0	56.9	57.3	56.6
491	H73	-316	-49664	56.4	56.4	56.4	56.3	56.7	56.1
492	I1	3452	45342	52.6	52.6	52.5	52.6	52.8	53.1
493	I2	3418	44022	52.9	52.9	52.8	52.9	53.1	53.4
494	I3	3384	42702	53.1	53.1	53.0	53.1	53.3	53.6
495	I4	3350	41382	53.4	53.4	53.3	53.4	53.6	53.9
496	I5	3316	40062	53.6	53.6	53.5	53.6	53.8	54.1
497	I6	3282	38742	54.0	54.0	53.8	53.9	54.2	54.4
498	I7	3248	37422	54.2	54.2	54.1	54.2	54.4	54.7
499	I8	3214	36102	54.5	54.5	54.3	54.4	54.6	54.9
500	I9	3180	34782	54.8	54.8	54.6	54.7	54.9	55.2
501	I10	3146	33462	55.0	55.0	54.9	55.0	55.2	55.4
502	I11	3112	32142	55.2	55.2	55.0	55.2	55.4	55.7
503	I12	3078	30822	55.6	55.6	55.4	55.5	55.8	56.1
504	I13	3044	29502	55.9	55.9	55.7	55.8	56.0	56.3
505	I14	3010	28182	56.2	56.2	56.0	56.1	56.3	56.6
506	I15	2976	26862	56.4	56.4	56.3	56.4	56.6	56.9
507	I16	2942	25542	56.8	56.8	56.6	56.7	57.0	57.2
508	I17	2908	24222	57.2	57.2	57.1	57.1	57.4	57.6
509	I18	2874	22902	57.3	57.3	57.2	57.2	57.5	57.7
510	I19	2840	21582	57.6	57.6	57.4	57.5	57.8	58.0
511	I20	2806	20262	57.9	57.9	57.7	57.7	58.1	58.3
512	I21	2772	18942	58.3	58.3	58.1	58.1	58.5	58.6
513	I22	2738	17622	58.7	58.7	58.5	58.5	58.9	59.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
514	I23	2704	16302	59.2	59.2	58.9	58.9	59.3	59.4
515	I24	2670	14982	59.2	59.2	58.9	58.8	59.2	59.4
516	I25	2636	13662	59.5	59.5	59.3	59.1	59.6	59.7
517	I26	2602	12342	59.9	59.9	59.6	59.4	60.0	60.1
518	I27	2568	11022	61.2	61.2	61.0	60.8	61.3	61.4
519	I28	2534	9702	62.5	62.5	62.3	62.1	62.7	62.8
520	I29	2500	8382	63.5	63.5	63.4	63.3	63.8	64.0
521	I30	2466	7062	64.8	64.8	64.7	64.8	65.2	65.4
522	I31	2432	5742	66.5	66.5	66.5	66.2	67.0	66.9
523	I32	2398	4422	68.2	68.3	68.2	67.4	68.8	68.0
524	I33	2364	3102	69.3	69.3	69.4	67.7	69.9	68.5
525	I34	2330	1782	68.2	68.2	68.3	67.1	68.8	67.8
526	I35	2296	462	67.3	67.3	67.4	66.0	67.9	66.7
527	I36	2262	-858	68.1	68.1	68.3	66.6	68.6	67.2
528	I37	2228	-2178	67.5	67.5	67.7	74.6	68.2	75.1
529	I38	2194	-3498	69.1	69.0	69.2	69.6	69.8	70.2
530	I39	2160	-4818	70.0	70.0	70.1	68.6	70.7	69.3
531	I40	2126	-6138	69.5	69.5	69.5	68.1	70.0	68.7
532	I41	2092	-7458	68.4	68.4	68.3	67.7	68.7	68.3
533	I42	2058	-8778	67.8	67.8	67.6	65.7	67.9	66.2
534	I43	2024	-10098	67.5	67.5	67.2	65.0	67.5	65.3
535	I44	1990	-11418	66.6	66.6	66.3	64.1	66.6	64.4
536	I45	1956	-12738	66.1	66.1	65.8	63.7	66.1	63.9
537	I46	1922	-14058	65.7	65.7	65.3	63.3	65.6	63.6
538	I47	1888	-15378	65.2	65.2	64.8	62.9	65.1	63.2
539	I48	1854	-16698	64.8	64.8	64.3	62.6	64.7	62.8
540	I49	1820	-18018	64.5	64.5	64.0	62.4	64.4	62.6
541	I50	1786	-19338	63.9	63.9	63.5	62.0	63.9	62.3
542	I51	1752	-20658	63.8	63.8	63.4	62.0	63.8	62.2
543	I52	1718	-21978	63.3	63.3	62.9	61.6	63.3	61.7
544	I53	1684	-23298	63.1	63.1	62.7	61.4	63.1	61.5
545	I54	1650	-24618	62.8	62.8	62.3	61.1	62.8	61.3
546	I55	1616	-25938	62.4	62.4	62.0	60.9	62.4	61.0
547	I56	1582	-27258	62.1	62.1	61.7	60.6	62.0	60.7
548	I57	1548	-28578	61.9	61.9	61.4	60.4	61.8	60.5
549	I58	1514	-29898	61.5	61.5	61.1	60.1	61.4	60.2
550	I59	1480	-31218	61.2	61.2	60.7	59.8	61.1	59.9
551	I60	1446	-32538	60.9	60.9	60.4	59.5	60.8	59.6
552	I61	1412	-33858	60.6	60.6	60.2	59.3	60.5	59.4
553	I62	1378	-35178	60.3	60.3	59.8	59.0	60.2	59.1
554	I63	1344	-36498	60.0	60.0	59.5	58.6	59.9	58.7
555	I64	1310	-37818	59.7	59.7	59.3	58.4	59.6	58.5
556	I65	1276	-39138	59.5	59.5	59.0	58.2	59.5	58.3
557	I66	1242	-40458	59.2	59.2	58.8	57.9	59.2	58.0
558	I67	1208	-41778	58.9	58.9	58.5	57.7	59.0	57.7
559	I68	1174	-43098	58.7	58.7	58.2	57.5	58.6	57.5
560	I69	1140	-44418	58.3	58.3	57.8	57.1	58.2	57.1
561	I70	1106	-45738	57.8	57.8	57.3	56.7	57.7	56.7
562	I71	1072	-47058	57.2	57.2	56.8	56.3	57.1	56.2
563	I72	1038	-48378	56.6	56.6	56.3	55.9	56.6	55.7
564	I73	1004	-49698	56.0	56.0	55.7	55.5	56.0	55.2
565	J8	4534	36068	51.9	51.9	51.8	51.9	52.1	52.5
566	J9	4500	34748	52.1	52.1	52.0	52.1	52.3	52.7
567	J10	4466	33428	52.3	52.3	52.2	52.3	52.5	52.9
568	J11	4432	32108	52.5	52.5	52.3	52.4	52.6	53.0
569	J12	4398	30788	52.7	52.7	52.5	52.7	52.9	53.3
570	J13	4364	29468	53.0	53.0	52.8	52.9	53.1	53.5

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
571	J14	4330	28148	53.2	53.2	53.0	53.1	53.4	53.7
572	J15	4296	26828	53.5	53.5	53.3	53.4	53.6	54.0
573	J16	4262	25508	53.7	53.7	53.6	53.6	53.9	54.2
574	J17	4228	24188	54.0	54.0	53.8	53.9	54.2	54.5
575	J18	4194	22868	54.2	54.2	54.0	54.0	54.4	54.7
576	J19	4160	21548	54.4	54.4	54.3	54.3	54.7	54.9
577	J20	4126	20228	54.7	54.7	54.6	54.5	55.0	55.2
578	J21	4092	18908	55.0	55.0	54.9	54.8	55.2	55.4
579	J22	4058	17588	55.3	55.3	55.1	55.1	55.5	55.7
580	J23	4024	16268	55.6	55.6	55.4	55.3	55.8	56.0
581	J24	3990	14948	56.0	56.0	55.8	55.6	56.1	56.3
582	J25	3956	13628	56.4	56.4	56.2	56.1	56.6	56.8
583	J26	3922	12308	56.5	56.5	56.3	56.2	56.7	56.9
584	J27	3888	10988	57.1	57.1	57.0	56.9	57.3	57.6
585	J28	3854	9668	58.0	58.0	57.9	57.9	58.3	58.6
586	J29	3820	8348	58.7	58.7	58.7	58.8	59.1	59.5
587	J30	3786	7028	59.9	59.9	59.9	59.9	60.4	60.6
588	J31	3752	5708	60.8	60.9	60.9	60.6	61.4	61.3
589	J32	3718	4388	62.1	62.1	62.1	61.0	62.6	61.8
590	J33	3684	3068	62.7	62.7	62.7	61.4	63.3	62.1
591	J34	3650	1748	61.3	61.3	61.4	60.5	61.9	61.2
592	J35	3616	428	60.1	60.1	60.1	59.7	60.6	60.3
593	J36	3582	-892	59.9	59.9	60.0	60.2	60.5	60.8
594	J37	3548	-2212	60.9	60.9	61.1	60.8	61.6	61.5
595	J38	3514	-3532	62.4	62.4	62.5	62.2	63.1	62.9
596	J39	3480	-4852	63.6	63.6	63.7	62.7	64.3	63.4
597	J40	3446	-6172	63.5	63.5	63.6	62.3	64.1	63.0
598	J41	3412	-7492	62.7	62.7	62.7	61.2	63.1	61.8
599	J42	3378	-8812	62.5	62.5	62.5	60.8	62.8	61.3
600	J43	3344	-10132	62.2	62.2	62.1	60.3	62.4	60.7
601	J44	3310	-11452	62.0	62.0	61.8	60.1	62.1	60.4
602	J45	3276	-12772	61.8	61.8	61.6	59.9	61.9	60.2
603	J46	3242	-14092	61.3	61.3	61.1	59.4	61.3	59.7
604	J47	3208	-15412	60.9	60.9	60.7	59.0	61.0	59.4
605	J48	3174	-16732	60.6	60.6	60.3	58.7	60.7	59.1
606	J49	3140	-18052	60.3	60.3	60.0	58.6	60.4	58.9
607	J50	3106	-19372	60.2	60.2	59.9	58.5	60.4	58.9
608	J51	3072	-20692	60.0	60.0	59.8	58.4	60.2	58.8
609	J52	3038	-22012	59.9	59.9	59.6	58.3	60.0	58.6
610	J53	3004	-23332	59.7	59.7	59.4	58.1	59.8	58.4
611	J54	2970	-24652	59.6	59.6	59.3	58.1	59.8	58.4
612	J55	2936	-25972	59.3	59.3	59.0	57.8	59.4	58.1
613	J56	2902	-27292	59.2	59.2	58.9	57.7	59.2	58.0
614	J57	2868	-28612	59.0	59.0	58.7	57.6	59.0	57.9
615	J58	2834	-29932	58.8	58.8	58.5	57.5	58.9	57.7
616	J59	2800	-31252	58.7	58.7	58.3	57.3	58.7	57.6
617	J60	2766	-32572	58.4	58.4	58.1	57.1	58.4	57.4
618	J61	2732	-33892	58.2	58.2	57.8	56.9	58.2	57.2
619	J62	2698	-35212	58.0	58.0	57.6	56.7	58.0	57.0
620	J63	2664	-36532	57.9	57.9	57.5	56.5	57.9	56.8
621	J64	2630	-37852	57.8	57.8	57.4	56.4	57.8	56.7
622	J65	2596	-39172	57.7	57.7	57.3	56.3	57.7	56.6
623	J66	2562	-40492	57.6	57.6	57.2	56.2	57.7	56.5
624	J67	2528	-41812	57.6	57.6	57.2	56.1	57.7	56.4
625	J68	2494	-43132	57.6	57.6	57.1	56.1	57.7	56.3
626	J69	2460	-44452	57.4	57.4	56.9	55.8	57.5	56.1
627	J70	2426	-45772	57.2	57.2	56.6	55.5	57.1	55.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
628	J71	2392	-47092	56.7	56.7	56.0	55.0	56.5	55.2
629	J72	2358	-48412	56.1	56.1	55.4	54.7	55.9	54.8
630	J73	2324	-49732	55.5	55.5	54.9	54.4	55.3	54.3
631	K15	5616	26794	50.9	50.9	50.7	50.8	51.0	51.4
632	K16	5582	25474	51.1	51.1	51.0	51.0	51.3	51.7
633	K17	5548	24154	51.3	51.3	51.2	51.2	51.5	51.8
634	K18	5514	22834	51.5	51.5	51.4	51.4	51.7	52.0
635	K19	5480	21514	51.7	51.7	51.7	51.6	52.0	52.3
636	K20	5446	20194	52.0	52.0	51.9	51.8	52.3	52.5
637	K21	5412	18874	52.2	52.2	52.1	52.0	52.4	52.7
638	K22	5378	17554	52.4	52.4	52.3	52.2	52.6	52.9
639	K23	5344	16234	52.6	52.6	52.5	52.4	52.9	53.2
640	K24	5310	14914	52.9	52.9	52.8	52.7	53.2	53.5
641	K25	5276	13594	53.4	53.4	53.2	53.2	53.6	53.9
642	K26	5242	12274	53.8	53.8	53.6	53.6	54.0	54.3
643	K27	5208	10954	54.1	54.1	54.0	54.0	54.4	54.7
644	K28	5174	9634	54.9	54.9	54.8	54.9	55.3	55.6
645	K29	5140	8314	55.5	55.5	55.4	55.5	55.9	56.2
646	K30	5106	6994	56.4	56.4	56.5	56.3	57.0	57.0
647	K31	5072	5674	57.4	57.4	57.4	57.0	57.9	57.7
648	K32	5038	4354	58.1	58.1	58.1	57.0	58.6	57.8
649	K33	5004	3034	58.4	58.4	58.5	57.2	59.0	58.0
650	K34	4970	1714	57.3	57.3	57.3	56.4	57.8	57.2
651	K35	4936	394	56.3	56.3	56.4	56.0	56.9	56.7
652	K36	4902	-926	56.1	56.1	56.1	56.1	56.6	56.8
653	K37	4868	-2246	56.6	56.6	56.7	56.5	57.2	57.2
654	K38	4834	-3566	58.1	58.1	58.2	57.7	58.7	58.4
655	K39	4800	-4886	59.0	59.0	59.1	58.4	59.6	59.1
656	K40	4766	-6206	59.1	59.1	59.2	58.1	59.7	58.8
657	K41	4732	-7526	59.0	59.0	59.0	57.7	59.4	58.3
658	K42	4698	-8846	59.0	59.0	59.0	57.6	59.4	58.2
659	K43	4664	-10166	58.3	58.3	58.2	56.8	58.6	57.2
660	K44	4630	-11486	56.5	56.5	56.4	55.2	56.7	55.6
661	K45	4596	-12806	55.7	55.7	55.7	54.8	55.9	55.1
662	K46	4562	-14126	56.3	56.3	56.2	55.1	56.4	55.4
663	K47	4528	-15446	57.0	57.0	56.9	55.5	57.1	55.8
664	K48	4494	-16766	57.7	57.7	57.5	56.0	57.8	56.4
665	K49	4460	-18086	57.0	57.0	56.8	55.5	57.2	55.9
666	K50	4426	-19406	56.4	56.4	56.3	55.0	56.6	55.4
667	K51	4392	-20726	56.1	56.1	56.0	54.7	56.4	55.2
668	K52	4358	-22046	56.4	56.4	56.2	55.1	56.7	55.5
669	K53	4324	-23366	56.7	56.7	56.5	55.3	56.9	55.7
670	K54	4290	-24686	56.5	56.5	56.3	55.1	56.7	55.5
671	K55	4256	-26006	56.2	56.2	55.9	54.9	56.3	55.2
672	K56	4222	-27326	56.1	56.1	55.8	54.8	56.2	55.1
673	K57	4188	-28646	56.0	56.0	55.7	54.7	56.1	55.1
674	K58	4154	-29966	55.8	55.8	55.5	54.5	55.9	54.9
675	K59	4120	-31286	55.7	55.7	55.4	54.4	55.7	54.8
676	K60	4086	-32606	55.6	55.6	55.3	54.4	55.7	54.7
677	K61	4052	-33926	55.5	55.5	55.2	54.3	55.6	54.7
678	K62	4018	-35246	55.5	55.5	55.1	54.3	55.5	54.6
679	K63	3984	-36566	55.5	55.5	55.1	54.2	55.5	54.6
680	K64	3950	-37886	55.5	55.5	55.1	54.2	55.5	54.6
681	K65	3916	-39206	55.5	55.5	55.2	54.2	55.6	54.6
682	K66	3882	-40526	55.7	55.7	55.4	54.3	55.9	54.7
683	K67	3848	-41846	55.9	55.9	55.5	54.4	56.1	54.8
684	K68	3814	-43166	56.1	56.1	55.7	54.5	56.4	54.9

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
685	K69	3780	-44486	56.2	56.2	55.8	54.4	56.5	54.9
686	K70	3746	-45806	56.2	56.2	55.6	54.2	56.3	54.7
687	K71	3712	-47126	55.9	55.9	55.2	53.9	55.9	54.3
688	K72	3678	-48446	55.6	55.6	54.8	53.6	55.4	54.0
689	K73	3644	-49766	55.1	55.1	54.3	53.3	54.8	53.5
690	L24	6630	14880	50.4	50.4	50.3	50.3	50.7	51.0
691	L25	6596	13560	50.8	50.8	50.7	50.7	51.1	51.4
692	L26	6562	12240	51.4	51.4	51.3	51.3	51.7	52.0
693	L27	6528	10920	52.0	52.0	51.9	51.9	52.3	52.6
694	L28	6494	9600	52.3	52.3	52.2	52.2	52.7	52.9
695	L29	6460	8280	53.0	53.0	53.0	52.9	53.5	53.6
696	L30	6426	6960	53.7	53.7	53.7	53.5	54.2	54.2
697	L31	6392	5640	54.5	54.5	54.6	54.2	55.1	54.9
698	L32	6358	4320	55.2	55.2	55.2	54.2	55.7	55.0
699	L33	6324	3000	55.1	55.1	55.2	53.9	55.7	54.7
700	L34	6290	1680	54.0	54.0	54.1	53.3	54.6	54.0
701	L35	6256	360	53.3	53.3	53.4	53.0	53.9	53.7
702	L36	6222	-960	53.2	53.2	53.2	53.1	53.7	53.7
703	L37	6188	-2280	53.6	53.6	53.6	53.4	54.1	54.1
704	L38	6154	-3600	54.5	54.5	54.5	54.1	55.1	54.8
705	L39	6120	-4920	55.3	55.3	55.4	54.8	55.9	55.5
706	L40	6086	-6240	55.3	55.3	55.3	54.5	55.8	55.2
707	L41	6052	-7560	55.7	55.7	55.7	54.6	56.1	55.3
708	L42	6018	-8880	53.6	53.6	53.5	52.6	54.0	53.2
709	L43	5984	-10200	54.3	54.3	54.2	53.2	54.6	53.7
710	L44	5950	-11520	55.2	55.2	55.1	53.9	55.4	54.3
711	L45	5916	-12840	55.1	55.1	54.9	53.9	55.2	54.2
712	L46	5882	-14160	55.1	55.1	55.0	54.0	55.2	54.3
713	L47	5848	-15480	55.3	55.3	55.2	54.0	55.4	54.3
714	L48	5814	-16800	55.2	55.2	55.1	53.8	55.3	54.1
715	L49	5780	-18120	54.4	54.4	54.4	53.1	54.6	53.4
716	L50	5746	-19440	53.9	53.9	53.9	52.7	54.1	53.0
717	L51	5712	-20760	54.3	54.3	54.2	53.1	54.5	53.4
718	L52	5678	-22080	53.6	53.6	53.5	52.4	53.9	52.8
719	L53	5644	-23400	53.0	53.0	52.9	51.8	53.3	52.2
720	L54	5610	-24720	53.4	53.4	53.2	52.2	53.6	52.6
721	L55	5576	-26040	53.5	53.5	53.3	52.3	53.7	52.7
722	L56	5542	-27360	53.4	53.4	53.2	52.2	53.6	52.6
723	L57	5508	-28680	53.3	53.3	53.1	52.1	53.4	52.5
724	L58	5474	-30000	53.2	53.2	52.9	52.0	53.3	52.4
725	L59	5440	-31320	53.1	53.1	52.9	52.0	53.2	52.4
726	L60	5406	-32640	53.1	53.1	52.8	52.0	53.2	52.4
727	L61	5372	-33960	53.0	53.0	52.7	51.9	53.1	52.3
728	L62	5338	-35280	52.8	52.8	52.5	51.7	52.9	52.1
729	L63	5304	-36600	52.9	52.9	52.6	51.7	53.0	52.2
730	L64	5270	-37920	53.2	53.2	53.0	52.1	53.4	52.5
731	L65	5236	-39240	53.4	53.4	53.1	52.2	53.6	52.7
732	L66	5202	-40560	53.5	53.5	53.3	52.3	53.8	52.8
733	L67	5168	-41880	53.9	53.9	53.7	52.6	54.2	53.1
734	L68	5134	-43200	54.4	54.4	54.2	52.9	54.8	53.4
735	L69	5100	-44520	54.8	54.8	54.5	53.0	55.1	53.6
736	L70	5066	-45840	55.0	55.0	54.6	53.0	55.4	53.6
737	L71	5032	-47160	55.0	55.0	54.5	52.9	55.3	53.5
738	L72	4998	-48480	54.9	54.9	54.2	52.7	55.0	53.2
739	L73	4964	-49800	54.7	54.7	53.9	52.4	54.5	52.9
740	M28	7814	9566	50.2	50.2	50.2	50.1	50.7	50.8
741	M29	7780	8246	50.9	50.9	50.8	50.7	51.4	51.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
742	M30	7746	6926	51.6	51.6	51.7	51.4	52.2	52.1
743	M31	7712	5606	51.7	51.7	51.7	51.3	52.2	52.0
744	M32	7678	4286	51.8	51.8	51.8	50.8	52.3	51.5
745	M33	7644	2966	52.3	52.3	52.4	51.2	52.9	51.9
746	M34	7610	1646	51.3	51.3	51.3	50.7	51.8	51.4
747	M35	7576	326	50.3	50.3	50.3	49.9	50.8	50.5
748	M36	7542	-994	50.2	50.2	50.2	49.8	50.7	50.4
749	M37	7508	-2314	51.0	51.0	51.0	50.8	51.5	51.4
750	M38	7474	-3634	51.7	51.7	51.7	51.4	52.3	52.1
751	M39	7440	-4954	52.8	52.8	52.8	52.2	53.3	52.9
752	M40	7406	-6274	51.9	51.9	51.9	51.3	52.4	52.0
753	M41	7372	-7594	52.0	52.0	52.0	51.2	52.5	51.8
754	M42	7338	-8914	53.0	53.0	53.0	52.0	53.4	52.6
755	M43	7304	-10234	52.8	52.8	52.7	51.7	53.1	52.2
756	M44	7270	-11554	52.5	52.5	52.4	51.5	52.8	51.9
757	M45	7236	-12874	52.4	52.4	52.3	51.5	52.6	51.8
758	M46	7202	-14194	52.5	52.5	52.4	51.8	52.6	52.0
759	M47	7168	-15514	52.7	52.7	52.6	51.9	52.9	52.1
760	M48	7134	-16834	53.2	53.2	53.1	51.9	53.3	52.2
761	M49	7100	-18154	53.1	53.1	53.1	51.8	53.2	52.1
762	M50	7066	-19474	52.6	52.6	52.5	51.4	52.7	51.7
763	M51	7032	-20794	52.2	52.2	52.2	51.1	52.4	51.4
764	M52	6998	-22114	51.7	51.7	51.6	50.6	51.9	50.9
765	M53	6964	-23434	51.3	51.3	51.3	50.3	51.6	50.6
766	M54	6930	-24754	50.6	50.6	50.5	49.5	50.8	49.9
767	M55	6896	-26074	49.8	49.8	49.8	48.8	50.0	49.2
768	M56	6862	-27394	50.0	50.0	49.9	48.9	50.2	49.3
769	M57	6828	-28714	49.7	49.7	49.5	48.5	49.8	49.0
770	M58	6794	-30034	50.3	50.3	50.1	49.2	50.4	49.6
771	M59	6760	-31354	50.8	50.8	50.6	49.8	50.9	50.2
772	M60	6726	-32674	50.8	50.8	50.5	49.7	50.9	50.2
773	M61	6692	-33994	50.6	50.6	50.3	49.5	50.7	50.0
774	M62	6658	-35314	50.5	50.5	50.3	49.5	50.7	49.9
775	M63	6624	-36634	50.7	50.7	50.5	49.7	50.9	50.2
776	M64	6590	-37954	51.1	51.1	50.8	50.0	51.3	50.5
777	M65	6556	-39274	51.3	51.3	51.0	50.2	51.5	50.6
778	M66	6522	-40594	51.7	51.7	51.4	50.5	51.9	51.0
779	M67	6488	-41914	52.0	52.0	51.8	50.7	52.4	51.3
780	M68	6454	-43234	52.6	52.6	52.4	51.1	53.0	51.7
781	M69	6420	-44554	53.2	53.2	53.0	51.5	53.6	52.2
782	M70	6386	-45874	53.7	53.7	53.4	51.8	54.2	52.4
783	M71	6352	-47194	54.0	54.0	53.7	51.9	54.5	52.6
784	M72	6318	-48514	54.3	54.3	53.8	51.9	54.6	52.6
785	M73	6284	-49834	54.3	54.3	53.6	51.7	54.4	52.3
786	N38	8794	-3668	48.9	48.9	48.9	48.5	49.5	49.2
787	N39	8760	-4988	49.8	49.8	49.9	49.4	50.4	50.1
788	N40	8726	-6308	49.8	49.8	49.8	49.3	50.3	49.9
789	N41	8692	-7628	50.8	50.8	50.8	50.1	51.3	50.7
790	N42	8658	-8948	50.6	50.6	50.6	49.8	51.1	50.4
791	N43	8624	-10268	50.4	50.4	50.4	49.5	50.8	50.1
792	N44	8590	-11588	50.2	50.2	50.2	49.4	50.5	49.8
793	N45	8556	-12908	50.2	50.2	50.1	49.4	50.4	49.8
794	N67	7808	-41948	50.2	50.2	50.0	48.9	50.6	49.5
795	N68	7774	-43268	50.9	50.9	50.7	49.5	51.3	50.1
796	N69	7740	-44588	51.6	51.6	51.4	50.0	52.1	50.7
797	N70	7706	-45908	52.4	52.4	52.2	50.6	53.0	51.3
798	N71	7672	-47228	53.1	53.1	52.9	51.0	53.7	51.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
799	NSF:A2	-211	29983	62.3	62.3	62.3	61.9	62.7	62.3
800	NSF:A4	7371	16174	48.9	48.9	48.8	48.9	49.2	49.6
801	NSF:A5	-1123	35137	60.3	60.3	60.3	60.1	60.6	61.0
802	NSF:A6	1725	32917	58.3	58.3	58.2	58.4	58.6	58.6
803	NSF:A7	965	35389	59.3	59.3	59.3	59.2	59.7	59.5
804	NSF:A8	2868	26738	56.7	56.7	56.6	56.7	56.9	57.2
805	NSF:A9	8593	-17214	51.2	51.2	51.2	50.3	51.3	50.5
806	NSF:C1	3519	-33425	56.6	56.6	56.3	55.4	56.7	55.7
807	NSF:C10	-8024	7589	53.0	53.0	53.4	54.8	53.9	55.8
808	NSF:C11	-1535	-46185	57.9	57.9	57.9	57.6	58.1	57.7
809	NSF:C15	-3260	-41687	57.2	57.2	57.1	57.1	57.3	58.1
810	NSF:C16	2631	-42354	57.5	57.5	57.1	56.0	57.6	56.2
811	NSF:C17	-3636	10597	59.8	59.8	59.7	61.1	60.0	62.9
812	NSF:C19	-6737	-6317	57.2	57.2	57.6	58.8	58.0	59.7
813	NSF:C2	6733	-4869	54.2	54.2	54.3	53.7	54.8	54.4
814	NSF:C21	3694	-38594	55.9	55.9	55.6	54.6	56.0	55.0
815	NSF:C22	295	-16585	69.1	69.1	68.5	67.7	68.8	66.9
816	NSF:C23	-4396	-15838	57.4	57.4	57.2	57.8	57.5	58.8
817	NSF:C24	-3498	-16804	59.6	59.6	59.4	60.2	59.7	61.6
818	NSF:C28	-5727	-46163	52.6	52.6	52.3	52.7	52.4	53.4
819	NSF:C29	-386	-17316	69.2	69.2	68.7	68.2	69.1	67.4
820	NSF:C3	158	16285	68.1	68.1	67.9	67.8	68.2	67.8
821	NSF:C31	-6076	-46160	52.1	52.1	51.8	52.2	51.9	52.8
822	NSF:C32	-5243	-46778	53.2	53.2	53.0	53.3	53.0	54.0
823	NSF:C34	-8355	-45977	49.3	49.3	49.0	49.7	49.1	50.0
824	NSF:C35	-6358	-9758	54.8	54.7	54.8	55.6	55.2	56.6
825	NSF:C37	-5175	-47057	53.2	53.2	53.0	53.3	53.1	54.1
826	NSF:C38	-6431	-10969	55.1	55.1	55.1	55.3	55.4	55.8
827	NSF:C39	375	-25346	64.5	64.5	64.1	63.4	64.5	63.1
828	NSF:C40	1436	-17815	65.8	65.8	65.2	63.6	65.6	63.7
829	NSF:C41	-3379	-9386	62.4	62.4	62.3	63.3	62.6	64.3
830	NSF:C42	3398	-21504	58.9	58.9	58.7	57.4	59.1	57.8
831	NSF:C43	-1910	-46273	57.6	57.6	57.6	57.4	57.8	57.6
832	NSF:C44	-3883	-5925	61.7	61.7	61.8	63.6	62.3	64.3
833	NSF:C45	-11988	-45354	45.5	45.5	45.3	46.3	45.4	46.6
834	NSF:C46	7657	-34889	49.1	49.1	48.9	48.1	49.3	48.5
835	NSF:C47	2243	-24977	61.4	61.4	61.0	59.8	61.4	60.0
836	NSF:C48	-4412	-46071	54.4	54.4	54.3	54.5	54.4	55.4
837	NSF:C49	327	-14936	70.1	70.1	69.4	68.4	69.7	67.7
838	NSF:C5	7014	-34786	50.2	50.2	49.9	49.2	50.3	49.6
839	NSF:C50	-3930	-8365	60.8	60.8	60.7	61.9	61.1	62.8
840	NSF:C51	1801	-19460	63.8	63.8	63.4	62.0	63.9	62.2
841	NSF:C52	-545	-16569	69.1	69.1	68.7	68.0	69.1	67.6
842	NSF:C54	-1015	-44926	58.6	58.6	58.5	58.2	58.8	58.1
843	NSF:C55	-2036	-28310	62.1	62.1	62.0	61.6	62.3	62.1
844	NSF:C56	-706	-17175	68.7	68.7	68.3	67.6	68.6	67.3
845	NSF:C57	-1539	-38607	60.4	60.4	60.2	59.8	60.6	59.9
846	NSF:C6	-3386	14577	59.8	59.8	59.5	61.2	59.8	63.0
847	NSF:C7	-9769	-3190	53.8	53.8	54.3	54.9	54.7	55.0
848	NSF:C8	4616	906	57.5	57.5	57.5	56.9	58.0	57.6
849	NSF:C9	-1833	-42273	59.3	59.3	59.2	58.9	59.5	59.0
850	NSF:H1	-7607	3626	54.5	54.5	54.7	55.6	55.3	56.5
851	NSF:H3	-9363	9969	50.3	50.3	50.8	53.2	51.1	53.8
852	NSF:H4	-847	52617	55.5	55.5	55.6	55.3	55.9	56.1
853	NSF:H5	-9746	14394	51.0	50.9	51.4	53.4	51.5	54.3
854	NSF:H6	196	41454	58.9	58.9	59.0	58.6	59.4	59.0
855	NSF:H7	-6721	-8029	55.6	55.6	55.8	56.7	56.3	57.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
856	NSF:H8	24064	-3304	36.8	36.8	37.1	37.5	37.4	37.7
857	NSF:H9,H2	3310	14284	57.9	57.9	57.6	57.5	58.0	58.1
858	NSF:A16	-3769	5168	61.6	61.6	61.7	63.7	62.3	65.1
859	NSF:A17	-10252	3250	51.2	51.4	51.5	52.9	52.1	53.6
860	NSF:A18	-4084	10600	58.5	58.5	58.4	59.8	58.7	61.4
861	NSF:A19	-4459	10520	57.4	57.4	57.3	58.8	57.6	60.3
862	NSF:A21	-8598	14208	52.2	52.1	52.4	53.5	52.5	54.2
863	NSF:A23	-8593	5937	55.6	55.6	55.9	56.5	56.8	57.2
864	NSF:A24	-6444	1414	53.7	53.8	53.9	55.3	54.3	56.3
865	NSF:A25	-10056	6676	53.4	53.4	53.8	54.2	54.7	54.9
866	NSF:A26	-9629	5763	55.3	55.3	55.6	56.1	56.5	56.7
867	NSF:A27	-1721	10484	66.6	66.6	66.3	68.4	66.6	70.2
868	NSF:A28	-7306	6683	55.3	55.3	55.7	56.8	56.3	57.8
869	NSF:A30	-9295	6729	53.6	53.6	54.0	54.5	54.8	55.3
870	NSF:A33	-5199	-16624	55.3	55.3	55.2	55.7	55.5	56.4
871	NSF:A35	-4683	-17794	56.2	56.2	56.0	56.7	56.4	57.6
872	NSF:A36	-3592	-17475	59.1	59.1	58.9	59.7	59.3	61.1
873	NSF:A37	-3210	-16253	60.5	60.5	60.3	61.2	60.6	62.7
874	NSF:A38	-2833	-16231	61.7	61.7	61.4	62.3	61.8	64.0
875	NSF:A39	-2723	-17093	61.9	61.9	61.6	62.4	62.0	64.0
876	NSF:A40	-3398	-16730	59.9	59.9	59.6	60.5	60.0	61.9
877	NSF:A41	-5715	-14665	55.0	55.0	54.9	55.2	55.2	55.8
878	NSF:A42	-2195	-14884	64.3	64.3	64.0	64.4	64.3	65.7
879	NSF:A43	-3289	-16236	60.3	60.3	60.0	60.9	60.4	62.4
880	NSF:A44	362	-38516	60.5	60.5	60.1	59.4	60.5	59.3
881	NSF:A45	-1521	-35379	61.1	61.1	60.9	60.4	61.2	60.5
882	NSF:A46	467	-43229	59.1	59.1	58.6	58.1	59.1	58.0
883	NSF:A47	9405	-16129	49.5	49.5	49.5	49.3	49.7	49.5
884	NSF:A48	8774	-15397	50.2	50.2	50.1	49.8	50.3	50.0
885	NSF:A49	8535	-14947	50.4	50.4	50.3	50.0	50.6	50.2
886	NSF:A50	8073	-19454	51.5	51.5	51.5	50.3	51.6	50.5
887	NSF:A51	6682	-15011	53.5	53.5	53.4	52.6	53.7	52.9
888	NSF:A52	10177	-14528	48.0	48.0	47.9	47.7	48.2	47.9
889	NSF:A53	-9333	-2539	53.3	53.3	53.8	54.1	54.1	54.3
890	NSF:A54	-9413	-2464	53.1	53.1	53.6	53.9	53.9	54.1
891	NSF:A55	-9348	-2527	53.3	53.3	53.7	54.1	54.1	54.3
892	NSF:A58	6533	-14596	53.8	53.8	53.7	52.9	53.9	53.1
893	NSF:A59	5058	7030	56.7	56.7	56.7	56.6	57.3	57.3
894	NSF:A61	2879	26723	56.7	56.7	56.5	56.6	56.9	57.1
895	NSF:A62	-1961	32677	59.8	59.8	59.7	60.0	60.1	61.2
896	NSF:A63	5774	13792	52.3	52.3	52.1	52.1	52.5	52.9
897	NSF:A64	6942	13954	50.1	50.1	50.0	50.0	50.4	50.7
898	NSF:A65	6940	13770	50.2	50.2	50.0	50.0	50.4	50.8
899	NSF:A66	6602	13572	50.8	50.8	50.7	50.7	51.1	51.4
900	NSF:A67	7470	13669	49.3	49.3	49.2	49.2	49.6	50.0
901	NSF:A68	306	-30449	62.8	62.8	62.5	61.8	62.8	61.5
902	NSF:A69	-5807	-37969	52.6	52.6	52.4	52.6	52.7	53.4
903	NSF:A70	-4304	-36469	55.0	55.0	54.9	55.0	55.1	56.0
904	NSF:A71	6124	-39961	52.0	52.0	51.8	50.9	52.3	51.4
905	NSF:A72	3707	-33299	56.3	56.3	55.9	55.0	56.3	55.4
906	NSF:A73	-5742	-37925	52.7	52.7	52.5	52.7	52.8	53.5
907	NSF:A74	-5753	-37933	52.7	52.7	52.5	52.7	52.7	53.4
908	NSF:A75	-5790	-37959	52.6	52.6	52.4	52.7	52.7	53.4
909	NSF:L1	765	16963	65.6	65.6	65.3	65.6	65.7	65.6
910	NSF:L2	-7812	8307	52.8	52.8	53.2	55.1	53.6	56.0
911	NSF:L3	6278	40488	48.5	48.5	48.3	48.5	48.6	49.2
912	NSF:L4	-2866	-14908	62.0	62.0	61.7	62.6	62.1	64.3

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
913	NSF:L5	7180	9673	51.2	51.2	51.1	51.1	51.6	51.8
914	NSF:L6	4987	33599	51.3	51.3	51.2	51.3	51.5	51.9
915	NSF:L7	10166	26486	43.8	43.8	43.7	43.6	44.0	44.3
916	NSF:L8	12526	8554	44.5	44.5	44.5	44.3	45.1	45.0
917	NSF:L9	8571	-1927	48.4	48.4	48.4	48.0	48.9	48.6
918	NSF:A10	-550	29346	62.6	62.6	62.6	62.2	63.0	62.7
919	NSF:A11	-554	35999	60.4	60.4	60.4	60.1	60.8	60.7
920	NSF:A12	227	35588	60.2	60.2	60.2	60.0	60.6	60.3
921	NSF:A13	6720	40187	47.8	47.8	47.7	47.9	48.0	48.6
922	NSF:N1	2458	-23974	60.9	60.9	60.6	59.3	61.0	59.6
923	NSF:N10	-3755	-14738	59.5	59.5	59.2	60.0	59.6	61.1
924	NSF:N11	-3959	-39382	55.9	55.9	55.7	55.9	56.0	57.0
925	NSF:N12	-195	23654	65.6	65.6	65.6	64.9	66.0	65.1
926	NSF:N13	23674	-4413	37.5	37.5	37.8	38.1	38.2	38.4
927	NSF:N14	5905	-44977	54.0	54.0	53.7	52.2	54.4	52.8
928	NSF:N2	2567	-14374	63.2	63.2	62.9	61.0	63.2	61.4
929	NSF:N3	-9162	13839	51.5	51.4	51.8	53.7	51.9	54.5
930	NSF:N4	-3719	-44852	55.7	55.7	55.6	55.6	55.7	56.5
931	NSF:N5	-7153	-49305	50.5	50.5	50.3	50.8	50.3	51.2
932	NSF:N6	-6583	4062	55.6	55.6	55.9	56.7	56.5	57.7
933	NSF:N7	-3994	-21909	57.6	57.6	57.4	58.1	57.8	59.4
934	NSF:N8	3660	14530	56.9	56.9	56.7	56.6	57.1	57.3
935	NSF:N9	2605	-17567	62.2	62.2	61.8	60.3	62.2	60.6
936	NSF:S1	-1624	22569	64.0	64.0	63.9	63.9	64.3	65.1
937	NSF:S10	5787	1359	54.9	54.9	54.9	54.3	55.4	55.0
939	NSF:S102	-3652	-2959	61.5	61.5	61.7	65.1	62.2	66.6
940	NSF:S11	1320	-17470	66.3	66.3	65.7	64.1	66.0	64.1
941	NSF:S12	-9683	21295	48.0	48.0	48.0	48.3	48.2	49.1
942	NSF:S13	-4034	-8651	60.4	60.4	60.3	61.4	60.7	62.2
943	NSF:S15	1417	-18811	65.3	65.3	64.7	63.2	65.1	63.3
944	NSF:S16	4029	7813	58.7	58.7	58.6	58.7	59.1	59.4
945	NSF:S17	-7712	17177	50.4	50.4	50.5	50.9	50.8	51.8
946	NSF:S18	-10601	8639	49.2	49.2	49.5	50.3	50.0	51.0
947	NSF:S19	-13991	18478	47.8	47.8	48.7	50.7	48.7	51.4
948	NSF:S2	6756	-3628	53.2	53.2	53.2	52.8	53.8	53.5
949	NSF:S20	-1191	19408	66.2	66.2	66.1	65.5	66.5	66.3
950	NSF:S21	-3761	5167	61.6	61.6	61.8	63.7	62.3	65.1
951	NSF:S22	7978	-1820	49.3	49.3	49.3	49.0	49.8	49.6
952	NSF:S23	-8015	23186	49.6	49.6	49.6	49.7	49.9	50.7
953	NSF:S24	-8897	19752	48.8	48.8	48.8	49.2	49.1	50.0
954	NSF:S25	6834	-4826	53.7	53.7	53.8	53.2	54.3	53.9
955	NSF:S26	1352	-18331	65.8	65.8	65.1	63.6	65.5	63.7
956	NSF:S27	-7664	3251	54.1	54.2	54.3	55.4	54.9	56.3
957	NSF:S28	-8281	18459	49.6	49.6	49.6	50.0	49.9	50.9
958	NSF:S29	-5472	6565	57.9	57.9	58.1	59.7	58.7	60.5
959	NSF:S3	-3785	13136	58.6	58.6	58.4	59.7	58.7	61.4
960	NSF:S30	-263	-17305	69.2	69.2	68.8	68.3	69.1	67.4
961	NSF:S31	7812	-5443	51.4	51.4	51.4	50.9	52.0	51.6
962	NSF:S32	-4893	-4442	60.2	60.1	60.5	62.2	60.9	62.7
963	NSF:S33	1292	-22778	64.2	64.2	63.7	62.4	64.1	62.4
964	NSF:S34	-4645	-9467	58.6	58.6	58.6	59.4	58.9	60.0
965	NSF:S35	-4580	6588	59.5	59.5	59.6	61.4	60.2	62.4
966	NSF:S36	-6886	5087	57.0	57.0	57.3	58.0	58.1	59.0
967	NSF:S37	-11122	13583	48.6	48.6	49.4	52.7	49.5	52.9
968	NSF:S38	-3651	-2941	61.5	61.5	61.7	65.1	62.2	66.5
969	NSF:S39	12652	7375	44.7	44.7	44.7	44.5	45.2	45.1
970	NSF:S4	-3514	-16334	59.6	59.6	59.4	60.2	59.7	61.6

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
971	NSF:S40	7700	7035	51.6	51.6	51.6	51.4	52.2	52.1
972	NSF:S41	4523	11744	55.6	55.6	55.4	55.4	55.8	56.1
973	NSF:S42	8381	9088	49.5	49.5	49.5	49.4	50.0	50.1
974	NSF:S43	7268	9131	51.1	51.1	51.1	51.0	51.6	51.7
975	NSF:S44	5766	-41790	53.0	53.0	52.8	51.7	53.3	52.3
976	NSF:S45	1279	-33897	60.8	60.8	60.4	59.5	60.7	59.5
977	NSF:S46	-3685	-39308	56.6	56.6	56.5	56.5	56.7	57.6
978	NSF:S47	5715	-32661	52.5	52.5	52.2	51.4	52.6	51.8
979	NSF:S48	6231	-25031	51.7	51.7	51.6	50.6	51.9	51.0
980	NSF:S49	5974	-36054	51.7	51.7	51.5	50.6	51.9	51.1
981	NSF:S5	-11892	3393	50.6	50.8	50.9	52.3	51.6	53.0
982	NSF:S50	870	-42321	59.1	59.1	58.7	58.0	59.1	57.9
983	NSF:S51	-1491	-30984	62.3	62.3	62.2	61.6	62.5	61.8
984	NSF:S52	11474	-42954	46.3	46.3	46.3	45.0	46.9	45.7
985	NSF:S53	-10841	-43830	46.6	46.6	46.5	47.1	46.6	47.4
986	NSF:S54	5708	-31709	52.6	52.6	52.3	51.5	52.7	51.9
987	NSF:S55	-1824	-44447	58.4	58.4	58.3	58.0	58.5	58.2
988	NSF:S56	6346	-38637	51.5	51.5	51.3	50.4	51.7	50.9
989	NSF:S57	-410	49700	56.6	56.6	56.7	56.4	57.1	57.0
990	NSF:S58	10673	35200	41.5	41.5	41.5	41.8	41.8	42.5
991	NSF:S59	2429	45921	54.3	54.3	54.3	54.3	54.6	54.8
992	NSF:S6	-7196	13265	53.1	53.1	53.2	53.9	53.4	54.7
993	NSF:S60	5433	45389	49.3	49.3	49.2	49.5	49.5	50.1
994	NSF:S61	7132	42570	47.0	47.0	46.9	47.1	47.2	47.8
995	NSF:S62	-1439	39916	58.8	58.8	58.8	58.8	59.2	59.7
996	NSF:S63	3894	37152	53.0	53.0	52.8	53.0	53.2	53.5
997	NSF:S64	9056	38524	44.0	44.0	43.9	44.1	44.2	44.9
998	NSF:S65	8477	33931	45.7	45.7	45.6	45.8	45.9	46.5
999	NSF:S66	3955	32633	53.4	53.4	53.2	53.3	53.5	53.9
1000	NSF:S67	6401	29997	48.7	48.7	48.6	48.7	48.9	49.4
1001	NSF:S68	9089	28371	44.8	44.8	44.8	44.8	45.0	45.5
1002	NSF:S69	13032	23820	41.6	41.6	41.7	41.4	41.8	41.8
1003	NSF:S7	2141	16480	60.7	60.7	60.5	60.4	60.8	60.9
1004	NSF:S70	11512	17866	43.4	43.4	43.4	43.6	43.7	44.2
1005	NSF:S71	-9110	27836	47.8	47.8	47.8	47.8	48.0	48.7
1006	NSF:S72	-3361	27341	58.6	58.6	58.4	59.4	58.8	60.8
1007	NSF:S73	3	41684	58.9	58.9	59.0	58.6	59.4	59.1
1008	NSF:S74	10183	27405	43.9	43.9	43.9	43.8	44.1	44.5
1009	NSF:S76	4734	46384	50.3	50.3	50.1	50.4	50.4	51.0
1010	NSF:S77	11512	27194	42.9	42.9	42.9	42.8	43.1	43.4
1011	NSF:S78	-363	38035	59.9	59.9	59.9	59.5	60.3	60.1
1012	NSF:S79	5941	39662	49.2	49.2	49.0	49.2	49.3	49.9
1013	NSF:S8	3475	-10939	61.6	61.6	61.4	59.7	61.7	60.1
1014	NSF:S80	7193	35348	47.5	47.5	47.3	47.5	47.7	48.2
1015	NSF:S81	12439	22474	43.3	43.3	43.4	43.1	43.5	43.6
1017	NSF:S83	6824	6483	52.8	52.9	52.9	52.6	53.4	53.3
1018	NSF:S84	6483	-12931	53.9	53.9	53.7	52.8	54.0	53.1
1019	NSF:S85	-10992	-43886	46.4	46.4	46.3	47.0	46.5	47.3
1020	NSF:S86,C18	-3883	-4692	62.0	62.0	62.1	64.2	62.6	64.9
1021	NSF:S87	1355	-41607	58.8	58.8	58.4	57.5	58.9	57.6
1022	NSF:S89,S101	-6524	4594	56.5	56.5	56.8	57.6	57.5	58.6
1023	NSF:S9	-8718	-8906	54.2	54.2	54.7	55.7	55.1	56.7
1024	NSF:S90	10352	29875	43.1	43.1	43.1	43.1	43.3	43.8
1025	NSF:S91	-12520	6667	52.7	52.7	53.1	53.4	54.0	54.0
1026	NSF:S92	-292	-16249	69.5	69.5	69.1	68.4	69.4	67.8
1027	NSF:S93	-4494	-43936	54.6	54.6	54.4	54.7	54.6	55.6
1028	NSF:S94	6741	-4427	54.1	54.1	54.2	53.6	54.7	54.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1029	NSF:S95	2659	-8269	65.4	65.4	65.3	63.6	65.7	64.1
1030	NSF:S96,C36	-197	-29349	63.4	63.4	63.1	62.5	63.5	62.3
1031	NSF:S97	-5640	10643	55.1	55.1	55.1	56.3	55.4	57.4
1032	NSF:S98,C14	1453	-13047	67.9	67.9	67.4	65.2	67.7	65.4
1033	NSF:S99	-1741	22954	63.7	63.7	63.7	63.7	64.0	65.0
1034	NSF:A15	1159	33718	59.6	59.6	59.6	59.6	60.0	59.8
1035	NSF:A901	-2736	35294	57.8	57.8	57.6	58.3	58.0	59.7
1036	NSF:A902	-4131	32513	55.9	55.9	55.8	56.3	56.1	57.6
1037	NSF:A903	2207	18136	60.1	60.1	59.9	60.0	60.3	60.4
1038	NSF:A904	10787	-9667	47.3	47.3	47.3	46.6	47.7	47.2
1039	Park:G1	1356	42868	57.2	57.2	57.2	57.1	57.6	57.3
1040	Park:G2	-1823	20819	63.9	63.9	63.7	64.1	64.1	65.5
1041	Park:G3	412	19934	65.3	65.3	65.1	65.1	65.6	65.3
1042	Park:G4	11843	11466	44.4	44.4	44.4	44.3	44.9	45.0
1043	Park:G4	13359	10380	43.2	43.2	43.2	43.1	43.7	43.7
1044	Park:G5	89	-7980	76.1	76.1	75.4	74.3	75.6	73.8
1045	Park:G6	8312	-24816	49.7	49.7	49.7	48.8	49.9	49.1
1046	Park:G6	10441	-24924	47.5	47.5	47.6	46.9	47.7	47.1
1047	Park:P1	10452	41037	43.0	43.0	42.9	43.2	43.2	44.0
1048	Park:P10	11906	28500	42.4	42.4	42.3	42.3	42.6	43.0
1049	Park:P11	10576	23597	44.5	44.5	44.5	44.3	44.7	44.9
1050	Park:P12	12737	23611	41.7	41.7	41.9	41.5	41.9	41.9
1051	Park:P13	-3106	28942	58.7	58.7	58.5	59.5	58.9	60.9
1052	Park:P14	-1568	16984	66.3	66.3	66.0	66.2	66.3	67.6
1053	Park:P15	-4694	16128	56.1	56.1	56.0	56.6	56.3	58.1
1054	Park:P16	-7240	27235	51.4	51.4	51.3	51.5	51.6	52.5
1055	Park:P17	-7694	22700	50.1	50.1	50.1	50.3	50.4	51.3
1056	Park:P18	-10078	22715	47.4	47.4	47.4	47.6	47.6	48.4
1057	Park:P19	-8173	20053	49.5	49.5	49.5	49.8	49.8	50.7
1058	Park:P2	6019	40290	48.9	48.9	48.8	48.9	49.1	49.6
1059	Park:P20	-8423	17856	49.7	49.7	49.8	50.2	50.0	51.0
1060	Park:P21	7059	13592	50.0	50.0	49.9	49.9	50.3	50.7
1061	Park:P22	6996	12184	50.7	50.7	50.6	50.6	51.0	51.3
1062	Park:P23	9630	4263	49.2	49.2	49.2	48.3	49.8	49.1
1063	Park:P24	7963	3497	51.0	51.0	51.0	49.7	51.5	50.4
1064	Park:P25	8976	-1520	47.8	47.8	47.8	47.5	48.3	48.2
1065	Park:P26	2522	14946	59.8	59.8	59.5	59.4	59.8	60.0
1066	Park:P27	2802	10735	60.3	60.3	60.2	60.0	60.5	60.6
1067	Park:P28	198	11565	71.3	71.3	71.0	71.3	71.3	71.2
1068	Park:P29	-5433	5962	58.6	58.6	58.9	60.2	59.5	61.1
1069	Park:P3	4190	38497	52.3	52.3	52.1	52.3	52.5	52.8
1070	Park:P30	-6437	15235	52.6	52.6	52.5	53.1	52.9	54.1
1071	Park:P31	-10883	12816	48.6	48.6	49.3	52.7	49.4	52.8
1072	Park:P31	-10986	9367	47.9	47.9	48.2	49.3	48.7	49.9
1073	Park:P32	-8210	11558	52.2	52.1	52.5	54.7	52.6	55.1
1074	Park:P33	-7609	8315	53.0	53.0	53.4	55.4	53.8	56.2
1075	Park:P34	-7758	4425	55.3	55.3	55.6	56.2	56.3	57.0
1076	Park:P35	-6933	3193	54.2	54.3	54.4	55.5	55.0	56.5
1077	Park:P36	-8027	-858	51.9	52.0	52.2	52.4	52.6	53.1
1078	Park:P37	-10415	-944	50.4	50.4	50.8	50.4	51.1	50.7
1079	Park:P38	6985	-3643	52.7	52.7	52.7	52.4	53.3	53.0
1080	Park:P39	12033	-5865	45.5	45.5	45.6	45.1	46.1	45.8
1081	Park:P4	7407	36148	47.1	47.1	47.0	47.1	47.3	47.8
1082	Park:P40	8712	-16156	50.5	50.5	50.5	50.1	50.7	50.2
1083	Park:P41	5212	-18740	54.7	54.7	54.7	53.5	55.0	53.8
1084	Park:P42	7205	-21947	51.7	51.7	51.6	50.7	51.9	51.0
1085	Park:P43	3598	-7684	62.1	62.1	62.1	60.7	62.6	61.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1086	Park:P44	-283	-12051	72.0	72.0	71.5	70.5	71.7	70.0
1087	Park:P45	-4218	-14980	58.3	58.3	58.1	58.7	58.4	59.6
1088	Park:P46	-3319	-16331	60.2	60.2	60.0	60.8	60.3	62.3
1089	Park:P47	-9286	-6307	53.2	53.2	53.6	53.8	54.1	55.3
1090	Park:P48	-7699	-9254	53.9	53.9	54.2	54.9	54.6	56.0
1091	Park:P49	-7521	-12889	51.8	51.8	52.0	52.6	52.3	52.0
1092	Park:P5	-1752	40072	58.4	58.4	58.3	58.5	58.7	59.6
1093	Park:P50	8743	-26079	49.2	49.2	49.2	48.2	49.4	48.5
1094	Park:P51	7364	-27977	49.2	49.2	49.1	48.1	49.4	48.5
1095	Park:P52	4279	-25151	56.4	56.4	56.1	55.0	56.5	55.4
1096	Park:P53	1745	-24094	62.6	62.6	62.3	61.0	62.7	61.2
1097	Park:P54	1522	-25317	62.8	62.8	62.4	61.2	62.8	61.3
1098	Park:P55	3542	-29748	57.3	57.3	57.0	55.9	57.3	56.3
1099	Park:P56	-3479	-27701	58.1	58.1	57.9	58.3	58.2	59.5
1100	Park:P57	-2553	-31026	60.2	60.2	60.1	59.9	60.4	60.8
1101	Park:P58	-4315	-31888	55.3	55.3	55.1	55.5	55.4	56.6
1102	Park:P59	6981	-40680	51.0	51.0	50.8	49.8	51.3	50.3
1103	Park:P6	-995	37860	59.7	59.7	59.7	59.4	60.1	60.2
1104	Park:P60	879	-37690	60.2	60.2	59.8	59.0	60.2	59.0
1105	Park:P61	583	-42504	59.3	59.3	58.8	58.3	59.3	58.1
1106	Park:P62	-2563	-41948	58.4	58.4	58.3	58.1	58.6	58.7
1107	Park:P63	1437	-46094	57.5	57.5	57.0	56.3	57.4	56.3
1108	Park:P7	-1966	36892	58.7	58.7	58.6	58.8	59.0	60.0
1109	Park:P8	4457	33144	52.3	52.3	52.2	52.3	52.5	52.9
1110	Park:P9	8465	31725	45.6	45.6	45.4	45.6	45.8	46.3
1111	R-1	-1499	8689	67.9	67.9	67.6	68.9	68.0	70.5
1112	R-2	-3360	8057	61.3	61.3	61.2	63.3	61.6	65.1
1113	R-3	-3221	8061	61.7	61.7	61.6	63.8	62.0	65.7
1114	R-4	-2550	7376	63.7	63.7	63.6	67.5	64.0	69.7
1115	R-5	-2475	7342	64.0	64.0	63.9	68.1	64.3	70.4
1116	R-6	1908	7539	66.7	66.7	66.6	66.5	67.0	67.2
1117	R-7	3445	5795	61.9	61.9	62.0	61.8	62.5	62.4
1118	R-8	4189	5875	59.5	59.5	59.5	59.2	60.0	59.9
1119	R-9	-2325	5197	65.4	65.4	65.5	76.5	66.0	77.6
1120	R-10	-2803	4984	63.8	63.8	63.9	68.6	64.4	70.3
1121	R-11	-4314	4055	59.9	59.9	60.1	61.3	60.6	62.6
1122	R-12	-3638	4008	61.4	61.4	61.5	63.2	62.1	64.9
1123	R-13	-2994	3996	63.1	63.1	63.3	66.4	63.8	68.5
1124	R-14	-2996	3894	63.1	63.1	63.3	66.4	63.8	68.4
1125	R-15	-3661	3774	61.3	61.3	61.4	63.0	61.9	64.7
1126	R-16	-3881	2627	60.3	60.4	60.5	61.7	61.0	63.3
1127	R-17	-3974	2637	60.1	60.1	60.2	61.4	60.7	62.9
1128	R-19	-2871	-9407	63.9	63.9	63.8	65.0	64.1	66.7
1129	R-20	-2236	-9459	66.2	66.2	66.0	67.2	66.4	69.0
1130	R-21	-2883	-9527	63.8	63.8	63.7	64.9	64.0	66.6
1131	R-22	-2127	-9553	66.7	66.7	66.5	67.4	66.8	69.0
1132	R-23	-2979	-10864	63.0	63.0	62.8	63.9	63.1	65.6
1133	R-24	-2855	-10863	63.4	63.4	63.2	64.4	63.5	66.2
1134	R-25	-3422	-12657	61.4	61.4	61.2	62.1	61.5	62.9
1135	R-26	-3317	-12709	61.9	61.9	61.7	62.5	62.0	63.5
1136	R-27	-4326	-13636	58.5	58.5	58.3	58.9	58.6	59.7
1137	R-28	-4219	-13662	58.8	58.8	58.6	59.3	59.0	60.1
1138	R-29	-4595	-14690	57.5	57.5	57.3	57.8	57.6	58.6
1139	R-30	-4595	-14834	57.5	57.5	57.3	57.8	57.6	58.6
1140	R-31	-3900	-18888	58.0	58.0	57.8	58.6	58.2	59.8
1141	R-32	-3960	-18992	57.8	57.8	57.6	58.4	58.0	59.6
1142	R-33	-1586	-19967	65.0	65.0	64.9	64.5	65.3	65.0

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1143	R-34	-1631	-20084	64.9	64.9	64.7	64.3	65.1	64.8
1144	R-35	589	-20385	66.2	66.2	65.6	64.6	66.0	64.4
1145	R-36	760	-20452	65.8	65.8	65.3	64.2	65.7	64.1
1146	R-37	1953	-19502	63.4	63.4	63.0	61.5	63.4	61.8
1147	R-38	1937	-19639	63.4	63.4	63.0	61.5	63.4	61.8
1148	R-39	5743	3729	56.5	56.5	56.5	55.3	57.0	56.1
1149	R-40	6051	3598	55.7	55.7	55.7	54.6	56.3	55.3
1150	R-41	6707	2725	54.3	54.3	54.3	53.1	54.8	53.8
1151	R-42	6795	2778	54.1	54.1	54.1	52.9	54.6	53.6
1152	R-43	3977	622	59.1	59.1	59.1	58.6	59.7	59.3
1153	R-44	3992	528	59.0	59.0	59.0	58.5	59.5	59.2
1154	R-45	7811	-253	49.5	49.5	49.5	49.2	50.0	49.8
1155	R-46	7968	-188	49.3	49.3	49.3	49.0	49.8	49.6
1156	R-47	9017	-3383	48.3	48.3	48.3	48.0	48.8	48.7
1157	R-48	9107	-3278	48.2	48.2	48.2	47.8	48.8	48.5
1158	R-49	9205	-4829	49.1	49.1	49.1	48.7	49.6	49.4
1159	R-50	9420	-4826	48.7	48.7	48.8	48.4	49.3	49.1
1160	R-51	4145	-5368	61.4	61.4	61.5	60.5	62.0	61.1
1161	R-52	4160	-5459	61.3	61.3	61.4	60.4	61.9	61.1
1162	R-53	6680	-5389	54.4	54.4	54.5	53.8	55.0	54.5
1163	R-54	6680	-5519	54.4	54.4	54.5	53.8	55.0	54.5
1164	R-55	8216	-6716	50.5	50.5	50.5	49.9	51.0	50.5
1165	R-56	7824	-7392	51.3	51.3	51.3	50.7	51.8	51.3
1166	R-57	6375	-8805	53.9	53.9	53.9	52.9	54.4	53.5
1167	R-58	2503	-7529	66.3	66.3	66.3	64.9	66.7	65.4
1168	R-59	2128	-9607	67.4	67.4	67.2	64.9	67.5	65.3
1169	R-60	2128	-9724	67.3	67.3	67.1	64.8	67.4	65.2
1170	R-61	3469	-9641	62.1	62.1	62.0	60.2	62.3	60.7
1171	R-62	3469	-9758	62.0	62.0	61.9	60.1	62.2	60.5
1172	R-63	4953	-9622	57.7	57.7	57.7	56.3	58.0	56.8
1173	R-64	4953	-9765	57.7	57.7	57.6	56.2	58.0	56.7
1174	M-1	-5559	5408	58.6	58.6	58.9	60.0	59.6	61.0
1175	M-2	7677	4132	51.8	51.8	51.8	50.8	52.3	51.5
1176	M-3	-3794	839	58.9	59.0	59.2	61.2	59.6	62.7
1177	M-4	-3435	-161	60.1	60.1	60.4	63.5	60.9	65.1
1178	M-5	8038	-2746	49.4	49.4	49.4	49.0	49.9	49.6
1179	M-6	7442	-4154	52.5	52.5	52.6	52.1	53.1	52.8
1180	M-7	1569	-6734	72.6	72.6	72.6	72.9	73.1	73.4
1181	M-8	3372	-6953	63.1	63.1	63.2	61.8	63.6	62.4
1182	M-9	3203	-8239	63.1	63.1	63.1	61.4	63.4	62.0
1183	M-10	212	-9582	74.8	74.8	74.0	72.7	74.3	72.0
1184	M-11	212	-9712	74.6	74.6	73.8	72.5	74.1	71.8
1185	M-12	-4530	-14474	57.7	57.7	57.5	58.0	57.8	58.8
1186	M-13	-4484	-14936	57.7	57.7	57.5	58.0	57.8	58.9
1187	M-14	-3614	-16370	59.3	59.3	59.1	59.9	59.5	61.2
1188	M-15	4365	-18735	56.8	56.8	56.7	55.4	57.0	55.8
1189	M-16	4486	-19796	56.0	56.0	55.9	54.7	56.3	55.1
1190	M-17	8123	-595	49.1	49.1	49.1	48.8	49.6	49.4
1191	M-18	9840	4660	48.9	48.9	48.9	48.1	49.4	48.8
1192	T-116	1422	-18235	65.7	65.7	65.1	63.6	65.5	63.6
1193	T-118	1331	-17470	66.3	66.3	65.6	64.0	66.0	64.1
1194	T-119	2650	-17566	62.1	62.1	61.7	60.1	62.1	60.5
1195	T-120	-3506	-16334	59.6	59.6	59.4	60.2	59.8	61.6
1196	T-122	-3743	-14738	59.5	59.5	59.3	60.0	59.6	61.2
1197	T-125	1459	-13047	67.8	67.8	67.3	65.2	67.6	65.4
1198	T-126	3477	-10938	61.6	61.6	61.4	59.7	61.7	60.1
1199	T-130	2651	-8267	65.4	65.4	65.3	63.7	65.7	64.2

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1200	T-132	-3659	-2960	61.5	61.5	61.7	65.0	62.2	66.5
1201	T-133	8580	-1927	48.3	48.3	48.3	48.0	48.8	48.6
1202	T-136	-3365	4995	62.4	62.4	62.5	65.0	63.1	66.6
1203	NSF:A14	-3907	-17520	58.2	58.2	58.0	58.8	58.4	60.0
1204	T-25	-3883	-4693	62.0	62.0	62.1	64.2	62.6	64.9
1205	T-28	-3387	-9387	62.4	62.4	62.3	63.2	62.6	64.3
1206	T-33	1432	-17816	65.8	65.8	65.2	63.6	65.6	63.7
1207	T-34	1792	-19460	63.8	63.8	63.4	62.0	63.9	62.2
1208	T-35	1587	-18907	64.7	64.7	64.2	62.7	64.7	62.9
1209	T-44	-3421	5168	62.4	62.4	62.5	65.0	63.1	66.5
1210	NSF:T-48, A20	-4170	1264	57.9	57.9	58.1	59.7	58.6	61.2
1211	NSF:T-50, A22	-3264	8490	61.5	61.5	61.4	63.5	61.8	65.4
1212	NSF:T-57, A29	-2746	8551	62.6	62.6	62.5	65.6	62.8	67.8
1213	NSF:T-59, A31	-5476	6566	57.9	57.8	58.1	59.7	58.7	60.5
1214	NSF:T-60, A32	-4232	-17635	57.3	57.3	57.1	57.8	57.4	58.9
1215	NSF:T-62, A34	-4112	-14837	58.5	58.5	58.3	59.0	58.6	59.9
1216	T-29	-3498	-16806	59.6	59.6	59.4	60.2	59.7	61.6
1217	NSF:T-84, A56	-3125	6493	62.4	62.4	62.5	65.6	63.0	67.3
1218	NSF:T-85, A57	-3238	4735	62.7	62.7	62.8	65.4	63.3	67.2
1219	NSF:T-88, A60	-1350	-9469	70.4	70.4	70.2	69.9	70.5	70.2
1220	NSF:C58	-1135	22315	65.2	65.2	65.1	64.5	65.5	65.3
1221	NSF:S108	-1649	-9471	68.9	68.9	68.7	68.9	69.0	69.4
1222	NSF:N15	-3997	-22078	57.6	57.6	57.4	58.0	57.8	59.4
1223	NSF:C62	-1414	-30795	62.4	62.4	62.3	61.8	62.7	61.9
1224	NSF:S109	-1333	-22719	65.2	65.2	65.0	64.4	65.4	64.6
1225	NSF:S105	-3791	-3836	62.1	62.1	62.3	64.8	62.8	65.9
1226	NSF:C64	-4367	7358	59.4	59.4	59.4	61.3	59.9	62.5
1227	NSF:S106	-2685	8649	62.8	62.8	62.6	66.0	63.0	68.2
1228	NSF:C61	-1303	9772	68.7	68.7	68.5	68.9	68.8	70.1
1229	NSF:S107	2638	-6779	66.4	66.4	66.4	64.9	66.9	65.5
1230	NSF:S110	1462	-15138	66.8	66.8	66.2	64.3	66.6	64.5
1231	NSF:S103	691	14334	67.3	67.3	67.0	67.4	67.4	67.4
1232	NSF:C60	51	14525	69.6	69.6	69.3	69.1	69.7	69.1
1233	NSF:C63	335	17719	66.6	66.6	66.4	66.5	66.8	66.5
1234	NSF:S104	2040	9879	64.4	64.4	64.2	63.9	64.6	64.6
1235	NSF:C65	2422	9244	63.2	63.2	63.0	62.9	63.4	63.5
1236	NSF:C59	3555	12838	57.4	57.4	57.2	57.0	57.5	57.7
1237	Park:P65	-4286	-15220	58.1	58.1	57.9	58.5	58.2	59.4
1238	Park:P77	-4624	-22245	56.2	56.2	56.0	56.6	56.4	57.7
1239	Park:P75	-4188	-36794	55.3	55.3	55.1	55.3	55.4	56.3
1240	Park:P68	-5348	-17875	54.9	54.9	54.7	55.3	55.1	56.0
1241	Park:P69	-5853	-17090	53.9	53.9	53.7	54.2	54.1	54.9
1242	Park:P74	-5044	-16833	55.7	55.7	55.5	56.0	55.9	56.8
1243	Park:P73	-4954	-17282	55.7	55.7	55.5	56.1	55.9	56.9
1244	Park:P78	-4783	-18422	55.8	55.8	55.6	56.3	56.1	57.2
1245	Park:P70	-4665	-14728	57.6	57.6	57.4	57.8	57.7	58.6
1246	Park:P79	-1577	-22047	64.6	64.6	64.4	63.9	64.8	64.4
1247	Park:P66	-2383	-25951	61.4	61.4	61.3	61.2	61.6	62.0
1248	Park:P76	-748	-25329	64.7	64.7	64.5	63.9	64.9	63.8
1249	Park:P72	-135	-18873	68.2	68.2	67.7	67.0	68.1	66.6
1250	Park:P64	-1767	-17528	65.2	65.2	64.9	64.9	65.3	65.5
1251	Park:P67	1256	-19310	65.4	65.4	64.9	63.5	65.3	63.6
1252	Park:P71	2940	-16861	61.2	61.2	60.9	59.3	61.2	59.7
1253	N1	-1990	-17245	64.4	64.4	64.1	64.3	64.5	65.2
1254	N2	-3334	8426	61.4	61.4	61.3	63.3	61.7	65.2
1256	N3	-4097	6616	60.1	60.0	60.1	62.3	60.7	63.4
1257	N5	-8611	5294	55.8	55.8	56.1	56.6	57.0	57.3

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AIRCRAFT DNL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1258	N7	-4947	-1900	58.3	58.3	58.7	60.0	59.1	61.0
1259	N8	-4082	10573	58.5	58.5	58.4	59.8	58.7	61.4
1260	N10	-3524	13833	59.4	59.4	59.1	60.6	59.4	62.4
1261	N16	-2435	-14830	63.5	63.5	63.2	63.9	63.5	65.4
1262	N17	-1060	-14856	68.7	68.7	68.4	67.7	68.7	67.8
1263	N18	-3776	-14788	59.4	59.4	59.2	59.9	59.5	61.0
1264	N19	1410	-15430	66.8	66.8	66.3	64.4	66.6	64.5
1265	N21	1410	-15430	66.8	66.8	66.3	64.4	66.6	64.5
1266	N22	1410	-15430	66.8	66.8	66.3	64.4	66.6	64.5
1267	N24	-849	-17121	68.4	68.4	68.0	67.3	68.4	67.2
1268	N52	-849	-17121	68.4	68.4	68.0	67.3	68.4	67.2
1269	N25	-1279	-17349	67.1	67.1	66.8	66.3	67.1	66.5
1270	N23	731	-17160	68.0	68.0	67.3	66.0	67.6	65.7
1271	N32	-2623	-16845	62.3	62.3	62.0	62.7	62.4	64.3
1272	N33	-1937	-14523	65.4	65.4	65.1	65.3	65.4	66.2
1273	N34	-1996	-20888	63.5	63.5	63.4	63.3	63.8	64.1
1274	N35	-1984	-20239	63.7	63.7	63.5	63.4	63.9	64.3
1275	N36	-1996	-20888	63.5	63.5	63.4	63.3	63.8	64.1
1276	N37	-1288	-18281	66.6	66.6	66.4	65.9	66.7	66.1
1277	N38	81	-23395	65.8	65.8	65.4	64.7	65.7	64.4
1278	N39	1235	-23064	64.2	64.2	63.7	62.5	64.1	62.5
1279	N40	1243	-23968	63.8	63.8	63.4	62.2	63.8	62.2
1280	N45	1572	-18752	64.8	64.8	64.3	62.8	64.7	63.0
1281	N46	2447	-18291	62.4	62.4	62.1	60.6	62.5	60.9
1282	N49	-2293	-19455	62.7	62.7	62.5	62.8	62.9	64.0
1283	N50	-2293	-19455	62.7	62.7	62.5	62.8	62.9	64.0
1284	N53	-762	-16176	68.9	68.9	68.5	67.8	68.9	67.6
1285	N54	2867	-16447	61.5	61.5	61.2	59.6	61.6	59.9
1286	N55	3117	-17904	60.4	60.4	60.1	58.6	60.5	59.0
1287	N56	-269	-22786	66.2	66.2	65.9	65.2	66.2	64.9
1288	N59	-2261	-19816	62.7	62.7	62.6	62.8	63.0	63.9
1289	N60	-1155	-20562	66.1	66.1	65.9	65.2	66.3	65.4
1290	N47	2491	-18288	62.3	62.3	61.9	60.5	62.4	60.8

Source: Landrum & Brown, Inc., from INM Output reports

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	98.1	98.1	93.2	92.8	93.2	92.8
2	RMS2	-2533	-18228	93.1	93.1	90.6	94.8	90.6	94.8
3	RMS3	1078	-17868	101.2	101.2	95.2	95.2	95.2	95.2
4	RMS4	141	-9337	109.6	109.6	102.5	103.8	102.5	103.8
5	RMS5	-2718	186	91.6	91.6	91.6	105.6	91.6	105.6
6	RMS6	292	8461	108.9	108.9	106.6	106.6	105.8	105.8
7	RMS7	-1299	16858	102.0	102.0	97.4	97.4	97.4	97.4
8	RMS8	-525	21836	99.4	99.4	94.7	94.7	94.7	94.7
9	RMS9	1958	14969	96.0	96.0	91.2	91.2	91.2	91.2
10	RMS10	-3185	-6305	94.2	94.2	92.4	99.0	92.4	99.0
11	RMS11	2549	6703	94.9	94.9	93.6	93.6	93.6	93.6
12	A22	-7822	17894	84.9	84.9	84.9	84.9	84.9	84.9
13	A23	-7856	16574	82.4	82.4	82.4	82.4	82.4	82.4
14	A24	-7890	15254	88.8	88.8	88.8	88.8	88.8	89.1
15	A25	-7924	13934	88.6	88.6	88.6	89.1	88.6	89.1
16	A26	-7958	12614	80.9	80.9	80.7	89.5	80.7	89.5
17	A27	-7992	11294	80.7	80.7	78.9	80.5	78.9	80.5
18	A28	-8026	9974	80.0	80.0	79.0	81.0	79.0	81.0
19	A29	-8060	8654	79.9	79.9	78.4	81.8	78.4	81.8
20	A30	-8094	7334	79.3	79.3	78.3	82.1	78.3	82.1
21	A31	-8128	6014	79.1	79.1	79.1	82.1	79.1	82.1
22	A32	-8162	4694	78.6	78.6	78.6	81.8	78.6	81.8
23	A33	-8196	3374	79.1	79.1	79.1	82.4	79.1	82.4
24	A34	-8230	2054	79.0	79.0	79.0	81.0	79.0	81.0
25	A35	-8264	734	78.8	78.8	78.8	79.7	78.8	79.7
26	A36	-8298	-586	76.7	76.7	76.7	80.6	76.7	80.6
27	A37	-8332	-1906	79.0	79.0	79.0	81.3	79.0	81.3
28	A38	-8366	-3226	78.9	78.9	78.9	80.4	78.9	80.4
29	A39	-8400	-4546	78.7	78.7	78.7	80.5	78.7	80.5
30	A40	-8434	-5866	80.7	80.7	80.7	84.3	80.7	84.3
31	A41	-8468	-7186	84.5	84.5	84.5	90.2	84.5	90.2
32	A42	-8502	-8506	86.6	86.6	86.6	95.2	86.6	95.2
33	A43	-8536	-9826	84.4	84.4	84.4	90.7	84.4	90.7
34	B10	-6094	33700	86.4	86.4	82.9	82.9	82.4	82.9
35	B11	-6128	32380	86.3	86.3	82.5	82.5	82.3	82.5
36	B12	-6162	31060	86.3	86.3	82.4	82.4	82.4	82.4
37	B13	-6196	29740	86.3	86.3	82.6	82.6	82.6	82.6
38	B14	-6230	28420	86.2	86.2	82.6	82.6	82.6	82.6
39	B15	-6264	27100	86.0	86.0	82.6	82.6	82.6	82.6
40	B16	-6298	25780	85.8	85.8	82.6	82.6	82.6	82.6
41	B17	-6332	24460	85.8	85.8	82.8	83.0	82.8	83.0
42	B18	-6366	23140	85.2	85.2	82.8	83.2	82.8	83.2
43	B19	-6400	21820	84.4	84.4	83.6	83.6	83.6	83.6
44	B20	-6434	20500	84.0	84.0	83.7	83.7	83.7	83.7
45	B21	-6468	19180	83.7	83.7	82.5	83.5	82.5	83.5
46	B22	-6502	17860	84.9	84.9	84.9	84.9	84.9	84.9
47	B23	-6536	16540	85.3	85.3	85.3	85.3	85.3	85.3
48	B24	-6570	15220	84.3	84.3	83.9	83.9	83.9	83.9
49	B25	-6604	13900	90.4	90.4	90.4	90.4	90.4	90.7
50	B26	-6638	12580	86.6	86.6	86.6	92.4	86.6	92.4
51	B27	-6672	11260	83.8	83.8	80.9	86.4	80.9	86.4
52	B28	-6706	9940	83.9	83.9	81.3	84.8	81.3	84.8
53	B29	-6740	8620	82.0	82.0	80.6	84.8	80.6	84.8
54	B30	-6774	7300	81.6	81.6	81.4	85.5	81.4	85.5
55	B31	-6808	5980	81.5	81.5	81.5	85.8	81.5	85.8
56	B32	-6842	4660	81.0	81.0	81.0	85.2	81.0	85.2
57	B33	-6876	3340	80.4	80.4	80.4	84.4	80.4	84.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
58	B34	-6910	2020	80.0	80.0	80.0	83.3	80.0	83.3
59	B35	-6944	700	79.2	79.2	79.2	82.2	79.2	82.2
60	B36	-6978	-620	79.5	79.5	79.5	84.3	79.5	84.3
61	B37	-7012	-1940	79.8	79.8	79.8	84.8	79.8	84.8
62	B38	-7046	-3260	81.0	81.0	81.0	85.7	81.0	85.7
63	B39	-7080	-4580	81.1	81.1	81.1	85.7	81.1	85.7
64	B40	-7114	-5900	83.3	83.3	83.3	92.8	83.3	92.8
65	B41	-7148	-7220	87.0	87.0	87.0	96.2	87.0	96.2
66	B42	-7182	-8540	87.0	87.0	87.0	88.9	87.0	88.9
67	B43	-7216	-9860	83.0	83.0	83.0	91.1	83.0	91.1
68	B44	-7250	-11180	90.0	90.0	90.0	90.2	90.0	90.2
69	B45	-7284	-12500	83.9	83.9	83.9	83.9	83.9	81.8
70	B46	-7318	-13820	88.7	88.7	88.7	88.7	88.7	89.1
71	B47	-7352	-15140	84.6	84.6	84.6	84.6	84.6	84.6
72	B48	-7386	-16460	83.8	83.8	83.8	83.8	83.8	83.8
73	B49	-7420	-17780	80.9	80.9	80.9	82.4	80.9	82.4
74	C1	-4468	45546	87.3	87.3	86.8	86.8	86.8	86.8
75	C2	-4502	44226	87.7	87.7	86.7	86.7	86.7	86.7
76	C3	-4536	42906	87.9	87.9	86.0	86.0	86.0	86.0
77	C4	-4570	41586	88.1	88.1	85.1	85.1	85.1	85.1
78	C5	-4604	40266	88.3	88.3	85.2	85.2	84.4	85.2
79	C6	-4638	38946	88.4	88.4	85.2	85.2	84.3	85.2
80	C7	-4672	37626	88.4	88.4	85.3	85.3	84.5	85.3
81	C8	-4706	36306	88.9	88.9	85.6	85.6	84.7	85.6
82	C9	-4740	34986	88.9	88.9	85.7	85.7	84.7	85.7
83	C10	-4774	33666	88.8	88.8	85.9	85.9	84.8	85.9
84	C11	-4808	32346	89.0	89.0	85.5	85.5	85.0	85.5
85	C12	-4842	31026	88.9	88.9	85.2	85.2	85.2	85.2
86	C13	-4876	29706	89.1	89.1	85.6	85.6	85.6	85.6
87	C14	-4910	28386	89.0	89.0	85.4	85.4	85.4	85.4
88	C15	-4944	27066	88.9	88.9	85.2	85.2	85.2	85.2
89	C16	-4978	25746	88.7	88.7	85.2	85.2	85.2	85.2
90	C17	-5012	24426	88.4	88.4	85.1	85.3	85.1	85.3
91	C18	-5046	23106	88.5	88.5	85.7	86.0	85.7	86.0
92	C19	-5080	21786	88.2	88.2	85.7	86.6	85.7	86.6
93	C20	-5114	20466	87.3	87.3	85.4	86.4	85.4	86.4
94	C21	-5148	19146	87.1	87.1	85.5	86.5	85.5	86.5
95	C22	-5182	17826	87.1	87.1	85.3	86.7	85.3	86.7
96	C23	-5216	16506	87.6	87.6	86.4	86.6	86.4	86.6
97	C24	-5250	15186	88.1	88.1	85.8	86.6	85.8	86.6
98	C25	-5284	13866	88.2	88.2	86.9	86.9	86.9	87.0
99	C26	-5318	12546	92.5	92.5	92.5	93.2	92.5	93.2
100	C27	-5352	11226	87.8	87.8	84.3	95.3	84.3	95.3
101	C28	-5386	9906	87.2	87.2	84.4	88.5	84.4	88.5
102	C29	-5420	8586	86.6	86.6	84.7	89.4	84.7	89.4
103	C30	-5454	7266	84.8	84.8	84.8	89.6	84.8	89.6
104	C31	-5488	5946	85.1	85.1	85.1	90.2	85.1	90.2
105	C32	-5522	4626	84.8	84.8	84.8	89.9	84.8	89.9
106	C33	-5556	3306	84.2	84.2	84.2	89.1	84.2	89.1
107	C34	-5590	1986	83.5	83.5	83.5	87.5	83.5	87.5
108	C35	-5624	666	81.5	81.5	81.5	86.9	81.5	86.9
109	C36	-5658	-654	83.3	83.3	83.3	89.0	83.3	89.0
110	C37	-5692	-1974	84.2	84.2	84.2	89.8	84.2	89.8
111	C38	-5726	-3294	84.6	84.6	84.6	90.1	84.6	90.1
112	C39	-5760	-4614	84.6	84.6	84.6	95.9	84.6	95.9
113	C40	-5794	-5934	87.0	87.0	87.0	94.3	87.0	94.3
114	C41	-5828	-7254	89.8	89.8	89.8	90.0	89.8	90.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
115	C42	-5862	-8574	87.2	87.2	87.2	90.4	87.2	90.4
116	C43	-5896	-9894	85.5	85.5	84.7	86.5	84.7	86.5
117	C44	-5930	-11214	90.4	90.4	90.4	90.6	90.4	90.6
118	C45	-5964	-12534	85.1	85.1	84.0	85.8	84.0	85.8
119	C46	-5998	-13854	92.4	92.4	92.4	92.4	92.4	90.6
120	C47	-6032	-15174	85.4	85.4	85.4	85.4	85.4	85.4
121	C48	-6066	-16494	83.3	83.3	83.3	85.4	83.3	85.4
122	C49	-6100	-17814	83.6	83.6	82.7	85.5	82.7	85.5
123	C50	-6134	-19134	83.4	83.4	82.3	85.2	82.3	85.2
124	C51	-6168	-20454	83.3	83.3	81.7	84.7	81.7	84.7
125	C52	-6202	-21774	83.4	83.4	82.1	84.5	82.1	84.5
126	C53	-6236	-23094	83.4	83.4	82.0	84.1	82.0	84.1
127	C54	-6270	-24414	83.5	83.5	81.4	83.6	81.4	83.6
128	C55	-6304	-25734	83.5	83.5	80.5	83.0	80.5	83.0
129	C56	-6338	-27054	83.4	83.4	80.2	82.9	80.2	82.9
130	C57	-6372	-28374	83.4	83.4	79.9	82.8	79.9	82.8
131	C58	-6406	-29694	83.1	83.1	79.4	82.4	79.4	82.4
132	C59	-6440	-31014	83.0	83.0	78.8	82.1	78.8	82.1
133	D1	-3148	45512	87.9	87.9	86.4	86.4	86.4	86.4
134	D2	-3182	44192	87.9	87.9	86.8	86.8	86.8	86.8
135	D3	-3216	42872	88.0	88.0	87.1	87.1	87.1	87.1
136	D4	-3250	41552	88.4	88.4	86.8	86.8	86.8	86.8
137	D5	-3284	40232	89.0	89.0	87.0	87.0	87.0	87.0
138	D6	-3318	38912	89.3	89.3	86.6	86.6	86.6	86.6
139	D7	-3352	37592	89.5	89.5	86.2	86.2	86.2	86.2
140	D8	-3386	36272	89.9	89.9	86.6	86.6	85.9	86.6
141	D9	-3420	34952	90.1	90.1	87.1	87.1	86.1	87.1
142	D10	-3454	33632	90.2	90.2	87.7	87.7	86.4	87.7
143	D11	-3488	32312	90.6	90.6	87.5	87.5	86.8	87.5
144	D12	-3522	30992	90.8	90.8	87.8	87.8	87.8	87.8
145	D13	-3556	29672	91.2	91.2	88.1	88.1	88.1	88.1
146	D14	-3590	28352	91.3	91.3	88.7	88.7	88.3	88.7
147	D15	-3624	27032	91.5	91.5	88.4	88.4	88.4	88.4
148	D16	-3658	25712	91.7	91.7	88.4	88.4	88.4	88.4
149	D17	-3692	24392	91.6	91.6	88.8	88.8	88.8	88.8
150	D18	-3726	23072	91.4	91.4	88.8	88.8	88.8	88.8
151	D19	-3760	21752	91.1	91.1	88.4	88.9	88.4	88.9
152	D20	-3794	20432	91.1	91.1	88.4	89.6	88.4	89.6
153	D21	-3828	19112	91.1	91.1	88.6	89.9	88.6	89.9
154	D22	-3862	17792	91.2	91.2	88.6	90.1	88.6	90.1
155	D23	-3896	16472	92.0	92.0	88.5	90.8	88.5	90.8
156	D24	-3930	15152	92.6	92.6	88.2	90.8	88.2	90.8
157	D25	-3964	13832	92.4	92.4	88.0	90.9	88.0	90.9
158	D26	-3998	12512	92.3	92.3	90.8	91.6	90.8	91.6
159	D27	-4032	11192	92.8	92.8	92.8	93.5	92.8	93.5
160	D28	-4066	9872	92.2	92.2	88.7	96.4	88.7	96.4
161	D29	-4100	8552	91.7	91.7	89.2	94.5	89.2	94.5
162	D30	-4134	7232	90.5	90.5	89.6	94.9	89.6	94.9
163	D31	-4168	5912	89.1	89.1	89.1	95.4	89.1	95.4
164	D32	-4202	4592	88.8	88.8	88.8	95.3	88.8	95.3
165	D33	-4236	3272	88.3	88.3	88.3	94.9	88.3	94.9
166	D34	-4270	1952	86.7	86.7	86.7	92.6	86.7	92.6
167	D35	-4304	632	84.4	84.4	84.4	92.4	84.4	92.4
168	D36	-4338	-688	87.4	87.4	87.4	94.8	87.4	94.8
169	D37	-4372	-2008	88.5	88.5	88.5	95.4	88.5	95.4
170	D38	-4406	-3328	88.8	88.8	88.8	99.1	88.8	99.1
171	D39	-4440	-4648	88.6	88.6	88.6	94.5	88.6	94.5

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
172	D40	-4474	-5968	90.4	90.4	90.4	94.1	90.4	94.1
173	D41	-4508	-7288	90.4	90.4	90.4	93.3	90.4	93.3
174	D42	-4542	-8608	89.5	89.5	86.5	92.3	86.5	92.3
175	D43	-4576	-9928	91.4	91.4	91.4	91.6	91.4	91.6
176	D44	-4610	-11248	89.0	89.0	85.0	90.3	85.0	90.3
177	D45	-4644	-12568	89.7	89.7	89.7	90.3	89.7	90.3
178	D46	-4678	-13888	88.9	88.9	86.7	90.3	86.7	91.8
179	D47	-4712	-15208	87.7	87.7	86.2	89.4	86.2	89.4
180	D48	-4746	-16528	86.6	86.6	84.5	89.1	84.5	89.1
181	D49	-4780	-17848	86.1	86.1	84.2	88.9	84.2	88.9
182	D50	-4814	-19168	86.0	86.0	83.9	88.4	83.9	88.4
183	D51	-4848	-20488	86.2	86.2	84.2	88.0	84.2	88.0
184	D52	-4882	-21808	86.2	86.2	84.1	87.7	84.1	87.7
185	D53	-4916	-23128	86.1	86.1	83.5	87.2	83.5	87.2
186	D54	-4950	-24448	86.1	86.1	83.1	86.5	83.1	86.5
187	D55	-4984	-25768	86.1	86.1	83.2	86.0	83.2	86.0
188	D56	-5018	-27088	86.0	86.0	82.9	85.9	82.9	85.9
189	D57	-5052	-28408	85.9	85.9	82.5	85.8	82.5	85.8
190	D58	-5086	-29728	85.6	85.6	82.0	85.3	82.0	85.3
191	D59	-5120	-31048	85.4	85.4	81.3	84.7	81.3	84.7
192	D60	-5154	-32368	85.1	85.1	81.1	84.4	81.1	84.4
193	D61	-5188	-33688	84.9	84.9	81.1	84.1	81.1	84.1
194	D62	-5222	-35008	84.8	84.8	81.0	84.0	81.0	84.0
195	D63	-5256	-36328	84.8	84.8	81.0	83.7	81.0	83.7
196	D64	-5290	-37648	84.4	84.4	80.7	83.3	80.7	83.3
197	D65	-5324	-38968	84.6	84.6	81.0	83.5	81.0	83.5
198	D66	-5358	-40288	85.4	85.4	81.7	83.6	81.7	83.6
199	D67	-5392	-41608	86.2	86.2	82.3	83.5	82.3	83.5
200	E1	-1828	45478	89.7	89.7	86.7	86.7	86.7	86.7
201	E2	-1862	44158	89.9	89.9	86.8	86.8	86.8	86.8
202	E3	-1896	42838	90.0	90.0	87.0	87.0	87.0	87.0
203	E4	-1930	41518	90.4	90.4	87.1	87.1	87.1	87.1
204	E5	-1964	40198	90.8	90.8	87.8	87.8	87.8	87.8
205	E6	-1998	38878	90.9	90.9	87.7	87.9	87.7	87.9
206	E7	-2032	37558	90.9	90.9	87.8	88.2	87.8	88.2
207	E8	-2066	36238	91.3	91.3	87.6	88.2	87.6	88.2
208	E9	-2100	34918	91.5	91.5	88.4	88.4	88.4	88.4
209	E10	-2134	33598	91.5	91.5	88.6	89.0	88.6	89.0
210	E11	-2168	32278	91.7	91.7	89.3	89.3	89.3	89.3
211	E12	-2202	30958	91.9	91.9	90.5	90.5	90.5	90.5
212	E13	-2236	29638	92.0	92.0	91.1	91.1	91.1	91.1
213	E14	-2270	28318	92.2	92.2	91.3	91.3	91.3	91.3
214	E15	-2304	26998	92.6	92.6	91.8	91.8	91.8	91.8
215	E16	-2338	25678	93.0	93.0	92.2	92.2	92.2	92.2
216	E17	-2372	24358	93.2	93.2	93.0	93.0	93.0	93.0
217	E18	-2406	23038	94.2	94.2	92.8	92.8	92.8	92.8
218	E19	-2440	21718	95.0	95.0	92.8	93.0	92.8	93.0
219	E20	-2474	20398	95.4	95.4	93.0	93.7	93.0	93.7
220	E21	-2508	19078	95.5	95.5	93.3	94.2	93.3	94.2
221	E22	-2542	17758	96.0	96.0	93.6	94.9	93.6	94.9
222	E23	-2576	16438	97.6	97.6	92.9	96.0	92.9	96.0
223	E24	-2610	15118	98.1	98.1	93.3	96.1	93.3	96.1
224	E25	-2644	13798	97.9	97.9	92.6	96.5	92.6	96.5
225	E26	-2678	12478	98.1	98.1	92.8	97.4	92.8	97.4
226	E27	-2712	11158	97.7	97.7	93.3	97.7	93.3	97.7
227	E28	-2746	9838	97.7	97.7	93.0	98.6	93.0	98.6
228	E29	-2780	8518	97.1	97.1	93.5	99.2	93.5	99.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
229	E30	-2814	7198	95.7	95.7	93.8	100.1	93.8	100.1
230	E31	-2848	5878	93.8	93.8	93.8	105.8	93.8	105.8
231	E32	-2882	4558	93.5	93.5	93.5	103.3	93.5	103.3
232	E33	-2916	3238	93.4	93.4	93.4	102.8	93.4	102.8
233	E34	-2950	1918	92.1	92.1	92.1	103.0	92.1	103.0
234	E35	-2984	598	89.5	89.5	89.5	102.9	89.5	102.9
235	E36	-3018	-722	91.3	91.3	91.3	102.7	91.3	102.7
236	E37	-3052	-2042	92.9	92.9	92.9	103.1	92.9	103.1
237	E38	-3086	-3362	93.5	93.5	93.5	106.0	93.5	106.0
238	E39	-3120	-4682	93.0	93.0	93.0	100.0	93.0	100.0
239	E40	-3154	-6002	94.2	94.2	92.6	99.2	92.6	99.2
240	E41	-3188	-7322	94.4	94.4	91.9	98.7	91.9	98.7
241	E42	-3222	-8642	94.2	94.2	90.4	97.9	90.4	97.9
242	E43	-3256	-9962	94.0	94.0	92.0	96.7	92.0	96.7
243	E44	-3290	-11282	93.6	93.6	89.1	96.0	89.1	96.0
244	E45	-3324	-12602	93.3	93.3	93.2	95.3	93.2	95.3
245	E46	-3358	-13922	92.8	92.8	88.7	95.3	88.7	95.3
246	E47	-3392	-15242	91.8	91.8	88.3	94.1	88.3	94.1
247	E48	-3426	-16562	90.5	90.5	88.2	93.4	88.2	93.4
248	E49	-3460	-17882	90.1	90.1	87.8	93.0	87.8	93.0
249	E50	-3494	-19202	89.6	89.6	87.4	92.6	87.4	92.6
250	E51	-3528	-20522	89.3	89.3	87.2	91.5	87.2	91.5
251	E52	-3562	-21842	89.3	89.3	87.2	91.1	87.2	91.1
252	E53	-3596	-23162	89.2	89.2	86.9	90.6	86.9	90.6
253	E54	-3630	-24482	89.1	89.1	86.3	89.9	86.3	89.9
254	E55	-3664	-25802	88.9	88.9	86.0	88.4	86.0	88.4
255	E56	-3698	-27122	88.7	88.7	85.6	88.4	85.6	88.4
256	E57	-3732	-28442	88.2	88.2	84.7	87.9	84.7	87.9
257	E58	-3766	-29762	87.8	87.8	84.0	87.3	84.0	87.3
258	E59	-3800	-31082	86.7	86.7	82.6	86.3	82.6	86.3
259	E60	-3834	-32402	87.2	87.2	83.2	86.9	83.2	86.9
260	E61	-3868	-33722	86.9	86.9	83.0	86.3	83.0	86.3
261	E62	-3902	-35042	86.7	86.7	82.8	85.5	82.8	85.5
262	E63	-3936	-36362	86.9	86.9	82.9	85.4	82.9	85.4
263	E64	-3970	-37682	87.2	87.2	83.1	85.3	83.1	85.3
264	E65	-4004	-39002	87.3	87.3	83.4	85.3	83.4	85.3
265	E66	-4038	-40322	87.4	87.4	83.5	85.2	83.5	85.2
266	E67	-4072	-41642	87.9	87.9	83.4	85.5	83.4	85.5
267	E68	-4106	-42962	88.3	88.3	83.5	85.1	83.5	85.1
268	E69	-4140	-44282	88.3	88.3	83.5	84.7	83.5	84.7
269	E70	-4174	-45602	87.9	87.9	83.0	84.2	83.0	84.2
270	E71	-4208	-46922	87.6	87.6	82.6	83.9	82.6	83.9
271	E72	-4242	-48242	86.8	86.8	82.8	83.8	82.8	83.8
272	E73	-4276	-49562	85.7	85.7	84.0	84.0	84.0	84.0
273	F1	-508	45444	90.3	90.3	86.3	86.4	85.9	86.4
274	F2	-542	44124	90.4	90.4	86.9	86.9	86.9	86.9
275	F3	-576	42804	90.6	90.6	87.2	87.2	87.2	87.2
276	F4	-610	41484	90.9	90.9	87.2	87.3	87.2	87.3
277	F5	-644	40164	91.6	91.6	87.5	87.5	87.5	87.5
278	F6	-678	38844	91.8	91.8	87.6	88.1	87.6	88.1
279	F7	-712	37524	91.7	91.7	88.4	88.5	88.4	88.5
280	F8	-746	36204	92.2	92.2	88.6	88.6	88.6	88.6
281	F9	-780	34884	92.5	92.5	88.7	88.7	88.7	88.7
282	F10	-814	33564	92.6	92.6	89.0	89.5	89.0	89.5
283	F11	-848	32244	92.9	92.9	89.7	89.7	89.7	89.7
284	F12	-882	30924	93.3	93.3	91.0	91.1	91.0	91.1
285	F13	-916	29604	93.8	93.8	91.7	91.7	91.7	91.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
286	F14	-950	28284	94.3	94.3	92.0	92.0	92.0	92.0
287	F15	-984	26964	94.9	94.9	92.8	92.8	92.8	92.8
288	F16	-1018	25644	95.6	95.6	93.3	93.3	93.3	93.3
289	F17	-1052	24324	96.2	96.2	94.6	94.6	94.6	94.6
290	F18	-1086	23004	98.1	98.1	94.5	94.5	94.5	94.5
291	F19	-1120	21684	99.1	99.1	94.7	94.7	94.7	94.7
292	F20	-1154	20364	99.9	99.9	95.7	95.7	95.7	95.7
293	F21	-1188	19044	100.3	100.3	96.7	96.7	96.7	96.7
294	F22	-1222	17724	101.3	101.3	97.4	97.4	97.4	97.4
295	F23	-1256	16404	102.1	102.1	97.6	97.6	97.6	97.6
296	F24	-1290	15084	101.9	101.9	98.5	98.5	98.3	98.3
297	F25	-1324	13764	103.0	103.0	99.8	99.8	99.0	99.0
298	F26	-1358	12444	103.1	103.1	99.9	99.9	99.9	99.9
299	F27	-1392	11124	102.9	102.9	99.6	99.6	99.5	99.5
300	F28	-1426	9804	103.7	103.7	100.0	100.3	100.0	100.3
301	F29	-1460	8484	103.7	103.7	98.5	100.4	98.5	100.4
302	F30	-1494	7164	103.0	103.0	99.2	101.3	99.2	101.3
303	F31	-1528	5844	102.3	102.3	101.0	111.5	101.0	111.5
304	F32	-1562	4524	101.4	101.4	100.4	110.5	100.4	110.5
305	F33	-1596	3204	100.7	100.7	100.7	107.6	100.7	107.6
306	F34	-1630	1884	100.0	100.0	100.0	111.7	100.0	111.7
307	F35	-1664	564	99.4	99.4	99.4	107.5	99.4	107.5
308	F36	-1698	-756	100.5	100.5	100.5	106.8	100.5	106.8
309	F37	-1732	-2076	100.5	100.5	100.5	110.5	100.5	110.5
310	F38	-1766	-3396	102.0	102.0	99.9	112.3	99.9	112.3
311	F39	-1800	-4716	101.0	101.0	99.8	102.7	99.8	102.7
312	F40	-1834	-6036	101.1	101.1	97.8	101.8	97.8	101.8
313	F41	-1868	-7356	101.1	101.1	97.0	101.0	97.0	101.0
314	F42	-1902	-8676	100.2	100.2	95.9	100.2	95.9	100.2
315	F43	-1936	-9996	100.0	100.0	94.9	99.0	94.9	99.0
316	F44	-1970	-11316	99.1	99.1	95.7	98.0	95.7	98.0
317	F45	-2004	-12636	98.3	98.3	94.1	97.1	94.1	97.1
318	F46	-2038	-13956	97.8	97.8	93.8	97.3	93.8	97.3
319	F47	-2072	-15276	96.7	96.7	93.1	95.9	93.1	95.9
320	F48	-2106	-16596	95.5	95.5	93.1	95.2	93.1	95.2
321	F49	-2140	-17916	94.8	94.8	92.1	94.9	92.1	94.9
322	F50	-2174	-19236	94.2	94.2	91.6	94.5	91.6	94.5
323	F51	-2208	-20556	93.3	93.3	91.2	93.4	91.2	93.4
324	F52	-2242	-21876	92.8	92.8	91.1	92.7	91.1	92.7
325	F53	-2276	-23196	92.2	92.2	90.8	92.2	90.8	92.2
326	F54	-2310	-24516	91.9	91.9	90.0	91.6	90.0	91.6
327	F55	-2344	-25836	91.6	91.6	89.6	90.0	89.6	90.0
328	F56	-2378	-27156	91.3	91.3	89.2	89.9	89.2	89.9
329	F57	-2412	-28476	91.3	91.3	88.9	89.0	88.9	89.0
330	F58	-2446	-29796	90.9	90.9	88.2	88.8	88.2	88.8
331	F59	-2480	-31116	90.9	90.9	87.0	88.7	87.0	88.7
332	F60	-2514	-32436	90.4	90.4	86.8	88.3	86.2	88.3
333	F61	-2548	-33756	90.2	90.2	86.3	87.8	85.7	87.8
334	F62	-2582	-35076	90.0	90.0	85.7	87.7	85.5	87.7
335	F63	-2616	-36396	89.6	89.6	85.1	87.1	85.1	87.1
336	F64	-2650	-37716	89.6	89.6	84.8	86.9	84.8	86.9
337	F65	-2684	-39036	89.5	89.5	84.8	86.6	84.7	86.6
338	F66	-2718	-40356	89.5	89.5	85.0	86.8	85.0	86.8
339	F67	-2752	-41676	89.2	89.2	85.2	86.5	85.2	86.5
340	F68	-2786	-42996	89.0	89.0	84.8	86.0	84.6	86.0
341	F69	-2820	-44316	88.6	88.6	84.3	85.4	84.2	85.4
342	F70	-2854	-45636	87.7	87.7	84.4	84.9	84.4	84.9

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
343	F71	-2888	-46956	86.8	86.8	84.8	84.8	84.8	84.8
344	F72	-2922	-48276	85.8	85.8	85.3	85.3	85.3	85.3
345	F73	-2956	-49596	86.0	86.0	86.0	86.0	86.0	86.0
346	G1	812	45410	90.3	90.3	85.5	85.5	85.5	85.5
347	G2	778	44090	90.3	90.3	85.7	85.7	85.7	85.7
348	G3	744	42770	90.4	90.4	85.9	86.1	85.9	86.1
349	G4	710	41450	90.6	90.6	86.4	86.4	86.4	86.4
350	G5	676	40130	91.2	91.2	87.2	87.2	87.2	87.2
351	G6	642	38810	91.4	91.4	87.1	87.1	87.1	87.1
352	G7	608	37490	91.4	91.4	87.7	87.7	87.7	87.7
353	G8	574	36170	91.9	91.9	87.9	87.9	87.9	87.9
354	G9	540	34850	92.2	92.2	88.2	88.2	88.2	88.2
355	G10	506	33530	92.3	92.3	88.6	88.6	88.6	88.6
356	G11	472	32210	92.6	92.6	89.4	89.4	89.4	89.4
357	G12	438	30890	93.0	93.0	90.7	90.8	90.7	90.8
358	G13	404	29570	93.5	93.5	91.3	91.4	91.3	91.4
359	G14	370	28250	94.0	94.0	91.7	91.8	91.7	91.8
360	G15	336	26930	94.5	94.5	92.4	92.4	92.4	92.4
361	G16	302	25610	95.2	95.2	93.1	93.1	93.1	93.1
362	G17	268	24290	96.0	96.0	94.2	94.2	94.2	94.2
363	G18	234	22970	97.8	97.8	94.3	94.3	94.3	94.3
364	G19	200	21650	98.9	98.9	94.4	94.4	94.4	94.4
365	G20	166	20330	99.6	99.6	95.1	95.1	95.1	95.1
366	G21	132	19010	100.1	100.1	96.1	96.1	96.1	96.1
367	G22	98	17690	101.0	101.0	97.6	97.6	97.6	97.6
368	G23	64	16370	102.3	102.3	97.5	97.5	97.5	97.5
369	G24	30	15050	102.3	102.3	98.7	98.7	98.5	98.5
370	G25	-4	13730	104.6	104.6	100.5	100.5	99.7	99.7
371	G26	-38	12410	105.1	105.1	101.0	101.0	101.0	101.0
372	G27	-72	11090	105.7	105.7	101.5	101.5	101.2	101.2
373	G28	-106	9770	107.3	107.3	102.2	102.2	101.9	101.9
374	G29	-140	8450	109.1	109.1	102.3	102.3	102.2	102.2
375	G30	-174	7130	109.6	109.6	104.5	104.5	104.1	104.1
376	G31	-208	5810	112.5	112.5	107.3	107.3	106.6	106.6
377	G32	-242	4490	127.2	127.2	123.6	123.6	123.6	123.6
378	G33	-276	3170	124.7	124.7	119.5	119.5	119.5	119.5
379	G34	-310	1850	122.4	122.4	118.0	118.0	117.8	117.8
380	G35	-344	530	122.7	122.7	117.9	117.9	117.9	117.9
381	G36	-378	-790	123.9	123.9	119.1	119.1	119.1	119.1
382	G37	-412	-2110	126.4	126.4	121.6	121.6	121.6	121.6
383	G38	-446	-3430	128.5	128.5	125.3	125.3	125.3	125.3
384	G39	-480	-4750	113.0	113.0	110.6	110.6	109.7	109.7
385	G40	-514	-6070	109.7	109.7	106.4	106.4	105.7	105.7
386	G41	-548	-7390	108.8	108.8	104.8	104.8	104.3	104.3
387	G42	-582	-8710	106.3	106.3	102.5	102.5	102.1	102.1
388	G43	-616	-10030	105.5	105.5	101.0	101.0	100.6	100.6
389	G44	-650	-11350	104.7	104.7	100.4	100.4	100.4	100.4
390	G45	-684	-12670	102.8	102.8	98.9	98.9	98.7	98.7
391	G46	-718	-13990	102.5	102.5	97.6	97.6	97.6	97.6
392	G47	-752	-15310	102.2	102.2	96.9	96.9	96.9	96.9
393	G48	-786	-16630	100.9	100.9	97.0	97.0	97.0	97.0
394	G49	-820	-17950	100.4	100.4	96.0	96.0	96.0	96.0
395	G50	-854	-19270	99.3	99.3	95.3	95.3	95.3	95.3
396	G51	-888	-20590	98.5	98.5	94.4	94.4	94.4	94.4
397	G52	-922	-21910	98.0	98.0	94.2	94.2	94.2	94.2
398	G53	-956	-23230	97.2	97.2	94.0	94.0	94.0	94.0
399	G54	-990	-24550	96.1	96.1	93.0	93.0	93.0	93.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
400	G55	-1024	-25870	94.6	94.6	92.4	92.4	92.4	92.4
401	G56	-1058	-27190	93.9	93.9	91.9	91.9	91.9	91.9
402	G57	-1092	-28510	93.3	93.3	91.6	91.6	91.6	91.6
403	G58	-1126	-29830	92.8	92.8	90.8	90.8	90.8	90.8
404	G59	-1160	-31150	92.3	92.3	89.5	89.9	89.5	89.9
405	G60	-1194	-32470	92.0	92.0	88.9	88.9	88.9	88.9
406	G61	-1228	-33790	91.9	91.9	88.4	88.8	88.4	88.8
407	G62	-1262	-35110	91.4	91.4	88.0	88.6	87.9	88.6
408	G63	-1296	-36430	91.3	91.3	88.0	88.5	88.0	88.5
409	G64	-1330	-37750	90.9	90.9	87.9	87.9	87.9	88.0
410	G65	-1364	-39070	90.5	90.5	87.5	87.7	87.5	87.7
411	G66	-1398	-40390	90.0	90.0	87.3	87.8	87.3	87.8
412	G67	-1432	-41710	89.2	89.2	87.5	87.5	87.5	87.4
413	G68	-1466	-43030	88.6	88.6	87.2	87.2	87.2	87.9
414	G69	-1500	-44350	88.2	88.2	86.8	86.8	86.8	87.1
415	G70	-1534	-45670	88.0	88.0	86.9	86.9	86.9	86.9
416	G71	-1568	-46990	87.7	87.7	87.0	87.0	87.0	87.0
417	G72	-1602	-48310	87.0	87.0	87.0	87.0	87.0	87.0
418	G73	-1636	-49630	86.7	86.7	86.7	86.7	86.7	86.7
419	H1	2132	45376	88.8	88.8	84.3	84.3	84.3	84.3
420	H2	2098	44056	88.7	88.7	84.6	84.6	84.2	84.6
421	H3	2064	42736	88.8	88.8	84.9	84.9	84.4	84.9
422	H4	2030	41416	88.9	88.9	85.0	85.0	84.7	85.0
423	H5	1996	40096	89.3	89.3	85.7	85.7	85.1	85.7
424	H6	1962	38776	89.5	89.5	85.9	85.9	85.2	85.9
425	H7	1928	37456	89.5	89.5	86.2	86.2	85.5	86.2
426	H8	1894	36136	89.9	89.9	86.5	86.5	85.6	86.5
427	H9	1860	34816	90.1	90.1	87.1	87.1	85.7	87.1
428	H10	1826	33496	90.2	90.2	87.5	87.5	86.1	87.5
429	H11	1792	32176	90.6	90.6	87.4	87.4	87.0	87.4
430	H12	1758	30856	90.7	90.7	88.0	88.1	88.0	88.1
431	H13	1724	29536	91.4	91.4	88.7	88.8	88.7	88.8
432	H14	1690	28216	91.3	91.3	89.1	89.1	89.1	89.1
433	H15	1656	26896	91.9	91.9	89.6	89.6	89.6	89.6
434	H16	1622	25576	92.2	92.2	90.0	90.0	90.0	90.0
435	H17	1588	24256	92.4	92.4	90.8	90.8	90.8	90.8
436	H18	1554	22936	93.6	93.6	91.0	91.0	91.0	91.0
437	H19	1520	21616	94.4	94.4	91.1	91.1	91.1	91.1
438	H20	1486	20296	95.0	95.0	91.4	91.4	91.4	91.4
439	H21	1452	18976	95.3	95.3	92.1	92.1	92.1	92.1
440	H22	1418	17656	95.6	95.6	93.3	93.3	93.3	93.3
441	H23	1384	16336	97.4	97.4	93.3	93.3	93.3	93.3
442	H24	1350	15016	98.5	98.5	93.9	93.9	93.9	93.9
443	H25	1316	13696	99.3	99.3	95.0	95.0	95.0	95.0
444	H26	1282	12376	100.8	100.8	96.4	96.4	96.4	96.4
445	H27	1248	11056	101.1	101.1	97.1	97.1	97.1	97.1
446	H28	1214	9736	102.1	102.1	97.8	97.8	97.8	97.8
447	H29	1180	8416	103.6	103.6	98.6	98.6	98.6	98.6
448	H30	1146	7096	103.8	103.8	99.9	99.9	99.9	99.9
449	H31	1112	5776	107.4	107.4	107.4	101.6	107.4	101.6
450	H32	1078	4456	107.3	107.3	107.3	127.7	107.3	127.7
451	H33	1044	3136	107.3	107.3	105.1	116.8	105.1	116.8
452	H34	1010	1816	111.7	111.7	108.7	113.9	108.7	113.9
453	H35	976	496	109.6	109.6	105.8	114.5	105.8	114.5
454	H36	942	-824	108.6	108.6	103.8	110.8	103.8	110.8
455	H37	908	-2144	109.9	109.9	108.1	116.4	108.1	116.4
456	H38	874	-3464	112.0	112.0	111.8	111.2	111.8	111.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
457	H39	840	-4784	111.8	111.8	111.8	111.5	111.8	108.0
458	H40	806	-6104	107.7	107.7	107.7	107.8	107.7	107.3
459	H41	772	-7424	106.4	106.4	101.3	101.3	101.3	101.3
460	H42	738	-8744	105.8	105.8	100.1	100.7	100.1	100.7
461	H43	704	-10064	106.5	106.5	100.3	100.5	100.3	100.5
462	H44	670	-11384	104.7	104.7	99.6	99.6	99.6	99.6
463	H45	636	-12704	104.2	104.2	98.5	99.2	98.4	99.2
464	H46	602	-14024	104.6	104.6	97.8	98.1	97.8	98.1
465	H47	568	-15344	103.4	103.4	96.9	97.3	96.9	97.3
466	H48	534	-16664	102.5	102.5	97.1	97.4	97.1	97.4
467	H49	500	-17984	102.7	102.7	96.1	96.1	96.0	96.1
468	H50	466	-19304	101.3	101.3	95.3	95.4	95.3	95.4
469	H51	432	-20624	100.5	100.5	94.5	94.8	94.5	94.8
470	H52	398	-21944	100.3	100.3	94.5	95.0	94.5	95.0
471	H53	364	-23264	99.7	99.7	94.5	93.9	94.5	93.9
472	H54	330	-24584	98.5	98.5	93.5	93.2	93.5	93.2
473	H55	296	-25904	96.9	96.9	92.9	92.7	92.9	92.7
474	H56	262	-27224	96.0	96.0	92.3	92.3	92.3	92.3
475	H57	228	-28544	95.3	95.3	92.0	91.8	92.0	91.8
476	H58	194	-29864	94.7	94.7	91.3	91.1	91.3	91.1
477	H59	160	-31184	94.2	94.2	90.3	90.3	90.3	90.6
478	H60	126	-32504	93.9	93.9	90.3	90.3	90.3	90.3
479	H61	92	-33824	93.8	93.8	90.3	90.3	90.3	90.3
480	H62	58	-35144	93.3	93.3	89.8	89.8	89.8	89.8
481	H63	24	-36464	93.1	93.1	89.2	89.2	89.2	89.2
482	H64	-10	-37784	92.7	92.7	88.7	88.7	88.7	88.7
483	H65	-44	-39104	92.0	92.0	88.5	88.5	88.5	88.5
484	H66	-78	-40424	91.8	91.8	88.2	88.2	88.2	88.2
485	H67	-112	-41744	90.7	90.7	88.3	88.3	88.3	88.3
486	H68	-146	-43064	89.4	89.4	88.2	88.2	88.2	88.4
487	H69	-180	-44384	89.1	89.1	87.6	87.6	87.6	87.9
488	H70	-214	-45704	88.9	88.9	87.4	87.4	87.4	87.4
489	H71	-248	-47024	88.4	88.4	87.2	87.2	87.2	87.2
490	H72	-282	-48344	87.5	87.5	87.1	87.1	87.1	87.1
491	H73	-316	-49664	87.2	87.2	85.9	86.0	85.9	86.3
492	I1	3452	45342	86.5	86.5	83.3	83.3	82.6	83.3
493	I2	3418	44022	86.6	86.6	83.4	83.4	82.7	83.4
494	I3	3384	42702	86.7	86.7	83.5	83.5	82.8	83.5
495	I4	3350	41382	86.7	86.7	83.5	83.5	82.9	83.5
496	I5	3316	40062	87.1	87.1	83.9	83.9	83.4	83.9
497	I6	3282	38742	87.4	87.4	84.1	84.1	83.6	84.1
498	I7	3248	37422	87.5	87.5	84.2	84.2	83.7	84.2
499	I8	3214	36102	87.9	87.9	84.4	84.4	83.8	84.4
500	I9	3180	34782	88.0	88.0	84.8	84.8	84.0	84.8
501	I10	3146	33462	88.2	88.2	84.9	84.9	84.3	84.9
502	I11	3112	32142	88.5	88.5	84.8	84.8	84.6	84.8
503	I12	3078	30822	88.8	88.8	85.2	85.2	85.2	85.2
504	I13	3044	29502	89.1	89.1	85.6	85.6	85.6	85.6
505	I14	3010	28182	89.2	89.2	85.7	85.8	85.7	85.8
506	I15	2976	26862	89.4	89.4	86.0	86.1	86.0	86.1
507	I16	2942	25542	89.4	89.4	86.3	86.3	86.3	86.3
508	I17	2908	24222	89.5	89.5	86.9	86.9	86.9	86.9
509	I18	2874	22902	89.4	89.4	87.1	87.1	87.1	87.1
510	I19	2840	21582	89.9	89.9	87.1	87.1	87.1	87.1
511	I20	2806	20262	90.3	90.3	87.5	87.5	87.5	87.5
512	I21	2772	18942	90.6	90.6	87.8	87.8	87.8	87.8
513	I22	2738	17622	91.0	91.0	88.4	88.4	88.4	88.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
514	I23	2704	16302	92.5	92.5	88.7	88.7	88.7	88.7
515	I24	2670	14982	93.1	93.1	88.4	88.4	88.4	88.4
516	I25	2636	13662	93.4	93.4	89.0	89.0	89.0	89.0
517	I26	2602	12342	93.7	93.7	89.3	89.3	89.3	89.3
518	I27	2568	11022	94.5	94.5	90.1	90.1	90.1	90.1
519	I28	2534	9702	95.3	95.3	90.8	90.8	90.8	90.8
520	I29	2500	8382	96.1	96.1	92.3	92.3	92.3	92.3
521	I30	2466	7062	95.7	95.7	93.7	93.7	93.7	93.7
522	I31	2432	5742	95.0	95.0	95.0	95.0	95.0	95.0
523	I32	2398	4422	96.3	96.3	96.3	96.3	96.3	96.3
524	I33	2364	3102	96.6	96.6	96.6	96.6	96.6	96.6
525	I34	2330	1782	95.4	95.4	95.4	95.4	95.4	95.4
526	I35	2296	462	93.4	93.4	93.4	93.4	93.4	93.4
527	I36	2262	-858	93.2	93.2	92.4	91.8	92.4	91.8
528	I37	2228	-2178	94.2	94.2	93.9	93.5	93.9	93.5
529	I38	2194	-3498	95.7	95.7	95.7	95.7	95.7	95.7
530	I39	2160	-4818	96.8	96.8	96.8	96.8	96.8	96.8
531	I40	2126	-6138	96.7	96.7	96.7	96.7	96.7	96.7
532	I41	2092	-7458	96.1	96.1	96.0	96.0	96.0	96.8
533	I42	2058	-8778	96.9	96.9	95.4	95.4	95.4	95.4
534	I43	2024	-10098	97.9	97.9	94.9	94.9	94.9	94.9
535	I44	1990	-11418	97.0	97.0	93.4	93.4	93.4	93.4
536	I45	1956	-12738	97.3	97.3	92.9	92.9	92.9	92.9
537	I46	1922	-14058	98.0	98.0	93.0	93.0	93.0	93.0
538	I47	1888	-15378	97.6	97.6	92.7	92.7	92.7	92.7
539	I48	1854	-16698	97.5	97.5	93.0	93.0	93.0	93.0
540	I49	1820	-18018	97.9	97.9	92.4	92.4	92.4	92.4
541	I50	1786	-19338	97.3	97.3	92.0	92.1	92.0	92.1
542	I51	1752	-20658	97.3	97.3	92.0	92.2	92.0	92.2
543	I52	1718	-21978	97.0	97.0	92.0	92.1	92.0	92.1
544	I53	1684	-23298	96.7	96.7	91.9	91.4	91.9	91.4
545	I54	1650	-24618	95.9	95.9	91.3	91.1	91.3	91.1
546	I55	1616	-25938	94.6	94.6	91.0	90.9	91.0	90.9
547	I56	1582	-27258	94.2	94.2	90.7	90.5	90.7	90.5
548	I57	1548	-28578	93.9	93.9	90.5	89.9	90.5	89.9
549	I58	1514	-29898	93.6	93.6	90.0	90.0	90.0	90.0
550	I59	1480	-31218	93.3	93.3	89.4	89.4	89.4	89.4
551	I60	1446	-32538	93.2	93.2	89.5	89.5	89.5	89.5
552	I61	1412	-33858	93.2	93.2	89.6	89.6	89.6	89.6
553	I62	1378	-35178	92.8	92.8	89.1	89.1	89.1	89.1
554	I63	1344	-36498	92.9	92.9	88.9	88.9	88.9	88.9
555	I64	1310	-37818	92.7	92.7	88.8	88.8	88.8	88.8
556	I65	1276	-39138	92.5	92.5	88.9	88.9	88.9	88.9
557	I66	1242	-40458	92.4	92.4	88.6	88.6	88.6	88.6
558	I67	1208	-41778	91.8	91.8	88.0	87.8	88.0	87.8
559	I68	1174	-43098	91.4	91.4	87.1	87.0	87.1	87.0
560	I69	1140	-44418	90.1	90.1	86.2	86.6	86.2	86.6
561	I70	1106	-45738	88.6	88.6	85.8	86.2	85.8	86.2
562	I71	1072	-47058	88.1	88.1	85.3	85.7	85.3	85.7
563	I72	1038	-48378	87.4	87.4	85.4	85.4	85.4	85.3
564	I73	1004	-49698	86.8	86.8	85.7	85.7	85.7	85.9
565	J8	4534	36068	85.2	85.2	81.4	81.4	81.3	81.4
566	J9	4500	34748	85.4	85.4	81.6	81.6	81.4	81.6
567	J10	4466	33428	85.6	85.6	81.7	81.7	81.6	81.7
568	J11	4432	32108	85.8	85.8	81.8	81.8	81.8	81.8
569	J12	4398	30788	86.0	86.0	82.1	82.1	82.1	82.1
570	J13	4364	29468	86.2	86.2	82.4	82.4	82.4	82.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
571	J14	4330	28148	86.2	86.2	82.6	82.7	82.6	82.7
572	J15	4296	26828	86.3	86.3	82.9	82.9	82.9	82.9
573	J16	4262	25508	86.3	86.3	83.0	83.1	83.0	83.1
574	J17	4228	24188	86.2	86.2	83.4	83.4	83.4	83.4
575	J18	4194	22868	86.1	86.1	83.7	83.7	83.7	83.7
576	J19	4160	21548	86.2	86.2	83.8	83.8	83.8	83.8
577	J20	4126	20228	86.4	86.4	84.1	84.1	84.1	84.1
578	J21	4092	18908	86.7	86.7	84.3	84.3	84.3	84.3
579	J22	4058	17588	87.2	87.2	85.1	85.1	85.1	85.1
580	J23	4024	16268	88.3	88.3	85.7	85.7	85.7	85.7
581	J24	3990	14948	89.1	89.1	85.0	85.0	85.0	85.0
582	J25	3956	13628	89.5	89.5	85.4	85.4	85.4	85.4
583	J26	3922	12308	89.3	89.3	85.1	85.1	85.1	85.1
584	J27	3888	10988	89.5	89.5	85.7	85.7	85.7	85.7
585	J28	3854	9668	89.8	89.8	86.4	86.4	86.4	86.4
586	J29	3820	8348	89.7	89.7	87.3	87.3	87.3	87.3
587	J30	3786	7028	88.7	88.7	88.4	88.4	88.4	88.4
588	J31	3752	5708	89.0	89.0	89.0	89.0	89.0	89.0
589	J32	3718	4388	90.2	90.2	90.2	90.2	90.2	90.2
590	J33	3684	3068	90.2	90.2	90.2	90.2	90.2	90.2
591	J34	3650	1748	88.9	88.9	88.9	88.9	88.9	88.9
592	J35	3616	428	86.7	86.7	86.7	86.7	86.7	86.7
593	J36	3582	-892	86.6	86.6	86.6	86.6	86.6	86.6
594	J37	3548	-2212	87.9	87.9	87.9	87.9	87.9	87.9
595	J38	3514	-3532	89.4	89.4	89.4	89.4	89.4	89.4
596	J39	3480	-4852	90.6	90.6	90.6	90.6	90.6	90.6
597	J40	3446	-6172	91.0	91.0	91.0	91.0	91.0	91.0
598	J41	3412	-7492	90.4	90.4	90.4	90.4	90.4	90.4
599	J42	3378	-8812	90.4	90.4	90.3	90.3	90.3	90.3
600	J43	3344	-10132	91.3	91.3	89.8	89.8	89.8	89.8
601	J44	3310	-11452	91.5	91.5	88.9	88.9	88.9	88.9
602	J45	3276	-12772	91.8	91.8	88.2	88.2	88.2	88.2
603	J46	3242	-14092	91.3	91.3	87.8	87.8	87.8	87.8
604	J47	3208	-15412	91.4	91.4	87.8	87.8	87.8	87.8
605	J48	3174	-16732	91.7	91.7	87.9	87.9	87.9	87.9
606	J49	3140	-18052	91.8	91.8	88.0	88.0	88.0	88.0
607	J50	3106	-19372	91.8	91.8	88.1	88.1	88.1	88.1
608	J51	3072	-20692	91.9	91.9	88.0	88.0	88.0	88.0
609	J52	3038	-22012	91.9	91.9	87.9	87.9	87.9	87.9
610	J53	3004	-23332	91.6	91.6	87.7	87.4	87.7	87.4
611	J54	2970	-24652	91.2	91.2	87.5	87.5	87.5	87.5
612	J55	2936	-25972	89.9	89.9	87.2	87.1	87.2	87.1
613	J56	2902	-27292	89.8	89.8	87.1	86.8	87.1	86.8
614	J57	2868	-28612	89.8	89.8	86.9	86.7	86.9	86.7
615	J58	2834	-29932	89.9	89.9	86.5	86.4	86.5	86.4
616	J59	2800	-31252	90.1	90.1	86.4	86.4	86.4	86.4
617	J60	2766	-32572	90.2	90.2	86.3	86.3	86.3	86.3
618	J61	2732	-33892	90.4	90.4	86.2	86.2	86.2	86.2
619	J62	2698	-35212	90.6	90.6	86.4	86.4	86.4	86.4
620	J63	2664	-36532	90.6	90.6	86.3	86.3	86.3	86.3
621	J64	2630	-37852	90.8	90.8	86.8	86.8	86.8	86.8
622	J65	2596	-39172	91.1	91.1	87.3	87.3	87.3	87.3
623	J66	2562	-40492	91.2	91.2	87.4	87.4	87.4	87.4
624	J67	2528	-41812	91.7	91.7	87.4	87.4	87.4	87.4
625	J68	2494	-43132	91.7	91.7	87.7	87.2	87.7	87.2
626	J69	2460	-44452	91.1	91.1	87.8	86.8	87.8	86.8
627	J70	2426	-45772	90.5	90.5	86.9	86.3	86.9	86.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
628	J71	2392	-47092	89.2	89.2	85.0	85.6	85.0	85.6
629	J72	2358	-48412	87.2	87.2	83.7	84.7	83.3	84.7
630	J73	2324	-49732	86.6	86.6	83.6	83.6	83.2	83.6
631	K15	5616	26794	83.5	83.5	81.1	81.1	81.1	81.1
632	K16	5582	25474	83.5	83.5	80.7	80.7	80.7	80.7
633	K17	5548	24154	83.3	83.3	81.9	81.9	81.9	81.9
634	K18	5514	22834	83.2	83.2	82.3	82.3	82.3	82.3
635	K19	5480	21514	83.2	83.2	82.3	82.3	82.3	82.3
636	K20	5446	20194	83.4	83.4	83.4	83.4	83.4	83.4
637	K21	5412	18874	83.5	83.5	83.2	83.2	83.2	83.2
638	K22	5378	17554	84.8	84.8	84.8	84.8	84.8	84.8
639	K23	5344	16234	84.7	84.7	84.1	84.1	84.1	84.1
640	K24	5310	14914	85.4	85.4	81.8	81.8	81.8	81.8
641	K25	5276	13594	85.8	85.8	81.9	81.9	81.9	81.9
642	K26	5242	12274	85.8	85.8	82.1	82.1	82.1	82.1
643	K27	5208	10954	85.6	85.6	82.4	82.4	82.4	82.4
644	K28	5174	9634	85.7	85.7	82.9	82.9	82.9	82.9
645	K29	5140	8314	85.1	85.1	83.3	83.3	83.3	83.3
646	K30	5106	6994	84.2	84.2	84.2	84.2	84.2	84.2
647	K31	5072	5674	84.7	84.7	84.7	84.7	84.7	84.7
648	K32	5038	4354	85.6	85.6	85.6	85.6	85.6	85.6
649	K33	5004	3034	85.5	85.5	85.5	85.5	85.5	85.5
650	K34	4970	1714	84.2	84.2	84.2	84.2	84.2	84.2
651	K35	4936	394	82.3	82.3	82.2	82.2	82.2	82.2
652	K36	4902	-926	82.8	82.8	82.4	82.4	82.4	82.4
653	K37	4868	-2246	83.5	83.5	83.5	83.5	83.5	83.5
654	K38	4834	-3566	84.8	84.8	84.8	84.8	84.8	84.8
655	K39	4800	-4886	85.6	85.6	85.6	85.6	85.6	85.6
656	K40	4766	-6206	86.2	86.2	86.2	86.2	86.2	86.2
657	K41	4732	-7526	86.3	86.3	86.3	86.3	86.3	86.3
658	K42	4698	-8846	86.4	86.4	86.4	86.4	86.4	86.4
659	K43	4664	-10166	86.8	86.8	85.7	85.7	85.7	85.7
660	K44	4630	-11486	84.9	84.9	84.9	84.9	84.9	84.9
661	K45	4596	-12806	87.2	87.2	87.2	87.2	87.2	87.2
662	K46	4562	-14126	86.4	86.4	86.4	86.4	86.4	86.4
663	K47	4528	-15446	87.6	87.6	87.6	87.6	87.6	87.6
664	K48	4494	-16766	87.2	87.2	86.6	86.6	86.6	86.5
665	K49	4460	-18086	86.8	86.8	85.6	85.6	85.6	85.6
666	K50	4426	-19406	86.4	86.4	84.7	84.7	84.7	84.7
667	K51	4392	-20726	86.4	86.4	84.4	84.4	84.4	84.4
668	K52	4358	-22046	87.2	87.2	84.6	84.6	84.6	84.6
669	K53	4324	-23366	87.6	87.6	84.7	84.7	84.7	84.7
670	K54	4290	-24686	87.0	87.0	84.5	84.5	84.5	84.5
671	K55	4256	-26006	86.1	86.1	84.1	84.1	84.1	84.1
672	K56	4222	-27326	86.3	86.3	83.9	83.9	83.9	83.9
673	K57	4188	-28646	86.5	86.5	83.8	83.8	83.8	83.8
674	K58	4154	-29966	86.4	86.4	83.6	83.6	83.6	83.6
675	K59	4120	-31286	86.6	86.6	83.6	83.6	83.6	83.6
676	K60	4086	-32606	86.9	86.9	83.5	83.5	83.5	83.5
677	K61	4052	-33926	87.2	87.2	83.4	83.4	83.4	83.4
678	K62	4018	-35246	87.4	87.4	83.2	83.2	83.2	83.2
679	K63	3984	-36566	87.6	87.6	83.3	83.3	83.3	83.3
680	K64	3950	-37886	87.9	87.9	83.7	83.7	83.7	83.7
681	K65	3916	-39206	88.3	88.3	84.2	84.2	84.2	84.2
682	K66	3882	-40526	89.0	89.0	84.9	84.9	84.9	84.9
683	K67	3848	-41846	90.0	90.0	85.8	85.8	85.8	85.8
684	K68	3814	-43166	90.7	90.7	86.8	86.4	86.8	86.4

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SEL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
685	K69	3780	-44486	91.3	91.3	87.7	86.9	87.7	86.9
686	K70	3746	-45806	91.3	91.3	87.1	86.6	87.1	86.6
687	K71	3712	-47126	90.4	90.4	86.4	85.6	86.4	85.6
688	K72	3678	-48446	89.0	89.0	84.6	85.2	84.6	85.2
689	K73	3644	-49766	86.9	86.9	82.8	84.5	82.6	84.5
690	L24	6630	14880	82.3	82.3	78.9	78.9	78.9	78.9
691	L25	6596	13560	82.6	82.6	79.0	79.0	79.0	79.0
692	L26	6562	12240	82.8	82.8	79.5	79.5	79.5	79.5
693	L27	6528	10920	82.9	82.9	80.0	80.0	80.0	80.0
694	L28	6494	9600	82.3	82.3	79.8	79.8	79.8	79.8
695	L29	6460	8280	81.9	81.9	80.2	80.2	80.2	80.2
696	L30	6426	6960	80.7	80.7	80.7	80.7	80.7	80.7
697	L31	6392	5640	81.3	81.3	81.3	81.3	81.3	81.3
698	L32	6358	4320	82.3	82.3	82.3	82.3	82.3	82.3
699	L33	6324	3000	81.7	81.7	81.6	81.6	81.6	81.6
700	L34	6290	1680	80.5	80.5	80.5	80.5	80.5	80.5
701	L35	6256	360	79.4	79.4	78.8	78.8	78.8	78.8
702	L36	6222	-960	79.7	79.7	78.9	78.9	78.9	78.9
703	L37	6188	-2280	80.0	80.0	80.0	79.9	80.0	79.9
704	L38	6154	-3600	80.9	80.9	80.7	80.6	80.7	80.6
705	L39	6120	-4920	81.7	81.7	81.4	81.4	81.4	81.4
706	L40	6086	-6240	81.7	81.7	81.7	81.7	81.7	81.7
707	L41	6052	-7560	82.6	82.6	82.6	82.6	82.6	82.6
708	L42	6018	-8880	81.2	81.2	80.1	80.1	80.1	80.1
709	L43	5984	-10200	82.0	82.0	81.0	81.0	81.0	81.0
710	L44	5950	-11520	83.9	83.9	81.9	81.9	81.9	81.9
711	L45	5916	-12840	84.1	84.1	84.1	84.1	84.1	84.1
712	L46	5882	-14160	85.5	85.5	85.5	85.5	85.5	85.5
713	L47	5848	-15480	85.3	85.3	85.3	85.3	85.3	85.3
714	L48	5814	-16800	85.8	85.8	85.8	85.8	85.8	85.8
715	L49	5780	-18120	84.2	84.2	84.2	84.2	84.2	84.2
716	L50	5746	-19440	84.5	84.5	84.5	84.5	84.5	84.5
717	L51	5712	-20760	84.1	84.1	83.5	83.5	83.5	83.5
718	L52	5678	-22080	83.0	83.0	83.0	83.0	83.0	83.0
719	L53	5644	-23400	81.9	81.9	81.9	81.9	81.9	81.9
720	L54	5610	-24720	82.6	82.6	81.4	81.4	81.4	81.4
721	L55	5576	-26040	83.2	83.2	81.3	81.3	81.3	81.3
722	L56	5542	-27360	83.4	83.4	81.2	81.2	81.2	81.2
723	L57	5508	-28680	83.6	83.6	81.1	81.1	81.1	81.1
724	L58	5474	-30000	83.7	83.7	80.9	80.9	80.9	80.9
725	L59	5440	-31320	83.8	83.8	80.9	80.9	80.9	80.9
726	L60	5406	-32640	84.0	84.0	80.9	80.9	80.9	80.9
727	L61	5372	-33960	84.2	84.2	80.8	80.8	80.8	80.8
728	L62	5338	-35280	84.3	84.3	80.7	80.7	80.7	80.7
729	L63	5304	-36600	84.6	84.6	80.8	80.8	80.8	80.8
730	L64	5270	-37920	85.3	85.3	81.4	81.4	81.4	81.4
731	L65	5236	-39240	85.6	85.6	81.8	81.8	81.8	81.8
732	L66	5202	-40560	86.3	86.3	82.3	82.3	82.3	82.3
733	L67	5168	-41880	87.4	87.4	83.3	83.3	83.3	83.3
734	L68	5134	-43200	88.8	88.8	84.7	84.7	84.7	84.7
735	L69	5100	-44520	90.1	90.1	85.9	85.8	85.9	85.8
736	L70	5066	-45840	90.8	90.8	86.9	85.9	86.9	85.9
737	L71	5032	-47160	90.6	90.6	86.9	85.7	86.9	85.7
738	L72	4998	-48480	89.6	89.6	86.0	85.2	86.0	85.2
739	L73	4964	-49800	88.3	88.3	84.4	85.2	84.4	85.2
740	M28	7814	9566	79.7	79.7	77.4	77.4	77.4	77.4
741	M29	7780	8246	79.4	79.4	77.7	77.7	77.7	77.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
742	M30	7746	6926	78.7	78.7	78.2	78.2	78.2	78.2
743	M31	7712	5606	78.3	78.3	78.3	77.0	78.3	77.0
744	M32	7678	4286	78.5	78.5	77.3	77.6	77.3	77.6
745	M33	7644	2966	79.1	79.1	78.1	78.2	78.1	78.2
746	M34	7610	1646	77.9	77.9	77.1	77.1	77.1	77.1
747	M35	7576	326	76.9	76.9	75.1	75.1	75.1	75.1
748	M36	7542	-994	77.1	77.1	75.1	75.1	75.1	75.1
749	M37	7508	-2314	77.4	77.4	77.1	76.7	77.1	76.7
750	M38	7474	-3634	78.3	78.3	77.8	77.3	77.8	77.3
751	M39	7440	-4954	79.2	79.2	78.5	78.5	78.5	78.5
752	M40	7406	-6274	78.5	78.5	77.6	77.6	77.6	77.6
753	M41	7372	-7594	78.5	78.5	77.0	77.0	77.0	77.0
754	M42	7338	-8914	80.1	80.1	79.5	79.5	79.5	79.5
755	M43	7304	-10234	80.7	80.7	79.2	79.2	79.2	79.2
756	M44	7270	-11554	80.9	80.9	78.8	78.8	78.8	78.8
757	M45	7236	-12874	81.6	81.6	81.6	81.6	81.6	81.6
758	M46	7202	-14194	84.4	84.4	84.4	84.4	84.4	84.4
759	M47	7168	-15514	84.1	84.1	84.1	84.1	84.1	84.1
760	M48	7134	-16834	84.8	84.8	84.8	84.8	84.8	84.8
761	M49	7100	-18154	84.8	84.8	84.8	84.8	84.8	84.8
762	M50	7066	-19474	82.8	82.8	82.8	82.8	82.8	82.8
763	M51	7032	-20794	82.8	82.8	82.8	82.8	82.8	82.8
764	M52	6998	-22114	83.5	83.5	83.5	83.5	83.5	83.5
765	M53	6964	-23434	82.9	82.9	82.9	82.9	82.9	82.9
766	M54	6930	-24754	81.4	81.4	81.4	81.4	81.4	81.4
767	M55	6896	-26074	79.8	79.8	79.8	79.8	79.8	79.8
768	M56	6862	-27394	79.5	79.5	77.6	77.6	77.6	77.6
769	M57	6828	-28714	79.9	79.9	77.1	77.1	77.1	77.1
770	M58	6794	-30034	80.3	80.3	77.7	77.7	77.7	77.7
771	M59	6760	-31354	81.2	81.2	78.3	78.3	78.3	78.3
772	M60	6726	-32674	81.3	81.3	78.3	78.3	78.3	78.3
773	M61	6692	-33994	81.5	81.5	78.1	78.1	78.1	78.1
774	M62	6658	-35314	81.6	81.6	78.2	78.2	78.2	78.2
775	M63	6624	-36634	82.1	82.1	78.5	78.5	78.5	78.5
776	M64	6590	-37954	82.7	82.7	79.1	79.1	79.1	79.1
777	M65	6556	-39274	83.2	83.2	79.6	79.6	79.6	79.6
778	M66	6522	-40594	84.0	84.0	80.5	80.5	80.5	80.5
779	M67	6488	-41914	85.1	85.1	81.4	81.4	81.4	81.4
780	M68	6454	-43234	86.4	86.4	82.4	82.4	82.4	82.4
781	M69	6420	-44554	88.0	88.0	83.7	83.6	83.7	83.6
782	M70	6386	-45874	89.4	89.4	85.6	84.8	85.6	84.8
783	M71	6352	-47194	89.8	89.8	86.5	85.3	86.5	85.3
784	M72	6318	-48514	89.8	89.8	86.7	85.3	86.7	85.3
785	M73	6284	-49834	89.3	89.3	86.1	85.1	86.1	85.1
786	N38	8794	-3668	76.1	76.1	74.7	74.7	74.7	74.7
787	N39	8760	-4988	77.0	77.0	76.1	76.1	76.1	76.1
788	N40	8726	-6308	76.5	76.5	75.6	75.6	75.6	75.6
789	N41	8692	-7628	76.9	76.9	76.6	76.6	76.6	76.6
790	N42	8658	-8948	77.6	77.6	76.6	76.6	76.6	76.6
791	N43	8624	-10268	78.1	78.1	76.4	76.4	76.4	76.4
792	N44	8590	-11588	78.3	78.3	76.5	76.5	76.5	76.5
793	N45	8556	-12908	79.1	79.1	79.1	79.1	79.1	79.1
794	N67	7808	-41948	82.8	82.8	79.5	79.5	79.5	79.5
795	N68	7774	-43268	84.3	84.3	80.7	80.7	80.7	80.7
796	N69	7740	-44588	85.7	85.7	81.8	81.8	81.8	81.8
797	N70	7706	-45908	87.4	87.4	83.7	83.3	83.7	83.3
798	N71	7672	-47228	88.9	88.9	85.6	84.4	85.6	84.4

Table C-3-21

Seattle-Tacoma International Airport
Master Plan Supplemental Environmental Impact Statement

COMPARATIVE LOCATIONAL ANALYSIS
SEL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
799	NSF:A2	-211	29983	93.7	93.7	91.6	91.7	91.6	91.7
800	NSF:A4	7371	16174	80.2	80.2	80.2	80.2	80.2	80.2
801	NSF:A5	-1123	35137	92.5	92.5	88.6	88.6	88.6	88.6
802	NSF:A6	1725	32917	90.6	90.6	87.5	87.5	86.6	87.5
803	NSF:A7	965	35389	91.8	91.8	87.5	87.5	87.5	87.5
804	NSF:A8	2868	26738	89.6	89.6	86.3	86.4	86.3	86.4
805	NSF:A9	8593	-17214	83.2	83.2	83.2	83.2	83.2	83.2
806	NSF:C1	3519	-33425	88.4	88.4	84.5	84.5	84.5	84.5
807	NSF:C10	-8024	7589	79.6	79.6	78.5	82.2	78.5	82.2
808	NSF:C11	-1535	-46185	88.0	88.0	86.9	86.9	86.9	86.9
809	NSF:C15	-3260	-41687	88.9	88.9	84.1	86.7	83.9	86.7
810	NSF:C16	2631	-42354	91.8	91.8	87.5	87.3	87.5	87.3
811	NSF:C17	-3636	10597	93.7	93.7	90.9	94.0	90.9	94.0
812	NSF:C19	-6737	-6317	85.7	85.7	85.7	97.4	85.7	97.4
813	NSF:C2	6733	-4869	80.5	80.5	80.2	80.2	80.2	80.2
814	NSF:C21	3694	-38594	88.6	88.6	84.6	84.6	84.6	84.6
815	NSF:C22	295	-16585	102.8	102.8	97.3	97.7	97.3	97.7
816	NSF:C23	-4396	-15838	88.0	88.0	85.3	90.3	85.3	90.3
817	NSF:C24	-3498	-16804	90.3	90.3	87.9	93.1	87.9	93.1
818	NSF:C28	-5727	-46163	87.6	87.6	82.8	82.8	82.8	82.8
819	NSF:C29	-386	-17316	101.9	101.9	97.2	97.2	97.2	97.2
820	NSF:C3	158	16285	102.0	102.0	97.4	97.4	97.4	97.4
821	NSF:C31	-6076	-46160	87.4	87.4	82.9	82.9	82.9	82.9
822	NSF:C32	-5243	-46778	87.8	87.8	82.8	82.8	82.8	82.8
823	NSF:C34	-8355	-45977	86.0	86.0	82.4	82.8	82.4	82.8
824	NSF:C35	-6358	-9758	84.0	84.0	82.6	90.3	82.6	90.3
825	NSF:C37	-5175	-47057	87.7	87.7	82.7	82.8	82.7	82.8
826	NSF:C38	-6431	-10969	90.7	90.7	90.7	90.9	90.7	90.9
827	NSF:C39	375	-25346	97.9	97.9	93.1	92.8	93.1	92.8
828	NSF:C40	1436	-17815	99.7	99.7	94.1	94.1	94.1	94.2
829	NSF:C41	-3379	-9386	93.8	93.8	93.8	96.9	93.8	96.9
830	NSF:C42	3398	-21504	90.6	90.6	87.1	87.1	87.1	87.1
831	NSF:C43	-1910	-46273	87.6	87.6	86.5	86.5	86.5	86.5
832	NSF:C44	-3883	-5925	91.7	91.7	91.7	96.5	91.7	96.5
833	NSF:C45	-11988	-45354	83.7	83.7	80.3	81.0	80.3	81.0
834	NSF:C46	7657	-34889	80.0	80.0	76.6	76.6	76.6	76.6
835	NSF:C47	2243	-24977	93.6	93.6	89.6	89.4	89.6	89.4
836	NSF:C48	-4412	-46071	87.9	87.9	82.8	83.9	82.8	83.9
837	NSF:C49	327	-14936	104.2	104.2	97.4	97.9	97.4	97.9
838	NSF:C5	7014	-34786	81.1	81.1	77.7	77.7	77.7	77.7
839	NSF:C50	-3930	-8365	91.5	91.5	88.5	94.3	88.5	94.3
840	NSF:C51	1801	-19460	97.2	97.2	92.0	92.1	92.0	92.1
841	NSF:C52	-545	-16569	101.4	101.4	97.1	97.1	97.1	97.1
842	NSF:C54	-1015	-44926	88.6	88.6	87.4	87.4	87.4	87.4
843	NSF:C55	-2036	-28310	91.9	91.9	90.0	90.0	90.0	90.0
844	NSF:C56	-706	-17175	100.7	100.7	97.2	97.2	97.2	97.2
845	NSF:C57	-1539	-38607	90.6	90.6	87.5	87.7	87.5	87.7
846	NSF:C6	-3386	14577	94.8	94.8	89.9	93.3	89.9	93.3
847	NSF:C7	-9769	-3190	78.3	78.3	78.3	78.6	78.3	78.6
848	NSF:C8	4616	906	84.0	84.0	84.0	84.0	84.0	84.0
849	NSF:C9	-1833	-42273	89.1	89.1	86.8	86.9	86.8	86.9
850	NSF:H1	-7607	3626	80.2	80.2	80.2	83.8	80.2	83.8
851	NSF:H3	-9363	9969	78.1	78.1	76.9	78.8	76.9	78.8
852	NSF:H4	-847	52617	88.2	88.2	84.7	85.6	84.7	85.6
853	NSF:H5	-9746	14394	82.6	82.6	82.6	90.2	82.6	90.2
854	NSF:H6	196	41454	90.9	90.9	86.7	87.0	86.7	87.0
855	NSF:H7	-6721	-8029	87.9	87.9	87.9	88.6	87.9	88.6

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Seattle-Tacoma International Airport
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COMPARATIVE LOCATIONAL ANALYSIS
SEL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
742	M30	7746	6926	78.7	78.7	78.2	78.2	78.2	78.2
743	M31	7712	5606	78.3	78.3	78.3	77.0	78.3	77.0
744	M32	7678	4286	78.5	78.5	77.3	77.6	77.3	77.6
745	M33	7644	2966	79.1	79.1	78.1	78.2	78.1	78.2
746	M34	7610	1646	77.9	77.9	77.1	77.1	77.1	77.1
747	M35	7576	326	76.9	76.9	75.1	75.1	75.1	75.1
748	M36	7542	-994	77.1	77.1	75.1	75.1	75.1	75.1
749	M37	7508	-2314	77.4	77.4	77.1	76.7	77.1	76.7
750	M38	7474	-3634	78.3	78.3	77.8	77.3	77.8	77.3
751	M39	7440	-4954	79.2	79.2	78.5	78.5	78.5	78.5
752	M40	7406	-6274	78.5	78.5	77.6	77.6	77.6	77.6
753	M41	7372	-7594	78.5	78.5	77.0	77.0	77.0	77.0
754	M42	7338	-8914	80.1	80.1	79.5	79.5	79.5	79.5
755	M43	7304	-10234	80.7	80.7	79.2	79.2	79.2	79.2
756	M44	7270	-11554	80.9	80.9	78.8	78.8	78.8	78.8
757	M45	7236	-12874	81.6	81.6	81.6	81.6	81.6	81.6
758	M46	7202	-14194	84.4	84.4	84.4	84.4	84.4	84.4
759	M47	7168	-15514	84.1	84.1	84.1	84.1	84.1	84.1
760	M48	7134	-16834	84.8	84.8	84.8	84.8	84.8	84.8
761	M49	7100	-18154	84.8	84.8	84.8	84.8	84.8	84.8
762	M50	7066	-19474	82.8	82.8	82.8	82.8	82.8	82.8
763	M51	7032	-20794	82.8	82.8	82.8	82.8	82.8	82.8
764	M52	6998	-22114	83.5	83.5	83.5	83.5	83.5	83.5
765	M53	6964	-23434	82.9	82.9	82.9	82.9	82.9	82.9
766	M54	6930	-24754	81.4	81.4	81.4	81.4	81.4	81.4
767	M55	6896	-26074	79.8	79.8	79.8	79.8	79.8	79.8
768	M56	6862	-27394	79.5	79.5	77.6	77.6	77.6	77.6
769	M57	6828	-28714	79.9	79.9	77.1	77.1	77.1	77.1
770	M58	6794	-30034	80.3	80.3	77.7	77.7	77.7	77.7
771	M59	6760	-31354	81.2	81.2	78.3	78.3	78.3	78.3
772	M60	6726	-32674	81.3	81.3	78.3	78.3	78.3	78.3
773	M61	6692	-33994	81.5	81.5	78.1	78.1	78.1	78.1
774	M62	6658	-35314	81.6	81.6	78.2	78.2	78.2	78.2
775	M63	6624	-36634	82.1	82.1	78.5	78.5	78.5	78.5
776	M64	6590	-37954	82.7	82.7	79.1	79.1	79.1	79.1
777	M65	6556	-39274	83.2	83.2	79.6	79.6	79.6	79.6
778	M66	6522	-40594	84.0	84.0	80.5	80.5	80.5	80.5
779	M67	6488	-41914	85.1	85.1	81.4	81.4	81.4	81.4
780	M68	6454	-43234	86.4	86.4	82.4	82.4	82.4	82.4
781	M69	6420	-44554	88.0	88.0	83.7	83.6	83.7	83.6
782	M70	6386	-45874	89.4	89.4	85.6	84.8	85.6	84.8
783	M71	6352	-47194	89.8	89.8	86.5	85.3	86.5	85.3
784	M72	6318	-48514	89.8	89.8	86.7	85.3	86.7	85.3
785	M73	6284	-49834	89.3	89.3	86.1	85.1	86.1	85.1
786	N38	8794	-3668	76.1	76.1	74.7	74.7	74.7	74.7
787	N39	8760	-4988	77.0	77.0	76.1	76.1	76.1	76.1
788	N40	8726	-6308	76.5	76.5	75.6	75.6	75.6	75.6
789	N41	8692	-7628	76.9	76.9	76.6	76.6	76.6	76.6
790	N42	8658	-8948	77.6	77.6	76.6	76.6	76.6	76.6
791	N43	8624	-10268	78.1	78.1	76.4	76.4	76.4	76.4
792	N44	8590	-11588	78.3	78.3	76.5	76.5	76.5	76.5
793	N45	8556	-12908	79.1	79.1	79.1	79.1	79.1	79.1
794	N67	7808	-41948	82.8	82.8	79.5	79.5	79.5	79.5
795	N68	7774	-43268	84.3	84.3	80.7	80.7	80.7	80.7
796	N69	7740	-44588	85.7	85.7	81.8	81.8	81.8	81.8
797	N70	7706	-45908	87.4	87.4	83.7	83.3	83.7	83.3
798	N71	7672	-47228	88.9	88.9	85.6	84.4	85.6	84.4

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Seattle-Tacoma International Airport
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COMPARATIVE LOCATIONAL ANALYSIS
SEL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
799	NSF:A2	-211	29983	93.7	93.7	91.6	91.7	91.6	91.7
800	NSF:A4	7371	16174	80.2	80.2	80.2	80.2	80.2	80.2
801	NSF:A5	-1123	35137	92.5	92.5	88.6	88.6	88.6	88.6
802	NSF:A6	1725	32917	90.6	90.6	87.5	87.5	86.6	87.5
803	NSF:A7	965	35389	91.8	91.8	87.5	87.5	87.5	87.5
804	NSF:A8	2868	26738	89.6	89.6	86.3	86.4	86.3	86.4
805	NSF:A9	8593	-17214	83.2	83.2	83.2	83.2	83.2	83.2
806	NSF:C1	3519	-33425	88.4	88.4	84.5	84.5	84.5	84.5
807	NSF:C10	-8024	7589	79.6	79.6	78.5	82.2	78.5	82.2
808	NSF:C11	-1535	-46185	88.0	88.0	86.9	86.9	86.9	86.9
809	NSF:C15	-3260	-41687	88.9	88.9	84.1	86.7	83.9	86.7
810	NSF:C16	2631	-42354	91.8	91.8	87.5	87.3	87.5	87.3
811	NSF:C17	-3636	10597	93.7	93.7	90.9	94.0	90.9	94.0
812	NSF:C19	-6737	-6317	85.7	85.7	85.7	97.4	85.7	97.4
813	NSF:C2	6733	-4869	80.5	80.5	80.2	80.2	80.2	80.2
814	NSF:C21	3694	-38594	88.6	88.6	84.6	84.6	84.6	84.6
815	NSF:C22	295	-16585	102.8	102.8	97.3	97.7	97.3	97.7
816	NSF:C23	-4396	-15838	88.0	88.0	85.3	90.3	85.3	90.3
817	NSF:C24	-3498	-16804	90.3	90.3	87.9	93.1	87.9	93.1
818	NSF:C28	-5727	-46163	87.6	87.6	82.8	82.8	82.8	82.8
819	NSF:C29	-386	-17316	101.9	101.9	97.2	97.2	97.2	97.2
820	NSF:C3	158	16285	102.0	102.0	97.4	97.4	97.4	97.4
821	NSF:C31	-6076	-46160	87.4	87.4	82.9	82.9	82.9	82.9
822	NSF:C32	-5243	-46778	87.8	87.8	82.8	82.8	82.8	82.8
823	NSF:C34	-8355	-45977	86.0	86.0	82.4	82.8	82.4	82.8
824	NSF:C35	-6358	-9758	84.0	84.0	82.6	90.3	82.6	90.3
825	NSF:C37	-5175	-47057	87.7	87.7	82.7	82.8	82.7	82.8
826	NSF:C38	-6431	-10969	90.7	90.7	90.7	90.9	90.7	90.9
827	NSF:C39	375	-25346	97.9	97.9	93.1	92.8	93.1	92.8
828	NSF:C40	1436	-17815	99.7	99.7	94.1	94.1	94.1	94.2
829	NSF:C41	-3379	-9386	93.8	93.8	93.8	96.9	93.8	96.9
830	NSF:C42	3398	-21504	90.6	90.6	87.1	87.1	87.1	87.1
831	NSF:C43	-1910	-46273	87.6	87.6	86.5	86.5	86.5	86.5
832	NSF:C44	-3883	-5925	91.7	91.7	91.7	96.5	91.7	96.5
833	NSF:C45	-11988	-45354	83.7	83.7	80.3	81.0	80.3	81.0
834	NSF:C46	7657	-34889	80.0	80.0	76.6	76.6	76.6	76.6
835	NSF:C47	2243	-24977	93.6	93.6	89.6	89.4	89.6	89.4
836	NSF:C48	-4412	-46071	87.9	87.9	82.8	83.9	82.8	83.9
837	NSF:C49	327	-14936	104.2	104.2	97.4	97.9	97.4	97.9
838	NSF:C5	7014	-34786	81.1	81.1	77.7	77.7	77.7	77.7
839	NSF:C50	-3930	-8365	91.5	91.5	88.5	94.3	88.5	94.3
840	NSF:C51	1801	-19460	97.2	97.2	92.0	92.1	92.0	92.1
841	NSF:C52	-545	-16569	101.4	101.4	97.1	97.1	97.1	97.1
842	NSF:C54	-1015	-44926	88.6	88.6	87.4	87.4	87.4	87.4
843	NSF:C55	-2036	-28310	91.9	91.9	90.0	90.0	90.0	90.0
844	NSF:C56	-706	-17175	100.7	100.7	97.2	97.2	97.2	97.2
845	NSF:C57	-1539	-38607	90.6	90.6	87.5	87.7	87.5	87.7
846	NSF:C6	-3386	14577	94.8	94.8	89.9	93.3	89.9	93.3
847	NSF:C7	-9769	-3190	78.3	78.3	78.3	78.6	78.3	78.6
848	NSF:C8	4616	906	84.0	84.0	84.0	84.0	84.0	84.0
849	NSF:C9	-1833	-42273	89.1	89.1	86.8	86.9	86.8	86.9
850	NSF:H1	-7607	3626	80.2	80.2	80.2	83.8	80.2	83.8
851	NSF:H3	-9363	9969	78.1	78.1	76.9	78.8	76.9	78.8
852	NSF:H4	-847	52617	88.2	88.2	84.7	85.6	84.7	85.6
853	NSF:H5	-9746	14394	82.6	82.6	82.6	90.2	82.6	90.2
854	NSF:H6	196	41454	90.9	90.9	86.7	87.0	86.7	87.0
855	NSF:H7	-6721	-8029	87.9	87.9	87.9	88.6	87.9	88.6

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Seattle-Tacoma International Airport
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COMPARATIVE LOCATIONAL ANALYSIS
SEL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
856	NSF:H8	24064	-3304	67.8	67.8	66.1	67.8	66.1	67.8
857	NSF:H9,H2	3310	14284	91.4	91.4	87.0	87.0	87.0	87.0
858	NSF:A16	-3769	5168	90.5	90.5	90.5	97.4	90.5	97.4
859	NSF:A17	-10252	3250	78.4	78.4	78.4	78.4	78.4	78.4
860	NSF:A18	-4084	10600	92.1	92.1	88.1	94.4	88.1	94.4
861	NSF:A19	-4459	10520	90.6	90.6	87.0	96.7	87.0	96.7
862	NSF:A21	-8598	14208	86.7	86.7	86.7	89.7	86.7	89.7
863	NSF:A23	-8593	5937	79.2	79.2	79.2	80.8	79.2	80.8
864	NSF:A24	-6444	1414	80.7	80.7	80.7	83.7	80.7	83.7
865	NSF:A25	-10056	6676	77.1	77.1	77.1	77.3	77.1	77.3
866	NSF:A26	-9629	5763	79.3	79.3	79.3	79.6	79.3	79.6
867	NSF:A27	-1721	10484	102.7	102.7	98.0	99.5	98.0	99.5
868	NSF:A28	-7306	6683	80.5	80.5	80.3	84.3	80.3	84.3
869	NSF:A30	-9295	6729	76.8	76.8	76.8	79.1	76.8	79.1
870	NSF:A33	-5199	-16624	85.3	85.3	84.3	87.8	84.3	87.8
871	NSF:A35	-4683	-17794	86.4	86.4	84.5	89.2	84.5	89.2
872	NSF:A36	-3592	-17475	89.8	89.8	87.4	92.6	87.4	92.6
873	NSF:A37	-3210	-16253	91.2	91.2	88.9	94.2	88.9	94.2
874	NSF:A38	-2833	-16231	92.6	92.6	90.2	94.9	90.2	94.9
875	NSF:A39	-2723	-17093	92.9	92.9	90.6	94.7	90.6	94.7
876	NSF:A40	-3398	-16730	90.6	90.6	88.2	93.4	88.2	93.4
877	NSF:A41	-5715	-14665	86.4	86.4	86.4	86.4	86.4	88.6
878	NSF:A42	-2195	-14884	96.7	96.7	92.6	96.0	92.6	96.0
879	NSF:A43	-3289	-16236	91.0	91.0	88.6	93.9	88.6	93.9
880	NSF:A44	362	-38516	92.5	92.5	88.9	88.9	88.9	88.9
881	NSF:A45	-1521	-35379	91.1	91.1	87.5	88.5	87.4	88.5
882	NSF:A46	467	-43229	90.5	90.5	87.7	87.8	87.7	87.8
883	NSF:A47	9405	-16129	83.9	83.9	83.9	83.9	83.9	83.9
884	NSF:A48	8774	-15397	83.7	83.7	83.7	83.7	83.7	83.7
885	NSF:A49	8535	-14947	83.3	83.3	83.3	83.3	83.3	83.3
886	NSF:A50	8073	-19454	82.5	82.5	82.5	82.5	82.5	82.5
887	NSF:A51	6682	-15011	84.9	84.9	84.9	84.9	84.9	84.9
888	NSF:A52	10177	-14528	80.3	80.3	80.3	80.3	80.3	80.3
889	NSF:A53	-9333	-2539	78.3	78.3	78.3	78.8	78.3	78.8
890	NSF:A54	-9413	-2464	78.4	78.4	78.4	78.7	78.4	78.7
891	NSF:A55	-9348	-2527	78.3	78.3	78.3	78.8	78.3	78.8
892	NSF:A58	6533	-14596	85.1	85.1	85.1	85.1	85.1	85.1
893	NSF:A59	5058	7030	84.9	84.9	84.6	84.6	84.6	84.6
894	NSF:A61	2879	26723	89.6	89.6	86.3	86.3	86.3	86.3
895	NSF:A62	-1961	32677	91.9	91.9	89.2	89.2	89.2	89.2
896	NSF:A63	5774	13792	84.5	84.5	80.8	80.8	80.8	80.8
897	NSF:A64	6942	13954	81.7	81.7	78.3	78.3	78.3	78.3
898	NSF:A65	6940	13770	81.8	81.8	78.3	78.3	78.3	78.3
899	NSF:A66	6602	13572	82.5	82.5	79.0	79.0	79.0	79.0
900	NSF:A67	7470	13669	80.7	80.7	77.3	77.3	77.3	77.3
901	NSF:A68	306	-30449	94.5	94.5	90.9	90.9	90.9	90.9
902	NSF:A69	-5807	-37969	83.8	83.8	80.2	82.8	80.2	82.8
903	NSF:A70	-4304	-36469	86.1	86.1	82.2	84.7	82.2	84.7
904	NSF:A71	6124	-39961	84.3	84.3	80.6	80.6	80.6	80.6
905	NSF:A72	3707	-33299	87.9	87.9	84.1	84.1	84.1	84.1
906	NSF:A73	-5742	-37925	83.9	83.9	80.3	82.9	80.3	82.9
907	NSF:A74	-5753	-37933	83.9	83.9	80.3	82.9	80.3	82.9
908	NSF:A75	-5790	-37959	83.8	83.8	80.2	82.8	80.2	82.8
909	NSF:L1	765	16963	99.0	99.0	95.8	95.8	95.8	95.8
910	NSF:L2	-7812	8307	80.3	80.3	78.7	82.6	78.7	82.6
911	NSF:L3	6278	40488	81.8	81.8	78.4	78.4	78.4	78.4
912	NSF:L4	-2866	-14908	94.0	94.0	90.0	95.4	90.0	95.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
913	NSF:L5	7180	9673	80.9	80.9	78.6	78.6	78.6	78.6
914	NSF:L6	4987	33599	84.5	84.5	80.5	80.5	80.5	80.5
915	NSF:L7	10166	26486	80.3	80.3	80.3	80.3	80.3	80.3
916	NSF:L8	12526	8554	72.2	72.2	71.2	70.7	71.2	70.7
917	NSF:L9	8571	-1927	75.6	75.6	73.8	73.8	73.8	73.8
918	NSF:A10	-550	29346	93.9	93.9	91.8	91.9	91.8	91.9
919	NSF:A11	-554	35999	92.3	92.3	88.6	88.6	88.6	88.6
920	NSF:A12	227	35588	92.4	92.4	88.3	88.3	88.3	88.3
921	NSF:A13	6720	40187	81.1	81.1	77.7	77.7	77.7	77.7
922	NSF:N1	2458	-23974	93.2	93.2	88.9	88.9	88.9	88.9
923	NSF:N10	-3755	-14738	91.0	91.0	87.1	93.0	87.1	93.0
924	NSF:N11	-3959	-39382	87.5	87.5	83.5	85.5	83.5	85.5
925	NSF:N12	-195	23654	97.8	97.8	94.8	94.8	94.8	94.8
926	NSF:N13	23674	-4413	67.8	67.8	66.4	67.9	66.4	67.9
927	NSF:N14	5905	-44977	89.4	89.4	85.2	84.9	85.2	84.9
928	NSF:N2	2567	-14374	94.3	94.3	89.9	89.7	89.9	89.7
929	NSF:N3	-9162	13839	82.1	82.1	82.1	90.5	82.1	90.5
930	NSF:N4	-3719	-44852	88.2	88.2	83.2	84.7	83.2	84.7
931	NSF:N5	-7153	-49305	86.5	86.5	81.8	81.8	81.8	81.8
932	NSF:N6	-6583	4062	81.5	81.5	81.5	85.8	81.5	85.8
933	NSF:N7	-3994	-21909	88.1	88.1	86.0	89.9	86.0	89.9
934	NSF:N8	3660	14530	90.3	90.3	86.0	86.0	86.0	86.0
935	NSF:N9	2605	-17567	94.4	94.4	89.7	89.7	89.7	89.7
936	NSF:S1	-1624	22569	97.1	97.1	94.2	94.2	94.2	94.2
937	NSF:S10	5787	1359	81.4	81.4	81.4	81.4	81.4	81.4
939	NSF:S102	-3652	-2959	91.4	91.4	91.4	99.0	91.4	99.0
940	NSF:S11	1320	-17470	100.1	100.1	94.8	94.8	94.8	94.8
941	NSF:S12	-9683	21295	81.4	81.4	81.4	81.4	81.4	81.4
942	NSF:S13	-4034	-8651	91.2	91.2	87.9	93.6	87.9	93.6
943	NSF:S15	1417	-18811	99.1	99.1	93.5	93.5	93.5	93.5
944	NSF:S16	4029	7813	88.7	88.7	87.1	87.1	87.1	87.1
945	NSF:S17	-7712	17177	83.9	83.9	83.9	83.9	83.9	83.9
946	NSF:S18	-10601	8639	75.6	75.6	73.8	76.2	73.8	76.2
947	NSF:S19	-13991	18478	83.9	83.9	83.9	85.0	83.9	85.0
948	NSF:S2	6756	-3628	79.7	79.7	79.3	79.1	79.3	79.1
949	NSF:S20	-1191	19408	100.1	100.1	96.2	96.2	95.9	95.9
950	NSF:S21	-3761	5167	90.6	90.6	90.6	97.4	90.6	97.4
951	NSF:S22	7978	-1820	76.5	76.5	74.6	74.6	74.6	74.6
952	NSF:S23	-8015	23186	81.9	81.9	81.9	81.9	81.9	81.9
953	NSF:S24	-8897	19752	83.1	83.1	83.1	83.1	83.1	83.1
954	NSF:S25	6834	-4826	80.3	80.3	79.4	79.4	79.4	79.4
955	NSF:S26	1352	-18331	99.9	99.9	93.9	93.9	93.9	93.9
956	NSF:S27	-7664	3251	80.0	80.0	80.0	83.5	80.0	83.5
957	NSF:S28	-8281	18459	84.6	84.6	84.6	84.6	84.6	84.6
958	NSF:S29	-5472	6565	85.1	85.1	85.1	90.1	85.1	90.1
959	NSF:S3	-3785	13136	93.0	93.0	88.4	92.3	88.4	92.3
960	NSF:S30	-263	-17305	102.2	102.2	97.7	97.7	97.7	97.4
961	NSF:S31	7812	-5443	78.3	78.3	77.4	77.4	77.4	77.4
962	NSF:S32	-4893	-4442	87.1	87.1	87.1	97.7	87.1	97.7
963	NSF:S33	1292	-22778	98.4	98.4	93.3	92.8	93.3	92.8
964	NSF:S34	-4645	-9467	89.2	89.2	86.5	90.8	86.5	90.8
965	NSF:S35	-4580	6588	88.3	88.3	88.1	93.5	88.1	93.5
966	NSF:S36	-6886	5087	81.5	81.5	81.5	85.7	81.5	85.7
967	NSF:S37	-11122	13583	77.7	77.7	77.7	79.9	77.7	79.9
968	NSF:S38	-3651	-2941	91.4	91.4	91.4	99.0	91.4	99.0
969	NSF:S39	12652	7375	71.7	71.7	71.4	70.6	71.4	70.6
970	NSF:S4	-3514	-16334	90.2	90.2	87.9	93.2	87.9	93.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
971	NSF:S40	7700	7035	79.0	79.0	78.2	78.2	78.2	78.2
972	NSF:S41	4523	11744	87.9	87.9	84.0	84.0	84.0	84.0
973	NSF:S42	8381	9088	78.5	78.5	76.5	76.5	76.5	76.5
974	NSF:S43	7268	9131	80.2	80.2	78.2	78.2	78.2	78.2
975	NSF:S44	5766	-41790	86.3	86.3	82.3	82.3	82.3	82.3
976	NSF:S45	1279	-33897	93.4	93.4	89.8	89.8	89.8	89.8
977	NSF:S46	-3685	-39308	88.1	88.1	83.9	86.0	83.9	86.0
978	NSF:S47	5715	-32661	83.3	83.3	80.2	80.2	80.2	80.2
979	NSF:S48	6231	-25031	80.4	80.4	80.3	80.3	80.3	80.3
980	NSF:S49	5974	-36054	83.2	83.2	79.5	79.5	79.5	79.5
981	NSF:S5	-11892	3393	78.0	78.0	78.0	78.0	78.0	78.0
982	NSF:S50	870	-42321	91.5	91.5	87.4	87.4	87.4	87.4
983	NSF:S51	-1491	-30984	92.1	92.1	89.2	89.9	89.2	89.9
984	NSF:S52	11474	-42954	78.7	78.7	76.0	76.0	76.0	76.0
985	NSF:S53	-10841	-43830	82.6	82.6	79.3	80.5	79.3	80.5
986	NSF:S54	5708	-31709	83.2	83.2	80.3	80.3	80.3	80.3
987	NSF:S55	-1824	-44447	88.0	88.0	86.4	86.4	86.4	86.4
988	NSF:S56	6346	-38637	83.3	83.3	79.7	79.7	79.7	79.7
989	NSF:S57	-410	49700	89.5	89.5	85.1	85.7	85.1	85.7
990	NSF:S58	10673	35200	79.2	79.2	79.2	79.2	79.2	79.2
991	NSF:S59	2429	45921	88.3	88.3	84.0	84.0	83.8	84.0
992	NSF:S6	-7196	13265	88.4	88.4	88.4	89.6	88.4	89.6
993	NSF:S60	5433	45389	83.9	83.9	80.5	80.5	80.5	80.5
994	NSF:S61	7132	42570	80.7	80.7	77.5	77.5	77.5	77.5
995	NSF:S62	-1439	39916	91.3	91.3	87.6	87.6	87.6	87.6
996	NSF:S63	3894	37152	86.3	86.3	82.9	82.9	82.5	82.9
997	NSF:S64	9056	38524	77.0	77.0	74.1	74.1	74.1	74.1
998	NSF:S65	8477	33931	78.8	78.8	78.8	78.8	78.8	78.8
999	NSF:S66	3955	32633	86.7	86.7	82.8	82.8	82.7	82.8
1000	NSF:S67	6401	29997	81.9	81.9	80.5	80.5	80.5	80.5
1001	NSF:S68	9089	28371	80.3	80.3	80.3	80.3	80.3	80.3
1002	NSF:S69	13032	23820	79.7	79.7	79.7	79.7	79.7	79.7
1003	NSF:S7	2141	16480	94.3	94.3	90.4	90.4	90.4	90.4
1004	NSF:S70	11512	17866	81.1	81.1	81.1	81.1	81.1	81.1
1005	NSF:S71	-9110	27836	80.5	80.5	77.0	77.0	77.0	77.0
1006	NSF:S72	-3361	27341	91.7	91.7	89.1	89.1	89.1	89.1
1007	NSF:S73	3	41684	90.8	90.8	86.8	87.2	86.7	87.2
1008	NSF:S74	10183	27405	80.5	80.5	80.5	80.5	80.5	80.5
1009	NSF:S76	4734	46384	85.1	85.1	81.7	81.7	81.6	81.7
1010	NSF:S77	11512	27194	79.3	79.3	79.3	79.3	79.3	79.3
1011	NSF:S78	-363	38035	91.8	91.8	88.2	88.3	88.2	88.3
1012	NSF:S79	5941	39662	82.5	82.5	79.0	79.0	79.0	79.0
1013	NSF:S8	3475	-10939	90.8	90.8	88.8	88.8	88.8	88.8
1014	NSF:S80	7193	35348	80.4	80.4	76.7	76.7	76.7	76.7
1015	NSF:S81	12439	22474	81.6	81.6	81.6	81.6	81.6	81.6
1017	NSF:S83	6824	6483	79.7	79.7	79.7	79.0	79.7	79.0
1018	NSF:S84	6483	-12931	83.2	83.2	83.2	83.2	83.2	83.2
1019	NSF:S85	-10992	-43886	82.6	82.6	79.3	80.5	79.3	80.5
1020	NSF:S86,C18	-3883	-4692	90.4	90.4	90.4	96.9	90.4	96.9
1021	NSF:S87	1355	-41607	91.9	91.9	88.0	87.9	88.0	87.9
1022	NSF:S89,S101	-6524	4594	81.7	81.7	81.7	86.1	81.7	86.1
1023	NSF:S9	-8718	-8906	86.4	86.4	86.4	94.8	86.4	94.8
1024	NSF:S90	10352	29875	79.3	79.3	79.3	79.3	79.3	79.3
1025	NSF:S91	-12520	6667	77.0	77.0	77.0	77.1	77.0	77.1
1026	NSF:S92	-292	-16249	102.4	102.4	97.1	97.3	97.1	97.3
1027	NSF:S93	-4494	-43936	88.1	88.1	83.5	84.5	83.5	84.5
1028	NSF:S94	6741	-4427	80.7	80.7	79.8	79.8	79.8	79.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1029	NSF:S95	2659	-8269	93.4	93.4	93.2	93.2	93.2	93.2
1030	NSF:S96,C36	-197	-29349	94.6	94.6	91.6	91.6	91.6	91.6
1031	NSF:S97	-5640	10643	86.8	86.8	83.7	88.6	83.7	88.6
1032	NSF:S98,C14	1453	-13047	100.0	100.0	95.2	95.2	95.2	95.2
1033	NSF:S99	-1741	22954	96.6	96.6	94.1	94.1	94.1	94.1
1034	NSF:A15	1159	33718	91.6	91.6	88.0	88.0	87.6	88.0
1035	NSF:A901	-2736	35294	90.5	90.5	87.4	87.4	87.4	87.4
1036	NSF:A902	-4131	32513	90.0	90.0	86.8	86.8	85.9	86.8
1037	NSF:A903	2207	18136	92.5	92.5	90.0	90.0	90.0	90.0
1038	NSF:A904	10787	-9667	74.3	74.3	72.9	72.9	72.9	72.9
1039	Park:G1	1356	42868	89.9	89.9	85.4	85.4	85.4	85.4
1040	Park:G2	-1823	20819	97.8	97.8	94.6	94.6	94.6	94.6
1041	Park:G3	412	19934	99.1	99.1	95.0	95.0	94.9	94.9
1042	Park:G4	11843	11466	73.3	73.3	71.3	71.3	71.3	71.3
1043	Park:G4	13359	10380	71.3	71.3	69.8	69.6	69.8	69.6
1044	Park:G5	89	-7980	111.7	111.7	103.5	105.4	103.5	105.4
1045	Park:G6	8312	-24816	82.3	82.3	82.3	82.3	82.3	82.3
1046	Park:G6	10441	-24924	81.2	81.2	81.2	81.2	81.2	81.2
1047	Park:P1	10452	41037	76.2	76.2	73.1	73.1	73.1	73.1
1048	Park:P10	11906	28500	80.0	80.0	80.0	80.0	80.0	80.0
1049	Park:P11	10576	23597	80.1	80.1	80.1	80.1	80.1	80.1
1050	Park:P12	12737	23611	80.4	80.4	80.4	80.4	80.4	80.4
1051	Park:P13	-3106	28942	91.8	91.8	89.5	89.5	89.5	89.5
1052	Park:P14	-1568	16984	100.8	100.8	96.9	97.0	96.9	97.0
1053	Park:P15	-4694	16128	89.5	89.5	86.5	88.0	86.5	88.0
1054	Park:P16	-7240	27235	84.4	84.4	81.0	81.0	81.0	81.0
1055	Park:P17	-7694	22700	82.3	82.3	82.3	82.3	82.3	82.3
1056	Park:P18	-10078	22715	82.4	82.4	82.4	82.4	82.4	82.4
1057	Park:P19	-8173	20053	82.3	82.3	82.3	82.3	82.3	82.3
1058	Park:P2	6019	40290	82.3	82.3	78.8	78.8	78.8	78.8
1059	Park:P20	-8423	17856	84.0	84.0	84.0	84.0	84.0	84.0
1060	Park:P21	7059	13592	81.5	81.5	78.1	78.1	78.1	78.1
1061	Park:P22	6996	12184	81.8	81.8	78.7	78.7	78.7	78.7
1062	Park:P23	9630	4263	75.5	75.5	74.6	74.8	74.6	74.8
1063	Park:P24	7963	3497	78.4	78.4	76.4	77.5	76.4	77.5
1064	Park:P25	8976	-1520	74.9	74.9	73.1	73.1	73.1	73.1
1065	Park:P26	2522	14946	93.8	93.8	89.0	89.0	89.0	89.0
1066	Park:P27	2802	10735	93.3	93.3	89.1	89.1	89.1	89.1
1067	Park:P28	198	11565	104.8	104.8	101.6	101.6	101.2	101.2
1068	Park:P29	-5433	5962	85.2	85.2	85.2	90.3	85.2	90.3
1069	Park:P3	4190	38497	85.7	85.7	82.3	82.3	82.0	82.3
1070	Park:P30	-6437	15235	84.6	84.6	83.3	83.6	83.3	83.6
1071	Park:P31	-10883	12816	77.3	77.3	77.3	78.9	77.3	78.9
1072	Park:P31	-10986	9367	74.3	74.3	72.8	74.5	72.8	74.5
1073	Park:P32	-8210	11558	80.3	80.3	78.8	80.4	78.8	80.4
1074	Park:P33	-7609	8315	80.5	80.5	79.0	82.9	79.0	82.9
1075	Park:P34	-7758	4425	79.5	79.5	79.5	83.3	79.5	83.3
1076	Park:P35	-6933	3193	80.2	80.2	80.2	84.1	80.2	84.1
1077	Park:P36	-8027	-858	77.7	77.7	77.7	81.2	77.7	81.2
1078	Park:P37	-10415	-944	77.7	77.7	77.7	77.7	77.7	77.7
1079	Park:P38	6985	-3643	79.2	79.2	78.8	78.5	78.8	78.5
1080	Park:P39	12033	-5865	72.3	72.3	71.8	71.8	71.8	71.8
1081	Park:P4	7407	36148	80.0	80.0	76.5	76.5	76.5	76.5
1082	Park:P40	8712	-16156	83.8	83.8	83.8	83.8	83.8	83.8
1083	Park:P41	5212	-18740	84.9	84.9	84.9	84.9	84.9	84.9
1084	Park:P42	7205	-21947	83.3	83.3	83.3	83.3	83.3	83.3
1085	Park:P43	3598	-7684	89.8	89.8	89.8	89.8	89.8	89.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1086	Park:P44	-283	-12051	104.8	104.8	99.5	100.2	98.8	100.2
1087	Park:P45	-4218	-14980	89.4	89.4	86.1	91.1	86.1	91.1
1088	Park:P46	-3319	-16331	90.9	90.9	88.6	93.8	88.6	93.8
1089	Park:P47	-9286	-6307	80.7	80.7	80.7	83.3	80.7	83.3
1090	Park:P48	-7699	-9254	85.4	85.4	85.4	88.5	85.4	88.5
1091	Park:P49	-7521	-12889	86.7	86.7	86.7	86.7	86.7	82.9
1092	Park:P5	-1752	40072	91.0	91.0	87.8	87.8	87.8	87.8
1093	Park:P50	8743	-26079	82.1	82.1	82.1	82.1	82.1	82.1
1094	Park:P51	7364	-27977	79.0	79.0	77.4	77.4	77.4	77.4
1095	Park:P52	4279	-25151	86.6	86.6	84.3	84.3	84.3	84.3
1096	Park:P53	1745	-24094	95.7	95.7	91.0	91.0	91.0	91.0
1097	Park:P54	1522	-25317	95.8	95.8	91.5	91.2	91.5	91.2
1098	Park:P55	3542	-29748	88.0	88.0	85.0	85.0	85.0	85.0
1099	Park:P56	-3479	-27701	89.1	89.1	86.0	88.6	86.0	88.6
1100	Park:P57	-2553	-31026	90.8	90.8	86.9	88.6	86.9	88.6
1101	Park:P58	-4315	-31888	86.3	86.3	82.3	85.7	82.3	85.7
1102	Park:P59	6981	-40680	83.3	83.3	79.8	79.8	79.8	79.8
1103	Park:P6	-995	37860	91.7	91.7	88.2	88.6	88.2	88.6
1104	Park:P60	879	-37690	93.0	93.0	89.0	89.0	89.0	89.0
1105	Park:P61	583	-42504	91.1	91.1	87.8	87.8	87.8	87.8
1106	Park:P62	-2563	-41948	89.2	89.2	85.6	86.0	85.6	86.0
1107	Park:P63	1437	-46094	88.8	88.8	85.4	85.9	85.3	85.9
1108	Park:P7	-1966	36892	91.1	91.1	87.8	88.2	87.8	88.2
1109	Park:P8	4457	33144	85.6	85.6	81.7	81.7	81.6	81.7
1110	Park:P9	8465	31725	80.6	80.6	80.6	80.6	80.6	80.6
1111	R-1	-1499	8689	103.5	103.5	98.3	100.5	98.3	100.5
1112	R-2	-3360	8057	94.1	94.1	91.8	97.7	91.8	97.7
1113	R-3	-3221	8061	94.7	94.7	92.3	98.2	92.3	98.2
1114	R-4	-2550	7376	97.2	97.2	94.9	100.7	94.9	100.7
1115	R-5	-2475	7342	97.6	97.6	95.2	100.9	95.2	100.9
1116	R-6	1908	7539	99.1	99.1	95.7	95.7	95.7	95.7
1117	R-7	3445	5795	90.3	90.3	90.3	90.3	90.3	90.3
1118	R-8	4189	5875	87.4	87.4	87.4	87.4	87.4	87.4
1119	R-9	-2325	5197	96.2	96.2	96.2	117.5	96.2	117.5
1120	R-10	-2803	4984	94.0	94.0	94.0	105.6	94.0	105.6
1121	R-11	-4314	4055	88.6	88.6	88.6	95.0	88.6	95.0
1122	R-12	-3638	4008	90.8	90.8	90.8	98.6	90.8	98.6
1123	R-13	-2994	3996	93.3	93.3	93.3	102.3	93.3	102.3
1124	R-14	-2996	3894	93.2	93.2	93.2	102.3	93.2	102.3
1125	R-15	-3661	3774	90.7	90.7	90.7	98.4	90.7	98.4
1126	R-16	-3881	2627	89.1	89.1	89.1	96.2	89.1	96.2
1127	R-17	-3974	2637	88.7	88.7	88.7	95.7	88.7	95.7
1128	R-19	-2871	-9407	95.7	95.7	93.4	99.6	93.4	99.6
1129	R-20	-2236	-9459	98.5	98.5	93.9	100.6	93.9	100.6
1130	R-21	-2883	-9527	95.6	95.6	92.7	99.3	92.7	99.3
1131	R-22	-2127	-9553	99.1	99.1	94.4	100.2	94.4	100.2
1132	R-23	-2979	-10864	94.8	94.8	90.1	97.6	90.1	97.6
1133	R-24	-2855	-10863	95.3	95.3	90.7	98.0	90.7	98.0
1134	R-25	-3422	-12657	93.0	93.0	93.0	95.0	93.0	95.0
1135	R-26	-3317	-12709	93.4	93.4	92.7	95.4	92.7	95.4
1136	R-27	-4326	-13636	89.8	89.8	87.3	91.6	87.3	92.3
1137	R-28	-4219	-13662	90.2	90.2	86.7	92.0	86.7	92.1
1138	R-29	-4595	-14690	88.5	88.5	86.7	90.0	86.7	90.0
1139	R-30	-4595	-14834	88.4	88.4	86.6	89.8	86.6	89.8
1140	R-31	-3900	-18888	88.4	88.4	86.3	91.4	86.3	91.4
1141	R-32	-3960	-18992	88.2	88.2	86.1	91.1	86.1	91.1
1142	R-33	-1586	-19967	96.1	96.1	93.4	93.4	93.4	93.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1143	R-34	-1631	-20084	95.9	95.9	93.2	93.3	93.2	93.3
1144	R-35	589	-20385	100.5	100.5	94.4	94.7	94.4	94.7
1145	R-36	760	-20452	100.2	100.2	94.2	94.5	94.2	94.5
1146	R-37	1953	-19502	96.5	96.5	91.4	91.5	91.4	91.5
1147	R-38	1937	-19639	96.6	96.6	91.4	91.5	91.4	91.5
1148	R-39	5743	3729	83.6	83.6	83.6	83.6	83.6	83.6
1149	R-40	6051	3598	82.6	82.6	82.6	82.6	82.6	82.6
1150	R-41	6707	2725	81.0	81.0	80.3	80.3	80.3	80.3
1151	R-42	6795	2778	80.8	80.8	80.1	80.1	80.1	80.1
1152	R-43	3977	622	85.7	85.7	85.7	85.7	85.7	85.7
1153	R-44	3992	528	85.4	85.4	85.4	85.4	85.4	85.4
1154	R-45	7811	-253	76.5	76.5	74.6	74.6	74.6	74.6
1155	R-46	7968	-188	76.3	76.3	74.4	74.4	74.4	74.4
1156	R-47	9017	-3383	75.4	75.4	74.2	73.8	74.2	73.8
1157	R-48	9107	-3278	75.2	75.2	73.9	73.6	73.9	73.6
1158	R-49	9205	-4829	76.4	76.4	75.5	75.5	75.5	75.5
1159	R-50	9420	-4826	76.1	76.1	75.2	75.2	75.2	75.2
1160	R-51	4145	-5368	88.4	88.4	88.4	88.4	88.4	88.4
1161	R-52	4160	-5459	88.3	88.3	88.3	88.3	88.3	88.3
1162	R-53	6680	-5389	80.6	80.6	80.6	80.6	80.6	80.6
1163	R-54	6680	-5519	80.7	80.7	80.7	80.7	80.7	80.7
1164	R-55	8216	-6716	77.0	77.0	76.2	76.2	76.2	76.2
1165	R-56	7824	-7392	78.3	78.3	76.6	76.3	76.6	76.3
1166	R-57	6375	-8805	81.6	81.6	80.7	80.7	80.7	80.7
1167	R-58	2503	-7529	94.1	94.1	94.1	94.1	94.1	94.1
1168	R-59	2128	-9607	97.3	97.3	94.9	94.9	94.9	94.9
1169	R-60	2128	-9724	97.3	97.3	94.7	94.7	94.7	94.7
1170	R-61	3469	-9641	90.7	90.7	89.7	89.7	89.7	89.7
1171	R-62	3469	-9758	90.8	90.8	89.6	89.6	89.6	89.6
1172	R-63	4953	-9622	85.7	85.7	85.1	85.1	85.1	85.1
1173	R-64	4953	-9765	85.8	85.8	85.0	85.0	85.0	85.0
1174	M-1	-5559	5408	84.8	84.8	84.8	89.9	84.8	89.9
1175	M-2	7677	4132	78.6	78.6	77.0	77.7	77.0	77.7
1176	M-3	-3794	839	86.4	86.4	86.4	95.4	86.4	95.4
1177	M-4	-3435	-161	89.7	89.7	89.7	99.6	89.7	99.6
1178	M-5	8038	-2746	76.6	76.6	74.7	74.7	74.7	74.7
1179	M-6	7442	-4154	79.4	79.4	78.3	78.3	78.3	78.3
1180	M-7	1569	-6734	99.7	99.7	99.4	100.7	99.4	103.3
1181	M-8	3372	-6953	90.8	90.8	90.8	90.8	90.8	90.8
1182	M-9	3203	-8239	90.9	90.9	90.9	90.9	90.9	90.9
1183	M-10	212	-9582	109.7	109.7	101.9	103.9	101.9	103.9
1184	M-11	212	-9712	109.6	109.6	101.8	103.8	101.8	103.8
1185	M-12	-4530	-14474	88.8	88.8	86.8	90.3	86.8	90.3
1186	M-13	-4484	-14936	88.7	88.7	86.4	90.1	86.4	90.1
1187	M-14	-3614	-16370	89.9	89.9	87.6	92.8	87.6	92.8
1188	M-15	4365	-18735	86.8	86.8	85.1	85.1	85.1	85.1
1189	M-16	4486	-19796	86.1	86.1	84.4	84.4	84.4	84.4
1190	M-17	8123	-595	76.1	76.1	74.2	74.2	74.2	74.2
1191	M-18	9840	4660	75.1	75.1	74.4	74.4	74.4	74.4
1192	T-116	1422	-18235	99.8	99.8	93.7	93.8	93.7	93.8
1193	T-118	1331	-17470	100.0	100.0	94.8	94.8	94.8	94.8
1194	T-119	2650	-17566	94.2	94.2	89.5	89.5	89.5	89.5
1195	T-120	-3506	-16334	90.3	90.3	87.9	93.2	87.9	93.2
1196	T-122	-3743	-14738	91.0	91.0	87.2	93.0	87.2	93.0
1197	T-125	1459	-13047	99.9	99.9	95.2	95.2	95.2	95.2
1198	T-126	3477	-10938	90.8	90.8	88.8	88.8	88.8	88.8
1199	T-130	2651	-8267	93.4	93.4	93.2	93.2	93.2	93.2

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Site #	Description	X	Y	SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
				2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1200	T-132	-3659	-2960	91.4	91.4	91.4	99.0	91.4	99.0
1201	T-133	8580	-1927	75.6	75.6	73.8	73.8	73.8	73.8
1202	T-136	-3365	4995	91.9	91.9	91.9	99.3	91.9	99.3
1203	NSF:A14	-3907	-17520	88.8	88.8	86.6	91.6	86.6	91.6
1204	T-25	-3883	-4693	90.4	90.4	90.4	96.9	90.4	96.9
1205	T-28	-3387	-9387	93.8	93.8	93.8	96.9	93.8	96.9
1206	T-33	1432	-17816	99.7	99.7	94.2	94.2	94.2	94.2
1207	T-34	1792	-19460	97.2	97.2	92.0	92.1	92.0	92.1
1208	T-35	1587	-18907	98.3	98.3	92.9	92.9	92.9	92.9
1209	T-44	-3421	5168	91.8	91.8	91.8	99.1	91.8	99.1
1210	NSF:T-48, A20	-4170	1264	85.6	85.6	85.6	91.8	85.6	91.8
1211	NSF:T-50, A22	-3264	8490	95.0	95.0	92.0	97.8	92.0	97.8
1212	NSF:T-57, A29	-2746	8551	97.1	97.1	93.5	99.2	93.5	99.2
1213	NSF:T-59, A31	-5476	6566	85.1	85.1	85.1	90.0	85.1	90.0
1214	NSF:T-60, A32	-4232	-17635	87.6	87.6	85.6	90.5	85.6	90.5
1215	NSF:T-62, A34	-4112	-14837	89.8	89.8	86.2	91.5	86.2	91.5
1216	T-29	-3498	-16806	90.3	90.3	87.9	93.1	87.9	93.1
1217	NSF:T-84, A56	-3125	6493	93.2	93.2	92.7	99.8	92.7	99.8
1218	NSF:T-85, A57	-3238	4735	92.4	92.4	92.4	100.2	92.4	100.2
1219	NSF:T-88, A60	-1350	-9469	102.5	102.5	98.7	98.7	98.7	98.7
1220	NSF:C58	-1135	22315	98.3	98.3	94.6	94.6	94.6	94.6
1221	NSF:S108	-1649	-9471	101.2	101.2	97.1	99.1	97.1	99.1
1222	NSF:N15	-3997	-22078	88.1	88.1	86.0	89.8	86.0	89.8
1223	NSF:C62	-1414	-30795	92.2	92.2	89.4	89.9	89.4	89.9
1224	NSF:S109	-1333	-22719	96.1	96.1	93.7	93.7	93.7	93.7
1225	NSF:S105	-3791	-3836	90.9	90.9	90.9	98.0	90.9	98.0
1226	NSF:C64	-4367	7358	89.7	89.7	88.8	94.0	88.8	94.0
1227	NSF:S106	-2685	8649	97.4	97.4	93.6	99.3	93.6	99.3
1228	NSF:C61	-1303	9772	104.1	104.1	100.8	100.8	100.8	100.8
1229	NSF:S107	2638	-6779	94.1	94.1	94.1	94.1	94.1	94.1
1230	NSF:S110	1462	-15138	99.7	99.7	94.5	94.5	94.5	94.5
1231	NSF:S103	691	14334	101.1	101.1	97.5	97.5	97.5	97.5
1232	NSF:C60	51	14525	102.6	102.6	99.0	99.0	99.0	99.0
1233	NSF:C63	335	17719	100.2	100.2	97.1	97.1	97.1	97.1
1234	NSF:S104	2040	9879	97.8	97.8	93.2	93.2	93.2	93.2
1235	NSF:C65	2422	9244	96.3	96.3	91.6	91.6	91.6	91.6
1236	NSF:C59	3555	12838	90.5	90.5	86.3	86.3	86.3	86.3
1237	Park:P65	-4286	-15220	89.1	89.1	85.7	90.9	85.7	90.9
1238	Park:P77	-4624	-22245	86.7	86.7	84.4	88.1	84.4	88.1
1239	Park:P75	-4188	-36794	86.4	86.4	82.4	85.0	82.4	85.0
1240	Park:P68	-5348	-17875	84.9	84.9	83.0	87.3	83.0	87.3
1241	Park:P69	-5853	-17090	83.7	83.7	82.8	85.9	82.8	85.9
1242	Park:P74	-5044	-16833	85.7	85.7	84.1	88.2	84.1	88.2
1243	Park:P73	-4954	-17282	85.7	85.7	83.8	88.4	83.8	88.4
1244	Park:P78	-4783	-18422	86.0	86.0	84.0	88.7	84.0	88.7
1245	Park:P70	-4665	-14728	88.5	88.5	86.7	89.8	86.7	89.8
1246	Park:P79	-1577	-22047	95.4	95.4	93.1	93.1	93.1	93.1
1247	Park:P66	-2383	-25951	91.5	91.5	89.4	89.9	89.4	89.9
1248	Park:P76	-748	-25329	96.3	96.3	92.9	92.9	92.9	92.9
1249	Park:P72	-135	-18873	101.9	101.9	95.9	96.1	95.9	97.1
1250	Park:P64	-1767	-17528	96.5	96.5	94.1	94.8	94.1	94.8
1251	Park:P67	1256	-19310	99.5	99.5	93.9	93.9	93.9	93.9
1252	Park:P71	2940	-16861	92.6	92.6	88.5	88.5	88.5	88.5
1253	N1	-1990	-17245	95.7	95.7	93.4	94.9	93.4	94.9
1254	N2	-3334	8426	94.6	94.6	91.8	97.6	91.8	97.6
1256	N3	-4097	6616	89.5	89.5	89.4	95.2	89.4	95.2
1257	N5	-8611	5294	79.5	79.5	79.5	80.7	79.5	80.7

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COMPARATIVE LOCATIONAL ANALYSIS
SEL

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1258	N7	-4947	-1900	86.5	86.5	86.5	92.7	86.5	92.7
1259	N8	-4082	10573	92.1	92.1	88.1	94.7	88.1	94.7
1260	N10	-3524	13833	94.2	94.2	89.2	92.8	89.2	92.8
1261	N16	-2435	-14830	95.8	95.8	91.7	96.0	91.7	96.0
1262	N17	-1060	-14856	101.3	101.3	96.6	96.6	96.6	96.6
1263	N18	-3776	-14788	90.9	90.9	87.1	92.8	87.1	92.8
1264	N19	1410	-15430	99.9	99.9	94.6	94.6	94.6	94.6
1265	N21	1410	-15430	99.9	99.9	94.6	94.6	94.6	94.6
1266	N22	1410	-15430	99.9	99.9	94.6	94.6	94.6	94.6
1267	N24	-849	-17121	100.4	100.4	97.0	97.0	97.0	97.0
1268	N52	-849	-17121	100.4	100.4	97.0	97.0	97.0	97.0
1269	N25	-1279	-17349	98.6	98.6	96.0	96.0	96.0	96.0
1270	N23	731	-17160	102.1	102.1	96.8	97.0	96.8	97.0
1271	N32	-2623	-16845	93.4	93.4	91.0	94.9	91.0	94.9
1272	N33	-1937	-14523	97.9	97.9	93.8	96.5	93.8	96.5
1273	N34	-1996	-20888	93.9	93.9	91.8	93.3	91.8	93.3
1274	N35	-1984	-20239	94.4	94.4	92.0	93.5	92.0	93.5
1275	N36	-1996	-20888	93.9	93.9	91.8	93.3	91.8	93.3
1276	N37	-1288	-18281	98.0	98.0	95.0	95.0	95.0	95.0
1277	N38	81	-23395	99.5	99.5	94.4	94.0	94.4	94.0
1278	N39	1235	-23064	98.4	98.4	93.4	92.6	93.4	92.6
1279	N40	1243	-23968	97.6	97.6	92.5	92.5	92.5	92.5
1280	N45	1572	-18752	98.5	98.5	93.0	93.0	93.0	93.0
1281	N46	2447	-18291	95.0	95.0	90.2	90.0	90.2	90.0
1282	N49	-2293	-19455	93.6	93.6	91.1	94.2	91.1	94.2
1283	N50	-2293	-19455	93.6	93.6	91.1	94.2	91.1	94.2
1284	N53	-762	-16176	101.0	101.0	96.9	96.9	96.9	96.9
1285	N54	2867	-16447	92.8	92.8	88.7	88.7	88.7	88.7
1286	N55	3117	-17904	91.9	91.9	88.1	88.1	88.1	88.1
1287	N56	-269	-22786	99.4	99.4	94.7	94.7	94.7	94.7
1288	N59	-2261	-19816	93.5	93.5	91.2	93.7	91.2	93.7
1289	N60	-1155	-20562	97.4	97.4	94.1	94.1	94.1	94.1
1290	N47	2491	-18288	94.8	94.8	90.1	89.9	90.1	89.9

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	80.8	80.8	82.1	74.2	86.4	72.3
2	RMS2	-2533	-18228	81.0	81.0	81.5	79.6	85.6	92.2
3	RMS3	1078	-17868	102.6	102.6	103.9	94.5	109.0	87.7
4	RMS4	141	-9337	190.5	190.5	197.3	168.8	206.0	173.9
5	RMS5	-2718	186	233.1	233.0	240.7	262.0	253.1	331.9
6	RMS6	292	8461	151.7	151.7	156.8	156.9	163.6	168.8
7	RMS7	-1299	16858	100.5	100.5	103.9	99.7	108.8	116.8
8	RMS8	-525	21836	100.2	100.2	104.7	94.6	110.3	102.6
9	RMS9	1958	14969	70.2	70.2	70.9	69.1	75.2	72.8
10	RMS10	-3185	-6305	165.5	165.5	167.3	176.8	177.5	206.7
11	RMS11	2549	6703	131.8	131.8	131.1	197.1	138.1	209.2
12	A22	-7822	17894	10.3	10.3	8.1	8.7	8.1	11.1
13	A23	-7856	16574	11.5	11.5	9.3	9.6	9.2	12.0
14	A24	-7890	15254	14.0	13.9	11.7	12.3	11.6	14.9
15	A25	-7924	13934	14.9	14.9	12.6	14.5	12.6	17.8
16	A26	-7958	12614	15.6	15.5	13.7	17.7	14.4	22.0
17	A27	-7992	11294	15.9	15.8	14.1	21.6	15.3	25.9
18	A28	-8026	9974	15.8	15.7	13.7	22.3	15.0	27.0
19	A29	-8060	8654	15.0	14.9	12.1	20.6	13.3	26.0
20	A30	-8094	7334	18.7	18.7	15.8	23.6	17.9	31.4
21	A31	-8128	6014	24.2	24.3	21.5	33.0	24.8	41.5
22	A32	-8162	4694	25.7	25.7	22.3	33.9	25.7	41.0
23	A33	-8196	3374	20.3	20.5	14.8	26.8	16.1	32.8
24	A34	-8230	2054	23.9	24.1	17.7	28.3	19.3	34.4
25	A35	-8264	734	24.6	24.7	18.5	25.6	19.9	31.1
26	A36	-8298	-586	26.3	26.4	20.4	24.4	21.9	29.7
27	A37	-8332	-1906	27.8	27.8	22.1	26.8	23.7	32.5
28	A38	-8366	-3226	34.6	34.5	29.6	35.0	31.9	40.5
29	A39	-8400	-4546	31.3	31.1	26.5	33.5	28.5	37.2
30	A40	-8434	-5866	29.2	29.1	25.0	25.8	27.4	34.1
31	A41	-8468	-7186	29.6	29.5	26.1	25.7	28.3	34.8
32	A42	-8502	-8506	26.8	26.7	23.7	24.4	25.3	31.0
33	A43	-8536	-9826	24.3	24.2	21.1	21.0	22.3	25.5
34	B10	-6094	33700	13.4	13.4	11.6	11.8	11.6	14.3
35	B11	-6128	32380	13.7	13.7	11.9	12.1	12.0	14.8
36	B12	-6162	31060	13.9	13.9	12.2	12.5	12.3	15.3
37	B13	-6196	29740	14.2	14.2	12.5	12.8	12.6	15.7
38	B14	-6230	28420	14.4	14.4	12.7	13.2	12.9	16.2
39	B15	-6264	27100	15.0	15.0	13.2	13.7	13.4	16.8
40	B16	-6298	25780	15.2	15.2	13.4	14.1	13.6	17.3
41	B17	-6332	24460	15.7	15.7	13.9	14.6	14.1	17.9
42	B18	-6366	23140	16.3	16.3	14.5	15.2	14.7	18.8
43	B19	-6400	21820	16.2	16.2	14.3	15.1	14.6	18.8
44	B20	-6434	20500	16.3	16.3	14.4	15.2	14.8	19.0
45	B21	-6468	19180	16.4	16.4	14.4	15.3	14.7	19.1
46	B22	-6502	17860	16.5	16.5	14.5	15.4	14.7	19.3
47	B23	-6536	16540	16.8	16.8	14.7	15.8	15.0	19.9
48	B24	-6570	15220	17.7	17.7	15.4	16.5	15.6	20.8
49	B25	-6604	13900	19.9	19.9	17.6	17.9	17.7	22.5
50	B26	-6638	12580	21.4	21.3	19.1	21.5	19.5	26.7
51	B27	-6672	11260	22.1	22.0	19.7	25.4	20.6	30.5
52	B28	-6706	9940	24.6	24.5	22.2	31.8	23.7	37.7
53	B29	-6740	8620	26.8	26.7	24.1	37.7	26.2	45.2
54	B30	-6774	7300	32.1	32.1	28.8	46.8	32.2	56.7
55	B31	-6808	5980	38.3	38.3	34.6	54.0	39.5	67.4
56	B32	-6842	4660	43.7	43.7	39.0	59.5	43.6	73.1

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TIME ABOVE (TA)

				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
57	B33	-6876	3340	39.7	39.9	32.7	51.2	34.6	61.9
58	B34	-6910	2020	42.4	42.6	35.5	51.2	37.7	60.4
59	B35	-6944	700	44.0	44.1	37.9	49.3	40.0	57.9
60	B36	-6978	-620	45.8	45.8	40.3	48.0	42.4	57.1
61	B37	-7012	-1940	48.7	48.7	43.4	52.1	45.9	63.2
62	B38	-7046	-3260	59.0	58.9	54.6	62.0	58.6	75.0
63	B39	-7080	-4580	58.7	58.5	54.4	60.8	58.8	71.2
64	B40	-7114	-5900	48.4	48.4	43.8	46.1	47.5	58.5
65	B41	-7148	-7220	43.1	43.0	38.8	41.0	41.9	51.8
66	B42	-7182	-8540	35.9	35.9	31.7	33.6	33.7	40.9
67	B43	-7216	-9860	27.2	27.2	22.8	25.2	23.4	27.9
68	B44	-7250	-11180	25.8	25.8	21.4	22.4	21.6	23.9
69	B45	-7284	-12500	23.6	23.6	19.4	20.2	19.5	20.5
70	B46	-7318	-13820	22.2	22.2	18.1	19.0	18.1	19.0
71	B47	-7352	-15140	19.3	19.3	15.3	15.6	15.3	16.6
72	B48	-7386	-16460	18.0	18.0	14.2	14.6	14.1	15.3
73	B49	-7420	-17780	16.6	16.6	13.0	13.6	12.9	14.3
74	C1	-4468	45546	14.2	14.2	12.6	12.8	12.8	15.7
75	C2	-4502	44226	14.8	14.8	13.2	13.4	13.3	16.4
76	C3	-4536	42906	15.1	15.1	13.5	13.9	13.7	17.1
77	C4	-4570	41586	15.4	15.4	13.8	14.4	14.0	17.8
78	C5	-4604	40266	15.8	15.8	14.2	15.0	14.4	18.8
79	C6	-4638	38946	15.9	15.9	14.3	15.2	14.6	19.1
80	C7	-4672	37626	16.2	16.2	14.8	15.7	15.1	19.8
81	C8	-4706	36306	16.6	16.6	15.1	16.1	15.4	20.3
82	C9	-4740	34986	17.3	17.3	15.7	16.7	16.1	21.1
83	C10	-4774	33666	18.1	18.1	16.5	17.7	16.8	22.4
84	C11	-4808	32346	18.5	18.5	16.9	18.2	17.3	23.1
85	C12	-4842	31026	19.0	19.0	17.5	18.9	17.9	24.1
86	C13	-4876	29706	19.5	19.5	18.1	20.0	18.5	25.8
87	C14	-4910	28386	20.2	20.2	18.9	21.2	19.4	27.3
88	C15	-4944	27066	20.9	20.9	19.6	22.3	20.1	28.9
89	C16	-4978	25746	21.7	21.7	20.3	23.4	20.8	30.4
90	C17	-5012	24426	22.6	22.6	21.1	25.6	21.7	34.1
91	C18	-5046	23106	23.3	23.3	21.8	25.9	22.6	34.3
92	C19	-5080	21786	24.2	24.2	22.8	26.4	23.7	34.7
93	C20	-5114	20466	24.6	24.6	23.2	27.0	24.0	35.4
94	C21	-5148	19146	24.9	24.9	23.4	27.1	24.2	35.5
95	C22	-5182	17826	25.0	25.0	23.6	27.1	24.3	35.4
96	C23	-5216	16506	25.8	25.8	24.1	27.4	24.8	35.7
97	C24	-5250	15186	26.4	26.4	24.6	27.8	25.3	36.2
98	C25	-5284	13866	27.6	27.6	25.6	28.6	26.2	36.8
99	C26	-5318	12546	29.1	29.1	27.0	30.3	27.7	38.7
100	C27	-5352	11226	32.4	32.4	30.1	35.0	31.3	44.1
101	C28	-5386	9906	35.2	35.1	32.6	44.0	34.4	52.7
102	C29	-5420	8586	40.9	40.8	37.4	56.1	40.3	65.1
103	C30	-5454	7266	52.8	52.7	48.7	79.1	53.3	92.7
104	C31	-5488	5946	66.4	66.3	62.1	98.8	68.8	116.3
105	C32	-5522	4626	72.9	72.9	68.2	102.9	74.9	122.3
106	C33	-5556	3306	73.0	73.2	66.8	92.5	71.1	110.8
107	C34	-5590	1986	77.0	77.2	72.1	93.3	75.6	110.7
108	C35	-5624	666	77.2	77.3	73.5	89.5	77.2	105.6
109	C36	-5658	-654	78.1	78.1	74.7	87.3	78.4	105.6
110	C37	-5692	-1974	90.3	90.3	88.3	98.1	93.6	118.8
111	C38	-5726	-3294	98.0	97.8	96.1	105.9	102.4	128.0
112	C39	-5760	-4614	91.2	91.0	87.9	98.2	94.4	115.6

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TIME ABOVE (TA)

				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
113	C40	-5794	-5934	73.9	73.8	69.3	75.4	74.4	91.5
114	C41	-5828	-7254	61.3	61.3	56.2	60.7	60.0	73.0
115	C42	-5862	-8574	48.2	48.2	42.9	47.5	45.1	55.6
116	C43	-5896	-9894	43.6	43.6	39.2	41.3	40.8	45.6
117	C44	-5930	-11214	40.1	40.1	36.4	37.2	37.4	40.3
118	C45	-5964	-12534	37.4	37.4	33.6	34.2	34.3	35.8
119	C46	-5998	-13854	35.0	35.0	31.3	31.9	31.8	33.1
120	C47	-6032	-15174	31.0	31.0	27.2	27.7	27.7	29.7
121	C48	-6066	-16494	27.9	27.9	24.3	25.0	24.6	26.9
122	C49	-6100	-17814	25.6	25.6	22.3	23.4	22.7	25.2
123	C50	-6134	-19134	24.0	24.0	20.7	22.4	21.0	24.0
124	C51	-6168	-20454	22.9	22.9	19.7	21.2	19.9	22.7
125	C52	-6202	-21774	22.1	22.1	18.8	20.5	19.0	21.9
126	C53	-6236	-23094	21.5	21.5	18.3	19.6	18.5	20.8
127	C54	-6270	-24414	20.9	20.9	17.7	18.7	17.9	19.7
128	C55	-6304	-25734	20.3	20.3	17.1	17.6	17.2	18.5
129	C56	-6338	-27054	19.2	19.2	16.1	16.7	16.1	17.6
130	C57	-6372	-28374	18.5	18.5	15.4	15.9	15.4	16.7
131	C58	-6406	-29694	17.7	17.7	14.8	15.3	14.7	16.1
132	C59	-6440	-31014	17.3	17.3	14.3	14.6	14.2	15.3
133	D1	-3148	45512	17.1	17.1	15.3	18.0	15.8	23.9
134	D2	-3182	44192	17.9	17.9	16.2	19.2	16.6	25.5
135	D3	-3216	42872	18.5	18.5	16.9	20.2	17.3	27.0
136	D4	-3250	41552	19.1	19.1	17.4	21.7	18.0	29.5
137	D5	-3284	40232	19.7	19.7	18.0	22.5	18.6	30.5
138	D6	-3318	38912	19.7	19.7	18.1	22.6	18.7	30.8
139	D7	-3352	37592	20.3	20.3	18.8	23.4	19.4	31.8
140	D8	-3386	36272	21.3	21.3	19.7	24.4	20.5	33.2
141	D9	-3420	34952	22.7	22.7	21.0	26.7	21.9	36.6
142	D10	-3454	33632	23.5	23.5	21.8	28.0	22.6	38.4
143	D11	-3488	32312	24.3	24.3	22.6	28.9	23.5	39.7
144	D12	-3522	30992	25.3	25.3	23.8	29.6	24.9	40.4
145	D13	-3556	29672	26.5	26.5	25.2	32.3	26.5	44.4
146	D14	-3590	28352	28.0	28.0	27.1	33.9	28.3	46.3
147	D15	-3624	27032	29.8	29.8	28.8	35.8	30.3	48.7
148	D16	-3658	25712	32.0	32.0	30.8	39.6	32.4	54.9
149	D17	-3692	24392	33.9	33.9	32.3	43.0	34.1	60.3
150	D18	-3726	23072	35.3	35.3	33.9	42.5	35.9	58.8
151	D19	-3760	21752	35.8	35.8	34.4	43.0	36.3	59.0
152	D20	-3794	20432	36.1	36.1	34.9	43.1	36.8	58.6
153	D21	-3828	19112	37.2	37.2	36.0	44.5	38.0	60.5
154	D22	-3862	17792	37.8	37.8	36.5	45.5	38.5	61.8
155	D23	-3896	16472	39.0	39.0	37.3	46.6	39.2	63.5
156	D24	-3930	15152	40.1	40.1	38.1	47.8	40.0	64.9
157	D25	-3964	13832	40.9	40.9	38.9	49.3	40.7	66.7
158	D26	-3998	12512	43.7	43.7	41.7	52.3	43.6	69.9
159	D27	-4032	11192	46.2	46.2	43.8	56.9	46.0	75.4
160	D28	-4066	9872	50.2	50.2	47.4	66.1	50.2	85.8
161	D29	-4100	8552	60.5	60.4	56.3	90.8	59.9	110.2
162	D30	-4134	7232	78.7	78.7	74.1	132.8	79.7	155.2
163	D31	-4168	5912	103.3	103.3	99.7	171.7	108.3	199.5
164	D32	-4202	4592	122.0	121.9	119.1	174.3	127.9	205.3
165	D33	-4236	3272	132.6	132.7	130.3	165.6	137.6	198.2
166	D34	-4270	1952	133.5	133.7	133.4	158.0	140.9	191.0
167	D35	-4304	632	133.5	133.6	134.5	152.7	142.5	186.2
168	D36	-4338	-688	135.0	135.0	136.2	152.0	143.8	189.2

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
169	D37	-4372	-2008	143.1	143.0	145.0	157.6	153.6	194.9
170	D38	-4406	-3328	150.2	150.0	152.5	167.2	161.9	204.3
171	D39	-4440	-4648	140.1	139.9	139.9	157.7	148.6	186.2
172	D40	-4474	-5968	106.8	106.8	103.2	115.9	109.4	139.4
173	D41	-4508	-7288	89.1	89.1	84.4	92.1	89.7	111.7
174	D42	-4542	-8608	74.7	74.7	70.1	74.8	73.9	91.2
175	D43	-4576	-9928	66.2	66.2	62.5	64.5	65.2	76.8
176	D44	-4610	-11248	59.1	59.1	56.0	57.4	58.2	68.1
177	D45	-4644	-12568	54.7	54.7	51.5	53.0	53.2	62.0
178	D46	-4678	-13888	50.7	50.7	47.6	48.5	48.9	57.0
179	D47	-4712	-15208	46.1	46.1	42.9	43.3	43.9	52.1
180	D48	-4746	-16528	41.8	41.8	38.6	40.0	39.7	48.1
181	D49	-4780	-17848	38.9	38.9	35.9	38.1	36.9	45.5
182	D50	-4814	-19168	36.4	36.4	33.7	35.8	34.6	42.9
183	D51	-4848	-20488	35.1	35.1	32.3	34.3	33.1	41.6
184	D52	-4882	-21808	33.9	33.9	31.2	32.8	32.1	39.9
185	D53	-4916	-23128	32.5	32.5	29.9	31.0	30.7	36.7
186	D54	-4950	-24448	31.2	31.2	28.6	29.4	29.3	34.0
187	D55	-4984	-25768	29.9	29.9	27.3	28.0	27.8	32.5
188	D56	-5018	-27088	28.5	28.5	25.8	26.3	26.2	30.2
189	D57	-5052	-28408	27.4	27.4	24.8	24.8	25.2	28.2
190	D58	-5086	-29728	26.0	26.0	23.5	23.5	23.7	26.3
191	D59	-5120	-31048	24.9	24.9	22.2	22.3	22.5	24.9
192	D60	-5154	-32368	23.8	23.8	21.1	21.0	21.2	23.3
193	D61	-5188	-33688	22.7	22.7	20.0	19.6	20.1	21.5
194	D62	-5222	-35008	21.5	21.5	18.6	18.3	18.7	20.0
195	D63	-5256	-36328	20.3	20.3	17.4	17.3	17.4	18.8
196	D64	-5290	-37648	19.4	19.4	16.5	16.6	16.5	18.1
197	D65	-5324	-38968	19.4	19.4	16.5	16.8	16.4	18.3
198	D66	-5358	-40288	18.9	18.9	15.9	16.4	15.8	17.7
199	D67	-5392	-41608	18.6	18.6	15.7	16.3	15.5	17.6
200	E1	-1828	45478	24.5	24.5	23.6	24.3	25.2	31.7
201	E2	-1862	44158	26.0	26.0	25.1	26.6	26.6	34.7
202	E3	-1896	42838	27.8	27.8	27.0	28.1	28.7	36.5
203	E4	-1930	41518	30.5	30.5	30.1	31.1	32.1	40.9
204	E5	-1964	40198	31.2	31.2	30.8	32.2	33.0	41.9
205	E6	-1998	38878	32.5	32.5	32.2	33.2	34.3	42.9
206	E7	-2032	37558	33.2	33.2	33.0	34.4	35.2	44.5
207	E8	-2066	36238	35.3	35.3	35.2	36.3	37.6	46.8
208	E9	-2100	34918	37.5	37.5	37.5	40.8	40.0	53.5
209	E10	-2134	33598	41.9	41.9	42.1	42.7	45.0	55.5
210	E11	-2168	32278	42.4	42.4	42.7	44.5	45.4	57.5
211	E12	-2202	30958	44.1	44.1	44.5	44.9	47.6	58.2
212	E13	-2236	29638	46.1	46.1	46.9	49.8	49.9	64.5
213	E14	-2270	28318	49.3	49.3	50.4	52.4	53.5	67.0
214	E15	-2304	26998	52.3	52.3	53.5	55.7	56.7	71.0
215	E16	-2338	25678	57.2	57.2	57.9	63.6	61.8	82.8
216	E17	-2372	24358	67.2	67.2	68.9	72.1	73.6	93.9
217	E18	-2406	23038	67.2	67.2	68.9	71.0	73.3	90.3
218	E19	-2440	21718	64.9	64.9	66.3	69.3	70.6	89.5
219	E20	-2474	20398	64.6	64.6	65.8	69.0	69.9	88.2
220	E21	-2508	19078	66.9	66.9	68.6	72.0	72.8	91.8
221	E22	-2542	17758	69.4	69.4	71.3	74.5	75.5	95.1
222	E23	-2576	16438	72.1	72.1	73.3	76.4	77.6	98.1
223	E24	-2610	15118	73.2	73.2	74.2	79.4	78.5	102.7
224	E25	-2644	13798	73.9	73.9	75.1	80.4	79.4	104.3

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
225	E26	-2678	12478	76.6	76.6	78.0	83.5	82.6	107.6
226	E27	-2712	11158	79.2	79.2	80.0	86.7	84.6	111.6
227	E28	-2746	9838	83.5	83.5	83.7	99.4	89.0	126.0
228	E29	-2780	8518	96.3	96.3	95.2	135.5	101.4	164.4
229	E30	-2814	7198	125.5	125.5	123.6	204.1	132.4	235.6
230	E31	-2848	5878	167.6	167.5	168.3	281.2	179.8	320.6
231	E32	-2882	4558	211.1	211.0	216.7	284.4	231.8	337.9
232	E33	-2916	3238	241.7	241.7	249.2	287.1	264.6	351.0
233	E34	-2950	1918	237.4	237.5	245.3	266.4	259.8	328.9
234	E35	-2984	598	214.4	214.4	220.9	244.0	233.0	308.4
235	E36	-3018	-722	207.9	207.8	214.3	240.7	226.4	311.2
236	E37	-3052	-2042	214.6	214.4	221.4	248.7	234.6	316.7
237	E38	-3086	-3362	223.1	222.9	231.5	250.3	245.8	300.4
238	E39	-3120	-4682	219.3	219.2	226.9	242.2	241.1	272.9
239	E40	-3154	-6002	176.9	176.9	180.2	190.7	191.4	221.8
240	E41	-3188	-7322	138.7	138.7	138.2	141.3	146.4	168.3
241	E42	-3222	-8642	114.1	114.1	112.5	110.7	119.0	134.3
242	E43	-3256	-9962	99.5	99.5	98.7	95.6	104.0	114.7
243	E44	-3290	-11282	90.8	90.8	90.4	87.3	95.0	104.3
244	E45	-3324	-12602	83.7	83.7	82.6	80.0	86.4	95.0
245	E46	-3358	-13922	76.6	76.6	75.4	72.6	78.7	88.2
246	E47	-3392	-15242	71.1	71.1	69.6	66.7	72.6	81.7
247	E48	-3426	-16562	65.9	65.9	64.0	62.7	66.9	77.0
248	E49	-3460	-17882	60.6	60.6	58.8	59.4	61.5	73.3
249	E50	-3494	-19202	56.3	56.3	54.9	55.9	57.4	70.8
250	E51	-3528	-20522	54.7	54.7	53.1	53.5	55.6	68.0
251	E52	-3562	-21842	52.3	52.3	50.7	50.9	53.0	66.2
252	E53	-3596	-23162	49.7	49.7	47.9	48.1	50.2	62.2
253	E54	-3630	-24482	45.9	45.9	43.9	44.3	45.8	55.4
254	E55	-3664	-25802	43.3	43.3	41.2	41.3	42.8	51.4
255	E56	-3698	-27122	41.5	41.5	39.4	39.2	40.7	49.7
256	E57	-3732	-28442	39.2	39.2	37.2	36.7	38.5	45.5
257	E58	-3766	-29762	37.5	37.5	35.6	35.4	36.7	45.1
258	E59	-3800	-31082	36.1	36.1	33.9	33.9	34.9	42.9
259	E60	-3834	-32402	34.4	34.4	32.0	32.0	32.9	40.7
260	E61	-3868	-33722	33.0	33.0	30.4	29.9	31.2	36.9
261	E62	-3902	-35042	30.8	30.8	28.3	27.5	29.0	33.7
262	E63	-3936	-36362	28.7	28.7	26.1	25.4	26.8	30.9
263	E64	-3970	-37682	27.6	27.6	25.0	24.7	25.6	30.2
264	E65	-4004	-39002	26.8	26.8	24.2	24.8	24.8	30.7
265	E66	-4038	-40322	26.5	26.5	23.9	24.3	24.5	29.9
266	E67	-4072	-41642	25.4	25.4	22.7	23.2	23.2	29.0
267	E68	-4106	-42962	23.9	23.9	21.2	21.7	21.5	26.2
268	E69	-4140	-44282	22.3	22.3	19.7	20.4	19.8	24.7
269	E70	-4174	-45602	20.5	20.5	18.1	18.7	18.1	22.6
270	E71	-4208	-46922	18.8	18.8	16.4	16.9	16.4	20.2
271	E72	-4242	-48242	17.0	17.0	14.7	15.4	14.6	17.9
272	E73	-4276	-49562	15.2	15.2	12.9	13.9	12.7	16.3
273	F1	-508	45444	31.5	31.5	31.3	28.5	33.6	32.9
274	F2	-542	44124	34.3	34.3	34.4	31.7	36.9	36.3
275	F3	-576	42804	38.2	38.2	38.5	34.6	41.1	39.5
276	F4	-610	41484	41.5	41.5	42.2	37.9	45.3	43.2
277	F5	-644	40164	41.6	41.6	42.2	39.0	45.3	44.3
278	F6	-678	38844	43.7	43.7	44.6	41.2	47.7	47.0
279	F7	-712	37524	45.0	45.0	46.1	43.0	49.2	49.2
280	F8	-746	36204	47.5	47.5	48.6	45.4	51.9	52.1

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TIME ABOVE (TA)

				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
281	F9	-780	34884	50.8	50.8	51.8	51.0	55.5	59.2
282	F10	-814	33564	60.6	60.6	62.7	55.9	67.1	63.3
283	F11	-848	32244	56.0	56.0	57.7	55.7	61.4	64.4
284	F12	-882	30924	60.6	60.6	62.8	57.3	67.2	65.1
285	F13	-916	29604	61.5	61.5	64.1	61.8	68.4	71.7
286	F14	-950	28284	65.2	65.2	67.9	64.6	71.8	74.0
287	F15	-984	26964	69.4	69.4	72.3	69.3	76.4	79.8
288	F16	-1018	25644	78.3	78.3	81.3	80.2	86.1	93.0
289	F17	-1052	24324	97.0	97.0	101.6	94.1	107.8	107.2
290	F18	-1086	23004	93.5	93.5	97.5	91.1	102.9	102.9
291	F19	-1120	21684	93.4	93.4	97.6	90.5	103.2	104.1
292	F20	-1154	20364	90.8	90.8	94.1	88.7	99.2	102.8
293	F21	-1188	19044	93.2	93.2	96.8	92.8	101.5	107.8
294	F22	-1222	17724	97.5	97.5	101.5	97.6	106.3	113.2
295	F23	-1256	16404	102.9	102.9	106.1	102.1	111.0	119.0
296	F24	-1290	15084	108.2	108.2	111.3	106.9	116.1	124.6
297	F25	-1324	13764	109.1	109.1	113.0	109.8	118.0	128.8
298	F26	-1358	12444	113.4	113.4	117.9	115.9	123.6	136.3
299	F27	-1392	11124	116.2	116.2	119.9	119.9	125.6	141.1
300	F28	-1426	9804	123.5	123.5	127.6	131.1	133.8	154.0
301	F29	-1460	8484	134.9	134.9	138.0	146.0	144.7	170.5
302	F30	-1494	7164	173.4	173.4	177.3	248.0	187.1	277.1
303	F31	-1528	5844	236.1	236.1	245.2	428.0	260.0	490.2
304	F32	-1562	4524	345.6	345.5	363.2	450.9	385.8	539.2
305	F33	-1596	3204	437.6	437.7	460.8	472.5	487.3	603.1
306	F34	-1630	1884	412.4	412.5	433.5	416.0	456.7	496.2
307	F35	-1664	564	361.1	361.1	379.2	358.7	399.9	434.8
308	F36	-1698	-756	329.5	329.4	344.2	360.9	360.6	454.2
309	F37	-1732	-2076	337.3	337.2	353.1	422.9	372.5	555.6
310	F38	-1766	-3396	355.4	355.3	373.9	413.3	395.6	499.6
311	F39	-1800	-4716	354.4	354.3	373.6	383.7	394.9	423.0
312	F40	-1834	-6036	257.9	257.9	269.9	262.0	285.2	291.2
313	F41	-1868	-7356	190.6	190.6	197.0	186.9	208.0	210.1
314	F42	-1902	-8676	158.9	158.9	162.4	151.2	170.7	172.3
315	F43	-1936	-9996	142.1	142.1	145.7	135.1	152.7	151.1
316	F44	-1970	-11316	131.2	131.2	134.6	123.8	141.2	138.1
317	F45	-2004	-12636	119.3	119.3	121.2	111.8	126.9	125.4
318	F46	-2038	-13956	109.9	109.9	111.9	103.0	117.2	116.8
319	F47	-2072	-15276	103.7	103.7	105.0	97.0	109.7	108.7
320	F48	-2106	-16596	97.6	97.6	98.3	92.2	102.9	103.8
321	F49	-2140	-17916	92.0	92.0	93.0	89.9	97.5	99.5
322	F50	-2174	-19236	85.6	85.6	87.0	83.8	91.4	97.8
323	F51	-2208	-20556	84.5	84.5	86.1	81.4	90.5	95.0
324	F52	-2242	-21876	78.5	78.5	79.7	76.5	83.8	91.3
325	F53	-2276	-23196	80.3	80.3	81.9	75.7	86.5	89.2
326	F54	-2310	-24516	71.1	71.1	71.5	68.0	75.3	78.6
327	F55	-2344	-25836	67.4	67.4	67.8	64.0	71.0	73.6
328	F56	-2378	-27156	65.3	65.3	65.7	61.3	68.9	71.5
329	F57	-2412	-28476	62.3	62.3	62.7	59.1	65.7	67.6
330	F58	-2446	-29796	58.6	58.6	58.9	55.4	61.8	63.8
331	F59	-2480	-31116	55.9	55.9	55.8	52.6	58.5	61.2
332	F60	-2514	-32436	55.0	55.0	54.7	50.7	57.4	59.8
333	F61	-2548	-33756	51.0	51.0	50.1	46.9	52.4	53.7
334	F62	-2582	-35076	47.3	47.3	46.3	43.0	48.3	49.5
335	F63	-2616	-36396	44.3	44.3	43.2	39.9	45.1	46.1
336	F64	-2650	-37716	41.8	41.8	40.3	37.8	42.1	43.7

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
337	F65	-2684	-39036	40.6	40.6	39.3	37.6	41.1	44.1
338	F66	-2718	-40356	40.4	40.4	39.0	37.2	40.8	43.0
339	F67	-2752	-41676	39.4	39.4	37.9	35.8	39.8	42.0
340	F68	-2786	-42996	35.2	35.2	33.2	31.4	34.7	36.3
341	F69	-2820	-44316	31.9	31.9	29.8	28.5	30.8	32.8
342	F70	-2854	-45636	29.1	29.1	26.8	26.0	27.6	29.9
343	F71	-2888	-46956	26.3	26.3	24.2	23.4	24.9	26.9
344	F72	-2922	-48276	23.6	23.6	21.5	21.0	22.1	24.0
345	F73	-2956	-49596	20.9	20.9	18.6	18.9	18.9	21.5
346	G1	812	45410	26.7	26.7	26.0	25.7	27.9	28.0
347	G2	778	44090	29.6	29.6	29.3	28.7	31.4	30.8
348	G3	744	42770	33.7	33.7	33.7	31.8	36.1	33.6
349	G4	710	41450	35.2	35.2	35.3	33.5	38.0	36.1
350	G5	676	40130	36.4	36.4	36.6	35.0	39.6	37.1
351	G6	642	38810	38.0	38.0	38.3	36.9	41.2	39.1
352	G7	608	37490	40.5	40.5	41.3	38.9	44.4	41.2
353	G8	574	36170	43.4	43.4	44.2	41.4	47.4	43.9
354	G9	540	34850	46.9	46.9	47.9	45.9	51.5	49.1
355	G10	506	33530	55.8	55.8	57.6	52.5	62.0	54.0
356	G11	472	32210	52.6	52.6	54.2	51.1	57.8	54.5
357	G12	438	30890	57.1	57.1	59.0	54.5	63.3	56.9
358	G13	404	29570	59.9	59.9	62.2	58.8	66.3	62.2
359	G14	370	28250	64.3	64.3	66.8	62.6	70.5	65.3
360	G15	336	26930	69.3	69.3	71.8	66.7	75.6	69.8
361	G16	302	25610	77.1	77.1	79.6	75.9	84.4	79.7
362	G17	268	24290	95.1	95.1	99.3	90.2	105.3	92.5
363	G18	234	22970	91.7	91.7	95.4	88.5	100.4	89.9
364	G19	200	21650	93.9	93.9	97.9	89.8	103.3	92.4
365	G20	166	20330	92.6	92.6	96.0	88.3	101.0	92.4
366	G21	132	19010	95.8	95.8	99.4	92.6	104.0	98.1
367	G22	98	17690	100.6	100.6	104.8	97.6	109.5	104.0
368	G23	64	16370	107.1	107.1	110.6	103.1	115.6	111.0
369	G24	30	15050	114.7	114.7	118.3	110.3	123.1	118.3
370	G25	-4	13730	119.9	119.9	124.5	116.5	129.5	126.1
371	G26	-38	12410	127.7	127.7	133.0	125.6	138.7	136.7
372	G27	-72	11090	131.1	131.1	135.9	130.6	141.7	142.3
373	G28	-106	9770	140.9	140.9	146.9	144.2	153.4	157.8
374	G29	-140	8450	153.7	153.7	159.2	157.4	166.2	172.1
375	G30	-174	7130	169.6	169.6	177.3	181.2	186.2	201.1
376	G31	-208	5810	229.5	229.5	241.6	345.6	256.4	395.7
377	G32	-242	4490	357.7	358.7	382.3	537.6	413.6	593.8
378	G33	-276	3170	726.2	727.4	780.9	659.4	837.1	746.8
379	G34	-310	1850	706.4	706.7	753.8	612.5	799.3	687.1
380	G35	-344	530	630.0	630.0	674.5	547.2	718.8	577.0
381	G36	-378	-790	595.3	595.0	636.1	552.3	674.6	598.8
382	G37	-412	-2110	631.8	631.6	677.2	597.0	721.6	668.1
383	G38	-446	-3430	592.2	591.6	638.0	614.2	691.6	702.5
384	G39	-480	-4750	433.8	433.2	460.1	418.2	486.9	462.7
385	G40	-514	-6070	229.1	229.1	242.4	242.2	256.0	247.2
386	G41	-548	-7390	200.9	200.9	211.7	197.1	223.0	223.9
387	G42	-582	-8710	192.8	192.8	200.9	179.1	210.4	190.5
388	G43	-616	-10030	172.6	172.6	178.1	157.4	185.8	165.0
389	G44	-650	-11350	159.3	159.3	165.5	143.5	172.8	151.3
390	G45	-684	-12670	143.5	143.5	146.8	128.8	153.4	135.7
391	G46	-718	-13990	132.6	132.6	136.5	121.4	142.8	127.0
392	G47	-752	-15310	125.0	125.0	128.5	116.0	134.0	118.1

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
393	G48	-786	-16630	118.8	118.8	120.9	109.5	126.2	113.4
394	G49	-820	-17950	114.4	114.4	116.6	110.2	122.0	108.6
395	G50	-854	-19270	104.5	104.5	107.7	99.4	113.0	105.8
396	G51	-888	-20590	103.9	103.9	107.1	97.6	112.3	103.1
397	G52	-922	-21910	96.1	96.1	98.7	91.7	103.4	97.5
398	G53	-956	-23230	99.5	99.5	103.0	92.7	108.4	97.3
399	G54	-990	-24550	87.9	87.9	90.0	83.5	94.5	86.8
400	G55	-1024	-25870	83.9	83.9	85.7	78.7	89.6	81.7
401	G56	-1058	-27190	81.8	81.8	83.7	75.9	87.5	77.9
402	G57	-1092	-28510	77.9	77.9	79.6	73.1	83.3	74.2
403	G58	-1126	-29830	73.7	73.7	75.4	69.5	79.2	69.8
404	G59	-1160	-31150	69.9	69.9	71.1	65.7	74.6	67.9
405	G60	-1194	-32470	69.6	69.6	70.7	62.8	74.3	65.4
406	G61	-1228	-33790	64.0	64.0	64.3	58.9	67.4	60.9
407	G62	-1262	-35110	59.7	59.7	59.6	53.5	62.4	55.4
408	G63	-1296	-36430	57.8	57.8	57.6	51.5	60.3	53.5
409	G64	-1330	-37750	55.1	55.1	54.7	49.4	57.3	51.2
410	G65	-1364	-39070	52.9	52.9	52.5	47.6	55.1	49.3
411	G66	-1398	-40390	51.9	51.9	51.3	46.7	53.8	48.2
412	G67	-1432	-41710	50.0	50.0	49.3	44.1	51.8	44.8
413	G68	-1466	-43030	45.0	45.0	43.9	40.3	46.1	40.8
414	G69	-1500	-44350	40.3	40.3	38.9	35.3	40.6	36.0
415	G70	-1534	-45670	36.7	36.7	35.1	32.1	36.5	32.4
416	G71	-1568	-46990	33.4	33.4	31.8	29.1	33.4	28.9
417	G72	-1602	-48310	29.7	29.7	28.0	25.5	29.3	25.9
418	G73	-1636	-49630	26.2	26.2	24.4	22.4	25.4	22.7
419	H1	2132	45376	17.7	17.7	16.3	16.5	17.3	19.0
420	H2	2098	44056	19.3	19.3	18.0	18.5	19.0	21.0
421	H3	2064	42736	21.0	21.0	19.9	20.4	21.0	22.7
422	H4	2030	41416	21.8	21.8	20.8	21.6	22.2	24.0
423	H5	1996	40096	22.4	22.4	21.4	22.3	23.0	24.9
424	H6	1962	38776	23.5	23.5	22.6	23.9	24.3	26.5
425	H7	1928	37456	25.5	25.5	24.9	25.9	26.7	28.5
426	H8	1894	36136	27.9	27.9	27.3	28.1	29.3	30.6
427	H9	1860	34816	30.2	30.2	29.7	30.8	31.9	33.5
428	H10	1826	33496	34.2	34.2	33.9	35.0	36.4	37.0
429	H11	1792	32176	35.4	35.4	35.2	35.8	37.6	38.3
430	H12	1758	30856	36.5	36.5	36.4	37.4	39.1	39.7
431	H13	1724	29536	38.7	38.7	38.7	40.0	41.4	42.8
432	H14	1690	28216	42.5	42.5	42.9	43.4	45.6	45.5
433	H15	1656	26896	45.3	45.3	45.6	46.2	48.5	48.6
434	H16	1622	25576	49.6	49.6	49.7	50.9	53.3	53.5
435	H17	1588	24256	58.3	58.3	59.0	60.2	63.4	61.2
436	H18	1554	22936	59.1	59.1	60.2	60.6	64.4	62.0
437	H19	1520	21616	63.4	63.4	64.8	63.6	69.2	65.4
438	H20	1486	20296	65.2	65.2	66.6	65.3	70.8	67.4
439	H21	1452	18976	69.9	69.9	72.0	69.4	76.3	71.8
440	H22	1418	17656	75.0	75.0	77.5	73.9	81.9	76.3
441	H23	1384	16336	81.3	81.3	83.4	78.9	88.1	81.9
442	H24	1350	15016	86.7	86.7	88.8	84.6	93.7	87.7
443	H25	1316	13696	92.7	92.7	95.9	91.5	101.3	95.3
444	H26	1282	12376	102.7	102.7	106.4	101.5	112.3	106.1
445	H27	1248	11056	109.0	109.0	112.4	108.5	118.5	113.5
446	H28	1214	9736	120.3	120.3	124.8	123.9	131.4	130.3
447	H29	1180	8416	135.5	135.5	139.4	149.7	146.4	157.7
448	H30	1146	7096	169.6	169.6	177.0	255.2	187.5	268.9

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
449	H31	1112	5776	287.6	288.9	308.0	539.9	337.9	595.0
450	H32	1078	4456	441.1	449.7	477.2	635.2	535.0	706.9
451	H33	1044	3136	733.6	737.8	791.9	707.0	857.3	784.1
452	H34	1010	1816	848.9	850.9	913.2	762.5	979.7	844.3
453	H35	976	496	781.8	782.1	847.1	905.9	915.6	981.8
454	H36	942	-824	803.5	803.4	870.8	733.5	940.4	807.3
455	H37	908	-2144	1184.7	1181.6	1295.2	1113.6	1409.1	1217.3
456	H38	874	-3464	807.4	804.9	882.2	865.2	970.0	965.4
457	H39	840	-4784	525.1	519.8	565.5	534.6	613.9	573.2
458	H40	806	-6104	266.0	266.0	286.0	281.3	311.5	307.6
459	H41	772	-7424	201.2	201.2	212.6	207.0	225.3	243.4
460	H42	738	-8744	187.3	187.3	194.8	168.8	204.2	174.3
461	H43	704	-10064	167.1	167.1	171.9	145.1	179.4	146.7
462	H44	670	-11384	155.8	155.8	161.6	133.7	168.8	135.1
463	H45	636	-12704	141.2	141.2	144.2	122.0	150.6	121.7
464	H46	602	-14024	129.9	129.9	133.6	114.6	139.9	113.1
465	H47	568	-15344	122.2	122.2	125.6	110.2	131.1	105.2
466	H48	534	-16664	115.2	115.2	117.6	104.0	123.0	100.9
467	H49	500	-17984	110.6	110.6	112.5	103.7	117.9	95.6
468	H50	466	-19304	98.2	98.2	101.0	91.7	106.2	91.3
469	H51	432	-20624	97.4	97.4	100.1	89.5	105.3	88.1
470	H52	398	-21944	92.4	92.4	94.9	85.5	99.7	84.0
471	H53	364	-23264	94.1	94.1	97.3	85.6	102.7	84.0
472	H54	330	-24584	84.6	84.6	86.3	78.3	91.1	76.5
473	H55	296	-25904	80.6	80.6	82.3	74.5	86.4	72.4
474	H56	262	-27224	78.3	78.3	80.1	72.1	84.0	68.8
475	H57	228	-28544	74.3	74.3	75.8	69.1	79.6	65.9
476	H58	194	-29864	70.6	70.6	72.1	65.8	75.7	61.5
477	H59	160	-31184	68.2	68.2	69.2	63.0	72.7	60.8
478	H60	126	-32504	67.2	67.2	67.9	60.1	71.3	58.8
479	H61	92	-33824	63.6	63.6	63.6	57.0	66.6	55.5
480	H62	58	-35144	60.2	60.2	59.9	53.2	62.7	51.5
481	H63	24	-36464	57.1	57.1	56.6	50.2	59.4	48.7
482	H64	-10	-37784	54.7	54.7	53.9	48.2	56.5	47.1
483	H65	-44	-39104	52.3	52.3	51.4	46.4	54.1	45.7
484	H66	-78	-40424	51.6	51.6	50.6	45.7	53.3	44.2
485	H67	-112	-41744	48.7	48.7	47.5	42.7	50.1	41.0
486	H68	-146	-43064	44.2	44.2	42.7	38.4	44.9	37.3
487	H69	-180	-44384	40.1	40.1	38.4	34.5	40.1	33.8
488	H70	-214	-45704	36.8	36.8	35.0	31.7	36.5	30.7
489	H71	-248	-47024	33.3	33.3	31.5	28.6	33.0	27.3
490	H72	-282	-48344	29.2	29.2	27.2	24.9	28.5	23.9
491	H73	-316	-49664	25.1	25.1	22.8	21.1	23.8	20.6
492	I1	3452	45342	12.8	12.8	11.1	11.2	11.2	13.1
493	I2	3418	44022	13.6	13.6	11.9	11.9	12.0	13.9
494	I3	3384	42702	14.0	14.0	12.3	12.3	12.5	14.4
495	I4	3350	41382	14.4	14.4	12.8	12.8	13.0	15.1
496	I5	3316	40062	15.2	15.2	13.6	13.7	14.0	16.2
497	I6	3282	38742	15.8	15.8	14.4	14.5	14.9	17.2
498	I7	3248	37422	16.6	16.6	15.2	15.2	15.8	18.1
499	I8	3214	36102	17.6	17.6	16.2	16.3	16.9	19.3
500	I9	3180	34782	19.0	19.0	17.6	17.6	18.4	20.8
501	I10	3146	33462	20.1	20.1	18.7	18.8	19.5	22.0
502	I11	3112	32142	20.9	20.9	19.5	19.8	20.3	23.2
503	I12	3078	30822	21.7	21.7	20.5	20.9	21.4	24.5
504	I13	3044	29502	23.0	23.0	21.8	22.5	22.9	26.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
505	I14	3010	28182	24.6	24.6	23.5	24.7	24.6	28.3
506	I15	2976	26862	26.6	26.6	25.4	26.7	26.6	30.4
507	I16	2942	25542	28.9	28.9	27.7	28.9	29.0	32.7
508	I17	2908	24222	31.5	31.5	30.0	31.5	31.6	35.6
509	I18	2874	22902	33.6	33.6	32.3	34.0	34.2	37.7
510	I19	2840	21582	35.8	35.8	34.5	35.8	36.5	39.8
511	I20	2806	20262	37.8	37.8	36.6	37.9	38.6	42.1
512	I21	2772	18942	40.5	40.5	39.4	40.8	41.5	45.0
513	I22	2738	17622	43.5	43.5	42.6	44.1	44.9	48.2
514	I23	2704	16302	47.3	47.3	46.2	47.9	48.8	52.1
515	I24	2670	14982	51.0	51.0	49.7	52.0	52.6	56.4
516	I25	2636	13662	55.5	55.5	54.7	57.4	58.0	62.2
517	I26	2602	12342	62.6	62.6	62.1	64.9	65.9	70.3
518	I27	2568	11022	68.8	68.8	68.4	72.5	72.7	78.6
519	I28	2534	9702	79.1	79.1	78.9	90.4	84.1	98.1
520	I29	2500	8382	96.9	96.9	96.3	128.1	102.1	137.6
521	I30	2466	7062	126.0	126.0	125.4	187.9	132.4	199.8
522	I31	2432	5742	177.5	178.3	180.8	239.1	192.1	253.9
523	I32	2398	4422	277.4	279.2	288.0	270.8	307.1	289.5
524	I33	2364	3102	373.4	373.4	390.6	304.6	411.8	329.6
525	I34	2330	1782	350.3	350.3	365.3	284.1	383.2	305.3
526	I35	2296	462	326.0	326.0	341.0	250.7	358.5	272.4
527	I36	2262	-858	323.6	323.6	338.9	237.4	356.5	260.1
528	I37	2228	-2178	279.3	279.3	288.8	482.9	302.9	530.9
529	I38	2194	-3498	307.0	307.0	320.5	380.0	338.1	413.4
530	I39	2160	-4818	327.1	327.1	343.5	302.5	363.3	321.8
531	I40	2126	-6138	247.8	247.8	258.6	237.8	274.1	253.6
532	I41	2092	-7458	181.4	181.4	187.0	181.7	197.9	195.0
533	I42	2058	-8778	154.6	154.6	157.2	137.0	165.5	146.2
534	I43	2024	-10098	132.7	132.7	135.2	110.6	141.5	114.2
535	I44	1990	-11418	121.9	121.9	124.0	100.8	129.8	103.1
536	I45	1956	-12738	111.9	111.9	112.6	92.9	117.7	94.0
537	I46	1922	-14058	103.4	103.4	104.6	87.0	109.5	87.6
538	I47	1888	-15378	97.0	97.0	97.8	82.9	102.1	81.6
539	I48	1854	-16698	91.3	91.3	91.0	78.7	95.3	78.0
540	I49	1820	-18018	86.0	86.0	86.1	77.3	90.3	74.0
541	I50	1786	-19338	78.4	78.4	79.1	70.8	83.1	71.2
542	I51	1752	-20658	76.4	76.4	76.8	67.9	80.7	68.1
543	I52	1718	-21978	73.9	73.9	74.3	65.5	78.2	65.6
544	I53	1684	-23298	70.8	70.8	71.1	62.8	74.9	62.9
545	I54	1650	-24618	66.5	66.5	66.3	59.3	69.8	59.5
546	I55	1616	-25938	63.0	63.0	62.7	56.0	65.6	56.2
547	I56	1582	-27258	61.2	61.2	60.9	54.0	63.7	53.8
548	I57	1548	-28578	58.0	58.0	57.5	51.2	60.2	50.9
549	I58	1514	-29898	55.0	55.0	54.6	49.0	57.0	48.2
550	I59	1480	-31218	53.6	53.6	52.7	46.9	55.0	47.0
551	I60	1446	-32538	52.0	52.0	50.8	44.9	52.9	45.5
552	I61	1412	-33858	51.1	51.1	49.6	43.6	51.5	44.0
553	I62	1378	-35178	48.4	48.4	46.7	40.7	48.5	41.1
554	I63	1344	-36498	46.3	46.3	44.4	38.5	46.1	38.8
555	I64	1310	-37818	44.4	44.4	42.3	37.0	44.0	37.5
556	I65	1276	-39138	42.9	42.9	41.0	36.2	42.6	36.8
557	I66	1242	-40458	41.5	41.5	39.3	34.7	40.9	34.8
558	I67	1208	-41778	39.2	39.2	37.0	32.8	38.6	32.7
559	I68	1174	-43098	37.0	37.0	34.9	30.8	36.2	31.0
560	I69	1140	-44418	34.7	34.7	32.4	28.5	33.6	28.6

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
561	I70	1106	-45738	32.2	32.2	29.8	26.1	30.9	25.9
562	I71	1072	-47058	29.2	29.2	27.0	23.9	28.1	23.4
563	I72	1038	-48378	26.4	26.4	24.2	22.0	25.2	20.9
564	I73	1004	-49698	23.6	23.6	21.3	19.6	22.0	18.7
565	J8	4534	36068	13.0	13.0	11.4	11.2	11.5	13.3
566	J9	4500	34748	13.9	13.9	12.1	12.1	12.3	14.2
567	J10	4466	33428	14.8	14.8	13.0	12.9	13.3	15.1
568	J11	4432	32108	15.3	15.3	13.7	13.5	13.9	15.8
569	J12	4398	30788	16.0	16.0	14.4	14.2	14.7	16.7
570	J13	4364	29468	16.5	16.5	15.0	14.9	15.4	17.6
571	J14	4330	28148	17.3	17.3	15.8	15.7	16.2	18.6
572	J15	4296	26828	18.3	18.3	16.8	16.8	17.2	19.7
573	J16	4262	25508	19.5	19.5	17.9	17.9	18.3	21.0
574	J17	4228	24188	20.4	20.4	18.9	18.7	19.4	22.0
575	J18	4194	22868	21.9	21.9	20.4	20.2	21.0	23.5
576	J19	4160	21548	23.0	23.0	21.5	21.2	22.2	24.7
577	J20	4126	20228	24.1	24.1	22.6	22.2	23.3	26.0
578	J21	4092	18908	25.5	25.5	24.0	23.5	24.8	27.4
579	J22	4058	17588	27.3	27.3	25.9	25.3	26.7	29.3
580	J23	4024	16268	29.5	29.5	27.9	27.1	28.8	31.6
581	J24	3990	14948	31.6	31.6	29.8	29.0	30.9	33.8
582	J25	3956	13628	34.6	34.6	32.9	32.0	34.2	37.4
583	J26	3922	12308	38.8	38.8	37.1	36.2	38.7	42.3
584	J27	3888	10988	43.7	43.7	42.0	42.8	44.3	49.9
585	J28	3854	9668	51.0	51.0	48.8	53.7	52.0	62.0
586	J29	3820	8348	65.5	65.5	61.7	73.9	65.4	83.6
587	J30	3786	7028	87.4	87.4	82.2	103.7	87.0	114.9
588	J31	3752	5708	121.7	121.7	118.1	136.4	124.2	149.5
589	J32	3718	4388	170.6	170.6	172.2	158.7	182.2	174.6
590	J33	3684	3068	213.2	213.2	218.5	176.3	231.0	194.3
591	J34	3650	1748	202.5	202.5	207.3	170.0	218.4	188.1
592	J35	3616	428	186.8	186.8	190.5	161.6	200.1	179.7
593	J36	3582	-892	177.5	177.5	180.8	156.4	189.4	173.7
594	J37	3548	-2212	180.0	180.0	183.7	158.0	193.3	175.7
595	J38	3514	-3532	190.0	190.0	195.4	166.9	206.8	184.4
596	J39	3480	-4852	198.8	198.8	204.3	174.7	216.5	190.6
597	J40	3446	-6172	167.8	167.8	170.2	144.2	180.2	158.6
598	J41	3412	-7492	133.6	133.6	132.6	110.9	139.9	120.9
599	J42	3378	-8812	107.6	107.6	105.5	84.6	111.4	92.6
600	J43	3344	-10132	94.3	94.3	93.1	74.1	97.7	80.2
601	J44	3310	-11452	86.2	86.2	85.3	67.0	89.0	71.9
602	J45	3276	-12772	79.9	79.9	78.5	61.6	81.5	65.6
603	J46	3242	-14092	75.8	75.8	74.4	58.0	76.9	61.6
604	J47	3208	-15412	70.9	70.9	69.2	54.7	71.5	57.7
605	J48	3174	-16732	66.5	66.5	64.6	52.3	66.9	54.9
606	J49	3140	-18052	61.7	61.7	60.1	50.2	62.3	52.8
607	J50	3106	-19372	58.2	58.2	57.3	47.9	59.5	50.6
608	J51	3072	-20692	57.0	57.0	56.0	46.7	58.1	49.3
609	J52	3038	-22012	54.6	54.6	53.5	44.3	55.5	47.0
610	J53	3004	-23332	52.6	52.6	51.5	42.9	53.6	45.5
611	J54	2970	-24652	50.4	50.4	49.2	41.4	51.1	43.9
612	J55	2936	-25972	48.7	48.7	47.3	39.9	49.0	42.3
613	J56	2902	-27292	47.1	47.1	45.8	38.2	47.3	40.5
614	J57	2868	-28612	44.8	44.8	43.3	36.2	44.7	38.4
615	J58	2834	-29932	42.8	42.8	41.4	34.8	42.5	36.9
616	J59	2800	-31252	41.7	41.7	39.9	33.7	41.0	35.7

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
617	J60	2766	-32572	41.0	41.0	39.1	33.0	40.2	34.9
618	J61	2732	-33892	40.1	40.1	38.0	31.6	39.0	33.5
619	J62	2698	-35212	38.1	38.1	35.9	29.7	36.8	31.5
620	J63	2664	-36532	37.0	37.0	34.7	28.2	35.6	30.1
621	J64	2630	-37852	35.7	35.7	33.2	27.4	34.1	29.3
622	J65	2596	-39172	34.7	34.7	32.3	26.8	33.1	28.6
623	J66	2562	-40492	33.6	33.6	31.0	25.9	31.8	27.4
624	J67	2528	-41812	32.9	32.9	30.1	25.0	30.9	26.4
625	J68	2494	-43132	32.1	32.1	29.6	24.5	30.2	25.9
626	J69	2460	-44452	30.9	30.9	28.3	23.2	28.9	24.6
627	J70	2426	-45772	28.8	28.8	26.1	21.3	26.7	22.5
628	J71	2392	-47092	26.3	26.3	23.7	19.4	24.2	20.3
629	J72	2358	-48412	24.1	24.1	21.5	18.1	22.1	18.3
630	J73	2324	-49732	22.0	22.0	19.4	16.8	19.7	16.5
631	K15	5616	26794	12.8	12.8	10.9	10.8	10.9	12.5
632	K16	5582	25474	13.3	13.3	11.5	11.4	11.5	13.2
633	K17	5548	24154	14.2	14.2	12.3	12.1	12.4	14.0
634	K18	5514	22834	14.8	14.8	12.9	12.6	13.1	14.7
635	K19	5480	21514	15.5	15.5	13.6	13.2	13.8	15.5
636	K20	5446	20194	16.4	16.4	14.5	14.0	14.7	16.4
637	K21	5412	18874	17.1	17.1	15.2	14.7	15.4	17.1
638	K22	5378	17554	18.1	18.1	16.1	15.7	16.4	18.2
639	K23	5344	16234	19.7	19.7	17.6	17.1	17.9	19.9
640	K24	5310	14914	21.1	21.1	18.9	18.3	19.3	21.4
641	K25	5276	13594	22.9	22.9	20.6	19.9	21.2	23.4
642	K26	5242	12274	25.7	25.7	23.5	22.7	24.4	26.8
643	K27	5208	10954	29.5	29.5	27.0	26.6	28.3	31.3
644	K28	5174	9634	34.8	34.8	31.6	33.1	33.6	38.8
645	K29	5140	8314	43.8	43.8	39.1	42.2	41.9	49.1
646	K30	5106	6994	57.6	57.6	51.3	57.1	54.7	65.1
647	K31	5072	5674	75.7	75.7	68.8	72.4	73.1	81.4
648	K32	5038	4354	97.3	97.3	91.2	88.7	96.0	98.4
649	K33	5004	3034	118.2	118.2	114.4	98.6	120.1	109.0
650	K34	4970	1714	125.4	125.4	124.4	102.3	130.9	114.7
651	K35	4936	394	121.3	121.3	120.8	100.9	127.0	113.2
652	K36	4902	-926	118.3	118.3	117.9	99.7	124.0	111.6
653	K37	4868	-2246	119.3	119.3	118.8	99.8	125.3	111.7
654	K38	4834	-3566	121.6	121.6	121.2	100.0	128.0	111.7
655	K39	4800	-4886	116.1	116.1	113.7	93.2	120.0	102.9
656	K40	4766	-6206	100.8	100.8	96.7	78.3	102.2	87.3
657	K41	4732	-7526	86.2	86.2	81.6	64.6	86.5	72.0
658	K42	4698	-8846	74.0	74.0	69.8	54.3	73.5	60.2
659	K43	4664	-10166	65.7	65.7	62.3	48.0	65.2	52.6
660	K44	4630	-11486	59.6	59.6	56.8	43.3	59.0	46.8
661	K45	4596	-12806	56.2	56.2	53.4	40.3	55.0	43.3
662	K46	4562	-14126	53.8	53.8	51.2	38.5	52.4	41.1
663	K47	4528	-15446	51.1	51.1	48.3	36.7	49.4	39.1
664	K48	4494	-16766	47.8	47.8	45.1	35.0	46.1	37.2
665	K49	4460	-18086	44.8	44.8	42.5	33.6	43.5	35.8
666	K50	4426	-19406	42.1	42.1	40.0	32.2	41.1	34.3
667	K51	4392	-20726	40.9	40.9	38.8	31.0	39.8	33.2
668	K52	4358	-22046	39.7	39.7	37.6	30.5	38.6	32.5
669	K53	4324	-23366	38.8	38.8	36.8	29.8	37.9	31.9
670	K54	4290	-24686	37.1	37.1	34.9	28.5	35.8	30.4
671	K55	4256	-26006	36.0	36.0	33.8	27.7	34.7	29.5
672	K56	4222	-27326	35.1	35.1	32.9	26.7	33.7	28.5

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
673	K57	4188	-28646	34.0	34.0	31.8	25.7	32.5	27.5
674	K58	4154	-29966	32.5	32.5	30.4	24.8	30.9	26.4
675	K59	4120	-31286	31.6	31.6	29.2	24.0	29.7	25.5
676	K60	4086	-32606	31.1	31.1	28.6	23.3	29.1	24.8
677	K61	4052	-33926	30.2	30.2	27.7	22.4	28.2	23.8
678	K62	4018	-35246	29.2	29.2	26.6	21.6	27.0	23.0
679	K63	3984	-36566	28.7	28.7	25.9	21.1	26.3	22.4
680	K64	3950	-37886	28.1	28.1	25.4	20.8	25.8	22.1
681	K65	3916	-39206	27.7	27.7	25.0	20.7	25.5	21.9
682	K66	3882	-40526	27.6	27.6	24.8	20.5	25.2	21.7
683	K67	3848	-41846	27.8	27.8	24.9	20.4	25.3	21.6
684	K68	3814	-43166	27.9	27.9	25.3	20.4	25.7	21.7
685	K69	3780	-44486	27.6	27.6	24.9	19.8	25.3	21.1
686	K70	3746	-45806	26.1	26.1	23.4	18.5	23.8	19.6
687	K71	3712	-47126	24.3	24.3	21.5	17.2	21.9	18.1
688	K72	3678	-48446	22.5	22.5	19.8	16.0	20.1	16.7
689	K73	3644	-49766	20.6	20.6	17.8	14.4	18.0	14.9
690	L24	6630	14880	13.7	13.7	11.2	10.7	11.3	12.4
691	L25	6596	13560	14.8	14.8	12.2	11.6	12.5	13.5
692	L26	6562	12240	16.3	16.3	13.7	13.1	14.1	15.4
693	L27	6528	10920	19.0	19.0	16.1	15.4	16.9	18.2
694	L28	6494	9600	22.3	22.3	19.2	18.4	20.3	21.8
695	L29	6460	8280	27.3	27.3	22.9	23.6	24.6	27.8
696	L30	6426	6960	34.7	34.7	28.8	29.9	31.1	34.9
697	L31	6392	5640	44.2	44.2	37.4	37.5	40.2	43.1
698	L32	6358	4320	54.4	54.4	47.1	46.2	50.2	52.2
699	L33	6324	3000	64.9	64.9	57.9	52.5	61.3	58.7
700	L34	6290	1680	72.2	72.2	67.2	55.7	70.6	62.9
701	L35	6256	360	73.3	73.3	69.5	56.7	73.1	64.1
702	L36	6222	-960	72.8	72.8	69.1	56.7	72.7	64.0
703	L37	6188	-2280	72.9	72.9	69.2	56.5	72.9	63.6
704	L38	6154	-3600	72.8	72.8	68.4	54.7	72.1	61.7
705	L39	6120	-4920	67.5	67.5	61.9	48.5	65.8	54.8
706	L40	6086	-6240	59.9	59.9	54.0	41.8	57.5	47.5
707	L41	6052	-7560	53.6	53.6	47.7	36.2	50.5	40.7
708	L42	6018	-8880	47.5	47.5	42.2	31.4	44.4	35.0
709	L43	5984	-10200	42.5	42.5	38.3	28.0	39.9	30.7
710	L44	5950	-11520	39.3	39.3	35.5	25.8	36.6	27.8
711	L45	5916	-12840	37.2	37.2	33.5	24.0	34.3	25.7
712	L46	5882	-14160	35.4	35.4	31.9	23.0	32.5	24.5
713	L47	5848	-15480	33.6	33.6	29.9	21.9	30.3	23.2
714	L48	5814	-16800	31.7	31.7	28.2	20.8	28.6	21.9
715	L49	5780	-18120	30.3	30.3	27.2	20.2	27.5	21.4
716	L50	5746	-19440	28.5	28.5	25.6	19.7	25.9	20.8
717	L51	5712	-20760	27.3	27.3	24.3	19.0	24.7	20.1
718	L52	5678	-22080	27.0	27.0	24.2	19.2	24.6	20.2
719	L53	5644	-23400	26.6	26.6	23.8	19.0	24.2	20.1
720	L54	5610	-24720	26.4	26.4	23.7	18.8	24.1	19.9
721	L55	5576	-26040	25.5	25.5	22.7	17.9	23.0	18.9
722	L56	5542	-27360	24.7	24.7	22.0	17.2	22.3	18.3
723	L57	5508	-28680	23.9	23.9	21.1	16.8	21.4	17.8
724	L58	5474	-30000	22.9	22.9	20.2	16.2	20.4	17.1
725	L59	5440	-31320	22.5	22.5	19.6	16.1	19.8	16.9
726	L60	5406	-32640	22.3	22.3	19.5	15.9	19.6	16.8
727	L61	5372	-33960	21.9	21.9	19.1	15.5	19.2	16.3
728	L62	5338	-35280	21.6	21.6	18.6	15.1	18.7	15.9

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
729	L63	5304	-36600	21.1	21.1	18.0	14.8	18.1	15.7
730	L64	5270	-37920	21.1	21.1	18.0	15.0	18.2	15.9
731	L65	5236	-39240	21.5	21.5	18.5	15.4	18.6	16.1
732	L66	5202	-40560	22.1	22.1	19.0	15.7	19.2	16.5
733	L67	5168	-41880	22.8	22.8	19.9	16.1	20.0	17.0
734	L68	5134	-43200	23.4	23.4	20.7	16.3	20.8	17.3
735	L69	5100	-44520	23.4	23.4	20.7	16.0	20.9	17.0
736	L70	5066	-45840	22.8	22.8	20.1	15.6	20.4	16.5
737	L71	5032	-47160	21.9	21.9	19.2	14.9	19.5	15.8
738	L72	4998	-48480	20.9	20.9	18.2	14.1	18.5	14.9
739	L73	4964	-49800	19.6	19.6	16.8	12.8	17.1	13.5
740	M28	7814	9566	13.7	13.7	10.6	10.1	11.1	11.9
741	M29	7780	8246	16.5	16.5	13.0	12.0	13.9	14.1
742	M30	7746	6926	19.7	19.7	15.0	14.3	16.4	16.9
743	M31	7712	5606	23.9	23.9	18.1	17.7	19.7	20.6
744	M32	7678	4286	30.6	30.6	24.0	22.7	25.9	26.4
745	M33	7644	2966	35.6	35.6	28.5	25.7	30.4	29.6
746	M34	7610	1646	39.2	39.2	32.3	27.3	34.3	31.4
747	M35	7576	326	41.5	41.5	35.4	28.4	37.4	32.6
748	M36	7542	-994	41.7	41.7	36.0	28.7	37.9	32.9
749	M37	7508	-2314	41.5	41.5	35.7	28.4	37.8	32.7
750	M38	7474	-3634	40.0	40.0	33.8	26.4	36.1	30.5
751	M39	7440	-4954	38.2	38.2	31.8	24.0	33.9	27.7
752	M40	7406	-6274	35.3	35.3	29.1	21.4	31.0	24.6
753	M41	7372	-7594	31.3	31.3	25.6	18.7	27.0	21.1
754	M42	7338	-8914	28.4	28.4	23.3	16.9	24.4	18.7
755	M43	7304	-10234	26.0	26.0	21.7	15.5	22.4	16.9
756	M44	7270	-11554	24.4	24.4	20.1	14.1	20.5	15.1
757	M45	7236	-12874	23.3	23.3	19.1	13.4	19.3	14.2
758	M46	7202	-14194	22.0	22.0	17.9	12.8	18.1	13.5
759	M47	7168	-15514	21.2	21.2	17.1	12.5	17.1	13.0
760	M48	7134	-16834	20.9	20.9	17.0	12.2	17.0	12.7
761	M49	7100	-18154	19.8	19.8	16.1	11.9	16.1	12.3
762	M50	7066	-19474	18.7	18.7	15.2	11.6	15.1	12.0
763	M51	7032	-20794	17.8	17.8	14.4	11.4	14.4	11.8
764	M52	6998	-22114	17.6	17.6	14.3	11.5	14.2	11.9
765	M53	6964	-23434	17.3	17.3	14.1	11.5	14.1	11.9
766	M54	6930	-24754	17.1	17.1	13.9	11.2	13.8	11.6
767	M55	6896	-26074	17.0	17.0	13.8	11.0	13.7	11.4
768	M56	6862	-27394	16.6	16.6	13.5	10.7	13.4	11.1
769	M57	6828	-28714	15.9	15.9	12.8	10.3	12.7	10.7
770	M58	6794	-30034	15.5	15.5	12.5	10.2	12.4	10.6
771	M59	6760	-31354	15.6	15.6	12.6	10.3	12.5	10.7
772	M60	6726	-32674	15.4	15.4	12.3	10.1	12.2	10.5
773	M61	6692	-33994	15.4	15.4	12.3	10.0	12.2	10.4
774	M62	6658	-35314	15.0	15.0	11.9	9.7	11.7	10.0
775	M63	6624	-36634	15.0	15.0	11.9	9.8	11.7	10.1
776	M64	6590	-37954	15.4	15.4	12.2	10.1	12.0	10.5
777	M65	6556	-39274	15.8	15.8	12.7	10.5	12.4	10.8
778	M66	6522	-40594	16.5	16.5	13.4	11.0	13.2	11.4
779	M67	6488	-41914	17.4	17.4	14.6	11.5	14.4	12.1
780	M68	6454	-43234	18.2	18.2	15.4	11.9	15.3	12.6
781	M69	6420	-44554	18.8	18.8	16.2	12.2	16.3	13.0
782	M70	6386	-45874	18.9	18.9	16.3	12.3	16.6	13.1
783	M71	6352	-47194	18.9	18.9	16.4	12.3	16.7	13.1
784	M72	6318	-48514	18.9	18.9	16.4	12.0	16.7	12.8

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
785	M73	6284	-49834	18.4	18.4	15.7	11.3	16.1	12.1
786	N38	8794	-3668	22.6	22.6	16.6	12.6	18.0	15.0
787	N39	8760	-4988	20.3	20.3	14.7	10.8	15.7	12.6
788	N40	8726	-6308	19.4	19.4	14.0	10.2	14.8	11.6
789	N41	8692	-7628	18.2	18.2	13.4	9.4	14.1	10.6
790	N42	8658	-8948	17.1	17.1	12.7	8.4	13.1	9.3
791	N43	8624	-10268	16.0	16.0	11.8	7.4	12.0	8.1
792	N44	8590	-11588	15.1	15.1	11.1	6.9	11.3	7.5
793	N45	8556	-12908	13.8	13.8	10.1	6.4	10.2	6.9
794	N67	7808	-41948	12.2	12.2	9.4	7.1	9.1	7.6
795	N68	7774	-43268	13.2	13.2	10.5	7.9	10.4	8.4
796	N69	7740	-44588	14.2	14.2	11.7	8.5	11.7	9.1
797	N70	7706	-45908	15.3	15.3	12.8	9.3	12.9	10.0
798	N71	7672	-47228	16.2	16.2	13.7	9.8	14.0	10.6
799	NSF:A2	-211	29983	62.8	62.8	65.2	60.2	69.4	66.0
800	NSF:A4	7371	16174	10.0	10.0	7.7	7.3	7.5	8.2
801	NSF:A5	-1123	35137	47.9	47.9	48.9	47.7	52.3	57.1
802	NSF:A6	1725	32917	36.7	36.7	36.5	37.0	39.1	38.4
803	NSF:A7	965	35389	40.9	40.9	41.4	40.1	44.5	42.5
804	NSF:A8	2868	26738	27.9	27.9	26.8	28.3	28.2	31.9
805	NSF:A9	8593	-17214	11.8	11.8	8.4	5.7	8.3	6.0
806	NSF:C1	3519	-33425	34.8	34.8	32.5	26.6	33.2	28.3
807	NSF:C10	-8024	7589	15.9	15.9	12.5	20.1	13.8	26.6
808	NSF:C11	-1535	-46185	35.2	35.2	33.6	30.8	35.1	30.9
809	NSF:C15	-3260	-41687	33.1	33.1	30.9	30.2	32.1	37.6
810	NSF:C16	2631	-42354	32.3	32.3	29.6	24.5	30.3	25.9
811	NSF:C17	-3636	10597	54.2	54.2	52.0	67.9	55.1	89.8
812	NSF:C19	-6737	-6317	53.7	53.6	49.1	52.2	53.0	65.1
813	NSF:C2	6733	-4869	51.3	51.3	45.1	35.2	48.0	40.2
814	NSF:C21	3694	-38594	29.1	29.1	26.5	21.8	27.0	23.1
815	NSF:C22	295	-16585	118.6	118.6	121.3	107.9	126.7	104.3
816	NSF:C23	-4396	-15838	48.8	48.8	45.6	46.4	47.0	56.6
817	NSF:C24	-3498	-16804	63.2	63.2	61.2	60.6	63.9	74.7
818	NSF:C28	-5727	-46163	14.4	14.4	11.9	12.8	11.4	13.5
819	NSF:C29	-386	-17316	119.3	119.3	121.8	111.9	127.3	110.7
820	NSF:C3	158	16285	106.3	106.3	109.7	102.3	114.7	109.6
821	NSF:C31	-6076	-46160	13.4	13.4	11.0	12.0	10.5	12.4
822	NSF:C32	-5243	-46778	15.3	15.3	12.8	13.6	12.4	14.6
823	NSF:C34	-8355	-45977	7.0	7.0	5.3	7.0	4.8	6.9
824	NSF:C35	-6358	-9758	36.9	36.9	32.4	35.1	33.7	38.3
825	NSF:C37	-5175	-47057	15.3	15.3	12.7	13.5	12.3	14.6
826	NSF:C38	-6431	-10969	34.0	34.0	30.0	31.3	30.7	33.6
827	NSF:C39	375	-25346	81.7	81.7	83.2	75.4	87.5	73.4
828	NSF:C40	1436	-17815	95.9	95.9	96.5	86.8	101.3	82.1
829	NSF:C41	-3379	-9386	100.6	100.6	98.8	96.7	104.3	116.2
830	NSF:C42	3398	-21504	51.5	51.5	50.1	41.0	51.8	43.9
831	NSF:C43	-1910	-46273	33.7	33.7	32.1	29.8	33.4	31.2
832	NSF:C44	-3883	-5925	135.7	135.7	134.6	148.0	142.5	174.8
833	NSF:C45	-11988	-45354	2.0	2.0	1.3	2.6	1.1	2.5
834	NSF:C46	7657	-34889	11.1	11.1	8.2	6.7	8.0	6.9
835	NSF:C47	2243	-24977	58.0	58.0	57.1	49.8	59.7	51.3
836	NSF:C48	-4412	-46071	18.8	18.8	16.3	16.9	16.2	20.2
837	NSF:C49	327	-14936	127.1	127.1	131.3	115.0	137.0	111.1
838	NSF:C5	7014	-34786	13.8	13.8	10.7	8.7	10.4	9.0
839	NSF:C50	-3930	-8365	93.4	93.4	89.4	93.4	94.5	114.9
840	NSF:C51	1801	-19460	77.6	77.6	78.2	69.8	82.1	70.5

Table C-3-22

Seattle-Tacoma International Airport
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COMPARATIVE LOCATIONAL ANALYSIS

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
897	NSF:A64	6942	13954	12.9	12.9	10.4	9.8	10.5	11.4
898	NSF:A65	6940	13770	13.0	13.0	10.5	9.9	10.6	11.5
899	NSF:A66	6602	13572	14.8	14.8	12.2	11.6	12.4	13.5
900	NSF:A67	7470	13669	11.0	11.0	8.5	8.0	8.6	9.2
901	NSF:A68	306	-30449	69.1	69.1	70.5	64.5	74.1	59.8
902	NSF:A69	-5807	-37969	17.0	17.0	14.0	14.2	13.8	15.1
903	NSF:A70	-4304	-36469	25.6	25.6	22.9	22.6	23.3	27.1
904	NSF:A71	6124	-39961	17.9	17.9	14.8	12.2	14.7	12.7
905	NSF:A72	3707	-33299	33.4	33.4	31.1	25.4	31.7	27.0
906	NSF:A73	-5742	-37925	17.3	17.3	14.4	14.5	14.2	15.4
907	NSF:A74	-5753	-37933	17.3	17.3	14.3	14.5	14.1	15.4
908	NSF:A75	-5790	-37959	17.1	17.1	14.1	14.3	13.9	15.2
909	NSF:L1	765	16963	93.6	93.6	96.6	89.8	101.4	93.2
910	NSF:L2	-7812	8307	16.8	16.8	13.7	23.2	15.1	29.1
911	NSF:L3	6278	40488	7.1	7.1	5.5	5.5	5.2	6.1
912	NSF:L4	-2866	-14908	85.5	85.5	85.4	80.0	89.4	95.5
913	NSF:L5	7180	9673	17.3	17.3	14.1	13.3	14.9	15.7
914	NSF:L6	4987	33599	12.6	12.6	10.8	10.8	10.8	12.6
915	NSF:L7	10166	26486	1.5	1.5	0.6	0.6	0.7	0.8
916	NSF:L8	12526	8554	1.2	1.2	0.2	0.2	0.3	0.4
917	NSF:L9	8571	-1927	26.4	26.4	20.2	15.7	21.6	18.5
918	NSF:A10	-550	29346	65.4	65.4	68.3	63.6	72.5	71.5
919	NSF:A11	-554	35999	48.4	48.4	49.6	46.0	53.0	52.0
920	NSF:A12	227	35588	47.4	47.4	48.5	45.3	52.0	48.9
921	NSF:A13	6720	40187	6.3	6.3	4.8	4.8	4.5	5.3
922	NSF:N1	2458	-23974	58.0	58.0	57.1	49.2	59.7	51.0
923	NSF:N10	-3755	-14738	63.5	63.5	61.3	60.1	63.7	74.2
924	NSF:N11	-3959	-39382	27.1	27.1	24.6	25.2	25.2	31.4
925	NSF:N12	-195	23654	106.0	106.0	110.7	93.9	116.7	95.6
926	NSF:N13	23674	-4413	0.0	0.0	0.0	0.0	0.0	0.0
927	NSF:N14	5905	-44977	20.5	20.5	17.9	13.7	18.1	14.5
928	NSF:N2	2567	-14374	87.4	87.4	87.0	70.6	90.5	72.7
929	NSF:N3	-9162	13839	11.2	11.1	9.8	13.6	10.6	17.6
930	NSF:N4	-3719	-44852	24.0	24.0	21.3	21.6	21.5	26.2
931	NSF:N5	-7153	-49305	8.7	8.7	7.2	8.4	6.5	8.4
932	NSF:N6	-6583	4062	49.6	49.7	44.1	68.0	48.3	82.7
933	NSF:N7	-3994	-21909	44.6	44.6	42.2	43.7	43.8	56.6
934	NSF:N8	3660	14530	35.8	35.8	34.0	33.5	35.4	38.9
935	NSF:N9	2605	-17567	72.2	72.2	70.8	60.9	73.8	62.1
936	NSF:S1	-1624	22569	82.4	82.4	85.8	85.6	91.0	102.9
937	NSF:S10	5787	1359	90.1	90.1	87.0	71.1	91.4	80.1
939	NSF:S102	-3652	-2959	184.8	184.6	189.7	207.0	201.1	255.0
940	NSF:S11	1320	-17470	100.0	100.0	100.9	89.6	105.7	85.9
941	NSF:S12	-9683	21295	4.5	4.5	2.8	3.1	2.9	3.8
942	NSF:S13	-4034	-8651	87.3	87.3	83.3	86.6	88.0	105.7
943	NSF:S15	1417	-18811	89.3	89.3	90.6	82.5	95.2	79.5
944	NSF:S16	4029	7813	69.1	69.1	64.1	76.7	67.9	86.3
945	NSF:S17	-7712	17177	11.0	11.0	8.7	9.4	8.7	11.9
946	NSF:S18	-10601	8639	3.1	3.1	1.4	2.2	1.6	3.4
947	NSF:S19	-13991	18478	2.2	2.2	2.2	3.6	2.8	5.5
948	NSF:S2	6756	-3628	55.6	55.6	50.2	39.6	53.1	45.1
949	NSF:S20	-1191	19408	92.3	92.3	95.7	91.7	100.5	106.5
950	NSF:S21	-3761	5167	134.8	134.7	132.2	207.6	142.0	242.1
951	NSF:S22	7978	-1820	34.3	34.3	28.1	22.2	29.8	25.8
952	NSF:S23	-8015	23186	9.2	9.2	7.2	7.7	7.2	9.5
953	NSF:S24	-8897	19752	6.7	6.7	4.7	5.0	4.7	6.4

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
954	NSF:S25	6834	-4826	49.5	49.5	43.2	33.6	46.0	38.4
955	NSF:S26	1352	-18331	94.4	94.4	95.5	87.0	100.3	81.7
956	NSF:S27	-7664	3251	26.8	26.9	20.5	34.6	21.9	41.6
957	NSF:S28	-8281	18459	8.7	8.7	6.6	7.1	6.5	8.9
958	NSF:S29	-5472	6565	61.0	60.9	56.9	91.6	62.9	107.5
959	NSF:S3	-3785	13136	45.3	45.3	43.5	54.6	45.7	73.7
960	NSF:S30	-263	-17305	119.4	119.4	122.0	111.8	127.5	109.9
961	NSF:S31	7812	-5443	31.4	31.4	25.2	18.7	26.8	21.6
962	NSF:S32	-4893	-4442	122.3	122.1	120.9	136.1	128.9	161.2
963	NSF:S33	1292	-22778	80.7	80.7	82.2	71.9	86.7	71.2
964	NSF:S34	-4645	-9467	67.3	67.3	63.2	65.9	66.2	78.4
965	NSF:S35	-4580	6588	79.6	79.5	75.7	130.1	82.8	151.4
966	NSF:S36	-6886	5087	41.4	41.4	37.0	57.6	41.8	71.3
967	NSF:S37	-11122	13583	3.2	3.2	2.4	7.6	3.2	8.7
968	NSF:S38	-3651	-2941	184.7	184.5	189.6	206.9	201.0	255.0
969	NSF:S39	12652	7375	1.2	1.2	0.2	0.2	0.3	0.4
970	NSF:S4	-3514	-16334	64.2	64.2	62.1	61.0	64.9	75.2
971	NSF:S40	7700	7035	19.8	19.8	15.2	14.5	16.5	17.1
972	NSF:S41	4523	11744	34.1	34.1	32.0	31.1	33.5	36.6
973	NSF:S42	8381	9088	11.5	11.5	8.4	8.1	8.8	9.6
974	NSF:S43	7268	9131	17.9	17.9	14.5	13.7	15.5	16.2
975	NSF:S44	5766	-41790	20.4	20.4	17.5	14.0	17.4	14.7
976	NSF:S45	1279	-33897	52.1	52.1	50.8	44.8	52.8	45.0
977	NSF:S46	-3685	-39308	29.4	29.4	26.9	27.4	27.7	34.3
978	NSF:S47	5715	-32661	20.4	20.4	17.4	14.4	17.5	15.1
979	NSF:S48	6231	-25031	21.5	21.5	18.6	14.9	18.7	15.6
980	NSF:S49	5974	-36054	17.9	17.9	14.8	12.2	14.7	12.7
981	NSF:S5	-11892	3393	3.1	3.3	1.3	5.8	1.6	7.4
982	NSF:S50	870	-42321	40.5	40.5	38.2	34.3	40.0	33.3
983	NSF:S51	-1491	-30984	68.1	68.1	69.2	64.2	72.7	67.9
984	NSF:S52	11474	-42954	4.4	4.4	3.0	2.1	3.1	2.3
985	NSF:S53	-10841	-43830	2.5	2.5	1.4	2.9	1.3	2.8
986	NSF:S54	5708	-31709	20.9	20.9	17.9	14.8	18.1	15.5
987	NSF:S55	-1824	-44447	38.7	38.7	37.2	34.4	38.8	36.1
988	NSF:S56	6346	-38637	16.5	16.5	13.3	11.0	13.2	11.5
989	NSF:S57	-410	49700	23.9	23.9	22.9	21.1	24.5	24.3
990	NSF:S58	10673	35200	0.7	0.7	0.1	0.1	0.1	0.1
991	NSF:S59	2429	45921	16.0	16.0	14.5	14.5	15.3	17.0
992	NSF:S6	-7196	13265	18.1	18.1	15.8	17.6	15.9	21.7
993	NSF:S60	5433	45389	8.1	8.1	6.3	6.5	6.0	7.3
994	NSF:S61	7132	42570	5.2	5.2	3.8	3.8	3.5	4.2
995	NSF:S62	-1439	39916	37.6	37.6	37.8	36.2	40.6	44.7
996	NSF:S63	3894	37152	14.5	14.5	13.0	12.9	13.4	15.3
997	NSF:S64	9056	38524	2.5	2.5	1.6	1.6	1.5	1.7
998	NSF:S65	8477	33931	3.7	3.7	2.4	2.3	2.3	2.6
999	NSF:S66	3955	32633	17.0	17.0	15.4	15.2	15.8	17.9
1000	NSF:S67	6401	29997	9.2	9.2	7.4	7.3	7.2	8.2
1001	NSF:S68	9089	28371	3.0	3.0	1.8	1.8	1.8	2.1
1002	NSF:S69	13032	23820	0.3	0.3	0.2	0.1	0.2	0.2
1003	NSF:S7	2141	16480	59.8	59.8	60.0	60.4	63.6	63.8
1004	NSF:S70	11512	17866	1.1	1.1	0.2	0.3	0.3	0.5
1005	NSF:S71	-9110	27836	6.0	6.0	4.4	4.5	4.3	5.3
1006	NSF:S72	-3361	27341	33.2	33.2	32.5	38.6	34.2	52.4
1007	NSF:S73	3	41684	40.0	40.0	40.6	36.9	43.6	40.5
1008	NSF:S74	10183	27405	1.4	1.4	0.6	0.6	0.6	0.8
1009	NSF:S76	4734	46384	9.4	9.4	7.6	7.7	7.3	8.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1010	NSF:S77	11512	27194	0.6	0.6	0.1	0.1	0.2	0.2
1011	NSF:S78	-363	38035	44.7	44.7	45.7	42.5	48.9	47.0
1012	NSF:S79	5941	39662	8.1	8.1	6.4	6.4	6.2	7.2
1013	NSF:S8	3475	-10939	85.8	85.8	84.8	66.1	88.6	71.4
1014	NSF:S80	7193	35348	6.1	6.1	4.4	4.4	4.2	4.8
1015	NSF:S81	12439	22474	0.7	0.7	0.4	0.3	0.3	0.3
1017	NSF:S83	6824	6483	31.6	31.6	25.6	26.3	27.7	30.5
1018	NSF:S84	6483	-12931	30.6	30.6	26.6	18.9	27.2	20.1
1019	NSF:S85	-10992	-43886	2.3	2.3	1.3	2.8	1.2	2.7
1020	NSF:S86,C18	-3883	-4692	167.1	167.0	169.0	188.5	179.1	219.6
1021	NSF:S87	1355	-41607	38.5	38.5	36.2	31.9	37.7	32.1
1022	NSF:S89,S101	-6524	4594	50.2	50.2	45.4	68.0	50.4	83.1
1023	NSF:S9	-8718	-8906	24.8	24.7	21.8	22.4	23.3	27.6
1024	NSF:S90	10352	29875	1.2	1.2	0.4	0.4	0.4	0.5
1025	NSF:S91	-12520	6667	7.9	7.9	8.0	11.2	10.0	12.9
1026	NSF:S92	-292	-16249	123.3	123.3	126.2	113.9	131.8	112.9
1027	NSF:S93	-4494	-43936	20.9	20.9	18.1	19.1	18.1	22.7
1028	NSF:S94	6741	-4427	52.5	52.5	46.4	36.4	49.4	41.6
1029	NSF:S95	2659	-8269	143.5	143.5	143.8	127.0	151.6	136.8
1030	NSF:S96,C36	-197	-29349	72.2	72.2	73.5	66.6	77.1	64.8
1031	NSF:S97	-5640	10643	31.1	31.0	28.6	34.8	29.9	43.3
1032	NSF:S98,C14	1453	-13047	123.7	123.7	125.2	104.3	131.0	104.1
1033	NSF:S99	-1741	22954	79.7	79.7	82.9	83.1	88.2	100.0
1034	NSF:A15	1159	33718	45.0	45.0	45.7	44.7	49.2	46.3
1035	NSF:A901	-2736	35294	28.9	28.9	28.0	31.7	29.6	43.1
1036	NSF:A902	-4131	32513	21.0	21.0	19.6	23.2	20.1	30.6
1037	NSF:A903	2207	18136	53.4	53.4	53.6	54.8	56.8	58.0
1038	NSF:A904	10787	-9667	4.4	4.4	1.8	0.9	2.2	1.1
1039	Park:G1	1356	42868	27.1	27.1	26.3	27.0	28.1	28.6
1040	Park:G2	-1823	20819	77.0	77.0	79.6	79.3	84.8	96.8
1041	Park:G3	412	19934	89.6	89.6	92.7	85.9	97.4	89.8
1042	Park:G4	11843	11466	1.4	1.4	0.3	0.3	0.4	0.5
1043	Park:G4	13359	10380	0.8	0.8	0.1	0.1	0.1	0.2
1044	Park:G5	89	-7980	197.6	197.6	208.9	188.3	219.8	203.7
1045	Park:G6	8312	-24816	10.5	10.5	7.8	6.1	7.6	6.3
1046	Park:G6	10441	-24924	2.8	2.8	1.2	1.1	1.2	1.1
1047	Park:P1	10452	41037	0.7	0.7	0.1	0.2	0.1	0.2
1048	Park:P10	11906	28500	0.5	0.5	0.1	0.1	0.2	0.2
1049	Park:P11	10576	23597	1.2	1.2	0.4	0.3	0.4	0.5
1050	Park:P12	12737	23611	0.5	0.5	0.3	0.2	0.2	0.2
1051	Park:P13	-3106	28942	33.9	33.9	33.6	38.6	35.5	52.3
1052	Park:P14	-1568	16984	95.3	95.3	98.4	95.8	103.3	114.2
1053	Park:P15	-4694	16128	30.7	30.7	29.0	35.4	30.0	47.4
1054	Park:P16	-7240	27235	11.3	11.3	9.5	9.8	9.4	12.0
1055	Park:P17	-7694	22700	10.5	10.5	8.5	8.9	8.5	11.1
1056	Park:P18	-10078	22715	3.5	3.5	2.1	2.2	2.2	2.8
1057	Park:P19	-8173	20053	8.9	8.9	6.7	7.2	6.7	9.0
1058	Park:P2	6019	40290	7.7	7.7	6.0	6.1	5.8	6.8
1059	Park:P20	-8423	17856	8.8	8.8	6.7	7.0	6.7	8.8
1060	Park:P21	7059	13592	12.7	12.7	10.1	9.6	10.3	11.1
1061	Park:P22	6996	12184	14.2	14.2	11.6	10.9	11.8	12.7
1062	Park:P23	9630	4263	11.3	11.3	7.4	6.6	8.4	8.3
1063	Park:P24	7963	3497	29.1	29.1	22.6	20.9	24.2	24.2
1064	Park:P25	8976	-1520	22.0	22.0	16.2	12.5	17.5	15.0
1065	Park:P26	2522	14946	54.7	54.7	53.8	55.8	56.9	60.0
1066	Park:P27	2802	10735	64.4	64.4	63.4	68.4	67.4	75.1

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1067	Park:P28	198	11565	128.8	128.8	133.5	126.8	139.3	136.7
1068	Park:P29	-5433	5962	67.4	67.3	63.2	100.6	69.9	118.3
1069	Park:P3	4190	38497	13.0	13.0	11.4	11.4	11.6	13.5
1070	Park:P30	-6437	15235	18.3	18.3	16.1	17.3	16.3	21.8
1071	Park:P31	-10883	12816	3.5	3.5	2.5	7.8	3.3	9.0
1072	Park:P31	-10986	9367	2.3	2.3	0.7	1.2	0.9	2.1
1073	Park:P32	-8210	11558	14.9	14.8	13.1	20.3	14.2	24.3
1074	Park:P33	-7609	8315	18.4	18.4	15.3	26.1	16.8	32.3
1075	Park:P34	-7758	4425	29.6	29.6	25.2	40.5	28.6	49.1
1076	Park:P35	-6933	3193	38.9	39.0	31.8	49.9	33.7	60.0
1077	Park:P36	-8027	-858	30.0	30.0	24.0	28.2	25.5	34.1
1078	Park:P37	-10415	-944	10.5	10.5	6.7	6.7	7.7	8.7
1079	Park:P38	6985	-3643	50.5	50.5	44.8	35.1	47.6	40.2
1080	Park:P39	12033	-5865	3.4	3.4	1.2	0.5	1.4	0.7
1081	Park:P4	7407	36148	5.5	5.5	3.9	3.9	3.7	4.2
1082	Park:P40	8712	-16156	11.0	11.0	7.5	5.0	7.6	5.3
1083	Park:P41	5212	-18740	34.9	34.9	32.1	24.8	32.7	26.3
1084	Park:P42	7205	-21947	16.6	16.6	13.2	10.6	13.1	11.0
1085	Park:P43	3598	-7684	122.8	122.8	120.7	99.9	127.3	109.5
1086	Park:P44	-283	-12051	151.8	151.8	156.6	135.3	163.3	140.7
1087	Park:P45	-4218	-14980	54.5	54.5	51.6	51.4	53.4	62.9
1088	Park:P46	-3319	-16331	69.3	69.3	67.7	65.6	70.7	80.2
1089	Park:P47	-9286	-6307	18.3	18.3	14.6	15.9	16.2	21.6
1090	Park:P48	-7699	-9254	29.4	29.3	25.7	26.3	27.1	31.0
1091	Park:P49	-7521	-12889	21.3	21.3	17.2	18.1	17.2	18.1
1092	Park:P5	-1752	40072	34.3	34.3	34.2	34.2	36.6	43.4
1093	Park:P50	8743	-26079	8.5	8.5	6.1	4.5	6.0	4.7
1094	Park:P51	7364	-27977	13.7	13.7	10.7	8.4	10.4	8.6
1095	Park:P52	4279	-25151	36.7	36.7	34.5	28.2	35.4	30.1
1096	Park:P53	1745	-24094	67.0	67.0	66.9	59.5	70.4	60.0
1097	Park:P54	1522	-25317	66.4	66.4	66.3	59.4	69.7	59.2
1098	Park:P55	3542	-29748	37.9	37.9	36.0	29.6	36.9	31.6
1099	Park:P56	-3479	-27701	44.3	44.3	42.7	41.6	44.3	52.1
1100	Park:P57	-2553	-31026	55.1	55.1	54.9	51.7	57.6	60.2
1101	Park:P58	-4315	-31888	29.7	29.7	27.2	27.7	27.7	34.3
1102	Park:P59	6981	-40680	14.7	14.7	11.7	9.5	11.4	9.9
1103	Park:P6	-995	37860	43.1	43.1	44.0	41.6	47.0	48.8
1104	Park:P60	879	-37690	47.5	47.5	45.8	40.5	47.8	40.5
1105	Park:P61	583	-42504	41.5	41.5	39.3	35.6	41.2	34.2
1106	Park:P62	-2563	-41948	41.1	41.1	39.8	37.2	41.8	42.0
1107	Park:P63	1437	-46094	30.6	30.6	28.2	24.3	29.1	24.2
1108	Park:P7	-1966	36892	35.5	35.5	35.5	36.1	37.9	46.3
1109	Park:P8	4457	33144	14.9	14.9	13.2	13.0	13.4	15.3
1110	Park:P9	8465	31725	3.9	3.9	2.5	2.6	2.4	2.8
1111	R-1	-1499	8689	132.1	132.1	135.4	143.1	142.1	167.7
1112	R-2	-3360	8057	82.9	82.9	79.2	131.1	84.5	157.5
1113	R-3	-3221	8061	87.6	87.6	84.3	135.1	90.1	162.9
1114	R-4	-2550	7376	128.5	128.5	127.3	203.5	135.9	236.0
1115	R-5	-2475	7342	133.0	133.0	132.3	210.6	141.3	243.4
1116	R-6	1908	7539	136.1	136.1	138.0	198.9	145.7	209.5
1117	R-7	3445	5795	130.6	130.6	127.7	154.1	134.5	168.1
1118	R-8	4189	5875	101.1	101.1	95.3	106.7	100.4	118.3
1119	R-9	-2325	5197	231.5	231.5	239.3	355.1	255.5	416.4
1120	R-10	-2803	4984	202.6	202.5	206.8	299.5	220.6	352.9
1121	R-11	-4314	4055	123.0	123.0	120.1	169.8	128.5	201.6
1122	R-12	-3638	4008	162.3	162.3	162.8	217.6	173.5	260.5

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1123	R-13	-2994	3996	214.2	214.2	219.9	275.9	235.1	331.5
1124	R-14	-2996	3894	216.1	216.2	222.0	277.2	237.4	333.7
1125	R-15	-3661	3774	164.1	164.2	164.8	216.0	175.4	259.8
1126	R-16	-3881	2627	160.5	160.7	160.3	187.5	169.2	227.0
1127	R-17	-3974	2637	153.7	153.8	153.0	181.0	161.5	218.9
1128	R-19	-2871	-9407	116.2	116.2	116.3	110.9	122.7	131.5
1129	R-20	-2236	-9459	137.7	137.7	140.3	131.2	147.5	149.7
1130	R-21	-2883	-9527	114.6	114.6	114.7	109.4	121.0	129.8
1131	R-22	-2127	-9553	140.6	140.6	143.5	133.6	150.7	151.4
1132	R-23	-2979	-10864	103.3	103.3	103.9	98.6	109.2	116.7
1133	R-24	-2855	-10863	107.1	107.1	108.0	102.2	113.6	120.2
1134	R-25	-3422	-12657	80.6	80.6	79.3	77.3	82.9	92.1
1135	R-26	-3317	-12709	83.4	83.4	82.3	79.6	86.0	94.7
1136	R-27	-4326	-13636	56.9	56.9	53.8	54.7	55.6	65.2
1137	R-28	-4219	-13662	58.7	58.7	55.9	56.4	57.9	67.5
1138	R-29	-4595	-14690	49.4	49.4	46.2	46.7	47.4	56.1
1139	R-30	-4595	-14834	48.9	48.9	45.7	46.2	46.9	55.7
1140	R-31	-3900	-18888	49.0	49.0	46.8	48.7	48.6	60.7
1141	R-32	-3960	-18992	47.8	47.8	45.5	47.6	47.3	59.4
1142	R-33	-1586	-19967	96.7	96.7	99.3	92.3	104.2	103.5
1143	R-34	-1631	-20084	96.0	96.0	98.5	91.5	103.4	102.9
1144	R-35	589	-20385	95.7	95.7	98.2	87.7	103.4	86.4
1145	R-36	760	-20452	93.5	93.5	95.7	85.3	100.7	84.0
1146	R-37	1953	-19502	74.5	74.5	74.7	66.5	78.4	67.4
1147	R-38	1937	-19639	74.4	74.4	74.5	66.3	78.2	67.2
1148	R-39	5743	3729	79.2	79.2	72.6	67.0	76.6	75.0
1149	R-40	6051	3598	69.2	69.2	62.3	57.8	66.0	64.9
1150	R-41	6707	2725	54.1	54.1	47.0	42.2	49.9	47.8
1151	R-42	6795	2778	52.0	52.0	44.7	40.2	47.5	45.6
1152	R-43	3977	622	166.6	166.6	169.0	142.4	177.6	159.0
1153	R-44	3992	528	165.4	165.4	167.6	141.4	176.2	157.9
1154	R-45	7811	-253	37.7	37.7	31.6	25.2	33.4	29.0
1155	R-46	7968	-188	35.1	35.1	28.8	23.1	30.5	26.7
1156	R-47	9017	-3383	20.7	20.7	14.9	11.1	16.2	13.4
1157	R-48	9107	-3278	19.8	19.8	14.1	10.4	15.4	12.7
1158	R-49	9205	-4829	16.4	16.4	11.4	8.1	12.3	9.6
1159	R-50	9420	-4826	14.7	14.7	9.9	6.7	10.8	8.2
1160	R-51	4145	-5368	143.5	143.5	143.2	118.8	151.1	130.1
1161	R-52	4160	-5459	140.8	140.8	140.3	116.0	148.0	127.4
1162	R-53	6680	-5389	50.7	50.7	44.4	34.6	47.2	39.3
1163	R-54	6680	-5519	50.2	50.2	43.9	34.1	46.6	38.7
1164	R-55	8216	-6716	23.5	23.5	17.6	13.0	18.7	14.7
1165	R-56	7824	-7392	26.4	26.4	20.8	15.2	21.9	17.2
1166	R-57	6375	-8805	41.4	41.4	35.9	26.5	37.7	29.5
1167	R-58	2503	-7529	166.0	166.0	168.3	156.3	177.6	168.1
1168	R-59	2128	-9607	135.8	135.8	137.7	112.1	144.4	116.7
1169	R-60	2128	-9724	134.1	134.1	136.1	111.1	142.7	115.4
1170	R-61	3469	-9641	95.7	95.7	93.9	74.7	98.8	81.5
1171	R-62	3469	-9758	94.6	94.6	93.0	73.9	97.8	80.5
1172	R-63	4953	-9622	63.3	63.3	59.3	45.5	62.2	50.2
1173	R-64	4953	-9765	62.5	62.5	58.6	44.9	61.4	49.5
1174	M-1	-5559	5408	68.5	68.4	64.0	100.8	70.8	118.8
1175	M-2	7677	4132	31.2	31.2	24.6	23.2	26.5	26.9
1176	M-3	-3794	839	161.2	161.3	163.9	182.7	173.6	225.1
1177	M-4	-3435	-161	181.0	180.9	185.3	204.1	195.8	255.7
1178	M-5	8038	-2746	32.5	32.5	26.2	20.7	28.0	24.0

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1179	M-6	7442	-4154	39.7	39.7	33.2	25.6	35.5	29.6
1180	M-7	1569	-6734	219.1	219.1	230.3	236.9	245.7	259.8
1181	M-8	3372	-6953	148.6	148.6	148.6	125.3	156.9	136.7
1182	M-9	3203	-8239	125.1	125.1	123.7	102.3	130.7	111.5
1183	M-10	212	-9582	182.6	182.6	187.7	160.1	195.8	164.1
1184	M-11	212	-9712	179.8	179.8	184.6	158.0	192.6	161.9
1185	M-12	-4530	-14474	51.0	51.0	47.8	48.5	49.1	58.1
1186	M-13	-4484	-14936	50.2	50.2	47.0	47.4	48.3	57.6
1187	M-14	-3614	-16370	61.7	61.7	59.4	58.7	61.9	72.7
1188	M-15	4365	-18735	44.1	44.1	42.0	33.6	43.1	35.9
1189	M-16	4486	-19796	40.9	40.9	38.7	31.1	39.6	33.1
1190	M-17	8123	-595	32.8	32.8	26.4	21.1	28.0	24.5
1191	M-18	9840	4660	9.9	9.9	6.3	5.3	7.2	6.7
1192	T-116	1422	-18235	93.7	93.7	94.6	85.9	99.4	80.7
1193	T-118	1331	-17470	99.8	99.8	100.7	89.4	105.5	85.7
1194	T-119	2650	-17566	71.3	71.3	69.8	59.8	72.8	61.3
1195	T-120	-3506	-16334	64.4	64.4	62.3	61.2	65.1	75.4
1196	T-122	-3743	-14738	63.7	63.7	61.6	60.3	64.0	74.5
1197	T-125	1459	-13047	123.6	123.6	125.1	104.1	130.9	104.0
1198	T-126	3477	-10938	85.8	85.8	84.7	66.1	88.5	71.4
1199	T-130	2651	-8267	143.8	143.8	144.1	127.5	151.9	137.4
1200	T-132	-3659	-2960	184.4	184.2	189.3	206.6	200.7	254.5
1201	T-133	8580	-1927	26.3	26.3	20.1	15.6	21.5	18.4
1202	T-136	-3365	4995	159.0	158.9	159.0	238.0	170.2	278.6
1203	NSF:A14	-3907	-17520	52.4	52.4	49.7	51.2	51.7	63.3
1204	T-25	-3883	-4693	167.1	167.0	169.0	188.5	179.1	219.6
1205	T-28	-3387	-9387	100.3	100.3	98.5	96.4	104.0	115.9
1206	T-33	1432	-17816	95.9	95.9	96.6	86.9	101.4	82.2
1207	T-34	1792	-19460	77.8	77.8	78.4	70.0	82.4	70.6
1208	T-35	1587	-18907	84.8	84.8	85.8	77.8	90.2	76.0
1209	T-44	-3421	5168	152.6	152.5	151.8	235.1	162.6	274.2
1210	NSF:T-48, A20	-4170	1264	138.6	138.8	139.5	160.1	147.5	193.7
1211	NSF:T-50, A22	-3264	8490	79.6	79.6	76.7	117.1	82.0	143.6
1212	NSF:T-57, A29	-2746	8551	96.9	96.9	96.0	135.2	102.2	164.2
1213	NSF:T-59, A31	-5476	6566	60.9	60.8	56.8	91.4	62.8	107.3
1214	NSF:T-60, A32	-4232	-17635	46.6	46.6	43.7	45.9	45.3	56.3
1215	NSF:T-62, A34	-4112	-14837	56.8	56.8	54.0	53.5	55.8	65.5
1216	T-29	-3498	-16806	63.2	63.2	61.2	60.6	63.9	74.7
1217	NSF:T-84, A56	-3125	6493	133.0	133.0	130.9	229.7	140.4	264.2
1218	NSF:T-85, A57	-3238	4735	174.3	174.2	175.9	247.6	188.0	290.9
1219	NSF:T-88, A60	-1350	-9469	167.1	167.1	171.8	154.3	179.7	168.3
1220	NSF:C58	-1135	22315	93.6	93.6	97.7	91.1	103.1	105.2
1221	NSF:S108	-1649	-9471	157.7	157.7	161.7	147.2	169.5	163.2
1222	NSF:N15	-3997	-22078	44.4	44.4	42.0	43.4	43.6	56.6
1223	NSF:C62	-1414	-30795	69.7	69.7	71.0	65.8	74.6	68.3
1224	NSF:S109	-1333	-22719	98.3	98.3	101.3	90.1	106.4	99.1
1225	NSF:S105	-3791	-3836	184.7	184.5	189.0	208.4	201.0	251.2
1226	NSF:C64	-4367	7358	71.0	71.0	66.7	116.0	71.9	135.8
1227	NSF:S106	-2685	8649	97.4	97.4	96.9	133.5	103.1	162.3
1228	NSF:C61	-1303	9772	126.7	126.7	131.1	133.8	137.4	156.0
1229	NSF:S107	2638	-6779	190.6	190.6	195.4	170.7	207.2	182.8
1230	NSF:S110	1462	-15138	108.2	108.2	110.4	94.4	115.3	91.4
1231	NSF:S103	691	14334	105.1	105.1	108.6	101.5	113.7	105.9
1232	NSF:C60	51	14525	114.3	114.3	118.2	110.8	123.1	119.3
1233	NSF:C63	335	17719	97.6	97.6	101.6	94.2	106.3	99.0
1234	NSF:S104	2040	9879	95.6	95.6	97.5	100.6	103.3	107.4

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				Time Above 65 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1235	NSF:C65	2422	9244	88.0	88.0	88.3	104.0	93.8	112.1
1236	NSF:C59	3555	12838	41.7	41.7	40.1	39.7	42.0	45.9
1237	Park:P65	-4286	-15220	52.6	52.6	49.6	49.7	51.2	60.7
1238	Park:P77	-4624	-22245	36.2	36.2	33.5	35.1	34.5	44.3
1239	Park:P75	-4188	-36794	26.2	26.2	23.6	23.2	24.0	28.0
1240	Park:P68	-5348	-17875	32.9	32.9	29.8	31.1	30.5	34.6
1241	Park:P69	-5853	-17090	29.0	29.0	25.5	26.6	26.0	28.9
1242	Park:P74	-5044	-16833	37.7	37.7	34.5	35.8	35.4	41.8
1243	Park:P73	-4954	-17282	38.0	38.0	34.9	36.5	35.7	43.0
1244	Park:P78	-4783	-18422	37.8	37.8	35.0	37.2	35.9	44.5
1245	Park:P70	-4665	-14728	48.3	48.3	45.1	45.6	46.3	54.6
1246	Park:P79	-1577	-22047	89.8	89.8	91.9	85.5	96.3	96.1
1247	Park:P66	-2383	-25951	66.6	66.6	66.9	63.2	70.1	72.7
1248	Park:P76	-748	-25329	86.6	86.6	88.6	81.1	92.7	82.8
1249	Park:P72	-135	-18873	106.3	106.3	108.9	99.8	114.2	102.7
1250	Park:P64	-1767	-17528	101.0	101.0	102.5	97.1	107.2	105.4
1251	Park:P67	1256	-19310	88.5	88.5	90.3	81.5	95.0	80.5
1252	Park:P71	2940	-16861	69.9	69.9	68.0	56.1	70.5	58.3
1253	N1	-1990	-17245	97.6	97.6	98.7	93.2	103.3	103.9
1254	N2	-3334	8426	78.4	78.4	75.2	116.4	80.3	142.6
1256	N3	-4097	6616	91.6	91.5	87.4	157.7	94.8	183.3
1257	N5	-8611	5294	22.7	22.7	20.1	29.4	23.5	35.6
1258	N7	-4947	-1900	117.2	117.1	117.1	127.6	124.1	155.3
1259	N8	-4082	10573	46.7	46.7	44.3	59.0	46.6	77.8
1260	N10	-3524	13833	49.3	49.3	48.1	57.9	50.7	78.4
1261	N16	-2435	-14830	95.7	95.7	96.5	89.8	101.1	104.2
1262	N17	-1060	-14856	123.7	123.7	127.5	115.3	133.0	120.4
1263	N18	-3776	-14788	62.9	62.9	60.6	59.5	63.0	73.5
1264	N19	1410	-15430	107.9	107.9	109.9	94.5	114.8	91.0
1265	N21	1410	-15430	107.9	107.9	109.9	94.5	114.8	91.0
1266	N22	1410	-15430	107.9	107.9	109.9	94.5	114.8	91.0
1267	N24	-849	-17121	115.7	115.7	117.9	107.5	123.1	112.3
1268	N52	-849	-17121	115.7	115.7	117.9	107.5	123.1	112.3
1269	N25	-1279	-17349	110.5	110.5	112.4	104.7	117.4	110.2
1270	N23	731	-17160	109.5	109.5	111.3	98.5	116.6	96.3
1271	N32	-2623	-16845	84.4	84.4	84.4	80.4	88.4	94.2
1272	N33	-1937	-14523	109.2	109.2	111.5	102.3	116.6	114.7
1273	N34	-1996	-20888	88.1	88.1	90.0	84.3	94.6	96.0
1274	N35	-1984	-20239	89.6	89.6	91.6	86.0	96.3	99.1
1275	N36	-1996	-20888	88.1	88.1	90.0	84.3	94.6	96.0
1276	N37	-1288	-18281	106.4	106.4	108.4	103.5	113.6	106.8
1277	N38	81	-23395	96.9	96.9	100.3	88.6	105.8	87.3
1278	N39	1235	-23064	81.0	81.0	82.6	72.6	87.2	71.8
1279	N40	1243	-23968	76.1	76.1	77.0	68.9	81.4	68.3
1280	N45	1572	-18752	86.3	86.3	87.3	79.3	91.8	76.7
1281	N46	2447	-18291	72.0	72.0	71.0	62.2	74.2	62.7
1282	N49	-2293	-19455	82.0	82.0	83.2	80.4	87.6	95.2
1283	N50	-2293	-19455	82.0	82.0	83.2	80.4	87.6	95.2
1284	N53	-762	-16176	121.4	121.4	124.1	112.6	129.6	114.8
1285	N54	2867	-16447	72.8	72.8	70.9	58.3	73.6	60.4
1286	N55	3117	-17904	62.6	62.6	60.9	50.9	63.2	53.4
1287	N56	-269	-22786	101.4	101.4	105.0	91.6	110.3	91.9
1288	N59	-2261	-19816	83.1	83.1	84.5	80.7	89.0	95.4
1289	N60	-1155	-20562	101.9	101.9	104.9	96.1	110.1	103.2
1290	N47	2491	-18288	71.2	71.2	70.2	61.3	73.4	62.0

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	15.5	15.5	13.5	11.5	13.5	11.1
2	RMS2	-2533	-18228	12.9	12.9	10.4	11.0	10.2	13.7
3	RMS3	1078	-17868	23.5	23.5	20.9	16.3	21.3	16.1
4	RMS4	141	-9337	67.2	67.2	68.9	54.9	72.1	53.7
5	RMS5	-2718	186	47.8	47.8	42.5	56.8	44.4	75.9
6	RMS6	292	8461	53.0	53.0	54.8	51.9	57.8	52.7
7	RMS7	-1299	16858	24.0	24.0	22.8	19.5	23.9	25.1
8	RMS8	-525	21836	15.3	15.3	13.9	12.4	14.7	14.0
9	RMS9	1958	14969	10.9	10.9	8.8	8.5	8.8	9.4
10	RMS10	-3185	-6305	19.7	19.7	16.8	22.8	17.4	27.9
11	RMS11	2549	6703	21.9	21.9	20.7	21.2	22.2	24.3
12	A22	-7822	17894	0.1	0.1	0.0	0.0	0.0	0.0
13	A23	-7856	16574	0.1	0.1	0.0	0.0	0.0	0.0
14	A24	-7890	15254	0.1	0.1	0.0	0.0	0.0	0.0
15	A25	-7924	13934	0.2	0.2	0.0	0.0	0.0	0.0
16	A26	-7958	12614	0.1	0.1	0.0	0.0	0.0	0.0
17	A27	-7992	11294	0.1	0.1	0.0	0.0	0.0	0.0
18	A28	-8026	9974	0.0	0.0	0.0	0.0	0.0	0.0
19	A29	-8060	8654	0.0	0.0	0.0	0.0	0.0	0.0
20	A30	-8094	7334	0.0	0.0	0.0	0.0	0.0	0.0
21	A31	-8128	6014	0.0	0.0	0.0	0.0	0.0	0.0
22	A32	-8162	4694	0.0	0.0	0.0	0.0	0.0	0.0
23	A33	-8196	3374	0.0	0.0	0.0	0.0	0.0	0.0
24	A34	-8230	2054	0.0	0.0	0.0	0.0	0.0	0.0
25	A35	-8264	734	0.0	0.0	0.0	0.0	0.0	0.0
26	A36	-8298	-586	0.0	0.0	0.0	0.0	0.0	0.0
27	A37	-8332	-1906	0.0	0.0	0.0	0.0	0.0	0.0
28	A38	-8366	-3226	0.0	0.0	0.0	0.0	0.0	0.0
29	A39	-8400	-4546	0.0	0.0	0.0	0.0	0.0	0.0
30	A40	-8434	-5866	0.0	0.0	0.0	0.0	0.0	0.0
31	A41	-8468	-7186	0.0	0.0	0.0	0.0	0.0	0.0
32	A42	-8502	-8506	0.0	0.0	0.0	0.1	0.0	0.1
33	A43	-8536	-9826	0.0	0.0	0.0	0.0	0.0	0.0
34	B10	-6094	33700	0.3	0.3	0.1	0.0	0.1	0.1
35	B11	-6128	32380	0.3	0.3	0.1	0.1	0.1	0.1
36	B12	-6162	31060	0.4	0.4	0.1	0.1	0.1	0.1
37	B13	-6196	29740	0.4	0.4	0.1	0.1	0.1	0.1
38	B14	-6230	28420	0.4	0.4	0.1	0.1	0.1	0.1
39	B15	-6264	27100	0.4	0.4	0.1	0.1	0.1	0.1
40	B16	-6298	25780	0.4	0.4	0.1	0.1	0.1	0.1
41	B17	-6332	24460	0.4	0.4	0.1	0.1	0.1	0.1
42	B18	-6366	23140	0.4	0.4	0.1	0.1	0.1	0.1
43	B19	-6400	21820	0.3	0.3	0.0	0.0	0.0	0.0
44	B20	-6434	20500	0.3	0.3	0.0	0.0	0.0	0.0
45	B21	-6468	19180	0.4	0.4	0.0	0.0	0.0	0.0
46	B22	-6502	17860	0.4	0.4	0.0	0.0	0.0	0.0
47	B23	-6536	16540	0.5	0.5	0.0	0.0	0.0	0.0
48	B24	-6570	15220	0.6	0.6	0.0	0.0	0.0	0.1
49	B25	-6604	13900	0.6	0.6	0.0	0.1	0.1	0.1
50	B26	-6638	12580	0.5	0.5	0.0	0.1	0.0	0.1
51	B27	-6672	11260	0.6	0.6	0.0	0.1	0.0	0.1
52	B28	-6706	9940	0.6	0.6	0.0	0.1	0.0	0.2
53	B29	-6740	8620	0.5	0.5	0.0	0.1	0.0	0.2
54	B30	-6774	7300	0.4	0.4	0.0	0.1	0.0	0.4
55	B31	-6808	5980	0.3	0.3	0.0	0.2	0.0	0.4
56	B32	-6842	4660	0.3	0.3	0.0	0.2	0.0	0.5

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
57	B33	-6876	3340	0.3	0.3	0.0	0.3	0.0	0.5
58	B34	-6910	2020	0.3	0.3	0.0	0.3	0.0	0.6
59	B35	-6944	700	0.2	0.2	0.0	0.3	0.0	0.6
60	B36	-6978	-620	0.2	0.2	0.0	0.3	0.0	0.6
61	B37	-7012	-1940	0.1	0.1	0.0	0.3	0.0	0.5
62	B38	-7046	-3260	0.2	0.2	0.0	0.2	0.0	0.3
63	B39	-7080	-4580	0.2	0.2	0.0	0.2	0.0	0.2
64	B40	-7114	-5900	0.2	0.2	0.0	0.2	0.0	0.2
65	B41	-7148	-7220	0.2	0.2	0.0	0.2	0.0	0.2
66	B42	-7182	-8540	0.3	0.3	0.0	0.2	0.0	0.2
67	B43	-7216	-9860	0.3	0.3	0.0	0.1	0.0	0.1
68	B44	-7250	-11180	0.3	0.3	0.0	0.1	0.0	0.1
69	B45	-7284	-12500	0.3	0.3	0.0	0.0	0.0	0.0
70	B46	-7318	-13820	0.3	0.3	0.0	0.1	0.0	0.0
71	B47	-7352	-15140	0.2	0.2	0.0	0.0	0.0	0.0
72	B48	-7386	-16460	0.2	0.2	0.0	0.0	0.0	0.0
73	B49	-7420	-17780	0.1	0.1	0.0	0.0	0.0	0.0
74	C1	-4468	45546	0.6	0.6	0.1	0.1	0.1	0.1
75	C2	-4502	44226	0.6	0.6	0.1	0.1	0.1	0.1
76	C3	-4536	42906	0.5	0.5	0.1	0.1	0.1	0.1
77	C4	-4570	41586	0.6	0.6	0.1	0.2	0.2	0.2
78	C5	-4604	40266	0.8	0.8	0.2	0.2	0.2	0.2
79	C6	-4638	38946	0.9	0.9	0.3	0.3	0.3	0.3
80	C7	-4672	37626	0.9	0.9	0.4	0.4	0.4	0.4
81	C8	-4706	36306	1.0	1.0	0.5	0.4	0.5	0.5
82	C9	-4740	34986	1.2	1.2	0.5	0.5	0.5	0.5
83	C10	-4774	33666	1.2	1.2	0.6	0.6	0.6	0.6
84	C11	-4808	32346	1.3	1.3	0.7	0.7	0.7	0.7
85	C12	-4842	31026	1.4	1.4	0.8	0.8	0.8	0.8
86	C13	-4876	29706	1.5	1.5	0.8	0.8	0.8	0.9
87	C14	-4910	28386	1.5	1.5	0.9	0.9	0.9	1.0
88	C15	-4944	27066	1.6	1.6	0.9	1.0	0.9	1.1
89	C16	-4978	25746	1.6	1.6	0.9	1.0	1.0	1.1
90	C17	-5012	24426	1.6	1.6	0.9	1.0	1.0	1.2
91	C18	-5046	23106	1.6	1.6	0.9	0.9	0.9	1.1
92	C19	-5080	21786	1.7	1.7	0.9	1.0	0.9	1.3
93	C20	-5114	20466	1.7	1.7	0.9	1.0	0.9	1.4
94	C21	-5148	19146	1.8	1.8	0.9	1.1	1.0	1.4
95	C22	-5182	17826	1.8	1.8	0.9	1.1	0.9	1.5
96	C23	-5216	16506	1.8	1.8	0.7	1.0	0.8	1.4
97	C24	-5250	15186	1.8	1.8	0.7	0.9	0.7	1.4
98	C25	-5284	13866	1.8	1.8	0.7	0.9	0.7	1.5
99	C26	-5318	12546	1.7	1.7	0.6	1.0	0.6	1.7
100	C27	-5352	11226	1.7	1.7	0.6	1.1	0.6	2.0
101	C28	-5386	9906	1.7	1.7	0.6	1.1	0.6	2.0
102	C29	-5420	8586	1.5	1.5	0.4	1.0	0.5	2.1
103	C30	-5454	7266	1.5	1.5	0.5	1.1	0.5	2.2
104	C31	-5488	5946	1.6	1.6	0.5	1.5	0.6	2.8
105	C32	-5522	4626	1.7	1.7	0.7	2.5	0.8	4.0
106	C33	-5556	3306	1.8	1.8	0.7	3.1	0.9	4.7
107	C34	-5590	1986	1.8	1.8	0.6	2.9	0.8	4.5
108	C35	-5624	666	2.5	2.5	0.9	3.0	1.1	4.7
109	C36	-5658	-654	2.9	2.9	1.1	3.1	1.2	4.8
110	C37	-5692	-1974	2.9	2.9	1.0	3.0	1.2	4.4
111	C38	-5726	-3294	2.2	2.2	0.8	2.3	0.9	3.1
112	C39	-5760	-4614	1.9	1.9	0.7	1.9	0.7	2.3

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
113	C40	-5794	-5934	1.9	1.9	0.7	1.7	0.8	1.9
114	C41	-5828	-7254	1.9	1.9	0.6	1.4	0.7	1.6
115	C42	-5862	-8574	1.7	1.7	0.4	1.1	0.5	1.2
116	C43	-5896	-9894	1.6	1.6	0.3	0.7	0.3	0.8
117	C44	-5930	-11214	1.5	1.5	0.2	0.5	0.2	0.6
118	C45	-5964	-12534	1.3	1.3	0.0	0.3	0.0	0.4
119	C46	-5998	-13854	1.1	1.1	0.1	0.4	0.1	0.3
120	C47	-6032	-15174	0.9	0.9	0.0	0.2	0.0	0.3
121	C48	-6066	-16494	0.8	0.8	0.0	0.2	0.0	0.2
122	C49	-6100	-17814	0.7	0.7	0.0	0.2	0.0	0.2
123	C50	-6134	-19134	0.5	0.5	0.0	0.1	0.0	0.2
124	C51	-6168	-20454	0.4	0.4	0.0	0.1	0.0	0.1
125	C52	-6202	-21774	0.3	0.3	0.0	0.1	0.0	0.1
126	C53	-6236	-23094	0.2	0.2	0.0	0.1	0.0	0.1
127	C54	-6270	-24414	0.1	0.1	0.0	0.1	0.0	0.1
128	C55	-6304	-25734	0.1	0.1	0.0	0.0	0.0	0.0
129	C56	-6338	-27054	0.1	0.1	0.0	0.0	0.0	0.0
130	C57	-6372	-28374	0.1	0.1	0.0	0.0	0.0	0.0
131	C58	-6406	-29694	0.1	0.1	0.0	0.0	0.0	0.0
132	C59	-6440	-31014	0.0	0.0	0.0	0.0	0.0	0.0
133	D1	-3148	45512	1.0	1.0	0.4	0.3	0.4	0.4
134	D2	-3182	44192	1.1	1.1	0.4	0.4	0.4	0.5
135	D3	-3216	42872	1.1	1.1	0.5	0.5	0.5	0.6
136	D4	-3250	41552	1.5	1.5	0.7	0.7	0.7	0.8
137	D5	-3284	40232	1.7	1.7	0.9	0.9	0.9	1.0
138	D6	-3318	38912	1.9	1.9	1.1	1.1	1.1	1.2
139	D7	-3352	37592	2.1	2.1	1.2	1.3	1.2	1.4
140	D8	-3386	36272	2.3	2.3	1.3	1.4	1.3	1.5
141	D9	-3420	34952	2.4	2.4	1.5	1.5	1.4	1.6
142	D10	-3454	33632	2.5	2.5	1.6	1.6	1.5	1.8
143	D11	-3488	32312	2.7	2.7	1.7	1.8	1.6	2.0
144	D12	-3522	30992	3.0	3.0	2.0	2.2	2.0	2.4
145	D13	-3556	29672	3.3	3.3	2.3	2.5	2.2	2.8
146	D14	-3590	28352	3.6	3.6	2.5	2.7	2.5	3.2
147	D15	-3624	27032	3.6	3.6	2.6	2.8	2.5	3.3
148	D16	-3658	25712	3.9	3.9	2.8	3.0	2.7	3.7
149	D17	-3692	24392	3.8	3.8	2.7	3.1	2.7	3.9
150	D18	-3726	23072	4.1	4.1	3.0	3.3	2.9	4.1
151	D19	-3760	21752	4.3	4.3	3.1	3.5	3.0	4.4
152	D20	-3794	20432	4.7	4.7	3.4	3.9	3.4	5.0
153	D21	-3828	19112	5.2	5.2	3.8	4.3	3.7	5.6
154	D22	-3862	17792	5.2	5.2	3.8	4.3	3.6	5.7
155	D23	-3896	16472	5.5	5.5	3.9	4.5	3.8	6.1
156	D24	-3930	15152	5.7	5.7	4.0	4.7	3.9	6.4
157	D25	-3964	13832	5.6	5.6	3.8	4.6	3.7	6.4
158	D26	-3998	12512	6.0	6.0	4.2	5.2	4.1	7.0
159	D27	-4032	11192	6.0	6.0	4.3	5.4	4.1	7.4
160	D28	-4066	9872	5.7	5.7	4.1	5.6	4.0	7.9
161	D29	-4100	8552	5.8	5.8	4.2	5.7	4.2	8.2
162	D30	-4134	7232	6.0	6.0	4.3	6.7	4.4	9.6
163	D31	-4168	5912	6.1	6.1	4.3	9.3	4.5	13.0
164	D32	-4202	4592	6.8	6.8	5.0	14.0	5.5	18.7
165	D33	-4236	3272	8.5	8.5	6.1	15.7	6.7	19.7
166	D34	-4270	1952	10.7	10.7	7.2	15.4	8.0	19.4
167	D35	-4304	632	12.3	12.3	8.0	15.2	9.0	19.8
168	D36	-4338	-688	13.0	13.0	8.7	15.4	9.6	20.8

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
169	D37	-4372	-2008	12.7	12.7	8.6	15.3	9.5	21.5
170	D38	-4406	-3328	11.2	11.2	7.7	13.0	8.4	17.5
171	D39	-4440	-4648	9.0	9.0	6.3	10.3	6.7	12.1
172	D40	-4474	-5968	7.8	7.8	5.6	9.3	5.9	9.9
173	D41	-4508	-7288	7.2	7.2	5.0	8.0	5.3	8.5
174	D42	-4542	-8608	6.5	6.5	4.3	6.4	4.5	6.8
175	D43	-4576	-9928	5.9	5.9	3.7	5.3	3.8	5.5
176	D44	-4610	-11248	5.2	5.2	3.0	4.5	3.0	4.6
177	D45	-4644	-12568	4.5	4.5	2.3	3.6	2.4	3.7
178	D46	-4678	-13888	3.5	3.5	1.5	2.9	1.6	3.0
179	D47	-4712	-15208	2.7	2.7	1.0	2.2	1.0	2.3
180	D48	-4746	-16528	2.3	2.3	0.6	1.9	0.7	2.0
181	D49	-4780	-17848	1.8	1.8	0.3	1.4	0.4	1.5
182	D50	-4814	-19168	1.6	1.6	0.3	1.2	0.3	1.2
183	D51	-4848	-20488	1.4	1.4	0.2	1.0	0.3	1.0
184	D52	-4882	-21808	1.2	1.2	0.2	0.8	0.3	0.8
185	D53	-4916	-23128	1.1	1.1	0.2	0.6	0.2	0.6
186	D54	-4950	-24448	1.0	1.0	0.1	0.5	0.1	0.5
187	D55	-4984	-25768	0.9	0.9	0.1	0.3	0.1	0.3
188	D56	-5018	-27088	0.8	0.8	0.0	0.3	0.1	0.3
189	D57	-5052	-28408	0.7	0.7	0.0	0.2	0.0	0.2
190	D58	-5086	-29728	0.6	0.6	0.0	0.2	0.0	0.2
191	D59	-5120	-31048	0.6	0.6	0.0	0.1	0.0	0.1
192	D60	-5154	-32368	0.5	0.5	0.0	0.1	0.0	0.1
193	D61	-5188	-33688	0.5	0.5	0.0	0.1	0.0	0.1
194	D62	-5222	-35008	0.4	0.4	0.0	0.0	0.0	0.0
195	D63	-5256	-36328	0.4	0.4	0.0	0.0	0.0	0.0
196	D64	-5290	-37648	0.3	0.3	0.0	0.0	0.0	0.0
197	D65	-5324	-38968	0.3	0.3	0.0	0.0	0.0	0.0
198	D66	-5358	-40288	0.3	0.3	0.0	0.0	0.0	0.0
199	D67	-5392	-41608	0.3	0.3	0.0	0.0	0.0	0.0
200	E1	-1828	45478	1.5	1.5	0.7	0.7	0.7	0.9
201	E2	-1862	44158	1.6	1.6	0.8	0.8	0.8	1.0
202	E3	-1896	42838	1.7	1.7	0.9	1.0	0.8	1.2
203	E4	-1930	41518	2.1	2.1	1.2	1.3	1.1	1.5
204	E5	-1964	40198	2.5	2.5	1.5	1.6	1.4	1.9
205	E6	-1998	38878	2.9	2.9	1.8	1.9	1.7	2.2
206	E7	-2032	37558	3.3	3.3	2.3	2.3	2.1	2.6
207	E8	-2066	36238	3.6	3.6	2.5	2.6	2.3	2.9
208	E9	-2100	34918	4.0	4.0	2.8	2.9	2.6	3.3
209	E10	-2134	33598	4.3	4.3	3.0	3.2	2.8	3.7
210	E11	-2168	32278	4.6	4.6	3.3	3.5	3.1	4.1
211	E12	-2202	30958	5.0	5.0	3.7	4.0	3.5	4.6
212	E13	-2236	29638	5.6	5.6	4.3	4.6	4.0	5.3
213	E14	-2270	28318	6.2	6.2	4.9	5.3	4.6	6.3
214	E15	-2304	26998	6.4	6.4	5.1	5.7	4.9	7.1
215	E16	-2338	25678	6.7	6.7	5.5	6.3	5.3	8.2
216	E17	-2372	24358	7.0	7.0	5.8	7.2	5.7	9.9
217	E18	-2406	23038	7.3	7.3	6.0	7.5	5.9	10.4
218	E19	-2440	21718	7.5	7.5	6.1	8.5	6.0	12.1
219	E20	-2474	20398	8.3	8.3	6.9	10.2	6.8	14.9
220	E21	-2508	19078	9.1	9.1	7.7	11.9	7.6	17.6
221	E22	-2542	17758	9.9	9.9	8.4	13.6	8.4	20.4
222	E23	-2576	16438	10.9	10.9	9.1	14.7	9.1	22.0
223	E24	-2610	15118	11.3	11.3	9.3	15.5	9.4	23.2
224	E25	-2644	13798	11.6	11.6	9.8	16.1	9.8	24.1

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
225	E26	-2678	12478	12.2	12.2	10.4	17.0	10.4	25.1
226	E27	-2712	11158	12.5	12.5	10.6	17.5	10.6	25.7
227	E28	-2746	9838	12.0	12.0	10.4	17.6	10.5	26.0
228	E29	-2780	8518	12.8	12.8	11.1	18.7	11.2	27.3
229	E30	-2814	7198	14.7	14.7	12.7	24.0	13.1	33.4
230	E31	-2848	5878	16.9	16.9	14.8	38.3	15.6	49.4
231	E32	-2882	4558	22.9	22.9	19.8	53.3	20.8	66.7
232	E33	-2916	3238	30.5	30.5	24.9	56.3	26.4	71.0
233	E34	-2950	1918	35.4	35.4	28.9	49.5	30.5	60.2
234	E35	-2984	598	38.8	38.8	32.8	45.5	34.3	57.1
235	E36	-3018	-722	39.2	39.2	33.8	47.7	35.3	65.5
236	E37	-3052	-2042	38.4	38.4	33.1	47.6	34.7	65.0
237	E38	-3086	-3362	34.4	34.4	29.3	42.4	31.1	57.9
238	E39	-3120	-4682	27.0	27.0	22.3	30.4	23.7	37.9
239	E40	-3154	-6002	21.2	21.2	17.8	24.5	18.7	30.1
240	E41	-3188	-7322	18.5	18.5	15.9	20.3	16.3	24.9
241	E42	-3222	-8642	18.4	18.4	15.6	17.8	15.7	21.9
242	E43	-3256	-9962	16.5	16.5	13.7	15.3	13.7	19.0
243	E44	-3290	-11282	14.3	14.3	11.4	13.0	11.3	16.3
244	E45	-3324	-12602	12.9	12.9	9.9	11.3	9.7	13.6
245	E46	-3358	-13922	11.4	11.4	8.5	9.9	8.3	11.9
246	E47	-3392	-15242	10.2	10.2	7.3	8.6	7.0	9.8
247	E48	-3426	-16562	9.0	9.0	6.4	7.6	6.1	8.5
248	E49	-3460	-17882	8.1	8.1	5.7	6.9	5.5	7.6
249	E50	-3494	-19202	7.2	7.2	5.1	5.9	4.8	6.3
250	E51	-3528	-20522	6.6	6.6	4.6	5.2	4.3	5.6
251	E52	-3562	-21842	5.8	5.8	3.9	4.7	3.8	4.9
252	E53	-3596	-23162	5.1	5.1	3.4	4.2	3.3	4.3
253	E54	-3630	-24482	4.6	4.6	3.2	4.0	3.0	4.1
254	E55	-3664	-25802	4.3	4.3	2.9	3.7	2.7	3.8
255	E56	-3698	-27122	3.9	3.9	2.5	3.3	2.3	3.4
256	E57	-3732	-28442	3.9	3.9	2.5	3.1	2.3	3.2
257	E58	-3766	-29762	3.6	3.6	2.3	2.7	2.1	2.8
258	E59	-3800	-31082	3.2	3.2	1.9	2.3	1.7	2.4
259	E60	-3834	-32402	2.6	2.6	1.3	1.7	1.2	1.7
260	E61	-3868	-33722	2.1	2.1	1.0	1.2	0.9	1.2
261	E62	-3902	-35042	1.7	1.7	0.7	0.9	0.6	1.0
262	E63	-3936	-36362	1.4	1.4	0.4	0.6	0.4	0.6
263	E64	-3970	-37682	1.2	1.2	0.2	0.3	0.2	0.4
264	E65	-4004	-39002	1.1	1.1	0.3	0.3	0.2	0.4
265	E66	-4038	-40322	0.9	0.9	0.2	0.3	0.1	0.3
266	E67	-4072	-41642	0.8	0.8	0.1	0.2	0.1	0.2
267	E68	-4106	-42962	0.7	0.7	0.1	0.2	0.1	0.3
268	E69	-4140	-44282	0.6	0.6	0.1	0.2	0.1	0.3
269	E70	-4174	-45602	0.5	0.5	0.1	0.1	0.1	0.2
270	E71	-4208	-46922	0.5	0.5	0.1	0.0	0.0	0.0
271	E72	-4242	-48242	0.4	0.4	0.0	0.0	0.0	0.0
272	E73	-4276	-49562	0.2	0.2	0.0	0.0	0.0	0.0
273	F1	-508	45444	1.7	1.7	0.9	0.8	0.9	1.0
274	F2	-542	44124	1.9	1.9	1.1	1.0	1.0	1.1
275	F3	-576	42804	2.2	2.2	1.2	1.1	1.2	1.3
276	F4	-610	41484	2.7	2.7	1.7	1.6	1.7	1.9
277	F5	-644	40164	3.2	3.2	2.1	2.0	2.0	2.3
278	F6	-678	38844	3.6	3.6	2.5	2.5	2.4	2.8
279	F7	-712	37524	4.2	4.2	3.1	3.0	3.0	3.3
280	F8	-746	36204	4.7	4.7	3.5	3.4	3.3	3.8

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
281	F9	-780	34884	5.0	5.0	3.8	3.7	3.6	4.2
282	F10	-814	33564	5.4	5.4	4.1	4.1	4.0	4.6
283	F11	-848	32244	5.8	5.8	4.5	4.5	4.4	5.2
284	F12	-882	30924	6.3	6.3	5.0	5.0	4.9	5.8
285	F13	-916	29604	7.1	7.1	5.8	5.9	5.7	6.7
286	F14	-950	28284	7.9	7.9	6.5	6.5	6.3	7.5
287	F15	-984	26964	8.8	8.8	7.3	7.2	7.2	8.4
288	F16	-1018	25644	9.8	9.8	8.1	7.8	8.3	9.2
289	F17	-1052	24324	11.2	11.2	9.6	9.0	10.0	11.0
290	F18	-1086	23004	12.9	12.9	11.3	9.9	11.8	11.9
291	F19	-1120	21684	13.8	13.8	12.5	10.7	13.0	13.1
292	F20	-1154	20364	16.6	16.6	15.4	12.9	16.3	16.1
293	F21	-1188	19044	19.1	19.1	18.0	15.0	19.0	18.9
294	F22	-1222	17724	22.0	22.0	21.2	17.5	22.3	22.2
295	F23	-1256	16404	25.6	25.6	24.4	20.6	25.6	26.2
296	F24	-1290	15084	26.7	26.7	25.6	22.3	26.9	28.4
297	F25	-1324	13764	28.2	28.2	27.5	25.1	28.9	32.3
298	F26	-1358	12444	29.6	29.6	29.0	27.7	30.4	35.6
299	F27	-1392	11124	29.0	29.0	28.4	29.0	29.8	37.8
300	F28	-1426	9804	29.4	29.4	29.3	31.7	30.8	41.5
301	F29	-1460	8484	30.5	30.5	30.1	33.8	31.8	44.4
302	F30	-1494	7164	34.3	34.3	33.4	48.7	35.7	60.6
303	F31	-1528	5844	44.7	44.7	43.9	110.1	46.6	127.2
304	F32	-1562	4524	66.1	66.1	62.0	128.8	65.9	155.6
305	F33	-1596	3204	97.5	97.5	91.7	137.8	96.0	185.4
306	F34	-1630	1884	107.7	107.7	105.3	118.9	110.9	141.4
307	F35	-1664	564	100.8	100.8	99.4	103.3	103.8	128.1
308	F36	-1698	-756	97.2	97.2	96.5	104.5	101.1	132.6
309	F37	-1732	-2076	100.8	100.8	100.3	127.9	105.6	170.8
310	F38	-1766	-3396	98.5	98.5	97.9	116.5	103.9	147.3
311	F39	-1800	-4716	77.7	77.7	74.5	85.2	79.1	97.6
312	F40	-1834	-6036	50.0	50.0	47.3	52.5	50.4	62.4
313	F41	-1868	-7356	39.4	39.4	38.2	41.2	40.0	49.3
314	F42	-1902	-8676	38.0	38.0	36.1	36.6	37.6	44.0
315	F43	-1936	-9996	33.8	33.8	31.9	31.3	32.8	38.0
316	F44	-1970	-11316	30.4	30.4	28.1	27.2	28.8	32.8
317	F45	-2004	-12636	25.4	25.4	22.2	21.9	22.6	27.0
318	F46	-2038	-13956	21.7	21.7	18.7	18.8	18.9	23.1
319	F47	-2072	-15276	19.5	19.5	16.2	16.1	16.3	19.7
320	F48	-2106	-16596	17.7	17.7	14.5	14.2	14.6	17.2
321	F49	-2140	-17916	15.8	15.8	13.0	12.9	12.9	15.5
322	F50	-2174	-19236	13.6	13.6	11.2	11.1	11.0	12.8
323	F51	-2208	-20556	12.9	12.9	10.6	10.1	10.3	11.2
324	F52	-2242	-21876	11.7	11.7	9.5	9.4	9.2	10.3
325	F53	-2276	-23196	10.7	10.7	8.6	8.6	8.3	9.2
326	F54	-2310	-24516	10.0	10.0	8.1	8.1	7.7	8.4
327	F55	-2344	-25836	9.3	9.3	7.4	7.5	7.1	7.7
328	F56	-2378	-27156	9.2	9.2	7.3	7.2	6.9	7.3
329	F57	-2412	-28476	8.8	8.8	6.8	6.6	6.4	6.7
330	F58	-2446	-29796	8.1	8.1	6.2	5.9	5.8	6.0
331	F59	-2480	-31116	7.3	7.3	5.3	5.1	4.9	5.2
332	F60	-2514	-32436	6.7	6.7	4.8	4.6	4.4	4.6
333	F61	-2548	-33756	6.3	6.3	4.5	4.2	4.1	4.3
334	F62	-2582	-35076	5.5	5.5	3.8	3.8	3.6	3.9
335	F63	-2616	-36396	5.0	5.0	3.4	3.2	3.2	3.4
336	F64	-2650	-37716	4.3	4.3	2.7	2.6	2.5	2.7

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
337	F65	-2684	-39036	3.4	3.4	2.0	1.9	1.9	2.0
338	F66	-2718	-40356	3.0	3.0	1.7	1.6	1.6	1.7
339	F67	-2752	-41676	2.3	2.3	1.2	1.2	1.1	1.3
340	F68	-2786	-42996	1.9	1.9	0.8	1.0	0.7	1.0
341	F69	-2820	-44316	1.4	1.4	0.5	0.6	0.4	0.6
342	F70	-2854	-45636	1.0	1.0	0.4	0.3	0.3	0.3
343	F71	-2888	-46956	0.8	0.8	0.3	0.2	0.2	0.2
344	F72	-2922	-48276	0.5	0.5	0.0	0.1	0.0	0.1
345	F73	-2956	-49596	0.3	0.3	0.0	0.1	0.0	0.1
346	G1	812	45410	1.4	1.4	0.7	0.7	0.6	0.8
347	G2	778	44090	1.6	1.6	0.9	0.9	0.8	1.0
348	G3	744	42770	1.9	1.9	1.1	1.1	1.1	1.2
349	G4	710	41450	2.5	2.5	1.6	1.5	1.5	1.6
350	G5	676	40130	2.9	2.9	1.9	1.8	1.9	2.0
351	G6	642	38810	3.3	3.3	2.3	2.2	2.2	2.3
352	G7	608	37490	3.8	3.8	2.7	2.6	2.6	2.7
353	G8	574	36170	4.2	4.2	3.0	2.9	2.9	3.1
354	G9	540	34850	4.6	4.6	3.4	3.3	3.2	3.5
355	G10	506	33530	5.0	5.0	3.8	3.7	3.6	3.9
356	G11	472	32210	5.4	5.4	4.1	4.1	4.0	4.4
357	G12	438	30890	5.9	5.9	4.7	4.6	4.5	5.0
358	G13	404	29570	6.7	6.7	5.5	5.4	5.3	5.9
359	G14	370	28250	7.5	7.5	6.2	6.2	6.1	6.7
360	G15	336	26930	8.3	8.3	6.9	7.0	6.8	7.6
361	G16	302	25610	9.5	9.5	8.0	8.1	8.1	8.9
362	G17	268	24290	10.9	10.9	9.5	9.5	9.9	10.4
363	G18	234	22970	12.5	12.5	11.1	10.7	11.6	11.4
364	G19	200	21650	13.8	13.8	12.5	12.2	13.1	13.2
365	G20	166	20330	17.0	17.0	15.9	15.5	16.8	16.2
366	G21	132	19010	19.7	19.7	18.6	18.1	19.7	18.6
367	G22	98	17690	23.3	23.3	22.5	21.8	23.9	22.2
368	G23	64	16370	29.5	29.5	28.8	26.7	30.5	27.1
369	G24	30	15050	33.8	33.8	33.5	30.3	35.5	30.7
370	G25	-4	13730	39.4	39.4	39.9	35.1	42.1	35.8
371	G26	-38	12410	44.5	44.5	45.6	39.7	48.1	40.7
372	G27	-72	11090	46.6	46.6	48.0	42.1	50.6	43.5
373	G28	-106	9770	52.3	52.3	54.7	47.1	57.5	49.2
374	G29	-140	8450	57.9	57.9	59.9	51.0	62.9	53.5
375	G30	-174	7130	61.3	61.3	63.9	54.7	67.1	58.3
376	G31	-208	5810	77.4	77.4	79.4	70.5	82.8	74.6
377	G32	-242	4490	98.8	98.8	100.8	153.3	105.3	161.6
378	G33	-276	3170	253.6	253.5	267.5	217.4	286.5	232.3
379	G34	-310	1850	246.1	246.0	257.3	195.8	270.2	221.4
380	G35	-344	530	209.6	209.6	219.2	153.3	230.7	166.8
381	G36	-378	-790	208.6	208.5	218.3	176.6	228.3	195.6
382	G37	-412	-2110	173.2	173.2	180.5	169.7	190.0	195.4
383	G38	-446	-3430	203.1	203.1	213.6	185.6	228.4	198.8
384	G39	-480	-4750	142.5	142.5	147.7	121.7	156.9	128.4
385	G40	-514	-6070	84.6	84.6	88.5	83.5	93.6	82.0
386	G41	-548	-7390	69.1	69.1	72.1	65.5	76.0	67.1
387	G42	-582	-8710	68.5	68.5	70.8	60.1	74.2	60.3
388	G43	-616	-10030	63.6	63.6	64.5	53.6	67.2	53.1
389	G44	-650	-11350	56.0	56.0	57.1	46.4	59.5	46.3
390	G45	-684	-12670	48.6	48.6	47.6	39.3	49.6	38.7
391	G46	-718	-13990	42.9	42.9	41.9	35.2	43.7	34.4
392	G47	-752	-15310	38.2	38.2	37.0	30.7	38.4	29.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
393	G48	-786	-16630	35.2	35.2	33.3	27.7	34.7	26.2
394	G49	-820	-17950	31.1	31.1	29.2	25.1	30.5	24.1
395	G50	-854	-19270	25.2	25.2	23.8	21.0	24.8	20.3
396	G51	-888	-20590	22.5	22.5	20.6	17.9	21.3	17.4
397	G52	-922	-21910	19.4	19.4	17.3	15.5	17.8	15.1
398	G53	-956	-23230	17.1	17.1	15.0	13.8	15.3	13.4
399	G54	-990	-24550	15.9	15.9	13.6	12.4	13.9	12.3
400	G55	-1024	-25870	14.6	14.6	12.5	11.3	12.4	11.3
401	G56	-1058	-27190	13.7	13.7	11.4	10.2	11.2	10.3
402	G57	-1092	-28510	12.5	12.5	10.4	9.1	10.2	9.2
403	G58	-1126	-29830	11.3	11.3	9.2	8.0	8.9	8.0
404	G59	-1160	-31150	10.6	10.6	8.4	7.2	8.0	7.2
405	G60	-1194	-32470	9.9	9.9	7.8	6.7	7.4	6.6
406	G61	-1228	-33790	9.4	9.4	7.3	6.2	6.8	6.2
407	G62	-1262	-35110	8.6	8.6	6.5	5.8	6.1	5.7
408	G63	-1296	-36430	8.3	8.3	6.2	5.5	5.8	5.4
409	G64	-1330	-37750	7.4	7.4	5.4	4.7	5.1	4.6
410	G65	-1364	-39070	6.4	6.4	4.6	3.9	4.3	3.9
411	G66	-1398	-40390	5.6	5.6	3.9	3.2	3.6	3.1
412	G67	-1432	-41710	4.8	4.8	3.2	2.8	3.1	2.8
413	G68	-1466	-43030	3.6	3.6	2.2	2.0	2.1	2.0
414	G69	-1500	-44350	2.7	2.7	1.4	1.2	1.3	1.2
415	G70	-1534	-45670	2.1	2.1	1.0	0.9	0.9	0.9
416	G71	-1568	-46990	1.5	1.5	0.7	0.6	0.6	0.6
417	G72	-1602	-48310	1.0	1.0	0.5	0.3	0.4	0.3
418	G73	-1636	-49630	0.6	0.6	0.2	0.2	0.2	0.2
419	H1	2132	45376	0.7	0.7	0.2	0.2	0.2	0.3
420	H2	2098	44056	0.9	0.9	0.3	0.3	0.3	0.4
421	H3	2064	42736	1.0	1.0	0.4	0.4	0.3	0.5
422	H4	2030	41416	1.3	1.3	0.6	0.7	0.6	0.8
423	H5	1996	40096	1.7	1.7	0.9	0.9	0.9	1.0
424	H6	1962	38776	2.1	2.1	1.3	1.2	1.2	1.3
425	H7	1928	37456	2.4	2.4	1.5	1.5	1.4	1.6
426	H8	1894	36136	2.8	2.8	1.8	1.8	1.7	1.9
427	H9	1860	34816	3.1	3.1	2.0	2.0	1.9	2.2
428	H10	1826	33496	3.4	3.4	2.3	2.3	2.1	2.4
429	H11	1792	32176	3.8	3.8	2.6	2.7	2.4	2.7
430	H12	1758	30856	4.1	4.1	2.9	2.9	2.7	3.1
431	H13	1724	29536	4.7	4.7	3.4	3.5	3.2	3.6
432	H14	1690	28216	5.1	5.1	3.9	3.9	3.6	4.1
433	H15	1656	26896	5.4	5.4	4.2	4.2	3.9	4.4
434	H16	1622	25576	5.9	5.9	4.7	4.7	4.5	5.0
435	H17	1588	24256	6.4	6.4	5.1	5.1	5.0	5.6
436	H18	1554	22936	7.0	7.0	5.7	5.8	5.6	6.2
437	H19	1520	21616	7.4	7.4	6.0	6.0	5.9	6.6
438	H20	1486	20296	8.5	8.5	7.0	7.0	6.9	7.7
439	H21	1452	18976	9.6	9.6	8.1	8.1	8.1	8.9
440	H22	1418	17656	10.6	10.6	9.1	9.1	9.1	10.1
441	H23	1384	16336	13.0	13.0	11.1	11.7	11.2	12.6
442	H24	1350	15016	14.7	14.7	12.7	13.8	13.0	14.6
443	H25	1316	13696	17.5	17.5	15.9	17.4	16.4	18.4
444	H26	1282	12376	21.5	21.5	20.1	21.9	20.8	22.8
445	H27	1248	11056	24.0	24.0	22.8	25.1	23.7	25.9
446	H28	1214	9736	27.8	27.8	27.7	30.3	29.0	31.5
447	H29	1180	8416	32.9	32.9	32.4	35.7	34.1	37.2
448	H30	1146	7096	40.1	40.1	39.8	53.4	42.1	56.5

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
449	H31	1112	5776	60.4	60.4	59.6	102.7	62.2	105.4
450	H32	1078	4456	109.6	112.4	113.5	184.3	126.5	205.0
451	H33	1044	3136	228.9	230.6	243.1	241.9	265.6	268.3
452	H34	1010	1816	312.2	312.7	332.1	271.2	357.2	302.8
453	H35	976	496	277.3	277.4	295.7	323.0	318.4	362.3
454	H36	942	-824	271.2	271.2	289.6	256.3	312.0	296.6
455	H37	908	-2144	466.3	464.6	507.5	283.8	553.2	322.2
456	H38	874	-3464	296.2	295.4	319.8	230.3	351.5	258.0
457	H39	840	-4784	161.1	159.3	170.0	138.4	187.2	153.1
458	H40	806	-6104	87.1	87.1	92.2	81.3	101.4	90.9
459	H41	772	-7424	66.7	66.7	69.2	59.5	73.1	60.5
460	H42	738	-8744	58.6	58.6	59.6	46.1	62.3	45.8
461	H43	704	-10064	53.8	53.8	53.5	41.2	55.5	40.4
462	H44	670	-11384	49.0	49.0	49.0	36.9	50.7	35.9
463	H45	636	-12704	42.7	42.7	40.9	32.1	42.2	30.7
464	H46	602	-14024	37.9	37.9	36.1	28.9	37.4	27.3
465	H47	568	-15344	33.4	33.4	31.5	25.4	32.4	23.7
466	H48	534	-16664	30.7	30.7	28.5	23.4	29.3	20.8
467	H49	500	-17984	27.3	27.3	24.9	21.2	25.6	19.2
468	H50	466	-19304	21.8	21.8	20.0	17.4	20.5	16.2
469	H51	432	-20624	20.3	20.3	18.2	15.4	18.5	14.5
470	H52	398	-21944	18.9	18.9	16.7	14.5	17.0	13.8
471	H53	364	-23264	17.2	17.2	15.2	13.5	15.4	12.7
472	H54	330	-24584	16.4	16.4	14.3	12.5	14.5	11.9
473	H55	296	-25904	15.4	15.4	13.4	11.8	13.4	11.2
474	H56	262	-27224	14.5	14.5	12.3	10.6	12.2	10.3
475	H57	228	-28544	13.5	13.5	11.4	9.5	11.2	9.4
476	H58	194	-29864	12.2	12.2	10.1	8.3	9.8	8.2
477	H59	160	-31184	11.6	11.6	9.4	7.5	9.0	7.5
478	H60	126	-32504	10.8	10.8	8.6	6.9	8.2	6.9
479	H61	92	-33824	10.3	10.3	8.0	6.6	7.6	6.5
480	H62	58	-35144	9.6	9.6	7.4	6.2	7.0	6.1
481	H63	24	-36464	9.1	9.1	6.9	5.6	6.5	5.5
482	H64	-10	-37784	8.4	8.4	6.2	5.0	5.8	4.9
483	H65	-44	-39104	7.6	7.6	5.6	4.4	5.2	4.4
484	H66	-78	-40424	6.8	6.8	4.9	3.7	4.6	3.7
485	H67	-112	-41744	5.8	5.8	4.0	3.1	3.8	3.0
486	H68	-146	-43064	4.7	4.7	3.0	2.4	2.9	2.4
487	H69	-180	-44384	3.7	3.7	2.0	1.6	1.9	1.6
488	H70	-214	-45704	2.7	2.7	1.4	1.1	1.3	1.1
489	H71	-248	-47024	1.9	1.9	0.8	0.7	0.7	0.6
490	H72	-282	-48344	1.3	1.3	0.5	0.4	0.5	0.3
491	H73	-316	-49664	0.7	0.7	0.2	0.2	0.2	0.2
492	I1	3452	45342	0.4	0.4	0.0	0.0	0.0	0.0
493	I2	3418	44022	0.4	0.4	0.0	0.0	0.0	0.0
494	I3	3384	42702	0.4	0.4	0.0	0.0	0.0	0.0
495	I4	3350	41382	0.5	0.5	0.0	0.0	0.0	0.0
496	I5	3316	40062	0.6	0.6	0.1	0.1	0.0	0.1
497	I6	3282	38742	0.7	0.7	0.2	0.2	0.2	0.3
498	I7	3248	37422	0.9	0.9	0.4	0.4	0.3	0.4
499	I8	3214	36102	1.2	1.2	0.6	0.6	0.5	0.6
500	I9	3180	34782	1.5	1.5	0.8	0.8	0.7	0.8
501	I10	3146	33462	1.7	1.7	0.9	1.0	0.9	1.1
502	I11	3112	32142	1.9	1.9	1.1	1.1	1.0	1.2
503	I12	3078	30822	2.2	2.2	1.4	1.4	1.3	1.5
504	I13	3044	29502	2.4	2.4	1.6	1.5	1.5	1.7

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
505	I14	3010	28182	2.6	2.6	1.8	1.8	1.7	1.9
506	I15	2976	26862	3.0	3.0	2.0	2.0	1.9	2.2
507	I16	2942	25542	3.2	3.2	2.2	2.1	2.1	2.3
508	I17	2908	24222	3.3	3.3	2.3	2.2	2.1	2.4
509	I18	2874	22902	3.6	3.6	2.6	2.5	2.4	2.7
510	I19	2840	21582	4.0	4.0	2.8	2.7	2.7	3.0
511	I20	2806	20262	4.6	4.6	3.3	3.1	3.1	3.4
512	I21	2772	18942	5.4	5.4	4.0	3.7	3.8	4.0
513	I22	2738	17622	5.8	5.8	4.4	4.1	4.1	4.4
514	I23	2704	16302	6.8	6.8	5.1	4.7	4.9	5.2
515	I24	2670	14982	7.7	7.7	5.8	5.4	5.7	5.9
516	I25	2636	13662	9.0	9.0	7.1	6.4	7.0	7.1
517	I26	2602	12342	10.6	10.6	8.8	8.0	8.8	8.9
518	I27	2568	11022	11.9	11.9	10.1	9.3	10.2	10.4
519	I28	2534	9702	13.6	13.6	12.2	11.1	12.4	12.5
520	I29	2500	8382	16.7	16.7	15.3	13.9	15.8	15.8
521	I30	2466	7062	21.7	21.7	20.4	20.4	21.7	23.4
522	I31	2432	5742	28.2	28.2	26.2	28.9	27.5	32.8
523	I32	2398	4422	46.2	46.2	40.7	46.7	43.1	51.0
524	I33	2364	3102	78.7	78.7	71.4	61.8	74.2	66.6
525	I34	2330	1782	99.7	99.7	97.6	69.1	102.8	76.9
526	I35	2296	462	96.2	96.2	95.6	64.9	100.7	73.2
527	I36	2262	-858	91.0	91.0	90.1	64.5	94.2	72.5
528	I37	2228	-2178	88.9	88.9	87.4	66.0	91.9	74.0
529	I38	2194	-3498	87.4	87.4	85.8	64.2	90.9	71.8
530	I39	2160	-4818	72.5	72.5	68.8	51.2	72.7	55.5
531	I40	2126	-6138	55.0	55.0	53.1	40.4	56.4	44.6
532	I41	2092	-7458	39.7	39.7	38.7	26.5	40.3	28.9
533	I42	2058	-8778	37.6	37.6	36.0	22.6	37.2	24.5
534	I43	2024	-10098	33.1	33.1	31.6	19.9	32.3	21.4
535	I44	1990	-11418	29.9	29.9	28.0	17.5	28.4	18.7
536	I45	1956	-12738	26.7	26.7	23.7	15.6	24.0	16.5
537	I46	1922	-14058	23.7	23.7	21.2	14.3	21.4	15.1
538	I47	1888	-15378	21.5	21.5	18.9	13.0	19.0	13.6
539	I48	1854	-16698	20.1	20.1	17.2	12.0	17.3	12.5
540	I49	1820	-18018	17.9	17.9	15.3	11.1	15.3	11.5
541	I50	1786	-19338	15.5	15.5	13.3	9.8	13.3	10.2
542	I51	1752	-20658	15.1	15.1	12.8	9.3	12.7	9.6
543	I52	1718	-21978	14.1	14.1	11.9	8.9	11.7	9.2
544	I53	1684	-23298	13.0	13.0	10.9	8.3	10.7	8.5
545	I54	1650	-24618	12.6	12.6	10.4	8.1	10.2	8.2
546	I55	1616	-25938	11.9	11.9	9.9	7.6	9.6	7.7
547	I56	1582	-27258	11.7	11.7	9.5	7.5	9.2	7.5
548	I57	1548	-28578	11.1	11.1	9.0	6.8	8.6	6.9
549	I58	1514	-29898	10.3	10.3	8.2	6.2	7.8	6.2
550	I59	1480	-31218	9.8	9.8	7.6	5.7	7.1	5.6
551	I60	1446	-32538	9.3	9.3	7.1	5.2	6.7	5.2
552	I61	1412	-33858	8.9	8.9	6.8	5.2	6.3	5.2
553	I62	1378	-35178	8.1	8.1	6.0	4.6	5.5	4.6
554	I63	1344	-36498	7.7	7.7	5.6	4.1	5.2	4.1
555	I64	1310	-37818	7.2	7.2	5.1	3.7	4.8	3.7
556	I65	1276	-39138	6.5	6.5	4.6	3.1	4.3	3.2
557	I66	1242	-40458	5.8	5.8	3.9	2.6	3.7	2.7
558	I67	1208	-41778	4.8	4.8	3.2	2.1	3.1	2.2
559	I68	1174	-43098	4.5	4.5	2.7	1.9	2.6	2.0
560	I69	1140	-44418	3.7	3.7	2.0	1.5	2.0	1.6

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
561	I70	1106	-45738	2.8	2.8	1.3	1.0	1.3	1.0
562	I71	1072	-47058	2.1	2.1	0.9	0.6	0.8	0.6
563	I72	1038	-48378	1.3	1.3	0.3	0.3	0.3	0.2
564	I73	1004	-49698	0.9	0.9	0.1	0.1	0.1	0.1
565	J8	4534	36068	0.4	0.4	0.0	0.0	0.0	0.0
566	J9	4500	34748	0.4	0.4	0.0	0.0	0.0	0.0
567	J10	4466	33428	0.4	0.4	0.0	0.0	0.0	0.0
568	J11	4432	32108	0.4	0.4	0.0	0.1	0.0	0.1
569	J12	4398	30788	0.5	0.5	0.1	0.1	0.1	0.2
570	J13	4364	29468	0.7	0.7	0.2	0.2	0.2	0.3
571	J14	4330	28148	0.7	0.7	0.3	0.3	0.3	0.4
572	J15	4296	26828	0.8	0.8	0.3	0.4	0.3	0.4
573	J16	4262	25508	0.9	0.9	0.4	0.4	0.4	0.5
574	J17	4228	24188	1.0	1.0	0.4	0.4	0.4	0.6
575	J18	4194	22868	1.1	1.1	0.5	0.5	0.5	0.7
576	J19	4160	21548	1.4	1.4	0.7	0.7	0.7	0.9
577	J20	4126	20228	1.6	1.6	0.8	0.7	0.8	0.9
578	J21	4092	18908	1.9	1.9	1.0	0.9	1.0	1.1
579	J22	4058	17588	2.1	2.1	1.1	1.0	1.0	1.2
580	J23	4024	16268	2.4	2.4	1.1	1.1	1.1	1.3
581	J24	3990	14948	2.9	2.9	1.5	1.4	1.5	1.6
582	J25	3956	13628	3.6	3.6	2.0	1.8	1.9	2.0
583	J26	3922	12308	4.5	4.5	3.0	2.5	2.9	2.9
584	J27	3888	10988	5.5	5.5	4.0	3.4	3.9	3.8
585	J28	3854	9668	6.6	6.6	5.0	4.3	5.0	4.9
586	J29	3820	8348	8.1	8.1	6.4	5.5	6.4	6.2
587	J30	3786	7028	9.7	9.7	7.9	7.0	8.2	8.0
588	J31	3752	5708	11.6	11.6	10.0	9.1	10.6	10.4
589	J32	3718	4388	16.2	16.2	12.9	12.9	13.9	14.8
590	J33	3684	3068	24.5	24.5	18.7	17.1	20.2	19.4
591	J34	3650	1748	32.4	32.4	25.8	20.1	27.3	23.0
592	J35	3616	428	36.8	36.8	30.9	21.8	32.3	24.8
593	J36	3582	-892	37.3	37.3	32.1	22.4	33.5	25.4
594	J37	3548	-2212	34.9	34.9	29.7	21.2	31.2	24.2
595	J38	3514	-3532	31.1	31.1	26.1	18.3	27.7	21.2
596	J39	3480	-4852	25.6	25.6	21.2	14.3	22.6	16.3
597	J40	3446	-6172	20.6	20.6	17.3	11.3	18.0	12.3
598	J41	3412	-7492	18.4	18.4	15.9	9.7	16.2	10.4
599	J42	3378	-8812	18.6	18.6	15.9	9.2	16.0	9.8
600	J43	3344	-10132	16.9	16.9	14.2	8.1	14.2	8.6
601	J44	3310	-11452	15.0	15.0	12.2	7.2	12.1	7.6
602	J45	3276	-12772	13.9	13.9	10.8	6.4	10.7	6.7
603	J46	3242	-14092	13.0	13.0	10.1	6.2	9.9	6.4
604	J47	3208	-15412	12.2	12.2	9.2	5.7	8.9	5.9
605	J48	3174	-16732	11.5	11.5	8.7	5.6	8.5	5.7
606	J49	3140	-18052	10.4	10.4	7.9	5.2	7.7	5.4
607	J50	3106	-19372	9.6	9.6	7.3	4.8	7.0	5.0
608	J51	3072	-20692	9.5	9.5	7.2	4.7	7.0	4.8
609	J52	3038	-22012	8.7	8.7	6.5	4.2	6.2	4.4
610	J53	3004	-23332	8.1	8.1	6.1	4.1	5.8	4.2
611	J54	2970	-24652	7.5	7.5	5.6	3.8	5.4	3.9
612	J55	2936	-25972	7.5	7.5	5.6	4.0	5.3	4.1
613	J56	2902	-27292	7.1	7.1	5.2	3.6	4.8	3.8
614	J57	2868	-28612	6.9	6.9	5.0	3.5	4.7	3.6
615	J58	2834	-29932	6.7	6.7	4.8	3.2	4.5	3.4
616	J59	2800	-31252	6.1	6.1	4.2	2.8	3.9	2.9

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
617	J60	2766	-32572	5.8	5.8	4.0	2.5	3.7	2.6
618	J61	2732	-33892	5.5	5.5	3.7	2.4	3.4	2.5
619	J62	2698	-35212	4.8	4.8	3.1	2.1	3.0	2.2
620	J63	2664	-36532	4.5	4.5	2.8	1.9	2.7	2.0
621	J64	2630	-37852	4.3	4.3	2.6	1.6	2.5	1.7
622	J65	2596	-39172	4.1	4.1	2.5	1.6	2.4	1.7
623	J66	2562	-40492	3.8	3.8	2.3	1.4	2.2	1.5
624	J67	2528	-41812	3.5	3.5	2.1	1.3	2.1	1.5
625	J68	2494	-43132	3.4	3.4	1.9	1.3	1.9	1.4
626	J69	2460	-44452	3.2	3.2	1.7	1.2	1.7	1.3
627	J70	2426	-45772	2.7	2.7	1.3	1.0	1.3	1.0
628	J71	2392	-47092	2.2	2.2	0.9	0.6	0.9	0.7
629	J72	2358	-48412	1.7	1.7	0.5	0.3	0.5	0.4
630	J73	2324	-49732	1.0	1.0	0.1	0.1	0.1	0.1
631	K15	5616	26794	0.2	0.2	0.0	0.0	0.0	0.0
632	K16	5582	25474	0.2	0.2	0.0	0.0	0.0	0.0
633	K17	5548	24154	0.2	0.2	0.0	0.0	0.0	0.0
634	K18	5514	22834	0.3	0.3	0.0	0.0	0.0	0.0
635	K19	5480	21514	0.3	0.3	0.0	0.0	0.0	0.0
636	K20	5446	20194	0.4	0.4	0.0	0.0	0.0	0.0
637	K21	5412	18874	0.5	0.5	0.0	0.0	0.1	0.1
638	K22	5378	17554	0.6	0.6	0.0	0.0	0.1	0.1
639	K23	5344	16234	0.7	0.7	0.0	0.0	0.1	0.1
640	K24	5310	14914	0.8	0.8	0.1	0.0	0.1	0.1
641	K25	5276	13594	0.9	0.9	0.1	0.1	0.1	0.2
642	K26	5242	12274	1.1	1.1	0.2	0.1	0.2	0.3
643	K27	5208	10954	1.4	1.4	0.4	0.3	0.4	0.5
644	K28	5174	9634	1.7	1.7	0.7	0.5	0.7	0.7
645	K29	5140	8314	2.2	2.2	1.1	0.9	1.2	1.1
646	K30	5106	6994	3.0	3.0	1.7	1.4	1.9	1.8
647	K31	5072	5674	3.7	3.7	2.4	2.0	2.6	2.5
648	K32	5038	4354	4.8	4.8	3.4	2.9	3.8	3.5
649	K33	5004	3034	6.9	6.9	4.6	3.8	5.2	4.7
650	K34	4970	1714	9.6	9.6	6.0	4.2	6.9	5.3
651	K35	4936	394	11.1	11.1	6.9	4.5	7.9	5.7
652	K36	4902	-926	12.3	12.3	8.0	5.0	8.9	6.3
653	K37	4868	-2246	12.0	12.0	7.9	4.9	8.7	6.2
654	K38	4834	-3566	10.6	10.6	7.3	4.1	7.9	5.1
655	K39	4800	-4886	8.6	8.6	6.0	3.1	6.4	3.7
656	K40	4766	-6206	7.7	7.7	5.5	2.5	5.8	2.9
657	K41	4732	-7526	7.3	7.3	5.1	2.2	5.3	2.6
658	K42	4698	-8846	6.9	6.9	4.6	2.0	4.7	2.3
659	K43	4664	-10166	6.3	6.3	4.0	1.7	4.1	2.0
660	K44	4630	-11486	5.5	5.5	3.3	1.4	3.3	1.6
661	K45	4596	-12806	5.0	5.0	2.8	1.3	2.8	1.5
662	K46	4562	-14126	4.5	4.5	2.4	1.1	2.4	1.3
663	K47	4528	-15446	4.0	4.0	1.9	1.0	1.9	1.1
664	K48	4494	-16766	3.6	3.6	1.6	0.9	1.7	1.0
665	K49	4460	-18086	3.5	3.5	1.7	0.9	1.7	1.0
666	K50	4426	-19406	3.1	3.1	1.5	0.8	1.5	0.9
667	K51	4392	-20726	2.9	2.9	1.4	0.8	1.5	0.9
668	K52	4358	-22046	3.0	3.0	1.5	0.9	1.6	1.0
669	K53	4324	-23366	2.7	2.7	1.3	0.8	1.4	0.9
670	K54	4290	-24686	2.6	2.6	1.3	0.9	1.4	1.0
671	K55	4256	-26006	2.3	2.3	1.1	0.8	1.1	0.9
672	K56	4222	-27326	2.4	2.4	1.1	0.8	1.1	0.9

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
673	K57	4188	-28646	2.3	2.3	1.1	0.8	1.1	0.9
674	K58	4154	-29966	2.1	2.1	0.9	0.7	0.9	0.8
675	K59	4120	-31286	2.2	2.2	1.0	0.7	1.0	0.8
676	K60	4086	-32606	2.2	2.2	1.0	0.7	1.0	0.8
677	K61	4052	-33926	1.9	1.9	0.8	0.6	0.8	0.7
678	K62	4018	-35246	2.0	2.0	0.9	0.7	0.9	0.7
679	K63	3984	-36566	1.9	1.9	0.8	0.6	0.8	0.7
680	K64	3950	-37886	1.9	1.9	0.8	0.6	0.8	0.7
681	K65	3916	-39206	2.0	2.0	0.9	0.6	1.0	0.7
682	K66	3882	-40526	2.0	2.0	1.1	0.7	1.2	0.8
683	K67	3848	-41846	2.3	2.3	1.3	0.8	1.3	0.9
684	K68	3814	-43166	2.5	2.5	1.4	1.0	1.4	1.1
685	K69	3780	-44486	2.6	2.6	1.5	1.0	1.5	1.1
686	K70	3746	-45806	2.6	2.6	1.4	0.9	1.4	1.0
687	K71	3712	-47126	2.1	2.1	1.0	0.7	1.0	0.8
688	K72	3678	-48446	1.8	1.8	0.7	0.5	0.8	0.5
689	K73	3644	-49766	1.2	1.2	0.3	0.2	0.3	0.2
690	L24	6630	14880	0.3	0.3	0.0	0.0	0.0	0.0
691	L25	6596	13560	0.3	0.3	0.0	0.0	0.0	0.0
692	L26	6562	12240	0.4	0.4	0.0	0.0	0.0	0.0
693	L27	6528	10920	0.5	0.5	0.0	0.0	0.0	0.0
694	L28	6494	9600	0.5	0.5	0.0	0.0	0.0	0.0
695	L29	6460	8280	0.6	0.6	0.1	0.0	0.1	0.1
696	L30	6426	6960	0.8	0.8	0.2	0.1	0.2	0.1
697	L31	6392	5640	1.0	1.0	0.3	0.2	0.3	0.3
698	L32	6358	4320	1.1	1.1	0.4	0.3	0.4	0.4
699	L33	6324	3000	1.1	1.1	0.3	0.3	0.4	0.3
700	L34	6290	1680	1.4	1.4	0.4	0.3	0.5	0.4
701	L35	6256	360	2.2	2.2	0.7	0.4	0.8	0.5
702	L36	6222	-960	2.6	2.6	0.8	0.4	0.9	0.5
703	L37	6188	-2280	2.5	2.5	0.8	0.4	0.8	0.5
704	L38	6154	-3600	2.0	2.0	0.7	0.3	0.7	0.3
705	L39	6120	-4920	1.8	1.8	0.6	0.2	0.7	0.3
706	L40	6086	-6240	1.8	1.8	0.7	0.3	0.8	0.3
707	L41	6052	-7560	1.9	1.9	0.7	0.2	0.7	0.3
708	L42	6018	-8880	1.7	1.7	0.5	0.2	0.5	0.2
709	L43	5984	-10200	1.6	1.6	0.4	0.1	0.4	0.2
710	L44	5950	-11520	1.5	1.5	0.2	0.1	0.3	0.1
711	L45	5916	-12840	1.3	1.3	0.1	0.0	0.1	0.0
712	L46	5882	-14160	1.1	1.1	0.1	0.0	0.1	0.0
713	L47	5848	-15480	1.0	1.0	0.0	0.0	0.1	0.0
714	L48	5814	-16800	1.1	1.1	0.1	0.0	0.1	0.0
715	L49	5780	-18120	1.0	1.0	0.0	0.0	0.1	0.0
716	L50	5746	-19440	0.9	0.9	0.1	0.0	0.1	0.0
717	L51	5712	-20760	0.8	0.8	0.0	0.0	0.1	0.0
718	L52	5678	-22080	0.7	0.7	0.0	0.0	0.1	0.0
719	L53	5644	-23400	0.7	0.7	0.0	0.0	0.1	0.0
720	L54	5610	-24720	0.6	0.6	0.0	0.0	0.1	0.0
721	L55	5576	-26040	0.6	0.6	0.0	0.0	0.0	0.0
722	L56	5542	-27360	0.6	0.6	0.0	0.0	0.0	0.0
723	L57	5508	-28680	0.5	0.5	0.0	0.0	0.0	0.0
724	L58	5474	-30000	0.5	0.5	0.0	0.0	0.0	0.0
725	L59	5440	-31320	0.5	0.5	0.0	0.0	0.0	0.0
726	L60	5406	-32640	0.5	0.5	0.0	0.0	0.0	0.0
727	L61	5372	-33960	0.5	0.5	0.0	0.0	0.0	0.0
728	L62	5338	-35280	0.5	0.5	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
729	L63	5304	-36600	0.5	0.5	0.0	0.0	0.0	0.0
730	L64	5270	-37920	0.6	0.6	0.0	0.0	0.0	0.0
731	L65	5236	-39240	0.6	0.6	0.1	0.0	0.1	0.0
732	L66	5202	-40560	0.9	0.9	0.2	0.1	0.3	0.1
733	L67	5168	-41880	1.1	1.1	0.5	0.2	0.5	0.3
734	L68	5134	-43200	1.4	1.4	0.7	0.4	0.7	0.5
735	L69	5100	-44520	1.8	1.8	1.1	0.7	1.1	0.7
736	L70	5066	-45840	1.9	1.9	1.1	0.7	1.2	0.8
737	L71	5032	-47160	1.9	1.9	1.1	0.7	1.1	0.7
738	L72	4998	-48480	1.8	1.8	0.9	0.5	0.9	0.6
739	L73	4964	-49800	1.3	1.3	0.4	0.3	0.5	0.3
740	M28	7814	9566	0.0	0.0	0.0	0.0	0.0	0.0
741	M29	7780	8246	0.1	0.1	0.0	0.0	0.0	0.0
742	M30	7746	6926	0.1	0.1	0.0	0.0	0.0	0.0
743	M31	7712	5606	0.1	0.1	0.0	0.0	0.0	0.0
744	M32	7678	4286	0.2	0.2	0.0	0.0	0.0	0.0
745	M33	7644	2966	0.2	0.2	0.0	0.0	0.0	0.0
746	M34	7610	1646	0.1	0.1	0.0	0.0	0.0	0.0
747	M35	7576	326	0.1	0.1	0.0	0.0	0.0	0.0
748	M36	7542	-994	0.0	0.0	0.0	0.0	0.0	0.0
749	M37	7508	-2314	0.1	0.1	0.0	0.0	0.0	0.0
750	M38	7474	-3634	0.2	0.2	0.0	0.0	0.0	0.0
751	M39	7440	-4954	0.2	0.2	0.0	0.0	0.0	0.0
752	M40	7406	-6274	0.2	0.2	0.0	0.0	0.0	0.0
753	M41	7372	-7594	0.2	0.2	0.0	0.0	0.0	0.0
754	M42	7338	-8914	0.3	0.3	0.0	0.0	0.0	0.0
755	M43	7304	-10234	0.3	0.3	0.0	0.0	0.0	0.0
756	M44	7270	-11554	0.3	0.3	0.0	0.0	0.0	0.0
757	M45	7236	-12874	0.4	0.4	0.0	0.0	0.0	0.0
758	M46	7202	-14194	0.4	0.4	0.0	0.0	0.0	0.0
759	M47	7168	-15514	0.4	0.4	0.0	0.0	0.0	0.0
760	M48	7134	-16834	0.4	0.4	0.0	0.0	0.0	0.0
761	M49	7100	-18154	0.2	0.2	0.0	0.0	0.0	0.0
762	M50	7066	-19474	0.2	0.2	0.0	0.0	0.0	0.0
763	M51	7032	-20794	0.1	0.1	0.0	0.0	0.0	0.0
764	M52	6998	-22114	0.1	0.1	0.0	0.0	0.0	0.0
765	M53	6964	-23434	0.1	0.1	0.0	0.0	0.0	0.0
766	M54	6930	-24754	0.1	0.1	0.0	0.0	0.0	0.0
767	M55	6896	-26074	0.0	0.0	0.0	0.0	0.0	0.0
768	M56	6862	-27394	0.0	0.0	0.0	0.0	0.0	0.0
769	M57	6828	-28714	0.0	0.0	0.0	0.0	0.0	0.0
770	M58	6794	-30034	0.0	0.0	0.0	0.0	0.0	0.0
771	M59	6760	-31354	0.0	0.0	0.0	0.0	0.0	0.0
772	M60	6726	-32674	0.0	0.0	0.0	0.0	0.0	0.0
773	M61	6692	-33994	0.0	0.0	0.0	0.0	0.0	0.0
774	M62	6658	-35314	0.0	0.0	0.0	0.0	0.0	0.0
775	M63	6624	-36634	0.0	0.0	0.0	0.0	0.0	0.0
776	M64	6590	-37954	0.1	0.1	0.0	0.0	0.0	0.0
777	M65	6556	-39274	0.2	0.2	0.0	0.0	0.0	0.0
778	M66	6522	-40594	0.3	0.3	0.0	0.0	0.0	0.0
779	M67	6488	-41914	0.4	0.4	0.0	0.0	0.0	0.0
780	M68	6454	-43234	0.7	0.7	0.2	0.1	0.2	0.1
781	M69	6420	-44554	1.0	1.0	0.6	0.3	0.6	0.3
782	M70	6386	-45874	1.3	1.3	0.8	0.4	0.8	0.5
783	M71	6352	-47194	1.5	1.5	0.9	0.5	1.0	0.6
784	M72	6318	-48514	1.6	1.6	0.9	0.5	0.9	0.6

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
785	M73	6284	-49834	1.4	1.4	0.6	0.4	0.6	0.5
786	N38	8794	-3668	0.0	0.0	0.0	0.0	0.0	0.0
787	N39	8760	-4988	0.0	0.0	0.0	0.0	0.0	0.0
788	N40	8726	-6308	0.0	0.0	0.0	0.0	0.0	0.0
789	N41	8692	-7628	0.0	0.0	0.0	0.0	0.0	0.0
790	N42	8658	-8948	0.0	0.0	0.0	0.0	0.0	0.0
791	N43	8624	-10268	0.0	0.0	0.0	0.0	0.0	0.0
792	N44	8590	-11588	0.0	0.0	0.0	0.0	0.0	0.0
793	N45	8556	-12908	0.0	0.0	0.0	0.0	0.0	0.0
794	N67	7808	-41948	0.1	0.1	0.0	0.0	0.0	0.0
795	N68	7774	-43268	0.3	0.3	0.0	0.0	0.0	0.0
796	N69	7740	-44588	0.4	0.4	0.1	0.0	0.1	0.0
797	N70	7706	-45908	0.8	0.8	0.3	0.1	0.4	0.1
798	N71	7672	-47228	1.0	1.0	0.5	0.2	0.5	0.2
799	NSF:A2	-211	29983	6.9	6.9	5.6	5.6	5.5	6.3
800	NSF:A4	7371	16174	0.0	0.0	0.0	0.0	0.0	0.0
801	NSF:A5	-1123	35137	4.9	4.9	3.6	3.6	3.4	4.1
802	NSF:A6	1725	32917	3.7	3.7	2.5	2.5	2.3	2.6
803	NSF:A7	965	35389	4.1	4.1	2.9	2.8	2.8	3.0
804	NSF:A8	2868	26738	3.2	3.2	2.2	2.2	2.1	2.3
805	NSF:A9	8593	-17214	0.0	0.0	0.0	0.0	0.0	0.0
806	NSF:C1	3519	-33425	3.3	3.3	1.9	1.2	1.9	1.3
807	NSF:C10	-8024	7589	0.0	0.0	0.0	0.0	0.0	0.0
808	NSF:C11	-1535	-46185	1.9	1.9	0.9	0.7	0.8	0.7
809	NSF:C15	-3260	-41687	1.6	1.6	0.6	0.8	0.5	0.9
810	NSF:C16	2631	-42354	3.3	3.3	1.9	1.2	1.9	1.3
811	NSF:C17	-3636	10597	7.6	7.6	5.8	7.2	5.7	9.9
812	NSF:C19	-6737	-6317	0.5	0.5	0.0	0.4	0.0	0.4
813	NSF:C2	6733	-4869	0.8	0.8	0.1	0.0	0.1	0.1
814	NSF:C21	3694	-38594	2.2	2.2	1.1	0.7	1.1	0.8
815	NSF:C22	295	-16585	33.1	33.1	31.0	26.3	32.1	22.8
816	NSF:C23	-4396	-15838	3.7	3.7	1.8	3.2	1.8	3.3
817	NSF:C24	-3498	-16804	8.5	8.5	5.9	7.2	5.6	7.9
818	NSF:C28	-5727	-46163	0.3	0.3	0.1	0.1	0.0	0.1
819	NSF:C29	-386	-17316	35.5	35.5	34.1	29.6	35.5	26.0
820	NSF:C3	158	16285	28.2	28.2	27.3	26.3	28.9	26.5
821	NSF:C31	-6076	-46160	0.2	0.2	0.0	0.1	0.0	0.1
822	NSF:C32	-5243	-46778	0.3	0.3	0.1	0.0	0.0	0.0
823	NSF:C34	-8355	-45977	0.1	0.1	0.0	0.0	0.0	0.0
824	NSF:C35	-6358	-9758	1.0	1.0	0.1	0.3	0.1	0.4
825	NSF:C37	-5175	-47057	0.3	0.3	0.1	0.0	0.0	0.0
826	NSF:C38	-6431	-10969	1.0	1.0	0.1	0.3	0.1	0.3
827	NSF:C39	375	-25346	15.7	15.7	13.7	11.9	13.7	11.4
828	NSF:C40	1436	-17815	20.8	20.8	18.2	13.4	18.3	13.8
829	NSF:C41	-3379	-9386	16.4	16.4	13.5	15.0	13.5	18.0
830	NSF:C42	3398	-21504	7.4	7.4	5.4	3.2	5.1	3.4
831	NSF:C43	-1910	-46273	1.5	1.5	0.7	0.6	0.6	0.6
832	NSF:C44	-3883	-5925	13.2	13.2	10.2	14.6	10.5	15.7
833	NSF:C45	-11988	-45354	0.0	0.0	0.0	0.0	0.0	0.0
834	NSF:C46	7657	-34889	0.0	0.0	0.0	0.0	0.0	0.0
835	NSF:C47	2243	-24977	10.3	10.3	8.3	6.1	8.0	6.2
836	NSF:C48	-4412	-46071	0.5	0.5	0.1	0.1	0.1	0.1
837	NSF:C49	327	-14936	36.7	36.7	35.4	29.3	36.6	27.1
838	NSF:C5	7014	-34786	0.0	0.0	0.0	0.0	0.0	0.0
839	NSF:C50	-3930	-8365	11.9	11.9	9.2	11.2	9.1	11.8
840	NSF:C51	1801	-19460	15.3	15.3	13.2	9.6	13.1	10.0

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
841	NSF:C52	-545	-16569	36.6	36.6	35.0	29.7	36.5	27.0
842	NSF:C54	-1015	-44926	2.8	2.8	1.5	1.2	1.4	1.2
843	NSF:C55	-2036	-28310	10.0	10.0	8.0	7.6	7.5	7.6
844	NSF:C56	-706	-17175	34.5	34.5	32.9	27.9	34.2	25.9
845	NSF:C57	-1539	-38607	6.5	6.5	4.6	4.1	4.3	4.0
846	NSF:C6	-3386	14577	7.9	7.9	5.9	8.1	5.8	11.6
847	NSF:C7	-9769	-3190	0.0	0.0	0.0	0.0	0.0	0.0
848	NSF:C8	4616	906	14.6	14.6	9.8	6.9	10.9	8.4
849	NSF:C9	-1833	-42273	3.6	3.6	2.2	2.1	2.1	2.1
850	NSF:H1	-7607	3626	0.1	0.1	0.0	0.1	0.0	0.2
851	NSF:H3	-9363	9969	0.0	0.0	0.0	0.0	0.0	0.0
852	NSF:H4	-847	52617	0.6	0.6	0.1	0.1	0.1	0.2
853	NSF:H5	-9746	14394	0.0	0.0	0.0	0.0	0.0	0.0
854	NSF:H6	196	41454	2.7	2.7	1.8	1.7	1.7	1.8
855	NSF:H7	-6721	-8029	0.7	0.7	0.0	0.4	0.0	0.4
856	NSF:H8	24064	-3304	0.0	0.0	0.0	0.0	0.0	0.0
857	NSF:H9,H2	3310	14284	5.7	5.7	4.0	3.5	3.9	3.9
858	NSF:A16	-3769	5168	9.6	9.6	7.6	19.7	8.0	25.8
859	NSF:A17	-10252	3250	0.0	0.0	0.0	0.0	0.0	0.0
860	NSF:A18	-4084	10600	5.6	5.6	4.0	5.3	3.9	7.5
861	NSF:A19	-4459	10520	4.1	4.1	2.6	3.8	2.6	5.6
862	NSF:A21	-8598	14208	0.0	0.0	0.0	0.0	0.0	0.0
863	NSF:A23	-8593	5937	0.0	0.0	0.0	0.0	0.0	0.0
864	NSF:A24	-6444	1414	0.6	0.6	0.1	0.9	0.1	1.5
865	NSF:A25	-10056	6676	0.0	0.0	0.0	0.0	0.0	0.0
866	NSF:A26	-9629	5763	0.0	0.0	0.0	0.0	0.0	0.0
867	NSF:A27	-1721	10484	21.4	21.4	19.8	26.7	20.4	36.7
868	NSF:A28	-7306	6683	0.1	0.1	0.0	0.0	0.0	0.2
869	NSF:A30	-9295	6729	0.0	0.0	0.0	0.0	0.0	0.0
870	NSF:A33	-5199	-16624	1.5	1.5	0.1	0.5	0.2	0.6
871	NSF:A35	-4683	-17794	2.2	2.2	0.6	1.8	0.7	1.9
872	NSF:A36	-3592	-17475	7.7	7.7	5.2	6.5	5.0	7.0
873	NSF:A37	-3210	-16253	10.3	10.3	7.5	8.8	7.2	10.8
874	NSF:A38	-2833	-16231	13.0	13.0	10.0	10.9	9.7	14.2
875	NSF:A39	-2723	-17093	13.0	13.0	10.3	11.1	10.1	14.3
876	NSF:A40	-3398	-16730	9.1	9.1	6.5	7.7	6.2	8.7
877	NSF:A41	-5715	-14665	1.1	1.1	0.1	0.3	0.1	0.4
878	NSF:A42	-2195	-14884	18.5	18.5	15.4	15.9	15.5	20.0
879	NSF:A43	-3289	-16236	9.9	9.9	7.2	8.4	6.9	9.8
880	NSF:A44	362	-38516	7.8	7.8	5.7	4.5	5.3	4.4
881	NSF:A45	-1521	-35379	8.0	8.0	6.0	5.5	5.6	5.4
882	NSF:A46	467	-43229	4.6	4.6	2.9	2.1	2.7	2.1
883	NSF:A47	9405	-16129	0.0	0.0	0.0	0.0	0.0	0.0
884	NSF:A48	8774	-15397	0.0	0.0	0.0	0.0	0.0	0.0
885	NSF:A49	8535	-14947	0.0	0.0	0.0	0.0	0.0	0.0
886	NSF:A50	8073	-19454	0.0	0.0	0.0	0.0	0.0	0.0
887	NSF:A51	6682	-15011	0.6	0.6	0.0	0.0	0.0	0.0
888	NSF:A52	10177	-14528	0.0	0.0	0.0	0.0	0.0	0.0
889	NSF:A53	-9333	-2539	0.0	0.0	0.0	0.0	0.0	0.0
890	NSF:A54	-9413	-2464	0.0	0.0	0.0	0.0	0.0	0.0
891	NSF:A55	-9348	-2527	0.0	0.0	0.0	0.0	0.0	0.0
892	NSF:A58	6533	-14596	0.7	0.7	0.0	0.0	0.0	0.0
893	NSF:A59	5058	7030	3.1	3.1	1.9	1.5	2.0	1.9
894	NSF:A61	2879	26723	3.2	3.2	2.2	2.1	2.1	2.3
895	NSF:A62	-1961	32677	4.7	4.7	3.4	3.6	3.1	4.1
896	NSF:A63	5774	13792	0.6	0.6	0.0	0.0	0.0	0.1

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
785	M73	6284	-49834	1.4	1.4	0.6	0.4	0.6	0.5
786	N38	8794	-3668	0.0	0.0	0.0	0.0	0.0	0.0
787	N39	8760	-4988	0.0	0.0	0.0	0.0	0.0	0.0
788	N40	8726	-6308	0.0	0.0	0.0	0.0	0.0	0.0
789	N41	8692	-7628	0.0	0.0	0.0	0.0	0.0	0.0
790	N42	8658	-8948	0.0	0.0	0.0	0.0	0.0	0.0
791	N43	8624	-10268	0.0	0.0	0.0	0.0	0.0	0.0
792	N44	8590	-11588	0.0	0.0	0.0	0.0	0.0	0.0
793	N45	8556	-12908	0.0	0.0	0.0	0.0	0.0	0.0
794	N67	7808	-41948	0.1	0.1	0.0	0.0	0.0	0.0
795	N68	7774	-43268	0.3	0.3	0.0	0.0	0.0	0.0
796	N69	7740	-44588	0.4	0.4	0.1	0.0	0.1	0.0
797	N70	7706	-45908	0.8	0.8	0.3	0.1	0.4	0.1
798	N71	7672	-47228	1.0	1.0	0.5	0.2	0.5	0.2
799	NSF:A2	-211	29983	6.9	6.9	5.6	5.6	5.5	6.3
800	NSF:A4	7371	16174	0.0	0.0	0.0	0.0	0.0	0.0
801	NSF:A5	-1123	35137	4.9	4.9	3.6	3.6	3.4	4.1
802	NSF:A6	1725	32917	3.7	3.7	2.5	2.5	2.3	2.6
803	NSF:A7	965	35389	4.1	4.1	2.9	2.8	2.8	3.0
804	NSF:A8	2868	26738	3.2	3.2	2.2	2.2	2.1	2.3
805	NSF:A9	8593	-17214	0.0	0.0	0.0	0.0	0.0	0.0
806	NSF:C1	3519	-33425	3.3	3.3	1.9	1.2	1.9	1.3
807	NSF:C10	-8024	7589	0.0	0.0	0.0	0.0	0.0	0.0
808	NSF:C11	-1535	-46185	1.9	1.9	0.9	0.7	0.8	0.7
809	NSF:C15	-3260	-41687	1.6	1.6	0.6	0.8	0.5	0.9
810	NSF:C16	2631	-42354	3.3	3.3	1.9	1.2	1.9	1.3
811	NSF:C17	-3636	10597	7.6	7.6	5.8	7.2	5.7	9.9
812	NSF:C19	-6737	-6317	0.5	0.5	0.0	0.4	0.0	0.4
813	NSF:C2	6733	-4869	0.8	0.8	0.1	0.0	0.1	0.1
814	NSF:C21	3694	-38594	2.2	2.2	1.1	0.7	1.1	0.8
815	NSF:C22	295	-16585	33.1	33.1	31.0	26.3	32.1	22.8
816	NSF:C23	-4396	-15838	3.7	3.7	1.8	3.2	1.8	3.3
817	NSF:C24	-3498	-16804	8.5	8.5	5.9	7.2	5.6	7.9
818	NSF:C28	-5727	-46163	0.3	0.3	0.1	0.1	0.0	0.1
819	NSF:C29	-386	-17316	35.5	35.5	34.1	29.6	35.5	26.0
820	NSF:C3	158	16285	28.2	28.2	27.3	26.3	28.9	26.5
821	NSF:C31	-6076	-46160	0.2	0.2	0.0	0.1	0.0	0.1
822	NSF:C32	-5243	-46778	0.3	0.3	0.1	0.0	0.0	0.0
823	NSF:C34	-8355	-45977	0.1	0.1	0.0	0.0	0.0	0.0
824	NSF:C35	-6358	-9758	1.0	1.0	0.1	0.3	0.1	0.4
825	NSF:C37	-5175	-47057	0.3	0.3	0.1	0.0	0.0	0.0
826	NSF:C38	-6431	-10969	1.0	1.0	0.1	0.3	0.1	0.3
827	NSF:C39	375	-25346	15.7	15.7	13.7	11.9	13.7	11.4
828	NSF:C40	1436	-17815	20.8	20.8	18.2	13.4	18.3	13.8
829	NSF:C41	-3379	-9386	16.4	16.4	13.5	15.0	13.5	18.0
830	NSF:C42	3398	-21504	7.4	7.4	5.4	3.2	5.1	3.4
831	NSF:C43	-1910	-46273	1.5	1.5	0.7	0.6	0.6	0.6
832	NSF:C44	-3883	-5925	13.2	13.2	10.2	14.6	10.5	15.7
833	NSF:C45	-11988	-45354	0.0	0.0	0.0	0.0	0.0	0.0
834	NSF:C46	7657	-34889	0.0	0.0	0.0	0.0	0.0	0.0
835	NSF:C47	2243	-24977	10.3	10.3	8.3	6.1	8.0	6.2
836	NSF:C48	-4412	-46071	0.5	0.5	0.1	0.1	0.1	0.1
837	NSF:C49	327	-14936	36.7	36.7	35.4	29.3	36.6	27.1
838	NSF:C5	7014	-34786	0.0	0.0	0.0	0.0	0.0	0.0
839	NSF:C50	-3930	-8365	11.9	11.9	9.2	11.2	9.1	11.8
840	NSF:C51	1801	-19460	15.3	15.3	13.2	9.6	13.1	10.0

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
841	NSF:C52	-545	-16569	36.6	36.6	35.0	29.7	36.5	27.0
842	NSF:C54	-1015	-44926	2.8	2.8	1.5	1.2	1.4	1.2
843	NSF:C55	-2036	-28310	10.0	10.0	8.0	7.6	7.5	7.6
844	NSF:C56	-706	-17175	34.5	34.5	32.9	27.9	34.2	25.9
845	NSF:C57	-1539	-38607	6.5	6.5	4.6	4.1	4.3	4.0
846	NSF:C6	-3386	14577	7.9	7.9	5.9	8.1	5.8	11.6
847	NSF:C7	-9769	-3190	0.0	0.0	0.0	0.0	0.0	0.0
848	NSF:C8	4616	906	14.6	14.6	9.8	6.9	10.9	8.4
849	NSF:C9	-1833	-42273	3.6	3.6	2.2	2.1	2.1	2.1
850	NSF:H1	-7607	3626	0.1	0.1	0.0	0.1	0.0	0.2
851	NSF:H3	-9363	9969	0.0	0.0	0.0	0.0	0.0	0.0
852	NSF:H4	-847	52617	0.6	0.6	0.1	0.1	0.1	0.2
853	NSF:H5	-9746	14394	0.0	0.0	0.0	0.0	0.0	0.0
854	NSF:H6	196	41454	2.7	2.7	1.8	1.7	1.7	1.8
855	NSF:H7	-6721	-8029	0.7	0.7	0.0	0.4	0.0	0.4
856	NSF:H8	24064	-3304	0.0	0.0	0.0	0.0	0.0	0.0
857	NSF:H9,H2	3310	14284	5.7	5.7	4.0	3.5	3.9	3.9
858	NSF:A16	-3769	5168	9.6	9.6	7.6	19.7	8.0	25.8
859	NSF:A17	-10252	3250	0.0	0.0	0.0	0.0	0.0	0.0
860	NSF:A18	-4084	10600	5.6	5.6	4.0	5.3	3.9	7.5
861	NSF:A19	-4459	10520	4.1	4.1	2.6	3.8	2.6	5.6
862	NSF:A21	-8598	14208	0.0	0.0	0.0	0.0	0.0	0.0
863	NSF:A23	-8593	5937	0.0	0.0	0.0	0.0	0.0	0.0
864	NSF:A24	-6444	1414	0.6	0.6	0.1	0.9	0.1	1.5
865	NSF:A25	-10056	6676	0.0	0.0	0.0	0.0	0.0	0.0
866	NSF:A26	-9629	5763	0.0	0.0	0.0	0.0	0.0	0.0
867	NSF:A27	-1721	10484	21.4	21.4	19.8	26.7	20.4	36.7
868	NSF:A28	-7306	6683	0.1	0.1	0.0	0.0	0.0	0.2
869	NSF:A30	-9295	6729	0.0	0.0	0.0	0.0	0.0	0.0
870	NSF:A33	-5199	-16624	1.5	1.5	0.1	0.5	0.2	0.6
871	NSF:A35	-4683	-17794	2.2	2.2	0.6	1.8	0.7	1.9
872	NSF:A36	-3592	-17475	7.7	7.7	5.2	6.5	5.0	7.0
873	NSF:A37	-3210	-16253	10.3	10.3	7.5	8.8	7.2	10.8
874	NSF:A38	-2833	-16231	13.0	13.0	10.0	10.9	9.7	14.2
875	NSF:A39	-2723	-17093	13.0	13.0	10.3	11.1	10.1	14.3
876	NSF:A40	-3398	-16730	9.1	9.1	6.5	7.7	6.2	8.7
877	NSF:A41	-5715	-14665	1.1	1.1	0.1	0.3	0.1	0.4
878	NSF:A42	-2195	-14884	18.5	18.5	15.4	15.9	15.5	20.0
879	NSF:A43	-3289	-16236	9.9	9.9	7.2	8.4	6.9	9.8
880	NSF:A44	362	-38516	7.8	7.8	5.7	4.5	5.3	4.4
881	NSF:A45	-1521	-35379	8.0	8.0	6.0	5.5	5.6	5.4
882	NSF:A46	467	-43229	4.6	4.6	2.9	2.1	2.7	2.1
883	NSF:A47	9405	-16129	0.0	0.0	0.0	0.0	0.0	0.0
884	NSF:A48	8774	-15397	0.0	0.0	0.0	0.0	0.0	0.0
885	NSF:A49	8535	-14947	0.0	0.0	0.0	0.0	0.0	0.0
886	NSF:A50	8073	-19454	0.0	0.0	0.0	0.0	0.0	0.0
887	NSF:A51	6682	-15011	0.6	0.6	0.0	0.0	0.0	0.0
888	NSF:A52	10177	-14528	0.0	0.0	0.0	0.0	0.0	0.0
889	NSF:A53	-9333	-2539	0.0	0.0	0.0	0.0	0.0	0.0
890	NSF:A54	-9413	-2464	0.0	0.0	0.0	0.0	0.0	0.0
891	NSF:A55	-9348	-2527	0.0	0.0	0.0	0.0	0.0	0.0
892	NSF:A58	6533	-14596	0.7	0.7	0.0	0.0	0.0	0.0
893	NSF:A59	5058	7030	3.1	3.1	1.9	1.5	2.0	1.9
894	NSF:A61	2879	26723	3.2	3.2	2.2	2.1	2.1	2.3
895	NSF:A62	-1961	32677	4.7	4.7	3.4	3.6	3.1	4.1
896	NSF:A63	5774	13792	0.6	0.6	0.0	0.0	0.0	0.1

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
897	NSF:A64	6942	13954	0.2	0.2	0.0	0.0	0.0	0.0
898	NSF:A65	6940	13770	0.2	0.2	0.0	0.0	0.0	0.0
899	NSF:A66	6602	13572	0.3	0.3	0.0	0.0	0.0	0.0
900	NSF:A67	7470	13669	0.1	0.1	0.0	0.0	0.0	0.0
901	NSF:A68	306	-30449	11.8	11.8	9.6	7.7	9.2	7.7
902	NSF:A69	-5807	-37969	0.1	0.1	0.0	0.0	0.0	0.0
903	NSF:A70	-4304	-36469	0.8	0.8	0.0	0.2	0.0	0.2
904	NSF:A71	6124	-39961	0.3	0.3	0.0	0.0	0.0	0.0
905	NSF:A72	3707	-33299	2.9	2.9	1.5	1.0	1.5	1.1
906	NSF:A73	-5742	-37925	0.1	0.1	0.0	0.0	0.0	0.0
907	NSF:A74	-5753	-37933	0.1	0.1	0.0	0.0	0.0	0.0
908	NSF:A75	-5790	-37959	0.1	0.1	0.0	0.0	0.0	0.0
909	NSF:L1	765	16963	17.4	17.4	15.7	17.4	16.3	17.8
910	NSF:L2	-7812	8307	0.0	0.0	0.0	0.0	0.0	0.0
911	NSF:L3	6278	40488	0.0	0.0	0.0	0.0	0.0	0.0
912	NSF:L4	-2866	-14908	13.8	13.8	10.7	12.2	10.5	15.8
913	NSF:L5	7180	9673	0.3	0.3	0.0	0.0	0.0	0.0
914	NSF:L6	4987	33599	0.2	0.2	0.0	0.0	0.0	0.0
915	NSF:L7	10166	26486	0.0	0.0	0.0	0.0	0.0	0.0
916	NSF:L8	12526	8554	0.0	0.0	0.0	0.0	0.0	0.0
917	NSF:L9	8571	-1927	0.0	0.0	0.0	0.0	0.0	0.0
918	NSF:A10	-550	29346	7.4	7.4	6.1	6.1	6.0	7.0
919	NSF:A11	-554	35999	4.7	4.7	3.5	3.5	3.4	3.8
920	NSF:A12	227	35588	4.6	4.6	3.4	3.3	3.2	3.5
921	NSF:A13	6720	40187	0.0	0.0	0.0	0.0	0.0	0.0
922	NSF:N1	2458	-23974	9.9	9.9	7.8	5.6	7.5	5.7
923	NSF:N10	-3755	-14738	8.3	8.3	5.6	7.0	5.4	7.4
924	NSF:N11	-3959	-39382	1.1	1.1	0.3	0.4	0.2	0.4
925	NSF:N12	-195	23654	14.1	14.1	12.5	11.4	13.3	12.9
926	NSF:N13	23674	-4413	0.0	0.0	0.0	0.0	0.0	0.0
927	NSF:N14	5905	-44977	1.4	1.4	0.8	0.5	0.9	0.6
928	NSF:N2	2567	-14374	17.2	17.2	14.4	9.7	14.3	10.1
929	NSF:N3	-9162	13839	0.0	0.0	0.0	0.0	0.0	0.0
930	NSF:N4	-3719	-44852	0.7	0.7	0.2	0.2	0.1	0.3
931	NSF:N5	-7153	-49305	0.1	0.1	0.0	0.0	0.0	0.0
932	NSF:N6	-6583	4062	0.5	0.5	0.1	0.5	0.1	0.9
933	NSF:N7	-3994	-21909	3.9	3.9	2.4	3.2	2.3	3.3
934	NSF:N8	3660	14530	4.2	4.2	2.6	2.3	2.5	2.6
935	NSF:N9	2605	-17567	14.0	14.0	11.3	7.8	11.2	8.1
936	NSF:S1	-1624	22569	9.5	9.5	7.9	9.2	8.0	12.2
937	NSF:S10	5787	1359	3.6	3.6	1.7	1.2	2.1	1.6
939	NSF:S102	-3652	-2959	22.7	22.7	17.8	27.0	18.9	37.6
940	NSF:S11	1320	-17470	22.5	22.5	19.9	14.8	20.2	15.0
941	NSF:S12	-9683	21295	0.0	0.0	0.0	0.0	0.0	0.0
942	NSF:S13	-4034	-8651	11.0	11.0	8.3	10.2	8.3	10.7
943	NSF:S15	1417	-18811	18.1	18.1	15.8	11.9	15.8	12.3
944	NSF:S16	4029	7813	7.6	7.6	5.9	5.0	6.0	5.6
945	NSF:S17	-7712	17177	0.1	0.1	0.0	0.0	0.0	0.0
946	NSF:S18	-10601	8639	0.0	0.0	0.0	0.0	0.0	0.0
947	NSF:S19	-13991	18478	0.0	0.0	0.0	0.0	0.0	0.0
948	NSF:S2	6756	-3628	0.8	0.8	0.1	0.0	0.1	0.0
949	NSF:S20	-1191	19408	18.4	18.4	17.2	14.5	18.2	18.2
950	NSF:S21	-3761	5167	9.7	9.7	7.6	19.8	8.0	26.0
951	NSF:S22	7978	-1820	0.0	0.0	0.0	0.0	0.0	0.0
952	NSF:S23	-8015	23186	0.0	0.0	0.0	0.0	0.0	0.0
953	NSF:S24	-8897	19752	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
954	NSF:S25	6834	-4826	0.6	0.6	0.0	0.0	0.0	0.0
955	NSF:S26	1352	-18331	19.8	19.8	17.3	13.1	17.4	13.5
956	NSF:S27	-7664	3251	0.1	0.1	0.0	0.1	0.0	0.2
957	NSF:S28	-8281	18459	0.0	0.0	0.0	0.0	0.0	0.0
958	NSF:S29	-5472	6565	1.5	1.5	0.5	1.2	0.5	2.4
959	NSF:S3	-3785	13136	6.7	6.7	4.8	5.8	4.7	7.8
960	NSF:S30	-263	-17305	35.4	35.4	33.9	29.6	35.3	25.7
961	NSF:S31	7812	-5443	0.0	0.0	0.0	0.0	0.0	0.0
962	NSF:S32	-4893	-4442	5.5	5.5	3.4	6.8	3.8	8.1
963	NSF:S33	1292	-22778	15.0	15.0	12.7	10.0	12.6	10.2
964	NSF:S34	-4645	-9467	5.4	5.4	3.2	5.1	3.4	5.3
965	NSF:S35	-4580	6588	3.9	3.9	2.4	4.7	2.6	7.1
966	NSF:S36	-6886	5087	0.3	0.3	0.0	0.2	0.0	0.4
967	NSF:S37	-11122	13583	0.0	0.0	0.0	0.0	0.0	0.0
968	NSF:S38	-3651	-2941	22.8	22.8	17.8	27.1	18.9	37.7
969	NSF:S39	12652	7375	0.0	0.0	0.0	0.0	0.0	0.0
970	NSF:S4	-3514	-16334	8.6	8.6	6.0	7.2	5.8	8.0
971	NSF:S40	7700	7035	0.1	0.1	0.0	0.0	0.0	0.0
972	NSF:S41	4523	11744	2.6	2.6	1.3	1.1	1.3	1.3
973	NSF:S42	8381	9088	0.0	0.0	0.0	0.0	0.0	0.0
974	NSF:S43	7268	9131	0.2	0.2	0.0	0.0	0.0	0.0
975	NSF:S44	5766	-41790	0.7	0.7	0.2	0.1	0.2	0.1
976	NSF:S45	1279	-33897	9.2	9.2	7.0	5.4	6.5	5.3
977	NSF:S46	-3685	-39308	1.5	1.5	0.5	0.6	0.4	0.7
978	NSF:S47	5715	-32661	0.3	0.3	0.0	0.0	0.0	0.0
979	NSF:S48	6231	-25031	0.3	0.3	0.0	0.0	0.0	0.0
980	NSF:S49	5974	-36054	0.2	0.2	0.0	0.0	0.0	0.0
981	NSF:S5	-11892	3393	0.0	0.0	0.0	0.0	0.0	0.0
982	NSF:S50	870	-42321	4.8	4.8	3.1	2.2	3.0	2.2
983	NSF:S51	-1491	-30984	9.9	9.9	7.8	6.9	7.4	6.9
984	NSF:S52	11474	-42954	0.0	0.0	0.0	0.0	0.0	0.0
985	NSF:S53	-10841	-43830	0.0	0.0	0.0	0.0	0.0	0.0
986	NSF:S54	5708	-31709	0.3	0.3	0.0	0.0	0.0	0.0
987	NSF:S55	-1824	-44447	2.3	2.3	1.1	1.0	1.0	1.0
988	NSF:S56	6346	-38637	0.2	0.2	0.0	0.0	0.0	0.0
989	NSF:S57	-410	49700	0.9	0.9	0.3	0.3	0.3	0.4
990	NSF:S58	10673	35200	0.0	0.0	0.0	0.0	0.0	0.0
991	NSF:S59	2429	45921	0.6	0.6	0.1	0.1	0.1	0.2
992	NSF:S6	-7196	13265	0.4	0.4	0.0	0.0	0.0	0.0
993	NSF:S60	5433	45389	0.1	0.1	0.0	0.0	0.0	0.0
994	NSF:S61	7132	42570	0.0	0.0	0.0	0.0	0.0	0.0
995	NSF:S62	-1439	39916	2.8	2.8	1.8	1.8	1.7	2.2
996	NSF:S63	3894	37152	0.5	0.5	0.0	0.1	0.0	0.1
997	NSF:S64	9056	38524	0.0	0.0	0.0	0.0	0.0	0.0
998	NSF:S65	8477	33931	0.0	0.0	0.0	0.0	0.0	0.0
999	NSF:S66	3955	32633	0.8	0.8	0.3	0.4	0.3	0.4
1000	NSF:S67	6401	29997	0.0	0.0	0.0	0.0	0.0	0.0
1001	NSF:S68	9089	28371	0.0	0.0	0.0	0.0	0.0	0.0
1002	NSF:S69	13032	23820	0.0	0.0	0.0	0.0	0.0	0.0
1003	NSF:S7	2141	16480	8.9	8.9	7.1	6.7	6.9	7.4
1004	NSF:S70	11512	17866	0.0	0.0	0.0	0.0	0.0	0.0
1005	NSF:S71	-9110	27836	0.0	0.0	0.0	0.0	0.0	0.0
1006	NSF:S72	-3361	27341	4.3	4.3	3.1	3.4	2.9	3.9
1007	NSF:S73	3	41684	2.7	2.7	1.7	1.6	1.7	1.8
1008	NSF:S74	10183	27405	0.0	0.0	0.0	0.0	0.0	0.0
1009	NSF:S76	4734	46384	0.2	0.2	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1010	NSF:S77	11512	27194	0.0	0.0	0.0	0.0	0.0	0.0
1011	NSF:S78	-363	38035	4.0	4.0	2.9	2.8	2.8	3.0
1012	NSF:S79	5941	39662	0.0	0.0	0.0	0.0	0.0	0.0
1013	NSF:S8	3475	-10939	14.6	14.6	11.9	6.7	11.8	7.1
1014	NSF:S80	7193	35348	0.0	0.0	0.0	0.0	0.0	0.0
1015	NSF:S81	12439	22474	0.0	0.0	0.0	0.0	0.0	0.0
1017	NSF:S83	6824	6483	0.5	0.5	0.0	0.0	0.0	0.0
1018	NSF:S84	6483	-12931	0.9	0.9	0.0	0.0	0.0	0.0
1019	NSF:S85	-10992	-43886	0.0	0.0	0.0	0.0	0.0	0.0
1020	NSF:S86,C18	-3883	-4692	14.7	14.7	11.3	16.6	11.9	19.6
1021	NSF:S87	1355	-41607	4.8	4.8	3.2	2.1	3.0	2.2
1022	NSF:S89,S101	-6524	4594	0.5	0.5	0.1	0.4	0.1	0.9
1023	NSF:S9	-8718	-8906	0.0	0.0	0.0	0.1	0.0	0.1
1024	NSF:S90	10352	29875	0.0	0.0	0.0	0.0	0.0	0.0
1025	NSF:S91	-12520	6667	0.0	0.0	0.0	0.0	0.0	0.0
1026	NSF:S92	-292	-16249	37.5	37.5	36.0	30.7	37.6	27.3
1027	NSF:S93	-4494	-43936	0.5	0.5	0.1	0.2	0.1	0.2
1028	NSF:S94	6741	-4427	0.8	0.8	0.1	0.0	0.1	0.0
1029	NSF:S95	2659	-8269	28.1	28.1	26.0	16.1	26.8	17.5
1030	NSF:S96,C36	-197	-29349	12.8	12.8	10.7	9.0	10.4	8.8
1031	NSF:S97	-5640	10643	1.2	1.2	0.2	0.6	0.3	1.2
1032	NSF:S98,C14	1453	-13047	32.1	32.1	29.3	19.9	29.8	20.9
1033	NSF:S99	-1741	22954	9.2	9.2	7.5	8.9	7.6	11.8
1034	NSF:A15	1159	33718	4.2	4.2	3.0	3.0	2.8	3.1
1035	NSF:A901	-2736	35294	3.1	3.1	2.0	2.1	1.9	2.4
1036	NSF:A902	-4131	32513	1.9	1.9	1.1	1.2	1.1	1.3
1037	NSF:A903	2207	18136	7.4	7.4	5.9	5.6	5.7	6.1
1038	NSF:A904	10787	-9667	0.0	0.0	0.0	0.0	0.0	0.0
1039	Park:G1	1356	42868	1.4	1.4	0.7	0.7	0.7	0.8
1040	Park:G2	-1823	20819	10.0	10.0	8.3	10.4	8.3	14.4
1041	Park:G3	412	19934	15.7	15.7	14.5	14.9	15.2	15.5
1042	Park:G4	11843	11466	0.0	0.0	0.0	0.0	0.0	0.0
1043	Park:G4	13359	10380	0.0	0.0	0.0	0.0	0.0	0.0
1044	Park:G5	89	-7980	67.7	67.7	71.1	62.4	75.0	61.2
1045	Park:G6	8312	-24816	0.0	0.0	0.0	0.0	0.0	0.0
1046	Park:G6	10441	-24924	0.0	0.0	0.0	0.0	0.0	0.0
1047	Park:P1	10452	41037	0.0	0.0	0.0	0.0	0.0	0.0
1048	Park:P10	11906	28500	0.0	0.0	0.0	0.0	0.0	0.0
1049	Park:P11	10576	23597	0.0	0.0	0.0	0.0	0.0	0.0
1050	Park:P12	12737	23611	0.0	0.0	0.0	0.0	0.0	0.0
1051	Park:P13	-3106	28942	4.5	4.5	3.3	3.5	3.1	4.1
1052	Park:P14	-1568	16984	19.8	19.8	18.3	18.7	19.1	25.3
1053	Park:P15	-4694	16128	3.0	3.0	1.7	2.0	1.7	2.8
1054	Park:P16	-7240	27235	0.1	0.1	0.0	0.0	0.0	0.0
1055	Park:P17	-7694	22700	0.1	0.1	0.0	0.0	0.0	0.0
1056	Park:P18	-10078	22715	0.0	0.0	0.0	0.0	0.0	0.0
1057	Park:P19	-8173	20053	0.0	0.0	0.0	0.0	0.0	0.0
1058	Park:P2	6019	40290	0.0	0.0	0.0	0.0	0.0	0.0
1059	Park:P20	-8423	17856	0.0	0.0	0.0	0.0	0.0	0.0
1060	Park:P21	7059	13592	0.2	0.2	0.0	0.0	0.0	0.0
1061	Park:P22	6996	12184	0.2	0.2	0.0	0.0	0.0	0.0
1062	Park:P23	9630	4263	0.0	0.0	0.0	0.0	0.0	0.0
1063	Park:P24	7963	3497	0.1	0.1	0.0	0.0	0.0	0.0
1064	Park:P25	8976	-1520	0.0	0.0	0.0	0.0	0.0	0.0
1065	Park:P26	2522	14946	8.4	8.4	6.4	6.0	6.3	6.6
1066	Park:P27	2802	10735	10.8	10.8	9.1	8.3	9.2	9.3

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1067	Park:P28	198	11565	43.9	43.9	44.7	41.6	47.1	41.7
1068	Park:P29	-5433	5962	1.7	1.7	0.6	1.7	0.7	3.0
1069	Park:P3	4190	38497	0.4	0.4	0.0	0.0	0.0	0.0
1070	Park:P30	-6437	15235	0.6	0.6	0.0	0.0	0.0	0.1
1071	Park:P31	-10883	12816	0.0	0.0	0.0	0.0	0.0	0.0
1072	Park:P31	-10986	9367	0.0	0.0	0.0	0.0	0.0	0.0
1073	Park:P32	-8210	11558	0.0	0.0	0.0	0.0	0.0	0.0
1074	Park:P33	-7609	8315	0.1	0.1	0.0	0.0	0.0	0.1
1075	Park:P34	-7758	4425	0.1	0.1	0.0	0.1	0.0	0.1
1076	Park:P35	-6933	3193	0.2	0.2	0.0	0.2	0.0	0.5
1077	Park:P36	-8027	-858	0.0	0.0	0.0	0.0	0.0	0.1
1078	Park:P37	-10415	-944	0.0	0.0	0.0	0.0	0.0	0.0
1079	Park:P38	6985	-3643	0.5	0.5	0.0	0.0	0.0	0.0
1080	Park:P39	12033	-5865	0.0	0.0	0.0	0.0	0.0	0.0
1081	Park:P4	7407	36148	0.0	0.0	0.0	0.0	0.0	0.0
1082	Park:P40	8712	-16156	0.0	0.0	0.0	0.0	0.0	0.0
1083	Park:P41	5212	-18740	1.4	1.4	0.2	0.1	0.2	0.1
1084	Park:P42	7205	-21947	0.1	0.1	0.0	0.0	0.0	0.0
1085	Park:P43	3598	-7684	16.6	16.6	13.9	8.1	14.1	8.7
1086	Park:P44	-283	-12051	53.2	53.2	53.4	43.6	55.5	42.0
1087	Park:P45	-4218	-14980	5.0	5.0	2.7	4.3	2.7	4.4
1088	Park:P46	-3319	-16331	9.7	9.7	7.0	8.1	6.7	9.4
1089	Park:P47	-9286	-6307	0.0	0.0	0.0	0.0	0.0	0.0
1090	Park:P48	-7699	-9254	0.0	0.0	0.0	0.0	0.0	0.0
1091	Park:P49	-7521	-12889	0.1	0.1	0.0	0.0	0.0	0.0
1092	Park:P5	-1752	40072	2.6	2.6	1.6	1.7	1.5	2.0
1093	Park:P50	8743	-26079	0.0	0.0	0.0	0.0	0.0	0.0
1094	Park:P51	7364	-27977	0.0	0.0	0.0	0.0	0.0	0.0
1095	Park:P52	4279	-25151	2.5	2.5	1.3	0.8	1.3	1.0
1096	Park:P53	1745	-24094	12.5	12.5	10.4	7.9	10.1	8.1
1097	Park:P54	1522	-25317	12.6	12.6	10.5	8.1	10.2	8.2
1098	Park:P55	3542	-29748	4.1	4.1	2.7	1.6	2.6	1.8
1099	Park:P56	-3479	-27701	4.8	4.8	3.3	3.9	3.1	4.0
1100	Park:P57	-2553	-31026	7.2	7.2	5.2	5.1	4.8	5.1
1101	Park:P58	-4315	-31888	1.3	1.3	0.4	0.7	0.3	0.7
1102	Park:P59	6981	-40680	0.2	0.2	0.0	0.0	0.0	0.0
1103	Park:P6	-995	37860	4.0	4.0	2.9	2.8	2.8	3.2
1104	Park:P60	879	-37690	7.9	7.9	5.7	4.3	5.3	4.2
1105	Park:P61	583	-42504	4.9	4.9	3.2	2.3	3.1	2.4
1106	Park:P62	-2563	-41948	2.6	2.6	1.4	1.3	1.3	1.4
1107	Park:P63	1437	-46094	2.6	2.6	1.2	0.8	1.2	0.9
1108	Park:P7	-1966	36892	3.6	3.6	2.5	2.5	2.3	2.9
1109	Park:P8	4457	33144	0.4	0.4	0.0	0.0	0.0	0.0
1110	Park:P9	8465	31725	0.0	0.0	0.0	0.0	0.0	0.0
1111	R-1	-1499	8689	29.3	29.3	28.8	33.0	30.3	43.6
1112	R-2	-3360	8057	9.7	9.7	7.8	11.0	7.9	15.2
1113	R-3	-3221	8061	10.6	10.6	8.6	12.9	8.7	18.2
1114	R-4	-2550	7376	16.8	16.8	14.9	27.6	15.5	38.8
1115	R-5	-2475	7342	17.6	17.6	15.7	29.3	16.3	41.1
1116	R-6	1908	7539	26.4	26.4	25.3	25.7	26.7	29.3
1117	R-7	3445	5795	14.0	14.0	12.4	11.3	13.2	12.9
1118	R-8	4189	5875	8.5	8.5	6.9	6.2	7.2	7.2
1119	R-9	-2325	5197	30.4	30.4	27.9	79.2	29.5	96.1
1120	R-10	-2803	4984	21.6	21.6	19.3	55.3	20.3	70.3
1121	R-11	-4314	4055	6.6	6.6	4.7	13.6	5.2	18.2
1122	R-12	-3638	4008	13.2	13.2	10.5	27.7	11.1	35.2

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1123	R-13	-2994	3996	23.3	23.3	19.1	49.3	20.2	61.6
1124	R-14	-2996	3894	23.6	23.6	19.3	49.5	20.4	61.9
1125	R-15	-3661	3774	13.5	13.5	10.6	27.2	11.3	34.2
1126	R-16	-3881	2627	12.6	12.6	9.5	21.6	10.4	26.4
1127	R-17	-3974	2637	11.7	11.7	8.8	20.1	9.6	24.6
1128	R-19	-2871	-9407	21.5	21.5	19.0	20.8	19.1	26.7
1129	R-20	-2236	-9459	29.5	29.5	27.2	28.4	27.8	35.9
1130	R-21	-2883	-9527	21.0	21.0	18.5	20.4	18.7	26.2
1131	R-22	-2127	-9553	31.4	31.4	29.2	29.7	29.9	37.0
1132	R-23	-2979	-10864	17.8	17.8	15.1	16.8	15.1	22.0
1133	R-24	-2855	-10863	19.0	19.0	16.3	18.0	16.4	23.6
1134	R-25	-3422	-12657	12.2	12.2	9.2	10.5	9.0	12.1
1135	R-26	-3317	-12709	12.8	12.8	9.7	11.1	9.6	13.6
1136	R-27	-4326	-13636	5.5	5.5	3.2	4.6	3.1	4.7
1137	R-28	-4219	-13662	6.1	6.1	3.7	5.2	3.6	5.3
1138	R-29	-4595	-14690	3.3	3.3	1.3	2.7	1.4	2.8
1139	R-30	-4595	-14834	3.2	3.2	1.3	2.7	1.4	2.8
1140	R-31	-3900	-18888	5.1	5.1	3.2	4.3	3.1	4.5
1141	R-32	-3960	-18992	4.8	4.8	3.0	4.1	2.9	4.2
1142	R-33	-1586	-19967	17.5	17.5	15.0	13.2	15.2	13.9
1143	R-34	-1631	-20084	17.1	17.1	14.7	12.9	14.8	13.6
1144	R-35	589	-20385	19.8	19.8	17.6	14.8	17.9	14.0
1145	R-36	760	-20452	19.2	19.2	17.0	13.9	17.2	13.3
1146	R-37	1953	-19502	14.7	14.7	12.5	9.0	12.5	9.4
1147	R-38	1937	-19639	14.7	14.7	12.5	9.0	12.4	9.4
1148	R-39	5743	3729	2.2	2.2	1.2	1.0	1.4	1.3
1149	R-40	6051	3598	1.6	1.6	0.7	0.6	0.9	0.8
1150	R-41	6707	2725	0.8	0.8	0.1	0.1	0.2	0.1
1151	R-42	6795	2778	0.7	0.7	0.1	0.1	0.1	0.1
1152	R-43	3977	622	28.3	28.3	22.3	15.7	23.4	18.1
1153	R-44	3992	528	28.1	28.1	22.1	15.5	23.2	17.9
1154	R-45	7811	-253	0.0	0.0	0.0	0.0	0.0	0.0
1155	R-46	7968	-188	0.0	0.0	0.0	0.0	0.0	0.0
1156	R-47	9017	-3383	0.0	0.0	0.0	0.0	0.0	0.0
1157	R-48	9107	-3278	0.0	0.0	0.0	0.0	0.0	0.0
1158	R-49	9205	-4829	0.0	0.0	0.0	0.0	0.0	0.0
1159	R-50	9420	-4826	0.0	0.0	0.0	0.0	0.0	0.0
1160	R-51	4145	-5368	14.0	14.0	10.9	6.3	11.4	7.2
1161	R-52	4160	-5459	13.8	13.8	10.7	6.1	11.1	6.9
1162	R-53	6680	-5389	0.8	0.8	0.2	0.1	0.2	0.1
1163	R-54	6680	-5519	0.8	0.8	0.2	0.1	0.2	0.1
1164	R-55	8216	-6716	0.0	0.0	0.0	0.0	0.0	0.0
1165	R-56	7824	-7392	0.0	0.0	0.0	0.0	0.0	0.0
1166	R-57	6375	-8805	1.2	1.2	0.2	0.1	0.2	0.1
1167	R-58	2503	-7529	32.1	32.1	30.5	20.0	31.7	22.0
1168	R-59	2128	-9607	33.9	33.9	32.2	20.1	32.9	21.6
1169	R-60	2128	-9724	33.3	33.3	31.6	19.7	32.3	21.2
1170	R-61	3469	-9641	16.6	16.6	13.9	7.7	13.8	8.2
1171	R-62	3469	-9758	16.4	16.4	13.7	7.6	13.6	8.1
1172	R-63	4953	-9622	4.5	4.5	2.5	1.0	2.7	1.2
1173	R-64	4953	-9765	4.4	4.4	2.5	1.0	2.6	1.2
1174	M-1	-5559	5408	1.6	1.6	0.6	1.8	0.6	3.0
1175	M-2	7677	4132	0.2	0.2	0.0	0.0	0.0	0.0
1176	M-3	-3794	839	19.7	19.7	14.4	23.3	15.5	29.4
1177	M-4	-3435	-161	28.9	28.9	23.2	33.0	24.2	42.3
1178	M-5	8038	-2746	0.0	0.0	0.0	0.0	0.0	0.0

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1179	M-6	7442	-4154	0.2	0.2	0.0	0.0	0.0	0.0
1180	M-7	1569	-6734	61.1	61.1	61.7	54.4	65.1	60.8
1181	M-8	3372	-6953	19.6	19.6	17.1	10.9	17.6	11.7
1182	M-9	3203	-8239	20.8	20.8	18.2	11.0	18.6	11.8
1183	M-10	212	-9582	65.2	65.2	65.9	52.6	69.0	51.2
1184	M-11	212	-9712	64.0	64.0	64.6	51.8	67.6	50.4
1185	M-12	-4530	-14474	3.6	3.6	1.6	3.1	1.7	3.2
1186	M-13	-4484	-14936	3.8	3.8	1.7	3.2	1.8	3.3
1187	M-14	-3614	-16370	8.0	8.0	5.4	6.7	5.2	7.3
1188	M-15	4365	-18735	3.7	3.7	2.0	1.0	2.0	1.2
1189	M-16	4486	-19796	2.8	2.8	1.2	0.7	1.2	0.8
1190	M-17	8123	-595	0.0	0.0	0.0	0.0	0.0	0.0
1191	M-18	9840	4660	0.0	0.0	0.0	0.0	0.0	0.0
1192	T-116	1422	-18235	19.6	19.6	17.0	12.8	17.2	13.2
1193	T-118	1331	-17470	22.4	22.4	19.8	14.7	20.0	14.9
1194	T-119	2650	-17566	13.7	13.7	11.1	7.6	10.9	7.9
1195	T-120	-3506	-16334	8.6	8.6	6.0	7.2	5.8	8.1
1196	T-122	-3743	-14738	8.4	8.4	5.7	7.1	5.4	7.5
1197	T-125	1459	-13047	32.0	32.0	29.2	19.9	29.8	20.9
1198	T-126	3477	-10938	14.6	14.6	11.9	6.7	11.8	7.1
1199	T-130	2651	-8267	28.2	28.2	26.2	16.2	27.0	17.7
1200	T-132	-3659	-2960	22.6	22.6	17.6	26.9	18.8	37.4
1201	T-133	8580	-1927	0.0	0.0	0.0	0.0	0.0	0.0
1202	T-136	-3365	4995	13.9	13.9	11.5	30.9	12.0	39.5
1203	NSF:A14	-3907	-17520	5.6	5.6	3.4	5.0	3.3	5.1
1204	T-25	-3883	-4693	14.7	14.7	11.3	16.6	11.9	19.6
1205	T-28	-3387	-9387	16.3	16.3	13.4	14.9	13.4	17.8
1206	T-33	1432	-17816	20.9	20.9	18.2	13.4	18.4	13.8
1207	T-34	1792	-19460	15.4	15.4	13.2	9.7	13.2	10.0
1208	T-35	1587	-18907	17.1	17.1	14.8	11.1	14.8	11.5
1209	T-44	-3421	5168	12.8	12.8	10.5	27.5	11.0	35.4
1210	NSF:T-48, A20	-4170	1264	13.1	13.1	8.8	16.9	9.9	21.4
1211	NSF:T-50, A22	-3264	8490	9.8	9.8	8.1	11.9	8.1	16.8
1212	NSF:T-57, A29	-2746	8551	13.0	13.0	11.3	19.1	11.5	27.9
1213	NSF:T-59, A31	-5476	6566	1.5	1.5	0.5	1.2	0.5	2.4
1214	NSF:T-60, A32	-4232	-17635	4.0	4.0	2.1	3.5	2.1	3.6
1215	NSF:T-62, A34	-4112	-14837	5.8	5.8	3.4	5.0	3.3	5.1
1216	T-29	-3498	-16806	8.5	8.5	5.9	7.2	5.6	7.9
1217	NSF:T-84, A56	-3125	6493	13.1	13.1	11.0	23.7	11.4	31.3
1218	NSF:T-85, A57	-3238	4735	16.1	16.1	13.5	36.5	14.2	46.0
1219	NSF:T-88, A60	-1350	-9469	50.9	50.9	50.4	43.8	52.5	48.5
1220	NSF:C58	-1135	22315	13.2	13.2	11.7	10.3	12.2	12.5
1221	NSF:S108	-1649	-9471	42.9	42.9	41.8	38.5	43.5	44.8
1222	NSF:N15	-3997	-22078	3.9	3.9	2.3	3.1	2.3	3.3
1223	NSF:C62	-1414	-30795	10.2	10.2	8.1	7.1	7.7	7.1
1224	NSF:S109	-1333	-22719	16.4	16.4	13.9	12.6	14.0	13.0
1225	NSF:S105	-3791	-3836	17.1	17.1	13.1	20.3	13.9	27.2
1226	NSF:C64	-4367	7358	4.8	4.8	3.3	5.2	3.4	7.8
1227	NSF:S106	-2685	8649	13.3	13.3	11.7	19.7	11.9	28.9
1228	NSF:C61	-1303	9772	33.3	33.3	33.6	33.1	35.5	42.3
1229	NSF:S107	2638	-6779	33.2	33.2	30.5	20.9	31.7	22.6
1230	NSF:S110	1462	-15138	25.5	25.5	23.2	16.4	23.5	17.0
1231	NSF:S103	691	14334	25.1	25.1	23.8	25.6	25.1	25.6
1232	NSF:C60	51	14525	35.0	35.0	34.9	31.6	37.0	32.0
1233	NSF:C63	335	17719	20.9	20.9	19.9	20.2	21.1	20.5
1234	NSF:S104	2040	9879	17.5	17.5	16.3	15.0	16.8	17.0

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				Time Above 75 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1235	NSF:C65	2422	9244	15.4	15.4	14.1	12.8	14.5	14.4
1236	NSF:C59	3555	12838	5.7	5.7	4.0	3.5	3.9	3.9
1237	Park:P65	-4286	-15220	4.6	4.6	2.4	3.9	2.3	4.0
1238	Park:P77	-4624	-22245	1.7	1.7	0.5	1.2	0.6	1.2
1239	Park:P75	-4188	-36794	0.9	0.9	0.1	0.2	0.0	0.2
1240	Park:P68	-5348	-17875	1.3	1.3	0.1	0.4	0.1	0.4
1241	Park:P69	-5853	-17090	0.9	0.9	0.0	0.2	0.0	0.3
1242	Park:P74	-5044	-16833	1.6	1.6	0.2	0.9	0.2	0.9
1243	Park:P73	-4954	-17282	1.7	1.7	0.2	1.1	0.3	1.1
1244	Park:P78	-4783	-18422	1.7	1.7	0.3	1.3	0.4	1.3
1245	Park:P70	-4665	-14728	3.0	3.0	1.2	2.5	1.2	2.6
1246	Park:P79	-1577	-22047	15.5	15.5	13.0	11.8	13.0	12.2
1247	Park:P66	-2383	-25951	9.1	9.1	7.3	7.4	6.9	7.5
1248	Park:P76	-748	-25329	15.8	15.8	13.6	12.4	13.7	11.9
1249	Park:P72	-135	-18873	27.1	27.1	25.5	22.8	26.5	21.2
1250	Park:P64	-1767	-17528	20.0	20.0	17.1	15.5	17.4	17.0
1251	Park:P67	1256	-19310	17.8	17.8	15.7	12.3	15.9	12.4
1252	Park:P71	2940	-16861	12.8	12.8	10.0	6.6	9.8	6.8
1253	N1	-1990	-17245	18.0	18.0	15.0	14.4	15.1	16.9
1254	N2	-3334	8426	9.5	9.5	7.8	10.9	7.8	15.3
1256	N3	-4097	6616	6.3	6.3	4.5	8.1	4.6	11.4
1257	N5	-8611	5294	0.0	0.0	0.0	0.0	0.0	0.0
1258	N7	-4947	-1900	6.8	6.8	3.8	8.3	4.5	11.9
1259	N8	-4082	10573	5.7	5.7	4.0	5.3	3.9	7.5
1260	N10	-3524	13833	7.4	7.4	5.5	6.7	5.4	9.1
1261	N16	-2435	-14830	16.6	16.6	13.5	14.5	13.4	18.9
1262	N17	-1060	-14856	35.6	35.6	34.3	28.7	35.5	28.8
1263	N18	-3776	-14788	8.1	8.1	5.4	6.9	5.2	7.2
1264	N19	1410	-15430	25.7	25.7	23.3	16.5	23.6	17.0
1265	N21	1410	-15430	25.7	25.7	23.3	16.5	23.6	17.0
1266	N22	1410	-15430	25.7	25.7	23.3	16.5	23.6	17.0
1276	N24	-849	-17121	33.3	33.3	31.6	26.5	32.8	25.3
1268	N52	-849	-17121	33.3	33.3	31.6	26.5	32.8	25.3
1269	N25	-1279	-17349	27.1	27.1	24.9	21.1	25.8	21.4
1270	N23	731	-17160	28.2	28.2	26.0	20.9	26.7	19.3
1271	N32	-2623	-16845	13.8	13.8	11.0	11.7	10.8	15.1
1272	N33	-1937	-14523	21.9	21.9	19.1	18.7	19.5	22.4
1273	N34	-1996	-20888	14.0	14.0	11.5	10.8	11.4	11.7
1274	N35	-1984	-20239	14.5	14.5	12.0	11.1	11.9	12.1
1275	N36	-1996	-20888	14.0	14.0	11.5	10.8	11.4	11.7
1276	N37	-1288	-18281	24.4	24.4	22.3	19.3	23.1	19.8
1277	N38	81	-23395	17.6	17.6	15.6	14.1	15.8	13.1
1278	N39	1235	-23064	14.7	14.7	12.5	9.9	12.4	10.1
1279	N40	1243	-23968	14.2	14.2	12.1	9.5	12.0	9.7
1280	N45	1572	-18752	17.5	17.5	15.1	11.3	15.1	11.7
1281	N46	2447	-18291	13.9	13.9	11.5	8.0	11.3	8.3
1282	N49	-2293	-19455	12.8	12.8	10.6	10.6	10.3	12.3
1283	N50	-2293	-19455	12.8	12.8	10.6	10.6	10.3	12.3
1284	N53	-762	-16176	36.1	36.1	34.4	28.8	35.8	27.4
1285	N54	2867	-16447	13.6	13.6	10.7	7.1	10.5	7.3
1286	N55	3117	-17904	10.8	10.8	8.2	5.5	8.0	5.6
1287	N56	-269	-22786	19.2	19.2	16.9	15.6	17.3	14.5
1288	N59	-2261	-19816	12.9	12.9	10.6	10.4	10.4	11.8
1289	N60	-1155	-20562	20.9	20.9	18.8	16.3	19.4	16.3
1290	N47	2491	-18288	13.7	13.7	11.2	7.9	11.1	8.1

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	0.7	0.7	0.0	0.0	0.0	0.0
2	RMS2	-2533	-18228	0.3	0.3	0.0	0.0	0.0	0.0
3	RMS3	1078	-17868	1.6	1.6	0.3	0.1	0.2	0.1
4	RMS4	141	-9337	13.6	13.6	11.6	8.1	11.5	6.8
5	RMS5	-2718	186	0.6	0.6	0.2	3.0	0.3	5.5
6	RMS6	292	8461	8.6	8.6	7.5	9.5	7.5	8.6
7	RMS7	-1299	16858	1.4	1.4	0.5	0.5	0.5	0.6
8	RMS8	-525	21836	0.6	0.6	0.1	0.1	0.1	0.2
9	RMS9	1958	14969	0.4	0.4	0.0	0.0	0.0	0.0
10	RMS10	-3185	-6305	0.1	0.1	0.0	0.3	0.0	0.4
11	RMS11	2549	6703	0.8	0.8	0.3	0.2	0.3	0.3
12	A22	-7822	17894	0.0	0.0	0.0	0.0	0.0	0.0
13	A23	-7856	16574	0.0	0.0	0.0	0.0	0.0	0.0
14	A24	-7890	15254	0.0	0.0	0.0	0.0	0.0	0.0
15	A25	-7924	13934	0.0	0.0	0.0	0.0	0.0	0.0
16	A26	-7958	12614	0.0	0.0	0.0	0.0	0.0	0.0
17	A27	-7992	11294	0.0	0.0	0.0	0.0	0.0	0.0
18	A28	-8026	9974	0.0	0.0	0.0	0.0	0.0	0.0
19	A29	-8060	8654	0.0	0.0	0.0	0.0	0.0	0.0
20	A30	-8094	7334	0.0	0.0	0.0	0.0	0.0	0.0
21	A31	-8128	6014	0.0	0.0	0.0	0.0	0.0	0.0
22	A32	-8162	4694	0.0	0.0	0.0	0.0	0.0	0.0
23	A33	-8196	3374	0.0	0.0	0.0	0.0	0.0	0.0
24	A34	-8230	2054	0.0	0.0	0.0	0.0	0.0	0.0
25	A35	-8264	734	0.0	0.0	0.0	0.0	0.0	0.0
26	A36	-8298	-586	0.0	0.0	0.0	0.0	0.0	0.0
27	A37	-8332	-1906	0.0	0.0	0.0	0.0	0.0	0.0
28	A38	-8366	-3226	0.0	0.0	0.0	0.0	0.0	0.0
29	A39	-8400	-4546	0.0	0.0	0.0	0.0	0.0	0.0
30	A40	-8434	-5866	0.0	0.0	0.0	0.0	0.0	0.0
31	A41	-8468	-7186	0.0	0.0	0.0	0.0	0.0	0.0
32	A42	-8502	-8506	0.0	0.0	0.0	0.0	0.0	0.0
33	A43	-8536	-9826	0.0	0.0	0.0	0.0	0.0	0.0
34	B10	-6094	33700	0.0	0.0	0.0	0.0	0.0	0.0
35	B11	-6128	32380	0.0	0.0	0.0	0.0	0.0	0.0
36	B12	-6162	31060	0.0	0.0	0.0	0.0	0.0	0.0
37	B13	-6196	29740	0.0	0.0	0.0	0.0	0.0	0.0
38	B14	-6230	28420	0.0	0.0	0.0	0.0	0.0	0.0
39	B15	-6264	27100	0.0	0.0	0.0	0.0	0.0	0.0
40	B16	-6298	25780	0.0	0.0	0.0	0.0	0.0	0.0
41	B17	-6332	24460	0.0	0.0	0.0	0.0	0.0	0.0
42	B18	-6366	23140	0.0	0.0	0.0	0.0	0.0	0.0
43	B19	-6400	21820	0.0	0.0	0.0	0.0	0.0	0.0
44	B20	-6434	20500	0.0	0.0	0.0	0.0	0.0	0.0
45	B21	-6468	19180	0.0	0.0	0.0	0.0	0.0	0.0
46	B22	-6502	17860	0.0	0.0	0.0	0.0	0.0	0.0
47	B23	-6536	16540	0.0	0.0	0.0	0.0	0.0	0.0
48	B24	-6570	15220	0.0	0.0	0.0	0.0	0.0	0.0
49	B25	-6604	13900	0.0	0.0	0.0	0.0	0.0	0.0
50	B26	-6638	12580	0.0	0.0	0.0	0.0	0.0	0.0
51	B27	-6672	11260	0.0	0.0	0.0	0.0	0.0	0.0
52	B28	-6706	9940	0.0	0.0	0.0	0.0	0.0	0.0
53	B29	-6740	8620	0.0	0.0	0.0	0.0	0.0	0.0
54	B30	-6774	7300	0.0	0.0	0.0	0.0	0.0	0.0
55	B31	-6808	5980	0.0	0.0	0.0	0.0	0.0	0.0
56	B32	-6842	4660	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
57	B33	-6876	3340	0.0	0.0	0.0	0.0	0.0	0.0
58	B34	-6910	2020	0.0	0.0	0.0	0.0	0.0	0.0
59	B35	-6944	700	0.0	0.0	0.0	0.0	0.0	0.0
60	B36	-6978	-620	0.0	0.0	0.0	0.0	0.0	0.0
61	B37	-7012	-1940	0.0	0.0	0.0	0.0	0.0	0.0
62	B38	-7046	-3260	0.0	0.0	0.0	0.0	0.0	0.0
63	B39	-7080	-4580	0.0	0.0	0.0	0.0	0.0	0.0
64	B40	-7114	-5900	0.0	0.0	0.0	0.0	0.0	0.0
65	B41	-7148	-7220	0.0	0.0	0.0	0.0	0.0	0.0
66	B42	-7182	-8540	0.0	0.0	0.0	0.0	0.0	0.0
67	B43	-7216	-9860	0.0	0.0	0.0	0.0	0.0	0.0
68	B44	-7250	-11180	0.0	0.0	0.0	0.0	0.0	0.0
69	B45	-7284	-12500	0.0	0.0	0.0	0.0	0.0	0.0
70	B46	-7318	-13820	0.0	0.0	0.0	0.0	0.0	0.0
71	B47	-7352	-15140	0.0	0.0	0.0	0.0	0.0	0.0
72	B48	-7386	-16460	0.0	0.0	0.0	0.0	0.0	0.0
73	B49	-7420	-17780	0.0	0.0	0.0	0.0	0.0	0.0
74	C1	-4468	45546	0.0	0.0	0.0	0.0	0.0	0.0
75	C2	-4502	44226	0.0	0.0	0.0	0.0	0.0	0.0
76	C3	-4536	42906	0.0	0.0	0.0	0.0	0.0	0.0
77	C4	-4570	41586	0.0	0.0	0.0	0.0	0.0	0.0
78	C5	-4604	40266	0.0	0.0	0.0	0.0	0.0	0.0
79	C6	-4638	38946	0.0	0.0	0.0	0.0	0.0	0.0
80	C7	-4672	37626	0.0	0.0	0.0	0.0	0.0	0.0
81	C8	-4706	36306	0.0	0.0	0.0	0.0	0.0	0.0
82	C9	-4740	34986	0.0	0.0	0.0	0.0	0.0	0.0
83	C10	-4774	33666	0.0	0.0	0.0	0.0	0.0	0.0
84	C11	-4808	32346	0.0	0.0	0.0	0.0	0.0	0.0
85	C12	-4842	31026	0.0	0.0	0.0	0.0	0.0	0.0
86	C13	-4876	29706	0.0	0.0	0.0	0.0	0.0	0.0
87	C14	-4910	28386	0.0	0.0	0.0	0.0	0.0	0.0
88	C15	-4944	27066	0.0	0.0	0.0	0.0	0.0	0.0
89	C16	-4978	25746	0.0	0.0	0.0	0.0	0.0	0.0
90	C17	-5012	24426	0.0	0.0	0.0	0.0	0.0	0.0
91	C18	-5046	23106	0.0	0.0	0.0	0.0	0.0	0.0
92	C19	-5080	21786	0.0	0.0	0.0	0.0	0.0	0.0
93	C20	-5114	20466	0.0	0.0	0.0	0.0	0.0	0.0
94	C21	-5148	19146	0.0	0.0	0.0	0.0	0.0	0.0
95	C22	-5182	17826	0.0	0.0	0.0	0.0	0.0	0.0
96	C23	-5216	16506	0.0	0.0	0.0	0.0	0.0	0.0
97	C24	-5250	15186	0.0	0.0	0.0	0.0	0.0	0.0
98	C25	-5284	13866	0.0	0.0	0.0	0.0	0.0	0.0
99	C26	-5318	12546	0.0	0.0	0.0	0.0	0.0	0.0
100	C27	-5352	11226	0.0	0.0	0.0	0.0	0.0	0.0
101	C28	-5386	9906	0.0	0.0	0.0	0.0	0.0	0.0
102	C29	-5420	8586	0.0	0.0	0.0	0.0	0.0	0.0
103	C30	-5454	7266	0.0	0.0	0.0	0.0	0.0	0.0
104	C31	-5488	5946	0.0	0.0	0.0	0.0	0.0	0.0
105	C32	-5522	4626	0.0	0.0	0.0	0.0	0.0	0.0
106	C33	-5556	3306	0.0	0.0	0.0	0.0	0.0	0.0
107	C34	-5590	1986	0.0	0.0	0.0	0.0	0.0	0.0
108	C35	-5624	666	0.0	0.0	0.0	0.0	0.0	0.0
109	C36	-5658	-654	0.0	0.0	0.0	0.0	0.0	0.0
110	C37	-5692	-1974	0.0	0.0	0.0	0.0	0.0	0.0
111	C38	-5726	-3294	0.0	0.0	0.0	0.0	0.0	0.0
112	C39	-5760	-4614	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
113	C40	-5794	-5934	0.0	0.0	0.0	0.0	0.0	0.0
114	C41	-5828	-7254	0.0	0.0	0.0	0.0	0.0	0.0
115	C42	-5862	-8574	0.0	0.0	0.0	0.0	0.0	0.0
116	C43	-5896	-9894	0.0	0.0	0.0	0.0	0.0	0.0
117	C44	-5930	-11214	0.0	0.0	0.0	0.0	0.0	0.0
118	C45	-5964	-12534	0.0	0.0	0.0	0.0	0.0	0.0
119	C46	-5998	-13854	0.0	0.0	0.0	0.0	0.0	0.0
120	C47	-6032	-15174	0.0	0.0	0.0	0.0	0.0	0.0
121	C48	-6066	-16494	0.0	0.0	0.0	0.0	0.0	0.0
122	C49	-6100	-17814	0.0	0.0	0.0	0.0	0.0	0.0
123	C50	-6134	-19134	0.0	0.0	0.0	0.0	0.0	0.0
124	C51	-6168	-20454	0.0	0.0	0.0	0.0	0.0	0.0
125	C52	-6202	-21774	0.0	0.0	0.0	0.0	0.0	0.0
126	C53	-6236	-23094	0.0	0.0	0.0	0.0	0.0	0.0
127	C54	-6270	-24414	0.0	0.0	0.0	0.0	0.0	0.0
128	C55	-6304	-25734	0.0	0.0	0.0	0.0	0.0	0.0
129	C56	-6338	-27054	0.0	0.0	0.0	0.0	0.0	0.0
130	C57	-6372	-28374	0.0	0.0	0.0	0.0	0.0	0.0
131	C58	-6406	-29694	0.0	0.0	0.0	0.0	0.0	0.0
132	C59	-6440	-31014	0.0	0.0	0.0	0.0	0.0	0.0
133	D1	-3148	45512	0.0	0.0	0.0	0.0	0.0	0.0
134	D2	-3182	44192	0.0	0.0	0.0	0.0	0.0	0.0
135	D3	-3216	42872	0.0	0.0	0.0	0.0	0.0	0.0
136	D4	-3250	41552	0.0	0.0	0.0	0.0	0.0	0.0
137	D5	-3284	40232	0.0	0.0	0.0	0.0	0.0	0.0
138	D6	-3318	38912	0.0	0.0	0.0	0.0	0.0	0.0
139	D7	-3352	37592	0.0	0.0	0.0	0.0	0.0	0.0
140	D8	-3386	36272	0.0	0.0	0.0	0.0	0.0	0.0
141	D9	-3420	34952	0.0	0.0	0.0	0.0	0.0	0.0
142	D10	-3454	33632	0.0	0.0	0.0	0.0	0.0	0.0
143	D11	-3488	32312	0.0	0.0	0.0	0.0	0.0	0.0
144	D12	-3522	30992	0.0	0.0	0.0	0.0	0.0	0.0
145	D13	-3556	29672	0.0	0.0	0.0	0.0	0.0	0.0
146	D14	-3590	28352	0.0	0.0	0.0	0.0	0.0	0.0
147	D15	-3624	27032	0.0	0.0	0.0	0.0	0.0	0.0
148	D16	-3658	25712	0.0	0.0	0.0	0.0	0.0	0.0
149	D17	-3692	24392	0.0	0.0	0.0	0.0	0.0	0.0
150	D18	-3726	23072	0.0	0.0	0.0	0.0	0.0	0.0
151	D19	-3760	21752	0.0	0.0	0.0	0.0	0.0	0.0
152	D20	-3794	20432	0.0	0.0	0.0	0.0	0.0	0.0
153	D21	-3828	19112	0.0	0.0	0.0	0.0	0.0	0.0
154	D22	-3862	17792	0.0	0.0	0.0	0.0	0.0	0.0
155	D23	-3896	16472	0.0	0.0	0.0	0.0	0.0	0.0
156	D24	-3930	15152	0.0	0.0	0.0	0.0	0.0	0.0
157	D25	-3964	13832	0.0	0.0	0.0	0.0	0.0	0.0
158	D26	-3998	12512	0.0	0.0	0.0	0.0	0.0	0.0
159	D27	-4032	11192	0.0	0.0	0.0	0.0	0.0	0.0
160	D28	-4066	9872	0.0	0.0	0.0	0.0	0.0	0.0
161	D29	-4100	8552	0.0	0.0	0.0	0.0	0.0	0.0
162	D30	-4134	7232	0.0	0.0	0.0	0.0	0.0	0.0
163	D31	-4168	5912	0.0	0.0	0.0	0.0	0.0	0.1
164	D32	-4202	4592	0.0	0.0	0.0	0.1	0.0	0.2
165	D33	-4236	3272	0.0	0.0	0.0	0.1	0.0	0.2
166	D34	-4270	1952	0.0	0.0	0.0	0.1	0.0	0.2
167	D35	-4304	632	0.0	0.0	0.0	0.1	0.0	0.3
168	D36	-4338	-688	0.0	0.0	0.0	0.1	0.0	0.3

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
169	D37	-4372	-2008	0.0	0.0	0.0	0.1	0.0	0.1
170	D38	-4406	-3328	0.0	0.0	0.0	0.0	0.0	0.0
171	D39	-4440	-4648	0.0	0.0	0.0	0.0	0.0	0.0
172	D40	-4474	-5968	0.0	0.0	0.0	0.0	0.0	0.0
173	D41	-4508	-7288	0.0	0.0	0.0	0.0	0.0	0.0
174	D42	-4542	-8608	0.0	0.0	0.0	0.0	0.0	0.0
175	D43	-4576	-9928	0.0	0.0	0.0	0.0	0.0	0.0
176	D44	-4610	-11248	0.0	0.0	0.0	0.0	0.0	0.0
177	D45	-4644	-12568	0.0	0.0	0.0	0.0	0.0	0.0
178	D46	-4678	-13888	0.0	0.0	0.0	0.0	0.0	0.0
179	D47	-4712	-15208	0.0	0.0	0.0	0.0	0.0	0.0
180	D48	-4746	-16528	0.0	0.0	0.0	0.0	0.0	0.0
181	D49	-4780	-17848	0.0	0.0	0.0	0.0	0.0	0.0
182	D50	-4814	-19168	0.0	0.0	0.0	0.0	0.0	0.0
183	D51	-4848	-20488	0.0	0.0	0.0	0.0	0.0	0.0
184	D52	-4882	-21808	0.0	0.0	0.0	0.0	0.0	0.0
185	D53	-4916	-23128	0.0	0.0	0.0	0.0	0.0	0.0
186	D54	-4950	-24448	0.0	0.0	0.0	0.0	0.0	0.0
187	D55	-4984	-25768	0.0	0.0	0.0	0.0	0.0	0.0
188	D56	-5018	-27088	0.0	0.0	0.0	0.0	0.0	0.0
189	D57	-5052	-28408	0.0	0.0	0.0	0.0	0.0	0.0
190	D58	-5086	-29728	0.0	0.0	0.0	0.0	0.0	0.0
191	D59	-5120	-31048	0.0	0.0	0.0	0.0	0.0	0.0
192	D60	-5154	-32368	0.0	0.0	0.0	0.0	0.0	0.0
193	D61	-5188	-33688	0.0	0.0	0.0	0.0	0.0	0.0
194	D62	-5222	-35008	0.0	0.0	0.0	0.0	0.0	0.0
195	D63	-5256	-36328	0.0	0.0	0.0	0.0	0.0	0.0
196	D64	-5290	-37648	0.0	0.0	0.0	0.0	0.0	0.0
197	D65	-5324	-38968	0.0	0.0	0.0	0.0	0.0	0.0
198	D66	-5358	-40288	0.0	0.0	0.0	0.0	0.0	0.0
199	D67	-5392	-41608	0.0	0.0	0.0	0.0	0.0	0.0
200	E1	-1828	45478	0.0	0.0	0.0	0.0	0.0	0.0
201	E2	-1862	44158	0.0	0.0	0.0	0.0	0.0	0.0
202	E3	-1896	42838	0.0	0.0	0.0	0.0	0.0	0.0
203	E4	-1930	41518	0.0	0.0	0.0	0.0	0.0	0.0
204	E5	-1964	40198	0.0	0.0	0.0	0.0	0.0	0.0
205	E6	-1998	38878	0.0	0.0	0.0	0.0	0.0	0.0
206	E7	-2032	37558	0.0	0.0	0.0	0.0	0.0	0.0
207	E8	-2066	36238	0.0	0.0	0.0	0.0	0.0	0.0
208	E9	-2100	34918	0.0	0.0	0.0	0.0	0.0	0.0
209	E10	-2134	33598	0.0	0.0	0.0	0.0	0.0	0.0
210	E11	-2168	32278	0.0	0.0	0.0	0.0	0.0	0.0
211	E12	-2202	30958	0.0	0.0	0.0	0.0	0.0	0.0
212	E13	-2236	29638	0.0	0.0	0.0	0.0	0.0	0.0
213	E14	-2270	28318	0.0	0.0	0.0	0.0	0.0	0.0
214	E15	-2304	26998	0.1	0.1	0.0	0.0	0.0	0.0
215	E16	-2338	25678	0.1	0.1	0.0	0.0	0.0	0.0
216	E17	-2372	24358	0.1	0.1	0.0	0.0	0.0	0.0
217	E18	-2406	23038	0.2	0.2	0.0	0.0	0.0	0.0
218	E19	-2440	21718	0.2	0.2	0.0	0.0	0.0	0.0
219	E20	-2474	20398	0.2	0.2	0.0	0.0	0.0	0.0
220	E21	-2508	19078	0.3	0.3	0.0	0.1	0.0	0.1
221	E22	-2542	17758	0.3	0.3	0.0	0.1	0.0	0.2
222	E23	-2576	16438	0.4	0.4	0.0	0.1	0.0	0.2
223	E24	-2610	15118	0.4	0.4	0.0	0.2	0.0	0.3
224	E25	-2644	13798	0.6	0.6	0.0	0.2	0.0	0.4

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
225	E26	-2678	12478	0.5	0.5	0.0	0.2	0.0	0.4
226	E27	-2712	11158	0.4	0.4	0.0	0.2	0.0	0.5
227	E28	-2746	9838	0.4	0.4	0.0	0.2	0.0	0.6
228	E29	-2780	8518	0.4	0.4	0.0	0.3	0.0	0.8
229	E30	-2814	7198	0.3	0.3	0.0	0.3	0.0	1.1
230	E31	-2848	5878	0.2	0.2	0.0	0.8	0.0	1.8
231	E32	-2882	4558	0.2	0.2	0.0	2.7	0.0	4.5
232	E33	-2916	3238	0.3	0.3	0.1	2.2	0.1	3.4
233	E34	-2950	1918	0.3	0.3	0.1	2.0	0.1	3.4
234	E35	-2984	598	0.3	0.3	0.1	1.8	0.1	3.5
235	E36	-3018	-722	0.3	0.3	0.1	1.8	0.1	3.9
236	E37	-3052	-2042	0.2	0.2	0.0	1.9	0.0	5.0
237	E38	-3086	-3362	0.1	0.1	0.0	0.8	0.0	1.7
238	E39	-3120	-4682	0.1	0.1	0.0	0.4	0.0	0.5
239	E40	-3154	-6002	0.1	0.1	0.0	0.3	0.0	0.4
240	E41	-3188	-7322	0.1	0.1	0.0	0.2	0.0	0.3
241	E42	-3222	-8642	0.1	0.1	0.0	0.2	0.0	0.2
242	E43	-3256	-9962	0.1	0.1	0.0	0.1	0.0	0.1
243	E44	-3290	-11282	0.1	0.1	0.0	0.1	0.0	0.1
244	E45	-3324	-12602	0.0	0.0	0.0	0.0	0.0	0.0
245	E46	-3358	-13922	0.0	0.0	0.0	0.0	0.0	0.0
246	E47	-3392	-15242	0.0	0.0	0.0	0.0	0.0	0.0
247	E48	-3426	-16562	0.0	0.0	0.0	0.0	0.0	0.0
248	E49	-3460	-17882	0.0	0.0	0.0	0.0	0.0	0.0
249	E50	-3494	-19202	0.0	0.0	0.0	0.0	0.0	0.0
250	E51	-3528	-20522	0.0	0.0	0.0	0.0	0.0	0.0
251	E52	-3562	-21842	0.0	0.0	0.0	0.0	0.0	0.0
252	E53	-3596	-23162	0.0	0.0	0.0	0.0	0.0	0.0
253	E54	-3630	-24482	0.0	0.0	0.0	0.0	0.0	0.0
254	E55	-3664	-25802	0.0	0.0	0.0	0.0	0.0	0.0
255	E56	-3698	-27122	0.0	0.0	0.0	0.0	0.0	0.0
256	E57	-3732	-28442	0.0	0.0	0.0	0.0	0.0	0.0
257	E58	-3766	-29762	0.0	0.0	0.0	0.0	0.0	0.0
258	E59	-3800	-31082	0.0	0.0	0.0	0.0	0.0	0.0
259	E60	-3834	-32402	0.0	0.0	0.0	0.0	0.0	0.0
260	E61	-3868	-33722	0.0	0.0	0.0	0.0	0.0	0.0
261	E62	-3902	-35042	0.0	0.0	0.0	0.0	0.0	0.0
262	E63	-3936	-36362	0.0	0.0	0.0	0.0	0.0	0.0
263	E64	-3970	-37682	0.0	0.0	0.0	0.0	0.0	0.0
264	E65	-4004	-39002	0.0	0.0	0.0	0.0	0.0	0.0
265	E66	-4038	-40322	0.0	0.0	0.0	0.0	0.0	0.0
266	E67	-4072	-41642	0.0	0.0	0.0	0.0	0.0	0.0
267	E68	-4106	-42962	0.0	0.0	0.0	0.0	0.0	0.0
268	E69	-4140	-44282	0.0	0.0	0.0	0.0	0.0	0.0
269	E70	-4174	-45602	0.0	0.0	0.0	0.0	0.0	0.0
270	E71	-4208	-46922	0.0	0.0	0.0	0.0	0.0	0.0
271	E72	-4242	-48242	0.0	0.0	0.0	0.0	0.0	0.0
272	E73	-4276	-49562	0.0	0.0	0.0	0.0	0.0	0.0
273	F1	-508	45444	0.0	0.0	0.0	0.0	0.0	0.0
274	F2	-542	44124	0.0	0.0	0.0	0.0	0.0	0.0
275	F3	-576	42804	0.0	0.0	0.0	0.0	0.0	0.0
276	F4	-610	41484	0.0	0.0	0.0	0.0	0.0	0.0
277	F5	-644	40164	0.0	0.0	0.0	0.0	0.0	0.0
278	F6	-678	38844	0.0	0.0	0.0	0.0	0.0	0.0
279	F7	-712	37524	0.0	0.0	0.0	0.0	0.0	0.0
280	F8	-746	36204	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
281	F9	-780	34884	0.0	0.0	0.0	0.0	0.0	0.0
282	F10	-814	33564	0.0	0.0	0.0	0.0	0.0	0.0
283	F11	-848	32244	0.1	0.1	0.0	0.0	0.0	0.0
284	F12	-882	30924	0.1	0.1	0.0	0.0	0.0	0.0
285	F13	-916	29604	0.1	0.1	0.0	0.0	0.0	0.0
286	F14	-950	28284	0.1	0.1	0.0	0.0	0.0	0.0
287	F15	-984	26964	0.1	0.1	0.0	0.0	0.0	0.0
288	F16	-1018	25644	0.2	0.2	0.0	0.0	0.0	0.0
289	F17	-1052	24324	0.3	0.3	0.1	0.1	0.0	0.1
290	F18	-1086	23004	0.5	0.5	0.1	0.1	0.1	0.1
291	F19	-1120	21684	0.5	0.5	0.1	0.1	0.1	0.1
292	F20	-1154	20364	0.6	0.6	0.1	0.1	0.1	0.2
293	F21	-1188	19044	0.7	0.7	0.2	0.2	0.2	0.3
294	F22	-1222	17724	1.1	1.1	0.4	0.4	0.4	0.5
295	F23	-1256	16404	1.5	1.5	0.5	0.6	0.5	0.6
296	F24	-1290	15084	1.7	1.7	0.7	0.8	0.6	1.0
297	F25	-1324	13764	2.0	2.0	0.9	1.1	0.9	1.4
298	F26	-1358	12444	2.2	2.2	1.1	1.5	1.1	1.9
299	F27	-1392	11124	2.4	2.4	1.3	1.8	1.2	2.3
300	F28	-1426	9804	2.5	2.5	1.5	2.2	1.4	2.9
301	F29	-1460	8484	2.6	2.6	1.5	2.3	1.4	3.2
302	F30	-1494	7164	2.6	2.6	1.6	2.9	1.6	4.2
303	F31	-1528	5844	3.1	3.1	1.9	6.3	2.0	8.4
304	F32	-1562	4524	4.9	4.9	3.6	17.9	3.7	22.4
305	F33	-1596	3204	6.3	6.3	4.5	17.9	4.5	21.5
306	F34	-1630	1884	6.2	6.2	4.4	14.6	4.8	17.1
307	F35	-1664	564	9.0	9.0	6.0	13.6	6.7	16.9
308	F36	-1698	-756	8.7	8.7	5.9	13.7	6.5	18.8
309	F37	-1732	-2076	10.0	10.0	6.6	14.3	7.0	21.1
310	F38	-1766	-3396	6.9	6.9	4.6	10.4	4.9	14.4
311	F39	-1800	-4716	4.5	4.5	3.0	5.4	3.1	6.0
312	F40	-1834	-6036	3.4	3.4	2.1	4.1	2.2	4.5
313	F41	-1868	-7356	2.4	2.4	1.2	3.0	1.3	3.1
314	F42	-1902	-8676	2.2	2.2	0.8	2.0	0.9	2.1
315	F43	-1936	-9996	1.9	1.9	0.5	1.2	0.6	1.3
316	F44	-1970	-11316	1.3	1.3	0.2	0.6	0.2	0.6
317	F45	-2004	-12636	1.0	1.0	0.0	0.2	0.0	0.2
318	F46	-2038	-13956	0.9	0.9	0.0	0.1	0.0	0.2
319	F47	-2072	-15276	0.9	0.9	0.0	0.1	0.0	0.1
320	F48	-2106	-16596	0.6	0.6	0.0	0.0	0.0	0.1
321	F49	-2140	-17916	0.5	0.5	0.0	0.0	0.0	0.0
322	F50	-2174	-19236	0.3	0.3	0.0	0.0	0.0	0.0
323	F51	-2208	-20556	0.2	0.2	0.0	0.0	0.0	0.0
324	F52	-2242	-21876	0.1	0.1	0.0	0.0	0.0	0.0
325	F53	-2276	-23196	0.1	0.1	0.0	0.0	0.0	0.0
326	F54	-2310	-24516	0.0	0.0	0.0	0.0	0.0	0.0
327	F55	-2344	-25836	0.0	0.0	0.0	0.0	0.0	0.0
328	F56	-2378	-27156	0.0	0.0	0.0	0.0	0.0	0.0
329	F57	-2412	-28476	0.0	0.0	0.0	0.0	0.0	0.0
330	F58	-2446	-29796	0.0	0.0	0.0	0.0	0.0	0.0
331	F59	-2480	-31116	0.0	0.0	0.0	0.0	0.0	0.0
332	F60	-2514	-32436	0.0	0.0	0.0	0.0	0.0	0.0
333	F61	-2548	-33756	0.0	0.0	0.0	0.0	0.0	0.0
334	F62	-2582	-35076	0.0	0.0	0.0	0.0	0.0	0.0
335	F63	-2616	-36396	0.0	0.0	0.0	0.0	0.0	0.0
336	F64	-2650	-37716	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
337	F65	-2684	-39036	0.0	0.0	0.0	0.0	0.0	0.0
338	F66	-2718	-40356	0.0	0.0	0.0	0.0	0.0	0.0
339	F67	-2752	-41676	0.0	0.0	0.0	0.0	0.0	0.0
340	F68	-2786	-42996	0.0	0.0	0.0	0.0	0.0	0.0
341	F69	-2820	-44316	0.0	0.0	0.0	0.0	0.0	0.0
342	F70	-2854	-45636	0.0	0.0	0.0	0.0	0.0	0.0
343	F71	-2888	-46956	0.0	0.0	0.0	0.0	0.0	0.0
344	F72	-2922	-48276	0.0	0.0	0.0	0.0	0.0	0.0
345	F73	-2956	-49596	0.0	0.0	0.0	0.0	0.0	0.0
346	G1	812	45410	0.0	0.0	0.0	0.0	0.0	0.0
347	G2	778	44090	0.0	0.0	0.0	0.0	0.0	0.0
348	G3	744	42770	0.0	0.0	0.0	0.0	0.0	0.0
349	G4	710	41450	0.0	0.0	0.0	0.0	0.0	0.0
350	G5	676	40130	0.0	0.0	0.0	0.0	0.0	0.0
351	G6	642	38810	0.0	0.0	0.0	0.0	0.0	0.0
352	G7	608	37490	0.0	0.0	0.0	0.0	0.0	0.0
353	G8	574	36170	0.0	0.0	0.0	0.0	0.0	0.0
354	G9	540	34850	0.0	0.0	0.0	0.0	0.0	0.0
355	G10	506	33530	0.0	0.0	0.0	0.0	0.0	0.0
356	G11	472	32210	0.0	0.0	0.0	0.0	0.0	0.0
357	G12	438	30890	0.1	0.1	0.0	0.0	0.0	0.0
358	G13	404	29570	0.1	0.1	0.0	0.0	0.0	0.0
359	G14	370	28250	0.1	0.1	0.0	0.0	0.0	0.0
360	G15	336	26930	0.1	0.1	0.0	0.0	0.0	0.0
361	G16	302	25610	0.2	0.2	0.0	0.0	0.0	0.0
362	G17	268	24290	0.3	0.3	0.1	0.0	0.0	0.1
363	G18	234	22970	0.5	0.5	0.1	0.1	0.1	0.1
364	G19	200	21650	0.5	0.5	0.1	0.1	0.1	0.1
365	G20	166	20330	0.6	0.6	0.1	0.1	0.1	0.2
366	G21	132	19010	0.7	0.7	0.2	0.2	0.2	0.3
367	G22	98	17690	1.1	1.1	0.4	0.4	0.4	0.5
368	G23	64	16370	1.9	1.9	0.9	0.8	0.8	0.9
369	G24	30	15050	2.3	2.3	1.2	1.2	1.1	1.2
370	G25	-4	13730	3.7	3.7	2.5	2.2	2.3	2.3
371	G26	-38	12410	5.3	5.3	3.9	3.3	3.8	3.4
372	G27	-72	11090	6.4	6.4	5.2	4.3	5.2	4.4
373	G28	-106	9770	8.8	8.8	7.6	5.9	7.8	6.1
374	G29	-140	8450	12.3	12.3	11.4	7.8	11.9	8.3
375	G30	-174	7130	14.1	14.1	13.7	9.0	14.2	9.7
376	G31	-208	5810	19.7	19.7	19.5	13.1	20.5	14.1
377	G32	-242	4490	31.2	31.2	30.5	55.1	31.4	57.5
378	G33	-276	3170	59.1	59.1	56.8	59.4	61.0	61.6
379	G34	-310	1850	75.2	75.2	74.2	54.2	77.9	58.5
380	G35	-344	530	71.2	71.2	72.2	49.0	76.5	53.4
381	G36	-378	-790	64.7	64.7	65.0	55.1	68.5	60.3
382	G37	-412	-2110	60.4	60.4	60.7	54.2	63.8	59.2
383	G38	-446	-3430	57.2	57.2	56.0	55.4	58.5	60.1
384	G39	-480	-4750	28.0	28.0	25.4	20.8	27.1	20.9
385	G40	-514	-6070	18.1	18.1	17.6	13.7	18.2	14.8
386	G41	-548	-7390	14.7	14.7	13.7	10.5	14.0	10.8
387	G42	-582	-8710	12.9	12.9	11.2	8.3	11.3	8.4
388	G43	-616	-10030	10.0	10.0	7.7	5.8	7.6	5.8
389	G44	-650	-11350	7.3	7.3	5.2	4.0	4.9	3.9
390	G45	-684	-12670	5.4	5.4	3.4	2.4	3.2	2.3
391	G46	-718	-13990	3.7	3.7	2.1	1.5	2.0	1.4
392	G47	-752	-15310	2.6	2.6	1.2	1.0	1.1	0.9

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
393	G48	-786	-16630	2.1	2.1	0.7	0.6	0.6	0.5
394	G49	-820	-17950	1.8	1.8	0.4	0.4	0.4	0.3
395	G50	-854	-19270	1.2	1.2	0.2	0.2	0.2	0.2
396	G51	-888	-20590	0.9	0.9	0.1	0.1	0.1	0.1
397	G52	-922	-21910	0.8	0.8	0.1	0.1	0.1	0.1
398	G53	-956	-23230	0.7	0.7	0.0	0.1	0.0	0.0
399	G54	-990	-24550	0.5	0.5	0.0	0.0	0.0	0.0
400	G55	-1024	-25870	0.3	0.3	0.0	0.0	0.0	0.0
401	G56	-1058	-27190	0.2	0.2	0.0	0.0	0.0	0.0
402	G57	-1092	-28510	0.1	0.1	0.0	0.0	0.0	0.0
403	G58	-1126	-29830	0.1	0.1	0.0	0.0	0.0	0.0
404	G59	-1160	-31150	0.1	0.1	0.0	0.0	0.0	0.0
405	G60	-1194	-32470	0.0	0.0	0.0	0.0	0.0	0.0
406	G61	-1228	-33790	0.0	0.0	0.0	0.0	0.0	0.0
407	G62	-1262	-35110	0.0	0.0	0.0	0.0	0.0	0.0
408	G63	-1296	-36430	0.0	0.0	0.0	0.0	0.0	0.0
409	G64	-1330	-37750	0.0	0.0	0.0	0.0	0.0	0.0
410	G65	-1364	-39070	0.0	0.0	0.0	0.0	0.0	0.0
411	G66	-1398	-40390	0.0	0.0	0.0	0.0	0.0	0.0
412	G67	-1432	-41710	0.0	0.0	0.0	0.0	0.0	0.0
413	G68	-1466	-43030	0.0	0.0	0.0	0.0	0.0	0.0
414	G69	-1500	-44350	0.0	0.0	0.0	0.0	0.0	0.0
415	G70	-1534	-45670	0.0	0.0	0.0	0.0	0.0	0.0
416	G71	-1568	-46990	0.0	0.0	0.0	0.0	0.0	0.0
417	G72	-1602	-48310	0.0	0.0	0.0	0.0	0.0	0.0
418	G73	-1636	-49630	0.0	0.0	0.0	0.0	0.0	0.0
419	H1	2132	45376	0.0	0.0	0.0	0.0	0.0	0.0
420	H2	2098	44056	0.0	0.0	0.0	0.0	0.0	0.0
421	H3	2064	42736	0.0	0.0	0.0	0.0	0.0	0.0
422	H4	2030	41416	0.0	0.0	0.0	0.0	0.0	0.0
423	H5	1996	40096	0.0	0.0	0.0	0.0	0.0	0.0
424	H6	1962	38776	0.0	0.0	0.0	0.0	0.0	0.0
425	H7	1928	37456	0.0	0.0	0.0	0.0	0.0	0.0
426	H8	1894	36136	0.0	0.0	0.0	0.0	0.0	0.0
427	H9	1860	34816	0.0	0.0	0.0	0.0	0.0	0.0
428	H10	1826	33496	0.0	0.0	0.0	0.0	0.0	0.0
429	H11	1792	32176	0.0	0.0	0.0	0.0	0.0	0.0
430	H12	1758	30856	0.0	0.0	0.0	0.0	0.0	0.0
431	H13	1724	29536	0.0	0.0	0.0	0.0	0.0	0.0
432	H14	1690	28216	0.0	0.0	0.0	0.0	0.0	0.0
433	H15	1656	26896	0.0	0.0	0.0	0.0	0.0	0.0
434	H16	1622	25576	0.0	0.0	0.0	0.0	0.0	0.0
435	H17	1588	24256	0.0	0.0	0.0	0.0	0.0	0.0
436	H18	1554	22936	0.1	0.1	0.0	0.0	0.0	0.0
437	H19	1520	21616	0.2	0.2	0.0	0.0	0.0	0.0
438	H20	1486	20296	0.2	0.2	0.0	0.0	0.0	0.0
439	H21	1452	18976	0.3	0.3	0.0	0.0	0.0	0.0
440	H22	1418	17656	0.4	0.4	0.0	0.0	0.0	0.1
441	H23	1384	16336	0.6	0.6	0.1	0.0	0.1	0.1
442	H24	1350	15016	0.8	0.8	0.1	0.1	0.1	0.2
443	H25	1316	13696	1.1	1.1	0.3	0.2	0.2	0.3
444	H26	1282	12376	1.6	1.6	0.7	0.5	0.6	0.6
445	H27	1248	11056	2.4	2.4	1.3	1.1	1.2	1.2
446	H28	1214	9736	3.4	3.4	2.4	1.9	2.2	2.1
447	H29	1180	8416	4.6	4.6	3.4	2.8	3.2	3.0
448	H30	1146	7096	6.0	6.0	5.0	4.2	4.9	4.5

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
449	H31	1112	5776	10.0	10.0	8.5	6.0	8.5	6.5
450	H32	1078	4456	14.8	14.8	12.6	14.3	12.5	16.3
451	H33	1044	3136	27.9	27.9	22.4	24.2	23.3	24.8
452	H34	1010	1816	66.2	66.2	65.0	40.9	68.6	45.8
453	H35	976	496	56.4	56.4	56.0	34.1	58.7	38.7
454	H36	942	-824	50.4	50.4	49.5	32.6	52.2	37.4
455	H37	908	-2144	75.8	75.6	78.4	35.2	83.7	39.8
456	H38	874	-3464	64.8	64.8	65.4	35.4	70.5	38.9
457	H39	840	-4784	29.4	29.4	27.3	18.0	29.9	16.3
458	H40	806	-6104	18.0	18.0	17.5	11.0	18.2	12.6
459	H41	772	-7424	12.7	12.7	11.5	6.5	11.6	6.7
460	H42	738	-8744	10.7	10.7	8.9	4.3	8.7	4.5
461	H43	704	-10064	9.0	9.0	6.8	3.2	6.5	3.2
462	H44	670	-11384	7.2	7.2	5.2	2.4	4.9	2.4
463	H45	636	-12704	6.0	6.0	3.9	1.8	3.7	1.7
464	H46	602	-14024	4.7	4.7	3.0	1.4	2.7	1.3
465	H47	568	-15344	4.0	4.0	2.3	1.1	2.2	1.0
466	H48	534	-16664	2.8	2.8	1.3	0.7	1.1	0.6
467	H49	500	-17984	2.5	2.5	0.9	0.5	0.8	0.4
468	H50	466	-19304	1.5	1.5	0.4	0.2	0.4	0.2
469	H51	432	-20624	1.1	1.1	0.2	0.1	0.2	0.1
470	H52	398	-21944	1.0	1.0	0.2	0.1	0.1	0.1
471	H53	364	-23264	0.9	0.9	0.1	0.1	0.1	0.0
472	H54	330	-24584	0.8	0.8	0.1	0.0	0.1	0.0
473	H55	296	-25904	0.6	0.6	0.0	0.0	0.0	0.0
474	H56	262	-27224	0.4	0.4	0.0	0.0	0.0	0.0
475	H57	228	-28544	0.2	0.2	0.0	0.0	0.0	0.0
476	H58	194	-29864	0.2	0.2	0.0	0.0	0.0	0.0
477	H59	160	-31184	0.1	0.1	0.0	0.0	0.0	0.0
478	H60	126	-32504	0.1	0.1	0.0	0.0	0.0	0.0
479	H61	92	-33824	0.1	0.1	0.0	0.0	0.0	0.0
480	H62	58	-35144	0.1	0.1	0.0	0.0	0.0	0.0
481	H63	24	-36464	0.1	0.1	0.0	0.0	0.0	0.0
482	H64	-10	-37784	0.0	0.0	0.0	0.0	0.0	0.0
483	H65	-44	-39104	0.0	0.0	0.0	0.0	0.0	0.0
484	H66	-78	-40424	0.0	0.0	0.0	0.0	0.0	0.0
485	H67	-112	-41744	0.0	0.0	0.0	0.0	0.0	0.0
486	H68	-146	-43064	0.0	0.0	0.0	0.0	0.0	0.0
487	H69	-180	-44384	0.0	0.0	0.0	0.0	0.0	0.0
488	H70	-214	-45704	0.0	0.0	0.0	0.0	0.0	0.0
489	H71	-248	-47024	0.0	0.0	0.0	0.0	0.0	0.0
490	H72	-282	-48344	0.0	0.0	0.0	0.0	0.0	0.0
491	H73	-316	-49664	0.0	0.0	0.0	0.0	0.0	0.0
492	I1	3452	45342	0.0	0.0	0.0	0.0	0.0	0.0
493	I2	3418	44022	0.0	0.0	0.0	0.0	0.0	0.0
494	I3	3384	42702	0.0	0.0	0.0	0.0	0.0	0.0
495	I4	3350	41382	0.0	0.0	0.0	0.0	0.0	0.0
496	I5	3316	40062	0.0	0.0	0.0	0.0	0.0	0.0
497	I6	3282	38742	0.0	0.0	0.0	0.0	0.0	0.0
498	I7	3248	37422	0.0	0.0	0.0	0.0	0.0	0.0
499	I8	3214	36102	0.0	0.0	0.0	0.0	0.0	0.0
500	I9	3180	34782	0.0	0.0	0.0	0.0	0.0	0.0
501	I10	3146	33462	0.0	0.0	0.0	0.0	0.0	0.0
502	I11	3112	32142	0.0	0.0	0.0	0.0	0.0	0.0
503	I12	3078	30822	0.0	0.0	0.0	0.0	0.0	0.0
504	I13	3044	29502	0.0	0.0	0.0	0.0	0.0	0.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
505	I14	3010	28182	0.0	0.0	0.0	0.0	0.0	0.0
506	I15	2976	26862	0.0	0.0	0.0	0.0	0.0	0.0
507	I16	2942	25542	0.0	0.0	0.0	0.0	0.0	0.0
508	I17	2908	24222	0.0	0.0	0.0	0.0	0.0	0.0
509	I18	2874	22902	0.0	0.0	0.0	0.0	0.0	0.0
510	I19	2840	21582	0.0	0.0	0.0	0.0	0.0	0.0
511	I20	2806	20262	0.0	0.0	0.0	0.0	0.0	0.0
512	I21	2772	18942	0.0	0.0	0.0	0.0	0.0	0.0
513	I22	2738	17622	0.0	0.0	0.0	0.0	0.0	0.0
514	I23	2704	16302	0.0	0.0	0.0	0.0	0.0	0.0
515	I24	2670	14982	0.1	0.1	0.0	0.0	0.0	0.0
516	I25	2636	13662	0.2	0.2	0.0	0.0	0.0	0.0
517	I26	2602	12342	0.3	0.3	0.0	0.0	0.0	0.0
518	I27	2568	11022	0.3	0.3	0.0	0.0	0.0	0.0
519	I28	2534	9702	0.5	0.5	0.0	0.0	0.0	0.0
520	I29	2500	8382	0.7	0.7	0.1	0.1	0.1	0.1
521	I30	2466	7062	0.9	0.9	0.3	0.2	0.3	0.3
522	I31	2432	5742	1.4	1.4	0.7	0.5	0.7	0.6
523	I32	2398	4422	2.1	2.1	1.2	0.9	1.3	1.1
524	I33	2364	3102	3.0	3.0	2.0	1.3	2.2	1.6
525	I34	2330	1782	5.5	5.5	3.3	1.9	3.6	2.4
526	I35	2296	462	8.0	8.0	4.9	2.5	5.6	3.2
527	I36	2262	-858	7.7	7.7	4.8	2.4	5.3	3.1
528	I37	2228	-2178	8.5	8.5	5.4	2.4	5.8	3.1
529	I38	2194	-3498	6.5	6.5	4.2	1.7	4.3	2.0
530	I39	2160	-4818	4.7	4.7	3.3	1.2	3.3	1.4
531	I40	2126	-6138	3.8	3.8	2.6	0.9	2.7	1.1
532	I41	2092	-7458	2.9	2.9	1.7	0.6	1.8	0.7
533	I42	2058	-8778	2.5	2.5	1.1	0.4	1.2	0.4
534	I43	2024	-10098	2.0	2.0	0.6	0.2	0.6	0.2
535	I44	1990	-11418	1.3	1.3	0.2	0.0	0.2	0.0
536	I45	1956	-12738	1.3	1.3	0.2	0.0	0.2	0.0
537	I46	1922	-14058	1.1	1.1	0.1	0.0	0.1	0.0
538	I47	1888	-15378	1.1	1.1	0.1	0.0	0.1	0.0
539	I48	1854	-16698	1.0	1.0	0.1	0.0	0.1	0.0
540	I49	1820	-18018	0.9	0.9	0.0	0.0	0.1	0.0
541	I50	1786	-19338	0.7	0.7	0.0	0.0	0.0	0.0
542	I51	1752	-20658	0.5	0.5	0.0	0.0	0.0	0.0
543	I52	1718	-21978	0.5	0.5	0.0	0.0	0.0	0.0
544	I53	1684	-23298	0.4	0.4	0.0	0.0	0.0	0.0
545	I54	1650	-24618	0.3	0.3	0.0	0.0	0.0	0.0
546	I55	1616	-25938	0.2	0.2	0.0	0.0	0.0	0.0
547	I56	1582	-27258	0.1	0.1	0.0	0.0	0.0	0.0
548	I57	1548	-28578	0.1	0.1	0.0	0.0	0.0	0.0
549	I58	1514	-29898	0.1	0.1	0.0	0.0	0.0	0.0
550	I59	1480	-31218	0.1	0.1	0.0	0.0	0.0	0.0
551	I60	1446	-32538	0.1	0.1	0.0	0.0	0.0	0.0
552	I61	1412	-33858	0.1	0.1	0.0	0.0	0.0	0.0
553	I62	1378	-35178	0.1	0.1	0.0	0.0	0.0	0.0
554	I63	1344	-36498	0.0	0.0	0.0	0.0	0.0	0.0
555	I64	1310	-37818	0.0	0.0	0.0	0.0	0.0	0.0
556	I65	1276	-39138	0.0	0.0	0.0	0.0	0.0	0.0
557	I66	1242	-40458	0.0	0.0	0.0	0.0	0.0	0.0
558	I67	1208	-41778	0.0	0.0	0.0	0.0	0.0	0.0
559	I68	1174	-43098	0.0	0.0	0.0	0.0	0.0	0.0
560	I69	1140	-44418	0.0	0.0	0.0	0.0	0.0	0.0

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
561	I70	1106	-45738	0.0	0.0	0.0	0.0	0.0	0.0
562	I71	1072	-47058	0.0	0.0	0.0	0.0	0.0	0.0
563	I72	1038	-48378	0.0	0.0	0.0	0.0	0.0	0.0
564	I73	1004	-49698	0.0	0.0	0.0	0.0	0.0	0.0
565	J8	4534	36068	0.0	0.0	0.0	0.0	0.0	0.0
566	J9	4500	34748	0.0	0.0	0.0	0.0	0.0	0.0
567	J10	4466	33428	0.0	0.0	0.0	0.0	0.0	0.0
568	J11	4432	32108	0.0	0.0	0.0	0.0	0.0	0.0
569	J12	4398	30788	0.0	0.0	0.0	0.0	0.0	0.0
570	J13	4364	29468	0.0	0.0	0.0	0.0	0.0	0.0
571	J14	4330	28148	0.0	0.0	0.0	0.0	0.0	0.0
572	J15	4296	26828	0.0	0.0	0.0	0.0	0.0	0.0
573	J16	4262	25508	0.0	0.0	0.0	0.0	0.0	0.0
574	J17	4228	24188	0.0	0.0	0.0	0.0	0.0	0.0
575	J18	4194	22868	0.0	0.0	0.0	0.0	0.0	0.0
576	J19	4160	21548	0.0	0.0	0.0	0.0	0.0	0.0
577	J20	4126	20228	0.0	0.0	0.0	0.0	0.0	0.0
578	J21	4092	18908	0.0	0.0	0.0	0.0	0.0	0.0
579	J22	4058	17588	0.0	0.0	0.0	0.0	0.0	0.0
580	J23	4024	16268	0.0	0.0	0.0	0.0	0.0	0.0
581	J24	3990	14948	0.0	0.0	0.0	0.0	0.0	0.0
582	J25	3956	13628	0.0	0.0	0.0	0.0	0.0	0.0
583	J26	3922	12308	0.0	0.0	0.0	0.0	0.0	0.0
584	J27	3888	10988	0.0	0.0	0.0	0.0	0.0	0.0
585	J28	3854	9668	0.0	0.0	0.0	0.0	0.0	0.0
586	J29	3820	8348	0.0	0.0	0.0	0.0	0.0	0.0
587	J30	3786	7028	0.0	0.0	0.0	0.0	0.0	0.0
588	J31	3752	5708	0.0	0.0	0.0	0.0	0.0	0.0
589	J32	3718	4388	0.0	0.0	0.0	0.0	0.0	0.0
590	J33	3684	3068	0.1	0.1	0.0	0.0	0.0	0.0
591	J34	3650	1748	0.1	0.1	0.0	0.0	0.0	0.0
592	J35	3616	428	0.1	0.1	0.0	0.0	0.0	0.0
593	J36	3582	-892	0.0	0.0	0.0	0.0	0.0	0.0
594	J37	3548	-2212	0.0	0.0	0.0	0.0	0.0	0.0
595	J38	3514	-3532	0.1	0.1	0.0	0.0	0.0	0.0
596	J39	3480	-4852	0.1	0.1	0.0	0.0	0.0	0.0
597	J40	3446	-6172	0.1	0.1	0.0	0.0	0.0	0.0
598	J41	3412	-7492	0.0	0.0	0.0	0.0	0.0	0.0
599	J42	3378	-8812	0.0	0.0	0.0	0.0	0.0	0.0
600	J43	3344	-10132	0.0	0.0	0.0	0.0	0.0	0.0
601	J44	3310	-11452	0.1	0.1	0.0	0.0	0.0	0.0
602	J45	3276	-12772	0.1	0.1	0.0	0.0	0.0	0.0
603	J46	3242	-14092	0.2	0.2	0.0	0.0	0.0	0.0
604	J47	3208	-15412	0.2	0.2	0.0	0.0	0.0	0.0
605	J48	3174	-16732	0.2	0.2	0.0	0.0	0.0	0.0
606	J49	3140	-18052	0.1	0.1	0.0	0.0	0.0	0.0
607	J50	3106	-19372	0.1	0.1	0.0	0.0	0.0	0.0
608	J51	3072	-20692	0.1	0.1	0.0	0.0	0.0	0.0
609	J52	3038	-22012	0.1	0.1	0.0	0.0	0.0	0.0
610	J53	3004	-23332	0.1	0.1	0.0	0.0	0.0	0.0
611	J54	2970	-24652	0.0	0.0	0.0	0.0	0.0	0.0
612	J55	2936	-25972	0.0	0.0	0.0	0.0	0.0	0.0
613	J56	2902	-27292	0.0	0.0	0.0	0.0	0.0	0.0
614	J57	2868	-28612	0.0	0.0	0.0	0.0	0.0	0.0
615	J58	2834	-29932	0.0	0.0	0.0	0.0	0.0	0.0
616	J59	2800	-31252	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
617	J60	2766	-32572	0.0	0.0	0.0	0.0	0.0	0.0
618	J61	2732	-33892	0.0	0.0	0.0	0.0	0.0	0.0
619	J62	2698	-35212	0.0	0.0	0.0	0.0	0.0	0.0
620	J63	2664	-36532	0.0	0.0	0.0	0.0	0.0	0.0
621	J64	2630	-37852	0.0	0.0	0.0	0.0	0.0	0.0
622	J65	2596	-39172	0.0	0.0	0.0	0.0	0.0	0.0
623	J66	2562	-40492	0.0	0.0	0.0	0.0	0.0	0.0
624	J67	2528	-41812	0.0	0.0	0.0	0.0	0.0	0.0
625	J68	2494	-43132	0.0	0.0	0.0	0.0	0.0	0.0
626	J69	2460	-44452	0.0	0.0	0.0	0.0	0.0	0.0
627	J70	2426	-45772	0.0	0.0	0.0	0.0	0.0	0.0
628	J71	2392	-47092	0.0	0.0	0.0	0.0	0.0	0.0
629	J72	2358	-48412	0.0	0.0	0.0	0.0	0.0	0.0
630	J73	2324	-49732	0.0	0.0	0.0	0.0	0.0	0.0
631	K15	5616	26794	0.0	0.0	0.0	0.0	0.0	0.0
632	K16	5582	25474	0.0	0.0	0.0	0.0	0.0	0.0
633	K17	5548	24154	0.0	0.0	0.0	0.0	0.0	0.0
634	K18	5514	22834	0.0	0.0	0.0	0.0	0.0	0.0
635	K19	5480	21514	0.0	0.0	0.0	0.0	0.0	0.0
636	K20	5446	20194	0.0	0.0	0.0	0.0	0.0	0.0
637	K21	5412	18874	0.0	0.0	0.0	0.0	0.0	0.0
638	K22	5378	17554	0.0	0.0	0.0	0.0	0.0	0.0
639	K23	5344	16234	0.0	0.0	0.0	0.0	0.0	0.0
640	K24	5310	14914	0.0	0.0	0.0	0.0	0.0	0.0
641	K25	5276	13594	0.0	0.0	0.0	0.0	0.0	0.0
642	K26	5242	12274	0.0	0.0	0.0	0.0	0.0	0.0
643	K27	5208	10954	0.0	0.0	0.0	0.0	0.0	0.0
644	K28	5174	9634	0.0	0.0	0.0	0.0	0.0	0.0
645	K29	5140	8314	0.0	0.0	0.0	0.0	0.0	0.0
646	K30	5106	6994	0.0	0.0	0.0	0.0	0.0	0.0
647	K31	5072	5674	0.0	0.0	0.0	0.0	0.0	0.0
648	K32	5038	4354	0.0	0.0	0.0	0.0	0.0	0.0
649	K33	5004	3034	0.0	0.0	0.0	0.0	0.0	0.0
650	K34	4970	1714	0.0	0.0	0.0	0.0	0.0	0.0
651	K35	4936	394	0.0	0.0	0.0	0.0	0.0	0.0
652	K36	4902	-926	0.0	0.0	0.0	0.0	0.0	0.0
653	K37	4868	-2246	0.0	0.0	0.0	0.0	0.0	0.0
654	K38	4834	-3566	0.0	0.0	0.0	0.0	0.0	0.0
655	K39	4800	-4886	0.0	0.0	0.0	0.0	0.0	0.0
656	K40	4766	-6206	0.0	0.0	0.0	0.0	0.0	0.0
657	K41	4732	-7526	0.0	0.0	0.0	0.0	0.0	0.0
658	K42	4698	-8846	0.0	0.0	0.0	0.0	0.0	0.0
659	K43	4664	-10166	0.0	0.0	0.0	0.0	0.0	0.0
660	K44	4630	-11486	0.0	0.0	0.0	0.0	0.0	0.0
661	K45	4596	-12806	0.0	0.0	0.0	0.0	0.0	0.0
662	K46	4562	-14126	0.0	0.0	0.0	0.0	0.0	0.0
663	K47	4528	-15446	0.0	0.0	0.0	0.0	0.0	0.0
664	K48	4494	-16766	0.0	0.0	0.0	0.0	0.0	0.0
665	K49	4460	-18086	0.0	0.0	0.0	0.0	0.0	0.0
666	K50	4426	-19406	0.0	0.0	0.0	0.0	0.0	0.0
667	K51	4392	-20726	0.0	0.0	0.0	0.0	0.0	0.0
668	K52	4358	-22046	0.0	0.0	0.0	0.0	0.0	0.0
669	K53	4324	-23366	0.0	0.0	0.0	0.0	0.0	0.0
670	K54	4290	-24686	0.0	0.0	0.0	0.0	0.0	0.0
671	K55	4256	-26006	0.0	0.0	0.0	0.0	0.0	0.0
672	K56	4222	-27326	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
673	K57	4188	-28646	0.0	0.0	0.0	0.0	0.0	0.0
674	K58	4154	-29966	0.0	0.0	0.0	0.0	0.0	0.0
675	K59	4120	-31286	0.0	0.0	0.0	0.0	0.0	0.0
676	K60	4086	-32606	0.0	0.0	0.0	0.0	0.0	0.0
677	K61	4052	-33926	0.0	0.0	0.0	0.0	0.0	0.0
678	K62	4018	-35246	0.0	0.0	0.0	0.0	0.0	0.0
679	K63	3984	-36566	0.0	0.0	0.0	0.0	0.0	0.0
680	K64	3950	-37886	0.0	0.0	0.0	0.0	0.0	0.0
681	K65	3916	-39206	0.0	0.0	0.0	0.0	0.0	0.0
682	K66	3882	-40526	0.0	0.0	0.0	0.0	0.0	0.0
683	K67	3848	-41846	0.0	0.0	0.0	0.0	0.0	0.0
684	K68	3814	-43166	0.0	0.0	0.0	0.0	0.0	0.0
685	K69	3780	-44486	0.0	0.0	0.0	0.0	0.0	0.0
686	K70	3746	-45806	0.0	0.0	0.0	0.0	0.0	0.0
687	K71	3712	-47126	0.0	0.0	0.0	0.0	0.0	0.0
688	K72	3678	-48446	0.0	0.0	0.0	0.0	0.0	0.0
689	K73	3644	-49766	0.0	0.0	0.0	0.0	0.0	0.0
690	L24	6630	14880	0.0	0.0	0.0	0.0	0.0	0.0
691	L25	6596	13560	0.0	0.0	0.0	0.0	0.0	0.0
692	L26	6562	12240	0.0	0.0	0.0	0.0	0.0	0.0
693	L27	6528	10920	0.0	0.0	0.0	0.0	0.0	0.0
694	L28	6494	9600	0.0	0.0	0.0	0.0	0.0	0.0
695	L29	6460	8280	0.0	0.0	0.0	0.0	0.0	0.0
696	L30	6426	6960	0.0	0.0	0.0	0.0	0.0	0.0
697	L31	6392	5640	0.0	0.0	0.0	0.0	0.0	0.0
698	L32	6358	4320	0.0	0.0	0.0	0.0	0.0	0.0
699	L33	6324	3000	0.0	0.0	0.0	0.0	0.0	0.0
700	L34	6290	1680	0.0	0.0	0.0	0.0	0.0	0.0
701	L35	6256	360	0.0	0.0	0.0	0.0	0.0	0.0
702	L36	6222	-960	0.0	0.0	0.0	0.0	0.0	0.0
703	L37	6188	-2280	0.0	0.0	0.0	0.0	0.0	0.0
704	L38	6154	-3600	0.0	0.0	0.0	0.0	0.0	0.0
705	L39	6120	-4920	0.0	0.0	0.0	0.0	0.0	0.0
706	L40	6086	-6240	0.0	0.0	0.0	0.0	0.0	0.0
707	L41	6052	-7560	0.0	0.0	0.0	0.0	0.0	0.0
708	L42	6018	-8880	0.0	0.0	0.0	0.0	0.0	0.0
709	L43	5984	-10200	0.0	0.0	0.0	0.0	0.0	0.0
710	L44	5950	-11520	0.0	0.0	0.0	0.0	0.0	0.0
711	L45	5916	-12840	0.0	0.0	0.0	0.0	0.0	0.0
712	L46	5882	-14160	0.0	0.0	0.0	0.0	0.0	0.0
713	L47	5848	-15480	0.0	0.0	0.0	0.0	0.0	0.0
714	L48	5814	-16800	0.0	0.0	0.0	0.0	0.0	0.0
715	L49	5780	-18120	0.0	0.0	0.0	0.0	0.0	0.0
716	L50	5746	-19440	0.0	0.0	0.0	0.0	0.0	0.0
717	L51	5712	-20760	0.0	0.0	0.0	0.0	0.0	0.0
718	L52	5678	-22080	0.0	0.0	0.0	0.0	0.0	0.0
719	L53	5644	-23400	0.0	0.0	0.0	0.0	0.0	0.0
720	L54	5610	-24720	0.0	0.0	0.0	0.0	0.0	0.0
721	L55	5576	-26040	0.0	0.0	0.0	0.0	0.0	0.0
722	L56	5542	-27360	0.0	0.0	0.0	0.0	0.0	0.0
723	L57	5508	-28680	0.0	0.0	0.0	0.0	0.0	0.0
724	L58	5474	-30000	0.0	0.0	0.0	0.0	0.0	0.0
725	L59	5440	-31320	0.0	0.0	0.0	0.0	0.0	0.0
726	L60	5406	-32640	0.0	0.0	0.0	0.0	0.0	0.0
727	L61	5372	-33960	0.0	0.0	0.0	0.0	0.0	0.0
728	L62	5338	-35280	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
729	L63	5304	-36600	0.0	0.0	0.0	0.0	0.0	0.0
730	L64	5270	-37920	0.0	0.0	0.0	0.0	0.0	0.0
731	L65	5236	-39240	0.0	0.0	0.0	0.0	0.0	0.0
732	L66	5202	-40560	0.0	0.0	0.0	0.0	0.0	0.0
733	L67	5168	-41880	0.0	0.0	0.0	0.0	0.0	0.0
734	L68	5134	-43200	0.0	0.0	0.0	0.0	0.0	0.0
735	L69	5100	-44520	0.0	0.0	0.0	0.0	0.0	0.0
736	L70	5066	-45840	0.0	0.0	0.0	0.0	0.0	0.0
737	L71	5032	-47160	0.0	0.0	0.0	0.0	0.0	0.0
738	L72	4998	-48480	0.0	0.0	0.0	0.0	0.0	0.0
739	L73	4964	-49800	0.0	0.0	0.0	0.0	0.0	0.0
740	M28	7814	9566	0.0	0.0	0.0	0.0	0.0	0.0
741	M29	7780	8246	0.0	0.0	0.0	0.0	0.0	0.0
742	M30	7746	6926	0.0	0.0	0.0	0.0	0.0	0.0
743	M31	7712	5606	0.0	0.0	0.0	0.0	0.0	0.0
744	M32	7678	4286	0.0	0.0	0.0	0.0	0.0	0.0
745	M33	7644	2966	0.0	0.0	0.0	0.0	0.0	0.0
746	M34	7610	1646	0.0	0.0	0.0	0.0	0.0	0.0
747	M35	7576	326	0.0	0.0	0.0	0.0	0.0	0.0
748	M36	7542	-994	0.0	0.0	0.0	0.0	0.0	0.0
749	M37	7508	-2314	0.0	0.0	0.0	0.0	0.0	0.0
750	M38	7474	-3634	0.0	0.0	0.0	0.0	0.0	0.0
751	M39	7440	-4954	0.0	0.0	0.0	0.0	0.0	0.0
752	M40	7406	-6274	0.0	0.0	0.0	0.0	0.0	0.0
753	M41	7372	-7594	0.0	0.0	0.0	0.0	0.0	0.0
754	M42	7338	-8914	0.0	0.0	0.0	0.0	0.0	0.0
755	M43	7304	-10234	0.0	0.0	0.0	0.0	0.0	0.0
756	M44	7270	-11554	0.0	0.0	0.0	0.0	0.0	0.0
757	M45	7236	-12874	0.0	0.0	0.0	0.0	0.0	0.0
758	M46	7202	-14194	0.0	0.0	0.0	0.0	0.0	0.0
759	M47	7168	-15514	0.0	0.0	0.0	0.0	0.0	0.0
760	M48	7134	-16834	0.0	0.0	0.0	0.0	0.0	0.0
761	M49	7100	-18154	0.0	0.0	0.0	0.0	0.0	0.0
762	M50	7066	-19474	0.0	0.0	0.0	0.0	0.0	0.0
763	M51	7032	-20794	0.0	0.0	0.0	0.0	0.0	0.0
764	M52	6998	-22114	0.0	0.0	0.0	0.0	0.0	0.0
765	M53	6964	-23434	0.0	0.0	0.0	0.0	0.0	0.0
766	M54	6930	-24754	0.0	0.0	0.0	0.0	0.0	0.0
767	M55	6896	-26074	0.0	0.0	0.0	0.0	0.0	0.0
768	M56	6862	-27394	0.0	0.0	0.0	0.0	0.0	0.0
769	M57	6828	-28714	0.0	0.0	0.0	0.0	0.0	0.0
770	M58	6794	-30034	0.0	0.0	0.0	0.0	0.0	0.0
771	M59	6760	-31354	0.0	0.0	0.0	0.0	0.0	0.0
772	M60	6726	-32674	0.0	0.0	0.0	0.0	0.0	0.0
773	M61	6692	-33994	0.0	0.0	0.0	0.0	0.0	0.0
774	M62	6658	-35314	0.0	0.0	0.0	0.0	0.0	0.0
775	M63	6624	-36634	0.0	0.0	0.0	0.0	0.0	0.0
776	M64	6590	-37954	0.0	0.0	0.0	0.0	0.0	0.0
777	M65	6556	-39274	0.0	0.0	0.0	0.0	0.0	0.0
778	M66	6522	-40594	0.0	0.0	0.0	0.0	0.0	0.0
779	M67	6488	-41914	0.0	0.0	0.0	0.0	0.0	0.0
780	M68	6454	-43234	0.0	0.0	0.0	0.0	0.0	0.0
781	M69	6420	-44554	0.0	0.0	0.0	0.0	0.0	0.0
782	M70	6386	-45874	0.0	0.0	0.0	0.0	0.0	0.0
783	M71	6352	-47194	0.0	0.0	0.0	0.0	0.0	0.0
784	M72	6318	-48514	0.0	0.0	0.0	0.0	0.0	0.0

Table C-3-22

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
785	M73	6284	-49834	0.0	0.0	0.0	0.0	0.0	0.0
786	N38	8794	-3668	0.0	0.0	0.0	0.0	0.0	0.0
787	N39	8760	-4988	0.0	0.0	0.0	0.0	0.0	0.0
788	N40	8726	-6308	0.0	0.0	0.0	0.0	0.0	0.0
789	N41	8692	-7628	0.0	0.0	0.0	0.0	0.0	0.0
790	N42	8658	-8948	0.0	0.0	0.0	0.0	0.0	0.0
791	N43	8624	-10268	0.0	0.0	0.0	0.0	0.0	0.0
792	N44	8590	-11588	0.0	0.0	0.0	0.0	0.0	0.0
793	N45	8556	-12908	0.0	0.0	0.0	0.0	0.0	0.0
794	N67	7808	-41948	0.0	0.0	0.0	0.0	0.0	0.0
795	N68	7774	-43268	0.0	0.0	0.0	0.0	0.0	0.0
796	N69	7740	-44588	0.0	0.0	0.0	0.0	0.0	0.0
797	N70	7706	-45908	0.0	0.0	0.0	0.0	0.0	0.0
798	N71	7672	-47228	0.0	0.0	0.0	0.0	0.0	0.0
799	NSF:A2	-211	29983	0.1	0.1	0.0	0.0	0.0	0.0
800	NSF:A4	7371	16174	0.0	0.0	0.0	0.0	0.0	0.0
801	NSF:A5	-1123	35137	0.0	0.0	0.0	0.0	0.0	0.0
802	NSF:A6	1725	32917	0.0	0.0	0.0	0.0	0.0	0.0
803	NSF:A7	965	35389	0.0	0.0	0.0	0.0	0.0	0.0
804	NSF:A8	2868	26738	0.0	0.0	0.0	0.0	0.0	0.0
805	NSF:A9	8593	-17214	0.0	0.0	0.0	0.0	0.0	0.0
806	NSF:C1	3519	-33425	0.0	0.0	0.0	0.0	0.0	0.0
807	NSF:C10	-8024	7589	0.0	0.0	0.0	0.0	0.0	0.0
808	NSF:C11	-1535	-46185	0.0	0.0	0.0	0.0	0.0	0.0
809	NSF:C15	-3260	-41687	0.0	0.0	0.0	0.0	0.0	0.0
810	NSF:C16	2631	-42354	0.0	0.0	0.0	0.0	0.0	0.0
811	NSF:C17	-3636	10597	0.0	0.0	0.0	0.0	0.0	0.0
812	NSF:C19	-6737	-6317	0.0	0.0	0.0	0.0	0.0	0.0
813	NSF:C2	6733	-4869	0.0	0.0	0.0	0.0	0.0	0.0
814	NSF:C21	3694	-38594	0.0	0.0	0.0	0.0	0.0	0.0
815	NSF:C22	295	-16585	3.3	3.3	1.7	0.9	1.5	0.8
816	NSF:C23	-4396	-15838	0.0	0.0	0.0	0.0	0.0	0.0
817	NSF:C24	-3498	-16804	0.0	0.0	0.0	0.0	0.0	0.0
818	NSF:C28	-5727	-46163	0.0	0.0	0.0	0.0	0.0	0.0
819	NSF:C29	-386	-17316	2.7	2.7	1.1	0.8	1.0	0.7
820	NSF:C3	158	16285	1.8	1.8	0.8	0.8	0.7	0.8
821	NSF:C31	-6076	-46160	0.0	0.0	0.0	0.0	0.0	0.0
822	NSF:C32	-5243	-46778	0.0	0.0	0.0	0.0	0.0	0.0
823	NSF:C34	-8355	-45977	0.0	0.0	0.0	0.0	0.0	0.0
824	NSF:C35	-6358	-9758	0.0	0.0	0.0	0.0	0.0	0.0
825	NSF:C37	-5175	-47057	0.0	0.0	0.0	0.0	0.0	0.0
826	NSF:C38	-6431	-10969	0.0	0.0	0.0	0.0	0.0	0.0
827	NSF:C39	375	-25346	0.7	0.7	0.0	0.0	0.0	0.0
828	NSF:C40	1436	-17815	1.3	1.3	0.2	0.0	0.2	0.0
829	NSF:C41	-3379	-9386	0.0	0.0	0.0	0.1	0.0	0.1
830	NSF:C42	3398	-21504	0.0	0.0	0.0	0.0	0.0	0.0
831	NSF:C43	-1910	-46273	0.0	0.0	0.0	0.0	0.0	0.0
832	NSF:C44	-3883	-5925	0.0	0.0	0.0	0.1	0.0	0.1
833	NSF:C45	-11988	-45354	0.0	0.0	0.0	0.0	0.0	0.0
834	NSF:C46	7657	-34889	0.0	0.0	0.0	0.0	0.0	0.0
835	NSF:C47	2243	-24977	0.1	0.1	0.0	0.0	0.0	0.0
836	NSF:C48	-4412	-46071	0.0	0.0	0.0	0.0	0.0	0.0
837	NSF:C49	327	-14936	4.6	4.6	2.9	1.5	2.7	1.4
838	NSF:C5	7014	-34786	0.0	0.0	0.0	0.0	0.0	0.0
839	NSF:C50	-3930	-8365	0.0	0.0	0.0	0.0	0.0	0.0
840	NSF:C51	1801	-19460	0.7	0.7	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
841	NSF:C52	-545	-16569	2.6	2.6	1.0	0.8	0.9	0.7
842	NSF:C54	-1015	-44926	0.0	0.0	0.0	0.0	0.0	0.0
843	NSF:C55	-2036	-28310	0.0	0.0	0.0	0.0	0.0	0.0
844	NSF:C56	-706	-17175	2.2	2.2	0.7	0.6	0.6	0.5
845	NSF:C57	-1539	-38607	0.0	0.0	0.0	0.0	0.0	0.0
846	NSF:C6	-3386	14577	0.2	0.2	0.0	0.0	0.0	0.0
847	NSF:C7	-9769	-3190	0.0	0.0	0.0	0.0	0.0	0.0
848	NSF:C8	4616	906	0.0	0.0	0.0	0.0	0.0	0.0
849	NSF:C9	-1833	-42273	0.0	0.0	0.0	0.0	0.0	0.0
850	NSF:H1	-7607	3626	0.0	0.0	0.0	0.0	0.0	0.0
851	NSF:H3	-9363	9969	0.0	0.0	0.0	0.0	0.0	0.0
852	NSF:H4	-847	52617	0.0	0.0	0.0	0.0	0.0	0.0
853	NSF:H5	-9746	14394	0.0	0.0	0.0	0.0	0.0	0.0
854	NSF:H6	196	41454	0.0	0.0	0.0	0.0	0.0	0.0
855	NSF:H7	-6721	-8029	0.0	0.0	0.0	0.0	0.0	0.0
856	NSF:H8	24064	-3304	0.0	0.0	0.0	0.0	0.0	0.0
857	NSF:H9,H2	3310	14284	0.0	0.0	0.0	0.0	0.0	0.0
858	NSF:A16	-3769	5168	0.0	0.0	0.0	0.2	0.0	0.4
859	NSF:A17	-10252	3250	0.0	0.0	0.0	0.0	0.0	0.0
860	NSF:A18	-4084	10600	0.0	0.0	0.0	0.0	0.0	0.0
861	NSF:A19	-4459	10520	0.0	0.0	0.0	0.0	0.0	0.0
862	NSF:A21	-8598	14208	0.0	0.0	0.0	0.0	0.0	0.0
863	NSF:A23	-8593	5937	0.0	0.0	0.0	0.0	0.0	0.0
864	NSF:A24	-6444	1414	0.0	0.0	0.0	0.0	0.0	0.0
865	NSF:A25	-10056	6676	0.0	0.0	0.0	0.0	0.0	0.0
866	NSF:A26	-9629	5763	0.0	0.0	0.0	0.0	0.0	0.0
867	NSF:A27	-1721	10484	1.6	1.6	0.7	1.8	0.7	2.8
868	NSF:A28	-7306	6683	0.0	0.0	0.0	0.0	0.0	0.0
869	NSF:A30	-9295	6729	0.0	0.0	0.0	0.0	0.0	0.0
870	NSF:A33	-5199	-16624	0.0	0.0	0.0	0.0	0.0	0.0
871	NSF:A35	-4683	-17794	0.0	0.0	0.0	0.0	0.0	0.0
872	NSF:A36	-3592	-17475	0.0	0.0	0.0	0.0	0.0	0.0
873	NSF:A37	-3210	-16253	0.0	0.0	0.0	0.0	0.0	0.0
874	NSF:A38	-2833	-16231	0.2	0.2	0.0	0.0	0.0	0.0
875	NSF:A39	-2723	-17093	0.3	0.3	0.0	0.0	0.0	0.0
876	NSF:A40	-3398	-16730	0.0	0.0	0.0	0.0	0.0	0.0
877	NSF:A41	-5715	-14665	0.0	0.0	0.0	0.0	0.0	0.0
878	NSF:A42	-2195	-14884	0.8	0.8	0.0	0.1	0.0	0.1
879	NSF:A43	-3289	-16236	0.0	0.0	0.0	0.0	0.0	0.0
880	NSF:A44	362	-38516	0.0	0.0	0.0	0.0	0.0	0.0
881	NSF:A45	-1521	-35379	0.0	0.0	0.0	0.0	0.0	0.0
882	NSF:A46	467	-43229	0.0	0.0	0.0	0.0	0.0	0.0
883	NSF:A47	9405	-16129	0.0	0.0	0.0	0.0	0.0	0.0
884	NSF:A48	8774	-15397	0.0	0.0	0.0	0.0	0.0	0.0
885	NSF:A49	8535	-14947	0.0	0.0	0.0	0.0	0.0	0.0
886	NSF:A50	8073	-19454	0.0	0.0	0.0	0.0	0.0	0.0
887	NSF:A51	6682	-15011	0.0	0.0	0.0	0.0	0.0	0.0
888	NSF:A52	10177	-14528	0.0	0.0	0.0	0.0	0.0	0.0
889	NSF:A53	-9333	-2539	0.0	0.0	0.0	0.0	0.0	0.0
890	NSF:A54	-9413	-2464	0.0	0.0	0.0	0.0	0.0	0.0
891	NSF:A55	-9348	-2527	0.0	0.0	0.0	0.0	0.0	0.0
892	NSF:A58	6533	-14596	0.0	0.0	0.0	0.0	0.0	0.0
893	NSF:A59	5058	7030	0.0	0.0	0.0	0.0	0.0	0.0
894	NSF:A61	2879	26723	0.0	0.0	0.0	0.0	0.0	0.0
895	NSF:A62	-1961	32677	0.0	0.0	0.0	0.0	0.0	0.0
896	NSF:A63	5774	13792	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
897	NSF:A64	6942	13954	0.0	0.0	0.0	0.0	0.0	0.0
898	NSF:A65	6940	13770	0.0	0.0	0.0	0.0	0.0	0.0
899	NSF:A66	6602	13572	0.0	0.0	0.0	0.0	0.0	0.0
900	NSF:A67	7470	13669	0.0	0.0	0.0	0.0	0.0	0.0
901	NSF:A68	306	-30449	0.2	0.2	0.0	0.0	0.0	0.0
902	NSF:A69	-5807	-37969	0.0	0.0	0.0	0.0	0.0	0.0
903	NSF:A70	-4304	-36469	0.0	0.0	0.0	0.0	0.0	0.0
904	NSF:A71	6124	-39961	0.0	0.0	0.0	0.0	0.0	0.0
905	NSF:A72	3707	-33299	0.0	0.0	0.0	0.0	0.0	0.0
906	NSF:A73	-5742	-37925	0.0	0.0	0.0	0.0	0.0	0.0
907	NSF:A74	-5753	-37933	0.0	0.0	0.0	0.0	0.0	0.0
908	NSF:A75	-5790	-37959	0.0	0.0	0.0	0.0	0.0	0.0
909	NSF:L1	765	16963	0.9	0.9	0.2	0.1	0.2	0.2
910	NSF:L2	-7812	8307	0.0	0.0	0.0	0.0	0.0	0.0
911	NSF:L3	6278	40488	0.0	0.0	0.0	0.0	0.0	0.0
912	NSF:L4	-2866	-14908	0.3	0.3	0.0	0.0	0.0	0.1
913	NSF:L5	7180	9673	0.0	0.0	0.0	0.0	0.0	0.0
914	NSF:L6	4987	33599	0.0	0.0	0.0	0.0	0.0	0.0
915	NSF:L7	10166	26486	0.0	0.0	0.0	0.0	0.0	0.0
916	NSF:L8	12526	8554	0.0	0.0	0.0	0.0	0.0	0.0
917	NSF:L9	8571	-1927	0.0	0.0	0.0	0.0	0.0	0.0
918	NSF:A10	-550	29346	0.1	0.1	0.0	0.0	0.0	0.0
919	NSF:A11	-554	35999	0.0	0.0	0.0	0.0	0.0	0.0
920	NSF:A12	227	35588	0.0	0.0	0.0	0.0	0.0	0.0
921	NSF:A13	6720	40187	0.0	0.0	0.0	0.0	0.0	0.0
922	NSF:N1	2458	-23974	0.1	0.1	0.0	0.0	0.0	0.0
923	NSF:N10	-3755	-14738	0.0	0.0	0.0	0.0	0.0	0.0
924	NSF:N11	-3959	-39382	0.0	0.0	0.0	0.0	0.0	0.0
925	NSF:N12	-195	23654	0.4	0.4	0.1	0.1	0.1	0.1
926	NSF:N13	23674	-4413	0.0	0.0	0.0	0.0	0.0	0.0
927	NSF:N14	5905	-44977	0.0	0.0	0.0	0.0	0.0	0.0
928	NSF:N2	2567	-14374	0.6	0.6	0.0	0.0	0.0	0.0
929	NSF:N3	-9162	13839	0.0	0.0	0.0	0.0	0.0	0.0
930	NSF:N4	-3719	-44852	0.0	0.0	0.0	0.0	0.0	0.0
931	NSF:N5	-7153	-49305	0.0	0.0	0.0	0.0	0.0	0.0
932	NSF:N6	-6583	4062	0.0	0.0	0.0	0.0	0.0	0.0
933	NSF:N7	-3994	-21909	0.0	0.0	0.0	0.0	0.0	0.0
934	NSF:N8	3660	14530	0.0	0.0	0.0	0.0	0.0	0.0
935	NSF:N9	2605	-17567	0.4	0.4	0.0	0.0	0.0	0.0
936	NSF:S1	-1624	22569	0.3	0.3	0.0	0.0	0.0	0.0
937	NSF:S10	5787	1359	0.0	0.0	0.0	0.0	0.0	0.0
939	NSF:S102	-3652	-2959	0.0	0.0	0.0	0.3	0.0	0.5
940	NSF:S11	1320	-17470	1.4	1.4	0.2	0.1	0.2	0.0
941	NSF:S12	-9683	21295	0.0	0.0	0.0	0.0	0.0	0.0
942	NSF:S13	-4034	-8651	0.0	0.0	0.0	0.0	0.0	0.0
943	NSF:S15	1417	-18811	1.1	1.1	0.1	0.0	0.1	0.0
944	NSF:S16	4029	7813	0.0	0.0	0.0	0.0	0.0	0.0
945	NSF:S17	-7712	17177	0.0	0.0	0.0	0.0	0.0	0.0
946	NSF:S18	-10601	8639	0.0	0.0	0.0	0.0	0.0	0.0
947	NSF:S19	-13991	18478	0.0	0.0	0.0	0.0	0.0	0.0
948	NSF:S2	6756	-3628	0.0	0.0	0.0	0.0	0.0	0.0
949	NSF:S20	-1191	19408	0.7	0.7	0.1	0.2	0.1	0.2
950	NSF:S21	-3761	5167	0.0	0.0	0.0	0.2	0.0	0.4
951	NSF:S22	7978	-1820	0.0	0.0	0.0	0.0	0.0	0.0
952	NSF:S23	-8015	23186	0.0	0.0	0.0	0.0	0.0	0.0
953	NSF:S24	-8897	19752	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
954	NSF:S25	6834	-4826	0.0	0.0	0.0	0.0	0.0	0.0
955	NSF:S26	1352	-18331	1.3	1.3	0.2	0.0	0.2	0.0
956	NSF:S27	-7664	3251	0.0	0.0	0.0	0.0	0.0	0.0
957	NSF:S28	-8281	18459	0.0	0.0	0.0	0.0	0.0	0.0
958	NSF:S29	-5472	6565	0.0	0.0	0.0	0.0	0.0	0.0
959	NSF:S3	-3785	13136	0.0	0.0	0.0	0.0	0.0	0.0
960	NSF:S30	-263	-17305	2.9	2.9	1.3	0.8	1.1	0.7
961	NSF:S31	7812	-5443	0.0	0.0	0.0	0.0	0.0	0.0
962	NSF:S32	-4893	-4442	0.0	0.0	0.0	0.0	0.0	0.0
963	NSF:S33	1292	-22778	0.7	0.7	0.0	0.0	0.0	0.0
964	NSF:S34	-4645	-9467	0.0	0.0	0.0	0.0	0.0	0.0
965	NSF:S35	-4580	6588	0.0	0.0	0.0	0.0	0.0	0.0
966	NSF:S36	-6886	5087	0.0	0.0	0.0	0.0	0.0	0.0
967	NSF:S37	-11122	13583	0.0	0.0	0.0	0.0	0.0	0.0
968	NSF:S38	-3651	-2941	0.0	0.0	0.0	0.3	0.0	0.5
969	NSF:S39	12652	7375	0.0	0.0	0.0	0.0	0.0	0.0
970	NSF:S4	-3514	-16334	0.0	0.0	0.0	0.0	0.0	0.0
971	NSF:S40	7700	7035	0.0	0.0	0.0	0.0	0.0	0.0
972	NSF:S41	4523	11744	0.0	0.0	0.0	0.0	0.0	0.0
973	NSF:S42	8381	9088	0.0	0.0	0.0	0.0	0.0	0.0
974	NSF:S43	7268	9131	0.0	0.0	0.0	0.0	0.0	0.0
975	NSF:S44	5766	-41790	0.0	0.0	0.0	0.0	0.0	0.0
976	NSF:S45	1279	-33897	0.1	0.1	0.0	0.0	0.0	0.0
977	NSF:S46	-3685	-39308	0.0	0.0	0.0	0.0	0.0	0.0
978	NSF:S47	5715	-32661	0.0	0.0	0.0	0.0	0.0	0.0
979	NSF:S48	6231	-25031	0.0	0.0	0.0	0.0	0.0	0.0
980	NSF:S49	5974	-36054	0.0	0.0	0.0	0.0	0.0	0.0
981	NSF:S5	-11892	3393	0.0	0.0	0.0	0.0	0.0	0.0
982	NSF:S50	870	-42321	0.0	0.0	0.0	0.0	0.0	0.0
983	NSF:S51	-1491	-30984	0.0	0.0	0.0	0.0	0.0	0.0
984	NSF:S52	11474	-42954	0.0	0.0	0.0	0.0	0.0	0.0
985	NSF:S53	-10841	-43830	0.0	0.0	0.0	0.0	0.0	0.0
986	NSF:S54	5708	-31709	0.0	0.0	0.0	0.0	0.0	0.0
987	NSF:S55	-1824	-44447	0.0	0.0	0.0	0.0	0.0	0.0
988	NSF:S56	6346	-38637	0.0	0.0	0.0	0.0	0.0	0.0
989	NSF:S57	-410	49700	0.0	0.0	0.0	0.0	0.0	0.0
990	NSF:S58	10673	35200	0.0	0.0	0.0	0.0	0.0	0.0
991	NSF:S59	2429	45921	0.0	0.0	0.0	0.0	0.0	0.0
992	NSF:S6	-7196	13265	0.0	0.0	0.0	0.0	0.0	0.0
993	NSF:S60	5433	45389	0.0	0.0	0.0	0.0	0.0	0.0
994	NSF:S61	7132	42570	0.0	0.0	0.0	0.0	0.0	0.0
995	NSF:S62	-1439	39916	0.0	0.0	0.0	0.0	0.0	0.0
996	NSF:S63	3894	37152	0.0	0.0	0.0	0.0	0.0	0.0
997	NSF:S64	9056	38524	0.0	0.0	0.0	0.0	0.0	0.0
998	NSF:S65	8477	33931	0.0	0.0	0.0	0.0	0.0	0.0
999	NSF:S66	3955	32633	0.0	0.0	0.0	0.0	0.0	0.0
1000	NSF:S67	6401	29997	0.0	0.0	0.0	0.0	0.0	0.0
1001	NSF:S68	9089	28371	0.0	0.0	0.0	0.0	0.0	0.0
1002	NSF:S69	13032	23820	0.0	0.0	0.0	0.0	0.0	0.0
1003	NSF:S7	2141	16480	0.2	0.2	0.0	0.0	0.0	0.0
1004	NSF:S70	11512	17866	0.0	0.0	0.0	0.0	0.0	0.0
1005	NSF:S71	-9110	27836	0.0	0.0	0.0	0.0	0.0	0.0
1006	NSF:S72	-3361	27341	0.0	0.0	0.0	0.0	0.0	0.0
1007	NSF:S73	3	41684	0.0	0.0	0.0	0.0	0.0	0.0
1008	NSF:S74	10183	27405	0.0	0.0	0.0	0.0	0.0	0.0
1009	NSF:S76	4734	46384	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1010	NSF:S77	11512	27194	0.0	0.0	0.0	0.0	0.0	0.0
1011	NSF:S78	-363	38035	0.0	0.0	0.0	0.0	0.0	0.0
1012	NSF:S79	5941	39662	0.0	0.0	0.0	0.0	0.0	0.0
1013	NSF:S8	3475	-10939	0.0	0.0	0.0	0.0	0.0	0.0
1014	NSF:S80	7193	35348	0.0	0.0	0.0	0.0	0.0	0.0
1015	NSF:S81	12439	22474	0.0	0.0	0.0	0.0	0.0	0.0
1017	NSF:S83	6824	6483	0.0	0.0	0.0	0.0	0.0	0.0
1018	NSF:S84	6483	-12931	0.0	0.0	0.0	0.0	0.0	0.0
1019	NSF:S85	-10992	-43886	0.0	0.0	0.0	0.0	0.0	0.0
1020	NSF:S86,C18	-3883	-4692	0.0	0.0	0.0	0.1	0.0	0.2
1021	NSF:S87	1355	-41607	0.0	0.0	0.0	0.0	0.0	0.0
1022	NSF:S89,S101	-6524	4594	0.0	0.0	0.0	0.0	0.0	0.0
1023	NSF:S9	-8718	-8906	0.0	0.0	0.0	0.0	0.0	0.0
1024	NSF:S90	10352	29875	0.0	0.0	0.0	0.0	0.0	0.0
1025	NSF:S91	-12520	6667	0.0	0.0	0.0	0.0	0.0	0.0
1026	NSF:S92	-292	-16249	3.3	3.3	1.6	1.0	1.5	0.9
1027	NSF:S93	-4494	-43936	0.0	0.0	0.0	0.0	0.0	0.0
1028	NSF:S94	6741	-4427	0.0	0.0	0.0	0.0	0.0	0.0
1029	NSF:S95	2659	-8269	0.8	0.8	0.1	0.1	0.1	0.1
1030	NSF:S96,C36	-197	-29349	0.2	0.2	0.0	0.0	0.0	0.0
1031	NSF:S97	-5640	10643	0.0	0.0	0.0	0.0	0.0	0.0
1032	NSF:S98,C14	1453	-13047	2.8	2.8	1.2	0.4	1.1	0.4
1033	NSF:S99	-1741	22954	0.3	0.3	0.0	0.0	0.0	0.0
1034	NSF:A15	1159	33718	0.0	0.0	0.0	0.0	0.0	0.0
1035	NSF:A901	-2736	35294	0.0	0.0	0.0	0.0	0.0	0.0
1036	NSF:A902	-4131	32513	0.0	0.0	0.0	0.0	0.0	0.0
1037	NSF:A903	2207	18136	0.1	0.1	0.0	0.0	0.0	0.0
1038	NSF:A904	10787	-9667	0.0	0.0	0.0	0.0	0.0	0.0
1039	Park:G1	1356	42868	0.0	0.0	0.0	0.0	0.0	0.0
1040	Park:G2	-1823	20819	0.3	0.3	0.0	0.1	0.0	0.1
1041	Park:G3	412	19934	0.6	0.6	0.1	0.1	0.1	0.1
1042	Park:G4	11843	11466	0.0	0.0	0.0	0.0	0.0	0.0
1043	Park:G4	13359	10380	0.0	0.0	0.0	0.0	0.0	0.0
1044	Park:G5	89	-7980	14.0	14.0	13.2	10.2	13.4	8.7
1045	Park:G6	8312	-24816	0.0	0.0	0.0	0.0	0.0	0.0
1046	Park:G6	10441	-24924	0.0	0.0	0.0	0.0	0.0	0.0
1047	Park:P1	10452	41037	0.0	0.0	0.0	0.0	0.0	0.0
1048	Park:P10	11906	28500	0.0	0.0	0.0	0.0	0.0	0.0
1049	Park:P11	10576	23597	0.0	0.0	0.0	0.0	0.0	0.0
1050	Park:P12	12737	23611	0.0	0.0	0.0	0.0	0.0	0.0
1051	Park:P13	-3106	28942	0.0	0.0	0.0	0.0	0.0	0.0
1052	Park:P14	-1568	16984	1.2	1.2	0.4	0.5	0.4	0.6
1053	Park:P15	-4694	16128	0.0	0.0	0.0	0.0	0.0	0.0
1054	Park:P16	-7240	27235	0.0	0.0	0.0	0.0	0.0	0.0
1055	Park:P17	-7694	22700	0.0	0.0	0.0	0.0	0.0	0.0
1056	Park:P18	-10078	22715	0.0	0.0	0.0	0.0	0.0	0.0
1057	Park:P19	-8173	20053	0.0	0.0	0.0	0.0	0.0	0.0
1058	Park:P2	6019	40290	0.0	0.0	0.0	0.0	0.0	0.0
1059	Park:P20	-8423	17856	0.0	0.0	0.0	0.0	0.0	0.0
1060	Park:P21	7059	13592	0.0	0.0	0.0	0.0	0.0	0.0
1061	Park:P22	6996	12184	0.0	0.0	0.0	0.0	0.0	0.0
1062	Park:P23	9630	4263	0.0	0.0	0.0	0.0	0.0	0.0
1063	Park:P24	7963	3497	0.0	0.0	0.0	0.0	0.0	0.0
1064	Park:P25	8976	-1520	0.0	0.0	0.0	0.0	0.0	0.0
1065	Park:P26	2522	14946	0.2	0.2	0.0	0.0	0.0	0.0
1066	Park:P27	2802	10735	0.2	0.2	0.0	0.0	0.0	0.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1067	Park:P28	198	11565	5.2	5.2	4.0	4.3	3.9	4.3
1068	Park:P29	-5433	5962	0.0	0.0	0.0	0.0	0.0	0.0
1069	Park:P3	4190	38497	0.0	0.0	0.0	0.0	0.0	0.0
1070	Park:P30	-6437	15235	0.0	0.0	0.0	0.0	0.0	0.0
1071	Park:P31	-10883	12816	0.0	0.0	0.0	0.0	0.0	0.0
1072	Park:P31	-10986	9367	0.0	0.0	0.0	0.0	0.0	0.0
1073	Park:P32	-8210	11558	0.0	0.0	0.0	0.0	0.0	0.0
1074	Park:P33	-7609	8315	0.0	0.0	0.0	0.0	0.0	0.0
1075	Park:P34	-7758	4425	0.0	0.0	0.0	0.0	0.0	0.0
1076	Park:P35	-6933	3193	0.0	0.0	0.0	0.0	0.0	0.0
1077	Park:P36	-8027	-858	0.0	0.0	0.0	0.0	0.0	0.0
1078	Park:P37	-10415	-944	0.0	0.0	0.0	0.0	0.0	0.0
1079	Park:P38	6985	-3643	0.0	0.0	0.0	0.0	0.0	0.0
1080	Park:P39	12033	-5865	0.0	0.0	0.0	0.0	0.0	0.0
1081	Park:P4	7407	36148	0.0	0.0	0.0	0.0	0.0	0.0
1082	Park:P40	8712	-16156	0.0	0.0	0.0	0.0	0.0	0.0
1083	Park:P41	5212	-18740	0.0	0.0	0.0	0.0	0.0	0.0
1084	Park:P42	7205	-21947	0.0	0.0	0.0	0.0	0.0	0.0
1085	Park:P43	3598	-7684	0.0	0.0	0.0	0.0	0.0	0.0
1086	Park:P44	-283	-12051	7.0	7.0	5.0	3.5	4.7	3.2
1087	Park:P45	-4218	-14980	0.0	0.0	0.0	0.0	0.0	0.0
1088	Park:P46	-3319	-16331	0.0	0.0	0.0	0.0	0.0	0.0
1089	Park:P47	-9286	-6307	0.0	0.0	0.0	0.0	0.0	0.0
1090	Park:P48	-7699	-9254	0.0	0.0	0.0	0.0	0.0	0.0
1091	Park:P49	-7521	-12889	0.0	0.0	0.0	0.0	0.0	0.0
1092	Park:P5	-1752	40072	0.0	0.0	0.0	0.0	0.0	0.0
1093	Park:P50	8743	-26079	0.0	0.0	0.0	0.0	0.0	0.0
1094	Park:P51	7364	-27977	0.0	0.0	0.0	0.0	0.0	0.0
1095	Park:P52	4279	-25151	0.0	0.0	0.0	0.0	0.0	0.0
1096	Park:P53	1745	-24094	0.3	0.3	0.0	0.0	0.0	0.0
1097	Park:P54	1522	-25317	0.3	0.3	0.0	0.0	0.0	0.0
1098	Park:P55	3542	-29748	0.0	0.0	0.0	0.0	0.0	0.0
1099	Park:P56	-3479	-27701	0.0	0.0	0.0	0.0	0.0	0.0
1100	Park:P57	-2553	-31026	0.0	0.0	0.0	0.0	0.0	0.0
1101	Park:P58	-4315	-31888	0.0	0.0	0.0	0.0	0.0	0.0
1102	Park:P59	6981	-40680	0.0	0.0	0.0	0.0	0.0	0.0
1103	Park:P6	-995	37860	0.0	0.0	0.0	0.0	0.0	0.0
1104	Park:P60	879	-37690	0.0	0.0	0.0	0.0	0.0	0.0
1105	Park:P61	583	-42504	0.0	0.0	0.0	0.0	0.0	0.0
1106	Park:P62	-2563	-41948	0.0	0.0	0.0	0.0	0.0	0.0
1107	Park:P63	1437	-46094	0.0	0.0	0.0	0.0	0.0	0.0
1108	Park:P7	-1966	36892	0.0	0.0	0.0	0.0	0.0	0.0
1109	Park:P8	4457	33144	0.0	0.0	0.0	0.0	0.0	0.0
1110	Park:P9	8465	31725	0.0	0.0	0.0	0.0	0.0	0.0
1111	R-1	-1499	8689	2.4	2.4	1.3	2.2	1.3	3.0
1112	R-2	-3360	8057	0.0	0.0	0.0	0.1	0.0	0.3
1113	R-3	-3221	8061	0.1	0.1	0.0	0.1	0.0	0.4
1114	R-4	-2550	7376	0.5	0.5	0.1	0.7	0.1	1.8
1115	R-5	-2475	7342	0.6	0.6	0.1	1.1	0.1	2.5
1116	R-6	1908	7539	2.4	2.4	1.4	1.0	1.4	1.2
1117	R-7	3445	5795	0.2	0.2	0.0	0.0	0.0	0.0
1118	R-8	4189	5875	0.0	0.0	0.0	0.0	0.0	0.0
1119	R-9	-2325	5197	0.7	0.7	0.2	6.2	0.2	9.7
1120	R-10	-2803	4984	0.3	0.3	0.0	2.2	0.0	3.7
1121	R-11	-4314	4055	0.0	0.0	0.0	0.1	0.0	0.1
1122	R-12	-3638	4008	0.0	0.0	0.0	0.4	0.0	0.9

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1123	R-13	-2994	3996	0.1	0.1	0.0	2.3	0.0	4.0
1124	R-14	-2996	3894	0.1	0.1	0.0	2.2	0.0	3.8
1125	R-15	-3661	3774	0.0	0.0	0.0	0.4	0.0	0.9
1126	R-16	-3881	2627	0.0	0.0	0.0	0.3	0.0	0.6
1127	R-17	-3974	2637	0.0	0.0	0.0	0.2	0.0	0.5
1128	R-19	-2871	-9407	0.4	0.4	0.0	0.2	0.0	0.3
1129	R-20	-2236	-9459	1.3	1.3	0.2	0.8	0.2	1.3
1130	R-21	-2883	-9527	0.4	0.4	0.0	0.2	0.0	0.3
1131	R-22	-2127	-9553	1.6	1.6	0.3	0.9	0.3	1.3
1132	R-23	-2979	-10864	0.3	0.3	0.0	0.1	0.0	0.2
1133	R-24	-2855	-10863	0.4	0.4	0.0	0.1	0.0	0.2
1134	R-25	-3422	-12657	0.0	0.0	0.0	0.0	0.0	0.0
1135	R-26	-3317	-12709	0.0	0.0	0.0	0.0	0.0	0.0
1136	R-27	-4326	-13636	0.0	0.0	0.0	0.0	0.0	0.0
1137	R-28	-4219	-13662	0.0	0.0	0.0	0.0	0.0	0.0
1138	R-29	-4595	-14690	0.0	0.0	0.0	0.0	0.0	0.0
1139	R-30	-4595	-14834	0.0	0.0	0.0	0.0	0.0	0.0
1140	R-31	-3900	-18888	0.0	0.0	0.0	0.0	0.0	0.0
1141	R-32	-3960	-18992	0.0	0.0	0.0	0.0	0.0	0.0
1142	R-33	-1586	-19967	0.6	0.6	0.0	0.1	0.0	0.1
1143	R-34	-1631	-20084	0.6	0.6	0.0	0.1	0.0	0.1
1144	R-35	589	-20385	1.1	1.1	0.2	0.1	0.2	0.1
1145	R-36	760	-20452	1.0	1.0	0.2	0.1	0.2	0.0
1146	R-37	1953	-19502	0.6	0.6	0.0	0.0	0.0	0.0
1147	R-38	1937	-19639	0.5	0.5	0.0	0.0	0.0	0.0
1148	R-39	5743	3729	0.0	0.0	0.0	0.0	0.0	0.0
1149	R-40	6051	3598	0.0	0.0	0.0	0.0	0.0	0.0
1150	R-41	6707	2725	0.0	0.0	0.0	0.0	0.0	0.0
1151	R-42	6795	2778	0.0	0.0	0.0	0.0	0.0	0.0
1152	R-43	3977	622	0.0	0.0	0.0	0.0	0.0	0.0
1153	R-44	3992	528	0.0	0.0	0.0	0.0	0.0	0.0
1154	R-45	7811	-253	0.0	0.0	0.0	0.0	0.0	0.0
1155	R-46	7968	-188	0.0	0.0	0.0	0.0	0.0	0.0
1156	R-47	9017	-3383	0.0	0.0	0.0	0.0	0.0	0.0
1157	R-48	9107	-3278	0.0	0.0	0.0	0.0	0.0	0.0
1158	R-49	9205	-4829	0.0	0.0	0.0	0.0	0.0	0.0
1159	R-50	9420	-4826	0.0	0.0	0.0	0.0	0.0	0.0
1160	R-51	4145	-5368	0.0	0.0	0.0	0.0	0.0	0.0
1161	R-52	4160	-5459	0.0	0.0	0.0	0.0	0.0	0.0
1162	R-53	6680	-5389	0.0	0.0	0.0	0.0	0.0	0.0
1163	R-54	6680	-5519	0.0	0.0	0.0	0.0	0.0	0.0
1164	R-55	8216	-6716	0.0	0.0	0.0	0.0	0.0	0.0
1165	R-56	7824	-7392	0.0	0.0	0.0	0.0	0.0	0.0
1166	R-57	6375	-8805	0.0	0.0	0.0	0.0	0.0	0.0
1167	R-58	2503	-7529	1.2	1.2	0.4	0.1	0.4	0.2
1168	R-59	2128	-9607	1.9	1.9	0.6	0.2	0.6	0.2
1169	R-60	2128	-9724	1.9	1.9	0.6	0.2	0.6	0.2
1170	R-61	3469	-9641	0.0	0.0	0.0	0.0	0.0	0.0
1171	R-62	3469	-9758	0.0	0.0	0.0	0.0	0.0	0.0
1172	R-63	4953	-9622	0.0	0.0	0.0	0.0	0.0	0.0
1173	R-64	4953	-9765	0.0	0.0	0.0	0.0	0.0	0.0
1174	M-1	-5559	5408	0.0	0.0	0.0	0.0	0.0	0.0
1175	M-2	7677	4132	0.0	0.0	0.0	0.0	0.0	0.0
1176	M-3	-3794	839	0.0	0.0	0.0	0.4	0.0	0.8
1177	M-4	-3435	-161	0.1	0.1	0.0	0.7	0.0	1.7
1178	M-5	8038	-2746	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 85 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1179	M-6	7442	-4154	0.0	0.0	0.0	0.0	0.0	0.0
1180	M-7	1569	-6734	9.2	9.2	7.9	3.9	7.9	4.3
1181	M-8	3372	-6953	0.2	0.2	0.0	0.0	0.0	0.0
1182	M-9	3203	-8239	0.3	0.3	0.0	0.0	0.0	0.0
1183	M-10	212	-9582	13.1	13.1	10.9	7.5	10.8	6.2
1184	M-11	212	-9712	12.6	12.6	10.4	7.2	10.3	6.0
1185	M-12	-4530	-14474	0.0	0.0	0.0	0.0	0.0	0.0
1186	M-13	-4484	-14936	0.0	0.0	0.0	0.0	0.0	0.0
1187	M-14	-3614	-16370	0.0	0.0	0.0	0.0	0.0	0.0
1188	M-15	4365	-18735	0.0	0.0	0.0	0.0	0.0	0.0
1189	M-16	4486	-19796	0.0	0.0	0.0	0.0	0.0	0.0
1190	M-17	8123	-595	0.0	0.0	0.0	0.0	0.0	0.0
1191	M-18	9840	4660	0.0	0.0	0.0	0.0	0.0	0.0
1192	T-116	1422	-18235	1.3	1.3	0.1	0.0	0.1	0.0
1193	T-118	1331	-17470	1.4	1.4	0.2	0.1	0.2	0.0
1194	T-119	2650	-17566	0.4	0.4	0.0	0.0	0.0	0.0
1195	T-120	-3506	-16334	0.0	0.0	0.0	0.0	0.0	0.0
1196	T-122	-3743	-14738	0.0	0.0	0.0	0.0	0.0	0.0
1197	T-125	1459	-13047	2.7	2.7	1.2	0.4	1.1	0.4
1198	T-126	3477	-10938	0.0	0.0	0.0	0.0	0.0	0.0
1199	T-130	2651	-8267	0.8	0.8	0.1	0.1	0.2	0.1
1200	T-132	-3659	-2960	0.0	0.0	0.0	0.3	0.0	0.5
1201	T-133	8580	-1927	0.0	0.0	0.0	0.0	0.0	0.0
1202	T-136	-3365	4995	0.1	0.1	0.0	0.5	0.0	1.1
1203	NSF:A14	-3907	-17520	0.0	0.0	0.0	0.0	0.0	0.0
1204	T-25	-3883	-4693	0.0	0.0	0.0	0.1	0.0	0.2
1205	T-28	-3387	-9387	0.0	0.0	0.0	0.1	0.0	0.1
1206	T-33	1432	-17816	1.3	1.3	0.2	0.0	0.2	0.0
1207	T-34	1792	-19460	0.7	0.7	0.0	0.0	0.0	0.0
1208	T-35	1587	-18907	0.9	0.9	0.1	0.0	0.1	0.0
1209	T-44	-3421	5168	0.0	0.0	0.0	0.4	0.0	0.9
1210	NSF:T-48, A20	-4170	1264	0.0	0.0	0.0	0.2	0.0	0.4
1211	NSF:T-50, A22	-3264	8490	0.1	0.1	0.0	0.1	0.0	0.3
1212	NSF:T-57, A29	-2746	8551	0.4	0.4	0.0	0.3	0.0	0.9
1213	NSF:T-59, A31	-5476	6566	0.0	0.0	0.0	0.0	0.0	0.0
1214	NSF:T-60, A32	-4232	-17635	0.0	0.0	0.0	0.0	0.0	0.0
1215	NSF:T-62, A34	-4112	-14837	0.0	0.0	0.0	0.0	0.0	0.0
1216	T-29	-3498	-16806	0.0	0.0	0.0	0.0	0.0	0.0
1217	NSF:T-84, A56	-3125	6493	0.1	0.1	0.0	0.2	0.0	0.7
1218	NSF:T-85, A57	-3238	4735	0.1	0.1	0.0	0.9	0.0	1.6
1219	NSF:T-88, A60	-1350	-9469	5.5	5.5	3.4	3.6	3.3	3.6
1220	NSF:C58	-1135	22315	0.5	0.5	0.1	0.1	0.1	0.1
1221	NSF:S108	-1649	-9471	3.2	3.2	1.4	2.3	1.5	2.3
1222	NSF:N15	-3997	-22078	0.0	0.0	0.0	0.0	0.0	0.0
1223	NSF:C62	-1414	-30795	0.0	0.0	0.0	0.0	0.0	0.0
1224	NSF:S109	-1333	-22719	0.5	0.5	0.0	0.0	0.0	0.0
1225	NSF:S105	-3791	-3836	0.0	0.0	0.0	0.2	0.0	0.2
1226	NSF:C64	-4367	7358	0.0	0.0	0.0	0.0	0.0	0.0
1227	NSF:S106	-2685	8649	0.5	0.5	0.0	0.3	0.0	0.9
1228	NSF:C61	-1303	9772	2.9	2.9	1.8	2.5	1.8	3.1
1229	NSF:S107	2638	-6779	1.0	1.0	0.2	0.1	0.2	0.1
1230	NSF:S110	1462	-15138	1.6	1.6	0.3	0.1	0.3	0.1
1231	NSF:S103	691	14334	1.7	1.7	0.7	0.8	0.7	0.8
1232	NSF:C60	51	14525	2.6	2.6	1.4	1.3	1.4	1.3
1233	NSF:C63	335	17719	1.0	1.0	0.3	0.3	0.3	0.4
1234	NSF:S104	2040	9879	0.9	0.9	0.2	0.2	0.2	0.2

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1235	NSF:C65	2422	9244	0.6	0.6	0.1	0.0	0.1	0.1
1236	NSF:C59	3555	12838	0.0	0.0	0.0	0.0	0.0	0.0
1237	Park:P65	-4286	-15220	0.0	0.0	0.0	0.0	0.0	0.0
1238	Park:P77	-4624	-22245	0.0	0.0	0.0	0.0	0.0	0.0
1239	Park:P75	-4188	-36794	0.0	0.0	0.0	0.0	0.0	0.0
1240	Park:P68	-5348	-17875	0.0	0.0	0.0	0.0	0.0	0.0
1241	Park:P69	-5853	-17090	0.0	0.0	0.0	0.0	0.0	0.0
1242	Park:P74	-5044	-16833	0.0	0.0	0.0	0.0	0.0	0.0
1243	Park:P73	-4954	-17282	0.0	0.0	0.0	0.0	0.0	0.0
1244	Park:P78	-4783	-18422	0.0	0.0	0.0	0.0	0.0	0.0
1245	Park:P70	-4665	-14728	0.0	0.0	0.0	0.0	0.0	0.0
1246	Park:P79	-1577	-22047	0.4	0.4	0.0	0.0	0.0	0.0
1247	Park:P66	-2383	-25951	0.0	0.0	0.0	0.0	0.0	0.0
1248	Park:P76	-748	-25329	0.5	0.5	0.0	0.0	0.0	0.0
1249	Park:P72	-135	-18873	2.3	2.3	1.0	0.6	0.9	0.5
1250	Park:P64	-1767	-17528	0.8	0.8	0.0	0.1	0.0	0.1
1251	Park:P67	1256	-19310	1.0	1.0	0.2	0.0	0.2	0.0
1252	Park:P71	2940	-16861	0.3	0.3	0.0	0.0	0.0	0.0
1253	N1	-1990	-17245	0.6	0.6	0.0	0.1	0.0	0.1
1254	N2	-3334	8426	0.1	0.1	0.0	0.1	0.0	0.3
1256	N3	-4097	6616	0.0	0.0	0.0	0.0	0.0	0.1
1257	N5	-8611	5294	0.0	0.0	0.0	0.0	0.0	0.0
1258	N7	-4947	-1900	0.0	0.0	0.0	0.0	0.0	0.0
1259	N8	-4082	10573	0.0	0.0	0.0	0.0	0.0	0.0
1260	N10	-3524	13833	0.2	0.2	0.0	0.0	0.0	0.0
1261	N16	-2435	-14830	0.6	0.6	0.0	0.0	0.0	0.1
1262	N17	-1060	-14856	2.1	2.1	0.7	0.7	0.7	0.6
1263	N18	-3776	-14788	0.0	0.0	0.0	0.0	0.0	0.0
1264	N19	1410	-15430	1.6	1.6	0.3	0.1	0.3	0.1
1265	N21	1410	-15430	1.6	1.6	0.3	0.1	0.3	0.1
1266	N22	1410	-15430	1.6	1.6	0.3	0.1	0.3	0.1
1267	N24	-849	-17121	1.9	1.9	0.5	0.5	0.4	0.4
1268	N52	-849	-17121	1.9	1.9	0.5	0.5	0.4	0.4
1269	N25	-1279	-17349	1.2	1.2	0.1	0.2	0.1	0.2
1270	N23	731	-17160	2.3	2.3	0.8	0.4	0.7	0.4
1271	N32	-2623	-16845	0.3	0.3	0.0	0.0	0.0	0.0
1272	N33	-1937	-14523	0.9	0.9	0.0	0.1	0.0	0.1
1273	N34	-1996	-20888	0.3	0.3	0.0	0.0	0.0	0.0
1274	N35	-1984	-20239	0.3	0.3	0.0	0.0	0.0	0.0
1275	N36	-1996	-20888	0.3	0.3	0.0	0.0	0.0	0.0
1276	N37	-1288	-18281	1.2	1.2	0.1	0.1	0.1	0.1
1277	N38	81	-23395	0.9	0.9	0.1	0.1	0.1	0.1
1278	N39	1235	-23064	0.7	0.7	0.0	0.0	0.0	0.0
1279	N40	1243	-23968	0.6	0.6	0.0	0.0	0.0	0.0
1280	N45	1572	-18752	1.0	1.0	0.1	0.0	0.1	0.0
1281	N46	2447	-18291	0.4	0.4	0.0	0.0	0.0	0.0
1282	N49	-2293	-19455	0.2	0.2	0.0	0.0	0.0	0.0
1283	N50	-2293	-19455	0.2	0.2	0.0	0.0	0.0	0.0
1284	N53	-762	-16176	2.3	2.3	0.8	0.7	0.7	0.6
1285	N54	2867	-16447	0.3	0.3	0.0	0.0	0.0	0.0
1286	N55	3117	-17904	0.2	0.2	0.0	0.0	0.0	0.0
1287	N56	-269	-22786	0.9	0.9	0.2	0.1	0.1	0.1
1288	N59	-2261	-19816	0.2	0.2	0.0	0.0	0.0	0.0
1289	N60	-1155	-20562	0.8	0.8	0.1	0.1	0.1	0.1
1290	N47	2491	-18288	0.4	0.4	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	0.0	0.0	0.0	0.0	0.0	0.0
2	RMS2	-2533	-18228	0.0	0.0	0.0	0.0	0.0	0.0
3	RMS3	1078	-17868	0.0	0.0	0.0	0.0	0.0	0.0
4	RMS4	141	-9337	0.7	0.7	0.1	0.1	0.1	0.0
5	RMS5	-2718	186	0.0	0.0	0.0	0.2	0.0	0.4
6	RMS6	292	8461	0.5	0.5	0.1	0.1	0.1	0.2
7	RMS7	-1299	16858	0.0	0.0	0.0	0.0	0.0	0.0
8	RMS8	-525	21836	0.0	0.0	0.0	0.0	0.0	0.0
9	RMS9	1958	14969	0.0	0.0	0.0	0.0	0.0	0.0
10	RMS10	-3185	-6305	0.0	0.0	0.0	0.0	0.0	0.0
11	RMS11	2549	6703	0.0	0.0	0.0	0.0	0.0	0.0
12	A22	-7822	17894	0.0	0.0	0.0	0.0	0.0	0.0
13	A23	-7856	16574	0.0	0.0	0.0	0.0	0.0	0.0
14	A24	-7890	15254	0.0	0.0	0.0	0.0	0.0	0.0
15	A25	-7924	13934	0.0	0.0	0.0	0.0	0.0	0.0
16	A26	-7958	12614	0.0	0.0	0.0	0.0	0.0	0.0
17	A27	-7992	11294	0.0	0.0	0.0	0.0	0.0	0.0
18	A28	-8026	9974	0.0	0.0	0.0	0.0	0.0	0.0
19	A29	-8060	8654	0.0	0.0	0.0	0.0	0.0	0.0
20	A30	-8094	7334	0.0	0.0	0.0	0.0	0.0	0.0
21	A31	-8128	6014	0.0	0.0	0.0	0.0	0.0	0.0
22	A32	-8162	4694	0.0	0.0	0.0	0.0	0.0	0.0
23	A33	-8196	3374	0.0	0.0	0.0	0.0	0.0	0.0
24	A34	-8230	2054	0.0	0.0	0.0	0.0	0.0	0.0
25	A35	-8264	734	0.0	0.0	0.0	0.0	0.0	0.0
26	A36	-8298	-586	0.0	0.0	0.0	0.0	0.0	0.0
27	A37	-8332	-1906	0.0	0.0	0.0	0.0	0.0	0.0
28	A38	-8366	-3226	0.0	0.0	0.0	0.0	0.0	0.0
29	A39	-8400	-4546	0.0	0.0	0.0	0.0	0.0	0.0
30	A40	-8434	-5866	0.0	0.0	0.0	0.0	0.0	0.0
31	A41	-8468	-7186	0.0	0.0	0.0	0.0	0.0	0.0
32	A42	-8502	-8506	0.0	0.0	0.0	0.0	0.0	0.0
33	A43	-8536	-9826	0.0	0.0	0.0	0.0	0.0	0.0
34	B10	-6094	33700	0.0	0.0	0.0	0.0	0.0	0.0
35	B11	-6128	32380	0.0	0.0	0.0	0.0	0.0	0.0
36	B12	-6162	31060	0.0	0.0	0.0	0.0	0.0	0.0
37	B13	-6196	29740	0.0	0.0	0.0	0.0	0.0	0.0
38	B14	-6230	28420	0.0	0.0	0.0	0.0	0.0	0.0
39	B15	-6264	27100	0.0	0.0	0.0	0.0	0.0	0.0
40	B16	-6298	25780	0.0	0.0	0.0	0.0	0.0	0.0
41	B17	-6332	24460	0.0	0.0	0.0	0.0	0.0	0.0
42	B18	-6366	23140	0.0	0.0	0.0	0.0	0.0	0.0
43	B19	-6400	21820	0.0	0.0	0.0	0.0	0.0	0.0
44	B20	-6434	20500	0.0	0.0	0.0	0.0	0.0	0.0
45	B21	-6468	19180	0.0	0.0	0.0	0.0	0.0	0.0
46	B22	-6502	17860	0.0	0.0	0.0	0.0	0.0	0.0
47	B23	-6536	16540	0.0	0.0	0.0	0.0	0.0	0.0
48	B24	-6570	15220	0.0	0.0	0.0	0.0	0.0	0.0
49	B25	-6604	13900	0.0	0.0	0.0	0.0	0.0	0.0
50	B26	-6638	12580	0.0	0.0	0.0	0.0	0.0	0.0
51	B27	-6672	11260	0.0	0.0	0.0	0.0	0.0	0.0
52	B28	-6706	9940	0.0	0.0	0.0	0.0	0.0	0.0
53	B29	-6740	8620	0.0	0.0	0.0	0.0	0.0	0.0
54	B30	-6774	7300	0.0	0.0	0.0	0.0	0.0	0.0
55	B31	-6808	5980	0.0	0.0	0.0	0.0	0.0	0.0
56	B32	-6842	4660	0.0	0.0	0.0	0.0	0.0	0.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
57	B33	-6876	3340	0.0	0.0	0.0	0.0	0.0	0.0
58	B34	-6910	2020	0.0	0.0	0.0	0.0	0.0	0.0
59	B35	-6944	700	0.0	0.0	0.0	0.0	0.0	0.0
60	B36	-6978	-620	0.0	0.0	0.0	0.0	0.0	0.0
61	B37	-7012	-1940	0.0	0.0	0.0	0.0	0.0	0.0
62	B38	-7046	-3260	0.0	0.0	0.0	0.0	0.0	0.0
63	B39	-7080	-4580	0.0	0.0	0.0	0.0	0.0	0.0
64	B40	-7114	-5900	0.0	0.0	0.0	0.0	0.0	0.0
65	B41	-7148	-7220	0.0	0.0	0.0	0.0	0.0	0.0
66	B42	-7182	-8540	0.0	0.0	0.0	0.0	0.0	0.0
67	B43	-7216	-9860	0.0	0.0	0.0	0.0	0.0	0.0
68	B44	-7250	-11180	0.0	0.0	0.0	0.0	0.0	0.0
69	B45	-7284	-12500	0.0	0.0	0.0	0.0	0.0	0.0
70	B46	-7318	-13820	0.0	0.0	0.0	0.0	0.0	0.0
71	B47	-7352	-15140	0.0	0.0	0.0	0.0	0.0	0.0
72	B48	-7386	-16460	0.0	0.0	0.0	0.0	0.0	0.0
73	B49	-7420	-17780	0.0	0.0	0.0	0.0	0.0	0.0
74	C1	-4468	45546	0.0	0.0	0.0	0.0	0.0	0.0
75	C2	-4502	44226	0.0	0.0	0.0	0.0	0.0	0.0
76	C3	-4536	42906	0.0	0.0	0.0	0.0	0.0	0.0
77	C4	-4570	41586	0.0	0.0	0.0	0.0	0.0	0.0
78	C5	-4604	40266	0.0	0.0	0.0	0.0	0.0	0.0
79	C6	-4638	38946	0.0	0.0	0.0	0.0	0.0	0.0
80	C7	-4672	37626	0.0	0.0	0.0	0.0	0.0	0.0
81	C8	-4706	36306	0.0	0.0	0.0	0.0	0.0	0.0
82	C9	-4740	34986	0.0	0.0	0.0	0.0	0.0	0.0
83	C10	-4774	33666	0.0	0.0	0.0	0.0	0.0	0.0
84	C11	-4808	32346	0.0	0.0	0.0	0.0	0.0	0.0
85	C12	-4842	31026	0.0	0.0	0.0	0.0	0.0	0.0
86	C13	-4876	29706	0.0	0.0	0.0	0.0	0.0	0.0
87	C14	-4910	28386	0.0	0.0	0.0	0.0	0.0	0.0
88	C15	-4944	27066	0.0	0.0	0.0	0.0	0.0	0.0
89	C16	-4978	25746	0.0	0.0	0.0	0.0	0.0	0.0
90	C17	-5012	24426	0.0	0.0	0.0	0.0	0.0	0.0
91	C18	-5046	23106	0.0	0.0	0.0	0.0	0.0	0.0
92	C19	-5080	21786	0.0	0.0	0.0	0.0	0.0	0.0
93	C20	-5114	20466	0.0	0.0	0.0	0.0	0.0	0.0
94	C21	-5148	19146	0.0	0.0	0.0	0.0	0.0	0.0
95	C22	-5182	17826	0.0	0.0	0.0	0.0	0.0	0.0
96	C23	-5216	16506	0.0	0.0	0.0	0.0	0.0	0.0
97	C24	-5250	15186	0.0	0.0	0.0	0.0	0.0	0.0
98	C25	-5284	13866	0.0	0.0	0.0	0.0	0.0	0.0
99	C26	-5318	12546	0.0	0.0	0.0	0.0	0.0	0.0
100	C27	-5352	11226	0.0	0.0	0.0	0.0	0.0	0.0
101	C28	-5386	9906	0.0	0.0	0.0	0.0	0.0	0.0
102	C29	-5420	8586	0.0	0.0	0.0	0.0	0.0	0.0
103	C30	-5454	7266	0.0	0.0	0.0	0.0	0.0	0.0
104	C31	-5488	5946	0.0	0.0	0.0	0.0	0.0	0.0
105	C32	-5522	4626	0.0	0.0	0.0	0.0	0.0	0.0
106	C33	-5556	3306	0.0	0.0	0.0	0.0	0.0	0.0
107	C34	-5590	1986	0.0	0.0	0.0	0.0	0.0	0.0
108	C35	-5624	666	0.0	0.0	0.0	0.0	0.0	0.0
109	C36	-5658	-654	0.0	0.0	0.0	0.0	0.0	0.0
110	C37	-5692	-1974	0.0	0.0	0.0	0.0	0.0	0.0
111	C38	-5726	-3294	0.0	0.0	0.0	0.0	0.0	0.0
112	C39	-5760	-4614	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
113	C40	-5794	-5934	0.0	0.0	0.0	0.0	0.0	0.0
114	C41	-5828	-7254	0.0	0.0	0.0	0.0	0.0	0.0
115	C42	-5862	-8574	0.0	0.0	0.0	0.0	0.0	0.0
116	C43	-5896	-9894	0.0	0.0	0.0	0.0	0.0	0.0
117	C44	-5930	-11214	0.0	0.0	0.0	0.0	0.0	0.0
118	C45	-5964	-12534	0.0	0.0	0.0	0.0	0.0	0.0
119	C46	-5998	-13854	0.0	0.0	0.0	0.0	0.0	0.0
120	C47	-6032	-15174	0.0	0.0	0.0	0.0	0.0	0.0
121	C48	-6066	-16494	0.0	0.0	0.0	0.0	0.0	0.0
122	C49	-6100	-17814	0.0	0.0	0.0	0.0	0.0	0.0
123	C50	-6134	-19134	0.0	0.0	0.0	0.0	0.0	0.0
124	C51	-6168	-20454	0.0	0.0	0.0	0.0	0.0	0.0
125	C52	-6202	-21774	0.0	0.0	0.0	0.0	0.0	0.0
126	C53	-6236	-23094	0.0	0.0	0.0	0.0	0.0	0.0
127	C54	-6270	-24414	0.0	0.0	0.0	0.0	0.0	0.0
128	C55	-6304	-25734	0.0	0.0	0.0	0.0	0.0	0.0
129	C56	-6338	-27054	0.0	0.0	0.0	0.0	0.0	0.0
130	C57	-6372	-28374	0.0	0.0	0.0	0.0	0.0	0.0
131	C58	-6406	-29694	0.0	0.0	0.0	0.0	0.0	0.0
132	C59	-6440	-31014	0.0	0.0	0.0	0.0	0.0	0.0
133	D1	-3148	45512	0.0	0.0	0.0	0.0	0.0	0.0
134	D2	-3182	44192	0.0	0.0	0.0	0.0	0.0	0.0
135	D3	-3216	42872	0.0	0.0	0.0	0.0	0.0	0.0
136	D4	-3250	41552	0.0	0.0	0.0	0.0	0.0	0.0
137	D5	-3284	40232	0.0	0.0	0.0	0.0	0.0	0.0
138	D6	-3318	38912	0.0	0.0	0.0	0.0	0.0	0.0
139	D7	-3352	37592	0.0	0.0	0.0	0.0	0.0	0.0
140	D8	-3386	36272	0.0	0.0	0.0	0.0	0.0	0.0
141	D9	-3420	34952	0.0	0.0	0.0	0.0	0.0	0.0
142	D10	-3454	33632	0.0	0.0	0.0	0.0	0.0	0.0
143	D11	-3488	32312	0.0	0.0	0.0	0.0	0.0	0.0
144	D12	-3522	30992	0.0	0.0	0.0	0.0	0.0	0.0
145	D13	-3556	29672	0.0	0.0	0.0	0.0	0.0	0.0
146	D14	-3590	28352	0.0	0.0	0.0	0.0	0.0	0.0
147	D15	-3624	27032	0.0	0.0	0.0	0.0	0.0	0.0
148	D16	-3658	25712	0.0	0.0	0.0	0.0	0.0	0.0
149	D17	-3692	24392	0.0	0.0	0.0	0.0	0.0	0.0
150	D18	-3726	23072	0.0	0.0	0.0	0.0	0.0	0.0
151	D19	-3760	21752	0.0	0.0	0.0	0.0	0.0	0.0
152	D20	-3794	20432	0.0	0.0	0.0	0.0	0.0	0.0
153	D21	-3828	19112	0.0	0.0	0.0	0.0	0.0	0.0
154	D22	-3862	17792	0.0	0.0	0.0	0.0	0.0	0.0
155	D23	-3896	16472	0.0	0.0	0.0	0.0	0.0	0.0
156	D24	-3930	15152	0.0	0.0	0.0	0.0	0.0	0.0
157	D25	-3964	13832	0.0	0.0	0.0	0.0	0.0	0.0
158	D26	-3998	12512	0.0	0.0	0.0	0.0	0.0	0.0
159	D27	-4032	11192	0.0	0.0	0.0	0.0	0.0	0.0
160	D28	-4066	9872	0.0	0.0	0.0	0.0	0.0	0.0
161	D29	-4100	8552	0.0	0.0	0.0	0.0	0.0	0.0
162	D30	-4134	7232	0.0	0.0	0.0	0.0	0.0	0.0
163	D31	-4168	5912	0.0	0.0	0.0	0.0	0.0	0.0
164	D32	-4202	4592	0.0	0.0	0.0	0.0	0.0	0.0
165	D33	-4236	3272	0.0	0.0	0.0	0.0	0.0	0.0
166	D34	-4270	1952	0.0	0.0	0.0	0.0	0.0	0.0
167	D35	-4304	632	0.0	0.0	0.0	0.0	0.0	0.0
168	D36	-4338	-688	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
169	D37	-4372	-2008	0.0	0.0	0.0	0.0	0.0	0.0
170	D38	-4406	-3328	0.0	0.0	0.0	0.0	0.0	0.0
171	D39	-4440	-4648	0.0	0.0	0.0	0.0	0.0	0.0
172	D40	-4474	-5968	0.0	0.0	0.0	0.0	0.0	0.0
173	D41	-4508	-7288	0.0	0.0	0.0	0.0	0.0	0.0
174	D42	-4542	-8608	0.0	0.0	0.0	0.0	0.0	0.0
175	D43	-4576	-9928	0.0	0.0	0.0	0.0	0.0	0.0
176	D44	-4610	-11248	0.0	0.0	0.0	0.0	0.0	0.0
177	D45	-4644	-12568	0.0	0.0	0.0	0.0	0.0	0.0
178	D46	-4678	-13888	0.0	0.0	0.0	0.0	0.0	0.0
179	D47	-4712	-15208	0.0	0.0	0.0	0.0	0.0	0.0
180	D48	-4746	-16528	0.0	0.0	0.0	0.0	0.0	0.0
181	D49	-4780	-17848	0.0	0.0	0.0	0.0	0.0	0.0
182	D50	-4814	-19168	0.0	0.0	0.0	0.0	0.0	0.0
183	D51	-4848	-20488	0.0	0.0	0.0	0.0	0.0	0.0
184	D52	-4882	-21808	0.0	0.0	0.0	0.0	0.0	0.0
185	D53	-4916	-23128	0.0	0.0	0.0	0.0	0.0	0.0
186	D54	-4950	-24448	0.0	0.0	0.0	0.0	0.0	0.0
187	D55	-4984	-25768	0.0	0.0	0.0	0.0	0.0	0.0
188	D56	-5018	-27088	0.0	0.0	0.0	0.0	0.0	0.0
189	D57	-5052	-28408	0.0	0.0	0.0	0.0	0.0	0.0
190	D58	-5086	-29728	0.0	0.0	0.0	0.0	0.0	0.0
191	D59	-5120	-31048	0.0	0.0	0.0	0.0	0.0	0.0
192	D60	-5154	-32368	0.0	0.0	0.0	0.0	0.0	0.0
193	D61	-5188	-33688	0.0	0.0	0.0	0.0	0.0	0.0
194	D62	-5222	-35008	0.0	0.0	0.0	0.0	0.0	0.0
195	D63	-5256	-36328	0.0	0.0	0.0	0.0	0.0	0.0
196	D64	-5290	-37648	0.0	0.0	0.0	0.0	0.0	0.0
197	D65	-5324	-38968	0.0	0.0	0.0	0.0	0.0	0.0
198	D66	-5358	-40288	0.0	0.0	0.0	0.0	0.0	0.0
199	D67	-5392	-41608	0.0	0.0	0.0	0.0	0.0	0.0
200	E1	-1828	45478	0.0	0.0	0.0	0.0	0.0	0.0
201	E2	-1862	44158	0.0	0.0	0.0	0.0	0.0	0.0
202	E3	-1896	42838	0.0	0.0	0.0	0.0	0.0	0.0
203	E4	-1930	41518	0.0	0.0	0.0	0.0	0.0	0.0
204	E5	-1964	40198	0.0	0.0	0.0	0.0	0.0	0.0
205	E6	-1998	38878	0.0	0.0	0.0	0.0	0.0	0.0
206	E7	-2032	37558	0.0	0.0	0.0	0.0	0.0	0.0
207	E8	-2066	36238	0.0	0.0	0.0	0.0	0.0	0.0
208	E9	-2100	34918	0.0	0.0	0.0	0.0	0.0	0.0
209	E10	-2134	33598	0.0	0.0	0.0	0.0	0.0	0.0
210	E11	-2168	32278	0.0	0.0	0.0	0.0	0.0	0.0
211	E12	-2202	30958	0.0	0.0	0.0	0.0	0.0	0.0
212	E13	-2236	29638	0.0	0.0	0.0	0.0	0.0	0.0
213	E14	-2270	28318	0.0	0.0	0.0	0.0	0.0	0.0
214	E15	-2304	26998	0.0	0.0	0.0	0.0	0.0	0.0
215	E16	-2338	25678	0.0	0.0	0.0	0.0	0.0	0.0
216	E17	-2372	24358	0.0	0.0	0.0	0.0	0.0	0.0
217	E18	-2406	23038	0.0	0.0	0.0	0.0	0.0	0.0
218	E19	-2440	21718	0.0	0.0	0.0	0.0	0.0	0.0
219	E20	-2474	20398	0.0	0.0	0.0	0.0	0.0	0.0
220	E21	-2508	19078	0.0	0.0	0.0	0.0	0.0	0.0
221	E22	-2542	17758	0.0	0.0	0.0	0.0	0.0	0.0
222	E23	-2576	16438	0.0	0.0	0.0	0.0	0.0	0.0
223	E24	-2610	15118	0.0	0.0	0.0	0.0	0.0	0.0
224	E25	-2644	13798	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
225	E26	-2678	12478	0.0	0.0	0.0	0.0	0.0	0.0
226	E27	-2712	11158	0.0	0.0	0.0	0.0	0.0	0.0
227	E28	-2746	9838	0.0	0.0	0.0	0.0	0.0	0.0
228	E29	-2780	8518	0.0	0.0	0.0	0.0	0.0	0.0
229	E30	-2814	7198	0.0	0.0	0.0	0.0	0.0	0.0
230	E31	-2848	5878	0.0	0.0	0.0	0.0	0.0	0.0
231	E32	-2882	4558	0.0	0.0	0.0	0.0	0.0	0.0
232	E33	-2916	3238	0.0	0.0	0.0	0.0	0.0	0.0
233	E34	-2950	1918	0.0	0.0	0.0	0.0	0.0	0.0
234	E35	-2984	598	0.0	0.0	0.0	0.0	0.0	0.0
235	E36	-3018	-722	0.0	0.0	0.0	0.0	0.0	0.0
236	E37	-3052	-2042	0.0	0.0	0.0	0.0	0.0	0.0
237	E38	-3086	-3362	0.0	0.0	0.0	0.0	0.0	0.0
238	E39	-3120	-4682	0.0	0.0	0.0	0.0	0.0	0.0
239	E40	-3154	-6002	0.0	0.0	0.0	0.0	0.0	0.0
240	E41	-3188	-7322	0.0	0.0	0.0	0.0	0.0	0.0
241	E42	-3222	-8642	0.0	0.0	0.0	0.0	0.0	0.0
242	E43	-3256	-9962	0.0	0.0	0.0	0.0	0.0	0.0
243	E44	-3290	-11282	0.0	0.0	0.0	0.0	0.0	0.0
244	E45	-3324	-12602	0.0	0.0	0.0	0.0	0.0	0.0
245	E46	-3358	-13922	0.0	0.0	0.0	0.0	0.0	0.0
246	E47	-3392	-15242	0.0	0.0	0.0	0.0	0.0	0.0
247	E48	-3426	-16562	0.0	0.0	0.0	0.0	0.0	0.0
248	E49	-3460	-17882	0.0	0.0	0.0	0.0	0.0	0.0
249	E50	-3494	-19202	0.0	0.0	0.0	0.0	0.0	0.0
250	E51	-3528	-20522	0.0	0.0	0.0	0.0	0.0	0.0
251	E52	-3562	-21842	0.0	0.0	0.0	0.0	0.0	0.0
252	E53	-3596	-23162	0.0	0.0	0.0	0.0	0.0	0.0
253	E54	-3630	-24482	0.0	0.0	0.0	0.0	0.0	0.0
254	E55	-3664	-25802	0.0	0.0	0.0	0.0	0.0	0.0
255	E56	-3698	-27122	0.0	0.0	0.0	0.0	0.0	0.0
256	E57	-3732	-28442	0.0	0.0	0.0	0.0	0.0	0.0
257	E58	-3766	-29762	0.0	0.0	0.0	0.0	0.0	0.0
258	E59	-3800	-31082	0.0	0.0	0.0	0.0	0.0	0.0
259	E60	-3834	-32402	0.0	0.0	0.0	0.0	0.0	0.0
260	E61	-3868	-33722	0.0	0.0	0.0	0.0	0.0	0.0
261	E62	-3902	-35042	0.0	0.0	0.0	0.0	0.0	0.0
262	E63	-3936	-36362	0.0	0.0	0.0	0.0	0.0	0.0
263	E64	-3970	-37682	0.0	0.0	0.0	0.0	0.0	0.0
264	E65	-4004	-39002	0.0	0.0	0.0	0.0	0.0	0.0
265	E66	-4038	-40322	0.0	0.0	0.0	0.0	0.0	0.0
266	E67	-4072	-41642	0.0	0.0	0.0	0.0	0.0	0.0
267	E68	-4106	-42962	0.0	0.0	0.0	0.0	0.0	0.0
268	E69	-4140	-44282	0.0	0.0	0.0	0.0	0.0	0.0
269	E70	-4174	-45602	0.0	0.0	0.0	0.0	0.0	0.0
270	E71	-4208	-46922	0.0	0.0	0.0	0.0	0.0	0.0
271	E72	-4242	-48242	0.0	0.0	0.0	0.0	0.0	0.0
272	E73	-4276	-49562	0.0	0.0	0.0	0.0	0.0	0.0
273	F1	-508	45444	0.0	0.0	0.0	0.0	0.0	0.0
274	F2	-542	44124	0.0	0.0	0.0	0.0	0.0	0.0
275	F3	-576	42804	0.0	0.0	0.0	0.0	0.0	0.0
276	F4	-610	41484	0.0	0.0	0.0	0.0	0.0	0.0
277	F5	-644	40164	0.0	0.0	0.0	0.0	0.0	0.0
278	F6	-678	38844	0.0	0.0	0.0	0.0	0.0	0.0
279	F7	-712	37524	0.0	0.0	0.0	0.0	0.0	0.0
280	F8	-746	36204	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
281	F9	-780	34884	0.0	0.0	0.0	0.0	0.0	0.0
282	F10	-814	33564	0.0	0.0	0.0	0.0	0.0	0.0
283	F11	-848	32244	0.0	0.0	0.0	0.0	0.0	0.0
284	F12	-882	30924	0.0	0.0	0.0	0.0	0.0	0.0
285	F13	-916	29604	0.0	0.0	0.0	0.0	0.0	0.0
286	F14	-950	28284	0.0	0.0	0.0	0.0	0.0	0.0
287	F15	-984	26964	0.0	0.0	0.0	0.0	0.0	0.0
288	F16	-1018	25644	0.0	0.0	0.0	0.0	0.0	0.0
289	F17	-1052	24324	0.0	0.0	0.0	0.0	0.0	0.0
290	F18	-1086	23004	0.0	0.0	0.0	0.0	0.0	0.0
291	F19	-1120	21684	0.0	0.0	0.0	0.0	0.0	0.0
292	F20	-1154	20364	0.0	0.0	0.0	0.0	0.0	0.0
293	F21	-1188	19044	0.0	0.0	0.0	0.0	0.0	0.0
294	F22	-1222	17724	0.0	0.0	0.0	0.0	0.0	0.0
295	F23	-1256	16404	0.0	0.0	0.0	0.0	0.0	0.0
296	F24	-1290	15084	0.0	0.0	0.0	0.0	0.0	0.0
297	F25	-1324	13764	0.0	0.0	0.0	0.0	0.0	0.0
298	F26	-1358	12444	0.0	0.0	0.0	0.0	0.0	0.0
299	F27	-1392	11124	0.0	0.0	0.0	0.0	0.0	0.0
300	F28	-1426	9804	0.0	0.0	0.0	0.0	0.0	0.0
301	F29	-1460	8484	0.0	0.0	0.0	0.0	0.0	0.0
302	F30	-1494	7164	0.0	0.0	0.0	0.0	0.0	0.0
303	F31	-1528	5844	0.0	0.0	0.0	0.0	0.0	0.0
304	F32	-1562	4524	0.0	0.0	0.0	0.2	0.0	0.3
305	F33	-1596	3204	0.0	0.0	0.0	0.3	0.0	0.5
306	F34	-1630	1884	0.0	0.0	0.0	0.3	0.0	0.6
307	F35	-1664	564	0.0	0.0	0.0	0.3	0.0	0.7
308	F36	-1698	-756	0.0	0.0	0.0	0.3	0.0	0.6
309	F37	-1732	-2076	0.0	0.0	0.0	0.1	0.0	0.4
310	F38	-1766	-3396	0.0	0.0	0.0	0.0	0.0	0.0
311	F39	-1800	-4716	0.0	0.0	0.0	0.0	0.0	0.0
312	F40	-1834	-6036	0.0	0.0	0.0	0.0	0.0	0.0
313	F41	-1868	-7356	0.0	0.0	0.0	0.0	0.0	0.0
314	F42	-1902	-8676	0.0	0.0	0.0	0.0	0.0	0.0
315	F43	-1936	-9996	0.0	0.0	0.0	0.0	0.0	0.0
316	F44	-1970	-11316	0.0	0.0	0.0	0.0	0.0	0.0
317	F45	-2004	-12636	0.0	0.0	0.0	0.0	0.0	0.0
318	F46	-2038	-13956	0.0	0.0	0.0	0.0	0.0	0.0
319	F47	-2072	-15276	0.0	0.0	0.0	0.0	0.0	0.0
320	F48	-2106	-16596	0.0	0.0	0.0	0.0	0.0	0.0
321	F49	-2140	-17916	0.0	0.0	0.0	0.0	0.0	0.0
322	F50	-2174	-19236	0.0	0.0	0.0	0.0	0.0	0.0
323	F51	-2208	-20556	0.0	0.0	0.0	0.0	0.0	0.0
324	F52	-2242	-21876	0.0	0.0	0.0	0.0	0.0	0.0
325	F53	-2276	-23196	0.0	0.0	0.0	0.0	0.0	0.0
326	F54	-2310	-24516	0.0	0.0	0.0	0.0	0.0	0.0
327	F55	-2344	-25836	0.0	0.0	0.0	0.0	0.0	0.0
328	F56	-2378	-27156	0.0	0.0	0.0	0.0	0.0	0.0
329	F57	-2412	-28476	0.0	0.0	0.0	0.0	0.0	0.0
330	F58	-2446	-29796	0.0	0.0	0.0	0.0	0.0	0.0
331	F59	-2480	-31116	0.0	0.0	0.0	0.0	0.0	0.0
332	F60	-2514	-32436	0.0	0.0	0.0	0.0	0.0	0.0
333	F61	-2548	-33756	0.0	0.0	0.0	0.0	0.0	0.0
334	F62	-2582	-35076	0.0	0.0	0.0	0.0	0.0	0.0
335	F63	-2616	-36396	0.0	0.0	0.0	0.0	0.0	0.0
336	F64	-2650	-37716	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
337	F65	-2684	-39036	0.0	0.0	0.0	0.0	0.0	0.0
338	F66	-2718	-40356	0.0	0.0	0.0	0.0	0.0	0.0
339	F67	-2752	-41676	0.0	0.0	0.0	0.0	0.0	0.0
340	F68	-2786	-42996	0.0	0.0	0.0	0.0	0.0	0.0
341	F69	-2820	-44316	0.0	0.0	0.0	0.0	0.0	0.0
342	F70	-2854	-45636	0.0	0.0	0.0	0.0	0.0	0.0
343	F71	-2888	-46956	0.0	0.0	0.0	0.0	0.0	0.0
344	F72	-2922	-48276	0.0	0.0	0.0	0.0	0.0	0.0
345	F73	-2956	-49596	0.0	0.0	0.0	0.0	0.0	0.0
346	G1	812	45410	0.0	0.0	0.0	0.0	0.0	0.0
347	G2	778	44090	0.0	0.0	0.0	0.0	0.0	0.0
348	G3	744	42770	0.0	0.0	0.0	0.0	0.0	0.0
349	G4	710	41450	0.0	0.0	0.0	0.0	0.0	0.0
350	G5	676	40130	0.0	0.0	0.0	0.0	0.0	0.0
351	G6	642	38810	0.0	0.0	0.0	0.0	0.0	0.0
352	G7	608	37490	0.0	0.0	0.0	0.0	0.0	0.0
353	G8	574	36170	0.0	0.0	0.0	0.0	0.0	0.0
354	G9	540	34850	0.0	0.0	0.0	0.0	0.0	0.0
355	G10	506	33530	0.0	0.0	0.0	0.0	0.0	0.0
356	G11	472	32210	0.0	0.0	0.0	0.0	0.0	0.0
357	G12	438	30890	0.0	0.0	0.0	0.0	0.0	0.0
358	G13	404	29570	0.0	0.0	0.0	0.0	0.0	0.0
359	G14	370	28250	0.0	0.0	0.0	0.0	0.0	0.0
360	G15	336	26930	0.0	0.0	0.0	0.0	0.0	0.0
361	G16	302	25610	0.0	0.0	0.0	0.0	0.0	0.0
362	G17	268	24290	0.0	0.0	0.0	0.0	0.0	0.0
363	G18	234	22970	0.0	0.0	0.0	0.0	0.0	0.0
364	G19	200	21650	0.0	0.0	0.0	0.0	0.0	0.0
365	G20	166	20330	0.0	0.0	0.0	0.0	0.0	0.0
366	G21	132	19010	0.0	0.0	0.0	0.0	0.0	0.0
367	G22	98	17690	0.0	0.0	0.0	0.0	0.0	0.0
368	G23	64	16370	0.0	0.0	0.0	0.0	0.0	0.0
369	G24	30	15050	0.0	0.0	0.0	0.0	0.0	0.0
370	G25	-4	13730	0.1	0.1	0.0	0.0	0.0	0.0
371	G26	-38	12410	0.2	0.2	0.0	0.0	0.0	0.0
372	G27	-72	11090	0.3	0.3	0.0	0.0	0.0	0.0
373	G28	-106	9770	0.3	0.3	0.0	0.0	0.0	0.0
374	G29	-140	8450	0.5	0.5	0.1	0.1	0.2	0.2
375	G30	-174	7130	0.6	0.6	0.3	0.2	0.3	0.2
376	G31	-208	5810	1.3	1.3	0.8	0.5	0.8	0.5
377	G32	-242	4490	6.1	6.1	5.7	17.6	6.1	17.9
378	G33	-276	3170	10.7	10.7	10.3	13.4	10.7	13.6
379	G34	-310	1850	8.9	8.9	7.6	11.3	7.9	11.6
380	G35	-344	530	7.2	7.2	5.3	9.5	5.2	9.9
381	G36	-378	-790	8.2	8.2	6.5	9.1	7.1	9.6
382	G37	-412	-2110	9.7	9.7	8.0	9.9	8.2	10.3
383	G38	-446	-3430	7.2	7.2	5.9	9.6	6.1	10.2
384	G39	-480	-4750	1.4	1.4	0.7	0.6	0.7	0.5
385	G40	-514	-6070	0.9	0.9	0.2	0.2	0.2	0.2
386	G41	-548	-7390	0.6	0.6	0.1	0.1	0.1	0.1
387	G42	-582	-8710	0.4	0.4	0.0	0.0	0.0	0.0
388	G43	-616	-10030	0.3	0.3	0.0	0.0	0.0	0.0
389	G44	-650	-11350	0.1	0.1	0.0	0.0	0.0	0.0
390	G45	-684	-12670	0.1	0.1	0.0	0.0	0.0	0.0
391	G46	-718	-13990	0.0	0.0	0.0	0.0	0.0	0.0
392	G47	-752	-15310	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
393	G48	-786	-16630	0.0	0.0	0.0	0.0	0.0	0.0
394	G49	-820	-17950	0.0	0.0	0.0	0.0	0.0	0.0
395	G50	-854	-19270	0.0	0.0	0.0	0.0	0.0	0.0
396	G51	-888	-20590	0.0	0.0	0.0	0.0	0.0	0.0
397	G52	-922	-21910	0.0	0.0	0.0	0.0	0.0	0.0
398	G53	-956	-23230	0.0	0.0	0.0	0.0	0.0	0.0
399	G54	-990	-24550	0.0	0.0	0.0	0.0	0.0	0.0
400	G55	-1024	-25870	0.0	0.0	0.0	0.0	0.0	0.0
401	G56	-1058	-27190	0.0	0.0	0.0	0.0	0.0	0.0
402	G57	-1092	-28510	0.0	0.0	0.0	0.0	0.0	0.0
403	G58	-1126	-29830	0.0	0.0	0.0	0.0	0.0	0.0
404	G59	-1160	-31150	0.0	0.0	0.0	0.0	0.0	0.0
405	G60	-1194	-32470	0.0	0.0	0.0	0.0	0.0	0.0
406	G61	-1228	-33790	0.0	0.0	0.0	0.0	0.0	0.0
407	G62	-1262	-35110	0.0	0.0	0.0	0.0	0.0	0.0
408	G63	-1296	-36430	0.0	0.0	0.0	0.0	0.0	0.0
409	G64	-1330	-37750	0.0	0.0	0.0	0.0	0.0	0.0
410	G65	-1364	-39070	0.0	0.0	0.0	0.0	0.0	0.0
411	G66	-1398	-40390	0.0	0.0	0.0	0.0	0.0	0.0
412	G67	-1432	-41710	0.0	0.0	0.0	0.0	0.0	0.0
413	G68	-1466	-43030	0.0	0.0	0.0	0.0	0.0	0.0
414	G69	-1500	-44350	0.0	0.0	0.0	0.0	0.0	0.0
415	G70	-1534	-45670	0.0	0.0	0.0	0.0	0.0	0.0
416	G71	-1568	-46990	0.0	0.0	0.0	0.0	0.0	0.0
417	G72	-1602	-48310	0.0	0.0	0.0	0.0	0.0	0.0
418	G73	-1636	-49630	0.0	0.0	0.0	0.0	0.0	0.0
419	H1	2132	45376	0.0	0.0	0.0	0.0	0.0	0.0
420	H2	2098	44056	0.0	0.0	0.0	0.0	0.0	0.0
421	H3	2064	42736	0.0	0.0	0.0	0.0	0.0	0.0
422	H4	2030	41416	0.0	0.0	0.0	0.0	0.0	0.0
423	H5	1996	40096	0.0	0.0	0.0	0.0	0.0	0.0
424	H6	1962	38776	0.0	0.0	0.0	0.0	0.0	0.0
425	H7	1928	37456	0.0	0.0	0.0	0.0	0.0	0.0
426	H8	1894	36136	0.0	0.0	0.0	0.0	0.0	0.0
427	H9	1860	34816	0.0	0.0	0.0	0.0	0.0	0.0
428	H10	1826	33496	0.0	0.0	0.0	0.0	0.0	0.0
429	H11	1792	32176	0.0	0.0	0.0	0.0	0.0	0.0
430	H12	1758	30856	0.0	0.0	0.0	0.0	0.0	0.0
431	H13	1724	29536	0.0	0.0	0.0	0.0	0.0	0.0
432	H14	1690	28216	0.0	0.0	0.0	0.0	0.0	0.0
433	H15	1656	26896	0.0	0.0	0.0	0.0	0.0	0.0
434	H16	1622	25576	0.0	0.0	0.0	0.0	0.0	0.0
435	H17	1588	24256	0.0	0.0	0.0	0.0	0.0	0.0
436	H18	1554	22936	0.0	0.0	0.0	0.0	0.0	0.0
437	H19	1520	21616	0.0	0.0	0.0	0.0	0.0	0.0
438	H20	1486	20296	0.0	0.0	0.0	0.0	0.0	0.0
439	H21	1452	18976	0.0	0.0	0.0	0.0	0.0	0.0
440	H22	1418	17656	0.0	0.0	0.0	0.0	0.0	0.0
441	H23	1384	16336	0.0	0.0	0.0	0.0	0.0	0.0
442	H24	1350	15016	0.0	0.0	0.0	0.0	0.0	0.0
443	H25	1316	13696	0.0	0.0	0.0	0.0	0.0	0.0
444	H26	1282	12376	0.0	0.0	0.0	0.0	0.0	0.0
445	H27	1248	11056	0.0	0.0	0.0	0.0	0.0	0.0
446	H28	1214	9736	0.0	0.0	0.0	0.0	0.0	0.0
447	H29	1180	8416	0.1	0.1	0.0	0.0	0.0	0.0
448	H30	1146	7096	0.2	0.2	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
449	H31	1112	5776	0.4	0.4	0.1	0.1	0.1	0.1
450	H32	1078	4456	0.7	0.7	0.1	0.5	0.1	0.7
451	H33	1044	3136	1.2	1.2	0.5	0.8	0.5	1.1
452	H34	1010	1816	8.0	8.0	6.1	5.2	6.3	5.8
453	H35	976	496	5.7	5.7	3.3	1.6	3.5	1.9
454	H36	942	-824	6.3	6.3	4.1	2.0	4.1	2.3
455	H37	908	-2144	5.6	5.6	3.6	1.7	3.7	2.1
456	H38	874	-3464	4.3	4.3	2.2	1.0	2.1	1.1
457	H39	840	-4784	1.3	1.3	0.5	0.2	0.4	0.1
458	H40	806	-6104	3.8	3.8	3.4	3.3	3.5	3.5
459	H41	772	-7424	0.6	0.6	0.0	0.0	0.0	0.0
460	H42	738	-8744	0.5	0.5	0.0	0.0	0.0	0.0
461	H43	704	-10064	0.4	0.4	0.0	0.0	0.0	0.0
462	H44	670	-11384	0.2	0.2	0.0	0.0	0.0	0.0
463	H45	636	-12704	0.1	0.1	0.0	0.0	0.0	0.0
464	H46	602	-14024	0.1	0.1	0.0	0.0	0.0	0.0
465	H47	568	-15344	0.1	0.1	0.0	0.0	0.0	0.0
466	H48	534	-16664	0.1	0.1	0.0	0.0	0.0	0.0
467	H49	500	-17984	0.0	0.0	0.0	0.0	0.0	0.0
468	H50	466	-19304	0.0	0.0	0.0	0.0	0.0	0.0
469	H51	432	-20624	0.0	0.0	0.0	0.0	0.0	0.0
470	H52	398	-21944	0.0	0.0	0.0	0.0	0.0	0.0
471	H53	364	-23264	0.0	0.0	0.0	0.0	0.0	0.0
472	H54	330	-24584	0.0	0.0	0.0	0.0	0.0	0.0
473	H55	296	-25904	0.0	0.0	0.0	0.0	0.0	0.0
474	H56	262	-27224	0.0	0.0	0.0	0.0	0.0	0.0
475	H57	228	-28544	0.0	0.0	0.0	0.0	0.0	0.0
476	H58	194	-29864	0.0	0.0	0.0	0.0	0.0	0.0
477	H59	160	-31184	0.0	0.0	0.0	0.0	0.0	0.0
478	H60	126	-32504	0.0	0.0	0.0	0.0	0.0	0.0
479	H61	92	-33824	0.0	0.0	0.0	0.0	0.0	0.0
480	H62	58	-35144	0.0	0.0	0.0	0.0	0.0	0.0
481	H63	24	-36464	0.0	0.0	0.0	0.0	0.0	0.0
482	H64	-10	-37784	0.0	0.0	0.0	0.0	0.0	0.0
483	H65	-44	-39104	0.0	0.0	0.0	0.0	0.0	0.0
484	H66	-78	-40424	0.0	0.0	0.0	0.0	0.0	0.0
485	H67	-112	-41744	0.0	0.0	0.0	0.0	0.0	0.0
486	H68	-146	-43064	0.0	0.0	0.0	0.0	0.0	0.0
487	H69	-180	-44384	0.0	0.0	0.0	0.0	0.0	0.0
488	H70	-214	-45704	0.0	0.0	0.0	0.0	0.0	0.0
489	H71	-248	-47024	0.0	0.0	0.0	0.0	0.0	0.0
490	H72	-282	-48344	0.0	0.0	0.0	0.0	0.0	0.0
491	H73	-316	-49664	0.0	0.0	0.0	0.0	0.0	0.0
492	I1	3452	45342	0.0	0.0	0.0	0.0	0.0	0.0
493	I2	3418	44022	0.0	0.0	0.0	0.0	0.0	0.0
494	I3	3384	42702	0.0	0.0	0.0	0.0	0.0	0.0
495	I4	3350	41382	0.0	0.0	0.0	0.0	0.0	0.0
496	I5	3316	40062	0.0	0.0	0.0	0.0	0.0	0.0
497	I6	3282	38742	0.0	0.0	0.0	0.0	0.0	0.0
498	I7	3248	37422	0.0	0.0	0.0	0.0	0.0	0.0
499	I8	3214	36102	0.0	0.0	0.0	0.0	0.0	0.0
500	I9	3180	34782	0.0	0.0	0.0	0.0	0.0	0.0
501	I10	3146	33462	0.0	0.0	0.0	0.0	0.0	0.0
502	I11	3112	32142	0.0	0.0	0.0	0.0	0.0	0.0
503	I12	3078	30822	0.0	0.0	0.0	0.0	0.0	0.0
504	I13	3044	29502	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
505	I14	3010	28182	0.0	0.0	0.0	0.0	0.0	0.0
506	I15	2976	26862	0.0	0.0	0.0	0.0	0.0	0.0
507	I16	2942	25542	0.0	0.0	0.0	0.0	0.0	0.0
508	I17	2908	24222	0.0	0.0	0.0	0.0	0.0	0.0
509	I18	2874	22902	0.0	0.0	0.0	0.0	0.0	0.0
510	I19	2840	21582	0.0	0.0	0.0	0.0	0.0	0.0
511	I20	2806	20262	0.0	0.0	0.0	0.0	0.0	0.0
512	I21	2772	18942	0.0	0.0	0.0	0.0	0.0	0.0
513	I22	2738	17622	0.0	0.0	0.0	0.0	0.0	0.0
514	I23	2704	16302	0.0	0.0	0.0	0.0	0.0	0.0
515	I24	2670	14982	0.0	0.0	0.0	0.0	0.0	0.0
516	I25	2636	13662	0.0	0.0	0.0	0.0	0.0	0.0
517	I26	2602	12342	0.0	0.0	0.0	0.0	0.0	0.0
518	I27	2568	11022	0.0	0.0	0.0	0.0	0.0	0.0
519	I28	2534	9702	0.0	0.0	0.0	0.0	0.0	0.0
520	I29	2500	8382	0.0	0.0	0.0	0.0	0.0	0.0
521	I30	2466	7062	0.0	0.0	0.0	0.0	0.0	0.0
522	I31	2432	5742	0.0	0.0	0.0	0.0	0.0	0.0
523	I32	2398	4422	0.0	0.0	0.0	0.0	0.0	0.0
524	I33	2364	3102	0.0	0.0	0.0	0.0	0.0	0.0
525	I34	2330	1782	0.0	0.0	0.0	0.0	0.0	0.0
526	I35	2296	462	0.0	0.0	0.0	0.0	0.0	0.0
527	I36	2262	-858	0.0	0.0	0.0	0.0	0.0	0.0
528	I37	2228	-2178	0.0	0.0	0.0	0.0	0.0	0.0
529	I38	2194	-3498	0.0	0.0	0.0	0.0	0.0	0.0
530	I39	2160	-4818	0.0	0.0	0.0	0.0	0.0	0.0
531	I40	2126	-6138	0.0	0.0	0.0	0.0	0.0	0.0
532	I41	2092	-7458	0.0	0.0	0.0	0.0	0.0	0.0
533	I42	2058	-8778	0.0	0.0	0.0	0.0	0.0	0.0
534	I43	2024	-10098	0.0	0.0	0.0	0.0	0.0	0.0
535	I44	1990	-11418	0.0	0.0	0.0	0.0	0.0	0.0
536	I45	1956	-12738	0.0	0.0	0.0	0.0	0.0	0.0
537	I46	1922	-14058	0.0	0.0	0.0	0.0	0.0	0.0
538	I47	1888	-15378	0.0	0.0	0.0	0.0	0.0	0.0
539	I48	1854	-16698	0.0	0.0	0.0	0.0	0.0	0.0
540	I49	1820	-18018	0.0	0.0	0.0	0.0	0.0	0.0
541	I50	1786	-19338	0.0	0.0	0.0	0.0	0.0	0.0
542	I51	1752	-20658	0.0	0.0	0.0	0.0	0.0	0.0
543	I52	1718	-21978	0.0	0.0	0.0	0.0	0.0	0.0
544	I53	1684	-23298	0.0	0.0	0.0	0.0	0.0	0.0
545	I54	1650	-24618	0.0	0.0	0.0	0.0	0.0	0.0
546	I55	1616	-25938	0.0	0.0	0.0	0.0	0.0	0.0
547	I56	1582	-27258	0.0	0.0	0.0	0.0	0.0	0.0
548	I57	1548	-28578	0.0	0.0	0.0	0.0	0.0	0.0
549	I58	1514	-29898	0.0	0.0	0.0	0.0	0.0	0.0
550	I59	1480	-31218	0.0	0.0	0.0	0.0	0.0	0.0
551	I60	1446	-32538	0.0	0.0	0.0	0.0	0.0	0.0
552	I61	1412	-33858	0.0	0.0	0.0	0.0	0.0	0.0
553	I62	1378	-35178	0.0	0.0	0.0	0.0	0.0	0.0
554	I63	1344	-36498	0.0	0.0	0.0	0.0	0.0	0.0
555	I64	1310	-37818	0.0	0.0	0.0	0.0	0.0	0.0
556	I65	1276	-39138	0.0	0.0	0.0	0.0	0.0	0.0
557	I66	1242	-40458	0.0	0.0	0.0	0.0	0.0	0.0
558	I67	1208	-41778	0.0	0.0	0.0	0.0	0.0	0.0
559	I68	1174	-43098	0.0	0.0	0.0	0.0	0.0	0.0
560	I69	1140	-44418	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
561	I70	1106	-45738	0.0	0.0	0.0	0.0	0.0	0.0
562	I71	1072	-47058	0.0	0.0	0.0	0.0	0.0	0.0
563	I72	1038	-48378	0.0	0.0	0.0	0.0	0.0	0.0
564	I73	1004	-49698	0.0	0.0	0.0	0.0	0.0	0.0
565	J8	4534	36068	0.0	0.0	0.0	0.0	0.0	0.0
566	J9	4500	34748	0.0	0.0	0.0	0.0	0.0	0.0
567	J10	4466	33428	0.0	0.0	0.0	0.0	0.0	0.0
568	J11	4432	32108	0.0	0.0	0.0	0.0	0.0	0.0
569	J12	4398	30788	0.0	0.0	0.0	0.0	0.0	0.0
570	J13	4364	29468	0.0	0.0	0.0	0.0	0.0	0.0
571	J14	4330	28148	0.0	0.0	0.0	0.0	0.0	0.0
572	J15	4296	26828	0.0	0.0	0.0	0.0	0.0	0.0
573	J16	4262	25508	0.0	0.0	0.0	0.0	0.0	0.0
574	J17	4228	24188	0.0	0.0	0.0	0.0	0.0	0.0
575	J18	4194	22868	0.0	0.0	0.0	0.0	0.0	0.0
576	J19	4160	21548	0.0	0.0	0.0	0.0	0.0	0.0
577	J20	4126	20228	0.0	0.0	0.0	0.0	0.0	0.0
578	J21	4092	18908	0.0	0.0	0.0	0.0	0.0	0.0
579	J22	4058	17588	0.0	0.0	0.0	0.0	0.0	0.0
580	J23	4024	16268	0.0	0.0	0.0	0.0	0.0	0.0
581	J24	3990	14948	0.0	0.0	0.0	0.0	0.0	0.0
582	J25	3956	13628	0.0	0.0	0.0	0.0	0.0	0.0
583	J26	3922	12308	0.0	0.0	0.0	0.0	0.0	0.0
584	J27	3888	10988	0.0	0.0	0.0	0.0	0.0	0.0
585	J28	3854	9668	0.0	0.0	0.0	0.0	0.0	0.0
586	J29	3820	8348	0.0	0.0	0.0	0.0	0.0	0.0
587	J30	3786	7028	0.0	0.0	0.0	0.0	0.0	0.0
588	J31	3752	5708	0.0	0.0	0.0	0.0	0.0	0.0
589	J32	3718	4388	0.0	0.0	0.0	0.0	0.0	0.0
590	J33	3684	3068	0.0	0.0	0.0	0.0	0.0	0.0
591	J34	3650	1748	0.0	0.0	0.0	0.0	0.0	0.0
592	J35	3616	428	0.0	0.0	0.0	0.0	0.0	0.0
593	J36	3582	-892	0.0	0.0	0.0	0.0	0.0	0.0
594	J37	3548	-2212	0.0	0.0	0.0	0.0	0.0	0.0
595	J38	3514	-3532	0.0	0.0	0.0	0.0	0.0	0.0
596	J39	3480	-4852	0.0	0.0	0.0	0.0	0.0	0.0
597	J40	3446	-6172	0.0	0.0	0.0	0.0	0.0	0.0
598	J41	3412	-7492	0.0	0.0	0.0	0.0	0.0	0.0
599	J42	3378	-8812	0.0	0.0	0.0	0.0	0.0	0.0
600	J43	3344	-10132	0.0	0.0	0.0	0.0	0.0	0.0
601	J44	3310	-11452	0.0	0.0	0.0	0.0	0.0	0.0
602	J45	3276	-12772	0.0	0.0	0.0	0.0	0.0	0.0
603	J46	3242	-14092	0.0	0.0	0.0	0.0	0.0	0.0
604	J47	3208	-15412	0.0	0.0	0.0	0.0	0.0	0.0
605	J48	3174	-16732	0.0	0.0	0.0	0.0	0.0	0.0
606	J49	3140	-18052	0.0	0.0	0.0	0.0	0.0	0.0
607	J50	3106	-19372	0.0	0.0	0.0	0.0	0.0	0.0
608	J51	3072	-20692	0.0	0.0	0.0	0.0	0.0	0.0
609	J52	3038	-22012	0.0	0.0	0.0	0.0	0.0	0.0
610	J53	3004	-23332	0.0	0.0	0.0	0.0	0.0	0.0
611	J54	2970	-24652	0.0	0.0	0.0	0.0	0.0	0.0
612	J55	2936	-25972	0.0	0.0	0.0	0.0	0.0	0.0
613	J56	2902	-27292	0.0	0.0	0.0	0.0	0.0	0.0
614	J57	2868	-28612	0.0	0.0	0.0	0.0	0.0	0.0
615	J58	2834	-29932	0.0	0.0	0.0	0.0	0.0	0.0
616	J59	2800	-31252	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
617	J60	2766	-32572	0.0	0.0	0.0	0.0	0.0	0.0
618	J61	2732	-33892	0.0	0.0	0.0	0.0	0.0	0.0
619	J62	2698	-35212	0.0	0.0	0.0	0.0	0.0	0.0
620	J63	2664	-36532	0.0	0.0	0.0	0.0	0.0	0.0
621	J64	2630	-37852	0.0	0.0	0.0	0.0	0.0	0.0
622	J65	2596	-39172	0.0	0.0	0.0	0.0	0.0	0.0
623	J66	2562	-40492	0.0	0.0	0.0	0.0	0.0	0.0
624	J67	2528	-41812	0.0	0.0	0.0	0.0	0.0	0.0
625	J68	2494	-43132	0.0	0.0	0.0	0.0	0.0	0.0
626	J69	2460	-44452	0.0	0.0	0.0	0.0	0.0	0.0
627	J70	2426	-45772	0.0	0.0	0.0	0.0	0.0	0.0
628	J71	2392	-47092	0.0	0.0	0.0	0.0	0.0	0.0
629	J72	2358	-48412	0.0	0.0	0.0	0.0	0.0	0.0
630	J73	2324	-49732	0.0	0.0	0.0	0.0	0.0	0.0
631	K15	5616	26794	0.0	0.0	0.0	0.0	0.0	0.0
632	K16	5582	25474	0.0	0.0	0.0	0.0	0.0	0.0
633	K17	5548	24154	0.0	0.0	0.0	0.0	0.0	0.0
634	K18	5514	22834	0.0	0.0	0.0	0.0	0.0	0.0
635	K19	5480	21514	0.0	0.0	0.0	0.0	0.0	0.0
636	K20	5446	20194	0.0	0.0	0.0	0.0	0.0	0.0
637	K21	5412	18874	0.0	0.0	0.0	0.0	0.0	0.0
638	K22	5378	17554	0.0	0.0	0.0	0.0	0.0	0.0
639	K23	5344	16234	0.0	0.0	0.0	0.0	0.0	0.0
640	K24	5310	14914	0.0	0.0	0.0	0.0	0.0	0.0
641	K25	5276	13594	0.0	0.0	0.0	0.0	0.0	0.0
642	K26	5242	12274	0.0	0.0	0.0	0.0	0.0	0.0
643	K27	5208	10954	0.0	0.0	0.0	0.0	0.0	0.0
644	K28	5174	9634	0.0	0.0	0.0	0.0	0.0	0.0
645	K29	5140	8314	0.0	0.0	0.0	0.0	0.0	0.0
646	K30	5106	6994	0.0	0.0	0.0	0.0	0.0	0.0
647	K31	5072	5674	0.0	0.0	0.0	0.0	0.0	0.0
648	K32	5038	4354	0.0	0.0	0.0	0.0	0.0	0.0
649	K33	5004	3034	0.0	0.0	0.0	0.0	0.0	0.0
650	K34	4970	1714	0.0	0.0	0.0	0.0	0.0	0.0
651	K35	4936	394	0.0	0.0	0.0	0.0	0.0	0.0
652	K36	4902	-926	0.0	0.0	0.0	0.0	0.0	0.0
653	K37	4868	-2246	0.0	0.0	0.0	0.0	0.0	0.0
654	K38	4834	-3566	0.0	0.0	0.0	0.0	0.0	0.0
655	K39	4800	-4886	0.0	0.0	0.0	0.0	0.0	0.0
656	K40	4766	-6206	0.0	0.0	0.0	0.0	0.0	0.0
657	K41	4732	-7526	0.0	0.0	0.0	0.0	0.0	0.0
658	K42	4698	-8846	0.0	0.0	0.0	0.0	0.0	0.0
659	K43	4664	-10166	0.0	0.0	0.0	0.0	0.0	0.0
660	K44	4630	-11486	0.0	0.0	0.0	0.0	0.0	0.0
661	K45	4596	-12806	0.0	0.0	0.0	0.0	0.0	0.0
662	K46	4562	-14126	0.0	0.0	0.0	0.0	0.0	0.0
663	K47	4528	-15446	0.0	0.0	0.0	0.0	0.0	0.0
664	K48	4494	-16766	0.0	0.0	0.0	0.0	0.0	0.0
665	K49	4460	-18086	0.0	0.0	0.0	0.0	0.0	0.0
666	K50	4426	-19406	0.0	0.0	0.0	0.0	0.0	0.0
667	K51	4392	-20726	0.0	0.0	0.0	0.0	0.0	0.0
668	K52	4358	-22046	0.0	0.0	0.0	0.0	0.0	0.0
669	K53	4324	-23366	0.0	0.0	0.0	0.0	0.0	0.0
670	K54	4290	-24686	0.0	0.0	0.0	0.0	0.0	0.0
671	K55	4256	-26006	0.0	0.0	0.0	0.0	0.0	0.0
672	K56	4222	-27326	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
673	K57	4188	-28646	0.0	0.0	0.0	0.0	0.0	0.0
674	K58	4154	-29966	0.0	0.0	0.0	0.0	0.0	0.0
675	K59	4120	-31286	0.0	0.0	0.0	0.0	0.0	0.0
676	K60	4086	-32606	0.0	0.0	0.0	0.0	0.0	0.0
677	K61	4052	-33926	0.0	0.0	0.0	0.0	0.0	0.0
678	K62	4018	-35246	0.0	0.0	0.0	0.0	0.0	0.0
679	K63	3984	-36566	0.0	0.0	0.0	0.0	0.0	0.0
680	K64	3950	-37886	0.0	0.0	0.0	0.0	0.0	0.0
681	K65	3916	-39206	0.0	0.0	0.0	0.0	0.0	0.0
682	K66	3882	-40526	0.0	0.0	0.0	0.0	0.0	0.0
683	K67	3848	-41846	0.0	0.0	0.0	0.0	0.0	0.0
684	K68	3814	-43166	0.0	0.0	0.0	0.0	0.0	0.0
685	K69	3780	-44486	0.0	0.0	0.0	0.0	0.0	0.0
686	K70	3746	-45806	0.0	0.0	0.0	0.0	0.0	0.0
687	K71	3712	-47126	0.0	0.0	0.0	0.0	0.0	0.0
688	K72	3678	-48446	0.0	0.0	0.0	0.0	0.0	0.0
689	K73	3644	-49766	0.0	0.0	0.0	0.0	0.0	0.0
690	L24	6630	14880	0.0	0.0	0.0	0.0	0.0	0.0
691	L25	6596	13560	0.0	0.0	0.0	0.0	0.0	0.0
692	L26	6562	12240	0.0	0.0	0.0	0.0	0.0	0.0
693	L27	6528	10920	0.0	0.0	0.0	0.0	0.0	0.0
694	L28	6494	9600	0.0	0.0	0.0	0.0	0.0	0.0
695	L29	6460	8280	0.0	0.0	0.0	0.0	0.0	0.0
696	L30	6426	6960	0.0	0.0	0.0	0.0	0.0	0.0
697	L31	6392	5640	0.0	0.0	0.0	0.0	0.0	0.0
698	L32	6358	4320	0.0	0.0	0.0	0.0	0.0	0.0
699	L33	6324	3000	0.0	0.0	0.0	0.0	0.0	0.0
700	L34	6290	1680	0.0	0.0	0.0	0.0	0.0	0.0
701	L35	6256	360	0.0	0.0	0.0	0.0	0.0	0.0
702	L36	6222	-960	0.0	0.0	0.0	0.0	0.0	0.0
703	L37	6188	-2280	0.0	0.0	0.0	0.0	0.0	0.0
704	L38	6154	-3600	0.0	0.0	0.0	0.0	0.0	0.0
705	L39	6120	-4920	0.0	0.0	0.0	0.0	0.0	0.0
706	L40	6086	-6240	0.0	0.0	0.0	0.0	0.0	0.0
707	L41	6052	-7560	0.0	0.0	0.0	0.0	0.0	0.0
708	L42	6018	-8880	0.0	0.0	0.0	0.0	0.0	0.0
709	L43	5984	-10200	0.0	0.0	0.0	0.0	0.0	0.0
710	L44	5950	-11520	0.0	0.0	0.0	0.0	0.0	0.0
711	L45	5916	-12840	0.0	0.0	0.0	0.0	0.0	0.0
712	L46	5882	-14160	0.0	0.0	0.0	0.0	0.0	0.0
713	L47	5848	-15480	0.0	0.0	0.0	0.0	0.0	0.0
714	L48	5814	-16800	0.0	0.0	0.0	0.0	0.0	0.0
715	L49	5780	-18120	0.0	0.0	0.0	0.0	0.0	0.0
716	L50	5746	-19440	0.0	0.0	0.0	0.0	0.0	0.0
717	L51	5712	-20760	0.0	0.0	0.0	0.0	0.0	0.0
718	L52	5678	-22080	0.0	0.0	0.0	0.0	0.0	0.0
719	L53	5644	-23400	0.0	0.0	0.0	0.0	0.0	0.0
720	L54	5610	-24720	0.0	0.0	0.0	0.0	0.0	0.0
721	L55	5576	-26040	0.0	0.0	0.0	0.0	0.0	0.0
722	L56	5542	-27360	0.0	0.0	0.0	0.0	0.0	0.0
723	L57	5508	-28680	0.0	0.0	0.0	0.0	0.0	0.0
724	L58	5474	-30000	0.0	0.0	0.0	0.0	0.0	0.0
725	L59	5440	-31320	0.0	0.0	0.0	0.0	0.0	0.0
726	L60	5406	-32640	0.0	0.0	0.0	0.0	0.0	0.0
727	L61	5372	-33960	0.0	0.0	0.0	0.0	0.0	0.0
728	L62	5338	-35280	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
729	L63	5304	-36600	0.0	0.0	0.0	0.0	0.0	0.0
730	L64	5270	-37920	0.0	0.0	0.0	0.0	0.0	0.0
731	L65	5236	-39240	0.0	0.0	0.0	0.0	0.0	0.0
732	L66	5202	-40560	0.0	0.0	0.0	0.0	0.0	0.0
733	L67	5168	-41880	0.0	0.0	0.0	0.0	0.0	0.0
734	L68	5134	-43200	0.0	0.0	0.0	0.0	0.0	0.0
735	L69	5100	-44520	0.0	0.0	0.0	0.0	0.0	0.0
736	L70	5066	-45840	0.0	0.0	0.0	0.0	0.0	0.0
737	L71	5032	-47160	0.0	0.0	0.0	0.0	0.0	0.0
738	L72	4998	-48480	0.0	0.0	0.0	0.0	0.0	0.0
739	L73	4964	-49800	0.0	0.0	0.0	0.0	0.0	0.0
740	M28	7814	9566	0.0	0.0	0.0	0.0	0.0	0.0
741	M29	7780	8246	0.0	0.0	0.0	0.0	0.0	0.0
742	M30	7746	6926	0.0	0.0	0.0	0.0	0.0	0.0
743	M31	7712	5606	0.0	0.0	0.0	0.0	0.0	0.0
744	M32	7678	4286	0.0	0.0	0.0	0.0	0.0	0.0
745	M33	7644	2966	0.0	0.0	0.0	0.0	0.0	0.0
746	M34	7610	1646	0.0	0.0	0.0	0.0	0.0	0.0
747	M35	7576	326	0.0	0.0	0.0	0.0	0.0	0.0
748	M36	7542	-994	0.0	0.0	0.0	0.0	0.0	0.0
749	M37	7508	-2314	0.0	0.0	0.0	0.0	0.0	0.0
750	M38	7474	-3634	0.0	0.0	0.0	0.0	0.0	0.0
751	M39	7440	-4954	0.0	0.0	0.0	0.0	0.0	0.0
752	M40	7406	-6274	0.0	0.0	0.0	0.0	0.0	0.0
753	M41	7372	-7594	0.0	0.0	0.0	0.0	0.0	0.0
754	M42	7338	-8914	0.0	0.0	0.0	0.0	0.0	0.0
755	M43	7304	-10234	0.0	0.0	0.0	0.0	0.0	0.0
756	M44	7270	-11554	0.0	0.0	0.0	0.0	0.0	0.0
757	M45	7236	-12874	0.0	0.0	0.0	0.0	0.0	0.0
758	M46	7202	-14194	0.0	0.0	0.0	0.0	0.0	0.0
759	M47	7168	-15514	0.0	0.0	0.0	0.0	0.0	0.0
760	M48	7134	-16834	0.0	0.0	0.0	0.0	0.0	0.0
761	M49	7100	-18154	0.0	0.0	0.0	0.0	0.0	0.0
762	M50	7066	-19474	0.0	0.0	0.0	0.0	0.0	0.0
763	M51	7032	-20794	0.0	0.0	0.0	0.0	0.0	0.0
764	M52	6998	-22114	0.0	0.0	0.0	0.0	0.0	0.0
765	M53	6964	-23434	0.0	0.0	0.0	0.0	0.0	0.0
766	M54	6930	-24754	0.0	0.0	0.0	0.0	0.0	0.0
767	M55	6896	-26074	0.0	0.0	0.0	0.0	0.0	0.0
768	M56	6862	-27394	0.0	0.0	0.0	0.0	0.0	0.0
769	M57	6828	-28714	0.0	0.0	0.0	0.0	0.0	0.0
770	M58	6794	-30034	0.0	0.0	0.0	0.0	0.0	0.0
771	M59	6760	-31354	0.0	0.0	0.0	0.0	0.0	0.0
772	M60	6726	-32674	0.0	0.0	0.0	0.0	0.0	0.0
773	M61	6692	-33994	0.0	0.0	0.0	0.0	0.0	0.0
774	M62	6658	-35314	0.0	0.0	0.0	0.0	0.0	0.0
775	M63	6624	-36634	0.0	0.0	0.0	0.0	0.0	0.0
776	M64	6590	-37954	0.0	0.0	0.0	0.0	0.0	0.0
777	M65	6556	-39274	0.0	0.0	0.0	0.0	0.0	0.0
778	M66	6522	-40594	0.0	0.0	0.0	0.0	0.0	0.0
779	M67	6488	-41914	0.0	0.0	0.0	0.0	0.0	0.0
780	M68	6454	-43234	0.0	0.0	0.0	0.0	0.0	0.0
781	M69	6420	-44554	0.0	0.0	0.0	0.0	0.0	0.0
782	M70	6386	-45874	0.0	0.0	0.0	0.0	0.0	0.0
783	M71	6352	-47194	0.0	0.0	0.0	0.0	0.0	0.0
784	M72	6318	-48514	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
785	M73	6284	-49834	0.0	0.0	0.0	0.0	0.0	0.0
786	N38	8794	-3668	0.0	0.0	0.0	0.0	0.0	0.0
787	N39	8760	-4988	0.0	0.0	0.0	0.0	0.0	0.0
788	N40	8726	-6308	0.0	0.0	0.0	0.0	0.0	0.0
789	N41	8692	-7628	0.0	0.0	0.0	0.0	0.0	0.0
790	N42	8658	-8948	0.0	0.0	0.0	0.0	0.0	0.0
791	N43	8624	-10268	0.0	0.0	0.0	0.0	0.0	0.0
792	N44	8590	-11588	0.0	0.0	0.0	0.0	0.0	0.0
793	N45	8556	-12908	0.0	0.0	0.0	0.0	0.0	0.0
794	N67	7808	-41948	0.0	0.0	0.0	0.0	0.0	0.0
795	N68	7774	-43268	0.0	0.0	0.0	0.0	0.0	0.0
796	N69	7740	-44588	0.0	0.0	0.0	0.0	0.0	0.0
797	N70	7706	-45908	0.0	0.0	0.0	0.0	0.0	0.0
798	N71	7672	-47228	0.0	0.0	0.0	0.0	0.0	0.0
799	NSF:A2	-211	29983	0.0	0.0	0.0	0.0	0.0	0.0
800	NSF:A4	7371	16174	0.0	0.0	0.0	0.0	0.0	0.0
801	NSF:A5	-1123	35137	0.0	0.0	0.0	0.0	0.0	0.0
802	NSF:A6	1725	32917	0.0	0.0	0.0	0.0	0.0	0.0
803	NSF:A7	965	35389	0.0	0.0	0.0	0.0	0.0	0.0
804	NSF:A8	2868	26738	0.0	0.0	0.0	0.0	0.0	0.0
805	NSF:A9	8593	-17214	0.0	0.0	0.0	0.0	0.0	0.0
806	NSF:C1	3519	-33425	0.0	0.0	0.0	0.0	0.0	0.0
807	NSF:C10	-8024	7589	0.0	0.0	0.0	0.0	0.0	0.0
808	NSF:C11	-1535	-46185	0.0	0.0	0.0	0.0	0.0	0.0
809	NSF:C15	-3260	-41687	0.0	0.0	0.0	0.0	0.0	0.0
810	NSF:C16	2631	-42354	0.0	0.0	0.0	0.0	0.0	0.0
811	NSF:C17	-3636	10597	0.0	0.0	0.0	0.0	0.0	0.0
812	NSF:C19	-6737	-6317	0.0	0.0	0.0	0.0	0.0	0.0
813	NSF:C2	6733	-4869	0.0	0.0	0.0	0.0	0.0	0.0
814	NSF:C21	3694	-38594	0.0	0.0	0.0	0.0	0.0	0.0
815	NSF:C22	295	-16585	0.1	0.1	0.0	0.0	0.0	0.0
816	NSF:C23	-4396	-15838	0.0	0.0	0.0	0.0	0.0	0.0
817	NSF:C24	-3498	-16804	0.0	0.0	0.0	0.0	0.0	0.0
818	NSF:C28	-5727	-46163	0.0	0.0	0.0	0.0	0.0	0.0
819	NSF:C29	-386	-17316	0.0	0.0	0.0	0.0	0.0	0.0
820	NSF:C3	158	16285	0.0	0.0	0.0	0.0	0.0	0.0
821	NSF:C31	-6076	-46160	0.0	0.0	0.0	0.0	0.0	0.0
822	NSF:C32	-5243	-46778	0.0	0.0	0.0	0.0	0.0	0.0
823	NSF:C34	-8355	-45977	0.0	0.0	0.0	0.0	0.0	0.0
824	NSF:C35	-6358	-9758	0.0	0.0	0.0	0.0	0.0	0.0
825	NSF:C37	-5175	-47057	0.0	0.0	0.0	0.0	0.0	0.0
826	NSF:C38	-6431	-10969	0.0	0.0	0.0	0.0	0.0	0.0
827	NSF:C39	375	-25346	0.0	0.0	0.0	0.0	0.0	0.0
828	NSF:C40	1436	-17815	0.0	0.0	0.0	0.0	0.0	0.0
829	NSF:C41	-3379	-9386	0.0	0.0	0.0	0.0	0.0	0.0
830	NSF:C42	3398	-21504	0.0	0.0	0.0	0.0	0.0	0.0
831	NSF:C43	-1910	-46273	0.0	0.0	0.0	0.0	0.0	0.0
832	NSF:C44	-3883	-5925	0.0	0.0	0.0	0.0	0.0	0.0
833	NSF:C45	-11988	-45354	0.0	0.0	0.0	0.0	0.0	0.0
834	NSF:C46	7657	-34889	0.0	0.0	0.0	0.0	0.0	0.0
835	NSF:C47	2243	-24977	0.0	0.0	0.0	0.0	0.0	0.0
836	NSF:C48	-4412	-46071	0.0	0.0	0.0	0.0	0.0	0.0
837	NSF:C49	327	-14936	0.1	0.1	0.0	0.0	0.0	0.0
838	NSF:C5	7014	-34786	0.0	0.0	0.0	0.0	0.0	0.0
839	NSF:C50	-3930	-8365	0.0	0.0	0.0	0.0	0.0	0.0
840	NSF:C51	1801	-19460	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
841	NSF:C52	-545	-16569	0.0	0.0	0.0	0.0	0.0	0.0
842	NSF:C54	-1015	-44926	0.0	0.0	0.0	0.0	0.0	0.0
843	NSF:C55	-2036	-28310	0.0	0.0	0.0	0.0	0.0	0.0
844	NSF:C56	-706	-17175	0.0	0.0	0.0	0.0	0.0	0.0
845	NSF:C57	-1539	-38607	0.0	0.0	0.0	0.0	0.0	0.0
846	NSF:C6	-3386	14577	0.0	0.0	0.0	0.0	0.0	0.0
847	NSF:C7	-9769	-3190	0.0	0.0	0.0	0.0	0.0	0.0
848	NSF:C8	4616	906	0.0	0.0	0.0	0.0	0.0	0.0
849	NSF:C9	-1833	-42273	0.0	0.0	0.0	0.0	0.0	0.0
850	NSF:H1	-7607	3626	0.0	0.0	0.0	0.0	0.0	0.0
851	NSF:H3	-9363	9969	0.0	0.0	0.0	0.0	0.0	0.0
852	NSF:H4	-847	52617	0.0	0.0	0.0	0.0	0.0	0.0
853	NSF:H5	-9746	14394	0.0	0.0	0.0	0.0	0.0	0.0
854	NSF:H6	196	41454	0.0	0.0	0.0	0.0	0.0	0.0
855	NSF:H7	-6721	-8029	0.0	0.0	0.0	0.0	0.0	0.0
856	NSF:H8	24064	-3304	0.0	0.0	0.0	0.0	0.0	0.0
857	NSF:H9,H2	3310	14284	0.0	0.0	0.0	0.0	0.0	0.0
858	NSF:A16	-3769	5168	0.0	0.0	0.0	0.0	0.0	0.0
859	NSF:A17	-10252	3250	0.0	0.0	0.0	0.0	0.0	0.0
860	NSF:A18	-4084	10600	0.0	0.0	0.0	0.0	0.0	0.0
861	NSF:A19	-4459	10520	0.0	0.0	0.0	0.0	0.0	0.0
862	NSF:A21	-8598	14208	0.0	0.0	0.0	0.0	0.0	0.0
863	NSF:A23	-8593	5937	0.0	0.0	0.0	0.0	0.0	0.0
864	NSF:A24	-6444	1414	0.0	0.0	0.0	0.0	0.0	0.0
865	NSF:A25	-10056	6676	0.0	0.0	0.0	0.0	0.0	0.0
866	NSF:A26	-9629	5763	0.0	0.0	0.0	0.0	0.0	0.0
867	NSF:A27	-1721	10484	0.0	0.0	0.0	0.0	0.0	0.0
868	NSF:A28	-7306	6683	0.0	0.0	0.0	0.0	0.0	0.0
869	NSF:A30	-9295	6729	0.0	0.0	0.0	0.0	0.0	0.0
870	NSF:A33	-5199	-16624	0.0	0.0	0.0	0.0	0.0	0.0
871	NSF:A35	-4683	-17794	0.0	0.0	0.0	0.0	0.0	0.0
872	NSF:A36	-3592	-17475	0.0	0.0	0.0	0.0	0.0	0.0
873	NSF:A37	-3210	-16253	0.0	0.0	0.0	0.0	0.0	0.0
874	NSF:A38	-2833	-16231	0.0	0.0	0.0	0.0	0.0	0.0
875	NSF:A39	-2723	-17093	0.0	0.0	0.0	0.0	0.0	0.0
876	NSF:A40	-3398	-16730	0.0	0.0	0.0	0.0	0.0	0.0
877	NSF:A41	-5715	-14665	0.0	0.0	0.0	0.0	0.0	0.0
878	NSF:A42	-2195	-14884	0.0	0.0	0.0	0.0	0.0	0.0
879	NSF:A43	-3289	-16236	0.0	0.0	0.0	0.0	0.0	0.0
880	NSF:A44	362	-38516	0.0	0.0	0.0	0.0	0.0	0.0
881	NSF:A45	-1521	-35379	0.0	0.0	0.0	0.0	0.0	0.0
882	NSF:A46	467	-43229	0.0	0.0	0.0	0.0	0.0	0.0
883	NSF:A47	9405	-16129	0.0	0.0	0.0	0.0	0.0	0.0
884	NSF:A48	8774	-15397	0.0	0.0	0.0	0.0	0.0	0.0
885	NSF:A49	8535	-14947	0.0	0.0	0.0	0.0	0.0	0.0
886	NSF:A50	8073	-19454	0.0	0.0	0.0	0.0	0.0	0.0
887	NSF:A51	6682	-15011	0.0	0.0	0.0	0.0	0.0	0.0
888	NSF:A52	10177	-14528	0.0	0.0	0.0	0.0	0.0	0.0
889	NSF:A53	-9333	-2539	0.0	0.0	0.0	0.0	0.0	0.0
890	NSF:A54	-9413	-2464	0.0	0.0	0.0	0.0	0.0	0.0
891	NSF:A55	-9348	-2527	0.0	0.0	0.0	0.0	0.0	0.0
892	NSF:A58	6533	-14596	0.0	0.0	0.0	0.0	0.0	0.0
893	NSF:A59	5058	7030	0.0	0.0	0.0	0.0	0.0	0.0
894	NSF:A61	2879	26723	0.0	0.0	0.0	0.0	0.0	0.0
895	NSF:A62	-1961	32677	0.0	0.0	0.0	0.0	0.0	0.0
896	NSF:A63	5774	13792	0.0	0.0	0.0	0.0	0.0	0.0

Table C-3-22

Seattle-Tacoma International Airport
Master Plan Supplemental Environmental Impact Statement

COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
897	NSF:A64	6942	13954	0.0	0.0	0.0	0.0	0.0	0.0
898	NSF:A65	6940	13770	0.0	0.0	0.0	0.0	0.0	0.0
899	NSF:A66	6602	13572	0.0	0.0	0.0	0.0	0.0	0.0
900	NSF:A67	7470	13669	0.0	0.0	0.0	0.0	0.0	0.0
901	NSF:A68	306	-30449	0.0	0.0	0.0	0.0	0.0	0.0
902	NSF:A69	-5807	-37969	0.0	0.0	0.0	0.0	0.0	0.0
903	NSF:A70	-4304	-36469	0.0	0.0	0.0	0.0	0.0	0.0
904	NSF:A71	6124	-39961	0.0	0.0	0.0	0.0	0.0	0.0
905	NSF:A72	3707	-33299	0.0	0.0	0.0	0.0	0.0	0.0
906	NSF:A73	-5742	-37925	0.0	0.0	0.0	0.0	0.0	0.0
907	NSF:A74	-5753	-37933	0.0	0.0	0.0	0.0	0.0	0.0
908	NSF:A75	-5790	-37959	0.0	0.0	0.0	0.0	0.0	0.0
909	NSF:L1	765	16963	0.0	0.0	0.0	0.0	0.0	0.0
910	NSF:L2	-7812	8307	0.0	0.0	0.0	0.0	0.0	0.0
911	NSF:L3	6278	40488	0.0	0.0	0.0	0.0	0.0	0.0
912	NSF:L4	-2866	-14908	0.0	0.0	0.0	0.0	0.0	0.0
913	NSF:L5	7180	9673	0.0	0.0	0.0	0.0	0.0	0.0
914	NSF:L6	4987	33599	0.0	0.0	0.0	0.0	0.0	0.0
915	NSF:L7	10166	26486	0.0	0.0	0.0	0.0	0.0	0.0
916	NSF:L8	12526	8554	0.0	0.0	0.0	0.0	0.0	0.0
917	NSF:L9	8571	-1927	0.0	0.0	0.0	0.0	0.0	0.0
918	NSF:A10	-550	29346	0.0	0.0	0.0	0.0	0.0	0.0
919	NSF:A11	-554	35999	0.0	0.0	0.0	0.0	0.0	0.0
920	NSF:A12	227	35588	0.0	0.0	0.0	0.0	0.0	0.0
921	NSF:A13	6720	40187	0.0	0.0	0.0	0.0	0.0	0.0
922	NSF:N1	2458	-23974	0.0	0.0	0.0	0.0	0.0	0.0
923	NSF:N10	-3755	-14738	0.0	0.0	0.0	0.0	0.0	0.0
924	NSF:N11	-3959	-39382	0.0	0.0	0.0	0.0	0.0	0.0
925	NSF:N12	-195	23654	0.0	0.0	0.0	0.0	0.0	0.0
926	NSF:N13	23674	-4413	0.0	0.0	0.0	0.0	0.0	0.0
927	NSF:N14	5905	-44977	0.0	0.0	0.0	0.0	0.0	0.0
928	NSF:N2	2567	-14374	0.0	0.0	0.0	0.0	0.0	0.0
929	NSF:N3	-9162	13839	0.0	0.0	0.0	0.0	0.0	0.0
930	NSF:N4	-3719	-44852	0.0	0.0	0.0	0.0	0.0	0.0
931	NSF:N5	-7153	-49305	0.0	0.0	0.0	0.0	0.0	0.0
932	NSF:N6	-6583	4062	0.0	0.0	0.0	0.0	0.0	0.0
933	NSF:N7	-3994	-21909	0.0	0.0	0.0	0.0	0.0	0.0
934	NSF:N8	3660	14530	0.0	0.0	0.0	0.0	0.0	0.0
935	NSF:N9	2605	-17567	0.0	0.0	0.0	0.0	0.0	0.0
936	NSF:S1	-1624	22569	0.0	0.0	0.0	0.0	0.0	0.0
937	NSF:S10	5787	1359	0.0	0.0	0.0	0.0	0.0	0.0
939	NSF:S102	-3652	-2959	0.0	0.0	0.0	0.0	0.0	0.0
940	NSF:S11	1320	-17470	0.0	0.0	0.0	0.0	0.0	0.0
941	NSF:S12	-9683	21295	0.0	0.0	0.0	0.0	0.0	0.0
942	NSF:S13	-4034	-8651	0.0	0.0	0.0	0.0	0.0	0.0
943	NSF:S15	1417	-18811	0.0	0.0	0.0	0.0	0.0	0.0
944	NSF:S16	4029	7813	0.0	0.0	0.0	0.0	0.0	0.0
945	NSF:S17	-7712	17177	0.0	0.0	0.0	0.0	0.0	0.0
946	NSF:S18	-10601	8639	0.0	0.0	0.0	0.0	0.0	0.0
947	NSF:S19	-13991	18478	0.0	0.0	0.0	0.0	0.0	0.0
948	NSF:S2	6756	-3628	0.0	0.0	0.0	0.0	0.0	0.0
949	NSF:S20	-1191	19408	0.0	0.0	0.0	0.0	0.0	0.0
950	NSF:S21	-3761	5167	0.0	0.0	0.0	0.0	0.0	0.0
951	NSF:S22	7978	-1820	0.0	0.0	0.0	0.0	0.0	0.0
952	NSF:S23	-8015	23186	0.0	0.0	0.0	0.0	0.0	0.0
953	NSF:S24	-8897	19752	0.0	0.0	0.0	0.0	0.0	0.0

Table C-3-22

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
954	NSF:S25	6834	-4826	0.0	0.0	0.0	0.0	0.0	0.0
955	NSF:S26	1352	-18331	0.0	0.0	0.0	0.0	0.0	0.0
956	NSF:S27	-7664	3251	0.0	0.0	0.0	0.0	0.0	0.0
957	NSF:S28	-8281	18459	0.0	0.0	0.0	0.0	0.0	0.0
958	NSF:S29	-5472	6565	0.0	0.0	0.0	0.0	0.0	0.0
959	NSF:S3	-3785	13136	0.0	0.0	0.0	0.0	0.0	0.0
960	NSF:S30	-263	-17305	0.0	0.0	0.0	0.0	0.0	0.0
961	NSF:S31	7812	-5443	0.0	0.0	0.0	0.0	0.0	0.0
962	NSF:S32	-4893	-4442	0.0	0.0	0.0	0.0	0.0	0.0
963	NSF:S33	1292	-22778	0.0	0.0	0.0	0.0	0.0	0.0
964	NSF:S34	-4645	-9467	0.0	0.0	0.0	0.0	0.0	0.0
965	NSF:S35	-4580	6588	0.0	0.0	0.0	0.0	0.0	0.0
966	NSF:S36	-6886	5087	0.0	0.0	0.0	0.0	0.0	0.0
967	NSF:S37	-11122	13583	0.0	0.0	0.0	0.0	0.0	0.0
968	NSF:S38	-3651	-2941	0.0	0.0	0.0	0.0	0.0	0.0
969	NSF:S39	12652	7375	0.0	0.0	0.0	0.0	0.0	0.0
970	NSF:S4	-3514	-16334	0.0	0.0	0.0	0.0	0.0	0.0
971	NSF:S40	7700	7035	0.0	0.0	0.0	0.0	0.0	0.0
972	NSF:S41	4523	11744	0.0	0.0	0.0	0.0	0.0	0.0
973	NSF:S42	8381	9088	0.0	0.0	0.0	0.0	0.0	0.0
974	NSF:S43	7268	9131	0.0	0.0	0.0	0.0	0.0	0.0
975	NSF:S44	5766	-41790	0.0	0.0	0.0	0.0	0.0	0.0
976	NSF:S45	1279	-33897	0.0	0.0	0.0	0.0	0.0	0.0
977	NSF:S46	-3685	-39308	0.0	0.0	0.0	0.0	0.0	0.0
978	NSF:S47	5715	-32661	0.0	0.0	0.0	0.0	0.0	0.0
979	NSF:S48	6231	-25031	0.0	0.0	0.0	0.0	0.0	0.0
980	NSF:S49	5974	-36054	0.0	0.0	0.0	0.0	0.0	0.0
981	NSF:S5	-11892	3393	0.0	0.0	0.0	0.0	0.0	0.0
982	NSF:S50	870	-42321	0.0	0.0	0.0	0.0	0.0	0.0
983	NSF:S51	-1491	-30984	0.0	0.0	0.0	0.0	0.0	0.0
984	NSF:S52	11474	-42954	0.0	0.0	0.0	0.0	0.0	0.0
985	NSF:S53	-10841	-43830	0.0	0.0	0.0	0.0	0.0	0.0
986	NSF:S54	5708	-31709	0.0	0.0	0.0	0.0	0.0	0.0
987	NSF:S55	-1824	-44447	0.0	0.0	0.0	0.0	0.0	0.0
988	NSF:S56	6346	-38637	0.0	0.0	0.0	0.0	0.0	0.0
989	NSF:S57	-410	49700	0.0	0.0	0.0	0.0	0.0	0.0
990	NSF:S58	10673	35200	0.0	0.0	0.0	0.0	0.0	0.0
991	NSF:S59	2429	45921	0.0	0.0	0.0	0.0	0.0	0.0
992	NSF:S6	-7196	13265	0.0	0.0	0.0	0.0	0.0	0.0
993	NSF:S60	5433	45389	0.0	0.0	0.0	0.0	0.0	0.0
994	NSF:S61	7132	42570	0.0	0.0	0.0	0.0	0.0	0.0
995	NSF:S62	-1439	39916	0.0	0.0	0.0	0.0	0.0	0.0
996	NSF:S63	3894	37152	0.0	0.0	0.0	0.0	0.0	0.0
997	NSF:S64	9056	38524	0.0	0.0	0.0	0.0	0.0	0.0
998	NSF:S65	8477	33931	0.0	0.0	0.0	0.0	0.0	0.0
999	NSF:S66	3955	32633	0.0	0.0	0.0	0.0	0.0	0.0
1000	NSF:S67	6401	29997	0.0	0.0	0.0	0.0	0.0	0.0
1001	NSF:S68	9089	28371	0.0	0.0	0.0	0.0	0.0	0.0
1002	NSF:S69	13032	23820	0.0	0.0	0.0	0.0	0.0	0.0
1003	NSF:S7	2141	16480	0.0	0.0	0.0	0.0	0.0	0.0
1004	NSF:S70	11512	17866	0.0	0.0	0.0	0.0	0.0	0.0
1005	NSF:S71	-9110	27836	0.0	0.0	0.0	0.0	0.0	0.0
1006	NSF:S72	-3361	27341	0.0	0.0	0.0	0.0	0.0	0.0
1007	NSF:S73	3	41684	0.0	0.0	0.0	0.0	0.0	0.0
1008	NSF:S74	10183	27405	0.0	0.0	0.0	0.0	0.0	0.0
1009	NSF:S76	4734	46384	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1010	NSF:S77	11512	27194	0.0	0.0	0.0	0.0	0.0	0.0
1011	NSF:S78	-363	38035	0.0	0.0	0.0	0.0	0.0	0.0
1012	NSF:S79	5941	39662	0.0	0.0	0.0	0.0	0.0	0.0
1013	NSF:S8	3475	-10939	0.0	0.0	0.0	0.0	0.0	0.0
1014	NSF:S80	7193	35348	0.0	0.0	0.0	0.0	0.0	0.0
1015	NSF:S81	12439	22474	0.0	0.0	0.0	0.0	0.0	0.0
1017	NSF:S83	6824	6483	0.0	0.0	0.0	0.0	0.0	0.0
1018	NSF:S84	6483	-12931	0.0	0.0	0.0	0.0	0.0	0.0
1019	NSF:S85	-10992	-43886	0.0	0.0	0.0	0.0	0.0	0.0
1020	NSF:S86,C18	-3883	-4692	0.0	0.0	0.0	0.0	0.0	0.0
1021	NSF:S87	1355	-41607	0.0	0.0	0.0	0.0	0.0	0.0
1022	NSF:S89,S101	-6524	4594	0.0	0.0	0.0	0.0	0.0	0.0
1023	NSF:S9	-8718	-8906	0.0	0.0	0.0	0.0	0.0	0.0
1024	NSF:S90	10352	29875	0.0	0.0	0.0	0.0	0.0	0.0
1025	NSF:S91	-12520	6667	0.0	0.0	0.0	0.0	0.0	0.0
1026	NSF:S92	-292	-16249	0.0	0.0	0.0	0.0	0.0	0.0
1027	NSF:S93	-4494	-43936	0.0	0.0	0.0	0.0	0.0	0.0
1028	NSF:S94	6741	-4427	0.0	0.0	0.0	0.0	0.0	0.0
1029	NSF:S95	2659	-8269	0.0	0.0	0.0	0.0	0.0	0.0
1030	NSF:S96,C36	-197	-29349	0.0	0.0	0.0	0.0	0.0	0.0
1031	NSF:S97	-5640	10643	0.0	0.0	0.0	0.0	0.0	0.0
1032	NSF:S98,C14	1453	-13047	0.0	0.0	0.0	0.0	0.0	0.0
1033	NSF:S99	-1741	22954	0.0	0.0	0.0	0.0	0.0	0.0
1034	NSF:A15	1159	33718	0.0	0.0	0.0	0.0	0.0	0.0
1035	NSF:A901	-2736	35294	0.0	0.0	0.0	0.0	0.0	0.0
1036	NSF:A902	-4131	32513	0.0	0.0	0.0	0.0	0.0	0.0
1037	NSF:A903	2207	18136	0.0	0.0	0.0	0.0	0.0	0.0
1038	NSF:A904	10787	-9667	0.0	0.0	0.0	0.0	0.0	0.0
1039	Park:G1	1356	42868	0.0	0.0	0.0	0.0	0.0	0.0
1040	Park:G2	-1823	20819	0.0	0.0	0.0	0.0	0.0	0.0
1041	Park:G3	412	19934	0.0	0.0	0.0	0.0	0.0	0.0
1042	Park:G4	11843	11466	0.0	0.0	0.0	0.0	0.0	0.0
1043	Park:G4	13359	10380	0.0	0.0	0.0	0.0	0.0	0.0
1044	Park:G5	89	-7980	0.9	0.9	0.2	0.1	0.2	0.1
1045	Park:G6	8312	-24816	0.0	0.0	0.0	0.0	0.0	0.0
1046	Park:G6	10441	-24924	0.0	0.0	0.0	0.0	0.0	0.0
1047	Park:P1	10452	41037	0.0	0.0	0.0	0.0	0.0	0.0
1048	Park:P10	11906	28500	0.0	0.0	0.0	0.0	0.0	0.0
1049	Park:P11	10576	23597	0.0	0.0	0.0	0.0	0.0	0.0
1050	Park:P12	12737	23611	0.0	0.0	0.0	0.0	0.0	0.0
1051	Park:P13	-3106	28942	0.0	0.0	0.0	0.0	0.0	0.0
1052	Park:P14	-1568	16984	0.0	0.0	0.0	0.0	0.0	0.0
1053	Park:P15	-4694	16128	0.0	0.0	0.0	0.0	0.0	0.0
1054	Park:P16	-7240	27235	0.0	0.0	0.0	0.0	0.0	0.0
1055	Park:P17	-7694	22700	0.0	0.0	0.0	0.0	0.0	0.0
1056	Park:P18	-10078	22715	0.0	0.0	0.0	0.0	0.0	0.0
1057	Park:P19	-8173	20053	0.0	0.0	0.0	0.0	0.0	0.0
1058	Park:P2	6019	40290	0.0	0.0	0.0	0.0	0.0	0.0
1059	Park:P20	-8423	17856	0.0	0.0	0.0	0.0	0.0	0.0
1060	Park:P21	7059	13592	0.0	0.0	0.0	0.0	0.0	0.0
1061	Park:P22	6996	12184	0.0	0.0	0.0	0.0	0.0	0.0
1062	Park:P23	9630	4263	0.0	0.0	0.0	0.0	0.0	0.0
1063	Park:P24	7963	3497	0.0	0.0	0.0	0.0	0.0	0.0
1064	Park:P25	8976	-1520	0.0	0.0	0.0	0.0	0.0	0.0
1065	Park:P26	2522	14946	0.0	0.0	0.0	0.0	0.0	0.0
1066	Park:P27	2802	10735	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1067	Park:P28	198	11565	0.2	0.2	0.0	0.0	0.0	0.0
1068	Park:P29	-5433	5962	0.0	0.0	0.0	0.0	0.0	0.0
1069	Park:P3	4190	38497	0.0	0.0	0.0	0.0	0.0	0.0
1070	Park:P30	-6437	15235	0.0	0.0	0.0	0.0	0.0	0.0
1071	Park:P31	-10883	12816	0.0	0.0	0.0	0.0	0.0	0.0
1072	Park:P31	-10986	9367	0.0	0.0	0.0	0.0	0.0	0.0
1073	Park:P32	-8210	11558	0.0	0.0	0.0	0.0	0.0	0.0
1074	Park:P33	-7609	8315	0.0	0.0	0.0	0.0	0.0	0.0
1075	Park:P34	-7758	4425	0.0	0.0	0.0	0.0	0.0	0.0
1076	Park:P35	-6933	3193	0.0	0.0	0.0	0.0	0.0	0.0
1077	Park:P36	-8027	-858	0.0	0.0	0.0	0.0	0.0	0.0
1078	Park:P37	-10415	-944	0.0	0.0	0.0	0.0	0.0	0.0
1079	Park:P38	6985	-3643	0.0	0.0	0.0	0.0	0.0	0.0
1080	Park:P39	12033	-5865	0.0	0.0	0.0	0.0	0.0	0.0
1081	Park:P4	7407	36148	0.0	0.0	0.0	0.0	0.0	0.0
1082	Park:P40	8712	-16156	0.0	0.0	0.0	0.0	0.0	0.0
1083	Park:P41	5212	-18740	0.0	0.0	0.0	0.0	0.0	0.0
1084	Park:P42	7205	-21947	0.0	0.0	0.0	0.0	0.0	0.0
1085	Park:P43	3598	-7684	0.0	0.0	0.0	0.0	0.0	0.0
1086	Park:P44	-283	-12051	0.2	0.2	0.0	0.0	0.0	0.0
1087	Park:P45	-4218	-14980	0.0	0.0	0.0	0.0	0.0	0.0
1088	Park:P46	-3319	-16331	0.0	0.0	0.0	0.0	0.0	0.0
1089	Park:P47	-9286	-6307	0.0	0.0	0.0	0.0	0.0	0.0
1090	Park:P48	-7699	-9254	0.0	0.0	0.0	0.0	0.0	0.0
1091	Park:P49	-7521	-12889	0.0	0.0	0.0	0.0	0.0	0.0
1092	Park:P5	-1752	40072	0.0	0.0	0.0	0.0	0.0	0.0
1093	Park:P50	8743	-26079	0.0	0.0	0.0	0.0	0.0	0.0
1094	Park:P51	7364	-27977	0.0	0.0	0.0	0.0	0.0	0.0
1095	Park:P52	4279	-25151	0.0	0.0	0.0	0.0	0.0	0.0
1096	Park:P53	1745	-24094	0.0	0.0	0.0	0.0	0.0	0.0
1097	Park:P54	1522	-25317	0.0	0.0	0.0	0.0	0.0	0.0
1098	Park:P55	3542	-29748	0.0	0.0	0.0	0.0	0.0	0.0
1099	Park:P56	-3479	-27701	0.0	0.0	0.0	0.0	0.0	0.0
1100	Park:P57	-2553	-31026	0.0	0.0	0.0	0.0	0.0	0.0
1101	Park:P58	-4315	-31888	0.0	0.0	0.0	0.0	0.0	0.0
1102	Park:P59	6981	-40680	0.0	0.0	0.0	0.0	0.0	0.0
1103	Park:P6	-995	37860	0.0	0.0	0.0	0.0	0.0	0.0
1104	Park:P60	879	-37690	0.0	0.0	0.0	0.0	0.0	0.0
1105	Park:P61	583	-42504	0.0	0.0	0.0	0.0	0.0	0.0
1106	Park:P62	-2563	-41948	0.0	0.0	0.0	0.0	0.0	0.0
1107	Park:P63	1437	-46094	0.0	0.0	0.0	0.0	0.0	0.0
1108	Park:P7	-1966	36892	0.0	0.0	0.0	0.0	0.0	0.0
1109	Park:P8	4457	33144	0.0	0.0	0.0	0.0	0.0	0.0
1110	Park:P9	8465	31725	0.0	0.0	0.0	0.0	0.0	0.0
1111	R-1	-1499	8689	0.0	0.0	0.0	0.0	0.0	0.0
1112	R-2	-3360	8057	0.0	0.0	0.0	0.0	0.0	0.0
1113	R-3	-3221	8061	0.0	0.0	0.0	0.0	0.0	0.0
1114	R-4	-2550	7376	0.0	0.0	0.0	0.0	0.0	0.0
1115	R-5	-2475	7342	0.0	0.0	0.0	0.0	0.0	0.0
1116	R-6	1908	7539	0.0	0.0	0.0	0.0	0.0	0.0
1117	R-7	3445	5795	0.0	0.0	0.0	0.0	0.0	0.0
1118	R-8	4189	5875	0.0	0.0	0.0	0.0	0.0	0.0
1119	R-9	-2325	5197	0.0	0.0	0.0	0.4	0.0	0.5
1120	R-10	-2803	4984	0.0	0.0	0.0	0.0	0.0	0.0
1121	R-11	-4314	4055	0.0	0.0	0.0	0.0	0.0	0.0
1122	R-12	-3638	4008	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1123	R-13	-2994	3996	0.0	0.0	0.0	0.0	0.0	0.0
1124	R-14	-2996	3894	0.0	0.0	0.0	0.0	0.0	0.0
1125	R-15	-3661	3774	0.0	0.0	0.0	0.0	0.0	0.0
1126	R-16	-3881	2627	0.0	0.0	0.0	0.0	0.0	0.0
1127	R-17	-3974	2637	0.0	0.0	0.0	0.0	0.0	0.0
1128	R-19	-2871	-9407	0.0	0.0	0.0	0.0	0.0	0.0
1129	R-20	-2236	-9459	0.0	0.0	0.0	0.0	0.0	0.0
1130	R-21	-2883	-9527	0.0	0.0	0.0	0.0	0.0	0.0
1131	R-22	-2127	-9553	0.0	0.0	0.0	0.0	0.0	0.0
1132	R-23	-2979	-10864	0.0	0.0	0.0	0.0	0.0	0.0
1133	R-24	-2855	-10863	0.0	0.0	0.0	0.0	0.0	0.0
1134	R-25	-3422	-12657	0.0	0.0	0.0	0.0	0.0	0.0
1135	R-26	-3317	-12709	0.0	0.0	0.0	0.0	0.0	0.0
1136	R-27	-4326	-13636	0.0	0.0	0.0	0.0	0.0	0.0
1137	R-28	-4219	-13662	0.0	0.0	0.0	0.0	0.0	0.0
1138	R-29	-4595	-14690	0.0	0.0	0.0	0.0	0.0	0.0
1139	R-30	-4595	-14834	0.0	0.0	0.0	0.0	0.0	0.0
1140	R-31	-3900	-18888	0.0	0.0	0.0	0.0	0.0	0.0
1141	R-32	-3960	-18992	0.0	0.0	0.0	0.0	0.0	0.0
1142	R-33	-1586	-19967	0.0	0.0	0.0	0.0	0.0	0.0
1143	R-34	-1631	-20084	0.0	0.0	0.0	0.0	0.0	0.0
1144	R-35	589	-20385	0.0	0.0	0.0	0.0	0.0	0.0
1145	R-36	760	-20452	0.0	0.0	0.0	0.0	0.0	0.0
1146	R-37	1953	-19502	0.0	0.0	0.0	0.0	0.0	0.0
1147	R-38	1937	-19639	0.0	0.0	0.0	0.0	0.0	0.0
1148	R-39	5743	3729	0.0	0.0	0.0	0.0	0.0	0.0
1149	R-40	6051	3598	0.0	0.0	0.0	0.0	0.0	0.0
1150	R-41	6707	2725	0.0	0.0	0.0	0.0	0.0	0.0
1151	R-42	6795	2778	0.0	0.0	0.0	0.0	0.0	0.0
1152	R-43	3977	622	0.0	0.0	0.0	0.0	0.0	0.0
1153	R-44	3992	528	0.0	0.0	0.0	0.0	0.0	0.0
1154	R-45	7811	-253	0.0	0.0	0.0	0.0	0.0	0.0
1155	R-46	7968	-188	0.0	0.0	0.0	0.0	0.0	0.0
1156	R-47	9017	-3383	0.0	0.0	0.0	0.0	0.0	0.0
1157	R-48	9107	-3278	0.0	0.0	0.0	0.0	0.0	0.0
1158	R-49	9205	-4829	0.0	0.0	0.0	0.0	0.0	0.0
1159	R-50	9420	-4826	0.0	0.0	0.0	0.0	0.0	0.0
1160	R-51	4145	-5368	0.0	0.0	0.0	0.0	0.0	0.0
1161	R-52	4160	-5459	0.0	0.0	0.0	0.0	0.0	0.0
1162	R-53	6680	-5389	0.0	0.0	0.0	0.0	0.0	0.0
1163	R-54	6680	-5519	0.0	0.0	0.0	0.0	0.0	0.0
1164	R-55	8216	-6716	0.0	0.0	0.0	0.0	0.0	0.0
1165	R-56	7824	-7392	0.0	0.0	0.0	0.0	0.0	0.0
1166	R-57	6375	-8805	0.0	0.0	0.0	0.0	0.0	0.0
1167	R-58	2503	-7529	0.0	0.0	0.0	0.0	0.0	0.0
1168	R-59	2128	-9607	0.0	0.0	0.0	0.0	0.0	0.0
1169	R-60	2128	-9724	0.0	0.0	0.0	0.0	0.0	0.0
1170	R-61	3469	-9641	0.0	0.0	0.0	0.0	0.0	0.0
1171	R-62	3469	-9758	0.0	0.0	0.0	0.0	0.0	0.0
1172	R-63	4953	-9622	0.0	0.0	0.0	0.0	0.0	0.0
1173	R-64	4953	-9765	0.0	0.0	0.0	0.0	0.0	0.0
1174	M-1	-5559	5408	0.0	0.0	0.0	0.0	0.0	0.0
1175	M-2	7677	4132	0.0	0.0	0.0	0.0	0.0	0.0
1176	M-3	-3794	839	0.0	0.0	0.0	0.0	0.0	0.0
1177	M-4	-3435	-161	0.0	0.0	0.0	0.0	0.0	0.0
1178	M-5	8038	-2746	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 95 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1179	M-6	7442	-4154	0.0	0.0	0.0	0.0	0.0	0.0
1180	M-7	1569	-6734	0.0	0.0	0.0	0.0	0.0	0.0
1181	M-8	3372	-6953	0.0	0.0	0.0	0.0	0.0	0.0
1182	M-9	3203	-8239	0.0	0.0	0.0	0.0	0.0	0.0
1183	M-10	212	-9582	0.7	0.7	0.1	0.0	0.0	0.0
1184	M-11	212	-9712	0.7	0.7	0.1	0.0	0.0	0.0
1185	M-12	-4530	-14474	0.0	0.0	0.0	0.0	0.0	0.0
1186	M-13	-4484	-14936	0.0	0.0	0.0	0.0	0.0	0.0
1187	M-14	-3614	-16370	0.0	0.0	0.0	0.0	0.0	0.0
1188	M-15	4365	-18735	0.0	0.0	0.0	0.0	0.0	0.0
1189	M-16	4486	-19796	0.0	0.0	0.0	0.0	0.0	0.0
1190	M-17	8123	-595	0.0	0.0	0.0	0.0	0.0	0.0
1191	M-18	9840	4660	0.0	0.0	0.0	0.0	0.0	0.0
1192	T-116	1422	-18235	0.0	0.0	0.0	0.0	0.0	0.0
1193	T-118	1331	-17470	0.0	0.0	0.0	0.0	0.0	0.0
1194	T-119	2650	-17566	0.0	0.0	0.0	0.0	0.0	0.0
1195	T-120	-3506	-16334	0.0	0.0	0.0	0.0	0.0	0.0
1196	T-122	-3743	-14738	0.0	0.0	0.0	0.0	0.0	0.0
1197	T-125	1459	-13047	0.0	0.0	0.0	0.0	0.0	0.0
1198	T-126	3477	-10938	0.0	0.0	0.0	0.0	0.0	0.0
1199	T-130	2651	-8267	0.0	0.0	0.0	0.0	0.0	0.0
1200	T-132	-3659	-2960	0.0	0.0	0.0	0.0	0.0	0.0
1201	T-133	8580	-1927	0.0	0.0	0.0	0.0	0.0	0.0
1202	T-136	-3365	4995	0.0	0.0	0.0	0.0	0.0	0.0
1203	NSF:A14	-3907	-17520	0.0	0.0	0.0	0.0	0.0	0.0
1204	T-25	-3883	-4693	0.0	0.0	0.0	0.0	0.0	0.0
1205	T-28	-3387	-9387	0.0	0.0	0.0	0.0	0.0	0.0
1206	T-33	1432	-17816	0.0	0.0	0.0	0.0	0.0	0.0
1207	T-34	1792	-19460	0.0	0.0	0.0	0.0	0.0	0.0
1208	T-35	1587	-18907	0.0	0.0	0.0	0.0	0.0	0.0
1209	T-44	-3421	5168	0.0	0.0	0.0	0.0	0.0	0.0
1210	NSF:T-48, A20	-4170	1264	0.0	0.0	0.0	0.0	0.0	0.0
1211	NSF:T-50, A22	-3264	8490	0.0	0.0	0.0	0.0	0.0	0.0
1212	NSF:T-57, A29	-2746	8551	0.0	0.0	0.0	0.0	0.0	0.0
1213	NSF:T-59, A31	-5476	6566	0.0	0.0	0.0	0.0	0.0	0.0
1214	NSF:T-60, A32	-4232	-17635	0.0	0.0	0.0	0.0	0.0	0.0
1215	NSF:T-62, A34	-4112	-14837	0.0	0.0	0.0	0.0	0.0	0.0
1216	T-29	-3498	-16806	0.0	0.0	0.0	0.0	0.0	0.0
1217	NSF:T-84, A56	-3125	6493	0.0	0.0	0.0	0.0	0.0	0.0
1218	NSF:T-85, A57	-3238	4735	0.0	0.0	0.0	0.0	0.0	0.0
1219	NSF:T-88, A60	-1350	-9469	0.0	0.0	0.0	0.0	0.0	0.0
1220	NSF:C58	-1135	22315	0.0	0.0	0.0	0.0	0.0	0.0
1221	NSF:S108	-1649	-9471	0.0	0.0	0.0	0.0	0.0	0.0
1222	NSF:N15	-3997	-22078	0.0	0.0	0.0	0.0	0.0	0.0
1223	NSF:C62	-1414	-30795	0.0	0.0	0.0	0.0	0.0	0.0
1224	NSF:S109	-1333	-22719	0.0	0.0	0.0	0.0	0.0	0.0
1225	NSF:S105	-3791	-3836	0.0	0.0	0.0	0.0	0.0	0.0
1226	NSF:C64	-4367	7358	0.0	0.0	0.0	0.0	0.0	0.0
1227	NSF:S106	-2685	8649	0.0	0.0	0.0	0.0	0.0	0.0
1228	NSF:C61	-1303	9772	0.0	0.0	0.0	0.0	0.0	0.0
1229	NSF:S107	2638	-6779	0.0	0.0	0.0	0.0	0.0	0.0
1230	NSF:S110	1462	-15138	0.0	0.0	0.0	0.0	0.0	0.0
1231	NSF:S103	691	14334	0.0	0.0	0.0	0.0	0.0	0.0
1232	NSF:C60	51	14525	0.0	0.0	0.0	0.0	0.0	0.0
1233	NSF:C63	335	17719	0.0	0.0	0.0	0.0	0.0	0.0
1234	NSF:S104	2040	9879	0.0	0.0	0.0	0.0	0.0	0.0

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1235	NSF:C65	2422	9244	0.0	0.0	0.0	0.0	0.0	0.0
1236	NSF:C59	3555	12838	0.0	0.0	0.0	0.0	0.0	0.0
1237	Park:P65	-4286	-15220	0.0	0.0	0.0	0.0	0.0	0.0
1238	Park:P77	-4624	-22245	0.0	0.0	0.0	0.0	0.0	0.0
1239	Park:P75	-4188	-36794	0.0	0.0	0.0	0.0	0.0	0.0
1240	Park:P68	-5348	-17875	0.0	0.0	0.0	0.0	0.0	0.0
1241	Park:P69	-5853	-17090	0.0	0.0	0.0	0.0	0.0	0.0
1242	Park:P74	-5044	-16833	0.0	0.0	0.0	0.0	0.0	0.0
1243	Park:P73	-4954	-17282	0.0	0.0	0.0	0.0	0.0	0.0
1244	Park:P78	-4783	-18422	0.0	0.0	0.0	0.0	0.0	0.0
1245	Park:P70	-4665	-14728	0.0	0.0	0.0	0.0	0.0	0.0
1246	Park:P79	-1577	-22047	0.0	0.0	0.0	0.0	0.0	0.0
1247	Park:P66	-2383	-25951	0.0	0.0	0.0	0.0	0.0	0.0
1248	Park:P76	-748	-25329	0.0	0.0	0.0	0.0	0.0	0.0
1249	Park:P72	-135	-18873	0.0	0.0	0.0	0.0	0.0	0.0
1250	Park:P64	-1767	-17528	0.0	0.0	0.0	0.0	0.0	0.0
1251	Park:P67	1256	-19310	0.0	0.0	0.0	0.0	0.0	0.0
1252	Park:P71	2940	-16861	0.0	0.0	0.0	0.0	0.0	0.0
1253	N1	-1990	-17245	0.0	0.0	0.0	0.0	0.0	0.0
1254	N2	-3334	8426	0.0	0.0	0.0	0.0	0.0	0.0
1256	N3	-4097	6616	0.0	0.0	0.0	0.0	0.0	0.0
1257	N5	-8611	5294	0.0	0.0	0.0	0.0	0.0	0.0
1258	N7	-4947	-1900	0.0	0.0	0.0	0.0	0.0	0.0
1259	N8	-4082	10573	0.0	0.0	0.0	0.0	0.0	0.0
1260	N10	-3524	13833	0.0	0.0	0.0	0.0	0.0	0.0
1261	N16	-2435	-14830	0.0	0.0	0.0	0.0	0.0	0.0
1262	N17	-1060	-14856	0.0	0.0	0.0	0.0	0.0	0.0
1263	N18	-3776	-14788	0.0	0.0	0.0	0.0	0.0	0.0
1264	N19	1410	-15430	0.0	0.0	0.0	0.0	0.0	0.0
1265	N21	1410	-15430	0.0	0.0	0.0	0.0	0.0	0.0
1266	N22	1410	-15430	0.0	0.0	0.0	0.0	0.0	0.0
1267	N24	-849	-17121	0.0	0.0	0.0	0.0	0.0	0.0
1268	N52	-849	-17121	0.0	0.0	0.0	0.0	0.0	0.0
1269	N25	-1279	-17349	0.0	0.0	0.0	0.0	0.0	0.0
1270	N23	731	-17160	0.0	0.0	0.0	0.0	0.0	0.0
1271	N32	-2623	-16845	0.0	0.0	0.0	0.0	0.0	0.0
1272	N33	-1937	-14523	0.0	0.0	0.0	0.0	0.0	0.0
1273	N34	-1996	-20888	0.0	0.0	0.0	0.0	0.0	0.0
1274	N35	-1984	-20239	0.0	0.0	0.0	0.0	0.0	0.0
1275	N36	-1996	-20888	0.0	0.0	0.0	0.0	0.0	0.0
1276	N37	-1288	-18281	0.0	0.0	0.0	0.0	0.0	0.0
1277	N38	81	-23395	0.0	0.0	0.0	0.0	0.0	0.0
1278	N39	1235	-23064	0.0	0.0	0.0	0.0	0.0	0.0
1279	N40	1243	-23968	0.0	0.0	0.0	0.0	0.0	0.0
1280	N45	1572	-18752	0.0	0.0	0.0	0.0	0.0	0.0
1281	N46	2447	-18291	0.0	0.0	0.0	0.0	0.0	0.0
1282	N49	-2293	-19455	0.0	0.0	0.0	0.0	0.0	0.0
1283	N50	-2293	-19455	0.0	0.0	0.0	0.0	0.0	0.0
1284	N53	-762	-16176	0.0	0.0	0.0	0.0	0.0	0.0
1285	N54	2867	-16447	0.0	0.0	0.0	0.0	0.0	0.0
1286	N55	3117	-17904	0.0	0.0	0.0	0.0	0.0	0.0
1287	N56	-269	-22786	0.0	0.0	0.0	0.0	0.0	0.0
1288	N59	-2261	-19816	0.0	0.0	0.0	0.0	0.0	0.0
1289	N60	-1155	-20562	0.0	0.0	0.0	0.0	0.0	0.0
1290	N47	2491	-18288	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	0.0	0.0	0.0	0.0	0.0	0.0
2	RMS2	-2533	-18228	0.0	0.0	0.0	0.0	0.0	0.0
3	RMS3	1078	-17868	0.0	0.0	0.0	0.0	0.0	0.0
4	RMS4	141	-9337	0.1	0.1	0.0	0.0	0.0	0.0
5	RMS5	-2718	186	0.0	0.0	0.0	0.0	0.0	0.0
6	RMS6	292	8461	0.1	0.1	0.0	0.0	0.0	0.0
7	RMS7	-1299	16858	0.0	0.0	0.0	0.0	0.0	0.0
8	RMS8	-525	21836	0.0	0.0	0.0	0.0	0.0	0.0
9	RMS9	1958	14969	0.0	0.0	0.0	0.0	0.0	0.0
10	RMS10	-3185	-6305	0.0	0.0	0.0	0.0	0.0	0.0
11	RMS11	2549	6703	0.0	0.0	0.0	0.0	0.0	0.0
12	A22	-7822	17894	0.0	0.0	0.0	0.0	0.0	0.0
13	A23	-7856	16574	0.0	0.0	0.0	0.0	0.0	0.0
14	A24	-7890	15254	0.0	0.0	0.0	0.0	0.0	0.0
15	A25	-7924	13934	0.0	0.0	0.0	0.0	0.0	0.0
16	A26	-7958	12614	0.0	0.0	0.0	0.0	0.0	0.0
17	A27	-7992	11294	0.0	0.0	0.0	0.0	0.0	0.0
18	A28	-8026	9974	0.0	0.0	0.0	0.0	0.0	0.0
19	A29	-8060	8654	0.0	0.0	0.0	0.0	0.0	0.0
20	A30	-8094	7334	0.0	0.0	0.0	0.0	0.0	0.0
21	A31	-8128	6014	0.0	0.0	0.0	0.0	0.0	0.0
22	A32	-8162	4694	0.0	0.0	0.0	0.0	0.0	0.0
23	A33	-8196	3374	0.0	0.0	0.0	0.0	0.0	0.0
24	A34	-8230	2054	0.0	0.0	0.0	0.0	0.0	0.0
25	A35	-8264	734	0.0	0.0	0.0	0.0	0.0	0.0
26	A36	-8298	-586	0.0	0.0	0.0	0.0	0.0	0.0
27	A37	-8332	-1906	0.0	0.0	0.0	0.0	0.0	0.0
28	A38	-8366	-3226	0.0	0.0	0.0	0.0	0.0	0.0
29	A39	-8400	-4546	0.0	0.0	0.0	0.0	0.0	0.0
30	A40	-8434	-5866	0.0	0.0	0.0	0.0	0.0	0.0
31	A41	-8468	-7186	0.0	0.0	0.0	0.0	0.0	0.0
32	A42	-8502	-8506	0.0	0.0	0.0	0.0	0.0	0.0
33	A43	-8536	-9826	0.0	0.0	0.0	0.0	0.0	0.0
34	B10	-6094	33700	0.0	0.0	0.0	0.0	0.0	0.0
35	B11	-6128	32380	0.0	0.0	0.0	0.0	0.0	0.0
36	B12	-6162	31060	0.0	0.0	0.0	0.0	0.0	0.0
37	B13	-6196	29740	0.0	0.0	0.0	0.0	0.0	0.0
38	B14	-6230	28420	0.0	0.0	0.0	0.0	0.0	0.0
39	B15	-6264	27100	0.0	0.0	0.0	0.0	0.0	0.0
40	B16	-6298	25780	0.0	0.0	0.0	0.0	0.0	0.0
41	B17	-6332	24460	0.0	0.0	0.0	0.0	0.0	0.0
42	B18	-6366	23140	0.0	0.0	0.0	0.0	0.0	0.0
43	B19	-6400	21820	0.0	0.0	0.0	0.0	0.0	0.0
44	B20	-6434	20500	0.0	0.0	0.0	0.0	0.0	0.0
45	B21	-6468	19180	0.0	0.0	0.0	0.0	0.0	0.0
46	B22	-6502	17860	0.0	0.0	0.0	0.0	0.0	0.0
47	B23	-6536	16540	0.0	0.0	0.0	0.0	0.0	0.0
48	B24	-6570	15220	0.0	0.0	0.0	0.0	0.0	0.0
49	B25	-6604	13900	0.0	0.0	0.0	0.0	0.0	0.0
50	B26	-6638	12580	0.0	0.0	0.0	0.0	0.0	0.0
51	B27	-6672	11260	0.0	0.0	0.0	0.0	0.0	0.0
52	B28	-6706	9940	0.0	0.0	0.0	0.0	0.0	0.0
53	B29	-6740	8620	0.0	0.0	0.0	0.0	0.0	0.0
54	B30	-6774	7300	0.0	0.0	0.0	0.0	0.0	0.0
55	B31	-6808	5980	0.0	0.0	0.0	0.0	0.0	0.0
56	B32	-6842	4660	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
57	B33	-6876	3340	0.0	0.0	0.0	0.0	0.0	0.0
58	B34	-6910	2020	0.0	0.0	0.0	0.0	0.0	0.0
59	B35	-6944	700	0.0	0.0	0.0	0.0	0.0	0.0
60	B36	-6978	-620	0.0	0.0	0.0	0.0	0.0	0.0
61	B37	-7012	-1940	0.0	0.0	0.0	0.0	0.0	0.0
62	B38	-7046	-3260	0.0	0.0	0.0	0.0	0.0	0.0
63	B39	-7080	-4580	0.0	0.0	0.0	0.0	0.0	0.0
64	B40	-7114	-5900	0.0	0.0	0.0	0.0	0.0	0.0
65	B41	-7148	-7220	0.0	0.0	0.0	0.0	0.0	0.0
66	B42	-7182	-8540	0.0	0.0	0.0	0.0	0.0	0.0
67	B43	-7216	-9860	0.0	0.0	0.0	0.0	0.0	0.0
68	B44	-7250	-11180	0.0	0.0	0.0	0.0	0.0	0.0
69	B45	-7284	-12500	0.0	0.0	0.0	0.0	0.0	0.0
70	B46	-7318	-13820	0.0	0.0	0.0	0.0	0.0	0.0
71	B47	-7352	-15140	0.0	0.0	0.0	0.0	0.0	0.0
72	B48	-7386	-16460	0.0	0.0	0.0	0.0	0.0	0.0
73	B49	-7420	-17780	0.0	0.0	0.0	0.0	0.0	0.0
74	C1	-4468	45546	0.0	0.0	0.0	0.0	0.0	0.0
75	C2	-4502	44226	0.0	0.0	0.0	0.0	0.0	0.0
76	C3	-4536	42906	0.0	0.0	0.0	0.0	0.0	0.0
77	C4	-4570	41586	0.0	0.0	0.0	0.0	0.0	0.0
78	C5	-4604	40266	0.0	0.0	0.0	0.0	0.0	0.0
79	C6	-4638	38946	0.0	0.0	0.0	0.0	0.0	0.0
80	C7	-4672	37626	0.0	0.0	0.0	0.0	0.0	0.0
81	C8	-4706	36306	0.0	0.0	0.0	0.0	0.0	0.0
82	C9	-4740	34986	0.0	0.0	0.0	0.0	0.0	0.0
83	C10	-4774	33666	0.0	0.0	0.0	0.0	0.0	0.0
84	C11	-4808	32346	0.0	0.0	0.0	0.0	0.0	0.0
85	C12	-4842	31026	0.0	0.0	0.0	0.0	0.0	0.0
86	C13	-4876	29706	0.0	0.0	0.0	0.0	0.0	0.0
87	C14	-4910	28386	0.0	0.0	0.0	0.0	0.0	0.0
88	C15	-4944	27066	0.0	0.0	0.0	0.0	0.0	0.0
89	C16	-4978	25746	0.0	0.0	0.0	0.0	0.0	0.0
90	C17	-5012	24426	0.0	0.0	0.0	0.0	0.0	0.0
91	C18	-5046	23106	0.0	0.0	0.0	0.0	0.0	0.0
92	C19	-5080	21786	0.0	0.0	0.0	0.0	0.0	0.0
93	C20	-5114	20466	0.0	0.0	0.0	0.0	0.0	0.0
94	C21	-5148	19146	0.0	0.0	0.0	0.0	0.0	0.0
95	C22	-5182	17826	0.0	0.0	0.0	0.0	0.0	0.0
96	C23	-5216	16506	0.0	0.0	0.0	0.0	0.0	0.0
97	C24	-5250	15186	0.0	0.0	0.0	0.0	0.0	0.0
98	C25	-5284	13866	0.0	0.0	0.0	0.0	0.0	0.0
99	C26	-5318	12546	0.0	0.0	0.0	0.0	0.0	0.0
100	C27	-5352	11226	0.0	0.0	0.0	0.0	0.0	0.0
101	C28	-5386	9906	0.0	0.0	0.0	0.0	0.0	0.0
102	C29	-5420	8586	0.0	0.0	0.0	0.0	0.0	0.0
103	C30	-5454	7266	0.0	0.0	0.0	0.0	0.0	0.0
104	C31	-5488	5946	0.0	0.0	0.0	0.0	0.0	0.0
105	C32	-5522	4626	0.0	0.0	0.0	0.0	0.0	0.0
106	C33	-5556	3306	0.0	0.0	0.0	0.0	0.0	0.0
107	C34	-5590	1986	0.0	0.0	0.0	0.0	0.0	0.0
108	C35	-5624	666	0.0	0.0	0.0	0.0	0.0	0.0
109	C36	-5658	-654	0.0	0.0	0.0	0.0	0.0	0.0
110	C37	-5692	-1974	0.0	0.0	0.0	0.0	0.0	0.0
111	C38	-5726	-3294	0.0	0.0	0.0	0.0	0.0	0.0
112	C39	-5760	-4614	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
113	C40	-5794	-5934	0.0	0.0	0.0	0.0	0.0	0.0
114	C41	-5828	-7254	0.0	0.0	0.0	0.0	0.0	0.0
115	C42	-5862	-8574	0.0	0.0	0.0	0.0	0.0	0.0
116	C43	-5896	-9894	0.0	0.0	0.0	0.0	0.0	0.0
117	C44	-5930	-11214	0.0	0.0	0.0	0.0	0.0	0.0
118	C45	-5964	-12534	0.0	0.0	0.0	0.0	0.0	0.0
119	C46	-5998	-13854	0.0	0.0	0.0	0.0	0.0	0.0
120	C47	-6032	-15174	0.0	0.0	0.0	0.0	0.0	0.0
121	C48	-6066	-16494	0.0	0.0	0.0	0.0	0.0	0.0
122	C49	-6100	-17814	0.0	0.0	0.0	0.0	0.0	0.0
123	C50	-6134	-19134	0.0	0.0	0.0	0.0	0.0	0.0
124	C51	-6168	-20454	0.0	0.0	0.0	0.0	0.0	0.0
125	C52	-6202	-21774	0.0	0.0	0.0	0.0	0.0	0.0
126	C53	-6236	-23094	0.0	0.0	0.0	0.0	0.0	0.0
127	C54	-6270	-24414	0.0	0.0	0.0	0.0	0.0	0.0
128	C55	-6304	-25734	0.0	0.0	0.0	0.0	0.0	0.0
129	C56	-6338	-27054	0.0	0.0	0.0	0.0	0.0	0.0
130	C57	-6372	-28374	0.0	0.0	0.0	0.0	0.0	0.0
131	C58	-6406	-29694	0.0	0.0	0.0	0.0	0.0	0.0
132	C59	-6440	-31014	0.0	0.0	0.0	0.0	0.0	0.0
133	D1	-3148	45512	0.0	0.0	0.0	0.0	0.0	0.0
134	D2	-3182	44192	0.0	0.0	0.0	0.0	0.0	0.0
135	D3	-3216	42872	0.0	0.0	0.0	0.0	0.0	0.0
136	D4	-3250	41552	0.0	0.0	0.0	0.0	0.0	0.0
137	D5	-3284	40232	0.0	0.0	0.0	0.0	0.0	0.0
138	D6	-3318	38912	0.0	0.0	0.0	0.0	0.0	0.0
139	D7	-3352	37592	0.0	0.0	0.0	0.0	0.0	0.0
140	D8	-3386	36272	0.0	0.0	0.0	0.0	0.0	0.0
141	D9	-3420	34952	0.0	0.0	0.0	0.0	0.0	0.0
142	D10	-3454	33632	0.0	0.0	0.0	0.0	0.0	0.0
143	D11	-3488	32312	0.0	0.0	0.0	0.0	0.0	0.0
144	D12	-3522	30992	0.0	0.0	0.0	0.0	0.0	0.0
145	D13	-3556	29672	0.0	0.0	0.0	0.0	0.0	0.0
146	D14	-3590	28352	0.0	0.0	0.0	0.0	0.0	0.0
147	D15	-3624	27032	0.0	0.0	0.0	0.0	0.0	0.0
148	D16	-3658	25712	0.0	0.0	0.0	0.0	0.0	0.0
149	D17	-3692	24392	0.0	0.0	0.0	0.0	0.0	0.0
150	D18	-3726	23072	0.0	0.0	0.0	0.0	0.0	0.0
151	D19	-3760	21752	0.0	0.0	0.0	0.0	0.0	0.0
152	D20	-3794	20432	0.0	0.0	0.0	0.0	0.0	0.0
153	D21	-3828	19112	0.0	0.0	0.0	0.0	0.0	0.0
154	D22	-3862	17792	0.0	0.0	0.0	0.0	0.0	0.0
155	D23	-3896	16472	0.0	0.0	0.0	0.0	0.0	0.0
156	D24	-3930	15152	0.0	0.0	0.0	0.0	0.0	0.0
157	D25	-3964	13832	0.0	0.0	0.0	0.0	0.0	0.0
158	D26	-3998	12512	0.0	0.0	0.0	0.0	0.0	0.0
159	D27	-4032	11192	0.0	0.0	0.0	0.0	0.0	0.0
160	D28	-4066	9872	0.0	0.0	0.0	0.0	0.0	0.0
161	D29	-4100	8552	0.0	0.0	0.0	0.0	0.0	0.0
162	D30	-4134	7232	0.0	0.0	0.0	0.0	0.0	0.0
163	D31	-4168	5912	0.0	0.0	0.0	0.0	0.0	0.0
164	D32	-4202	4592	0.0	0.0	0.0	0.0	0.0	0.0
165	D33	-4236	3272	0.0	0.0	0.0	0.0	0.0	0.0
166	D34	-4270	1952	0.0	0.0	0.0	0.0	0.0	0.0
167	D35	-4304	632	0.0	0.0	0.0	0.0	0.0	0.0
168	D36	-4338	-688	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
169	D37	-4372	-2008	0.0	0.0	0.0	0.0	0.0	0.0
170	D38	-4406	-3328	0.0	0.0	0.0	0.0	0.0	0.0
171	D39	-4440	-4648	0.0	0.0	0.0	0.0	0.0	0.0
172	D40	-4474	-5968	0.0	0.0	0.0	0.0	0.0	0.0
173	D41	-4508	-7288	0.0	0.0	0.0	0.0	0.0	0.0
174	D42	-4542	-8608	0.0	0.0	0.0	0.0	0.0	0.0
175	D43	-4576	-9928	0.0	0.0	0.0	0.0	0.0	0.0
176	D44	-4610	-11248	0.0	0.0	0.0	0.0	0.0	0.0
177	D45	-4644	-12568	0.0	0.0	0.0	0.0	0.0	0.0
178	D46	-4678	-13888	0.0	0.0	0.0	0.0	0.0	0.0
179	D47	-4712	-15208	0.0	0.0	0.0	0.0	0.0	0.0
180	D48	-4746	-16528	0.0	0.0	0.0	0.0	0.0	0.0
181	D49	-4780	-17848	0.0	0.0	0.0	0.0	0.0	0.0
182	D50	-4814	-19168	0.0	0.0	0.0	0.0	0.0	0.0
183	D51	-4848	-20488	0.0	0.0	0.0	0.0	0.0	0.0
184	D52	-4882	-21808	0.0	0.0	0.0	0.0	0.0	0.0
185	D53	-4916	-23128	0.0	0.0	0.0	0.0	0.0	0.0
186	D54	-4950	-24448	0.0	0.0	0.0	0.0	0.0	0.0
187	D55	-4984	-25768	0.0	0.0	0.0	0.0	0.0	0.0
188	D56	-5018	-27088	0.0	0.0	0.0	0.0	0.0	0.0
189	D57	-5052	-28408	0.0	0.0	0.0	0.0	0.0	0.0
190	D58	-5086	-29728	0.0	0.0	0.0	0.0	0.0	0.0
191	D59	-5120	-31048	0.0	0.0	0.0	0.0	0.0	0.0
192	D60	-5154	-32368	0.0	0.0	0.0	0.0	0.0	0.0
193	D61	-5188	-33688	0.0	0.0	0.0	0.0	0.0	0.0
194	D62	-5222	-35008	0.0	0.0	0.0	0.0	0.0	0.0
195	D63	-5256	-36328	0.0	0.0	0.0	0.0	0.0	0.0
196	D64	-5290	-37648	0.0	0.0	0.0	0.0	0.0	0.0
197	D65	-5324	-38968	0.0	0.0	0.0	0.0	0.0	0.0
198	D66	-5358	-40288	0.0	0.0	0.0	0.0	0.0	0.0
199	D67	-5392	-41608	0.0	0.0	0.0	0.0	0.0	0.0
200	E1	-1828	45478	0.0	0.0	0.0	0.0	0.0	0.0
201	E2	-1862	44158	0.0	0.0	0.0	0.0	0.0	0.0
202	E3	-1896	42838	0.0	0.0	0.0	0.0	0.0	0.0
203	E4	-1930	41518	0.0	0.0	0.0	0.0	0.0	0.0
204	E5	-1964	40198	0.0	0.0	0.0	0.0	0.0	0.0
205	E6	-1998	38878	0.0	0.0	0.0	0.0	0.0	0.0
206	E7	-2032	37558	0.0	0.0	0.0	0.0	0.0	0.0
207	E8	-2066	36238	0.0	0.0	0.0	0.0	0.0	0.0
208	E9	-2100	34918	0.0	0.0	0.0	0.0	0.0	0.0
209	E10	-2134	33598	0.0	0.0	0.0	0.0	0.0	0.0
210	E11	-2168	32278	0.0	0.0	0.0	0.0	0.0	0.0
211	E12	-2202	30958	0.0	0.0	0.0	0.0	0.0	0.0
212	E13	-2236	29638	0.0	0.0	0.0	0.0	0.0	0.0
213	E14	-2270	28318	0.0	0.0	0.0	0.0	0.0	0.0
214	E15	-2304	26998	0.0	0.0	0.0	0.0	0.0	0.0
215	E16	-2338	25678	0.0	0.0	0.0	0.0	0.0	0.0
216	E17	-2372	24358	0.0	0.0	0.0	0.0	0.0	0.0
217	E18	-2406	23038	0.0	0.0	0.0	0.0	0.0	0.0
218	E19	-2440	21718	0.0	0.0	0.0	0.0	0.0	0.0
219	E20	-2474	20398	0.0	0.0	0.0	0.0	0.0	0.0
220	E21	-2508	19078	0.0	0.0	0.0	0.0	0.0	0.0
221	E22	-2542	17758	0.0	0.0	0.0	0.0	0.0	0.0
222	E23	-2576	16438	0.0	0.0	0.0	0.0	0.0	0.0
223	E24	-2610	15118	0.0	0.0	0.0	0.0	0.0	0.0
224	E25	-2644	13798	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
225	E26	-2678	12478	0.0	0.0	0.0	0.0	0.0	0.0
226	E27	-2712	11158	0.0	0.0	0.0	0.0	0.0	0.0
227	E28	-2746	9838	0.0	0.0	0.0	0.0	0.0	0.0
228	E29	-2780	8518	0.0	0.0	0.0	0.0	0.0	0.0
229	E30	-2814	7198	0.0	0.0	0.0	0.0	0.0	0.0
230	E31	-2848	5878	0.0	0.0	0.0	0.0	0.0	0.0
231	E32	-2882	4558	0.0	0.0	0.0	0.0	0.0	0.0
232	E33	-2916	3238	0.0	0.0	0.0	0.0	0.0	0.0
233	E34	-2950	1918	0.0	0.0	0.0	0.0	0.0	0.0
234	E35	-2984	598	0.0	0.0	0.0	0.0	0.0	0.0
235	E36	-3018	-722	0.0	0.0	0.0	0.0	0.0	0.0
236	E37	-3052	-2042	0.0	0.0	0.0	0.0	0.0	0.0
237	E38	-3086	-3362	0.0	0.0	0.0	0.0	0.0	0.0
238	E39	-3120	-4682	0.0	0.0	0.0	0.0	0.0	0.0
239	E40	-3154	-6002	0.0	0.0	0.0	0.0	0.0	0.0
240	E41	-3188	-7322	0.0	0.0	0.0	0.0	0.0	0.0
241	E42	-3222	-8642	0.0	0.0	0.0	0.0	0.0	0.0
242	E43	-3256	-9962	0.0	0.0	0.0	0.0	0.0	0.0
243	E44	-3290	-11282	0.0	0.0	0.0	0.0	0.0	0.0
244	E45	-3324	-12602	0.0	0.0	0.0	0.0	0.0	0.0
245	E46	-3358	-13922	0.0	0.0	0.0	0.0	0.0	0.0
246	E47	-3392	-15242	0.0	0.0	0.0	0.0	0.0	0.0
247	E48	-3426	-16562	0.0	0.0	0.0	0.0	0.0	0.0
248	E49	-3460	-17882	0.0	0.0	0.0	0.0	0.0	0.0
249	E50	-3494	-19202	0.0	0.0	0.0	0.0	0.0	0.0
250	E51	-3528	-20522	0.0	0.0	0.0	0.0	0.0	0.0
251	E52	-3562	-21842	0.0	0.0	0.0	0.0	0.0	0.0
252	E53	-3596	-23162	0.0	0.0	0.0	0.0	0.0	0.0
253	E54	-3630	-24482	0.0	0.0	0.0	0.0	0.0	0.0
254	E55	-3664	-25802	0.0	0.0	0.0	0.0	0.0	0.0
255	E56	-3698	-27122	0.0	0.0	0.0	0.0	0.0	0.0
256	E57	-3732	-28442	0.0	0.0	0.0	0.0	0.0	0.0
257	E58	-3766	-29762	0.0	0.0	0.0	0.0	0.0	0.0
258	E59	-3800	-31082	0.0	0.0	0.0	0.0	0.0	0.0
259	E60	-3834	-32402	0.0	0.0	0.0	0.0	0.0	0.0
260	E61	-3868	-33722	0.0	0.0	0.0	0.0	0.0	0.0
261	E62	-3902	-35042	0.0	0.0	0.0	0.0	0.0	0.0
262	E63	-3936	-36362	0.0	0.0	0.0	0.0	0.0	0.0
263	E64	-3970	-37682	0.0	0.0	0.0	0.0	0.0	0.0
264	E65	-4004	-39002	0.0	0.0	0.0	0.0	0.0	0.0
265	E66	-4038	-40322	0.0	0.0	0.0	0.0	0.0	0.0
266	E67	-4072	-41642	0.0	0.0	0.0	0.0	0.0	0.0
267	E68	-4106	-42962	0.0	0.0	0.0	0.0	0.0	0.0
268	E69	-4140	-44282	0.0	0.0	0.0	0.0	0.0	0.0
269	E70	-4174	-45602	0.0	0.0	0.0	0.0	0.0	0.0
270	E71	-4208	-46922	0.0	0.0	0.0	0.0	0.0	0.0
271	E72	-4242	-48242	0.0	0.0	0.0	0.0	0.0	0.0
272	E73	-4276	-49562	0.0	0.0	0.0	0.0	0.0	0.0
273	F1	-508	45444	0.0	0.0	0.0	0.0	0.0	0.0
274	F2	-542	44124	0.0	0.0	0.0	0.0	0.0	0.0
275	F3	-576	42804	0.0	0.0	0.0	0.0	0.0	0.0
276	F4	-610	41484	0.0	0.0	0.0	0.0	0.0	0.0
277	F5	-644	40164	0.0	0.0	0.0	0.0	0.0	0.0
278	F6	-678	38844	0.0	0.0	0.0	0.0	0.0	0.0
279	F7	-712	37524	0.0	0.0	0.0	0.0	0.0	0.0
280	F8	-746	36204	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
281	F9	-780	34884	0.0	0.0	0.0	0.0	0.0	0.0
282	F10	-814	33564	0.0	0.0	0.0	0.0	0.0	0.0
283	F11	-848	32244	0.0	0.0	0.0	0.0	0.0	0.0
284	F12	-882	30924	0.0	0.0	0.0	0.0	0.0	0.0
285	F13	-916	29604	0.0	0.0	0.0	0.0	0.0	0.0
286	F14	-950	28284	0.0	0.0	0.0	0.0	0.0	0.0
287	F15	-984	26964	0.0	0.0	0.0	0.0	0.0	0.0
288	F16	-1018	25644	0.0	0.0	0.0	0.0	0.0	0.0
289	F17	-1052	24324	0.0	0.0	0.0	0.0	0.0	0.0
290	F18	-1086	23004	0.0	0.0	0.0	0.0	0.0	0.0
291	F19	-1120	21684	0.0	0.0	0.0	0.0	0.0	0.0
292	F20	-1154	20364	0.0	0.0	0.0	0.0	0.0	0.0
293	F21	-1188	19044	0.0	0.0	0.0	0.0	0.0	0.0
294	F22	-1222	17724	0.0	0.0	0.0	0.0	0.0	0.0
295	F23	-1256	16404	0.0	0.0	0.0	0.0	0.0	0.0
296	F24	-1290	15084	0.0	0.0	0.0	0.0	0.0	0.0
297	F25	-1324	13764	0.0	0.0	0.0	0.0	0.0	0.0
298	F26	-1358	12444	0.0	0.0	0.0	0.0	0.0	0.0
299	F27	-1392	11124	0.0	0.0	0.0	0.0	0.0	0.0
300	F28	-1426	9804	0.0	0.0	0.0	0.0	0.0	0.0
301	F29	-1460	8484	0.0	0.0	0.0	0.0	0.0	0.0
302	F30	-1494	7164	0.0	0.0	0.0	0.0	0.0	0.0
303	F31	-1528	5844	0.0	0.0	0.0	0.0	0.0	0.0
304	F32	-1562	4524	0.0	0.0	0.0	0.0	0.0	0.0
305	F33	-1596	3204	0.0	0.0	0.0	0.0	0.0	0.0
306	F34	-1630	1884	0.0	0.0	0.0	0.0	0.0	0.0
307	F35	-1664	564	0.0	0.0	0.0	0.0	0.0	0.0
308	F36	-1698	-756	0.0	0.0	0.0	0.0	0.0	0.0
309	F37	-1732	-2076	0.0	0.0	0.0	0.0	0.0	0.0
310	F38	-1766	-3396	0.0	0.0	0.0	0.0	0.0	0.0
311	F39	-1800	-4716	0.0	0.0	0.0	0.0	0.0	0.0
312	F40	-1834	-6036	0.0	0.0	0.0	0.0	0.0	0.0
313	F41	-1868	-7356	0.0	0.0	0.0	0.0	0.0	0.0
314	F42	-1902	-8676	0.0	0.0	0.0	0.0	0.0	0.0
315	F43	-1936	-9996	0.0	0.0	0.0	0.0	0.0	0.0
316	F44	-1970	-11316	0.0	0.0	0.0	0.0	0.0	0.0
317	F45	-2004	-12636	0.0	0.0	0.0	0.0	0.0	0.0
318	F46	-2038	-13956	0.0	0.0	0.0	0.0	0.0	0.0
319	F47	-2072	-15276	0.0	0.0	0.0	0.0	0.0	0.0
320	F48	-2106	-16596	0.0	0.0	0.0	0.0	0.0	0.0
321	F49	-2140	-17916	0.0	0.0	0.0	0.0	0.0	0.0
322	F50	-2174	-19236	0.0	0.0	0.0	0.0	0.0	0.0
323	F51	-2208	-20556	0.0	0.0	0.0	0.0	0.0	0.0
324	F52	-2242	-21876	0.0	0.0	0.0	0.0	0.0	0.0
325	F53	-2276	-23196	0.0	0.0	0.0	0.0	0.0	0.0
326	F54	-2310	-24516	0.0	0.0	0.0	0.0	0.0	0.0
327	F55	-2344	-25836	0.0	0.0	0.0	0.0	0.0	0.0
328	F56	-2378	-27156	0.0	0.0	0.0	0.0	0.0	0.0
329	F57	-2412	-28476	0.0	0.0	0.0	0.0	0.0	0.0
330	F58	-2446	-29796	0.0	0.0	0.0	0.0	0.0	0.0
331	F59	-2480	-31116	0.0	0.0	0.0	0.0	0.0	0.0
332	F60	-2514	-32436	0.0	0.0	0.0	0.0	0.0	0.0
333	F61	-2548	-33756	0.0	0.0	0.0	0.0	0.0	0.0
334	F62	-2582	-35076	0.0	0.0	0.0	0.0	0.0	0.0
335	F63	-2616	-36396	0.0	0.0	0.0	0.0	0.0	0.0
336	F64	-2650	-37716	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
337	F65	-2684	-39036	0.0	0.0	0.0	0.0	0.0	0.0
338	F66	-2718	-40356	0.0	0.0	0.0	0.0	0.0	0.0
339	F67	-2752	-41676	0.0	0.0	0.0	0.0	0.0	0.0
340	F68	-2786	-42996	0.0	0.0	0.0	0.0	0.0	0.0
341	F69	-2820	-44316	0.0	0.0	0.0	0.0	0.0	0.0
342	F70	-2854	-45636	0.0	0.0	0.0	0.0	0.0	0.0
343	F71	-2888	-46956	0.0	0.0	0.0	0.0	0.0	0.0
344	F72	-2922	-48276	0.0	0.0	0.0	0.0	0.0	0.0
345	F73	-2956	-49596	0.0	0.0	0.0	0.0	0.0	0.0
346	G1	812	45410	0.0	0.0	0.0	0.0	0.0	0.0
347	G2	778	44090	0.0	0.0	0.0	0.0	0.0	0.0
348	G3	744	42770	0.0	0.0	0.0	0.0	0.0	0.0
349	G4	710	41450	0.0	0.0	0.0	0.0	0.0	0.0
350	G5	676	40130	0.0	0.0	0.0	0.0	0.0	0.0
351	G6	642	38810	0.0	0.0	0.0	0.0	0.0	0.0
352	G7	608	37490	0.0	0.0	0.0	0.0	0.0	0.0
353	G8	574	36170	0.0	0.0	0.0	0.0	0.0	0.0
354	G9	540	34850	0.0	0.0	0.0	0.0	0.0	0.0
355	G10	506	33530	0.0	0.0	0.0	0.0	0.0	0.0
356	G11	472	32210	0.0	0.0	0.0	0.0	0.0	0.0
357	G12	438	30890	0.0	0.0	0.0	0.0	0.0	0.0
358	G13	404	29570	0.0	0.0	0.0	0.0	0.0	0.0
359	G14	370	28250	0.0	0.0	0.0	0.0	0.0	0.0
360	G15	336	26930	0.0	0.0	0.0	0.0	0.0	0.0
361	G16	302	25610	0.0	0.0	0.0	0.0	0.0	0.0
362	G17	268	24290	0.0	0.0	0.0	0.0	0.0	0.0
363	G18	234	22970	0.0	0.0	0.0	0.0	0.0	0.0
364	G19	200	21650	0.0	0.0	0.0	0.0	0.0	0.0
365	G20	166	20330	0.0	0.0	0.0	0.0	0.0	0.0
366	G21	132	19010	0.0	0.0	0.0	0.0	0.0	0.0
367	G22	98	17690	0.0	0.0	0.0	0.0	0.0	0.0
368	G23	64	16370	0.0	0.0	0.0	0.0	0.0	0.0
369	G24	30	15050	0.0	0.0	0.0	0.0	0.0	0.0
370	G25	-4	13730	0.0	0.0	0.0	0.0	0.0	0.0
371	G26	-38	12410	0.0	0.0	0.0	0.0	0.0	0.0
372	G27	-72	11090	0.0	0.0	0.0	0.0	0.0	0.0
373	G28	-106	9770	0.0	0.0	0.0	0.0	0.0	0.0
374	G29	-140	8450	0.1	0.1	0.0	0.0	0.0	0.0
375	G30	-174	7130	0.1	0.1	0.0	0.0	0.0	0.0
376	G31	-208	5810	0.2	0.2	0.1	0.1	0.1	0.1
377	G32	-242	4490	2.0	2.0	1.8	8.7	1.8	8.8
378	G33	-276	3170	4.5	4.5	4.1	6.5	4.2	6.6
379	G34	-310	1850	2.0	2.0	1.6	5.5	1.5	5.4
380	G35	-344	530	1.7	1.7	1.4	4.2	1.3	4.3
381	G36	-378	-790	1.6	1.6	1.4	3.3	1.4	3.3
382	G37	-412	-2110	3.0	3.0	2.6	3.8	2.6	3.9
383	G38	-446	-3430	2.2	2.2	1.8	4.1	1.9	4.4
384	G39	-480	-4750	0.3	0.3	0.1	0.1	0.1	0.1
385	G40	-514	-6070	0.1	0.1	0.0	0.0	0.0	0.0
386	G41	-548	-7390	0.0	0.0	0.0	0.0	0.0	0.0
387	G42	-582	-8710	0.0	0.0	0.0	0.0	0.0	0.0
388	G43	-616	-10030	0.0	0.0	0.0	0.0	0.0	0.0
389	G44	-650	-11350	0.0	0.0	0.0	0.0	0.0	0.0
390	G45	-684	-12670	0.0	0.0	0.0	0.0	0.0	0.0
391	G46	-718	-13990	0.0	0.0	0.0	0.0	0.0	0.0
392	G47	-752	-15310	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
393	G48	-786	-16630	0.0	0.0	0.0	0.0	0.0	0.0
394	G49	-820	-17950	0.0	0.0	0.0	0.0	0.0	0.0
395	G50	-854	-19270	0.0	0.0	0.0	0.0	0.0	0.0
396	G51	-888	-20590	0.0	0.0	0.0	0.0	0.0	0.0
397	G52	-922	-21910	0.0	0.0	0.0	0.0	0.0	0.0
398	G53	-956	-23230	0.0	0.0	0.0	0.0	0.0	0.0
399	G54	-990	-24550	0.0	0.0	0.0	0.0	0.0	0.0
400	G55	-1024	-25870	0.0	0.0	0.0	0.0	0.0	0.0
401	G56	-1058	-27190	0.0	0.0	0.0	0.0	0.0	0.0
402	G57	-1092	-28510	0.0	0.0	0.0	0.0	0.0	0.0
403	G58	-1126	-29830	0.0	0.0	0.0	0.0	0.0	0.0
404	G59	-1160	-31150	0.0	0.0	0.0	0.0	0.0	0.0
405	G60	-1194	-32470	0.0	0.0	0.0	0.0	0.0	0.0
406	G61	-1228	-33790	0.0	0.0	0.0	0.0	0.0	0.0
407	G62	-1262	-35110	0.0	0.0	0.0	0.0	0.0	0.0
408	G63	-1296	-36430	0.0	0.0	0.0	0.0	0.0	0.0
409	G64	-1330	-37750	0.0	0.0	0.0	0.0	0.0	0.0
410	G65	-1364	-39070	0.0	0.0	0.0	0.0	0.0	0.0
411	G66	-1398	-40390	0.0	0.0	0.0	0.0	0.0	0.0
412	G67	-1432	-41710	0.0	0.0	0.0	0.0	0.0	0.0
413	G68	-1466	-43030	0.0	0.0	0.0	0.0	0.0	0.0
414	G69	-1500	-44350	0.0	0.0	0.0	0.0	0.0	0.0
415	G70	-1534	-45670	0.0	0.0	0.0	0.0	0.0	0.0
416	G71	-1568	-46990	0.0	0.0	0.0	0.0	0.0	0.0
417	G72	-1602	-48310	0.0	0.0	0.0	0.0	0.0	0.0
418	G73	-1636	-49630	0.0	0.0	0.0	0.0	0.0	0.0
419	H1	2132	45376	0.0	0.0	0.0	0.0	0.0	0.0
420	H2	2098	44056	0.0	0.0	0.0	0.0	0.0	0.0
421	H3	2064	42736	0.0	0.0	0.0	0.0	0.0	0.0
422	H4	2030	41416	0.0	0.0	0.0	0.0	0.0	0.0
423	H5	1996	40096	0.0	0.0	0.0	0.0	0.0	0.0
424	H6	1962	38776	0.0	0.0	0.0	0.0	0.0	0.0
425	H7	1928	37456	0.0	0.0	0.0	0.0	0.0	0.0
426	H8	1894	36136	0.0	0.0	0.0	0.0	0.0	0.0
427	H9	1860	34816	0.0	0.0	0.0	0.0	0.0	0.0
428	H10	1826	33496	0.0	0.0	0.0	0.0	0.0	0.0
429	H11	1792	32176	0.0	0.0	0.0	0.0	0.0	0.0
430	H12	1758	30856	0.0	0.0	0.0	0.0	0.0	0.0
431	H13	1724	29536	0.0	0.0	0.0	0.0	0.0	0.0
432	H14	1690	28216	0.0	0.0	0.0	0.0	0.0	0.0
433	H15	1656	26896	0.0	0.0	0.0	0.0	0.0	0.0
434	H16	1622	25576	0.0	0.0	0.0	0.0	0.0	0.0
435	H17	1588	24256	0.0	0.0	0.0	0.0	0.0	0.0
436	H18	1554	22936	0.0	0.0	0.0	0.0	0.0	0.0
437	H19	1520	21616	0.0	0.0	0.0	0.0	0.0	0.0
438	H20	1486	20296	0.0	0.0	0.0	0.0	0.0	0.0
439	H21	1452	18976	0.0	0.0	0.0	0.0	0.0	0.0
440	H22	1418	17656	0.0	0.0	0.0	0.0	0.0	0.0
441	H23	1384	16336	0.0	0.0	0.0	0.0	0.0	0.0
442	H24	1350	15016	0.0	0.0	0.0	0.0	0.0	0.0
443	H25	1316	13696	0.0	0.0	0.0	0.0	0.0	0.0
444	H26	1282	12376	0.0	0.0	0.0	0.0	0.0	0.0
445	H27	1248	11056	0.0	0.0	0.0	0.0	0.0	0.0
446	H28	1214	9736	0.0	0.0	0.0	0.0	0.0	0.0
447	H29	1180	8416	0.0	0.0	0.0	0.0	0.0	0.0
448	H30	1146	7096	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
449	H31	1112	5776	0.0	0.0	0.0	0.0	0.0	0.0
450	H32	1078	4456	0.1	0.1	0.0	0.3	0.0	0.4
451	H33	1044	3136	0.2	0.2	0.0	0.1	0.0	0.1
452	H34	1010	1816	1.0	1.0	0.8	0.8	0.8	0.8
453	H35	976	496	0.3	0.3	0.0	0.0	0.0	0.0
454	H36	942	-824	1.0	1.0	0.2	0.1	0.3	0.2
455	H37	908	-2144	0.5	0.5	0.0	0.0	0.0	0.0
456	H38	874	-3464	0.5	0.5	0.0	0.0	0.0	0.0
457	H39	840	-4784	0.3	0.3	0.0	0.0	0.0	0.0
458	H40	806	-6104	2.0	2.0	1.9	1.9	2.1	2.1
459	H41	772	-7424	0.1	0.1	0.0	0.0	0.0	0.0
460	H42	738	-8744	0.0	0.0	0.0	0.0	0.0	0.0
461	H43	704	-10064	0.0	0.0	0.0	0.0	0.0	0.0
462	H44	670	-11384	0.0	0.0	0.0	0.0	0.0	0.0
463	H45	636	-12704	0.0	0.0	0.0	0.0	0.0	0.0
464	H46	602	-14024	0.0	0.0	0.0	0.0	0.0	0.0
465	H47	568	-15344	0.0	0.0	0.0	0.0	0.0	0.0
466	H48	534	-16664	0.0	0.0	0.0	0.0	0.0	0.0
467	H49	500	-17984	0.0	0.0	0.0	0.0	0.0	0.0
468	H50	466	-19304	0.0	0.0	0.0	0.0	0.0	0.0
469	H51	432	-20624	0.0	0.0	0.0	0.0	0.0	0.0
470	H52	398	-21944	0.0	0.0	0.0	0.0	0.0	0.0
471	H53	364	-23264	0.0	0.0	0.0	0.0	0.0	0.0
472	H54	330	-24584	0.0	0.0	0.0	0.0	0.0	0.0
473	H55	296	-25904	0.0	0.0	0.0	0.0	0.0	0.0
474	H56	262	-27224	0.0	0.0	0.0	0.0	0.0	0.0
475	H57	228	-28544	0.0	0.0	0.0	0.0	0.0	0.0
476	H58	194	-29864	0.0	0.0	0.0	0.0	0.0	0.0
477	H59	160	-31184	0.0	0.0	0.0	0.0	0.0	0.0
478	H60	126	-32504	0.0	0.0	0.0	0.0	0.0	0.0
479	H61	92	-33824	0.0	0.0	0.0	0.0	0.0	0.0
480	H62	58	-35144	0.0	0.0	0.0	0.0	0.0	0.0
481	H63	24	-36464	0.0	0.0	0.0	0.0	0.0	0.0
482	H64	-10	-37784	0.0	0.0	0.0	0.0	0.0	0.0
483	H65	-44	-39104	0.0	0.0	0.0	0.0	0.0	0.0
484	H66	-78	-40424	0.0	0.0	0.0	0.0	0.0	0.0
485	H67	-112	-41744	0.0	0.0	0.0	0.0	0.0	0.0
486	H68	-146	-43064	0.0	0.0	0.0	0.0	0.0	0.0
487	H69	-180	-44384	0.0	0.0	0.0	0.0	0.0	0.0
488	H70	-214	-45704	0.0	0.0	0.0	0.0	0.0	0.0
489	H71	-248	-47024	0.0	0.0	0.0	0.0	0.0	0.0
490	H72	-282	-48344	0.0	0.0	0.0	0.0	0.0	0.0
491	H73	-316	-49664	0.0	0.0	0.0	0.0	0.0	0.0
492	I1	3452	45342	0.0	0.0	0.0	0.0	0.0	0.0
493	I2	3418	44022	0.0	0.0	0.0	0.0	0.0	0.0
494	I3	3384	42702	0.0	0.0	0.0	0.0	0.0	0.0
495	I4	3350	41382	0.0	0.0	0.0	0.0	0.0	0.0
496	I5	3316	40062	0.0	0.0	0.0	0.0	0.0	0.0
497	I6	3282	38742	0.0	0.0	0.0	0.0	0.0	0.0
498	I7	3248	37422	0.0	0.0	0.0	0.0	0.0	0.0
499	I8	3214	36102	0.0	0.0	0.0	0.0	0.0	0.0
500	I9	3180	34782	0.0	0.0	0.0	0.0	0.0	0.0
501	I10	3146	33462	0.0	0.0	0.0	0.0	0.0	0.0
502	I11	3112	32142	0.0	0.0	0.0	0.0	0.0	0.0
503	I12	3078	30822	0.0	0.0	0.0	0.0	0.0	0.0
504	I13	3044	29502	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
505	I14	3010	28182	0.0	0.0	0.0	0.0	0.0	0.0
506	I15	2976	26862	0.0	0.0	0.0	0.0	0.0	0.0
507	I16	2942	25542	0.0	0.0	0.0	0.0	0.0	0.0
508	I17	2908	24222	0.0	0.0	0.0	0.0	0.0	0.0
509	I18	2874	22902	0.0	0.0	0.0	0.0	0.0	0.0
510	I19	2840	21582	0.0	0.0	0.0	0.0	0.0	0.0
511	I20	2806	20262	0.0	0.0	0.0	0.0	0.0	0.0
512	I21	2772	18942	0.0	0.0	0.0	0.0	0.0	0.0
513	I22	2738	17622	0.0	0.0	0.0	0.0	0.0	0.0
514	I23	2704	16302	0.0	0.0	0.0	0.0	0.0	0.0
515	I24	2670	14982	0.0	0.0	0.0	0.0	0.0	0.0
516	I25	2636	13662	0.0	0.0	0.0	0.0	0.0	0.0
517	I26	2602	12342	0.0	0.0	0.0	0.0	0.0	0.0
518	I27	2568	11022	0.0	0.0	0.0	0.0	0.0	0.0
519	I28	2534	9702	0.0	0.0	0.0	0.0	0.0	0.0
520	I29	2500	8382	0.0	0.0	0.0	0.0	0.0	0.0
521	I30	2466	7062	0.0	0.0	0.0	0.0	0.0	0.0
522	I31	2432	5742	0.0	0.0	0.0	0.0	0.0	0.0
523	I32	2398	4422	0.0	0.0	0.0	0.0	0.0	0.0
524	I33	2364	3102	0.0	0.0	0.0	0.0	0.0	0.0
525	I34	2330	1782	0.0	0.0	0.0	0.0	0.0	0.0
526	I35	2296	462	0.0	0.0	0.0	0.0	0.0	0.0
527	I36	2262	-858	0.0	0.0	0.0	0.0	0.0	0.0
528	I37	2228	-2178	0.0	0.0	0.0	0.0	0.0	0.0
529	I38	2194	-3498	0.0	0.0	0.0	0.0	0.0	0.0
530	I39	2160	-4818	0.0	0.0	0.0	0.0	0.0	0.0
531	I40	2126	-6138	0.0	0.0	0.0	0.0	0.0	0.0
532	I41	2092	-7458	0.0	0.0	0.0	0.0	0.0	0.0
533	I42	2058	-8778	0.0	0.0	0.0	0.0	0.0	0.0
534	I43	2024	-10098	0.0	0.0	0.0	0.0	0.0	0.0
535	I44	1990	-11418	0.0	0.0	0.0	0.0	0.0	0.0
536	I45	1956	-12738	0.0	0.0	0.0	0.0	0.0	0.0
537	I46	1922	-14058	0.0	0.0	0.0	0.0	0.0	0.0
538	I47	1888	-15378	0.0	0.0	0.0	0.0	0.0	0.0
539	I48	1854	-16698	0.0	0.0	0.0	0.0	0.0	0.0
540	I49	1820	-18018	0.0	0.0	0.0	0.0	0.0	0.0
541	I50	1786	-19338	0.0	0.0	0.0	0.0	0.0	0.0
542	I51	1752	-20658	0.0	0.0	0.0	0.0	0.0	0.0
543	I52	1718	-21978	0.0	0.0	0.0	0.0	0.0	0.0
544	I53	1684	-23298	0.0	0.0	0.0	0.0	0.0	0.0
545	I54	1650	-24618	0.0	0.0	0.0	0.0	0.0	0.0
546	I55	1616	-25938	0.0	0.0	0.0	0.0	0.0	0.0
547	I56	1582	-27258	0.0	0.0	0.0	0.0	0.0	0.0
548	I57	1548	-28578	0.0	0.0	0.0	0.0	0.0	0.0
549	I58	1514	-29898	0.0	0.0	0.0	0.0	0.0	0.0
550	I59	1480	-31218	0.0	0.0	0.0	0.0	0.0	0.0
551	I60	1446	-32538	0.0	0.0	0.0	0.0	0.0	0.0
552	I61	1412	-33858	0.0	0.0	0.0	0.0	0.0	0.0
553	I62	1378	-35178	0.0	0.0	0.0	0.0	0.0	0.0
554	I63	1344	-36498	0.0	0.0	0.0	0.0	0.0	0.0
555	I64	1310	-37818	0.0	0.0	0.0	0.0	0.0	0.0
556	I65	1276	-39138	0.0	0.0	0.0	0.0	0.0	0.0
557	I66	1242	-40458	0.0	0.0	0.0	0.0	0.0	0.0
558	I67	1208	-41778	0.0	0.0	0.0	0.0	0.0	0.0
559	I68	1174	-43098	0.0	0.0	0.0	0.0	0.0	0.0
560	I69	1140	-44418	0.0	0.0	0.0	0.0	0.0	0.0

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
561	I70	1106	-45738	0.0	0.0	0.0	0.0	0.0	0.0
562	I71	1072	-47058	0.0	0.0	0.0	0.0	0.0	0.0
563	I72	1038	-48378	0.0	0.0	0.0	0.0	0.0	0.0
564	I73	1004	-49698	0.0	0.0	0.0	0.0	0.0	0.0
565	J8	4534	36068	0.0	0.0	0.0	0.0	0.0	0.0
566	J9	4500	34748	0.0	0.0	0.0	0.0	0.0	0.0
567	J10	4466	33428	0.0	0.0	0.0	0.0	0.0	0.0
568	J11	4432	32108	0.0	0.0	0.0	0.0	0.0	0.0
569	J12	4398	30788	0.0	0.0	0.0	0.0	0.0	0.0
570	J13	4364	29468	0.0	0.0	0.0	0.0	0.0	0.0
571	J14	4330	28148	0.0	0.0	0.0	0.0	0.0	0.0
572	J15	4296	26828	0.0	0.0	0.0	0.0	0.0	0.0
573	J16	4262	25508	0.0	0.0	0.0	0.0	0.0	0.0
574	J17	4228	24188	0.0	0.0	0.0	0.0	0.0	0.0
575	J18	4194	22868	0.0	0.0	0.0	0.0	0.0	0.0
576	J19	4160	21548	0.0	0.0	0.0	0.0	0.0	0.0
577	J20	4126	20228	0.0	0.0	0.0	0.0	0.0	0.0
578	J21	4092	18908	0.0	0.0	0.0	0.0	0.0	0.0
579	J22	4058	17588	0.0	0.0	0.0	0.0	0.0	0.0
580	J23	4024	16268	0.0	0.0	0.0	0.0	0.0	0.0
581	J24	3990	14948	0.0	0.0	0.0	0.0	0.0	0.0
582	J25	3956	13628	0.0	0.0	0.0	0.0	0.0	0.0
583	J26	3922	12308	0.0	0.0	0.0	0.0	0.0	0.0
584	J27	3888	10988	0.0	0.0	0.0	0.0	0.0	0.0
585	J28	3854	9668	0.0	0.0	0.0	0.0	0.0	0.0
586	J29	3820	8348	0.0	0.0	0.0	0.0	0.0	0.0
587	J30	3786	7028	0.0	0.0	0.0	0.0	0.0	0.0
588	J31	3752	5708	0.0	0.0	0.0	0.0	0.0	0.0
589	J32	3718	4388	0.0	0.0	0.0	0.0	0.0	0.0
590	J33	3684	3068	0.0	0.0	0.0	0.0	0.0	0.0
591	J34	3650	1748	0.0	0.0	0.0	0.0	0.0	0.0
592	J35	3616	428	0.0	0.0	0.0	0.0	0.0	0.0
593	J36	3582	-892	0.0	0.0	0.0	0.0	0.0	0.0
594	J37	3548	-2212	0.0	0.0	0.0	0.0	0.0	0.0
595	J38	3514	-3532	0.0	0.0	0.0	0.0	0.0	0.0
596	J39	3480	-4852	0.0	0.0	0.0	0.0	0.0	0.0
597	J40	3446	-6172	0.0	0.0	0.0	0.0	0.0	0.0
598	J41	3412	-7492	0.0	0.0	0.0	0.0	0.0	0.0
599	J42	3378	-8812	0.0	0.0	0.0	0.0	0.0	0.0
600	J43	3344	-10132	0.0	0.0	0.0	0.0	0.0	0.0
601	J44	3310	-11452	0.0	0.0	0.0	0.0	0.0	0.0
602	J45	3276	-12772	0.0	0.0	0.0	0.0	0.0	0.0
603	J46	3242	-14092	0.0	0.0	0.0	0.0	0.0	0.0
604	J47	3208	-15412	0.0	0.0	0.0	0.0	0.0	0.0
605	J48	3174	-16732	0.0	0.0	0.0	0.0	0.0	0.0
606	J49	3140	-18052	0.0	0.0	0.0	0.0	0.0	0.0
607	J50	3106	-19372	0.0	0.0	0.0	0.0	0.0	0.0
608	J51	3072	-20692	0.0	0.0	0.0	0.0	0.0	0.0
609	J52	3038	-22012	0.0	0.0	0.0	0.0	0.0	0.0
610	J53	3004	-23332	0.0	0.0	0.0	0.0	0.0	0.0
611	J54	2970	-24652	0.0	0.0	0.0	0.0	0.0	0.0
612	J55	2936	-25972	0.0	0.0	0.0	0.0	0.0	0.0
613	J56	2902	-27292	0.0	0.0	0.0	0.0	0.0	0.0
614	J57	2868	-28612	0.0	0.0	0.0	0.0	0.0	0.0
615	J58	2834	-29932	0.0	0.0	0.0	0.0	0.0	0.0
616	J59	2800	-31252	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
617	J60	2766	-32572	0.0	0.0	0.0	0.0	0.0	0.0
618	J61	2732	-33892	0.0	0.0	0.0	0.0	0.0	0.0
619	J62	2698	-35212	0.0	0.0	0.0	0.0	0.0	0.0
620	J63	2664	-36532	0.0	0.0	0.0	0.0	0.0	0.0
621	J64	2630	-37852	0.0	0.0	0.0	0.0	0.0	0.0
622	J65	2596	-39172	0.0	0.0	0.0	0.0	0.0	0.0
623	J66	2562	-40492	0.0	0.0	0.0	0.0	0.0	0.0
624	J67	2528	-41812	0.0	0.0	0.0	0.0	0.0	0.0
625	J68	2494	-43132	0.0	0.0	0.0	0.0	0.0	0.0
626	J69	2460	-44452	0.0	0.0	0.0	0.0	0.0	0.0
627	J70	2426	-45772	0.0	0.0	0.0	0.0	0.0	0.0
628	J71	2392	-47092	0.0	0.0	0.0	0.0	0.0	0.0
629	J72	2358	-48412	0.0	0.0	0.0	0.0	0.0	0.0
630	J73	2324	-49732	0.0	0.0	0.0	0.0	0.0	0.0
631	K15	5616	26794	0.0	0.0	0.0	0.0	0.0	0.0
632	K16	5582	25474	0.0	0.0	0.0	0.0	0.0	0.0
633	K17	5548	24154	0.0	0.0	0.0	0.0	0.0	0.0
634	K18	5514	22834	0.0	0.0	0.0	0.0	0.0	0.0
635	K19	5480	21514	0.0	0.0	0.0	0.0	0.0	0.0
636	K20	5446	20194	0.0	0.0	0.0	0.0	0.0	0.0
637	K21	5412	18874	0.0	0.0	0.0	0.0	0.0	0.0
638	K22	5378	17554	0.0	0.0	0.0	0.0	0.0	0.0
639	K23	5344	16234	0.0	0.0	0.0	0.0	0.0	0.0
640	K24	5310	14914	0.0	0.0	0.0	0.0	0.0	0.0
641	K25	5276	13594	0.0	0.0	0.0	0.0	0.0	0.0
642	K26	5242	12274	0.0	0.0	0.0	0.0	0.0	0.0
643	K27	5208	10954	0.0	0.0	0.0	0.0	0.0	0.0
644	K28	5174	9634	0.0	0.0	0.0	0.0	0.0	0.0
645	K29	5140	8314	0.0	0.0	0.0	0.0	0.0	0.0
646	K30	5106	6994	0.0	0.0	0.0	0.0	0.0	0.0
647	K31	5072	5674	0.0	0.0	0.0	0.0	0.0	0.0
648	K32	5038	4354	0.0	0.0	0.0	0.0	0.0	0.0
649	K33	5004	3034	0.0	0.0	0.0	0.0	0.0	0.0
650	K34	4970	1714	0.0	0.0	0.0	0.0	0.0	0.0
651	K35	4936	394	0.0	0.0	0.0	0.0	0.0	0.0
652	K36	4902	-926	0.0	0.0	0.0	0.0	0.0	0.0
653	K37	4868	-2246	0.0	0.0	0.0	0.0	0.0	0.0
654	K38	4834	-3566	0.0	0.0	0.0	0.0	0.0	0.0
655	K39	4800	-4886	0.0	0.0	0.0	0.0	0.0	0.0
656	K40	4766	-6206	0.0	0.0	0.0	0.0	0.0	0.0
657	K41	4732	-7526	0.0	0.0	0.0	0.0	0.0	0.0
658	K42	4698	-8846	0.0	0.0	0.0	0.0	0.0	0.0
659	K43	4664	-10166	0.0	0.0	0.0	0.0	0.0	0.0
660	K44	4630	-11486	0.0	0.0	0.0	0.0	0.0	0.0
661	K45	4596	-12806	0.0	0.0	0.0	0.0	0.0	0.0
662	K46	4562	-14126	0.0	0.0	0.0	0.0	0.0	0.0
663	K47	4528	-15446	0.0	0.0	0.0	0.0	0.0	0.0
664	K48	4494	-16766	0.0	0.0	0.0	0.0	0.0	0.0
665	K49	4460	-18086	0.0	0.0	0.0	0.0	0.0	0.0
666	K50	4426	-19406	0.0	0.0	0.0	0.0	0.0	0.0
667	K51	4392	-20726	0.0	0.0	0.0	0.0	0.0	0.0
668	K52	4358	-22046	0.0	0.0	0.0	0.0	0.0	0.0
669	K53	4324	-23366	0.0	0.0	0.0	0.0	0.0	0.0
670	K54	4290	-24686	0.0	0.0	0.0	0.0	0.0	0.0
671	K55	4256	-26006	0.0	0.0	0.0	0.0	0.0	0.0
672	K56	4222	-27326	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
673	K57	4188	-28646	0.0	0.0	0.0	0.0	0.0	0.0
674	K58	4154	-29966	0.0	0.0	0.0	0.0	0.0	0.0
675	K59	4120	-31286	0.0	0.0	0.0	0.0	0.0	0.0
676	K60	4086	-32606	0.0	0.0	0.0	0.0	0.0	0.0
677	K61	4052	-33926	0.0	0.0	0.0	0.0	0.0	0.0
678	K62	4018	-35246	0.0	0.0	0.0	0.0	0.0	0.0
679	K63	3984	-36566	0.0	0.0	0.0	0.0	0.0	0.0
680	K64	3950	-37886	0.0	0.0	0.0	0.0	0.0	0.0
681	K65	3916	-39206	0.0	0.0	0.0	0.0	0.0	0.0
682	K66	3882	-40526	0.0	0.0	0.0	0.0	0.0	0.0
683	K67	3848	-41846	0.0	0.0	0.0	0.0	0.0	0.0
684	K68	3814	-43166	0.0	0.0	0.0	0.0	0.0	0.0
685	K69	3780	-44486	0.0	0.0	0.0	0.0	0.0	0.0
686	K70	3746	-45806	0.0	0.0	0.0	0.0	0.0	0.0
687	K71	3712	-47126	0.0	0.0	0.0	0.0	0.0	0.0
688	K72	3678	-48446	0.0	0.0	0.0	0.0	0.0	0.0
689	K73	3644	-49766	0.0	0.0	0.0	0.0	0.0	0.0
690	L24	6630	14880	0.0	0.0	0.0	0.0	0.0	0.0
691	L25	6596	13560	0.0	0.0	0.0	0.0	0.0	0.0
692	L26	6562	12240	0.0	0.0	0.0	0.0	0.0	0.0
693	L27	6528	10920	0.0	0.0	0.0	0.0	0.0	0.0
694	L28	6494	9600	0.0	0.0	0.0	0.0	0.0	0.0
695	L29	6460	8280	0.0	0.0	0.0	0.0	0.0	0.0
696	L30	6426	6960	0.0	0.0	0.0	0.0	0.0	0.0
697	L31	6392	5640	0.0	0.0	0.0	0.0	0.0	0.0
698	L32	6358	4320	0.0	0.0	0.0	0.0	0.0	0.0
699	L33	6324	3000	0.0	0.0	0.0	0.0	0.0	0.0
700	L34	6290	1680	0.0	0.0	0.0	0.0	0.0	0.0
701	L35	6256	360	0.0	0.0	0.0	0.0	0.0	0.0
702	L36	6222	-960	0.0	0.0	0.0	0.0	0.0	0.0
703	L37	6188	-2280	0.0	0.0	0.0	0.0	0.0	0.0
704	L38	6154	-3600	0.0	0.0	0.0	0.0	0.0	0.0
705	L39	6120	-4920	0.0	0.0	0.0	0.0	0.0	0.0
706	L40	6086	-6240	0.0	0.0	0.0	0.0	0.0	0.0
707	L41	6052	-7560	0.0	0.0	0.0	0.0	0.0	0.0
708	L42	6018	-8880	0.0	0.0	0.0	0.0	0.0	0.0
709	L43	5984	-10200	0.0	0.0	0.0	0.0	0.0	0.0
710	L44	5950	-11520	0.0	0.0	0.0	0.0	0.0	0.0
711	L45	5916	-12840	0.0	0.0	0.0	0.0	0.0	0.0
712	L46	5882	-14160	0.0	0.0	0.0	0.0	0.0	0.0
713	L47	5848	-15480	0.0	0.0	0.0	0.0	0.0	0.0
714	L48	5814	-16800	0.0	0.0	0.0	0.0	0.0	0.0
715	L49	5780	-18120	0.0	0.0	0.0	0.0	0.0	0.0
716	L50	5746	-19440	0.0	0.0	0.0	0.0	0.0	0.0
717	L51	5712	-20760	0.0	0.0	0.0	0.0	0.0	0.0
718	L52	5678	-22080	0.0	0.0	0.0	0.0	0.0	0.0
719	L53	5644	-23400	0.0	0.0	0.0	0.0	0.0	0.0
720	L54	5610	-24720	0.0	0.0	0.0	0.0	0.0	0.0
721	L55	5576	-26040	0.0	0.0	0.0	0.0	0.0	0.0
722	L56	5542	-27360	0.0	0.0	0.0	0.0	0.0	0.0
723	L57	5508	-28680	0.0	0.0	0.0	0.0	0.0	0.0
724	L58	5474	-30000	0.0	0.0	0.0	0.0	0.0	0.0
725	L59	5440	-31320	0.0	0.0	0.0	0.0	0.0	0.0
726	L60	5406	-32640	0.0	0.0	0.0	0.0	0.0	0.0
727	L61	5372	-33960	0.0	0.0	0.0	0.0	0.0	0.0
728	L62	5338	-35280	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
729	L63	5304	-36600	0.0	0.0	0.0	0.0	0.0	0.0
730	L64	5270	-37920	0.0	0.0	0.0	0.0	0.0	0.0
731	L65	5236	-39240	0.0	0.0	0.0	0.0	0.0	0.0
732	L66	5202	-40560	0.0	0.0	0.0	0.0	0.0	0.0
733	L67	5168	-41880	0.0	0.0	0.0	0.0	0.0	0.0
734	L68	5134	-43200	0.0	0.0	0.0	0.0	0.0	0.0
735	L69	5100	-44520	0.0	0.0	0.0	0.0	0.0	0.0
736	L70	5066	-45840	0.0	0.0	0.0	0.0	0.0	0.0
737	L71	5032	-47160	0.0	0.0	0.0	0.0	0.0	0.0
738	L72	4998	-48480	0.0	0.0	0.0	0.0	0.0	0.0
739	L73	4964	-49800	0.0	0.0	0.0	0.0	0.0	0.0
740	M28	7814	9566	0.0	0.0	0.0	0.0	0.0	0.0
741	M29	7780	8246	0.0	0.0	0.0	0.0	0.0	0.0
742	M30	7746	6926	0.0	0.0	0.0	0.0	0.0	0.0
743	M31	7712	5606	0.0	0.0	0.0	0.0	0.0	0.0
744	M32	7678	4286	0.0	0.0	0.0	0.0	0.0	0.0
745	M33	7644	2966	0.0	0.0	0.0	0.0	0.0	0.0
746	M34	7610	1646	0.0	0.0	0.0	0.0	0.0	0.0
747	M35	7576	326	0.0	0.0	0.0	0.0	0.0	0.0
748	M36	7542	-994	0.0	0.0	0.0	0.0	0.0	0.0
749	M37	7508	-2314	0.0	0.0	0.0	0.0	0.0	0.0
750	M38	7474	-3634	0.0	0.0	0.0	0.0	0.0	0.0
751	M39	7440	-4954	0.0	0.0	0.0	0.0	0.0	0.0
752	M40	7406	-6274	0.0	0.0	0.0	0.0	0.0	0.0
753	M41	7372	-7594	0.0	0.0	0.0	0.0	0.0	0.0
754	M42	7338	-8914	0.0	0.0	0.0	0.0	0.0	0.0
755	M43	7304	-10234	0.0	0.0	0.0	0.0	0.0	0.0
756	M44	7270	-11554	0.0	0.0	0.0	0.0	0.0	0.0
757	M45	7236	-12874	0.0	0.0	0.0	0.0	0.0	0.0
758	M46	7202	-14194	0.0	0.0	0.0	0.0	0.0	0.0
759	M47	7168	-15514	0.0	0.0	0.0	0.0	0.0	0.0
760	M48	7134	-16834	0.0	0.0	0.0	0.0	0.0	0.0
761	M49	7100	-18154	0.0	0.0	0.0	0.0	0.0	0.0
762	M50	7066	-19474	0.0	0.0	0.0	0.0	0.0	0.0
763	M51	7032	-20794	0.0	0.0	0.0	0.0	0.0	0.0
764	M52	6998	-22114	0.0	0.0	0.0	0.0	0.0	0.0
765	M53	6964	-23434	0.0	0.0	0.0	0.0	0.0	0.0
766	M54	6930	-24754	0.0	0.0	0.0	0.0	0.0	0.0
767	M55	6896	-26074	0.0	0.0	0.0	0.0	0.0	0.0
768	M56	6862	-27394	0.0	0.0	0.0	0.0	0.0	0.0
769	M57	6828	-28714	0.0	0.0	0.0	0.0	0.0	0.0
770	M58	6794	-30034	0.0	0.0	0.0	0.0	0.0	0.0
771	M59	6760	-31354	0.0	0.0	0.0	0.0	0.0	0.0
772	M60	6726	-32674	0.0	0.0	0.0	0.0	0.0	0.0
773	M61	6692	-33994	0.0	0.0	0.0	0.0	0.0	0.0
774	M62	6658	-35314	0.0	0.0	0.0	0.0	0.0	0.0
775	M63	6624	-36634	0.0	0.0	0.0	0.0	0.0	0.0
776	M64	6590	-37954	0.0	0.0	0.0	0.0	0.0	0.0
777	M65	6556	-39274	0.0	0.0	0.0	0.0	0.0	0.0
778	M66	6522	-40594	0.0	0.0	0.0	0.0	0.0	0.0
779	M67	6488	-41914	0.0	0.0	0.0	0.0	0.0	0.0
780	M68	6454	-43234	0.0	0.0	0.0	0.0	0.0	0.0
781	M69	6420	-44554	0.0	0.0	0.0	0.0	0.0	0.0
782	M70	6386	-45874	0.0	0.0	0.0	0.0	0.0	0.0
783	M71	6352	-47194	0.0	0.0	0.0	0.0	0.0	0.0
784	M72	6318	-48514	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
785	M73	6284	-49834	0.0	0.0	0.0	0.0	0.0	0.0
786	N38	8794	-3668	0.0	0.0	0.0	0.0	0.0	0.0
787	N39	8760	-4988	0.0	0.0	0.0	0.0	0.0	0.0
788	N40	8726	-6308	0.0	0.0	0.0	0.0	0.0	0.0
789	N41	8692	-7628	0.0	0.0	0.0	0.0	0.0	0.0
790	N42	8658	-8948	0.0	0.0	0.0	0.0	0.0	0.0
791	N43	8624	-10268	0.0	0.0	0.0	0.0	0.0	0.0
792	N44	8590	-11588	0.0	0.0	0.0	0.0	0.0	0.0
793	N45	8556	-12908	0.0	0.0	0.0	0.0	0.0	0.0
794	N67	7808	-41948	0.0	0.0	0.0	0.0	0.0	0.0
795	N68	7774	-43268	0.0	0.0	0.0	0.0	0.0	0.0
796	N69	7740	-44588	0.0	0.0	0.0	0.0	0.0	0.0
797	N70	7706	-45908	0.0	0.0	0.0	0.0	0.0	0.0
798	N71	7672	-47228	0.0	0.0	0.0	0.0	0.0	0.0
799	NSF:A2	-211	29983	0.0	0.0	0.0	0.0	0.0	0.0
800	NSF:A4	7371	16174	0.0	0.0	0.0	0.0	0.0	0.0
801	NSF:A5	-1123	35137	0.0	0.0	0.0	0.0	0.0	0.0
802	NSF:A6	1725	32917	0.0	0.0	0.0	0.0	0.0	0.0
803	NSF:A7	965	35389	0.0	0.0	0.0	0.0	0.0	0.0
804	NSF:A8	2868	26738	0.0	0.0	0.0	0.0	0.0	0.0
805	NSF:A9	8593	-17214	0.0	0.0	0.0	0.0	0.0	0.0
806	NSF:C1	3519	-33425	0.0	0.0	0.0	0.0	0.0	0.0
807	NSF:C10	-8024	7589	0.0	0.0	0.0	0.0	0.0	0.0
808	NSF:C11	-1535	-46185	0.0	0.0	0.0	0.0	0.0	0.0
809	NSF:C15	-3260	-41687	0.0	0.0	0.0	0.0	0.0	0.0
810	NSF:C16	2631	-42354	0.0	0.0	0.0	0.0	0.0	0.0
811	NSF:C17	-3636	10597	0.0	0.0	0.0	0.0	0.0	0.0
812	NSF:C19	-6737	-6317	0.0	0.0	0.0	0.0	0.0	0.0
813	NSF:C2	6733	-4869	0.0	0.0	0.0	0.0	0.0	0.0
814	NSF:C21	3694	-38594	0.0	0.0	0.0	0.0	0.0	0.0
815	NSF:C22	295	-16585	0.0	0.0	0.0	0.0	0.0	0.0
816	NSF:C23	-4396	-15838	0.0	0.0	0.0	0.0	0.0	0.0
817	NSF:C24	-3498	-16804	0.0	0.0	0.0	0.0	0.0	0.0
818	NSF:C28	-5727	-46163	0.0	0.0	0.0	0.0	0.0	0.0
819	NSF:C29	-386	-17316	0.0	0.0	0.0	0.0	0.0	0.0
820	NSF:C3	158	16285	0.0	0.0	0.0	0.0	0.0	0.0
821	NSF:C31	-6076	-46160	0.0	0.0	0.0	0.0	0.0	0.0
822	NSF:C32	-5243	-46778	0.0	0.0	0.0	0.0	0.0	0.0
823	NSF:C34	-8355	-45977	0.0	0.0	0.0	0.0	0.0	0.0
824	NSF:C35	-6358	-9758	0.0	0.0	0.0	0.0	0.0	0.0
825	NSF:C37	-5175	-47057	0.0	0.0	0.0	0.0	0.0	0.0
826	NSF:C38	-6431	-10969	0.0	0.0	0.0	0.0	0.0	0.0
827	NSF:C39	375	-25346	0.0	0.0	0.0	0.0	0.0	0.0
828	NSF:C40	1436	-17815	0.0	0.0	0.0	0.0	0.0	0.0
829	NSF:C41	-3379	-9386	0.0	0.0	0.0	0.0	0.0	0.0
830	NSF:C42	3398	-21504	0.0	0.0	0.0	0.0	0.0	0.0
831	NSF:C43	-1910	-46273	0.0	0.0	0.0	0.0	0.0	0.0
832	NSF:C44	-3883	-5925	0.0	0.0	0.0	0.0	0.0	0.0
833	NSF:C45	-11988	-45354	0.0	0.0	0.0	0.0	0.0	0.0
834	NSF:C46	7657	-34889	0.0	0.0	0.0	0.0	0.0	0.0
835	NSF:C47	2243	-24977	0.0	0.0	0.0	0.0	0.0	0.0
836	NSF:C48	-4412	-46071	0.0	0.0	0.0	0.0	0.0	0.0
837	NSF:C49	327	-14936	0.0	0.0	0.0	0.0	0.0	0.0
838	NSF:C5	7014	-34786	0.0	0.0	0.0	0.0	0.0	0.0
839	NSF:C50	-3930	-8365	0.0	0.0	0.0	0.0	0.0	0.0
840	NSF:C51	1801	-19460	0.0	0.0	0.0	0.0	0.0	0.0

Table C-3-22

Seattle-Tacoma International Airport
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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
841	NSF:C52	-545	-16569	0.0	0.0	0.0	0.0	0.0	0.0
842	NSF:C54	-1015	-44926	0.0	0.0	0.0	0.0	0.0	0.0
843	NSF:C55	-2036	-28310	0.0	0.0	0.0	0.0	0.0	0.0
844	NSF:C56	-706	-17175	0.0	0.0	0.0	0.0	0.0	0.0
845	NSF:C57	-1539	-38607	0.0	0.0	0.0	0.0	0.0	0.0
846	NSF:C6	-3386	14577	0.0	0.0	0.0	0.0	0.0	0.0
847	NSF:C7	-9769	-3190	0.0	0.0	0.0	0.0	0.0	0.0
848	NSF:C8	4616	906	0.0	0.0	0.0	0.0	0.0	0.0
849	NSF:C9	-1833	-42273	0.0	0.0	0.0	0.0	0.0	0.0
850	NSF:H1	-7607	3626	0.0	0.0	0.0	0.0	0.0	0.0
851	NSF:H3	-9363	9969	0.0	0.0	0.0	0.0	0.0	0.0
852	NSF:H4	-847	52617	0.0	0.0	0.0	0.0	0.0	0.0
853	NSF:H5	-9746	14394	0.0	0.0	0.0	0.0	0.0	0.0
854	NSF:H6	196	41454	0.0	0.0	0.0	0.0	0.0	0.0
855	NSF:H7	-6721	-8029	0.0	0.0	0.0	0.0	0.0	0.0
856	NSF:H8	24064	-3304	0.0	0.0	0.0	0.0	0.0	0.0
857	NSF:H9,H2	3310	14284	0.0	0.0	0.0	0.0	0.0	0.0
858	NSF:A16	-3769	5168	0.0	0.0	0.0	0.0	0.0	0.0
859	NSF:A17	-10252	3250	0.0	0.0	0.0	0.0	0.0	0.0
860	NSF:A18	-4084	10600	0.0	0.0	0.0	0.0	0.0	0.0
861	NSF:A19	-4459	10520	0.0	0.0	0.0	0.0	0.0	0.0
862	NSF:A21	-8598	14208	0.0	0.0	0.0	0.0	0.0	0.0
863	NSF:A23	-8593	5937	0.0	0.0	0.0	0.0	0.0	0.0
864	NSF:A24	-6444	1414	0.0	0.0	0.0	0.0	0.0	0.0
865	NSF:A25	-10056	6676	0.0	0.0	0.0	0.0	0.0	0.0
866	NSF:A26	-9629	5763	0.0	0.0	0.0	0.0	0.0	0.0
867	NSF:A27	-1721	10484	0.0	0.0	0.0	0.0	0.0	0.0
868	NSF:A28	-7306	6683	0.0	0.0	0.0	0.0	0.0	0.0
869	NSF:A30	-9295	6729	0.0	0.0	0.0	0.0	0.0	0.0
870	NSF:A33	-5199	-16624	0.0	0.0	0.0	0.0	0.0	0.0
871	NSF:A35	-4683	-17794	0.0	0.0	0.0	0.0	0.0	0.0
872	NSF:A36	-3592	-17475	0.0	0.0	0.0	0.0	0.0	0.0
873	NSF:A37	-3210	-16253	0.0	0.0	0.0	0.0	0.0	0.0
874	NSF:A38	-2833	-16231	0.0	0.0	0.0	0.0	0.0	0.0
875	NSF:A39	-2723	-17093	0.0	0.0	0.0	0.0	0.0	0.0
876	NSF:A40	-3398	-16730	0.0	0.0	0.0	0.0	0.0	0.0
877	NSF:A41	-5715	-14665	0.0	0.0	0.0	0.0	0.0	0.0
878	NSF:A42	-2195	-14884	0.0	0.0	0.0	0.0	0.0	0.0
879	NSF:A43	-3289	-16236	0.0	0.0	0.0	0.0	0.0	0.0
880	NSF:A44	362	-38516	0.0	0.0	0.0	0.0	0.0	0.0
881	NSF:A45	-1521	-35379	0.0	0.0	0.0	0.0	0.0	0.0
882	NSF:A46	467	-43229	0.0	0.0	0.0	0.0	0.0	0.0
883	NSF:A47	9405	-16129	0.0	0.0	0.0	0.0	0.0	0.0
884	NSF:A48	8774	-15397	0.0	0.0	0.0	0.0	0.0	0.0
885	NSF:A49	8535	-14947	0.0	0.0	0.0	0.0	0.0	0.0
886	NSF:A50	8073	-19454	0.0	0.0	0.0	0.0	0.0	0.0
887	NSF:A51	6682	-15011	0.0	0.0	0.0	0.0	0.0	0.0
888	NSF:A52	10177	-14528	0.0	0.0	0.0	0.0	0.0	0.0
889	NSF:A53	-9333	-2539	0.0	0.0	0.0	0.0	0.0	0.0
890	NSF:A54	-9413	-2464	0.0	0.0	0.0	0.0	0.0	0.0
891	NSF:A55	-9348	-2527	0.0	0.0	0.0	0.0	0.0	0.0
892	NSF:A58	6533	-14596	0.0	0.0	0.0	0.0	0.0	0.0
893	NSF:A59	5058	7030	0.0	0.0	0.0	0.0	0.0	0.0
894	NSF:A61	2879	26723	0.0	0.0	0.0	0.0	0.0	0.0
895	NSF:A62	-1961	32677	0.0	0.0	0.0	0.0	0.0	0.0
896	NSF:A63	5774	13792	0.0	0.0	0.0	0.0	0.0	0.0

Table C-3-22

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
897	NSF:A64	6942	13954	0.0	0.0	0.0	0.0	0.0	0.0
898	NSF:A65	6940	13770	0.0	0.0	0.0	0.0	0.0	0.0
899	NSF:A66	6602	13572	0.0	0.0	0.0	0.0	0.0	0.0
900	NSF:A67	7470	13669	0.0	0.0	0.0	0.0	0.0	0.0
901	NSF:A68	306	-30449	0.0	0.0	0.0	0.0	0.0	0.0
902	NSF:A69	-5807	-37969	0.0	0.0	0.0	0.0	0.0	0.0
903	NSF:A70	-4304	-36469	0.0	0.0	0.0	0.0	0.0	0.0
904	NSF:A71	6124	-39961	0.0	0.0	0.0	0.0	0.0	0.0
905	NSF:A72	3707	-33299	0.0	0.0	0.0	0.0	0.0	0.0
906	NSF:A73	-5742	-37925	0.0	0.0	0.0	0.0	0.0	0.0
907	NSF:A74	-5753	-37933	0.0	0.0	0.0	0.0	0.0	0.0
908	NSF:A75	-5790	-37959	0.0	0.0	0.0	0.0	0.0	0.0
909	NSF:L1	765	16963	0.0	0.0	0.0	0.0	0.0	0.0
910	NSF:L2	-7812	8307	0.0	0.0	0.0	0.0	0.0	0.0
911	NSF:L3	6278	40488	0.0	0.0	0.0	0.0	0.0	0.0
912	NSF:L4	-2866	-14908	0.0	0.0	0.0	0.0	0.0	0.0
913	NSF:L5	7180	9673	0.0	0.0	0.0	0.0	0.0	0.0
914	NSF:L6	4987	33599	0.0	0.0	0.0	0.0	0.0	0.0
915	NSF:L7	10166	26486	0.0	0.0	0.0	0.0	0.0	0.0
916	NSF:L8	12526	8554	0.0	0.0	0.0	0.0	0.0	0.0
917	NSF:L9	8571	-1927	0.0	0.0	0.0	0.0	0.0	0.0
918	NSF:A10	-550	29346	0.0	0.0	0.0	0.0	0.0	0.0
919	NSF:A11	-554	35999	0.0	0.0	0.0	0.0	0.0	0.0
920	NSF:A12	227	35588	0.0	0.0	0.0	0.0	0.0	0.0
921	NSF:A13	6720	40187	0.0	0.0	0.0	0.0	0.0	0.0
922	NSF:N1	2458	-23974	0.0	0.0	0.0	0.0	0.0	0.0
923	NSF:N10	-3755	-14738	0.0	0.0	0.0	0.0	0.0	0.0
924	NSF:N11	-3959	-39382	0.0	0.0	0.0	0.0	0.0	0.0
925	NSF:N12	-195	23654	0.0	0.0	0.0	0.0	0.0	0.0
926	NSF:N13	23674	-4413	0.0	0.0	0.0	0.0	0.0	0.0
927	NSF:N14	5905	-44977	0.0	0.0	0.0	0.0	0.0	0.0
928	NSF:N2	2567	-14374	0.0	0.0	0.0	0.0	0.0	0.0
929	NSF:N3	-9162	13839	0.0	0.0	0.0	0.0	0.0	0.0
930	NSF:N4	-3719	-44852	0.0	0.0	0.0	0.0	0.0	0.0
931	NSF:N5	-7153	-49305	0.0	0.0	0.0	0.0	0.0	0.0
932	NSF:N6	-6583	4062	0.0	0.0	0.0	0.0	0.0	0.0
933	NSF:N7	-3994	-21909	0.0	0.0	0.0	0.0	0.0	0.0
934	NSF:N8	3660	14530	0.0	0.0	0.0	0.0	0.0	0.0
935	NSF:N9	2605	-17567	0.0	0.0	0.0	0.0	0.0	0.0
936	NSF:S1	-1624	22569	0.0	0.0	0.0	0.0	0.0	0.0
937	NSF:S10	5787	1359	0.0	0.0	0.0	0.0	0.0	0.0
939	NSF:S102	-3652	-2959	0.0	0.0	0.0	0.0	0.0	0.0
940	NSF:S11	1320	-17470	0.0	0.0	0.0	0.0	0.0	0.0
941	NSF:S12	-9683	21295	0.0	0.0	0.0	0.0	0.0	0.0
942	NSF:S13	-4034	-8651	0.0	0.0	0.0	0.0	0.0	0.0
943	NSF:S15	1417	-18811	0.0	0.0	0.0	0.0	0.0	0.0
944	NSF:S16	4029	7813	0.0	0.0	0.0	0.0	0.0	0.0
945	NSF:S17	-7712	17177	0.0	0.0	0.0	0.0	0.0	0.0
946	NSF:S18	-10601	8639	0.0	0.0	0.0	0.0	0.0	0.0
947	NSF:S19	-13991	18478	0.0	0.0	0.0	0.0	0.0	0.0
948	NSF:S2	6756	-3628	0.0	0.0	0.0	0.0	0.0	0.0
949	NSF:S20	-1191	19408	0.0	0.0	0.0	0.0	0.0	0.0
950	NSF:S21	-3761	5167	0.0	0.0	0.0	0.0	0.0	0.0
951	NSF:S22	7978	-1820	0.0	0.0	0.0	0.0	0.0	0.0
952	NSF:S23	-8015	23186	0.0	0.0	0.0	0.0	0.0	0.0
953	NSF:S24	-8897	19752	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
954	NSF:S25	6834	-4826	0.0	0.0	0.0	0.0	0.0	0.0
955	NSF:S26	1352	-18331	0.0	0.0	0.0	0.0	0.0	0.0
956	NSF:S27	-7664	3251	0.0	0.0	0.0	0.0	0.0	0.0
957	NSF:S28	-8281	18459	0.0	0.0	0.0	0.0	0.0	0.0
958	NSF:S29	-5472	6565	0.0	0.0	0.0	0.0	0.0	0.0
959	NSF:S3	-3785	13136	0.0	0.0	0.0	0.0	0.0	0.0
960	NSF:S30	-263	-17305	0.0	0.0	0.0	0.0	0.0	0.0
961	NSF:S31	7812	-5443	0.0	0.0	0.0	0.0	0.0	0.0
962	NSF:S32	-4893	-4442	0.0	0.0	0.0	0.0	0.0	0.0
963	NSF:S33	1292	-22778	0.0	0.0	0.0	0.0	0.0	0.0
964	NSF:S34	-4645	-9467	0.0	0.0	0.0	0.0	0.0	0.0
965	NSF:S35	-4580	6588	0.0	0.0	0.0	0.0	0.0	0.0
966	NSF:S36	-6886	5087	0.0	0.0	0.0	0.0	0.0	0.0
967	NSF:S37	-11122	13583	0.0	0.0	0.0	0.0	0.0	0.0
968	NSF:S38	-3651	-2941	0.0	0.0	0.0	0.0	0.0	0.0
969	NSF:S39	12652	7375	0.0	0.0	0.0	0.0	0.0	0.0
970	NSF:S4	-3514	-16334	0.0	0.0	0.0	0.0	0.0	0.0
971	NSF:S40	7700	7035	0.0	0.0	0.0	0.0	0.0	0.0
972	NSF:S41	4523	11744	0.0	0.0	0.0	0.0	0.0	0.0
973	NSF:S42	8381	9088	0.0	0.0	0.0	0.0	0.0	0.0
974	NSF:S43	7268	9131	0.0	0.0	0.0	0.0	0.0	0.0
975	NSF:S44	5766	-41790	0.0	0.0	0.0	0.0	0.0	0.0
976	NSF:S45	1279	-33897	0.0	0.0	0.0	0.0	0.0	0.0
977	NSF:S46	-3685	-39308	0.0	0.0	0.0	0.0	0.0	0.0
978	NSF:S47	5715	-32661	0.0	0.0	0.0	0.0	0.0	0.0
979	NSF:S48	6231	-25031	0.0	0.0	0.0	0.0	0.0	0.0
980	NSF:S49	5974	-36054	0.0	0.0	0.0	0.0	0.0	0.0
981	NSF:S5	-11892	3393	0.0	0.0	0.0	0.0	0.0	0.0
982	NSF:S50	870	-42321	0.0	0.0	0.0	0.0	0.0	0.0
983	NSF:S51	-1491	-30984	0.0	0.0	0.0	0.0	0.0	0.0
984	NSF:S52	11474	-42954	0.0	0.0	0.0	0.0	0.0	0.0
985	NSF:S53	-10841	-43830	0.0	0.0	0.0	0.0	0.0	0.0
986	NSF:S54	5708	-31709	0.0	0.0	0.0	0.0	0.0	0.0
987	NSF:S55	-1824	-44447	0.0	0.0	0.0	0.0	0.0	0.0
988	NSF:S56	6346	-38637	0.0	0.0	0.0	0.0	0.0	0.0
989	NSF:S57	-410	49700	0.0	0.0	0.0	0.0	0.0	0.0
990	NSF:S58	10673	35200	0.0	0.0	0.0	0.0	0.0	0.0
991	NSF:S59	2429	45921	0.0	0.0	0.0	0.0	0.0	0.0
992	NSF:S6	-7196	13265	0.0	0.0	0.0	0.0	0.0	0.0
993	NSF:S60	5433	45389	0.0	0.0	0.0	0.0	0.0	0.0
994	NSF:S61	7132	42570	0.0	0.0	0.0	0.0	0.0	0.0
995	NSF:S62	-1439	39916	0.0	0.0	0.0	0.0	0.0	0.0
996	NSF:S63	3894	37152	0.0	0.0	0.0	0.0	0.0	0.0
997	NSF:S64	9056	38524	0.0	0.0	0.0	0.0	0.0	0.0
998	NSF:S65	8477	33931	0.0	0.0	0.0	0.0	0.0	0.0
999	NSF:S66	3955	32633	0.0	0.0	0.0	0.0	0.0	0.0
1000	NSF:S67	6401	29997	0.0	0.0	0.0	0.0	0.0	0.0
1001	NSF:S68	9089	28371	0.0	0.0	0.0	0.0	0.0	0.0
1002	NSF:S69	13032	23820	0.0	0.0	0.0	0.0	0.0	0.0
1003	NSF:S7	2141	16480	0.0	0.0	0.0	0.0	0.0	0.0
1004	NSF:S70	11512	17866	0.0	0.0	0.0	0.0	0.0	0.0
1005	NSF:S71	-9110	27836	0.0	0.0	0.0	0.0	0.0	0.0
1006	NSF:S72	-3361	27341	0.0	0.0	0.0	0.0	0.0	0.0
1007	NSF:S73	3	41684	0.0	0.0	0.0	0.0	0.0	0.0
1008	NSF:S74	10183	27405	0.0	0.0	0.0	0.0	0.0	0.0
1009	NSF:S76	4734	46384	0.0	0.0	0.0	0.0	0.0	0.0

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1010	NSF:S77	11512	27194	0.0	0.0	0.0	0.0	0.0	0.0
1011	NSF:S78	-363	38035	0.0	0.0	0.0	0.0	0.0	0.0
1012	NSF:S79	5941	39662	0.0	0.0	0.0	0.0	0.0	0.0
1013	NSF:S8	3475	-10939	0.0	0.0	0.0	0.0	0.0	0.0
1014	NSF:S80	7193	35348	0.0	0.0	0.0	0.0	0.0	0.0
1015	NSF:S81	12439	22474	0.0	0.0	0.0	0.0	0.0	0.0
1017	NSF:S83	6824	6483	0.0	0.0	0.0	0.0	0.0	0.0
1018	NSF:S84	6483	-12931	0.0	0.0	0.0	0.0	0.0	0.0
1019	NSF:S85	-10992	-43886	0.0	0.0	0.0	0.0	0.0	0.0
1020	NSF:S86,C18	-3883	-4692	0.0	0.0	0.0	0.0	0.0	0.0
1021	NSF:S87	1355	-41607	0.0	0.0	0.0	0.0	0.0	0.0
1022	NSF:S89,S101	-6524	4594	0.0	0.0	0.0	0.0	0.0	0.0
1023	NSF:S9	-8718	-8906	0.0	0.0	0.0	0.0	0.0	0.0
1024	NSF:S90	10352	29875	0.0	0.0	0.0	0.0	0.0	0.0
1025	NSF:S91	-12520	6667	0.0	0.0	0.0	0.0	0.0	0.0
1026	NSF:S92	-292	-16249	0.0	0.0	0.0	0.0	0.0	0.0
1027	NSF:S93	-4494	-43936	0.0	0.0	0.0	0.0	0.0	0.0
1028	NSF:S94	6741	-4427	0.0	0.0	0.0	0.0	0.0	0.0
1029	NSF:S95	2659	-8269	0.0	0.0	0.0	0.0	0.0	0.0
1030	NSF:S96,C36	-197	-29349	0.0	0.0	0.0	0.0	0.0	0.0
1031	NSF:S97	-5640	10643	0.0	0.0	0.0	0.0	0.0	0.0
1032	NSF:S98,C14	1453	-13047	0.0	0.0	0.0	0.0	0.0	0.0
1033	NSF:S99	-1741	22954	0.0	0.0	0.0	0.0	0.0	0.0
1034	NSF:A15	1159	33718	0.0	0.0	0.0	0.0	0.0	0.0
1035	NSF:A901	-2736	35294	0.0	0.0	0.0	0.0	0.0	0.0
1036	NSF:A902	-4131	32513	0.0	0.0	0.0	0.0	0.0	0.0
1037	NSF:A903	2207	18136	0.0	0.0	0.0	0.0	0.0	0.0
1038	NSF:A904	10787	-9667	0.0	0.0	0.0	0.0	0.0	0.0
1039	Park:G1	1356	42868	0.0	0.0	0.0	0.0	0.0	0.0
1040	Park:G2	-1823	20819	0.0	0.0	0.0	0.0	0.0	0.0
1041	Park:G3	412	19934	0.0	0.0	0.0	0.0	0.0	0.0
1042	Park:G4	11843	11466	0.0	0.0	0.0	0.0	0.0	0.0
1043	Park:G4	13359	10380	0.0	0.0	0.0	0.0	0.0	0.0
1044	Park:G5	89	-7980	0.3	0.3	0.0	0.0	0.0	0.0
1045	Park:G6	8312	-24816	0.0	0.0	0.0	0.0	0.0	0.0
1046	Park:G6	10441	-24924	0.0	0.0	0.0	0.0	0.0	0.0
1047	Park:P1	10452	41037	0.0	0.0	0.0	0.0	0.0	0.0
1048	Park:P10	11906	28500	0.0	0.0	0.0	0.0	0.0	0.0
1049	Park:P11	10576	23597	0.0	0.0	0.0	0.0	0.0	0.0
1050	Park:P12	12737	23611	0.0	0.0	0.0	0.0	0.0	0.0
1051	Park:P13	-3106	28942	0.0	0.0	0.0	0.0	0.0	0.0
1052	Park:P14	-1568	16984	0.0	0.0	0.0	0.0	0.0	0.0
1053	Park:P15	-4694	16128	0.0	0.0	0.0	0.0	0.0	0.0
1054	Park:P16	-7240	27235	0.0	0.0	0.0	0.0	0.0	0.0
1055	Park:P17	-7694	22700	0.0	0.0	0.0	0.0	0.0	0.0
1056	Park:P18	-10078	22715	0.0	0.0	0.0	0.0	0.0	0.0
1057	Park:P19	-8173	20053	0.0	0.0	0.0	0.0	0.0	0.0
1058	Park:P2	6019	40290	0.0	0.0	0.0	0.0	0.0	0.0
1059	Park:P20	-8423	17856	0.0	0.0	0.0	0.0	0.0	0.0
1060	Park:P21	7059	13592	0.0	0.0	0.0	0.0	0.0	0.0
1061	Park:P22	6996	12184	0.0	0.0	0.0	0.0	0.0	0.0
1062	Park:P23	9630	4263	0.0	0.0	0.0	0.0	0.0	0.0
1063	Park:P24	7963	3497	0.0	0.0	0.0	0.0	0.0	0.0
1064	Park:P25	8976	-1520	0.0	0.0	0.0	0.0	0.0	0.0
1065	Park:P26	2522	14946	0.0	0.0	0.0	0.0	0.0	0.0
1066	Park:P27	2802	10735	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1067	Park:P28	198	11565	0.0	0.0	0.0	0.0	0.0	0.0
1068	Park:P29	-5433	5962	0.0	0.0	0.0	0.0	0.0	0.0
1069	Park:P3	4190	38497	0.0	0.0	0.0	0.0	0.0	0.0
1070	Park:P30	-6437	15235	0.0	0.0	0.0	0.0	0.0	0.0
1071	Park:P31	-10883	12816	0.0	0.0	0.0	0.0	0.0	0.0
1072	Park:P31	-10986	9367	0.0	0.0	0.0	0.0	0.0	0.0
1073	Park:P32	-8210	11558	0.0	0.0	0.0	0.0	0.0	0.0
1074	Park:P33	-7609	8315	0.0	0.0	0.0	0.0	0.0	0.0
1075	Park:P34	-7758	4425	0.0	0.0	0.0	0.0	0.0	0.0
1076	Park:P35	-6933	3193	0.0	0.0	0.0	0.0	0.0	0.0
1077	Park:P36	-8027	-858	0.0	0.0	0.0	0.0	0.0	0.0
1078	Park:P37	-10415	-944	0.0	0.0	0.0	0.0	0.0	0.0
1079	Park:P38	6985	-3643	0.0	0.0	0.0	0.0	0.0	0.0
1080	Park:P39	12033	-5865	0.0	0.0	0.0	0.0	0.0	0.0
1081	Park:P4	7407	36148	0.0	0.0	0.0	0.0	0.0	0.0
1082	Park:P40	8712	-16156	0.0	0.0	0.0	0.0	0.0	0.0
1083	Park:P41	5212	-18740	0.0	0.0	0.0	0.0	0.0	0.0
1084	Park:P42	7205	-21947	0.0	0.0	0.0	0.0	0.0	0.0
1085	Park:P43	3598	-7684	0.0	0.0	0.0	0.0	0.0	0.0
1086	Park:P44	-283	-12051	0.0	0.0	0.0	0.0	0.0	0.0
1087	Park:P45	-4218	-14980	0.0	0.0	0.0	0.0	0.0	0.0
1088	Park:P46	-3319	-16331	0.0	0.0	0.0	0.0	0.0	0.0
1089	Park:P47	-9286	-6307	0.0	0.0	0.0	0.0	0.0	0.0
1090	Park:P48	-7699	-9254	0.0	0.0	0.0	0.0	0.0	0.0
1091	Park:P49	-7521	-12889	0.0	0.0	0.0	0.0	0.0	0.0
1092	Park:P5	-1752	40072	0.0	0.0	0.0	0.0	0.0	0.0
1093	Park:P50	8743	-26079	0.0	0.0	0.0	0.0	0.0	0.0
1094	Park:P51	7364	-27977	0.0	0.0	0.0	0.0	0.0	0.0
1095	Park:P52	4279	-25151	0.0	0.0	0.0	0.0	0.0	0.0
1096	Park:P53	1745	-24094	0.0	0.0	0.0	0.0	0.0	0.0
1097	Park:P54	1522	-25317	0.0	0.0	0.0	0.0	0.0	0.0
1098	Park:P55	3542	-29748	0.0	0.0	0.0	0.0	0.0	0.0
1099	Park:P56	-3479	-27701	0.0	0.0	0.0	0.0	0.0	0.0
1100	Park:P57	-2553	-31026	0.0	0.0	0.0	0.0	0.0	0.0
1101	Park:P58	-4315	-31888	0.0	0.0	0.0	0.0	0.0	0.0
1102	Park:P59	6981	-40680	0.0	0.0	0.0	0.0	0.0	0.0
1103	Park:P6	-995	37860	0.0	0.0	0.0	0.0	0.0	0.0
1104	Park:P60	879	-37690	0.0	0.0	0.0	0.0	0.0	0.0
1105	Park:P61	583	-42504	0.0	0.0	0.0	0.0	0.0	0.0
1106	Park:P62	-2563	-41948	0.0	0.0	0.0	0.0	0.0	0.0
1107	Park:P63	1437	-46094	0.0	0.0	0.0	0.0	0.0	0.0
1108	Park:P7	-1966	36892	0.0	0.0	0.0	0.0	0.0	0.0
1109	Park:P8	4457	33144	0.0	0.0	0.0	0.0	0.0	0.0
1110	Park:P9	8465	31725	0.0	0.0	0.0	0.0	0.0	0.0
1111	R-1	-1499	8689	0.0	0.0	0.0	0.0	0.0	0.0
1112	R-2	-3360	8057	0.0	0.0	0.0	0.0	0.0	0.0
1113	R-3	-3221	8061	0.0	0.0	0.0	0.0	0.0	0.0
1114	R-4	-2550	7376	0.0	0.0	0.0	0.0	0.0	0.0
1115	R-5	-2475	7342	0.0	0.0	0.0	0.0	0.0	0.0
1116	R-6	1908	7539	0.0	0.0	0.0	0.0	0.0	0.0
1117	R-7	3445	5795	0.0	0.0	0.0	0.0	0.0	0.0
1118	R-8	4189	5875	0.0	0.0	0.0	0.0	0.0	0.0
1119	R-9	-2325	5197	0.0	0.0	0.0	0.0	0.0	0.0
1120	R-10	-2803	4984	0.0	0.0	0.0	0.0	0.0	0.0
1121	R-11	-4314	4055	0.0	0.0	0.0	0.0	0.0	0.0
1122	R-12	-3638	4008	0.0	0.0	0.0	0.0	0.0	0.0

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TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1123	R-13	-2994	3996	0.0	0.0	0.0	0.0	0.0	0.0
1124	R-14	-2996	3894	0.0	0.0	0.0	0.0	0.0	0.0
1125	R-15	-3661	3774	0.0	0.0	0.0	0.0	0.0	0.0
1126	R-16	-3881	2627	0.0	0.0	0.0	0.0	0.0	0.0
1127	R-17	-3974	2637	0.0	0.0	0.0	0.0	0.0	0.0
1128	R-19	-2871	-9407	0.0	0.0	0.0	0.0	0.0	0.0
1129	R-20	-2236	-9459	0.0	0.0	0.0	0.0	0.0	0.0
1130	R-21	-2883	-9527	0.0	0.0	0.0	0.0	0.0	0.0
1131	R-22	-2127	-9553	0.0	0.0	0.0	0.0	0.0	0.0
1132	R-23	-2979	-10864	0.0	0.0	0.0	0.0	0.0	0.0
1133	R-24	-2855	-10863	0.0	0.0	0.0	0.0	0.0	0.0
1134	R-25	-3422	-12657	0.0	0.0	0.0	0.0	0.0	0.0
1135	R-26	-3317	-12709	0.0	0.0	0.0	0.0	0.0	0.0
1136	R-27	-4326	-13636	0.0	0.0	0.0	0.0	0.0	0.0
1137	R-28	-4219	-13662	0.0	0.0	0.0	0.0	0.0	0.0
1138	R-29	-4595	-14690	0.0	0.0	0.0	0.0	0.0	0.0
1139	R-30	-4595	-14834	0.0	0.0	0.0	0.0	0.0	0.0
1140	R-31	-3900	-18888	0.0	0.0	0.0	0.0	0.0	0.0
1141	R-32	-3960	-18992	0.0	0.0	0.0	0.0	0.0	0.0
1142	R-33	-1586	-19967	0.0	0.0	0.0	0.0	0.0	0.0
1143	R-34	-1631	-20084	0.0	0.0	0.0	0.0	0.0	0.0
1144	R-35	589	-20385	0.0	0.0	0.0	0.0	0.0	0.0
1145	R-36	760	-20452	0.0	0.0	0.0	0.0	0.0	0.0
1146	R-37	1953	-19502	0.0	0.0	0.0	0.0	0.0	0.0
1147	R-38	1937	-19639	0.0	0.0	0.0	0.0	0.0	0.0
1148	R-39	5743	3729	0.0	0.0	0.0	0.0	0.0	0.0
1149	R-40	6051	3598	0.0	0.0	0.0	0.0	0.0	0.0
1150	R-41	6707	2725	0.0	0.0	0.0	0.0	0.0	0.0
1151	R-42	6795	2778	0.0	0.0	0.0	0.0	0.0	0.0
1152	R-43	3977	622	0.0	0.0	0.0	0.0	0.0	0.0
1153	R-44	3992	528	0.0	0.0	0.0	0.0	0.0	0.0
1154	R-45	7811	-253	0.0	0.0	0.0	0.0	0.0	0.0
1155	R-46	7968	-188	0.0	0.0	0.0	0.0	0.0	0.0
1156	R-47	9017	-3383	0.0	0.0	0.0	0.0	0.0	0.0
1157	R-48	9107	-3278	0.0	0.0	0.0	0.0	0.0	0.0
1158	R-49	9205	-4829	0.0	0.0	0.0	0.0	0.0	0.0
1159	R-50	9420	-4826	0.0	0.0	0.0	0.0	0.0	0.0
1160	R-51	4145	-5368	0.0	0.0	0.0	0.0	0.0	0.0
1161	R-52	4160	-5459	0.0	0.0	0.0	0.0	0.0	0.0
1162	R-53	6680	-5389	0.0	0.0	0.0	0.0	0.0	0.0
1163	R-54	6680	-5519	0.0	0.0	0.0	0.0	0.0	0.0
1164	R-55	8216	-6716	0.0	0.0	0.0	0.0	0.0	0.0
1165	R-56	7824	-7392	0.0	0.0	0.0	0.0	0.0	0.0
1166	R-57	6375	-8805	0.0	0.0	0.0	0.0	0.0	0.0
1167	R-58	2503	-7529	0.0	0.0	0.0	0.0	0.0	0.0
1168	R-59	2128	-9607	0.0	0.0	0.0	0.0	0.0	0.0
1169	R-60	2128	-9724	0.0	0.0	0.0	0.0	0.0	0.0
1170	R-61	3469	-9641	0.0	0.0	0.0	0.0	0.0	0.0
1171	R-62	3469	-9758	0.0	0.0	0.0	0.0	0.0	0.0
1172	R-63	4953	-9622	0.0	0.0	0.0	0.0	0.0	0.0
1173	R-64	4953	-9765	0.0	0.0	0.0	0.0	0.0	0.0
1174	M-1	-5559	5408	0.0	0.0	0.0	0.0	0.0	0.0
1175	M-2	7677	4132	0.0	0.0	0.0	0.0	0.0	0.0
1176	M-3	-3794	839	0.0	0.0	0.0	0.0	0.0	0.0
1177	M-4	-3435	-161	0.0	0.0	0.0	0.0	0.0	0.0
1178	M-5	8038	-2746	0.0	0.0	0.0	0.0	0.0	0.0

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				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1179	M-6	7442	-4154	0.0	0.0	0.0	0.0	0.0	0.0
1180	M-7	1569	-6734	0.0	0.0	0.0	0.0	0.0	0.0
1181	M-8	3372	-6953	0.0	0.0	0.0	0.0	0.0	0.0
1182	M-9	3203	-8239	0.0	0.0	0.0	0.0	0.0	0.0
1183	M-10	212	-9582	0.1	0.1	0.0	0.0	0.0	0.0
1184	M-11	212	-9712	0.1	0.1	0.0	0.0	0.0	0.0
1185	M-12	-4530	-14474	0.0	0.0	0.0	0.0	0.0	0.0
1186	M-13	-4484	-14936	0.0	0.0	0.0	0.0	0.0	0.0
1187	M-14	-3614	-16370	0.0	0.0	0.0	0.0	0.0	0.0
1188	M-15	4365	-18735	0.0	0.0	0.0	0.0	0.0	0.0
1189	M-16	4486	-19796	0.0	0.0	0.0	0.0	0.0	0.0
1190	M-17	8123	-595	0.0	0.0	0.0	0.0	0.0	0.0
1191	M-18	9840	4660	0.0	0.0	0.0	0.0	0.0	0.0
1192	T-116	1422	-18235	0.0	0.0	0.0	0.0	0.0	0.0
1193	T-118	1331	-17470	0.0	0.0	0.0	0.0	0.0	0.0
1194	T-119	2650	-17566	0.0	0.0	0.0	0.0	0.0	0.0
1195	T-120	-3506	-16334	0.0	0.0	0.0	0.0	0.0	0.0
1196	T-122	-3743	-14738	0.0	0.0	0.0	0.0	0.0	0.0
1197	T-125	1459	-13047	0.0	0.0	0.0	0.0	0.0	0.0
1198	T-126	3477	-10938	0.0	0.0	0.0	0.0	0.0	0.0
1199	T-130	2651	-8267	0.0	0.0	0.0	0.0	0.0	0.0
1200	T-132	-3659	-2960	0.0	0.0	0.0	0.0	0.0	0.0
1201	T-133	8580	-1927	0.0	0.0	0.0	0.0	0.0	0.0
1202	T-136	-3365	4995	0.0	0.0	0.0	0.0	0.0	0.0
1203	NSF:A14	-3907	-17520	0.0	0.0	0.0	0.0	0.0	0.0
1204	T-25	-3883	-4693	0.0	0.0	0.0	0.0	0.0	0.0
1205	T-28	-3387	-9387	0.0	0.0	0.0	0.0	0.0	0.0
1206	T-33	1432	-17816	0.0	0.0	0.0	0.0	0.0	0.0
1207	T-34	1792	-19460	0.0	0.0	0.0	0.0	0.0	0.0
1208	T-35	1587	-18907	0.0	0.0	0.0	0.0	0.0	0.0
1209	T-44	-3421	5168	0.0	0.0	0.0	0.0	0.0	0.0
1210	NSF:T-48, A20	-4170	1264	0.0	0.0	0.0	0.0	0.0	0.0
1211	NSF:T-50, A22	-3264	8490	0.0	0.0	0.0	0.0	0.0	0.0
1212	NSF:T-57, A29	-2746	8551	0.0	0.0	0.0	0.0	0.0	0.0
1213	NSF:T-59, A31	-5476	6566	0.0	0.0	0.0	0.0	0.0	0.0
1214	NSF:T-60, A32	-4232	-17635	0.0	0.0	0.0	0.0	0.0	0.0
1215	NSF:T-62, A34	-4112	-14837	0.0	0.0	0.0	0.0	0.0	0.0
1216	T-29	-3498	-16806	0.0	0.0	0.0	0.0	0.0	0.0
1217	NSF:T-84, A56	-3125	6493	0.0	0.0	0.0	0.0	0.0	0.0
1218	NSF:T-85, A57	-3238	4735	0.0	0.0	0.0	0.0	0.0	0.0
1219	NSF:T-88, A60	-1350	-9469	0.0	0.0	0.0	0.0	0.0	0.0
1220	NSF:C58	-1135	22315	0.0	0.0	0.0	0.0	0.0	0.0
1221	NSF:S108	-1649	-9471	0.0	0.0	0.0	0.0	0.0	0.0
1222	NSF:N15	-3997	-22078	0.0	0.0	0.0	0.0	0.0	0.0
1223	NSF:C62	-1414	-30795	0.0	0.0	0.0	0.0	0.0	0.0
1224	NSF:S109	-1333	-22719	0.0	0.0	0.0	0.0	0.0	0.0
1225	NSF:S105	-3791	-3836	0.0	0.0	0.0	0.0	0.0	0.0
1226	NSF:C64	-4367	7358	0.0	0.0	0.0	0.0	0.0	0.0
1227	NSF:S106	-2685	8649	0.0	0.0	0.0	0.0	0.0	0.0
1228	NSF:C61	-1303	9772	0.0	0.0	0.0	0.0	0.0	0.0
1229	NSF:S107	2638	-6779	0.0	0.0	0.0	0.0	0.0	0.0
1230	NSF:S110	1462	-15138	0.0	0.0	0.0	0.0	0.0	0.0
1231	NSF:S103	691	14334	0.0	0.0	0.0	0.0	0.0	0.0
1232	NSF:C60	51	14525	0.0	0.0	0.0	0.0	0.0	0.0
1233	NSF:C63	335	17719	0.0	0.0	0.0	0.0	0.0	0.0
1234	NSF:S104	2040	9879	0.0	0.0	0.0	0.0	0.0	0.0

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COMPARATIVE LOCATIONAL ANALYSIS
TIME ABOVE (TA)

				Time Above 100 dB (minutes)					
				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1235	NSF:C65	2422	9244	0.0	0.0	0.0	0.0	0.0	0.0
1236	NSF:C59	3555	12838	0.0	0.0	0.0	0.0	0.0	0.0
1237	Park:P65	-4286	-15220	0.0	0.0	0.0	0.0	0.0	0.0
1238	Park:P77	-4624	-22245	0.0	0.0	0.0	0.0	0.0	0.0
1239	Park:P75	-4188	-36794	0.0	0.0	0.0	0.0	0.0	0.0
1240	Park:P68	-5348	-17875	0.0	0.0	0.0	0.0	0.0	0.0
1241	Park:P69	-5853	-17090	0.0	0.0	0.0	0.0	0.0	0.0
1242	Park:P74	-5044	-16833	0.0	0.0	0.0	0.0	0.0	0.0
1243	Park:P73	-4954	-17282	0.0	0.0	0.0	0.0	0.0	0.0
1244	Park:P78	-4783	-18422	0.0	0.0	0.0	0.0	0.0	0.0
1245	Park:P70	-4665	-14728	0.0	0.0	0.0	0.0	0.0	0.0
1246	Park:P79	-1577	-22047	0.0	0.0	0.0	0.0	0.0	0.0
1247	Park:P66	-2383	-25951	0.0	0.0	0.0	0.0	0.0	0.0
1248	Park:P76	-748	-25329	0.0	0.0	0.0	0.0	0.0	0.0
1249	Park:P72	-135	-18873	0.0	0.0	0.0	0.0	0.0	0.0
1250	Park:P64	-1767	-17528	0.0	0.0	0.0	0.0	0.0	0.0
1251	Park:P67	1256	-19310	0.0	0.0	0.0	0.0	0.0	0.0
1252	Park:P71	2940	-16861	0.0	0.0	0.0	0.0	0.0	0.0
1253	N1	-1990	-17245	0.0	0.0	0.0	0.0	0.0	0.0
1254	N2	-3334	8426	0.0	0.0	0.0	0.0	0.0	0.0
1256	N3	-4097	6616	0.0	0.0	0.0	0.0	0.0	0.0
1257	N5	-8611	5294	0.0	0.0	0.0	0.0	0.0	0.0
1258	N7	-4947	-1900	0.0	0.0	0.0	0.0	0.0	0.0
1259	N8	-4082	10573	0.0	0.0	0.0	0.0	0.0	0.0
1260	N10	-3524	13833	0.0	0.0	0.0	0.0	0.0	0.0
1261	N16	-2435	-14830	0.0	0.0	0.0	0.0	0.0	0.0
1262	N17	-1060	-14856	0.0	0.0	0.0	0.0	0.0	0.0
1263	N18	-3776	-14788	0.0	0.0	0.0	0.0	0.0	0.0
1264	N19	1410	-15430	0.0	0.0	0.0	0.0	0.0	0.0
1265	N21	1410	-15430	0.0	0.0	0.0	0.0	0.0	0.0
1266	N22	1410	-15430	0.0	0.0	0.0	0.0	0.0	0.0
1267	N24	-849	-17121	0.0	0.0	0.0	0.0	0.0	0.0
1268	N52	-849	-17121	0.0	0.0	0.0	0.0	0.0	0.0
1269	N25	-1279	-17349	0.0	0.0	0.0	0.0	0.0	0.0
1270	N23	731	-17160	0.0	0.0	0.0	0.0	0.0	0.0
1271	N32	-2623	-16845	0.0	0.0	0.0	0.0	0.0	0.0
1272	N33	-1937	-14523	0.0	0.0	0.0	0.0	0.0	0.0
1273	N34	-1996	-20888	0.0	0.0	0.0	0.0	0.0	0.0
1274	N35	-1984	-20239	0.0	0.0	0.0	0.0	0.0	0.0
1275	N36	-1996	-20888	0.0	0.0	0.0	0.0	0.0	0.0
1276	N37	-1288	-18281	0.0	0.0	0.0	0.0	0.0	0.0
1277	N38	81	-23395	0.0	0.0	0.0	0.0	0.0	0.0
1278	N39	1235	-23064	0.0	0.0	0.0	0.0	0.0	0.0
1279	N40	1243	-23968	0.0	0.0	0.0	0.0	0.0	0.0
1280	N45	1572	-18752	0.0	0.0	0.0	0.0	0.0	0.0
1281	N46	2447	-18291	0.0	0.0	0.0	0.0	0.0	0.0
1282	N49	-2293	-19455	0.0	0.0	0.0	0.0	0.0	0.0
1283	N50	-2293	-19455	0.0	0.0	0.0	0.0	0.0	0.0
1284	N53	-762	-16176	0.0	0.0	0.0	0.0	0.0	0.0
1285	N54	2867	-16447	0.0	0.0	0.0	0.0	0.0	0.0
1286	N55	3117	-17904	0.0	0.0	0.0	0.0	0.0	0.0
1287	N56	-269	-22786	0.0	0.0	0.0	0.0	0.0	0.0
1288	N59	-2261	-19816	0.0	0.0	0.0	0.0	0.0	0.0
1289	N60	-1155	-20562	0.0	0.0	0.0	0.0	0.0	0.0
1290	N47	2491	-18288	0.0	0.0	0.0	0.0	0.0	0.0

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COMPARATIVE LOCATIONAL ANALYSIS
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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1	RMS1	545	-25159	61.6	61.6	60.6	59.9	60.6	59.6
2	RMS2	-2533	-18228	59.2	59.2	58.5	59.1	58.6	60.5
3	RMS3	1078	-17868	64.3	64.3	62.8	61.5	62.8	61.3
4	RMS4	141	-9337	72.3	72.3	70.9	69.6	70.9	69.0
5	RMS5	-2718	186	58.5	58.5	58.4	64.1	58.8	66.4
6	RMS6	292	8461	70.9	70.9	69.8	70.5	69.8	70.1
7	RMS7	-1299	16858	64.4	64.4	63.4	63.0	63.6	63.9
8	RMS8	-525	21836	62.8	62.8	62.3	61.6	62.5	61.9
9	RMS9	1958	14969	59.0	59.0	58.1	58.1	58.2	58.3
10	RMS10	-3185	-6305	60.3	60.3	60.1	62.2	60.4	63.2
11	RMS11	2549	6703	61.3	61.3	61.0	61.2	61.3	61.7
12	A22	-7822	17894	46.9	46.9	46.6	47.0	46.7	47.7
13	A23	-7856	16574	47.4	47.4	47.2	47.5	47.3	48.2
14	A24	-7890	15254	48.9	48.9	48.7	48.9	48.7	49.3
15	A25	-7924	13934	49.7	49.7	49.5	50.0	49.6	50.5
16	A26	-7958	12614	49.0	48.9	49.0	50.5	49.3	51.2
17	A27	-7992	11294	48.9	48.9	49.0	51.1	49.5	51.6
18	A28	-8026	9974	48.5	48.5	48.8	51.4	49.3	51.9
19	A29	-8060	8654	48.6	48.6	48.8	51.0	49.4	51.8
20	A30	-8094	7334	49.2	49.2	49.4	51.1	50.0	52.0
21	A31	-8128	6014	51.1	51.1	51.5	52.8	52.2	53.6
22	A32	-8162	4694	50.8	50.8	51.1	52.2	51.8	52.9
23	A33	-8196	3374	49.8	49.9	49.9	51.3	50.4	52.1
24	A34	-8230	2054	48.7	48.8	48.7	50.6	49.1	51.4
25	A35	-8264	734	47.4	47.4	47.4	48.7	47.7	49.3
26	A36	-8298	-586	47.8	47.8	47.8	48.3	48.1	48.8
27	A37	-8332	-1906	49.5	49.5	49.6	49.6	49.9	50.1
28	A38	-8366	-3226	51.2	51.2	51.4	52.0	51.7	52.4
29	A39	-8400	-4546	51.6	51.5	51.8	52.4	52.2	52.8
30	A40	-8434	-5866	51.0	50.9	51.2	51.4	51.6	52.6
31	A41	-8468	-7186	51.1	51.1	51.4	51.8	51.8	53.3
32	A42	-8502	-8506	50.9	50.9	51.2	52.5	51.6	53.5
33	A43	-8536	-9826	50.4	50.4	50.5	51.3	50.8	52.5
34	B10	-6094	33700	49.0	49.0	48.4	48.6	48.5	49.5
35	B11	-6128	32380	48.9	48.9	48.3	48.5	48.4	49.4
36	B12	-6162	31060	48.9	48.9	48.3	48.6	48.4	49.5
37	B13	-6196	29740	49.1	49.1	48.5	48.8	48.6	49.7
38	B14	-6230	28420	49.1	49.1	48.5	48.8	48.6	49.7
39	B15	-6264	27100	49.2	49.2	48.7	49.0	48.8	49.9
40	B16	-6298	25780	49.3	49.3	48.8	49.2	48.9	50.1
41	B17	-6332	24460	49.7	49.7	49.2	49.6	49.3	50.5
42	B18	-6366	23140	49.5	49.5	49.1	49.4	49.2	50.4
43	B19	-6400	21820	49.0	49.0	48.6	48.9	48.7	49.8
44	B20	-6434	20500	49.0	49.0	48.6	48.9	48.7	49.8
45	B21	-6468	19180	48.9	48.9	48.5	48.9	48.6	49.8
46	B22	-6502	17860	48.9	48.9	48.4	48.9	48.6	49.7
47	B23	-6536	16540	48.9	48.9	48.5	49.0	48.6	49.8
48	B24	-6570	15220	49.3	49.3	48.8	49.3	48.9	50.0
49	B25	-6604	13900	50.6	50.6	50.2	50.4	50.2	50.9
50	B26	-6638	12580	50.4	50.4	50.1	51.0	50.2	51.8
51	B27	-6672	11260	50.3	50.3	50.1	51.4	50.4	52.1
52	B28	-6706	9940	50.8	50.7	50.7	52.5	51.0	52.9
53	B29	-6740	8620	50.3	50.3	50.5	52.8	51.0	53.2
54	B30	-6774	7300	51.1	51.1	51.3	53.2	51.8	54.0
55	B31	-6808	5980	52.5	52.5	52.8	54.4	53.5	55.3
56	B32	-6842	4660	52.0	52.0	52.2	53.4	52.9	54.3
57	B33	-6876	3340	50.7	50.7	50.7	52.0	51.1	52.9

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
58	B34	-6910	2020	49.7	49.8	49.6	51.4	50.0	52.3
59	B35	-6944	700	48.8	48.9	48.8	50.1	49.1	50.9
60	B36	-6978	-620	49.4	49.4	49.4	50.3	49.7	51.0
61	B37	-7012	-1940	50.8	50.8	51.0	51.3	51.3	52.1
62	B38	-7046	-3260	53.0	53.0	53.2	54.1	53.6	54.7
63	B39	-7080	-4580	53.8	53.8	54.0	54.7	54.4	55.3
64	B40	-7114	-5900	53.4	53.4	53.6	54.3	54.0	55.2
65	B41	-7148	-7220	52.7	52.7	52.8	54.2	53.2	55.2
66	B42	-7182	-8540	51.0	51.0	51.0	52.1	51.3	53.1
67	B43	-7216	-9860	50.1	50.1	49.9	50.9	50.1	52.0
68	B44	-7250	-11180	50.6	50.6	50.3	50.5	50.3	50.9
69	B45	-7284	-12500	49.0	49.0	48.6	49.3	48.7	49.1
70	B46	-7318	-13820	49.3	49.3	48.9	49.7	48.9	48.8
71	B47	-7352	-15140	49.3	49.3	48.8	49.0	48.9	49.4
72	B48	-7386	-16460	48.8	48.8	48.3	48.5	48.4	48.9
73	B49	-7420	-17780	48.3	48.3	47.8	48.1	47.9	48.6
74	C1	-4468	45546	50.6	50.6	50.0	50.4	50.1	51.3
75	C2	-4502	44226	50.6	50.6	50.0	50.5	50.1	51.3
76	C3	-4536	42906	50.7	50.7	50.0	50.5	50.1	51.4
77	C4	-4570	41586	50.8	50.8	50.1	50.6	50.2	51.5
78	C5	-4604	40266	50.8	50.8	50.2	50.6	50.3	51.6
79	C6	-4638	38946	50.9	50.9	50.2	50.7	50.3	51.6
80	C7	-4672	37626	51.0	51.0	50.3	50.7	50.4	51.7
81	C8	-4706	36306	51.1	51.1	50.4	50.8	50.5	51.7
82	C9	-4740	34986	51.3	51.3	50.6	51.0	50.7	52.0
83	C10	-4774	33666	51.3	51.3	50.6	51.0	50.7	52.0
84	C11	-4808	32346	51.4	51.4	50.7	51.1	50.8	52.1
85	C12	-4842	31026	51.5	51.5	50.8	51.3	50.9	52.3
86	C13	-4876	29706	51.6	51.6	51.0	51.5	51.1	52.5
87	C14	-4910	28386	51.6	51.6	51.0	51.5	51.1	52.5
88	C15	-4944	27066	51.8	51.8	51.3	51.8	51.3	52.8
89	C16	-4978	25746	51.9	51.9	51.3	51.9	51.4	53.0
90	C17	-5012	24426	51.9	51.9	51.4	52.0	51.5	53.1
91	C18	-5046	23106	52.5	52.5	51.9	52.5	52.1	53.6
92	C19	-5080	21786	52.5	52.5	52.0	52.6	52.1	53.6
93	C20	-5114	20466	51.7	51.7	51.2	51.8	51.4	52.8
94	C21	-5148	19146	51.7	51.7	51.2	51.7	51.3	52.8
95	C22	-5182	17826	51.6	51.6	51.1	51.7	51.2	52.7
96	C23	-5216	16506	51.6	51.6	51.0	51.6	51.1	52.7
97	C24	-5250	15186	51.6	51.6	51.0	51.6	51.1	52.6
98	C25	-5284	13866	52.1	52.1	51.4	52.1	51.5	53.0
99	C26	-5318	12546	52.8	52.8	52.3	52.6	52.3	53.4
100	C27	-5352	11226	52.4	52.4	51.9	53.2	52.0	54.2
101	C28	-5386	9906	52.3	52.2	51.9	53.3	52.1	54.1
102	C29	-5420	8586	52.7	52.7	52.6	54.4	52.8	55.0
103	C30	-5454	7266	53.2	53.1	53.2	55.3	53.7	55.9
104	C31	-5488	5946	54.4	54.4	54.6	56.3	55.2	57.2
105	C32	-5522	4626	54.1	54.1	54.3	55.5	54.8	56.5
106	C33	-5556	3306	53.2	53.2	53.2	54.4	53.7	55.6
107	C34	-5590	1986	52.2	52.2	52.1	53.7	52.5	54.8
108	C35	-5624	666	51.3	51.3	51.2	52.8	51.5	53.7
109	C36	-5658	-654	51.8	51.8	51.8	53.3	52.1	54.3
110	C37	-5692	-1974	53.3	53.3	53.4	54.5	53.8	55.4
111	C38	-5726	-3294	55.0	55.0	55.2	56.3	55.6	57.1
112	C39	-5760	-4614	55.5	55.5	55.6	56.9	56.0	57.5
113	C40	-5794	-5934	54.6	54.6	54.7	56.0	55.0	56.7
114	C41	-5828	-7254	53.7	53.7	53.6	54.9	53.9	55.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
115	C42	-5862	-8574	52.9	52.9	52.7	53.9	52.9	54.8
116	C43	-5896	-9894	52.6	52.6	52.3	53.0	52.4	53.6
117	C44	-5930	-11214	52.8	52.8	52.4	52.7	52.4	53.0
118	C45	-5964	-12534	51.9	51.9	51.4	52.0	51.5	52.1
119	C46	-5998	-13854	52.5	52.5	52.0	52.8	51.9	52.0
120	C47	-6032	-15174	50.2	50.2	49.7	50.3	49.8	50.7
121	C48	-6066	-16494	50.5	50.5	49.9	50.4	50.0	51.0
122	C49	-6100	-17814	50.7	50.7	50.0	50.5	50.1	51.1
123	C50	-6134	-19134	50.3	50.3	49.8	50.3	49.9	50.9
124	C51	-6168	-20454	50.1	50.1	49.6	50.1	49.7	50.7
125	C52	-6202	-21774	49.9	49.9	49.4	49.9	49.5	50.6
126	C53	-6236	-23094	49.8	49.8	49.3	49.8	49.4	50.5
127	C54	-6270	-24414	49.7	49.7	49.1	49.6	49.2	50.3
128	C55	-6304	-25734	49.5	49.5	49.0	49.4	49.1	50.0
129	C56	-6338	-27054	49.4	49.4	48.8	49.2	48.9	49.8
130	C57	-6372	-28374	49.2	49.2	48.6	49.0	48.7	49.7
131	C58	-6406	-29694	49.1	49.1	48.5	48.8	48.5	49.5
132	C59	-6440	-31014	48.9	48.9	48.3	48.7	48.4	49.3
133	D1	-3148	45512	52.3	52.3	51.7	52.3	51.8	53.3
134	D2	-3182	44192	52.5	52.5	51.9	52.5	52.0	53.5
135	D3	-3216	42872	52.6	52.6	52.0	52.6	52.2	53.7
136	D4	-3250	41552	52.8	52.8	52.2	52.8	52.3	53.9
137	D5	-3284	40232	53.0	53.0	52.3	53.0	52.4	54.1
138	D6	-3318	38912	53.1	53.1	52.5	53.1	52.6	54.2
139	D7	-3352	37592	53.2	53.2	52.5	53.2	52.7	54.3
140	D8	-3386	36272	53.3	53.3	52.6	53.3	52.8	54.5
141	D9	-3420	34952	53.5	53.5	52.9	53.6	53.0	54.8
142	D10	-3454	33632	53.7	53.7	53.0	53.8	53.1	54.9
143	D11	-3488	32312	53.8	53.8	53.1	53.9	53.2	55.1
144	D12	-3522	30992	54.0	54.0	53.4	54.2	53.5	55.4
145	D13	-3556	29672	54.3	54.3	53.6	54.5	53.7	55.8
146	D14	-3590	28352	54.5	54.5	53.9	54.8	54.0	56.0
147	D15	-3624	27032	54.7	54.7	54.1	55.1	54.2	56.3
148	D16	-3658	25712	54.9	54.9	54.3	55.4	54.4	56.7
149	D17	-3692	24392	55.1	55.1	54.5	55.8	54.6	57.2
150	D18	-3726	23072	55.1	55.1	54.5	55.6	54.6	57.0
151	D19	-3760	21752	54.9	54.9	54.4	55.5	54.5	56.9
152	D20	-3794	20432	55.0	55.0	54.5	55.6	54.6	56.9
153	D21	-3828	19112	55.1	55.1	54.6	55.7	54.7	57.0
154	D22	-3862	17792	55.0	55.0	54.4	55.5	54.5	56.9
155	D23	-3896	16472	55.1	55.1	54.4	55.5	54.5	56.8
156	D24	-3930	15152	55.1	55.1	54.3	55.4	54.4	56.7
157	D25	-3964	13832	55.1	55.1	54.2	55.4	54.3	56.7
158	D26	-3998	12512	55.2	55.2	54.5	55.6	54.5	56.9
159	D27	-4032	11192	55.7	55.7	55.1	56.0	55.1	57.3
160	D28	-4066	9872	55.5	55.5	54.9	56.6	55.1	57.9
161	D29	-4100	8552	55.9	55.9	55.5	57.2	55.7	58.4
162	D30	-4134	7232	56.5	56.5	56.3	58.4	56.6	59.5
163	D31	-4168	5912	56.8	56.8	56.8	59.1	57.2	60.0
164	D32	-4202	4592	56.5	56.5	56.6	58.1	57.0	59.3
165	D33	-4236	3272	56.1	56.1	56.1	57.3	56.5	58.6
166	D34	-4270	1952	54.8	54.8	54.7	56.3	55.1	57.6
167	D35	-4304	632	54.1	54.1	54.0	55.9	54.4	57.1
168	D36	-4338	-688	54.7	54.7	54.7	56.9	55.0	58.1
169	D37	-4372	-2008	55.9	55.9	56.0	58.1	56.4	59.1
170	D38	-4406	-3328	56.9	56.9	57.0	59.5	57.4	60.3
171	D39	-4440	-4648	57.3	57.3	57.3	59.1	57.6	59.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
172	D40	-4474	-5968	56.7	56.7	56.7	58.4	57.0	58.9
173	D41	-4508	-7288	56.2	56.2	56.0	57.6	56.3	58.3
174	D42	-4542	-8608	55.8	55.8	55.5	56.7	55.6	57.4
175	D43	-4576	-9928	55.8	55.8	55.4	56.1	55.5	56.6
176	D44	-4610	-11248	55.1	55.1	54.6	55.3	54.6	55.8
177	D45	-4644	-12568	54.9	54.9	54.3	55.2	54.4	55.3
178	D46	-4678	-13888	54.9	54.9	54.2	54.8	54.2	55.4
179	D47	-4712	-15208	54.1	54.1	53.3	54.0	53.4	54.7
180	D48	-4746	-16528	53.4	53.4	52.7	53.4	52.8	54.2
181	D49	-4780	-17848	53.0	53.0	52.3	53.1	52.4	53.9
182	D50	-4814	-19168	52.7	52.7	52.2	52.9	52.3	53.7
183	D51	-4848	-20488	52.9	52.9	52.3	52.9	52.4	53.8
184	D52	-4882	-21808	52.7	52.7	52.1	52.7	52.2	53.7
185	D53	-4916	-23128	52.4	52.4	51.8	52.4	51.9	53.3
186	D54	-4950	-24448	52.2	52.2	51.6	52.2	51.7	53.0
187	D55	-4984	-25768	52.2	52.2	51.6	52.1	51.7	52.9
188	D56	-5018	-27088	52.0	52.0	51.4	51.9	51.5	52.7
189	D57	-5052	-28408	51.8	51.8	51.2	51.6	51.3	52.4
190	D58	-5086	-29728	51.6	51.6	51.0	51.4	51.1	52.2
191	D59	-5120	-31048	51.4	51.4	50.8	51.1	50.8	51.9
192	D60	-5154	-32368	51.2	51.2	50.6	51.0	50.7	51.8
193	D61	-5188	-33688	51.1	51.1	50.5	50.8	50.5	51.6
194	D62	-5222	-35008	50.9	50.9	50.3	50.6	50.4	51.4
195	D63	-5256	-36328	50.7	50.7	50.1	50.4	50.2	51.1
196	D64	-5290	-37648	50.2	50.2	49.6	49.9	49.6	50.7
197	D65	-5324	-38968	49.9	49.9	49.3	49.8	49.4	50.5
198	D66	-5358	-40288	50.4	50.4	49.9	50.3	49.9	51.0
199	D67	-5392	-41608	50.4	50.4	49.9	50.3	49.9	51.0
200	E1	-1828	45478	54.0	54.0	53.5	53.7	53.7	54.6
201	E2	-1862	44158	54.3	54.3	53.8	54.1	54.0	55.0
202	E3	-1896	42838	54.6	54.6	54.1	54.3	54.3	55.2
203	E4	-1930	41518	54.9	54.9	54.4	54.6	54.5	55.6
204	E5	-1964	40198	55.0	55.0	54.5	54.8	54.6	55.7
205	E6	-1998	38878	55.2	55.2	54.6	54.9	54.8	55.9
206	E7	-2032	37558	55.4	55.4	54.8	55.1	55.0	56.1
207	E8	-2066	36238	55.7	55.7	55.0	55.4	55.2	56.4
208	E9	-2100	34918	55.9	55.9	55.3	55.8	55.4	56.9
209	E10	-2134	33598	56.2	56.2	55.7	56.1	55.8	57.2
210	E11	-2168	32278	56.3	56.3	55.7	56.3	55.9	57.4
211	E12	-2202	30958	56.7	56.7	56.1	56.6	56.3	57.8
212	E13	-2236	29638	57.1	57.1	56.5	57.1	56.6	58.3
213	E14	-2270	28318	57.4	57.4	56.8	57.4	56.9	58.6
214	E15	-2304	26998	57.6	57.6	57.1	57.8	57.2	59.1
215	E16	-2338	25678	58.0	58.0	57.5	58.4	57.7	59.7
216	E17	-2372	24358	58.5	58.5	58.0	59.2	58.2	60.7
217	E18	-2406	23038	58.6	58.6	58.1	59.2	58.2	60.6
218	E19	-2440	21718	58.8	58.8	58.1	59.4	58.3	60.9
219	E20	-2474	20398	58.9	58.9	58.3	59.8	58.4	61.4
220	E21	-2508	19078	59.1	59.1	58.4	60.3	58.5	62.0
221	E22	-2542	17758	59.2	59.2	58.5	60.9	58.6	62.7
222	E23	-2576	16438	59.5	59.5	58.6	61.2	58.6	63.1
223	E24	-2610	15118	59.5	59.5	58.4	61.5	58.5	63.5
224	E25	-2644	13798	59.4	59.4	58.4	61.5	58.4	63.5
225	E26	-2678	12478	59.4	59.4	58.5	61.5	58.6	63.5
226	E27	-2712	11158	59.5	59.5	58.7	61.6	58.8	63.5
227	E28	-2746	9838	59.4	59.4	58.7	61.5	58.8	63.5
228	E29	-2780	8518	59.6	59.6	59.1	62.0	59.2	63.9

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
229	E30	-2814	7198	59.5	59.5	59.2	62.4	59.4	64.2
230	E31	-2848	5878	60.1	60.1	60.0	65.1	60.3	66.4
231	E32	-2882	4558	59.8	59.8	59.8	63.9	60.1	65.6
232	E33	-2916	3238	60.0	60.0	60.0	63.2	60.3	65.2
233	E34	-2950	1918	58.8	58.8	58.7	62.1	59.1	64.0
234	E35	-2984	598	57.7	57.7	57.7	61.5	58.1	63.3
235	E36	-3018	-722	57.7	57.7	57.7	62.6	58.0	64.6
236	E37	-3052	-2042	58.3	58.2	58.2	63.7	58.6	65.9
237	E38	-3086	-3362	59.6	59.6	59.6	64.3	59.9	66.7
238	E39	-3120	-4682	60.6	60.6	60.5	63.1	60.8	63.9
239	E40	-3154	-6002	60.5	60.5	60.3	62.5	60.6	63.4
240	E41	-3188	-7322	60.0	60.0	59.7	61.5	59.9	62.6
241	E42	-3222	-8642	59.8	59.8	59.3	60.7	59.5	61.7
242	E43	-3256	-9962	59.4	59.4	58.9	60.0	59.0	61.1
243	E44	-3290	-11282	59.1	59.1	58.4	59.4	58.5	60.6
244	E45	-3324	-12602	58.7	58.7	58.0	59.0	58.0	59.9
245	E46	-3358	-13922	57.9	57.9	57.1	58.0	57.2	59.3
246	E47	-3392	-15242	57.4	57.4	56.6	57.5	56.7	58.9
247	E48	-3426	-16562	56.9	56.9	56.1	57.1	56.2	58.4
248	E49	-3460	-17882	56.5	56.5	55.8	56.7	55.8	58.0
249	E50	-3494	-19202	56.1	56.1	55.5	56.3	55.6	57.7
250	E51	-3528	-20522	55.8	55.8	55.2	56.0	55.3	57.4
251	E52	-3562	-21842	55.7	55.7	55.1	55.9	55.2	57.4
252	E53	-3596	-23162	55.5	55.5	55.0	55.6	55.1	56.9
253	E54	-3630	-24482	55.2	55.2	54.6	55.2	54.7	56.4
254	E55	-3664	-25802	54.9	54.9	54.3	54.9	54.4	56.1
255	E56	-3698	-27122	54.6	54.6	54.0	54.6	54.1	55.8
256	E57	-3732	-28442	53.9	53.9	53.3	53.8	53.4	55.1
257	E58	-3766	-29762	53.6	53.6	53.0	53.5	53.1	54.8
258	E59	-3800	-31082	52.0	52.0	51.4	52.2	51.5	53.6
259	E60	-3834	-32402	53.3	53.3	52.6	53.0	52.7	54.3
260	E61	-3868	-33722	53.0	53.0	52.3	52.7	52.4	53.8
261	E62	-3902	-35042	52.6	52.6	52.0	52.3	52.0	53.4
262	E63	-3936	-36362	52.8	52.8	52.2	52.5	52.3	53.4
263	E64	-3970	-37682	53.0	53.0	52.4	52.6	52.4	53.5
264	E65	-4004	-39002	52.8	52.8	52.2	52.5	52.3	53.5
265	E66	-4038	-40322	52.4	52.4	51.9	52.2	51.9	53.3
266	E67	-4072	-41642	52.2	52.2	51.6	52.0	51.7	53.1
267	E68	-4106	-42962	52.2	52.2	51.6	52.0	51.6	52.9
268	E69	-4140	-44282	52.0	52.0	51.4	51.8	51.5	52.7
269	E70	-4174	-45602	51.7	51.7	51.1	51.4	51.1	52.4
270	E71	-4208	-46922	51.3	51.3	50.8	51.1	50.8	52.0
271	E72	-4242	-48242	50.9	50.9	50.5	50.8	50.5	51.7
272	E73	-4276	-49562	50.5	50.5	50.1	50.4	50.1	51.3
273	F1	-508	45444	54.9	54.9	54.5	54.3	54.8	54.9
274	F2	-542	44124	55.4	55.4	55.0	54.8	55.2	55.3
275	F3	-576	42804	55.8	55.8	55.4	55.1	55.6	55.6
276	F4	-610	41484	56.1	56.1	55.8	55.4	56.0	55.9
277	F5	-644	40164	56.3	56.3	55.9	55.7	56.1	56.2
278	F6	-678	38844	56.6	56.6	56.2	55.9	56.4	56.4
279	F7	-712	37524	56.9	56.9	56.5	56.2	56.7	56.7
280	F8	-746	36204	57.2	57.2	56.8	56.5	57.0	57.1
281	F9	-780	34884	57.6	57.6	57.2	57.0	57.4	57.6
282	F10	-814	33564	58.2	58.2	57.9	57.4	58.1	57.9
283	F11	-848	32244	58.2	58.2	57.8	57.6	58.0	58.2
284	F12	-882	30924	58.7	58.7	58.3	58.0	58.5	58.5
285	F13	-916	29604	59.2	59.2	58.8	58.5	59.0	59.1

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
286	F14	-950	28284	59.7	59.7	59.3	58.9	59.5	59.4
287	F15	-984	26964	60.2	60.2	59.7	59.3	59.9	59.9
288	F16	-1018	25644	60.7	60.7	60.3	59.9	60.5	60.5
289	F17	-1052	24324	61.6	61.6	61.3	60.8	61.5	61.4
290	F18	-1086	23004	62.0	62.0	61.6	60.9	61.8	61.5
291	F19	-1120	21684	62.2	62.2	61.6	61.1	61.8	61.7
292	F20	-1154	20364	62.7	62.7	62.1	61.5	62.3	62.2
293	F21	-1188	19044	63.3	63.3	62.7	62.1	62.8	62.8
294	F22	-1222	17724	64.0	64.0	63.3	62.7	63.4	63.4
295	F23	-1256	16404	64.7	64.7	63.7	63.2	63.8	64.0
296	F24	-1290	15084	64.9	64.9	63.9	63.5	64.0	64.4
297	F25	-1324	13764	65.2	65.2	64.0	63.9	64.1	64.8
298	F26	-1358	12444	65.2	65.2	64.1	64.2	64.2	65.3
299	F27	-1392	11124	65.0	65.0	64.1	64.6	64.1	65.7
300	F28	-1426	9804	65.1	65.1	64.2	65.1	64.3	66.2
301	F29	-1460	8484	65.1	65.1	64.3	65.4	64.4	66.7
302	F30	-1494	7164	65.1	65.1	64.5	66.7	64.7	68.0
303	F31	-1528	5844	66.0	66.0	65.7	71.6	66.0	72.6
304	F32	-1562	4524	65.8	65.8	65.6	70.9	65.9	72.6
305	F33	-1596	3204	66.6	66.6	66.5	71.5	66.7	75.5
306	F34	-1630	1884	65.3	65.3	65.1	68.6	65.4	70.3
307	F35	-1664	564	64.2	64.2	63.9	69.2	64.3	70.9
308	F36	-1698	-756	63.8	63.8	63.6	69.6	63.9	71.5
309	F37	-1732	-2076	64.8	64.8	64.5	72.5	64.8	75.0
310	F38	-1766	-3396	66.1	66.1	65.9	71.2	66.2	73.7
311	F39	-1800	-4716	66.9	66.9	66.7	68.8	67.0	69.6
312	F40	-1834	-6036	65.8	65.8	65.5	67.1	65.8	67.9
313	F41	-1868	-7356	65.2	65.2	64.8	66.0	65.0	66.9
314	F42	-1902	-8676	64.8	64.8	64.3	65.1	64.4	66.0
315	F43	-1936	-9996	64.4	64.4	63.6	64.3	63.7	65.2
316	F44	-1970	-11316	63.7	63.7	63.0	63.6	63.1	64.4
317	F45	-2004	-12636	63.0	63.0	62.1	62.5	62.1	63.5
318	F46	-2038	-13956	62.4	62.4	61.4	61.9	61.5	62.8
319	F47	-2072	-15276	61.8	61.8	60.9	61.3	61.0	62.3
320	F48	-2106	-16596	61.2	61.2	60.3	60.7	60.4	61.7
321	F49	-2140	-17916	60.8	60.8	60.0	60.3	60.1	61.3
322	F50	-2174	-19236	60.1	60.1	59.5	59.8	59.6	60.8
323	F51	-2208	-20556	59.9	59.9	59.3	59.5	59.4	60.4
324	F52	-2242	-21876	59.5	59.5	58.9	59.1	59.0	60.1
325	F53	-2276	-23196	59.2	59.2	58.7	58.8	58.8	59.6
326	F54	-2310	-24516	58.7	58.7	58.2	58.3	58.3	59.1
327	F55	-2344	-25836	58.4	58.4	57.9	57.9	57.9	58.7
328	F56	-2378	-27156	58.2	58.2	57.6	57.6	57.7	58.4
329	F57	-2412	-28476	58.0	58.0	57.5	57.4	57.5	58.1
330	F58	-2446	-29796	57.6	57.6	57.1	57.0	57.2	57.7
331	F59	-2480	-31116	57.3	57.3	56.8	56.6	56.9	57.4
332	F60	-2514	-32436	57.1	57.1	56.5	56.3	56.6	57.1
333	F61	-2548	-33756	56.7	56.7	56.1	55.9	56.2	56.6
334	F62	-2582	-35076	56.3	56.3	55.7	55.5	55.8	56.2
335	F63	-2616	-36396	55.7	55.7	55.1	55.0	55.2	55.7
336	F64	-2650	-37716	55.4	55.4	54.8	54.7	54.9	55.4
337	F65	-2684	-39036	55.3	55.3	54.7	54.6	54.8	55.3
338	F66	-2718	-40356	55.4	55.4	54.8	54.7	55.0	55.3
339	F67	-2752	-41676	54.9	54.9	54.5	54.3	54.6	55.1
340	F68	-2786	-42996	54.5	54.5	54.0	53.9	54.1	54.6
341	F69	-2820	-44316	54.0	54.0	53.5	53.4	53.6	54.1
342	F70	-2854	-45636	53.5	53.5	53.0	53.0	53.1	53.7

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
343	F71	-2888	-46956	53.0	53.0	52.6	52.6	52.7	53.2
344	F72	-2922	-48276	52.5	52.5	52.2	52.2	52.3	52.9
345	F73	-2956	-49596	52.0	52.0	51.8	51.7	51.8	52.4
346	G1	812	45410	54.4	54.4	54.0	53.8	54.2	54.0
347	G2	778	44090	54.8	54.8	54.5	54.3	54.7	54.5
348	G3	744	42770	55.2	55.2	54.9	54.6	55.1	54.7
349	G4	710	41450	55.5	55.5	55.2	54.9	55.4	55.1
350	G5	676	40130	55.8	55.8	55.4	55.2	55.6	55.3
351	G6	642	38810	56.1	56.1	55.7	55.5	55.9	55.6
352	G7	608	37490	56.4	56.4	56.1	55.8	56.2	55.9
353	G8	574	36170	56.9	56.9	56.4	56.2	56.6	56.3
354	G9	540	34850	57.3	57.3	56.9	56.7	57.1	56.9
355	G10	506	33530	57.9	57.9	57.6	57.3	57.8	57.3
356	G11	472	32210	58.0	58.0	57.6	57.4	57.8	57.5
357	G12	438	30890	58.4	58.4	58.1	57.8	58.2	57.9
358	G13	404	29570	58.9	58.9	58.5	58.3	58.7	58.4
359	G14	370	28250	59.5	59.5	59.1	58.8	59.2	58.8
360	G15	336	26930	59.9	59.9	59.5	59.3	59.7	59.4
361	G16	302	25610	60.4	60.4	60.1	59.9	60.2	59.9
362	G17	268	24290	61.4	61.4	61.0	60.8	61.2	60.8
363	G18	234	22970	61.9	61.9	61.4	61.2	61.6	61.1
364	G19	200	21650	62.3	62.3	61.8	61.5	61.9	61.5
365	G20	166	20330	62.8	62.8	62.3	62.0	62.5	62.0
366	G21	132	19010	63.5	63.5	63.0	62.7	63.2	62.7
367	G22	98	17690	64.4	64.4	63.8	63.5	63.9	63.4
368	G23	64	16370	65.5	65.5	64.7	64.4	64.9	64.3
369	G24	30	15050	66.4	66.4	65.6	65.2	65.8	65.1
370	G25	-4	13730	67.6	67.6	66.8	66.3	66.9	66.2
371	G26	-38	12410	68.6	68.6	67.8	67.1	67.9	67.1
372	G27	-72	11090	69.3	69.3	68.5	67.7	68.6	67.7
373	G28	-106	9770	70.3	70.3	69.5	68.5	69.7	68.6
374	G29	-140	8450	71.9	71.9	71.1	69.6	71.2	69.8
375	G30	-174	7130	72.6	72.6	72.0	70.5	72.2	70.8
376	G31	-208	5810	75.0	75.0	74.6	74.5	74.8	74.9
377	G32	-242	4490	83.3	83.3	82.3	89.0	82.5	89.0
378	G33	-276	3170	84.7	84.7	84.1	86.5	84.3	86.6
379	G34	-310	1850	82.8	82.8	82.0	84.4	82.0	84.5
380	G35	-344	530	82.0	82.0	81.3	82.8	81.5	82.7
381	G36	-378	-790	82.2	82.2	81.4	83.4	81.5	83.5
382	G37	-412	-2110	82.8	82.8	81.7	84.0	81.8	84.1
383	G38	-446	-3430	84.9	84.9	83.9	87.0	84.1	87.2
384	G39	-480	-4750	76.2	76.2	75.8	75.0	76.0	75.2
385	G40	-514	-6070	73.4	73.4	72.9	72.5	73.1	72.2
386	G41	-548	-7390	72.3	72.3	71.6	70.7	71.7	70.9
387	G42	-582	-8710	71.4	71.4	70.6	69.5	70.7	69.5
388	G43	-616	-10030	70.7	70.7	69.6	68.5	69.7	68.4
389	G44	-650	-11350	69.2	69.2	68.3	67.2	68.3	67.2
390	G45	-684	-12670	68.1	68.1	67.0	66.1	67.1	66.0
391	G46	-718	-13990	67.3	67.3	66.2	65.3	66.3	65.3
392	G47	-752	-15310	66.6	66.6	65.5	64.7	65.6	64.6
393	G48	-786	-16630	65.9	65.9	64.8	64.1	64.9	63.9
394	G49	-820	-17950	65.4	65.4	64.3	63.7	64.4	63.5
395	G50	-854	-19270	64.3	64.3	63.5	62.9	63.6	62.8
396	G51	-888	-20590	63.6	63.6	62.9	62.2	63.0	62.1
397	G52	-922	-21910	62.9	62.9	62.2	61.7	62.3	61.6
398	G53	-956	-23230	62.5	62.5	61.8	61.3	61.9	61.3
399	G54	-990	-24550	61.7	61.7	61.1	60.6	61.2	60.5

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
400	G55	-1024	-25870	61.2	61.2	60.6	60.2	60.7	60.1
401	G56	-1058	-27190	60.9	60.9	60.3	59.8	60.4	59.7
402	G57	-1092	-28510	60.5	60.5	59.9	59.4	59.9	59.3
403	G58	-1126	-29830	60.0	60.0	59.4	59.0	59.5	58.8
404	G59	-1160	-31150	59.6	59.6	59.0	58.5	59.1	58.5
405	G60	-1194	-32470	59.3	59.3	58.7	58.2	58.8	58.2
406	G61	-1228	-33790	58.8	58.8	58.2	57.7	58.3	57.7
407	G62	-1262	-35110	58.4	58.4	57.8	57.3	57.9	57.3
408	G63	-1296	-36430	58.3	58.3	57.6	57.1	57.7	57.1
409	G64	-1330	-37750	57.9	57.9	57.2	56.7	57.3	56.7
410	G65	-1364	-39070	57.3	57.3	56.8	56.3	56.9	56.4
411	G66	-1398	-40390	57.0	57.0	56.4	56.1	56.6	56.1
412	G67	-1432	-41710	56.6	56.6	56.1	55.8	56.3	55.8
413	G68	-1466	-43030	56.0	56.0	55.5	55.3	55.7	55.3
414	G69	-1500	-44350	55.4	55.4	54.9	54.6	55.1	54.7
415	G70	-1534	-45670	54.8	54.8	54.4	54.1	54.5	54.2
416	G71	-1568	-46990	54.3	54.3	53.9	53.6	54.0	53.7
417	G72	-1602	-48310	53.6	53.6	53.3	53.0	53.4	53.2
418	G73	-1636	-49630	52.9	52.9	52.6	52.4	52.8	52.6
419	H1	2132	45376	52.4	52.4	52.0	52.0	52.1	52.2
420	H2	2098	44056	52.8	52.8	52.3	52.3	52.5	52.5
421	H3	2064	42736	53.2	53.2	52.7	52.7	52.9	52.8
422	H4	2030	41416	53.4	53.4	53.0	52.9	53.1	53.1
423	H5	1996	40096	53.6	53.6	53.2	53.2	53.3	53.3
424	H6	1962	38776	53.9	53.9	53.4	53.4	53.6	53.6
425	H7	1928	37456	54.2	54.2	53.7	53.7	53.8	53.8
426	H8	1894	36136	54.6	54.6	54.0	54.0	54.1	54.2
427	H9	1860	34816	54.9	54.9	54.4	54.4	54.5	54.6
428	H10	1826	33496	55.3	55.3	54.8	54.9	54.9	54.9
429	H11	1792	32176	55.5	55.5	55.0	55.1	55.1	55.2
430	H12	1758	30856	55.8	55.8	55.3	55.4	55.4	55.5
431	H13	1724	29536	56.3	56.3	55.8	55.9	55.9	56.0
432	H14	1690	28216	56.7	56.7	56.2	56.3	56.2	56.3
433	H15	1656	26896	57.0	57.0	56.5	56.6	56.6	56.7
434	H16	1622	25576	57.4	57.4	56.9	57.1	57.0	57.2
435	H17	1588	24256	58.0	58.0	57.5	57.6	57.6	57.7
436	H18	1554	22936	58.3	58.3	57.7	57.9	57.9	57.9
437	H19	1520	21616	58.7	58.7	58.1	58.2	58.2	58.3
438	H20	1486	20296	59.1	59.1	58.5	58.6	58.6	58.7
439	H21	1452	18976	59.6	59.6	59.0	59.1	59.1	59.2
440	H22	1418	17656	60.1	60.1	59.4	59.5	59.5	59.6
441	H23	1384	16336	60.7	60.7	59.8	59.9	59.9	60.0
442	H24	1350	15016	61.4	61.4	60.4	60.6	60.5	60.6
443	H25	1316	13696	62.1	62.1	61.1	61.2	61.1	61.2
444	H26	1282	12376	63.5	63.5	62.6	62.6	62.6	62.6
445	H27	1248	11056	64.4	64.4	63.5	63.5	63.6	63.6
446	H28	1214	9736	65.5	65.5	64.6	64.5	64.7	64.6
447	H29	1180	8416	66.6	66.6	65.7	65.5	65.7	65.7
448	H30	1146	7096	67.8	67.8	67.1	67.4	67.2	67.6
449	H31	1112	5776	71.2	71.2	70.6	71.4	70.8	71.8
450	H32	1078	4456	74.8	74.9	74.7	86.8	75.3	88.7
451	H33	1044	3136	77.8	77.8	77.7	80.1	78.1	81.3
452	H34	1010	1816	81.4	81.4	81.3	81.3	81.6	82.1
453	H35	976	496	79.4	79.5	79.3	81.0	79.7	81.7
454	H36	942	-824	79.2	79.2	79.2	79.7	79.6	80.6
455	H37	908	-2144	85.1	85.1	85.5	81.1	85.9	81.9
456	H38	874	-3464	83.7	83.7	84.0	79.5	84.6	80.1

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
457	H39	840	-4784	79.0	79.0	79.3	76.9	80.0	77.1
458	H40	806	-6104	77.9	77.9	78.1	77.0	78.6	77.8
459	H41	772	-7424	72.0	72.0	71.0	69.1	71.0	70.0
460	H42	738	-8744	70.7	70.7	69.6	67.4	69.6	67.5
461	H43	704	-10064	70.2	70.2	68.7	66.6	68.7	66.5
462	H44	670	-11384	68.9	68.9	67.6	65.8	67.6	65.6
463	H45	636	-12704	68.1	68.1	66.7	65.1	66.7	64.8
464	H46	602	-14024	67.6	67.6	65.9	64.6	66.0	64.2
465	H47	568	-15344	66.8	66.8	65.2	64.1	65.2	63.6
466	H48	534	-16664	66.0	66.0	64.5	63.6	64.5	63.0
467	H49	500	-17984	65.6	65.6	64.0	63.1	64.0	62.6
468	H50	466	-19304	64.2	64.2	63.0	62.1	63.0	61.8
469	H51	432	-20624	63.6	63.6	62.5	61.6	62.5	61.3
470	H52	398	-21944	63.2	63.2	62.1	61.3	62.1	61.0
471	H53	364	-23264	62.8	62.8	61.7	61.0	61.8	60.7
472	H54	330	-24584	62.1	62.1	61.1	60.4	61.1	60.1
473	H55	296	-25904	61.5	61.5	60.6	60.0	60.7	59.7
474	H56	262	-27224	61.1	61.1	60.2	59.6	60.3	59.3
475	H57	228	-28544	60.7	60.7	59.9	59.3	59.9	59.0
476	H58	194	-29864	60.2	60.2	59.4	58.9	59.5	58.5
477	H59	160	-31184	59.8	59.8	58.9	58.3	59.0	58.1
478	H60	126	-32504	59.4	59.4	58.6	58.0	58.7	57.8
479	H61	92	-33824	59.1	59.1	58.3	57.7	58.3	57.4
480	H62	58	-35144	58.8	58.8	57.9	57.3	58.0	57.1
481	H63	24	-36464	58.4	58.4	57.6	57.0	57.6	56.7
482	H64	-10	-37784	58.1	58.1	57.2	56.6	57.3	56.4
483	H65	-44	-39104	57.7	57.7	56.9	56.3	57.0	56.1
484	H66	-78	-40424	57.4	57.4	56.6	56.1	56.7	55.8
485	H67	-112	-41744	56.9	56.9	56.2	55.7	56.3	55.4
486	H68	-146	-43064	56.4	56.4	55.6	55.3	55.8	55.0
487	H69	-180	-44384	55.7	55.7	55.0	54.6	55.2	54.4
488	H70	-214	-45704	55.1	55.1	54.5	54.1	54.6	53.9
489	H71	-248	-47024	54.5	54.5	53.9	53.6	54.1	53.3
490	H72	-282	-48344	53.7	53.7	53.3	53.0	53.5	52.8
491	H73	-316	-49664	53.0	53.0	52.6	52.3	52.8	52.2
492	I1	3452	45342	50.1	50.1	49.6	49.6	49.7	49.9
493	I2	3418	44022	50.4	50.4	49.8	49.9	49.9	50.2
494	I3	3384	42702	50.5	50.5	50.0	50.1	50.1	50.3
495	I4	3350	41382	50.8	50.8	50.3	50.3	50.4	50.6
496	I5	3316	40062	51.0	51.0	50.5	50.5	50.6	50.8
497	I6	3282	38742	51.3	51.3	50.8	50.8	50.9	51.1
498	I7	3248	37422	51.6	51.6	51.0	51.0	51.1	51.3
499	I8	3214	36102	51.9	51.9	51.3	51.3	51.4	51.6
500	I9	3180	34782	52.1	52.1	51.6	51.6	51.7	51.8
501	I10	3146	33462	52.4	52.4	51.8	51.8	51.9	52.0
502	I11	3112	32142	52.5	52.5	51.9	52.0	52.0	52.3
503	I12	3078	30822	52.9	52.9	52.3	52.4	52.4	52.6
504	I13	3044	29502	53.2	53.2	52.6	52.7	52.7	52.9
505	I14	3010	28182	53.5	53.5	52.9	53.0	53.0	53.2
506	I15	2976	26862	53.7	53.7	53.2	53.2	53.3	53.5
507	I16	2942	25542	54.1	54.1	53.5	53.6	53.6	53.8
508	I17	2908	24222	54.5	54.5	53.9	53.9	54.0	54.2
509	I18	2874	22902	54.5	54.5	54.0	54.0	54.1	54.3
510	I19	2840	21582	54.8	54.8	54.3	54.2	54.4	54.5
511	I20	2806	20262	55.1	55.1	54.6	54.5	54.7	54.8
512	I21	2772	18942	55.5	55.5	55.0	54.9	55.0	55.2
513	I22	2738	17622	55.9	55.9	55.3	55.2	55.4	55.5

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514	I23	2704	16302	56.4	56.4	55.7	55.6	55.7	55.9
515	I24	2670	14982	56.5	56.5	55.6	55.5	55.7	55.8
516	I25	2636	13662	56.8	56.8	56.0	55.8	56.0	56.1
517	I26	2602	12342	57.0	57.0	56.3	56.0	56.3	56.4
518	I27	2568	11022	58.3	58.3	57.6	57.3	57.6	57.7
519	I28	2534	9702	59.5	59.5	58.8	58.6	58.9	59.1
520	I29	2500	8382	60.4	60.4	59.8	59.8	60.0	60.2
521	I30	2466	7062	61.4	61.4	61.0	61.2	61.2	61.6
522	I31	2432	5742	62.7	62.8	62.6	62.6	62.9	63.0
523	I32	2398	4422	64.4	64.5	64.4	63.4	64.8	64.0
524	I33	2364	3102	66.0	66.0	65.9	64.1	66.2	64.7
525	I34	2330	1782	64.9	64.9	64.8	63.4	65.1	64.0
526	I35	2296	462	64.0	64.0	63.9	62.3	64.2	62.9
527	I36	2262	-858	64.8	64.8	64.8	62.8	65.2	63.4
528	I37	2228	-2178	63.8	63.8	63.7	70.9	64.1	71.4
529	I38	2194	-3498	65.5	65.5	65.5	66.0	65.8	66.5
530	I39	2160	-4818	66.5	66.5	66.4	65.0	66.7	65.6
531	I40	2126	-6138	66.0	66.0	65.9	64.6	66.2	65.1
532	I41	2092	-7458	65.1	65.1	64.8	64.3	65.0	65.0
533	I42	2058	-8778	64.6	64.6	64.1	62.3	64.2	62.8
534	I43	2024	-10098	64.6	64.6	63.8	61.6	63.8	61.9
535	I44	1990	-11418	63.7	63.7	62.9	60.7	62.9	61.0
536	I45	1956	-12738	63.3	63.3	62.3	60.4	62.4	60.6
537	I46	1922	-14058	63.0	63.0	61.9	60.1	61.9	60.2
538	I47	1888	-15378	62.5	62.5	61.4	59.7	61.4	59.8
539	I48	1854	-16698	62.2	62.2	60.9	59.4	61.0	59.5
540	I49	1820	-18018	61.8	61.8	60.6	59.2	60.6	59.2
541	I50	1786	-19338	61.1	61.1	60.1	58.8	60.2	58.9
542	I51	1752	-20658	61.0	61.0	60.0	58.7	60.1	58.8
543	I52	1718	-21978	60.6	60.6	59.5	58.3	59.6	58.4
544	I53	1684	-23298	60.3	60.3	59.3	58.1	59.3	58.2
545	I54	1650	-24618	59.9	59.9	59.0	57.9	59.0	57.9
546	I55	1616	-25938	59.6	59.6	58.7	57.7	58.7	57.7
547	I56	1582	-27258	59.3	59.3	58.4	57.4	58.4	57.4
548	I57	1548	-28578	59.1	59.1	58.1	57.1	58.1	57.1
549	I58	1514	-29898	58.7	58.7	57.8	56.9	57.8	56.8
550	I59	1480	-31218	58.5	58.5	57.5	56.6	57.5	56.5
551	I60	1446	-32538	58.1	58.1	57.2	56.3	57.2	56.3
552	I61	1412	-33858	57.9	57.9	56.9	56.1	56.9	56.1
553	I62	1378	-35178	57.6	57.6	56.6	55.8	56.6	55.7
554	I63	1344	-36498	57.3	57.3	56.2	55.4	56.3	55.4
555	I64	1310	-37818	57.0	57.0	56.0	55.2	56.0	55.1
556	I65	1276	-39138	56.8	56.8	55.7	55.0	55.8	54.9
557	I66	1242	-40458	56.5	56.5	55.4	54.7	55.5	54.6
558	I67	1208	-41778	56.1	56.1	55.1	54.4	55.2	54.3
559	I68	1174	-43098	55.8	55.8	54.8	54.1	54.9	54.1
560	I69	1140	-44418	55.3	55.3	54.3	53.7	54.4	53.6
561	I70	1106	-45738	54.8	54.8	53.8	53.2	53.9	53.1
562	I71	1072	-47058	54.1	54.1	53.2	52.7	53.3	52.5
563	I72	1038	-48378	53.4	53.4	52.7	52.3	52.8	52.0
564	I73	1004	-49698	52.7	52.7	52.1	51.7	52.2	51.4
565	J8	4534	36068	49.3	49.3	48.7	48.7	48.8	49.1
566	J9	4500	34748	49.5	49.5	48.9	48.9	49.0	49.3
567	J10	4466	33428	49.6	49.6	49.1	49.1	49.2	49.4
568	J11	4432	32108	49.8	49.8	49.2	49.3	49.3	49.6
569	J12	4398	30788	50.0	50.0	49.5	49.5	49.5	49.9
570	J13	4364	29468	50.3	50.3	49.7	49.7	49.8	50.1

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
571	J14	4330	28148	50.5	50.5	49.9	50.0	50.0	50.3
572	J15	4296	26828	50.7	50.7	50.2	50.2	50.3	50.6
573	J16	4262	25508	51.0	51.0	50.5	50.5	50.6	50.8
574	J17	4228	24188	51.2	51.2	50.7	50.7	50.8	51.0
575	J18	4194	22868	51.4	51.4	50.9	50.8	51.0	51.2
576	J19	4160	21548	51.6	51.6	51.1	51.0	51.2	51.4
577	J20	4126	20228	51.9	51.9	51.4	51.3	51.5	51.7
578	J21	4092	18908	52.2	52.2	51.7	51.6	51.8	51.9
579	J22	4058	17588	52.5	52.5	52.0	51.8	52.0	52.2
580	J23	4024	16268	52.8	52.8	52.2	52.1	52.2	52.5
581	J24	3990	14948	53.2	53.2	52.5	52.3	52.5	52.7
582	J25	3956	13628	53.6	53.6	52.9	52.7	53.0	53.2
583	J26	3922	12308	53.6	53.6	52.9	52.7	53.0	53.2
584	J27	3888	10988	54.1	54.1	53.5	53.4	53.6	53.9
585	J28	3854	9668	54.8	54.8	54.4	54.4	54.5	54.9
586	J29	3820	8348	55.4	55.4	55.0	55.2	55.2	55.7
587	J30	3786	7028	56.4	56.4	56.2	56.3	56.4	56.8
588	J31	3752	5708	57.3	57.3	57.2	57.0	57.5	57.5
589	J32	3718	4388	58.7	58.7	58.6	57.4	58.9	58.0
590	J33	3684	3068	59.3	59.4	59.2	57.8	59.6	58.4
591	J34	3650	1748	58.0	58.0	57.8	56.8	58.2	57.4
592	J35	3616	428	56.7	56.7	56.5	56.0	56.8	56.6
593	J36	3582	-892	56.4	56.4	56.2	56.6	56.5	57.1
594	J37	3548	-2212	57.3	57.3	57.2	57.2	57.6	57.7
595	J38	3514	-3532	58.8	58.8	58.8	58.6	59.2	59.1
596	J39	3480	-4852	60.1	60.1	60.1	59.2	60.4	59.7
597	J40	3446	-6172	60.1	60.1	60.0	58.8	60.3	59.3
598	J41	3412	-7492	59.3	59.3	59.1	57.7	59.3	58.2
599	J42	3378	-8812	59.3	59.3	58.9	57.3	59.1	57.7
600	J43	3344	-10132	59.1	59.1	58.6	56.8	58.7	57.2
601	J44	3310	-11452	58.9	58.9	58.3	56.6	58.4	56.9
602	J45	3276	-12772	58.8	58.8	58.1	56.5	58.1	56.7
603	J46	3242	-14092	58.4	58.4	57.6	56.0	57.6	56.3
604	J47	3208	-15412	58.1	58.1	57.3	55.8	57.3	56.0
605	J48	3174	-16732	57.8	57.8	57.0	55.5	57.0	55.7
606	J49	3140	-18052	57.5	57.5	56.7	55.3	56.7	55.6
607	J50	3106	-19372	57.3	57.3	56.6	55.3	56.6	55.5
608	J51	3072	-20692	57.1	57.1	56.4	55.1	56.5	55.4
609	J52	3038	-22012	56.9	56.9	56.2	55.0	56.3	55.2
610	J53	3004	-23332	56.7	56.7	56.0	54.8	56.1	55.0
611	J54	2970	-24652	56.7	56.7	55.9	54.8	56.0	55.1
612	J55	2936	-25972	56.4	56.4	55.6	54.6	55.7	54.7
613	J56	2902	-27292	56.3	56.3	55.5	54.5	55.5	54.6
614	J57	2868	-28612	56.2	56.2	55.3	54.3	55.4	54.5
615	J58	2834	-29932	56.0	56.0	55.2	54.2	55.2	54.4
616	J59	2800	-31252	55.9	55.9	55.0	54.1	55.1	54.2
617	J60	2766	-32572	55.7	55.7	54.8	53.9	54.8	54.0
618	J61	2732	-33892	55.5	55.5	54.5	53.7	54.6	53.8
619	J62	2698	-35212	55.3	55.3	54.4	53.5	54.4	53.7
620	J63	2664	-36532	55.2	55.2	54.2	53.3	54.3	53.5
621	J64	2630	-37852	55.1	55.1	54.1	53.2	54.2	53.4
622	J65	2596	-39172	55.0	55.0	54.0	53.1	54.1	53.3
623	J66	2562	-40492	55.0	55.0	53.9	53.0	54.0	53.1
624	J67	2528	-41812	54.9	54.9	53.9	52.9	54.0	53.1
625	J68	2494	-43132	54.9	54.9	53.8	52.9	53.9	53.0
626	J69	2460	-44452	54.7	54.7	53.6	52.6	53.7	52.8
627	J70	2426	-45772	54.3	54.3	53.2	52.2	53.3	52.3

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
628	J71	2392	-47092	53.7	53.7	52.6	51.7	52.7	51.8
629	J72	2358	-48412	53.0	53.0	52.0	51.3	52.1	51.2
630	J73	2324	-49732	52.3	52.3	51.4	50.8	51.5	50.7
631	K15	5616	26794	48.1	48.1	47.6	47.6	47.7	48.0
632	K16	5582	25474	48.3	48.3	47.8	47.8	47.9	48.2
633	K17	5548	24154	48.5	48.5	48.1	48.0	48.2	48.4
634	K18	5514	22834	48.7	48.7	48.3	48.2	48.4	48.6
635	K19	5480	21514	48.9	48.9	48.5	48.4	48.6	48.8
636	K20	5446	20194	49.2	49.2	48.8	48.6	48.8	49.0
637	K21	5412	18874	49.3	49.3	48.9	48.8	49.0	49.2
638	K22	5378	17554	49.5	49.5	49.0	49.0	49.1	49.4
639	K23	5344	16234	49.8	49.8	49.2	49.1	49.3	49.6
640	K24	5310	14914	50.1	50.1	49.4	49.4	49.5	49.8
641	K25	5276	13594	50.4	50.4	49.8	49.7	49.9	50.2
642	K26	5242	12274	50.7	50.7	50.1	50.1	50.2	50.6
643	K27	5208	10954	50.9	50.9	50.4	50.5	50.6	51.0
644	K28	5174	9634	51.6	51.6	51.2	51.3	51.4	51.8
645	K29	5140	8314	52.0	52.0	51.7	51.9	52.0	52.4
646	K30	5106	6994	52.9	52.9	52.7	52.7	53.0	53.3
647	K31	5072	5674	53.9	53.9	53.7	53.4	54.0	54.0
648	K32	5038	4354	54.7	54.7	54.6	53.4	54.9	54.0
649	K33	5004	3034	55.1	55.1	55.0	53.6	55.3	54.2
650	K34	4970	1714	53.9	53.9	53.7	52.8	54.0	53.4
651	K35	4936	394	53.0	53.0	52.7	52.4	53.0	52.9
652	K36	4902	-926	52.6	52.6	52.4	52.5	52.7	53.0
653	K37	4868	-2246	53.1	53.1	52.9	52.9	53.2	53.4
654	K38	4834	-3566	54.6	54.6	54.5	54.1	54.8	54.6
655	K39	4800	-4886	55.5	55.5	55.5	54.8	55.8	55.4
656	K40	4766	-6206	55.7	55.7	55.6	54.6	55.8	55.1
657	K41	4732	-7526	55.6	55.6	55.4	54.2	55.6	54.7
658	K42	4698	-8846	55.7	55.7	55.4	54.1	55.6	54.5
659	K43	4664	-10166	55.1	55.1	54.7	53.2	54.8	53.6
660	K44	4630	-11486	53.3	53.3	52.9	51.5	52.9	51.9
661	K45	4596	-12806	52.5	52.5	52.0	50.8	52.1	51.1
662	K46	4562	-14126	53.0	53.0	52.6	51.3	52.6	51.6
663	K47	4528	-15446	53.8	53.8	53.3	52.0	53.3	52.2
664	K48	4494	-16766	54.7	54.7	54.1	52.7	54.1	53.0
665	K49	4460	-18086	54.1	54.1	53.5	52.3	53.5	52.5
666	K50	4426	-19406	53.5	53.5	53.0	51.8	53.0	52.1
667	K51	4392	-20726	53.2	53.2	52.6	51.5	52.7	51.8
668	K52	4358	-22046	53.5	53.5	52.9	51.8	53.0	52.1
669	K53	4324	-23366	53.7	53.7	53.1	52.0	53.2	52.3
670	K54	4290	-24686	53.5	53.5	52.9	51.9	52.9	52.1
671	K55	4256	-26006	53.2	53.2	52.5	51.6	52.6	51.8
672	K56	4222	-27326	53.1	53.1	52.4	51.5	52.5	51.7
673	K57	4188	-28646	53.1	53.1	52.4	51.4	52.4	51.7
674	K58	4154	-29966	52.9	52.9	52.2	51.2	52.2	51.5
675	K59	4120	-31286	52.9	52.9	52.0	51.2	52.1	51.4
676	K60	4086	-32606	52.8	52.8	52.0	51.1	52.0	51.3
677	K61	4052	-33926	52.7	52.7	51.9	51.1	52.0	51.3
678	K62	4018	-35246	52.6	52.6	51.8	51.0	51.9	51.2
679	K63	3984	-36566	52.7	52.7	51.8	51.0	51.9	51.2
680	K64	3950	-37886	52.7	52.7	51.9	51.0	51.9	51.3
681	K65	3916	-39206	52.8	52.8	51.9	51.1	52.0	51.3
682	K66	3882	-40526	53.0	53.0	52.1	51.2	52.2	51.4
683	K67	3848	-41846	53.3	53.3	52.3	51.3	52.4	51.6
684	K68	3814	-43166	53.5	53.5	52.5	51.4	52.6	51.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
685	K69	3780	-44486	53.7	53.7	52.6	51.4	52.7	51.7
686	K70	3746	-45806	53.6	53.6	52.4	51.2	52.5	51.4
687	K71	3712	-47126	53.2	53.2	51.9	50.8	52.1	51.1
688	K72	3678	-48446	52.7	52.7	51.5	50.5	51.6	50.6
689	K73	3644	-49766	52.0	52.0	50.9	50.0	51.1	50.1
690	L24	6630	14880	47.4	47.4	46.8	46.9	47.0	47.3
691	L25	6596	13560	47.8	47.8	47.2	47.2	47.3	47.7
692	L26	6562	12240	48.2	48.2	47.7	47.8	47.9	48.3
693	L27	6528	10920	48.8	48.8	48.3	48.3	48.5	48.9
694	L28	6494	9600	48.9	48.9	48.5	48.6	48.8	49.2
695	L29	6460	8280	49.5	49.6	49.2	49.3	49.5	49.8
696	L30	6426	6960	50.2	50.2	50.0	49.9	50.3	50.4
697	L31	6392	5640	51.1	51.1	50.9	50.6	51.2	51.1
698	L32	6358	4320	51.8	51.8	51.7	50.6	52.0	51.2
699	L33	6324	3000	51.8	51.8	51.6	50.3	52.0	50.9
700	L34	6290	1680	50.7	50.7	50.4	49.7	50.8	50.3
701	L35	6256	360	49.9	49.9	49.7	49.4	50.0	49.9
702	L36	6222	-960	49.7	49.7	49.5	49.4	49.8	49.9
703	L37	6188	-2280	50.1	50.1	49.8	49.8	50.2	50.3
704	L38	6154	-3600	51.0	51.0	50.8	50.5	51.1	51.0
705	L39	6120	-4920	51.9	51.9	51.8	51.2	52.1	51.7
706	L40	6086	-6240	51.8	51.8	51.7	50.9	52.0	51.5
707	L41	6052	-7560	52.3	52.3	52.1	51.1	52.3	51.6
708	L42	6018	-8880	50.3	50.3	49.9	49.0	50.1	49.5
709	L43	5984	-10200	51.0	51.0	50.7	49.6	50.8	50.0
710	L44	5950	-11520	52.1	52.1	51.5	50.3	51.7	50.7
711	L45	5916	-12840	51.9	51.9	51.4	50.2	51.4	50.5
712	L46	5882	-14160	52.0	52.0	51.4	50.2	51.4	50.5
713	L47	5848	-15480	52.1	52.1	51.5	50.3	51.5	50.5
714	L48	5814	-16800	52.1	52.1	51.5	50.3	51.5	50.5
715	L49	5780	-18120	51.3	51.3	50.9	49.7	50.9	50.0
716	L50	5746	-19440	50.9	50.9	50.6	49.5	50.6	49.7
717	L51	5712	-20760	51.4	51.4	50.9	49.9	50.9	50.1
718	L52	5678	-22080	50.7	50.7	50.3	49.2	50.3	49.5
719	L53	5644	-23400	50.0	50.0	49.6	48.6	49.7	48.9
720	L54	5610	-24720	50.4	50.4	49.9	49.0	50.0	49.2
721	L55	5576	-26040	50.5	50.5	50.0	49.0	50.0	49.3
722	L56	5542	-27360	50.5	50.5	49.8	48.9	49.9	49.2
723	L57	5508	-28680	50.4	50.4	49.7	48.8	49.8	49.1
724	L58	5474	-30000	50.3	50.3	49.6	48.7	49.7	49.0
725	L59	5440	-31320	50.2	50.2	49.5	48.7	49.6	48.9
726	L60	5406	-32640	50.2	50.2	49.4	48.7	49.5	48.9
727	L61	5372	-33960	50.1	50.1	49.4	48.6	49.4	48.9
728	L62	5338	-35280	49.9	49.9	49.2	48.4	49.3	48.7
729	L63	5304	-36600	50.0	50.0	49.3	48.5	49.3	48.8
730	L64	5270	-37920	50.4	50.4	49.7	48.9	49.8	49.2
731	L65	5236	-39240	50.6	50.6	49.8	49.0	49.9	49.3
732	L66	5202	-40560	50.8	50.8	50.0	49.2	50.1	49.4
733	L67	5168	-41880	51.4	51.4	50.5	49.5	50.6	49.8
734	L68	5134	-43200	52.0	52.0	51.0	49.9	51.1	50.2
735	L69	5100	-44520	52.4	52.4	51.4	50.1	51.5	50.4
736	L70	5066	-45840	52.6	52.6	51.5	50.2	51.6	50.5
737	L71	5032	-47160	52.5	52.5	51.3	50.0	51.5	50.3
738	L72	4998	-48480	52.3	52.3	51.1	49.8	51.2	50.1
739	L73	4964	-49800	51.9	51.9	50.7	49.4	50.8	49.7
740	M28	7814	9566	46.8	46.9	46.5	46.5	46.7	47.1
741	M29	7780	8246	47.5	47.5	47.1	47.1	47.4	47.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
742	M30	7746	6926	48.2	48.2	48.0	47.8	48.3	48.4
743	M31	7712	5606	48.2	48.2	48.0	47.7	48.3	48.2
744	M32	7678	4286	48.5	48.5	48.3	47.2	48.6	47.8
745	M33	7644	2966	49.0	49.0	48.8	47.6	49.1	48.2
746	M34	7610	1646	47.9	47.9	47.7	47.0	48.0	47.6
747	M35	7576	326	46.9	46.9	46.6	46.2	46.9	46.7
748	M36	7542	-994	46.7	46.7	46.4	46.1	46.7	46.6
749	M37	7508	-2314	47.5	47.5	47.2	47.1	47.5	47.6
750	M38	7474	-3634	48.2	48.2	48.0	47.7	48.3	48.3
751	M39	7440	-4954	49.3	49.3	49.1	48.6	49.5	49.2
752	M40	7406	-6274	48.5	48.5	48.2	47.7	48.5	48.2
753	M41	7372	-7594	48.7	48.7	48.4	47.6	48.6	48.1
754	M42	7338	-8914	49.7	49.7	49.4	48.4	49.6	48.9
755	M43	7304	-10234	49.5	49.5	49.1	48.1	49.3	48.5
756	M44	7270	-11554	49.3	49.3	48.9	47.8	49.0	48.2
757	M45	7236	-12874	49.2	49.2	48.7	47.7	48.8	48.0
758	M46	7202	-14194	49.3	49.3	48.8	47.8	48.8	48.0
759	M47	7168	-15514	49.5	49.5	49.0	47.9	49.0	48.2
760	M48	7134	-16834	49.8	49.8	49.3	48.1	49.4	48.4
761	M49	7100	-18154	49.8	49.8	49.4	48.2	49.4	48.5
762	M50	7066	-19474	49.5	49.5	49.1	48.1	49.1	48.3
763	M51	7032	-20794	49.3	49.3	48.9	48.0	48.9	48.2
764	M52	6998	-22114	48.8	48.8	48.5	47.6	48.4	47.7
765	M53	6964	-23434	48.5	48.5	48.1	47.2	48.1	47.4
766	M54	6930	-24754	47.6	47.6	47.3	46.4	47.3	46.6
767	M55	6896	-26074	46.9	46.9	46.6	45.7	46.6	45.9
768	M56	6862	-27394	47.1	47.1	46.6	45.7	46.7	46.0
769	M57	6828	-28714	46.8	46.8	46.2	45.3	46.2	45.6
770	M58	6794	-30034	47.3	47.3	46.7	45.9	46.8	46.2
771	M59	6760	-31354	47.9	47.9	47.2	46.4	47.3	46.7
772	M60	6726	-32674	47.9	47.9	47.1	46.4	47.2	46.7
773	M61	6692	-33994	47.6	47.6	46.9	46.2	47.0	46.5
774	M62	6658	-35314	47.6	47.6	46.9	46.2	47.0	46.5
775	M63	6624	-36634	47.8	47.8	47.1	46.4	47.2	46.7
776	M64	6590	-37954	48.2	48.2	47.5	46.8	47.6	47.1
777	M65	6556	-39274	48.4	48.4	47.7	47.0	47.8	47.3
778	M66	6522	-40594	48.9	48.9	48.2	47.4	48.3	47.7
779	M67	6488	-41914	49.4	49.4	48.7	47.7	48.8	48.0
780	M68	6454	-43234	50.1	50.1	49.3	48.2	49.4	48.5
781	M69	6420	-44554	50.9	50.9	49.9	48.7	50.0	49.0
782	M70	6386	-45874	51.4	51.4	50.4	49.0	50.5	49.4
783	M71	6352	-47194	51.7	51.7	50.6	49.2	50.7	49.6
784	M72	6318	-48514	51.9	51.9	50.7	49.2	50.8	49.6
785	M73	6284	-49834	51.7	51.7	50.4	49.0	50.6	49.3
786	N38	8794	-3668	45.5	45.5	45.2	44.8	45.5	45.4
787	N39	8760	-4988	46.4	46.4	46.2	45.7	46.5	46.3
788	N40	8726	-6308	46.4	46.4	46.1	45.6	46.4	46.2
789	N41	8692	-7628	47.4	47.4	47.2	46.5	47.4	47.0
790	N42	8658	-8948	47.3	47.3	47.0	46.2	47.2	46.7
791	N43	8624	-10268	47.2	47.2	46.8	45.9	47.0	46.3
792	N44	8590	-11588	47.0	47.0	46.6	45.7	46.7	46.1
793	N45	8556	-12908	47.0	47.0	46.5	45.6	46.6	45.9
794	N67	7808	-41948	47.5	47.5	46.8	45.9	46.9	46.2
795	N68	7774	-43268	48.4	48.4	47.7	46.6	47.8	46.9
796	N69	7740	-44588	49.2	49.2	48.4	47.2	48.5	47.5
797	N70	7706	-45908	50.2	50.2	49.3	47.9	49.4	48.3
798	N71	7672	-47228	50.9	50.9	49.9	48.4	50.0	48.8

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
799	NSF:A2	-211	29983	59.3	59.3	58.9	58.5	59.1	58.8
800	NSF:A4	7371	16174	45.9	45.9	45.4	45.5	45.6	46.0
801	NSF:A5	-1123	35137	57.3	57.3	56.8	56.7	57.0	57.4
802	NSF:A6	1725	32917	55.6	55.6	55.1	55.2	55.2	55.2
803	NSF:A7	965	35389	56.5	56.5	56.1	56.0	56.2	56.1
804	NSF:A8	2868	26738	54.0	54.0	53.5	53.5	53.5	53.8
805	NSF:A9	8593	-17214	47.7	47.7	47.3	46.1	47.3	46.4
806	NSF:C1	3519	-33425	53.9	53.9	53.0	52.2	53.1	52.4
807	NSF:C10	-8024	7589	49.1	49.1	49.2	51.0	49.8	52.0
808	NSF:C11	-1535	-46185	54.6	54.6	54.2	53.9	54.3	54.0
809	NSF:C15	-3260	-41687	54.0	54.0	53.5	53.6	53.6	54.6
810	NSF:C16	2631	-42354	54.8	54.8	53.7	52.8	53.8	52.9
811	NSF:C17	-3636	10597	56.7	56.7	56.1	57.5	56.2	58.9
812	NSF:C19	-6737	-6317	53.6	53.6	53.8	55.2	54.1	56.0
813	NSF:C2	6733	-4869	50.8	50.8	50.6	50.1	50.9	50.6
814	NSF:C21	3694	-38594	53.2	53.2	52.3	51.4	52.4	51.7
815	NSF:C22	295	-16585	66.5	66.5	65.0	64.4	65.1	63.6
816	NSF:C23	-4396	-15838	54.4	54.4	53.7	54.4	53.7	55.3
817	NSF:C24	-3498	-16804	56.7	56.7	55.9	56.8	56.0	58.1
818	NSF:C28	-5727	-46163	49.6	49.6	48.9	49.5	48.9	50.1
819	NSF:C29	-386	-17316	66.4	66.4	65.2	64.7	65.3	64.0
820	NSF:C3	158	16285	65.3	65.3	64.5	64.3	64.6	64.2
821	NSF:C31	-6076	-46160	49.1	49.1	48.5	49.1	48.4	49.7
822	NSF:C32	-5243	-46778	50.1	50.1	49.4	49.9	49.4	50.7
823	NSF:C34	-8355	-45977	46.7	46.7	46.0	47.1	45.9	47.3
824	NSF:C35	-6358	-9758	51.6	51.6	51.3	52.2	51.4	53.0
825	NSF:C37	-5175	-47057	50.1	50.1	49.5	50.0	49.4	50.7
826	NSF:C38	-6431	-10969	52.1	52.1	51.7	51.9	51.7	52.3
827	NSF:C39	375	-25346	61.7	61.7	60.7	60.1	60.8	59.8
828	NSF:C40	1436	-17815	63.2	63.2	61.8	60.4	61.9	60.4
829	NSF:C41	-3379	-9386	59.3	59.3	58.8	59.8	58.9	60.8
830	NSF:C42	3398	-21504	56.0	56.0	55.3	54.1	55.4	54.4
831	NSF:C43	-1910	-46273	54.3	54.3	53.9	53.7	54.0	53.9
832	NSF:C44	-3883	-5925	58.3	58.3	58.2	60.1	58.5	60.7
833	NSF:C45	-11988	-45354	43.2	43.2	42.6	44.2	42.5	44.3
834	NSF:C46	7657	-34889	46.1	46.1	45.5	44.8	45.6	45.1
835	NSF:C47	2243	-24977	58.5	58.5	57.6	56.5	57.7	56.7
836	NSF:C48	-4412	-46071	51.2	51.2	50.7	51.1	50.7	52.0
837	NSF:C49	327	-14936	67.5	67.5	66.0	65.1	66.0	64.4
838	NSF:C5	7014	-34786	47.2	47.2	46.5	45.8	46.6	46.1
839	NSF:C50	-3930	-8365	57.5	57.5	57.2	58.5	57.4	59.2
840	NSF:C51	1801	-19460	61.1	61.1	60.1	58.7	60.1	58.8
841	NSF:C52	-545	-16569	66.4	66.4	65.2	64.6	65.3	64.1
842	NSF:C54	-1015	-44926	55.4	55.4	54.9	54.5	55.0	54.5
843	NSF:C55	-2036	-28310	59.0	59.0	58.5	58.2	58.6	58.7
844	NSF:C56	-706	-17175	65.9	65.9	64.8	64.2	64.9	63.9
845	NSF:C57	-1539	-38607	57.3	57.3	56.7	56.3	56.8	56.4
846	NSF:C6	-3386	14577	56.8	56.8	55.9	57.5	55.9	59.1
847	NSF:C7	-9769	-3190	50.2	50.2	50.5	51.0	50.8	51.2
848	NSF:C8	4616	906	54.1	54.1	53.9	53.3	54.2	53.9
849	NSF:C9	-1833	-42273	56.1	56.1	55.6	55.4	55.8	55.5
850	NSF:H1	-7607	3626	50.6	50.6	50.7	51.9	51.1	52.7
851	NSF:H3	-9363	9969	46.7	46.7	46.8	49.4	47.4	50.1
852	NSF:H4	-847	52617	52.8	52.8	52.4	52.1	52.7	52.8
853	NSF:H5	-9746	14394	47.6	47.6	47.9	49.8	48.3	50.7
854	NSF:H6	196	41454	56.0	56.0	55.7	55.3	55.9	55.5
855	NSF:H7	-6721	-8029	52.2	52.2	52.1	53.3	52.4	54.2

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
856	NSF:H8	24064	-3304	33.2	33.2	33.1	33.1	33.3	33.4
857	NSF:H9,H2	3310	14284	55.1	55.1	54.3	54.1	54.4	54.5
858	NSF:A16	-3769	5168	57.8	57.8	57.8	60.0	58.2	61.2
859	NSF:A17	-10252	3250	47.0	47.1	47.2	49.2	47.7	49.8
860	NSF:A18	-4084	10600	55.4	55.4	54.8	56.2	54.9	57.5
861	NSF:A19	-4459	10520	54.3	54.3	53.7	55.2	53.8	56.4
862	NSF:A21	-8598	14208	49.1	49.0	49.0	49.9	49.2	50.6
863	NSF:A23	-8593	5937	50.8	50.8	51.2	52.5	51.9	53.2
864	NSF:A24	-6444	1414	50.1	50.2	50.1	51.7	50.4	52.6
865	NSF:A25	-10056	6676	48.6	48.6	49.0	50.2	49.8	50.8
866	NSF:A26	-9629	5763	50.3	50.3	50.8	52.1	51.6	52.6
867	NSF:A27	-1721	10484	63.6	63.6	62.7	64.8	62.8	66.5
868	NSF:A28	-7306	6683	51.0	51.0	51.3	52.9	51.9	53.9
869	NSF:A30	-9295	6729	49.0	49.0	49.3	50.6	50.0	51.2
870	NSF:A33	-5199	-16624	52.3	52.3	51.6	52.3	51.7	53.0
871	NSF:A35	-4683	-17794	53.2	53.2	52.6	53.3	52.7	54.2
872	NSF:A36	-3592	-17475	56.2	56.2	55.4	56.4	55.5	57.6
873	NSF:A37	-3210	-16253	57.6	57.6	56.8	57.8	56.9	59.3
874	NSF:A38	-2833	-16231	58.8	58.8	58.0	58.9	58.0	60.5
875	NSF:A39	-2723	-17093	59.0	59.0	58.2	59.0	58.3	60.5
876	NSF:A40	-3398	-16730	57.0	57.0	56.2	57.1	56.3	58.5
877	NSF:A41	-5715	-14665	51.9	51.9	51.3	51.8	51.3	52.3
878	NSF:A42	-2195	-14884	61.4	61.4	60.5	61.1	60.6	62.2
879	NSF:A43	-3289	-16236	57.4	57.4	56.6	57.5	56.6	59.0
880	NSF:A44	362	-38516	57.7	57.7	56.7	56.1	56.8	56.0
881	NSF:A45	-1521	-35379	58.1	58.1	57.4	57.0	57.5	57.1
882	NSF:A46	467	-43229	56.1	56.1	55.2	54.7	55.3	54.5
883	NSF:A47	9405	-16129	46.2	46.2	45.7	44.8	45.8	45.1
884	NSF:A48	8774	-15397	46.9	46.9	46.4	45.5	46.4	45.8
885	NSF:A49	8535	-14947	47.1	47.1	46.6	45.7	46.7	46.0
886	NSF:A50	8073	-19454	48.2	48.2	47.8	46.8	47.8	47.0
887	NSF:A51	6682	-15011	50.3	50.3	49.8	48.7	49.8	49.0
888	NSF:A52	10177	-14528	44.7	44.7	44.3	43.4	44.3	43.7
889	NSF:A53	-9333	-2539	49.7	49.7	50.0	50.2	50.3	50.5
890	NSF:A54	-9413	-2464	49.5	49.5	49.8	49.9	50.1	50.2
891	NSF:A55	-9348	-2527	49.7	49.7	49.9	50.1	50.2	50.4
892	NSF:A58	6533	-14596	50.6	50.6	50.1	49.0	50.1	49.2
893	NSF:A59	5058	7030	53.2	53.3	53.0	53.0	53.3	53.5
894	NSF:A61	2879	26723	54.0	54.0	53.4	53.5	53.5	53.7
895	NSF:A62	-1961	32677	56.7	56.7	56.1	56.4	56.3	57.5
896	NSF:A63	5774	13792	49.3	49.3	48.7	48.7	48.8	49.2
897	NSF:A64	6942	13954	47.0	47.1	46.5	46.5	46.6	47.0
898	NSF:A65	6940	13770	47.1	47.1	46.5	46.6	46.7	47.1
899	NSF:A66	6602	13572	47.8	47.8	47.2	47.2	47.3	47.7
900	NSF:A67	7470	13669	46.2	46.2	45.7	45.7	45.9	46.3
901	NSF:A68	306	-30449	60.0	60.0	59.1	58.5	59.2	58.1
902	NSF:A69	-5807	-37969	49.5	49.5	48.9	49.3	49.0	49.9
903	NSF:A70	-4304	-36469	52.0	52.0	51.4	51.6	51.4	52.6
904	NSF:A71	6124	-39961	49.3	49.3	48.5	47.7	48.6	48.0
905	NSF:A72	3707	-33299	53.5	53.5	52.6	51.8	52.7	52.0
906	NSF:A73	-5742	-37925	49.6	49.6	49.0	49.4	49.1	50.0
907	NSF:A74	-5753	-37933	49.6	49.6	49.0	49.4	49.0	50.0
908	NSF:A75	-5790	-37959	49.5	49.5	49.0	49.3	49.0	50.0
909	NSF:L1	765	16963	62.8	62.8	62.0	62.2	62.1	62.1
910	NSF:L2	-7812	8307	49.1	49.0	49.2	51.4	49.8	52.2
911	NSF:L3	6278	40488	45.8	45.8	45.3	45.4	45.4	45.8
912	NSF:L4	-2866	-14908	59.1	59.1	58.2	59.2	58.3	60.9

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Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
913	NSF:L5	7180	9673	47.8	47.8	47.4	47.5	47.7	48.0
914	NSF:L6	4987	33599	48.6	48.6	48.1	48.1	48.2	48.5
915	NSF:L7	10166	26486	41.1	41.1	40.8	40.6	40.8	41.0
916	NSF:L8	12526	8554	41.1	41.1	40.8	40.7	41.1	41.2
917	NSF:L9	8571	-1927	44.9	44.9	44.6	44.3	44.9	44.8
918	NSF:A10	-550	29346	59.6	59.6	59.2	58.8	59.3	59.1
919	NSF:A11	-554	35999	57.4	57.4	56.9	56.6	57.1	57.1
920	NSF:A12	227	35588	57.4	57.4	56.9	56.6	57.1	56.9
921	NSF:A13	6720	40187	45.2	45.2	44.7	44.8	44.8	45.2
922	NSF:N1	2458	-23974	58.1	58.1	57.2	56.1	57.3	56.2
923	NSF:N10	-3755	-14738	56.5	56.5	55.7	56.6	55.8	57.7
924	NSF:N11	-3959	-39382	52.8	52.8	52.2	52.5	52.3	53.6
925	NSF:N12	-195	23654	62.5	62.5	62.2	61.5	62.4	61.5
926	NSF:N13	23674	-4413	33.9	33.9	33.9	33.8	34.1	34.2
927	NSF:N14	5905	-44977	51.7	51.7	50.6	49.3	50.7	49.7
928	NSF:N2	2567	-14374	60.4	60.4	59.5	57.8	59.5	58.0
929	NSF:N3	-9162	13839	48.1	48.1	48.3	50.1	48.7	50.9
930	NSF:N4	-3719	-44852	52.5	52.5	51.9	52.2	52.0	53.0
931	NSF:N5	-7153	-49305	47.6	47.6	47.0	47.6	46.9	48.0
932	NSF:N6	-6583	4062	51.6	51.6	51.8	52.9	52.3	53.9
933	NSF:N7	-3994	-21909	54.5	54.5	53.9	54.7	54.0	56.0
934	NSF:N8	3660	14530	54.2	54.2	53.4	53.2	53.5	53.6
935	NSF:N9	2605	-17567	59.5	59.5	58.4	57.0	58.5	57.2
936	NSF:S1	-1624	22569	60.8	60.8	60.3	60.3	60.4	61.4
937	NSF:S10	5787	1359	51.5	51.5	51.3	50.6	51.6	51.2
939	NSF:S102	-3652	-2959	58.0	58.0	58.0	61.5	58.4	62.9
940	NSF:S11	1320	-17470	63.7	63.7	62.3	60.8	62.3	60.8
941	NSF:S12	-9683	21295	44.7	44.7	44.5	44.7	44.7	45.4
942	NSF:S13	-4034	-8651	57.2	57.2	56.8	58.0	57.0	58.7
943	NSF:S15	1417	-18811	62.6	62.6	61.3	60.0	61.4	60.0
944	NSF:S16	4029	7813	55.3	55.3	55.0	55.1	55.2	55.6
945	NSF:S17	-7712	17177	47.2	47.2	46.9	47.3	47.0	48.0
946	NSF:S18	-10601	8639	45.2	45.2	45.3	46.5	45.8	47.2
947	NSF:S19	-13991	18478	44.9	44.9	45.3	47.2	45.7	47.9
948	NSF:S2	6756	-3628	49.7	49.7	49.5	49.2	49.8	49.7
949	NSF:S20	-1191	19408	63.1	63.1	62.5	61.9	62.6	62.6
950	NSF:S21	-3761	5167	57.8	57.8	57.9	60.1	58.3	61.3
951	NSF:S22	7978	-1820	45.9	45.9	45.5	45.2	45.9	45.8
952	NSF:S23	-8015	23186	46.2	46.2	45.9	46.0	46.0	46.8
953	NSF:S24	-8897	19752	45.5	45.5	45.3	45.6	45.5	46.3
954	NSF:S25	6834	-4826	50.3	50.3	50.1	49.6	50.4	50.2
955	NSF:S26	1352	-18331	63.2	63.2	61.8	60.4	61.8	60.4
956	NSF:S27	-7664	3251	50.3	50.4	50.4	51.7	50.8	52.5
957	NSF:S28	-8281	18459	46.3	46.3	46.1	46.5	46.2	47.1
958	NSF:S29	-5472	6565	53.9	53.9	54.0	55.9	54.5	56.6
959	NSF:S3	-3785	13136	55.7	55.7	54.9	56.1	54.9	57.5
960	NSF:S30	-263	-17305	66.5	66.5	65.3	64.8	65.4	64.0
961	NSF:S31	7812	-5443	48.0	48.0	47.8	47.3	48.1	47.8
962	NSF:S32	-4893	-4442	56.6	56.6	56.7	58.6	57.1	59.1
963	NSF:S33	1292	-22778	61.4	61.4	60.3	59.1	60.3	59.1
964	NSF:S34	-4645	-9467	55.5	55.5	55.1	56.0	55.2	56.5
965	NSF:S35	-4580	6588	55.8	55.8	55.7	57.8	56.1	58.6
966	NSF:S36	-6886	5087	52.5	52.6	52.8	54.1	53.5	55.0
967	NSF:S37	-11122	13583	45.2	45.1	45.6	48.9	46.3	49.2
968	NSF:S38	-3651	-2941	58.0	58.0	58.0	61.5	58.4	62.9
969	NSF:S39	12652	7375	41.2	41.2	41.0	40.8	41.3	41.3
970	NSF:S4	-3514	-16334	56.7	56.7	55.9	56.8	56.0	58.1

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
971	NSF:S40	7700	7035	48.2	48.2	47.9	47.8	48.2	48.3
972	NSF:S41	4523	11744	52.5	52.5	51.9	51.9	52.0	52.4
973	NSF:S42	8381	9088	46.1	46.1	45.8	45.8	46.1	46.4
974	NSF:S43	7268	9131	47.7	47.7	47.4	47.4	47.6	48.0
975	NSF:S44	5766	-41790	50.4	50.4	49.6	48.7	49.7	49.0
976	NSF:S45	1279	-33897	58.1	58.1	57.1	56.3	57.1	56.2
977	NSF:S46	-3685	-39308	53.5	53.5	52.9	53.1	53.0	54.1
978	NSF:S47	5715	-32661	49.6	49.6	48.9	48.1	49.0	48.4
979	NSF:S48	6231	-25031	48.7	48.7	48.3	47.3	48.3	47.6
980	NSF:S49	5974	-36054	48.8	48.8	48.1	47.4	48.2	47.6
981	NSF:S5	-11892	3393	46.2	46.3	46.4	48.6	47.0	49.2
982	NSF:S50	870	-42321	56.2	56.2	55.2	54.6	55.3	54.4
983	NSF:S51	-1491	-30984	59.3	59.3	58.7	58.2	58.8	58.3
984	NSF:S52	11474	-42954	43.7	43.7	43.2	42.1	43.3	42.5
985	NSF:S53	-10841	-43830	44.0	44.0	43.5	44.6	43.4	44.7
986	NSF:S54	5708	-31709	49.7	49.7	49.0	48.2	49.1	48.5
987	NSF:S55	-1824	-44447	55.1	55.1	54.6	54.4	54.8	54.6
988	NSF:S56	6346	-38637	48.7	48.7	47.9	47.2	48.0	47.5
989	NSF:S57	-410	49700	53.9	53.9	53.5	53.2	53.7	53.7
990	NSF:S58	10673	35200	38.8	38.8	38.4	38.7	38.5	39.1
991	NSF:S59	2429	45921	51.8	51.8	51.3	51.3	51.5	51.6
992	NSF:S6	-7196	13265	50.1	50.1	49.9	50.4	49.9	51.0
993	NSF:S60	5433	45389	46.9	46.9	46.3	46.5	46.4	46.9
994	NSF:S61	7132	42570	44.4	44.4	44.0	44.1	44.0	44.5
995	NSF:S62	-1439	39916	55.8	55.8	55.3	55.3	55.5	56.1
996	NSF:S63	3894	37152	50.4	50.4	49.8	49.8	49.9	50.2
997	NSF:S64	9056	38524	41.3	41.3	40.8	40.9	40.9	41.4
998	NSF:S65	8477	33931	43.0	43.0	42.5	42.6	42.6	43.1
999	NSF:S66	3955	32633	50.7	50.7	50.1	50.2	50.2	50.5
1000	NSF:S67	6401	29997	46.0	46.0	45.5	45.5	45.6	46.0
1001	NSF:S68	9089	28371	42.2	42.2	41.8	41.7	41.8	42.1
1002	NSF:S69	13032	23820	38.9	38.9	38.9	38.4	38.7	38.6
1003	NSF:S7	2141	16480	58.0	58.0	57.2	57.2	57.3	57.4
1004	NSF:S70	11512	17866	40.3	40.3	40.1	40.4	40.2	40.7
1005	NSF:S71	-9110	27836	44.3	44.3	43.9	44.0	44.0	44.7
1006	NSF:S72	-3361	27341	55.2	55.2	54.6	55.6	54.7	56.9
1007	NSF:S73	3	41684	56.0	56.0	55.7	55.3	55.9	55.6
1008	NSF:S74	10183	27405	41.3	41.3	40.9	40.7	41.0	41.2
1009	NSF:S76	4734	46384	47.9	47.9	47.3	47.5	47.4	47.9
1010	NSF:S77	11512	27194	40.2	40.2	39.9	39.6	39.9	40.1
1011	NSF:S78	-363	38035	56.9	56.9	56.5	56.2	56.7	56.5
1012	NSF:S79	5941	39662	46.5	46.5	46.0	46.1	46.1	46.5
1013	NSF:S8	3475	-10939	58.5	58.5	57.9	56.2	58.0	56.5
1014	NSF:S80	7193	35348	44.8	44.8	44.2	44.3	44.3	44.7
1015	NSF:S81	12439	22474	40.5	40.5	40.5	40.1	40.3	40.3
1017	NSF:S83	6824	6483	49.3	49.3	49.1	49.0	49.5	49.5
1018	NSF:S84	6483	-12931	50.7	50.7	50.2	49.1	50.2	49.4
1019	NSF:S85	-10992	-43886	43.9	43.9	43.4	44.5	43.3	44.6
1020	NSF:S86,C18	-3883	-4692	58.5	58.5	58.5	60.6	58.8	61.3
1021	NSF:S87	1355	-41607	56.0	56.0	55.0	54.2	55.1	54.2
1022	NSF:S89,S101	-6524	4594	52.3	52.3	52.5	53.7	53.1	54.7
1023	NSF:S9	-8718	-8906	50.7	50.7	50.9	52.3	51.3	53.2
1024	NSF:S90	10352	29875	40.5	40.5	40.1	40.0	40.2	40.5
1025	NSF:S91	-12520	6667	47.7	47.7	48.2	49.3	49.0	49.8
1026	NSF:S92	-292	-16249	66.8	66.8	65.5	65.0	65.6	64.3
1027	NSF:S93	-4494	-43936	51.5	51.5	50.9	51.4	50.9	52.3
1028	NSF:S94	6741	-4427	50.6	50.6	50.5	50.0	50.8	50.6

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1029	NSF:S95	2659	-8269	62.1	62.1	61.8	60.2	61.9	60.7
1030	NSF:S96,C36	-197	-29349	60.4	60.4	59.7	59.1	59.8	58.9
1031	NSF:S97	-5640	10643	51.9	51.9	51.5	52.7	51.7	53.6
1032	NSF:S98,C14	1453	-13047	65.2	65.2	64.0	61.9	64.0	62.1
1033	NSF:S99	-1741	22954	60.5	60.5	60.0	60.2	60.1	61.3
1034	NSF:A15	1159	33718	56.8	56.8	56.4	56.3	56.5	56.3
1035	NSF:A901	-2736	35294	54.7	54.7	54.0	54.7	54.1	55.9
1036	NSF:A902	-4131	32513	52.5	52.5	51.8	52.5	51.9	53.6
1037	NSF:A903	2207	18136	57.3	57.3	56.8	56.7	56.8	57.0
1038	NSF:A904	10787	-9667	44.0	44.0	43.6	42.9	43.8	43.4
1039	Park:G1	1356	42868	54.4	54.4	54.0	53.9	54.2	54.0
1040	Park:G2	-1823	20819	60.7	60.7	60.0	60.6	60.2	61.8
1041	Park:G3	412	19934	62.4	62.4	61.9	61.8	62.0	61.7
1042	Park:G4	11843	11466	41.0	41.0	40.7	40.7	41.0	41.3
1043	Park:G4	13359	10380	39.8	39.8	39.5	39.4	39.8	40.0
1044	Park:G5	89	-7980	73.5	73.5	71.9	70.8	71.9	70.3
1045	Park:G6	8312	-24816	46.9	46.9	46.6	45.8	46.6	45.9
1046	Park:G6	10441	-24924	44.8	44.8	44.6	44.0	44.4	44.1
1047	Park:P1	10452	41037	40.3	40.3	39.8	40.0	40.0	40.5
1048	Park:P10	11906	28500	39.7	39.7	39.4	39.2	39.4	39.7
1049	Park:P11	10576	23597	41.7	41.7	41.5	41.2	41.4	41.5
1050	Park:P12	12737	23611	39.0	39.0	39.1	38.6	38.9	38.8
1051	Park:P13	-3106	28942	55.4	55.4	54.8	55.8	54.9	57.0
1052	Park:P14	-1568	16984	63.2	63.2	62.2	62.6	62.3	63.9
1053	Park:P15	-4694	16128	52.9	52.9	52.3	53.0	52.4	54.1
1054	Park:P16	-7240	27235	47.9	47.9	47.4	47.6	47.5	48.5
1055	Park:P17	-7694	22700	46.8	46.8	46.4	46.6	46.5	47.4
1056	Park:P18	-10078	22715	44.1	44.1	44.0	44.1	44.1	44.7
1057	Park:P19	-8173	20053	46.2	46.2	45.9	46.2	46.0	46.9
1058	Park:P2	6019	40290	46.3	46.3	45.8	45.8	45.9	46.3
1059	Park:P20	-8423	17856	46.4	46.4	46.2	46.6	46.4	47.3
1060	Park:P21	7059	13592	46.9	46.9	46.4	46.4	46.5	46.9
1061	Park:P22	6996	12184	47.5	47.5	47.0	47.0	47.2	47.6
1062	Park:P23	9630	4263	45.9	45.9	45.6	44.7	46.0	45.3
1063	Park:P24	7963	3497	47.7	47.7	47.4	46.1	47.7	46.7
1064	Park:P25	8976	-1520	44.3	44.3	44.0	43.8	44.3	44.3
1065	Park:P26	2522	14946	57.1	57.1	56.2	56.1	56.3	56.4
1066	Park:P27	2802	10735	57.3	57.3	56.7	56.5	56.8	56.9
1067	Park:P28	198	11565	68.4	68.4	67.5	67.6	67.6	67.4
1068	Park:P29	-5433	5962	54.5	54.5	54.7	56.4	55.2	57.2
1069	Park:P3	4190	38497	49.7	49.7	49.1	49.2	49.2	49.5
1070	Park:P30	-6437	15235	49.4	49.4	48.9	49.5	49.0	50.2
1071	Park:P31	-10883	12816	45.1	45.1	45.5	48.9	46.2	49.1
1072	Park:P31	-10986	9367	44.0	44.0	44.1	45.5	44.6	46.1
1073	Park:P32	-8210	11558	48.6	48.6	48.8	50.9	49.3	51.4
1074	Park:P33	-7609	8315	49.2	49.2	49.4	51.6	50.0	52.4
1075	Park:P34	-7758	4425	51.0	51.0	51.2	52.3	51.8	53.1
1076	Park:P35	-6933	3193	50.5	50.5	50.5	51.8	51.0	52.7
1077	Park:P36	-8027	-858	48.4	48.4	48.4	48.7	48.7	49.3
1078	Park:P37	-10415	-944	46.8	46.8	47.0	46.6	47.3	46.9
1079	Park:P38	6985	-3643	49.2	49.2	49.0	48.7	49.3	49.3
1080	Park:P39	12033	-5865	42.1	42.1	41.8	41.4	42.1	42.0
1081	Park:P4	7407	36148	44.4	44.4	43.9	43.9	44.0	44.4
1082	Park:P40	8712	-16156	47.2	47.2	46.7	45.7	46.8	46.0
1083	Park:P41	5212	-18740	51.8	51.8	51.4	50.3	51.4	50.5
1084	Park:P42	7205	-21947	48.8	48.8	48.5	47.6	48.4	47.8
1085	Park:P43	3598	-7684	58.8	58.8	58.6	57.2	58.8	57.7

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				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1086	Park:P44	-283	-12051	69.2	69.2	68.0	67.0	68.0	66.6
1087	Park:P45	-4218	-14980	55.3	55.3	54.6	55.3	54.6	56.2
1088	Park:P46	-3319	-16331	57.3	57.3	56.5	57.4	56.6	58.9
1089	Park:P47	-9286	-6307	49.4	49.4	49.7	49.8	50.1	51.3
1090	Park:P48	-7699	-9254	50.5	50.5	50.5	51.4	50.8	52.5
1091	Park:P49	-7521	-12889	48.8	48.8	48.5	49.4	48.5	48.5
1092	Park:P5	-1752	40072	55.3	55.3	54.8	55.0	55.0	55.9
1093	Park:P50	8743	-26079	46.4	46.4	46.1	45.2	46.1	45.3
1094	Park:P51	7364	-27977	46.3	46.3	45.9	44.9	45.9	45.2
1095	Park:P52	4279	-25151	53.4	53.4	52.7	51.7	52.8	52.0
1096	Park:P53	1745	-24094	59.8	59.8	58.9	57.7	58.9	57.8
1097	Park:P54	1522	-25317	60.0	60.0	59.0	58.0	59.0	58.0
1098	Park:P55	3542	-29748	54.4	54.4	53.6	52.7	53.7	52.9
1099	Park:P56	-3479	-27701	55.0	55.0	54.4	54.9	54.5	56.1
1100	Park:P57	-2553	-31026	57.2	57.2	56.6	56.5	56.7	57.3
1101	Park:P58	-4315	-31888	52.3	52.3	51.6	52.1	51.7	53.1
1102	Park:P59	6981	-40680	48.2	48.2	47.5	46.7	47.6	47.0
1103	Park:P6	-995	37860	56.6	56.6	56.2	56.0	56.4	56.6
1104	Park:P60	879	-37690	57.5	57.5	56.5	55.7	56.5	55.6
1105	Park:P61	583	-42504	56.3	56.3	55.4	54.9	55.5	54.6
1106	Park:P62	-2563	-41948	55.2	55.2	54.7	54.6	54.8	55.1
1107	Park:P63	1437	-46094	54.5	54.5	53.5	52.8	53.6	52.8
1108	Park:P7	-1966	36892	55.6	55.6	55.1	55.3	55.2	56.3
1109	Park:P8	4457	33144	49.7	49.7	49.1	49.1	49.2	49.5
1110	Park:P9	8465	31725	42.8	42.8	42.3	42.4	42.4	42.9
1111	R-1	-1499	8689	64.9	64.9	64.1	65.3	64.1	66.7
1112	R-2	-3360	8057	58.0	58.0	57.5	59.7	57.7	61.3
1113	R-3	-3221	8061	58.4	58.4	57.9	60.2	58.1	61.8
1114	R-4	-2550	7376	60.4	60.4	60.0	63.8	60.2	65.9
1115	R-5	-2475	7342	60.7	60.7	60.3	64.4	60.4	66.5
1116	R-6	1908	7539	63.6	63.6	63.0	63.0	63.2	63.4
1117	R-7	3445	5795	58.3	58.3	58.2	58.1	58.5	58.6
1118	R-8	4189	5875	55.9	55.9	55.8	55.6	56.1	56.2
1119	R-9	-2325	5197	61.8	61.8	61.7	72.9	62.1	73.9
1120	R-10	-2803	4984	60.1	60.1	60.1	65.0	60.4	66.5
1121	R-11	-4314	4055	56.3	56.3	56.3	57.6	56.8	58.9
1122	R-12	-3638	4008	57.9	57.9	57.9	59.6	58.2	61.1
1123	R-13	-2994	3996	59.7	59.7	59.6	62.9	60.0	64.7
1124	R-14	-2996	3894	59.7	59.7	59.6	62.8	60.0	64.7
1125	R-15	-3661	3774	57.8	57.8	57.8	59.4	58.2	61.0
1126	R-16	-3881	2627	57.0	57.0	56.9	58.1	57.3	59.6
1127	R-17	-3974	2637	56.7	56.7	56.6	57.8	57.0	59.3
1128	R-19	-2871	-9407	60.9	60.9	60.3	61.6	60.4	63.2
1129	R-20	-2236	-9459	63.2	63.2	62.6	63.7	62.7	65.4
1130	R-21	-2883	-9527	60.8	60.8	60.2	61.5	60.3	63.1
1131	R-22	-2127	-9553	63.7	63.7	63.0	63.9	63.1	65.4
1132	R-23	-2979	-10864	60.0	60.0	59.3	60.5	59.4	62.1
1133	R-24	-2855	-10863	60.4	60.4	59.8	61.0	59.8	62.7
1134	R-25	-3422	-12657	58.4	58.4	57.6	58.6	57.7	59.5
1135	R-26	-3317	-12709	58.9	58.9	58.1	59.1	58.2	60.0
1136	R-27	-4326	-13636	55.5	55.5	54.7	55.6	54.8	56.2
1137	R-28	-4219	-13662	55.8	55.8	55.1	55.9	55.2	56.6
1138	R-29	-4595	-14690	54.5	54.5	53.8	54.4	53.8	55.1
1139	R-30	-4595	-14834	54.4	54.4	53.7	54.4	53.8	55.1
1140	R-31	-3900	-18888	55.0	55.0	54.3	55.2	54.4	56.3
1141	R-32	-3960	-18992	54.8	54.8	54.2	55.0	54.3	56.1
1142	R-33	-1586	-19967	62.0	62.0	61.4	61.1	61.5	61.5

Table C-3-23

Seattle-Tacoma International Airport
Master Plan Supplemental Environmental Impact Statement

COMPARATIVE LOCATIONAL ANALYSIS
Leq

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1143	R-34	-1631	-20084	61.9	61.9	61.2	60.9	61.3	61.4
1144	R-35	589	-20385	63.5	63.5	62.3	61.4	62.3	61.1
1145	R-36	760	-20452	63.2	63.2	62.0	61.0	62.0	60.7
1146	R-37	1953	-19502	60.6	60.6	59.6	58.3	59.7	58.4
1147	R-38	1937	-19639	60.6	60.6	59.6	58.3	59.7	58.4
1148	R-39	5743	3729	53.1	53.1	53.0	51.7	53.3	52.3
1149	R-40	6051	3598	52.4	52.4	52.2	51.0	52.5	51.6
1150	R-41	6707	2725	51.0	51.0	50.8	49.5	51.1	50.1
1151	R-42	6795	2778	50.8	50.8	50.6	49.3	50.9	49.9
1152	R-43	3977	622	55.7	55.7	55.5	55.0	55.8	55.5
1153	R-44	3992	528	55.6	55.6	55.4	54.9	55.7	55.5
1154	R-45	7811	-253	46.2	46.2	45.8	45.5	46.1	46.0
1155	R-46	7968	-188	45.9	45.9	45.6	45.3	45.9	45.8
1156	R-47	9017	-3383	44.9	44.9	44.6	44.3	44.9	44.8
1157	R-48	9107	-3278	44.8	44.8	44.5	44.1	44.8	44.7
1158	R-49	9205	-4829	45.7	45.7	45.4	45.0	45.8	45.6
1159	R-50	9420	-4826	45.3	45.3	45.1	44.7	45.4	45.3
1160	R-51	4145	-5368	57.9	57.9	57.8	56.9	58.1	57.5
1161	R-52	4160	-5459	57.8	57.8	57.7	56.8	58.1	57.4
1162	R-53	6680	-5389	51.0	51.0	50.8	50.2	51.1	50.7
1163	R-54	6680	-5519	51.0	51.0	50.8	50.2	51.1	50.7
1164	R-55	8216	-6716	47.1	47.1	46.8	46.2	47.1	46.8
1165	R-56	7824	-7392	48.0	48.0	47.6	47.1	47.9	47.6
1166	R-57	6375	-8805	50.7	50.7	50.4	49.4	50.6	49.8
1167	R-58	2503	-7529	63.0	63.0	62.8	61.4	63.0	62.0
1168	R-59	2128	-9607	64.4	64.4	63.7	61.5	63.8	61.8
1169	R-60	2128	-9724	64.3	64.3	63.6	61.4	63.7	61.7
1170	R-61	3469	-9641	58.9	58.9	58.4	56.7	58.6	57.1
1171	R-62	3469	-9758	58.8	58.8	58.4	56.6	58.5	57.0
1172	R-63	4953	-9622	54.5	54.5	54.1	52.7	54.3	53.2
1173	R-64	4953	-9765	54.5	54.5	54.1	52.7	54.2	53.1
1174	M-1	-5559	5408	54.4	54.4	54.7	56.2	55.3	57.1
1175	M-2	7677	4132	48.5	48.5	48.3	47.1	48.6	47.8
1176	M-3	-3794	839	55.5	55.5	55.5	57.6	55.9	59.0
1177	M-4	-3435	-161	56.7	56.7	56.7	59.9	57.0	61.3
1178	M-5	8038	-2746	46.0	46.0	45.7	45.3	46.0	45.8
1179	M-6	7442	-4154	49.1	49.1	48.9	48.5	49.2	49.1
1180	M-7	1569	-6734	69.2	69.2	69.0	69.4	69.2	70.2
1181	M-8	3372	-6953	59.7	59.7	59.6	58.3	59.9	58.8
1182	M-9	3203	-8239	59.8	59.8	59.5	58.0	59.7	58.4
1183	M-10	212	-9582	72.1	72.1	70.5	69.2	70.6	68.6
1184	M-11	212	-9712	72.0	72.0	70.4	69.1	70.4	68.5
1185	M-12	-4530	-14474	54.6	54.6	53.9	54.6	54.0	55.3
1186	M-13	-4484	-14936	54.7	54.7	54.0	54.6	54.0	55.4
1187	M-14	-3614	-16370	56.4	56.4	55.6	56.5	55.7	57.8
1188	M-15	4365	-18735	53.9	53.9	53.4	52.2	53.4	52.4
1189	M-16	4486	-19796	53.1	53.1	52.7	51.5	52.7	51.8
1190	M-17	8123	-595	45.6	45.6	45.3	45.1	45.6	45.6
1191	M-18	9840	4660	45.5	45.5	45.3	44.4	45.6	45.0
1192	T-116	1422	-18235	63.1	63.1	61.7	60.3	61.7	60.3
1193	T-118	1331	-17470	63.7	63.7	62.2	60.8	62.3	60.7
1194	T-119	2650	-17566	59.3	59.3	58.3	56.9	58.4	57.1
1195	T-120	-3506	-16334	56.7	56.7	55.9	56.9	56.0	58.1
1196	T-122	-3743	-14738	56.5	56.5	55.8	56.6	55.8	57.7
1197	T-125	1459	-13047	65.2	65.2	64.0	61.9	63.9	62.1
1198	T-126	3477	-10938	58.4	58.4	57.9	56.2	58.0	56.5
1199	T-130	2651	-8267	62.2	62.2	61.8	60.2	62.0	60.7

Table C-3-23

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COMPARATIVE LOCATIONAL ANALYSIS
Leq

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1200	T-132	-3659	-2960	58.0	58.0	58.0	61.5	58.4	62.9
1201	T-133	8580	-1927	44.9	44.9	44.5	44.3	44.9	44.8
1202	T-136	-3365	4995	58.7	58.7	58.7	61.4	59.1	62.8
1203	NSF:A14	-3907	-17520	55.3	55.3	54.6	55.5	54.6	56.6
1204	T-25	-3883	-4693	58.5	58.5	58.5	60.6	58.8	61.3
1205	T-28	-3387	-9387	59.3	59.3	58.8	59.8	58.9	60.7
1206	T-33	1432	-17816	63.2	63.2	61.8	60.4	61.9	60.4
1207	T-34	1792	-19460	61.1	61.1	60.1	58.7	60.1	58.8
1208	T-35	1587	-18907	62.0	62.0	60.9	59.5	60.9	59.6
1209	T-44	-3421	5168	58.7	58.7	58.6	61.4	59.0	62.7
1210	NSF:T-48, A20	-4170	1264	54.5	54.5	54.4	56.1	54.8	57.5
1211	NSF:T-50, A22	-3264	8490	58.3	58.3	57.8	60.0	57.9	61.6
1212	NSF:T-57, A29	-2746	8551	59.4	59.4	58.8	62.0	59.0	63.9
1213	NSF:T-59, A31	-5476	6566	53.9	53.9	54.0	55.9	54.5	56.6
1214	NSF:T-60, A32	-4232	-17635	54.3	54.3	53.6	54.5	53.7	55.4
1215	NSF:T-62, A34	-4112	-14837	55.5	55.5	54.8	55.6	54.8	56.4
1216	T-29	-3498	-16806	56.7	56.7	55.9	56.8	56.0	58.1
1217	NSF:T-84, A56	-3125	6493	58.9	58.9	58.7	62.1	59.0	63.5
1218	NSF:T-85, A57	-3238	4735	59.0	59.0	59.0	61.8	59.4	63.4
1219	NSF:T-88, A60	-1350	-9469	67.5	67.5	66.7	66.5	66.8	66.8
1220	NSF:C58	-1135	22315	62.0	62.0	61.5	60.9	61.7	61.6
1221	NSF:S108	-1649	-9471	65.9	65.9	65.2	65.5	65.3	66.0
1222	NSF:N15	-3997	-22078	54.5	54.5	53.9	54.6	54.0	56.0
1223	NSF:C62	-1414	-30795	59.4	59.4	58.8	58.4	59.0	58.4
1224	NSF:S109	-1333	-22719	62.1	62.1	61.5	61.0	61.6	61.2
1225	NSF:S105	-3791	-3836	58.6	58.6	58.7	61.2	59.0	62.3
1226	NSF:C64	-4367	7358	55.9	55.9	55.7	57.7	56.0	58.6
1227	NSF:S106	-2685	8649	59.6	59.6	59.0	62.3	59.1	64.3
1228	NSF:C61	-1303	9772	65.7	65.7	64.9	65.3	65.0	66.3
1229	NSF:S107	2638	-6779	63.0	63.0	62.9	61.5	63.1	61.9
1230	NSF:S110	1462	-15138	64.2	64.2	62.9	61.1	62.9	61.2
1231	NSF:S103	691	14334	64.6	64.6	63.6	64.1	63.8	63.9
1232	NSF:C60	51	14525	66.7	66.7	65.9	65.5	66.0	65.4
1233	NSF:C63	335	17719	63.7	63.7	63.1	63.0	63.2	62.9
1234	NSF:S104	2040	9879	61.5	61.5	60.8	60.5	60.9	60.8
1235	NSF:C65	2422	9244	60.2	60.2	59.6	59.4	59.7	59.8
1236	NSF:C59	3555	12838	54.5	54.5	53.8	53.6	53.9	54.0
1237	Park:P65	-4286	-15220	55.1	55.1	54.4	55.1	54.4	55.9
1238	Park:P77	-4624	-22245	53.1	53.1	52.5	53.2	52.6	54.2
1239	Park:P75	-4188	-36794	52.2	52.2	51.6	51.9	51.7	52.8
1240	Park:P68	-5348	-17875	51.9	51.9	51.2	51.9	51.3	52.6
1241	Park:P69	-5853	-17090	50.8	50.8	50.2	50.8	50.3	51.4
1242	Park:P74	-5044	-16833	52.7	52.7	52.0	52.7	52.1	53.4
1243	Park:P73	-4954	-17282	52.7	52.7	52.0	52.7	52.1	53.5
1244	Park:P78	-4783	-18422	52.8	52.8	52.2	52.9	52.3	53.8
1245	Park:P70	-4665	-14728	54.5	54.5	53.8	54.4	53.9	55.1
1246	Park:P79	-1577	-22047	61.5	61.5	60.9	60.5	61.0	60.9
1247	Park:P66	-2383	-25951	58.3	58.3	57.7	57.8	57.8	58.6
1248	Park:P76	-748	-25329	61.7	61.7	61.0	60.5	61.1	60.3
1249	Park:P72	-135	-18873	65.4	65.4	64.2	63.6	64.3	63.2
1250	Park:P64	-1767	-17528	62.3	62.3	61.4	61.5	61.5	62.0
1251	Park:P67	1256	-19310	62.7	62.7	61.5	60.2	61.5	60.2
1252	Park:P71	2940	-16861	58.4	58.4	57.5	56.1	57.6	56.3
1253	N1	-1990	-17245	61.5	61.5	60.6	60.9	60.7	61.7
1254	N2	-3334	8426	58.1	58.1	57.6	59.8	57.8	61.3
1256	N3	-4097	6616	56.4	56.4	56.3	58.6	56.6	59.6
1257	N5	-8611	5294	51.0	51.0	51.4	52.6	52.1	53.2

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COMPARATIVE LOCATIONAL ANALYSIS
Leq

				SEAX110G	SEAX113G	SEAX111G	SEAX114G	SEAX112G	SEAX115G
Site #	Description	X	Y	2000 DN	2000 WP	2005 DN	2005 WP	2010 DN	2010 WP
1258	N7	-4947	-1900	54.7	54.7	54.9	56.3	55.2	57.3
1259	N8	-4082	10573	55.4	55.4	54.8	56.2	54.9	57.5
1260	N10	-3524	13833	56.4	56.4	55.5	57.0	55.6	58.5
1261	N16	-2435	-14830	60.6	60.6	59.7	60.5	59.8	61.9
1262	N17	-1060	-14856	65.9	65.9	64.9	64.3	65.0	64.4
1263	N18	-3776	-14788	56.4	56.4	55.7	56.5	55.7	57.6
1264	N19	1410	-15430	64.2	64.2	62.9	61.2	62.9	61.2
1265	N21	1410	-15430	64.2	64.2	62.9	61.2	62.9	61.2
1266	N22	1410	-15430	64.2	64.2	62.9	61.2	62.9	61.2
1267	N24	-849	-17121	65.6	65.6	64.5	63.9	64.6	63.7
1268	N52	-849	-17121	65.6	65.6	64.5	63.9	64.6	63.7
1269	N25	-1279	-17349	64.2	64.2	63.3	62.9	63.4	63.0
1270	N23	731	-17160	65.4	65.4	63.9	62.8	63.9	62.4
1271	N32	-2623	-16845	59.4	59.4	58.5	59.3	58.6	60.8
1272	N33	-1937	-14523	62.6	62.6	61.7	62.0	61.7	62.8
1273	N34	-1996	-20888	60.5	60.5	59.9	59.9	60.0	60.7
1274	N35	-1984	-20239	60.6	60.6	60.0	60.0	60.1	60.8
1275	N36	-1996	-20888	60.5	60.5	59.9	59.9	60.0	60.7
1276	N37	-1288	-18281	63.7	63.7	62.9	62.5	63.0	62.7
1277	N38	81	-23395	62.9	62.9	61.9	61.3	62.0	61.0
1278	N39	1235	-23064	61.4	61.4	60.3	59.2	60.3	59.1
1279	N40	1243	-23968	61.0	61.0	60.0	58.9	60.0	58.9
1280	N45	1572	-18752	62.1	62.1	60.9	59.5	61.0	59.6
1281	N46	2447	-18291	59.7	59.7	58.7	57.3	58.8	57.5
1282	N49	-2293	-19455	59.7	59.7	59.0	59.4	59.1	60.5
1283	N50	-2293	-19455	59.7	59.7	59.0	59.4	59.1	60.5
1284	N53	-762	-16176	66.1	66.1	65.0	64.3	65.1	64.2
1285	N54	2867	-16447	58.8	58.8	57.8	56.3	57.9	56.6
1286	N55	3117	-17904	57.6	57.6	56.8	55.4	56.8	55.6
1287	N56	-269	-22786	63.3	63.3	62.4	61.8	62.5	61.4
1288	N59	-2261	-19816	59.7	59.7	59.1	59.4	59.2	60.5
1289	N60	-1155	-20562	63.1	63.1	62.4	61.8	62.5	61.9
1290	N47	2491	-18288	59.6	59.6	58.6	57.2	58.6	57.4

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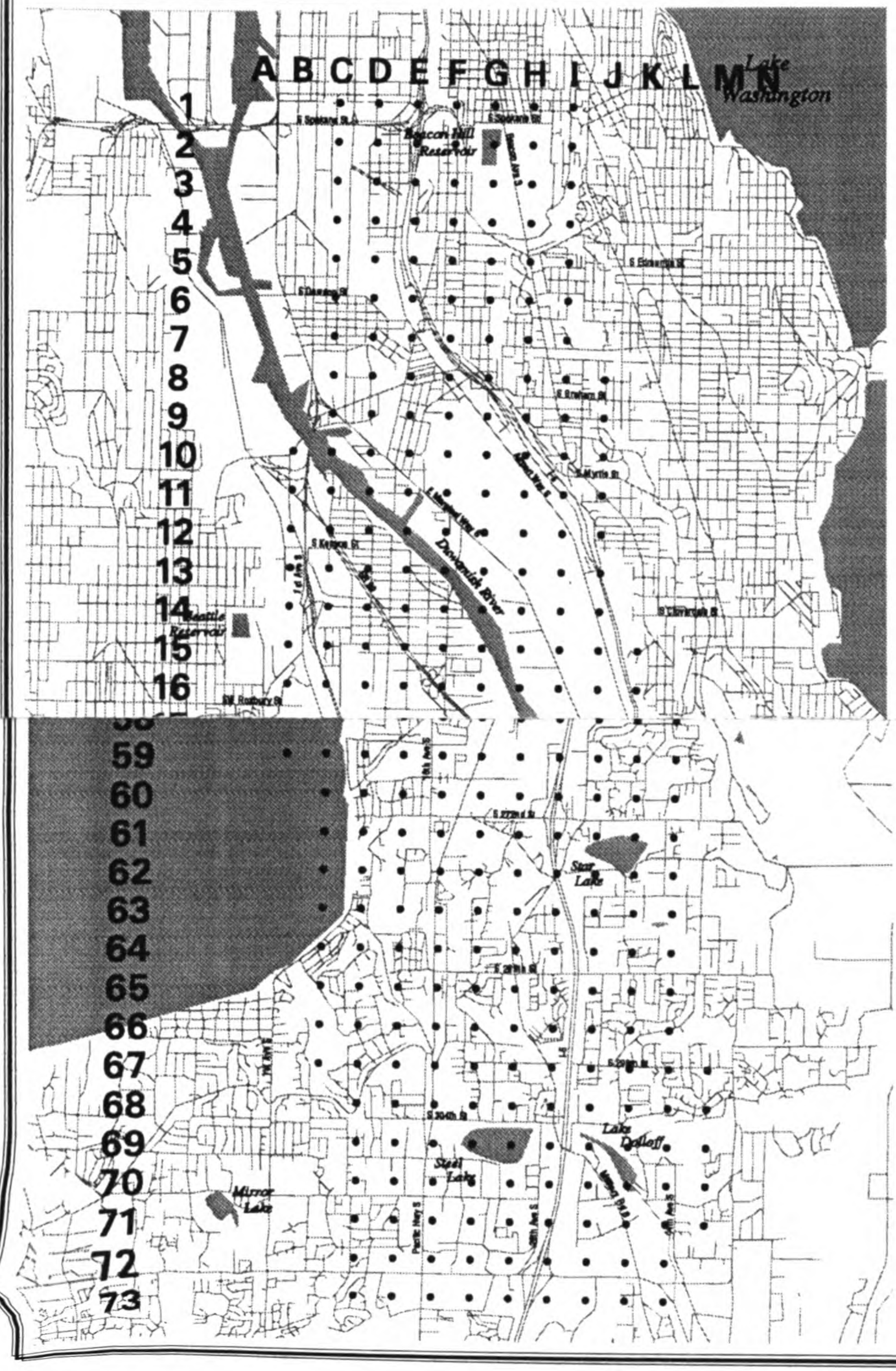
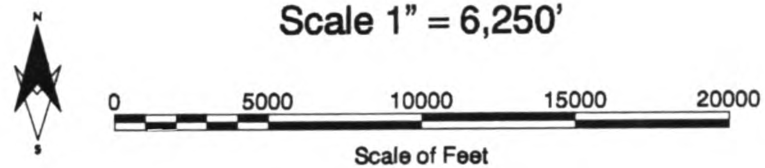


Seattle-Tacoma International Airport
Environmental Impact Statement
for the Master Plan Update

Exhibit C-18

Location Analysis Sites - Regularly Spaced Quarter Mile Grid

Scale 1" = 6,250'

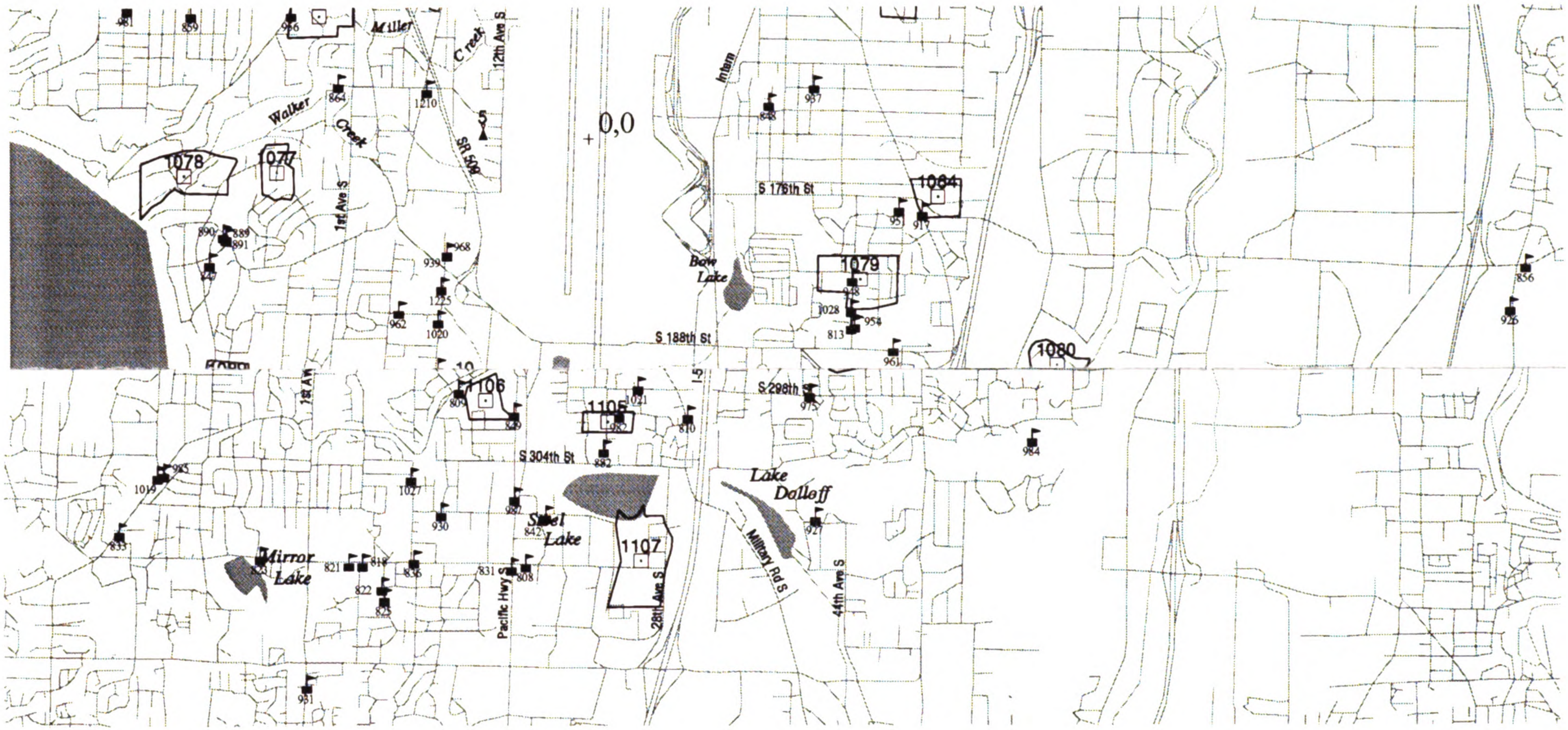


Projection: Lambert Conformal Conic
Coordinate System: State Plane NAD27

January 30, 1997

Seattle-Tacoma International Airport
Environmental Impact Statement
for the Master Plan Update

Exhibit C-19
Location Analysis Sites - Noise Sensitive Facilities, Parks, RMS Sites (South)

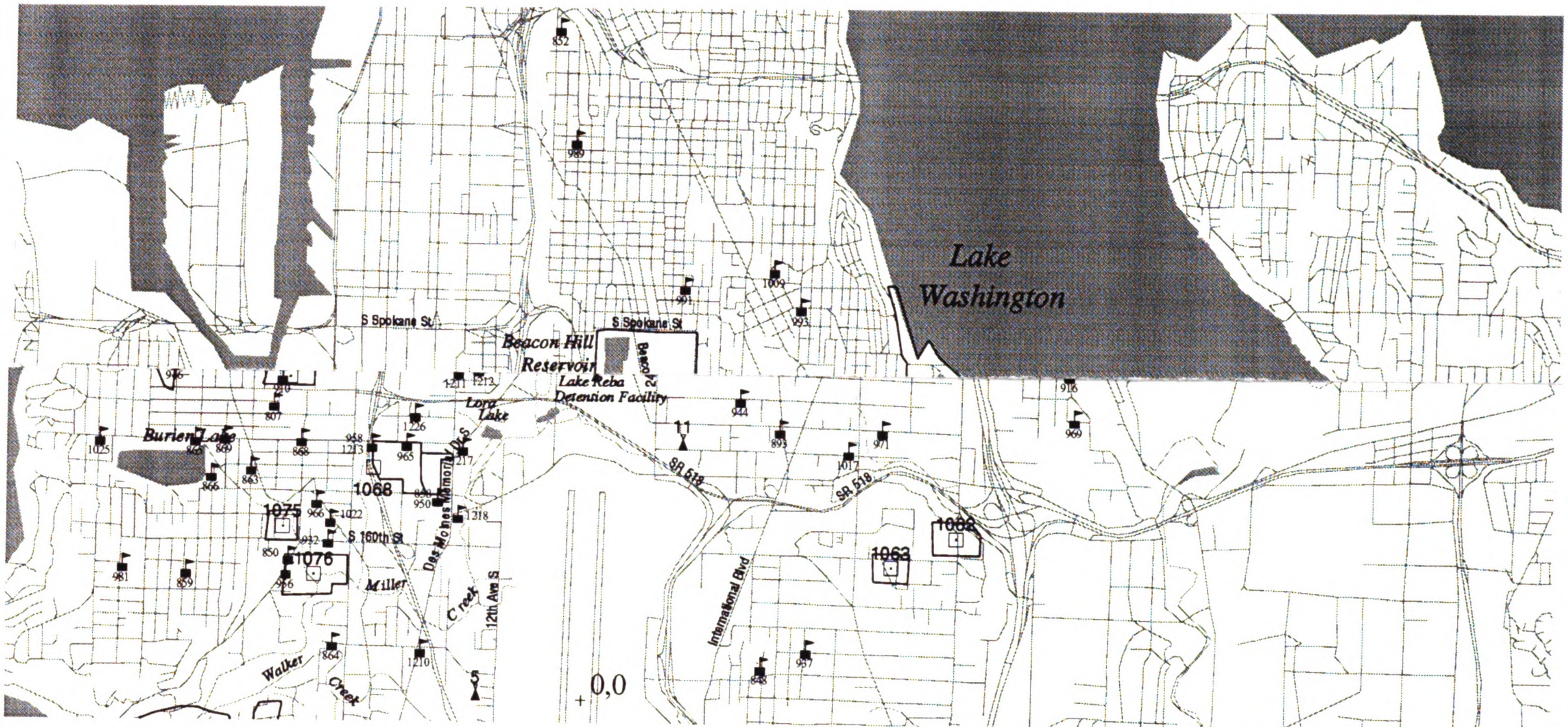


Park Boundary
Park Grid Point
RMS Location
Noise Sensitive Facility
0,0 Point

Scale 1" = 4,000'
0 4000 8000
Scale of Feet
January 30, 1997

Seattle-Tacoma International Airport
Environmental Impact Statement
for the Master Plan Update

Exhibit C-20
Location Analysis Sites - Noise Sensitive Facilities, Parks, RMS Sites (North)



Park Boundary
Park Grid Point
RMS Location
Noise Sensitive Facility
0,0 Point

Scale 1" = 4,000'
0 4000 8000
Scale of Feet
January 30, 1997

APPENDIX C-4

SURFACE TRANSPORTATION
CONSTRUCTION IMPACTS REPORT

SEATTLE - TACOMA INTERNATIONAL AIRPORT

Supplemental EIS

Surface Transportation
Construction Impacts Report

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APPENDIX C-4

CONSTRUCTION IMPACTS REPORT

I. EXECUTIVE SUMMARY

This Technical Report documents the additional analysis performed to supplement the Final EIS review of potential construction activities associated with the Master Plan Update improvements. These include the construction of a Third Runway and associated projects, improvements to the Runway Safety Areas (RSA), and transport of the fill requirements for the South Aviation Support Area (SASA).

Since publication of the Final EIS, new information has arisen concerning the following construction activities:

- Third parallel runway haul duration- the Final EIS analyzed a three (3) year haul, with the runway being available for use in the year 2000. This Supplemental EIS analyzes a five (5) year haul, with the runway available for use late in the year 2004. The peak hauling period would occur in the year 2000, with the haul completed in the year 2002. The lengthening of the haul duration could reduce the number of average daily truck trips.
- Additional haul routes have been identified- the Final EIS examined the primary haul routes that are anticipated to be used. Based on further examination, several additional routes were identified.
- Examination of two temporary interchanges- in addition to the identification of additional haul routes, two temporary, construction only, interchanges were identified: State Route 518 near 20th Avenue South, and State Route 509 near South 176th Street.

Based on preliminary engineering work, the 8,500 Foot Third Runway option is estimated to require a total fill requirement of 17.25 million cubic yards (MCY) of material[1]. Fill requirements for the other Master Plan Update activities occurring between 1997 and the year 2005 in combination with the Third Runway requirements would total 20.56 MCY.

The fill requirements needed to construct the proposed Master Plan Update facilities would be met from either material excavated near the Third Runway site (common excavation), development of material sources located on adjacent Port of Seattle property (on-site sources), or material sources located within the Puget Sound region (off-site sources).

Truck volumes analyzed in this supplemental analysis have been reduced from the levels analyzed in the Final EIS, as a result of new information and as a result of the longer construction haul. This reduction is particularly significant for off-site truck traffic and is due to changes in several major conditions of the construction activities contained in the first phase of

[1] P&D Aviation, Technical Report # 6. Airside Options Evaluation, September, 19, 1994, p. 5-18

the Master Plan Update. Those changed conditions are summarized in **Table C-4-1** and are discussed further in Section II of this report.

Between 2.9 and 3.1 million MCY of common excavation material is available from earthwork within the Airfield Operations Area. Potential material sources considered in this report include six (6) on-site sources and 18 off-site sources. On-site material location and availability is outlined in **Table C-4-2**. Truck traffic necessary to haul the required fill material from off-site sources is estimated to add between 544 and 1,408 truck trips a day to the area roadway system, depending on the volume of material available from the on-site material sources. **Table C-4-3** outlines the derivation and haul assumptions that calculate off-site truck traffic. Off-site material sources are displayed in **Exhibit C-4-1**. On-site truck trips are calculated to average between 0 and 1,056 trips per day, but are anticipated to use haul routes on Port of Seattle property to the greatest extent possible. **Table C-4-4** outlines the derivation and haul assumptions that calculate the on-site truck traffic.

Off-site truck trips would average between 26 and 66 trucks per hour, per direction, with peaking adjustments. These additional truck trips could result in some deterioration in level of service and traffic flow on certain routes where background levels of congestion are near or exceed roadway capacity, and where extended grades exist. However, a reduced level of airport-related construction truck traffic would result in less roadway congestion than the maximum volumes examined in the Final EIS.

II. CHANGED CONDITIONS FROM FINAL EIS

Several conditions and assumptions have changed from those analyzed in the Final EIS. These changes are described in the following section.

A. On-Site Material Availability

Potential on-site material sources were identified in the Third Runway Preliminary Engineering Report[2] as sources of embankment fill material. In the Draft EIS and the Final EIS, two alternative scenarios were analyzed:

- Option 1, Minimum use of on-site sources- As noted in the Final EIS, use of some on-site fill would require impacts to wetlands. If such impacts are not permitted, the use of off-site material must be maximized.
- Option 2, Maximum use of on-site sources- Port of Seattle owned land in the immediate airport vicinity could provide over 50 percent of needed material. If permitted, the maximum on-site usage would result in the least amount of off-site material, and as a result in the least amount of off-site truck traffic.

[2] HNTB, Preliminary Engineering Report, Volume 2, March 31, 1994, Appendix 1, p. 6-13, Table 3

TABLE C-4-1

SUMMARY COMPARISON OF CHANGED ASSUMPTIONS FROM MASTER PLAN UPDATE FINAL EIS

Description	Master Plan Update Final EIS		Supplemental EIS	
	Option 1	Options 2	Option 1	Option 2
Construction Assumptions				
Haul Duration	3.0 Years	3.0 Years	5.0 Years	5.0 Years
Total Material Required	23.64 MCY	23.64 MCY	23.64 MCY	23.64 MCY
Common Excavation	2.9 MCY	3.1 MCY	2.9 MCY	3.1 MCY
On-Site Material	0.0 MCY	8.0 MCY	0.0 MCY	12.35 MCY
Off-Site Material	20.74 MCY	12.54 MCY	20.74 MCY	8.19 MCY
On-Site Truck Traffic, One Direction				
Hourly Average	0 vph	36 vph	0 vph	33 vph
Hourly with Peaking	0 vph	54 vph	0 vph	50 vph
Two-Way Daily	0 vph	1,152 vpd *	0 vph	1,056 vpd

* Incorrectly calculated as 1,732 in Final EIS.

Description	Master Plan Update Final EIS Option 1	Master Plan Update Final EIS Options 2	Supplemental EIS Option 1	Supplemental EIS Option 2
Off-Site Truck Traffic, One Direction				
Hourly Average	44 vph	73 vph	17 vph	44 vph
Hourly with Peaking	66 vph	109 vph	26 vph	66 vph
Two-Way Daily	1,408 vph	2,336 vpd	544 vph	1,408 vpd
On-Site Construction Employees				
Employees per shift	35	107	35	107

vph - vehicles per hour
vpd - vehicles per day

Source: INCA Engineers, January 1997.

TABLE C-4-2

FILL MATERIAL AVAILABILITY AND REQUIREMENTS

Fill Available

On-Site Borrow Source	Available On-Site Fill (Million Cubic Yards) Minimum	Maximum
Area 1	0.00	6.60
Area 2	0.00	0.65
Area 3	0.00	2.90
Area 4	0.00	2.20
Area 5	0.00	0.00
Area 8	0.00	0.00
Subtotal	0.00	12.35
Common Excavation	2.90	3.10
Total Fill Available	2.90	15.45

Fill Requirements

Master Plan Update Construction Activity	Total Fill Requirements (Million Cubic Yards) In-Place	adjusted
8,500 Foot Runway	17.25	19.84
RSA Improvements	0.98	1.13
Relocation of S 154th Street	0.13	0.14
SASA Facilities	2.20	2.53
Runway 34R Extension	2.40	2.76
Total Fill Required	22.96	26.40

* Volumes increased 1.15 for construction placement shrink/swell

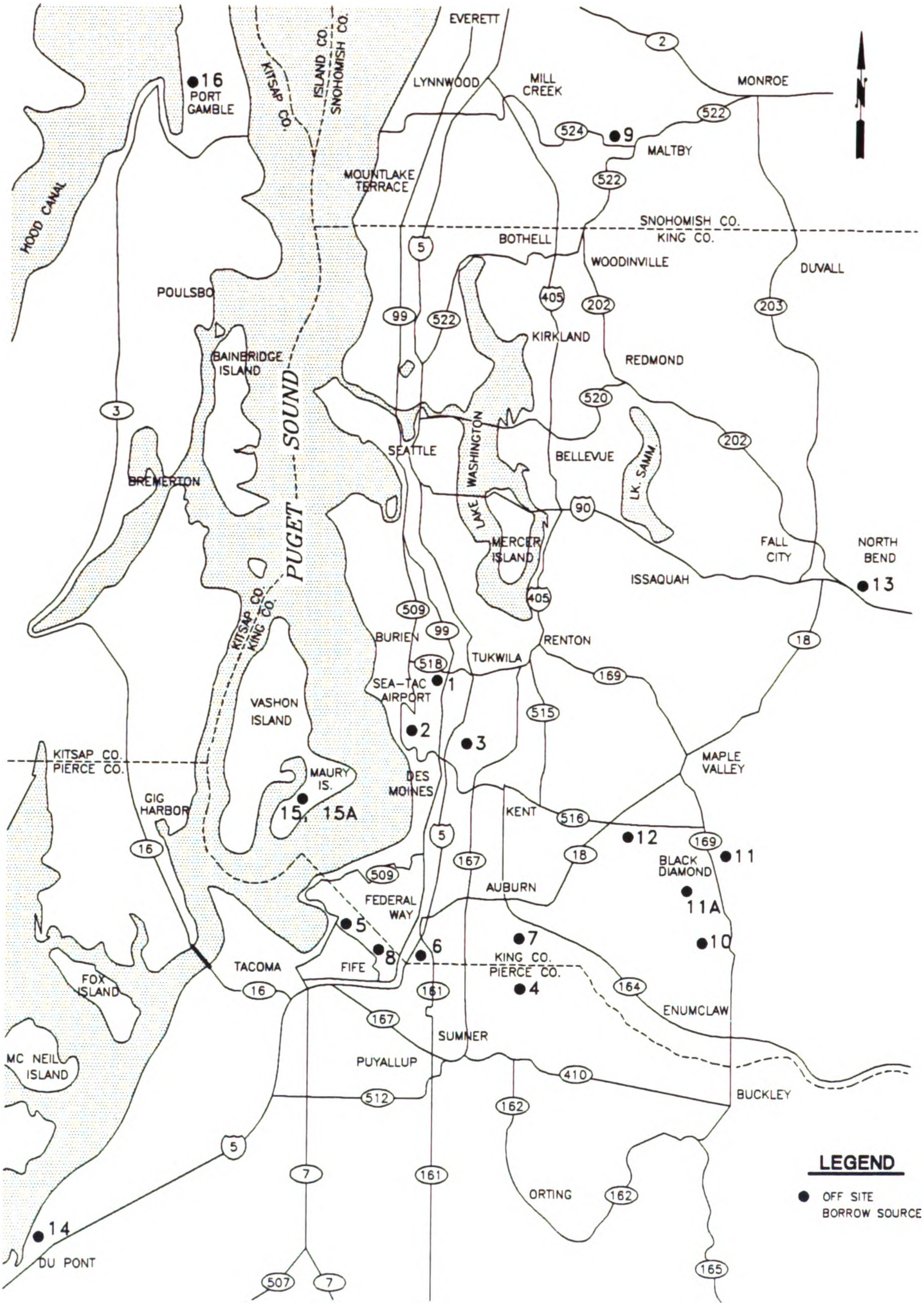
Source: Port of Seattle and HNTB.

TABLE C-4-3

OFF-SITE CONSTRUCTION HAUL TRUCK VOLUMES

		OPTION 1 Minimum On-Site Use	**OPTION 2** Maximum On-Site Use
A.	Total Fill Required (MCY)	20.56	20.56
B.	Adjustment for Shrink/Swell (*A* x 1.15)	23.64	23.64
C.	On-Site Sources and Common Excavation	2.90	15.45
D.	Required Import (*B* - *C*)	20.74	8.19
E.	Number of Years	5.0	5.0
F.	Days per Year	270	270
G.	Hours per Day	16.0	16.0
H.	Total Haul Hours (*E* x *F* x *G*)	21,600	21,600
I.	Truck Capacity	22.0	22.0
J.	Average Trucks per hour/per direction ([*D*/(*H* x *I*)])	44	17
K.	Adjustment for Peaking Conditions (*J* x 1.5)	66	26
L.	Average Trucks per Day (*J* x 2 x 16)	1,408	544

Source: INCA Engineers, January 1997.



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REGIONAL VICINITY MAP & OFF-SITE MATERIAL SOURCES
EXHIBIT C-4-1

TABLE C-4-4

ON-SITE CONSTRUCTION HAUL TRUCK VOLUMES

		OPTION 1 Minimum On-Site Use	**OPTION 2** Maximum On-Site Use
A.	Total Fill Available (MCY)	0	12.35
B.	Number of Years	0	5.0
C.	Days per Year	0	210
D.	Hours per Day	0	16
E.	Total Haul Hours (*B* x *C* x *D*)	0	16,800
F.	Truck Capacity	0	22.0
G.	Average Trucks per hour/per direction ([*A*/(*E* x *F*)])	0	33
H.	Adjustment for Peaking Conditions (*G* x 1.5)	0	50
I.	Average Trucks per Day (*G* x 2 x 16)	0	1,056

Source: INCA Engineers, January, 1997.

These alternatives were developed to establish a range of conditions and impacts for analysis. Since the Final EIS was completed, the Port of Seattle has revised its assumptions regarding on-site sources. The revised volumes of fill material are listed in **Table C-4-2.** The potential use of on-site material analyzed in this supplemental analysis represents a 4.35 MCY increase over the maximum amount considered in the Final EIS. The significant changes from the Final EIS are that the maximum expected fill from on-site Source 1 has been increased from 0.5 MCY to 6.6 MCY, and that on-site Source 5 has been reduced from 1.75 MCY to 0 MCY. On-site material sources are displayed in **Exhibit C-4-2.**

B. Timeframe and Haul Duration

The Final EIS analyzed the construction impacts associated with Master Plan Update improvements to be constructed in the first phase, as occurring between 1996 and the year 2000. Construction activities associated with the Third Parallel Runway are now planned to occur between 1997 and the year 2005. The embankment haul process is now expected to begin in 1997 and last until the year 2002, a five year duration. The change in haul duration from three years to five years could result in a 40 percent reduction in the hourly truck volumes over those considered in the Final EIS.

C. Additional Routes

The Final EIS identified haul routes thought most likely to be used by haul trucks from the 18 identified off-site material sources, considering several factors including background congestion, roadway classification, and adjacent land use.[3] The off-site sources and highway/arterial network are displayed in **Exhibit C-4-1**. Since the completion of the Final EIS, the Port of Seattle has conducted an additional study of alternative conveyance methods and routes that might be used to transport the required fill material. This study further analyzed methods and corridors identified in the Final EIS for transport.[4] This additional study verified that the most feasible method of transporting off-site material to the construction sites was by trucks from regional material sources, or by a barge-truck combination using the Duwamish-State Route 509 corridor.[5] This study also identified additional airport vicinity haul routes.[6]

Potential access points to the Third Runway construction area and South Aviation Support Area (SASA) construction area are displayed in **Exhibit C-4-2**. Airport vicinity haul routes previously considered and new routes identified by the Alternative Delivery Study are also displayed in **Exhibit C-4-2** and are further described as follows:

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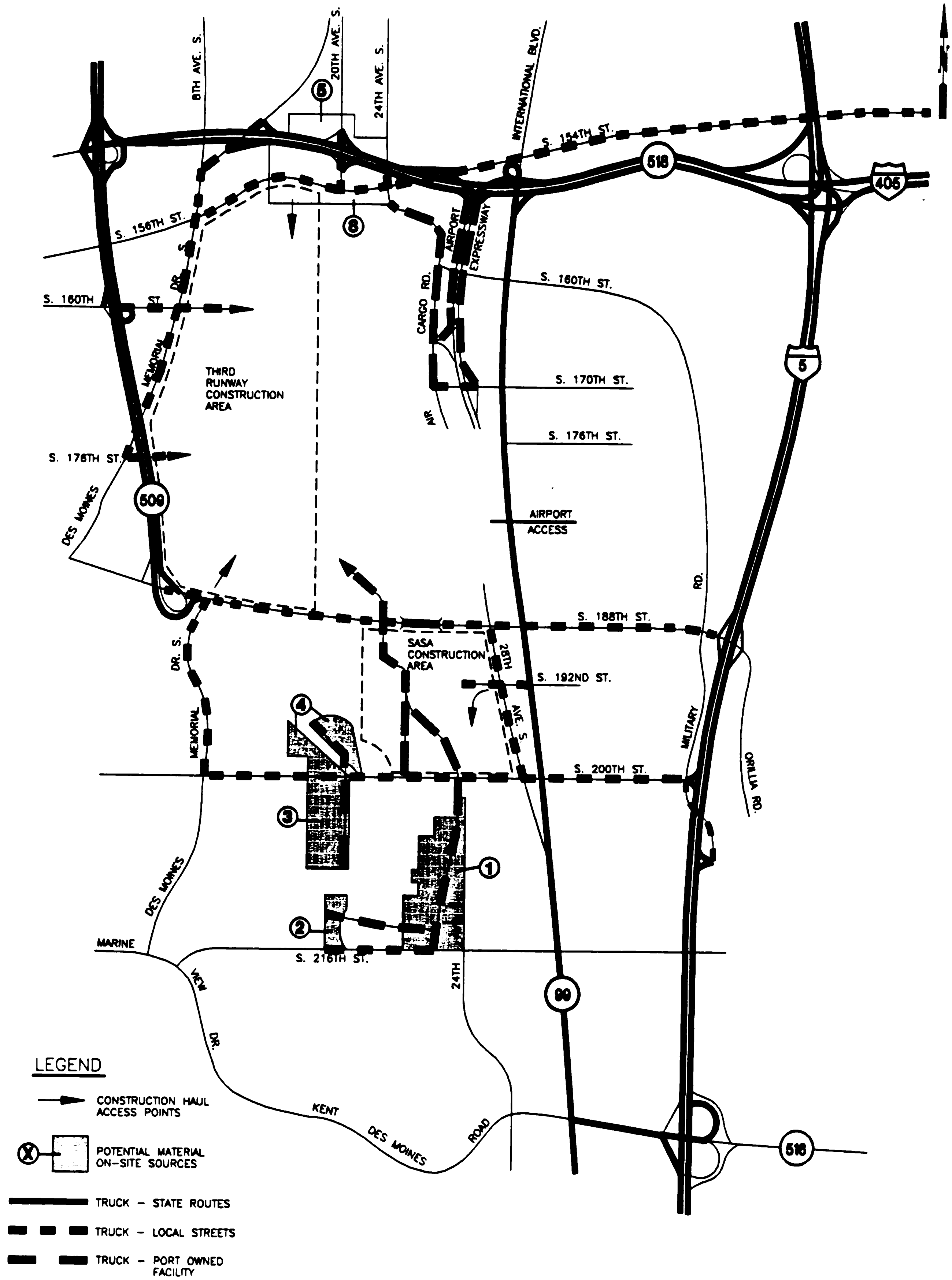
[3] Seattle-Tacoma International Airport Master Plan Update EIS, February 1, 1996, Section 23, Tables IV 23-2 and IV 23-3.

[4] Seattle-Tacoma International Airport Master Plan Update EIS, February 1, 1996, Section 23, B-2, p. IV 23-4

[5] HNTB, Fill Material Alternative Delivery Method Study for Third Runway, Phase 1, November, 1996, p. ES 5, ES-6

[6] HNTB, Fill Material Alternative Delivery Method Study for Third Runway, Phase 1, November, 1996, p. 37 and 38, Figures 4 and 7



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AIRPORT VICINITY HAUL ROUTES

EXHIBIT C-4-2

Off-Site Haul Routes - Third Runway Embankment

Route 1	State Route 518, Airport Expressway, Air Cargo Road, South 156th Street
Route 1A	State Route 518, to 20th Avenue South, Temporary Construction Access**
Route 2	State Route 518, Des Moines Memorial Drive South, South 156th Street
Route 3	State Route 518, Des Moines Memorial Drive South, South 160th Street
Route 4	State Route 518, State Route 509, South 160th Street
Route 4A	State Route 518, State Route 509, South 176th Street, Temporary Construction Access**
Route 5	State Route 518, International Boulevard / State Route 99, South 188th Street, Starling Drive
Route 6	State Route 509, State Route 518, Airport Expressway, Air Cargo Road, South 156th Street
Route 7	State Route 509, South 160th Street
Route 7A	State Route 509, to South 176th Street, Temporary Construction Access**
Route 8	State Route 509, South 188th Street, Starling Drive
Route 9	Interstate 5 (from North), South 188th Street, Starling Drive**
Route 10	Interstate 5 (from South), South 188th Street, Starling Drive**
Route 11	Interstate 5 (from South), South 200th Street, International Boulevard / State Route 99, South 188th Street, Starling Drive**
Route 12	Interstate 5 (from South), Kent-Des Moines Road / State Route 516, International Boulevard / State Route 99, South 188th Street, Starling Drive**
Route 13	South 154th/156th Street, Southcenter Boulevard, Southwest Grady Way**

Off-Site Haul Routes - SASA Development

Route 14	State Route 518, International Boulevard / State Route 99, South 192nd Street**
Route 15	State Route 509, South 188th Street, 28th Avenue South, South 192nd Street
Route 16	Interstate 5 (from North), South 188th Street, 28th Avenue South, South 192nd Street**
Route 17	Interstate 5 (from South), South 188th Street, 28th Avenue South, South 192nd Street**
Route 18	Interstate 5 (from North), South 200th Street, 28th Avenue South, South 192nd Street**
Route 19	Interstate 5 (from South), South 200th Street, 28th Avenue South, South 192nd Street**
Route 20	Interstate 5 (from South), Kent-Des Moines Road / State Route 516, International Boulevard / State Route 99, South 192nd Street**

On-Site Haul Routes

A	South 200th Street, Des Moines Memorial Drive South, Starling Drive
B	South 200th Street, Golf Course Access

** Route not considered in the Final EIS.

D. Material Transfer Sites for Barge/Rail-Truck Conveyance

The Alternative Delivery Method Study considered potential locations for material transfer sites along the Duwamish Waterway. The potential sites considered are displayed in **Exhibit C-4-3**. No specific barge material site has been selected. However, the sites described as most likely for use are several private operations, as well as Port facilities at T 105, T 115 and T 106 W-CFS.[7] Sites T 2 and T 18 are also considered potential sites but would require crossing congested intersections with Southwest Spokane Street. Sites T 106 W-CFS and T 18 would most likely use East Marginal Way to access State Route 509. East Marginal Way has existing congestion at the intersections with 1st Avenue South and at South Michigan Street.[8]

Sites T 105 and T 115 are considered better sites due to their location south of Southwest Spokane Street and along West Marginal Way, a multi-lane arterial in very good condition with light to moderate traffic volumes. Access to and from State Route 509 is direct, by ramp or by way of the Cloverdale interchange. The section of State Route 509 south of West Marginal Way currently operates at LOS E and is predicted to be LOS E in the year 2015.[9] The steepest grade along State Route 509 occurs north of the Glendale interchange, where there are three southbound lanes, providing a climbing lane for southbound trucks.

A potential rail-truck route has been identified which would use Southwest Grady Way to Southcenter Boulevard to South 154th/156th Street to access the construction site (Route 13). The potential transfer site is not located at this time, but truck traffic would access Southwest Grady Way between State Routes 167 and 181. Do-Nothing peak hour level of service at major intersections are E and F, but are not significantly impacted by haul traffic. Due to the background conditions, haul traffic would need to either avoid this corridor during peak periods, both AM and PM, or be reduced in volume. Street use or truck route permits may be required for the use of these locations as material transfer sites from the cities of Seattle, Renton, Tukwila, and SeaTac.

E. Other Area Major Construction Projects

Several roadway projects are under active construction, or are planned for construction by the year 2005, which may affect haul routes or traffic control. These future projects include:

- Interstate 5 (WSDOT, 1996-1998) - Construct HOV and truck climbing lanes from Pierce County line to Tukwila. The reconstruction of the Interstate 5 and State Route 518/Interstate 405 interchange is currently under construction.

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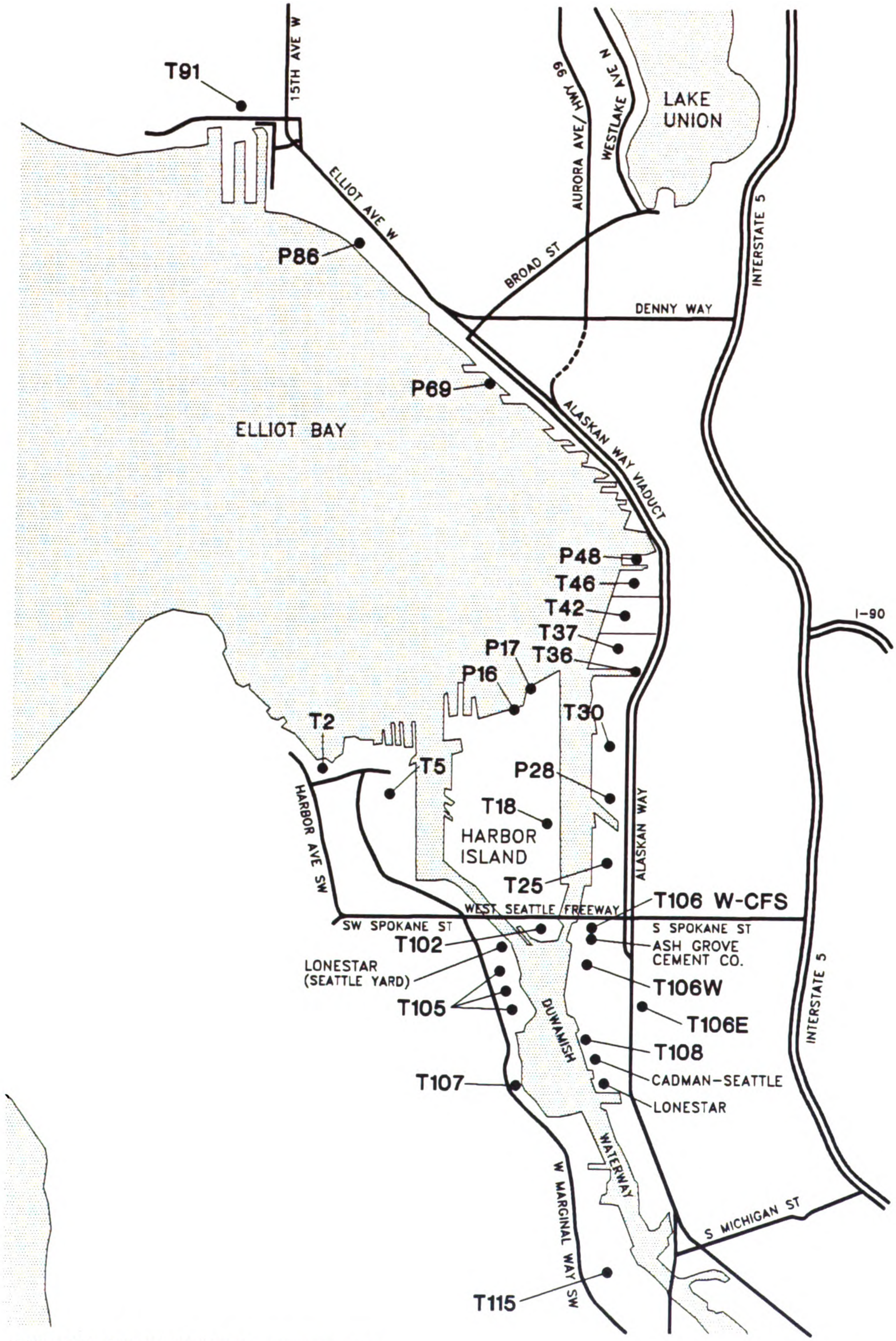
7 HNTB, Fill Material Alternative Delivery Method Study for Third Runway, Phase 1, November, 1996, p. 18-20

8 Final Environmental Impact Statement, First Avenue South Bridge: SR 99 Crossing the Duwamish River, April, 1993, Table 3.2-4

9 Final Environmental Impact Statement, First Avenue South Bridge: SR 99 Crossing the Duwamish River, April, 1993, Table 3.2-4 and Table 3.2-9



SOURCE: HNTB ALTERNATIVE DELIVERY STUDY, NOVEMBER 1996.

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POTENTIAL BARGE TRANSFER LOCATIONS
EXHIBIT C-4-3

- South 200th Street (City of SeaTac, 1995-1997) - Widen roadway to 3 or 5 lanes with an urban cross-section: International Boulevard / State Route 99 to Des Moines Memorial Drive South.
- International Boulevard / State Route 99 Phase II (City of SeaTac, 1995-1997) - Widen roadway to 6 lanes (4 general purpose lanes, one southbound HOV lane, and one two-way left-turn lane): South 188th Street to South 200th Street.
- South 188th Street (City of SeaTac, 1995-1997) - Widen roadway to extend the eastbound right-turn lane from International Boulevard / State Route 99 to west of 28th Avenue South.
- South 154th Street and 24th Avenue South (City of SeaTac, 1996-1998) - Reconstruct and widen intersection.
- Military Road South and South 200th Street / Southbound Interstate 5 Ramps (City of SeaTac, 1996-1998) - Reconstruct and widen intersection to provide a left-turn lane on the westbound approach, and a three lane (left, through, right) eastbound approach.
- Military Road South and Northbound Interstate 5 Ramps (City of SeaTac, 1996-1998) - Install traffic signal at intersection.
- Des Moines Memorial Drive South, South 188th Street to South 192nd Street, (City of SeaTac, 1997-1999) - Reconstruct and Widen roadway to 36 feet.
- Des Moines Memorial Drive South, State Route 518 to South 156th Street, (City of SeaTac, 2000-2002) - Reconstruct and widen roadway to 36 feet.
- Des Moines Memorial Drive South and South 188th Street, (City of SeaTac, 2000-2002) - Reconstruct intersection to provide an eastbound right-turn lane and dual northbound left-turn lanes.
- Des Moines Memorial Drive South and South 200th Street, (City of SeaTac, 2000-2002) - Reconstruct and widen intersection to provide left-turn channelization on all approaches and a right turn lane on the westbound approach.
- South 154th Street, State Route 518 Off-Ramp to 24th Avenue South.(City of SeaTac, 2000-2002) - Reconstruct and widen roadway to 36 feet..
- Air Cargo Road and South 160th Street (City of SeaTac, 2003-2005) - Install traffic signal at intersection.
- Des Moines Memorial Drive South, South 194th Street to South 208th Street, (City of SeaTac, 2003 - 2005) - Reconstruct and Widen roadway to 36 feet.
- Des Moines Memorial Drive South, South 156th Street to City Limits, (City of SeaTac, 2003-2005) - Reconstruct and Widen roadway to 36 feet.
- South 170th Street and Northbound Airport Expressway Ramps (City of SeaTac, 2000-2002) - Install traffic signal at intersection.
- Air Cargo Road and Southbound Airport Expressway Ramps (City of SeaTac, 2000-2002) - Install traffic signal at intersection.
- Air Cargo Road and South 160th Street (City of SeaTac, 2003-2005) - Install traffic signal at intersection.

Haul traffic for the Third Runway may affect the construction on these, depending on the haul route chosen.

III. HAUL ROUTE ANALYSIS

A. Regional System Level of Service Analysis

Analysis conducted by the Final EIS for both minimum and maximum off-site truck traffic found that varying impacts to the regional transportation network were predicted where background levels of congestion are near or exceed roadway capacity and where extended grades exist[10]. The minimum off-site truck traffic examined in the Final EIS corresponds to the maximum truck traffic now expected as a result of the changes to the Master Plan Update Improvement schedule discussed previously in this supplemental analysis. The year 2000 was used as the forecast year in the Final EIS analysis of the regional system, and is representative of conditions over a five year haul process occurring between the year 1997 and the year 2002. Year 2000 also is expected to be the peak year of construction activity associated with the Third Runway. The level of service results from that analysis are displayed in **Table C-4-5**. Significant impacts to regional system operating conditions are considered to occur where "Do-Nothing" conditions of LOS E or higher are degraded to LOS F, or further into LOS F as a result of construction haul traffic.

In the Final EIS there were six locations and 11 periods where LOS F was caused or increased by construction haul traffic. At the reduced volumes now expected, deterioration to LOS F or increased LOS F is predicted at 5 locations and 9 periods. These are:

- Interstate-5, Southbound between State Route 518 and South 188th Street, during the PM peak.
- State Route 18, Westbound between Interstate 5 and State Route 167 during all hours except the evening and night.
- State Route 167, Southbound between Interstate I-405 and Southwest 34th Street during the PM peak.
- Interstate 405, Northbound between State Route 167 and Interstate 5, during the AM and PM peak.
- Interstate 405, Southbound, between State Route 167 and Interstate 5, during the Midday and PM peak.

The analysis considered that at certain times, the construction truck traffic might peak, and exceed the average conditions, due to delays and random events which concentrate truck traffic. Therefore, a peaking factor of 1.5 was used (the average hour truck traffic levels were increased by 50% to account for peaking). Where LOS F or long delays are encountered or caused, it is anticipated that construction traffic will either avoid, be reduced in trip frequency, or be restricted entirely from peak congestion periods on certain routes.

[10] Seattle-Tacoma International Airport Master Plan Update Final EIS, February 1, 1996, Section 23, B-2, p. IV 23-4

TABLE C-4-5

REGIONAL SYSTEM LEVEL OF SERVICE SUMMARY SHEET

		1994					*Haul Process 1997-2002*														
		Existing Condition					*"Do-Nothing" Without Const. Trucks*					*Final EIS Maximum Off-Site Haul**					*Supplemental Max. Off-Site Haul***				
Facility Section		AM	MID.	PM	EVE	NIGHT	AM	MID.	PM	EVE	NIGHT	AM	MID.	PM	EVE	NIGHT	AM	MID.	PM	EVE	NIGHT
I-5	NB	E	D	D	B	A	E	D	E	B	A	E	D	E	C	B	E	D	E	C	B
(SR 518 to S 188th St.)	SB	D	E	F	D	A	D	E	F	D	A	D	F	F	E	B	D	E	F	D	B
SR 518	EB	C	C	D	B	A	C	C	E	C	A	D	D	E	C	A	C	D	E	C	A
(I-5 to SR 99)	WB	C	C	D	B	A	C	C	D	B	A	D	D	F	C	B	D	D	E	C	A
SR 518	EB	A	B	B	A	A	A	B	C	A	A	B	C	C	B	A	B	C	C	B	A
(SR 99 to SR 509)	WB	B	B	C	A	A	B	B	C	A	A	D	B	C	A	A	B	B	C	A	A
SR 18	EB	D	C	D	B	A	D	D	D	B	A	E	D	E	C	B	E	D	E	B	B
(I-5 to SR 167)	WB	F	E	F	B	B	F	F	F	C	B	F	F	F	E	E	F	F	F	D	D
SR 509	NB	D	B	C	B	A	E	C	C	B	A	E	C	D	C	B	E	C	C	C	A
(North of SR 518)	SB	B	B	C	A	A	B	B	C	A	A	C	C	E	C	B	C	C	D	C	A
SR 509	NB	B	A	B	A	A	C	A	B	A	A	C	B	C	A	B	C	A	C	A	A
(SR 518 to S. 160th St.)	SB	C	C	D	B	C	D	D	D	B	C	D	D	D	C	C	D	D	D	C	C
SR 167	NB	D	D	C	B	A	E	D	D	B	B	E	E	D	C	B	E	D	D	C	B
(I-405 to SW 34th St., Carr St.)	SB	C	D	E	C	A	D	E	E	C	B	E	E	F	D	B	D	E	F	D	B
I-405	NB	F	E	E	C	B	F	E	E	C	B	F	E	F	D	C	F	E	F	C	B
(SR 167 to I-5)	SB	D	E	F	C	A	D	E	F	D	A	E	F	F	E	B	E	F	F	E	B

* 109 Trucks per Hour, Adjusted for Peaking.
** 66 Trucks per Hour, Adjusted for Peaking.

Haul truck access directly to the Third Runway construction site from either State Route 509 at South 176th Street or from State Route 518 in the area of 20th Avenue South may occur. Construction access from State Route 509 and State Route 518 would be temporary, being used only during construction of the Third Runway by construction related traffic. Key issues involved in WSDOT acceptance of these access points would be operational affects on State Route 509 and State Route 518, as well as safety and traffic control. LOS conditions with these facilities are:

State Route 518

- West Bound Off Ramp to 20th Avenue South — LOS C
- East Bound On Ramp from 20th Avenue South — LOS B

State Route 509

- South Bound Off Ramp to South 176th Street — LOS C
- North bound On Ramp from South 176th Street — LOS B

B. Airport Vicinity Haul Routes Level of Service Analysis

Future year traffic volumes were developed for the local surface transportation system from the supplemental surface transportation analysis described in **Appendix C-1**. Base PM peak hour intersection volumes were developed for both the Do-Nothing and Preferred Alternatives. The Preferred Alternative base intersection volumes were then modified to include both construction employee traffic, and construction material delivery traffic. Construction employee traffic was estimated as 50 vehicles per hour during the peak hour, and was distributed according to the origin-distribution patterns developed for Airport employee traffic as summarized in **Appendix C-1**. Off-site construction haul traffic ranged from 26 vehicles per hour to 66 vehicles per hour based on the haul option evaluated, and was assigned to the local surface transportation system based on the haul route evaluated. A total of three different haul options and 20 different haul routes resulted in the evaluation of 53 different Preferred Alternative scenarios. Three options were analyzed:

1. **Option 1** represents the maximum off-site truck traffic analysis of 66 trucks per hour with no on-site source usage.
2. **Option 2A** represents the minimum off-site truck condition of 26 trucks per hour in combination with on-site truck traffic usage of the local roadway system by 50 trucks per hour.
3. **Option 2B** represents the minimum off-site truck condition of 26 trucks per hour but with on-site truck traffic using off road haul routes in lieu of the local road system.

Detailed intersection level of service analysis were performed for all major intersections along the identified Airport vicinity haul routes. These analysis were performed according to the methodologies described in the Transportation Research Board's Highway Capacity Manual. Both the Do-Nothing and Preferred Alternatives were evaluated, and the level of service results are summarized in **Table C-4-6**. Of the 40 intersections evaluated with each Preferred Alternative scenario, a total of 14 intersections degraded to a level of service of LOS E, or further into LOS F, when compared to the Do-Nothing Alternative as a result of construction related traffic and considered as an impact. A more conservative standard of congestion impact was established for the local roadway system due to the interrupted flow condition of at-grade intersections being more susceptible to deterioration.

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks								
		Route 1			Route 1-A			Route 2		
		1	2A	2B	1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	B	B	B	B	B	B	B	B
Northbound SR 509 Ramps & SR 518	A	A	A	A	A	A	A	A	A	A
Des Moines & EB SR 518 On-Ramp	A	A	A	A	A	A	A	A	A	A
Des Moines & WB SR 518 Off-Ramp	F	F	F	F	F	F	F	F	F	F
Des Moines & 8th Ave South	B	B	B	B	B	B	B	C	B	B
International/SR 99 & S 154th St.	E	E	E	E	E	E	E	E	E	E
24th Ave S & S 154th St.	C	E	D	D	D	D	D	D	D	D
Des Moines & S 156th St.	C	C	C	C	C	C	C	C	C	C
Southbound SR 509 & S 160th St.	D	D	D	D	D	D	D	D	D	D
Northbound SR 509 & S 160th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 160th St.	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 160th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 160th St.	D	D	D	D	D	D	D	D	D	D
Air Cargo Rd & Airport Expressway	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 170th St.	E	F	E	E	E	E	E	E	E	E
Airport Expressway & S 170th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 170th St.	F	F	F	F	F	F	F	F	F	F
International/SR 99 & S 176th St.	C	C	C	C	C	C	C	C	C	C
International/SR 99 & S 180th St.	D	D	D	D	D	D	D	D	D	D
Southbound SR 509 & S 188th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 188th St.	C	C	D	C	C	D	C	C	D	C
28th Ave S & S 188th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 188th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 188th St.	E	E	E	E	E	E	E	E	E	E
Southbound I-5 Ramps & S 188th St.	D	D	D	D	D	D	D	D	D	D
Northbound I-5 Ramps & S 188th St.	F	E	E	E	E	E	E	E	E	E
28th Ave S & S 192nd St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 192nd St.	D	C	C	C	C	C	C	C	C	C
Des Moines & S 200th St.	B	B	B	B	B	B	B	B	B	B
28th Ave S & S 200th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 200th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 200th St. / SB I-5 Ramps	F	E	E	E	E	E	E	E	E	E
Military Rd & Northbound I-5 Ramps	C	C	C	C	C	C	C	C	C	C
Des Moines & Marine View Drive	B	B	B	B	B	B	B	B	B	B
Pacific Highway/SR 99 & S 216th St.	E	E	E	E	E	E	E	E	E	E
Pacific Hwy./SR 99 & SR 516	E	E	E	E	E	E	E	E	E	E
SB I-5 Ramps & SR 516	F	F	F	F	F	F	F	F	F	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 1	State Route 518, Airport Expressway, Air Cargo Road, South 156th Street
Route 1A	State Route 518, to 20th Avenue South, Temporary Construction Access
Route 2	State Route 518, Des Moines Memorial Drive South, South 156th Street

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY (CONTINUED)

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks								
		Route 3			Route 4			Route 4-A		
		1	2A	2B	1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	B	B	C	B	B	C	B	B
Northbound SR 509 Ramps & SR 518	A	A	A	A	A	A	A	A	A	A
Des Moines & EB SR 518 On-Ramp	A	A	A	A	A	A	A	A	A	A
Des Moines & WB SR 518 Off-Ramp	F	F	F	F	F	F	F	F	F	F
Des Moines & 8th Ave South	B	C	B	B	B	B	B	B	B	B
International/SR 99 & S 154th St.	E	E	E	E	E	E	E	E	E	E
24th Ave S & S 154th St.	C	D	D	D	D	D	D	D	D	D
Des Moines & S 156th St.	C	C	C	C	C	C	C	C	C	C
Southbound SR 509 & S 160th St.	D	D	D	D	E	D	D	D	D	D
Northbound SR 509 & S 160th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 160th St.	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 160th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 160th St.	D	D	D	D	D	D	D	D	D	D
Air Cargo Rd & Airport Expressway	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 170th St.	E	E	E	E	E	E	E	E	E	E
Airport Expressway & S 170th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 170th St.	F	F	F	F	F	F	F	F	F	F
International/SR 99 & S 176th St.	C	C	C	C	C	C	C	C	C	C
International/SR 99 & S 180th St.	D	D	D	D	D	D	D	D	D	D
Southbound SR 509 & S 188th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 188th St.	C	C	D	C	C	D	C	C	D	C
28th Ave S & S 188th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 188th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 188th St.	E	E	E	E	E	E	E	E	E	E
Southbound I-5 Ramps & S 188th St.	D	D	D	D	D	D	D	D	D	D
Northbound I-5 Ramps & S 188th St.	F	E	E	E	E	E	E	E	E	E
28th Ave S & S 192nd St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 192nd St.	D	C	C	C	C	C	C	C	C	C
Des Moines & S 200th St.	B	B	B	B	B	B	B	B	B	B
28th Ave S & S 200th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 200th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 200th St. / SB I-5 Ramps	F	E	E	E	E	E	E	E	E	E
Military Rd & Northbound I-5 Ramps	C	C	C	C	C	C	C	C	C	C
Des Moines & Marine View Drive	B	B	B	B	B	B	B	B	B	B
Pacific Highway/SR 99 & S 216th St.	E	E	E	E	E	E	E	E	E	E
Pacific Hwy./SR 99 & SR 516	E	E	E	E	E	E	E	E	E	E
SB I-5 Ramps & SR 516	F	F	F	F	F	F	F	F	F	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 3	State Route 518, Des Moines Memorial Drive South, South 160th Street
Route 4	State Route 518, State Route 509, South 160th Street
Route 4A	State Route 518, State Route 509, South 176th Street, Temporary Construction Access

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY (CONTINUED)

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks								
		Route 5			Route 6			Route 7		
		1	2A	2B	1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	B	B	B	B	B	B	B	B
Northbound SR 509 Ramps & SR 518	A	A	A	A	A	A	A	A	A	A
Des Moines & EB SR 518 On-Ramp	A	A	A	A	A	A	A	A	A	A
Des Moines & WB SR 518 Off-Ramp	F	F	F	F	F	F	F	F	F	F
Des Moines & 8th Ave South	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 154th St.	E	E	E	E	E	E	E	E	E	E
24th Ave S & S 154th St.	C	D	D	D	E	D	D	D	D	D
Des Moines & S 156th St.	C	C	C	C	C	C	C	C	C	C
Southbound SR 509 & S 160th St.	D	D	D	D	D	D	D	E	D	D
Northbound SR 509 & S 160th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 160th St.	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 160th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 160th St.	D	E	E	E	D	D	D	D	D	D
Air Cargo Rd & Airport Expressway	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 170th St.	E	E	E	E	F	E	E	E	E	E
Airport Expressway & S 170th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 170th St.	F	F	F	F	F	F	F	F	F	F
International/SR 99 & S 176th St.	C	C	C	C	C	C	C	C	C	C
International/SR 99 & S 180th St.	D	D	D	D	D	D	D	D	D	D
Southbound SR 509 & S 188th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 188th St.	C	E	D	D	C	D	C	C	D	C
28th Ave S & S 188th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 188th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 188th St.	E	E	E	E	E	E	E	E	E	E
Southbound I-5 Ramps & S 188th St.	D	D	D	D	D	D	D	D	D	D
Northbound I-5 Ramps & S 188th St.	F	E	E	E	E	E	E	E	E	E
28th Ave S & S 192nd St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 192nd St.	D	C	C	C	C	C	C	C	C	C
Des Moines & S 200th St.	B	B	B	B	B	B	B	B	B	B
28th Ave S & S 200th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 200th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 200th St. / SB I-5 Ramps	F	E	E	E	E	E	E	E	E	E
Military Rd & Northbound I-5 Ramps	C	C	C	C	C	C	C	C	C	C
Des Moines & Marine View Drive	B	B	B	B	B	B	B	B	B	B
Pacific Highway/SR 99 & S 216th St.	E	E	E	E	E	E	E	E	E	E
Pacific Hwy./SR 99 & SR 516	E	E	E	E	E	E	E	E	E	E
SB I-5 Ramps & SR 516	F	F	F	F	F	F	F	F	F	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 5 State Route 518, International Boulevard / State Route 99, South 188th Street, Starling Drive
Route 6 State Route 509, State Route 518, Airport Expressway, Air Cargo Road, South 156th Street
Route 7 State Route 509, South 160th Street

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY (CONTINUED)

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks								
		Route 7-A			Route 8			Route 9		
		1	2A	2B	1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	B	B	B	B	B	B	B	B
Northbound SR 509 Ramps & SR 518	A	A	A	A	A	A	A	A	A	A
Des Moines & EB SR 518 On-Ramp	A	A	A	A	A	A	A	A	A	A
Des Moines & WB SR 518 Off-Ramp	F	F	F	F	F	F	F	F	F	F
Des Moines & 8th Ave South	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 154th St.	E	E	E	E	E	E	E	E	E	E
24th Ave S & S 154th St.	C	D	D	D	D	D	D	D	D	D
Des Moines & S 156th St.	C	C	C	C	C	C	C	C	C	C
Southbound SR 509 & S 160th St.	D	D	D	D	D	D	D	D	D	D
Northbound SR 509 & S 160th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 160th St.	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 160th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 160th St.	D	D	D	D	D	D	D	D	D	D
Air Cargo Rd & Airport Expressway	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 170th St.	E	E	E	E	E	E	E	E	E	E
Airport Expressway & S 170th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 170th St.	F	F	F	F	F	F	F	F	F	F
International/SR 99 & S 176th St.	C	C	C	C	C	C	C	C	C	C
International/SR 99 & S 180th St.	D	D	D	D	D	D	D	D	D	D
Southbound SR 509 & S 188th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 188th St.	C	C	D	C	D	D	D	E	D	D
28th Ave S & S 188th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 188th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 188th St.	E	E	E	E	E	E	E	E	E	E
Southbound I-5 Ramps & S 188th St.	D	D	D	D	D	D	D	D	D	D
Northbound I-5 Ramps & S 188th St.	F	E	E	E	E	E	E	E	E	E
28th Ave S & S 192nd St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 192nd St.	D	C	C	C	C	C	C	C	C	C
Des Moines & S 200th St.	B	B	B	B	B	B	B	B	B	B
28th Ave S & S 200th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 200th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 200th St. / SB I-5 Ramps	F	E	E	E	E	E	E	E	E	E
Military Rd & Northbound I-5 Ramps	C	C	C	C	C	C	C	C	C	C
Des Moines & Marine View Drive	B	B	B	B	B	B	B	B	B	B
Pacific Highway/SR 99 & S 216th St.	E	E	E	E	E	E	E	E	E	E
Pacific Hwy./SR 99 & SR 516	E	E	E	E	E	E	E	E	E	E
SB I-5 Ramps & SR 516	F	F	F	F	F	F	F	F	F	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 7A	State Route 509, to South 176th Street, Temporary Construction Access
Route 8	State Route 509, South 188th Street, Starling Drive
Route 9	Interstate 5 (from North), South 188th Street, Starling Drive

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY (CONTINUED)

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks								
		Route 10			Route 11			Route 12		
		1	2A	2B	1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	B	B	B	B	B	B	B	B
Northbound SR 509 Ramps & SR 518	A	A	A	A	A	A	A	A	A	A
Des Moines & EB SR 518 On-Ramp	A	A	A	A	A	A	A	A	A	A
Des Moines & WB SR 518 Off-Ramp	F	F	F	F	F	F	F	F	F	F
Des Moines & 8th Ave South	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 154th St.	E	E	E	E	E	E	E	E	E	E
24th Ave S & S 154th St.	C	D	D	D	D	D	D	D	D	D
Des Moines & S 156th St.	C	C	C	C	C	C	C	C	C	C
Southbound SR 509 & S 160th St.	D	D	D	D	D	D	D	D	D	D
Northbound SR 509 & S 160th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 160th St.	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 160th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 160th St.	D	D	D	D	D	D	D	D	D	D
Air Cargo Rd & Airport Expressway	B	B	B	B	B	B	B	B	B	B
Air Cargo Rd & S 170th St.	E	E	E	E	E	E	E	E	E	E
Airport Expressway & S 170th St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 170th St.	F	F	F	F	F	F	F	F	F	F
International/SR 99 & S 176th St.	C	C	C	C	C	C	C	C	C	C
International/SR 99 & S 180th St.	D	D	D	D	D	D	D	D	D	D
Southbound SR 509 & S 188th St.	A	A	A	A	A	A	A	A	A	A
Des Moines & S 188th St.	C	E	D	D	E	D	D	E	D	D
28th Ave S & S 188th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 188th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 188th St.	E	E	E	E	E	E	E	E	E	E
Southbound I-5 Ramps & S 188th St.	D	D	D	D	D	D	D	D	D	D
Northbound I-5 Ramps & S 188th St.	F	F	E	E	E	E	E	E	E	E
28th Ave S & S 192nd St.	B	B	B	B	B	B	B	B	B	B
International/SR 99 & S 192nd St.	D	C	C	C	C	C	C	C	C	C
Des Moines & S 200th St.	B	B	B	B	B	B	B	B	B	B
28th Ave S & S 200th St.	C	B	B	B	B	B	B	B	B	B
International/SR 99 & S 200th St.	F	F	F	F	F	F	F	F	F	F
Military Rd & S 200th St. / SB I-5 Ramps	F	E	E	E	F	F	F	E	E	E
Military Rd & Northbound I-5 Ramps	C	C	C	C	C	C	C	C	C	C
Des Moines & Marine View Drive	B	B	B	B	B	B	B	B	B	B
Pacific Highway/SR 99 & S 216th St.	E	E	E	E	E	E	E	E	E	E
Pacific Hwy./SR 99 & SR 516	E	E	E	E	E	E	E	F	E	E
SB I-5 Ramps & SR 516	F	F	F	F	F	F	F	F	F	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 10 Interstate 5 (from South), South 188th Street, Starling Drive
Route 11 Interstate 5 (from South), South 200th Street, International Boulevard / State Route 99, South 188th Street, Starling Drive
Route 12 Interstate 5 (from South), South 188th Street, Starling Drive

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY (CONTINUED)

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks								
		Route 13			Route 14			Route 15		
		1	2A	2B	1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	B	B	B	n/a	B	B	n/a	B
Northbound SR 509 Ramps & SR 518	A	A	A	A	A	n/a	A	A	n/a	A
Des Moines & EB SR 518 On-Ramp	A	A	A	A	A	n/a	A	A	n/a	A
Des Moines & WB SR 518 Off-Ramp	F	F	F	F	F	n/a	F	F	n/a	F
Des Moines & 8th Ave South	B	B	B	B	B	n/a	B	B	n/a	B
International/SR 99 & S 154th St.	E	E	E	E	E	n/a	E	E	n/a	E
24th Ave S & S 154th St.	C	D	D	D	D	n/a	D	D	n/a	D
Des Moines & S 156th St.	C	C	C	C	C	n/a	C	C	n/a	C
Southbound SR 509 & S 160th St.	D	D	D	D	D	n/a	D	D	n/a	D
Northbound SR 509 & S 160th St.	A	A	A	A	A	n/a	A	A	n/a	A
Des Moines & S 160th St.	B	B	B	B	B	n/a	B	B	n/a	B
Air Cargo Rd & S 160th St.	B	B	B	B	B	n/a	B	B	n/a	B
International/SR 99 & S 160th St.	D	D	D	D	E	n/a	E	D	n/a	D
Air Cargo Rd & Airport Expressway	B	B	B	B	B	n/a	B	B	n/a	B
Air Cargo Rd & S 170th St.	E	E	E	E	E	n/a	E	E	n/a	E
Airport Expressway & S 170th St.	B	B	B	B	B	n/a	B	B	n/a	B
International/SR 99 & S 170th St.	F	F	F	F	F	n/a	F	F	n/a	F
International/SR 99 & S 176th St.	C	C	C	C	C	n/a	C	C	n/a	C
International/SR 99 & S 180th St.	D	D	D	D	D	n/a	D	D	n/a	D
Southbound SR 509 & S 188th St.	A	A	A	A	A	n/a	A	A	n/a	A
Des Moines & S 188th St.	C	C	D	C	C	n/a	C	E	n/a	D
28th Ave S & S 188th St.	C	B	B	B	B	n/a	B	C	n/a	B
International/SR 99 & S 188th St.	F	F	F	F	F	n/a	F	F	n/a	F
Military Rd & S 188th St.	E	E	E	E	E	n/a	E	E	n/a	E
Southbound I-5 Ramps & S 188th St.	D	D	D	D	D	n/a	D	D	n/a	D
Northbound I-5 Ramps & S 188th St.	F	E	E	E	E	n/a	E	E	n/a	E
28th Ave S & S 192nd St.	B	B	B	B	B	n/a	B	B	n/a	B
International/SR 99 & S 192nd St.	D	C	C	C	D	n/a	C	C	n/a	C
Des Moines & S 200th St.	B	B	B	B	B	n/a	B	B	n/a	B
28th Ave S & S 200th St.	C	B	B	B	B	n/a	B	B	n/a	B
International/SR 99 & S 200th St.	F	F	F	F	F	n/a	F	F	n/a	F
Military Rd & S 200th St. / SB I-5 Ramps	F	E	E	E	E	n/a	E	E	n/a	E
Military Rd & Northbound I-5 Ramps	C	C	C	C	C	n/a	C	C	n/a	C
Des Moines & Marine View Drive	B	B	B	B	B	n/a	B	B	n/a	B
Pacific Highway/SR 99 & S 216th St.	E	E	E	E	E	n/a	E	E	n/a	E
Pacific Hwy./SR 99 & SR 516	E	E	E	E	E	n/a	E	E	n/a	E
SB I-5 Ramps & SR 516	F	F	F	F	F	n/a	F	F	n/a	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 13 — South 154th/156th Street
Route 14 — State Route 518, International Boulevard / State Route 99, South 192nd Street
Route 15 — State Route 509, South 188th Street, 28th Avenue South, South 192nd Street

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY (CONTINUED)

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks								
		Route 16			Route 17			Route 18		
		1	2A	2B	1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	n/a	B	B	n/a	B	B	n/a	B
Northbound SR 509 Ramps & SR 518	A	A	n/a	A	A	n/a	A	A	n/a	A
Des Moines & EB SR 518 On-Ramp	A	A	n/a	A	A	n/a	A	A	n/a	A
Des Moines & WB SR 518 Off-Ramp	F	F	n/a	F	F	n/a	F	F	n/a	F
Des Moines & 8th Ave South	B	B	n/a	B	B	n/a	B	B	n/a	B
International/SR 99 & S 154th St.	E	E	n/a	E	E	n/a	E	E	n/a	E
24th Ave S & S 154th St.	C	D	n/a	D	D	n/a	D	D	n/a	D
Des Moines & S 156th St.	C	C	n/a	C	C	n/a	C	C	n/a	C
Southbound SR 509 & S 160th St.	D	D	n/a	D	D	n/a	D	D	n/a	D
Northbound SR 509 & S 160th St.	A	A	n/a	A	A	n/a	A	A	n/a	A
Des Moines & S 160th St.	B	B	n/a	B	B	n/a	B	B	n/a	B
Air Cargo Rd & S 160th St.	B	B	n/a	B	B	n/a	B	B	n/a	B
International/SR 99 & S 160th St.	D	D	n/a	D	D	n/a	D	D	n/a	D
Air Cargo Rd & Airport Expressway	B	B	n/a	B	B	n/a	B	B	n/a	B
Air Cargo Rd & S 170th St.	E	E	n/a	E	E	n/a	E	E	n/a	E
Airport Expressway & S 170th St.	B	B	n/a	B	B	n/a	B	B	n/a	B
International/SR 99 & S 170th St.	F	F	n/a	F	F	n/a	F	F	n/a	F
International/SR 99 & S 176th St.	C	C	n/a	C	C	n/a	C	C	n/a	C
International/SR 99 & S 180th St.	D	D	n/a	D	D	n/a	D	D	n/a	D
Southbound SR 509 & S 188th St.	A	A	n/a	A	A	n/a	A	A	n/a	A
Des Moines & S 188th St.	C	C	n/a	C	C	n/a	C	C	n/a	C
28th Ave S & S 188th St.	C	C	n/a	B	C	n/a	B	B	n/a	B
International/SR 99 & S 188th St.	F	F	n/a	F	F	n/a	F	F	n/a	F
Military Rd & S 188th St.	E	E	n/a	E	E	n/a	E	E	n/a	E
Southbound I-5 Ramps & S 188th St.	D	D	n/a	D	D	n/a	D	D	n/a	D
Northbound I-5 Ramps & S 188th St.	F	E	n/a	E	F	n/a	E	E	n/a	E
28th Ave S & S 192nd St.	B	B	n/a	B	B	n/a	B	B	n/a	B
International/SR 99 & S 192nd St.	D	C	n/a	C	C	n/a	C	C	n/a	D
Des Moines & S 200th St.	B	B	n/a	B	B	n/a	B	B	n/a	B
28th Ave S & S 200th St.	C	B	n/a	B	B	n/a	B	B	n/a	B
International/SR 99 & S 200th St.	F	F	n/a	F	F	n/a	F	F	n/a	F
Military Rd & S 200th St. / SB I-5 Ramps	F	E	n/a	E	E	n/a	E	F	n/a	E
Military Rd & Northbound I-5 Ramps	C	C	n/a	C	C	n/a	C	C	n/a	C
Des Moines & Marine View Drive	B	B	n/a	B	B	n/a	B	B	n/a	B
Pacific Highway/SR 99 & S 216th St.	E	E	n/a	E	E	n/a	E	E	n/a	E
Pacific Hwy./SR 99 & SR 516	E	E	n/a	E	E	n/a	E	E	n/a	E
SB I-5 Ramps & SR 516	F	F	n/a	F	F	n/a	F	F	n/a	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 16 Interstate 5 (from North), South 188th Street, 28th Avenue South, South 192nd Street
Route 17 Interstate 5 (from North), South 188th Street, 28th Avenue South, South 192nd Street
Route 18 Interstate 5 (from North), South 200th Street, 28th Avenue South, South 192nd Street

TABLE C-4-6

1997-2002 HAUL PROCESS INTERSECTION LEVEL OF SERVICE SUMMARY (CONTINUED)

Evaluated Intersection	Do-Nothing Alternative	Preferred Alternative with Trucks					
		Route 19			Route 20		
		1	2A	2B	1	2A	2B
Southbound SR 509 Ramps & SR 518	B	B	n/a	B	B	n/a	B
Northbound SR 509 Ramps & SR 518	A	A	n/a	A	A	n/a	A
Des Moines & EB SR 518 On-Ramp	A	A	n/a	A	A	n/a	A
Des Moines & WB SR 518 Off-Ramp	F	F	n/a	F	F	n/a	F
Des Moines & 8th Ave South	B	B	n/a	B	B	n/a	B
International/SR 99 & S 154th St.	E	E	n/a	E	E	n/a	E
24th Ave S & S 154th St.	C	D	n/a	D	D	n/a	D
Des Moines & S 156th St.	C	C	n/a	C	C	n/a	C
Southbound SR 509 & S 160th St.	D	D	n/a	D	D	n/a	D
Northbound SR 509 & S 160th St.	A	A	n/a	A	A	n/a	A
Des Moines & S 160th St.	B	B	n/a	B	B	n/a	B
Air Cargo Rd & S 160th St.	B	B	n/a	B	B	n/a	B
International/SR 99 & S 160th St.	D	D	n/a	D	D	n/a	D
Air Cargo Rd & Airport Expressway	B	B	n/a	B	B	n/a	B
Air Cargo Rd & S 170th St.	E	E	n/a	E	E	n/a	E
Airport Expressway & S 170th St.	B	B	n/a	B	B	n/a	B
International/SR 99 & S 170th St.	F	F	n/a	F	F	n/a	F
International/SR 99 & S 176th St.	C	C	n/a	C	C	n/a	C
International/SR 99 & S 180th St.	D	D	n/a	D	D	n/a	D
Southbound SR 509 & S 188th St.	A	A	n/a	A	A	n/a	A
Des Moines & S 188th St.	C	C	n/a	C	C	n/a	C
28th Ave S & S 188th St.	C	B	n/a	B	B	n/a	B
International/SR 99 & S 188th St.	F	F	n/a	F	F	n/a	F
Military Rd & S 188th St.	E	E	n/a	E	E	n/a	E
Southbound I-5 Ramps & S 188th St.	D	D	n/a	D	D	n/a	D
Northbound I-5 Ramps & S 188th St.	F	E	n/a	E	E	n/a	E
28th Ave S & S 192nd St.	B	B	n/a	B	B	n/a	B
International/SR 99 & S 192nd St.	D	C	n/a	C	D	n/a	D
Des Moines & S 200th St.	B	B	n/a	B	B	n/a	B
28th Ave S & S 200th St.	C	B	n/a	B	B	n/a	B
International/SR 99 & S 200th St.	F	F	n/a	F	F	n/a	F
Military Rd & S 200th St. / SB I-5 Ramps	F	F	n/a	F	E	n/a	E
Military Rd & Northbound I-5 Ramps	C	C	n/a	C	C	n/a	C
Des Moines & Marine View Drive	B	B	n/a	B	B	n/a	B
Pacific Highway/SR 99 & S 216th St.	E	E	n/a	E	E	n/a	E
Pacific Hwy./SR 99 & SR 516	E	E	n/a	E	F	n/a	E
SB I-5 Ramps & SR 516	F	F	n/a	F	F	n/a	F

Option 1 – Maximum Off-Site (66 trips), Option 2A – Maximum On-Site using Roadways (26 off-site trips), Option 2B – Maximum On-Site using On-Site Routes (26 off-site trips)

Route 19 — Interstate 5 (from South), South 200th Street, 28th Avenue South, South 192nd Street
Route 20 — Interstate 5 (from South), Kent-Des Moines Road / State Route 516, International Boulevard/State Route 99, South 192nd Street

C. Off-Site Borrow Source Haul Route Analysis

The potential airport vicinity haul routes listed in Section II- C were reviewed to supplement off-site borrow source haul route analysis performed under the Final EIS. A summary of that review is included as **Table C-4-7**. The evaluation of the off-site borrow source haul routes considered the following factors:

- Roadway Jurisdiction
- Roadway Classification
- Number of Lanes
- Current Pavement Condition
- Speed Limits
- Existing average daily traffic volumes

All of the additional haul routes identified through the Alternative Materials Delivery Study are minor arterial or above in classification, and in fair or better pavement condition. Evaluated routes within the City of SeaTac are designated truck routes, although South 188th Street, South 200th Street, and Des Moines Memorial Drive south of South 188th Street has abutting residential land use.[11] All the additional routes considered serve commercial or industrial areas and have existing truck movements. The additional routes are classified appropriately for use by truck traffic, subject to any truck ordinance restrictions or street use permits.

IV. CONCLUSIONS

The changes in conditions for construction of the Third Parallel runway and other associated improvements could results in a significant reduction in expected maximum off-site truck traffic. The regional system, particularly Interstate 5 and Interstate 405 during the AM and PM peak periods, is expected to see increased background congestion with or without Airport improvements. Airport improvement construction haul traffic during peak periods, even at the reduced volumes predicted will cause impacts to the levels of congestion where the regional system is at or exceeds capacity, and where extended grades exist. The impacts are less than those examined in the Final EIS.

The regional highway system has the ability to accommodate the haul traffic associated with the Third Parallel Runway without significant impacts. Preferred access to the construction site is as identified in the Final EIS, by way of State Route 509 and State Route 518. At the reduced truck volumes now forecast, both State Route 509 and State Route 518 operate at LOS D or better throughout the day. Interstate 5, south of Interstate 405 has the ability during most periods of the day to carry additional truck traffic. Truck traffic on Interstate 5, should avoid or be minimized during the PM peak period. Interstate 405, between Interstate 5 and Interstate 90 has congestion during the AM, Midday, and PM peak periods. Truck traffic on Interstate 405 should avoid or be minimized during these peak periods.

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11 City of SeaTac, *Comprehensive Transportation Plan*, February, 1994, Figure 3, Truck Route Plan

TABLE C-4-7

EXPECTED LOCAL ROADWAY HAUL ROUTE SUMMARY

SOURCE #1 - SeaTac, King County (See Note 1)

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
International Boulevard/SR99	WSDOT	Principal Arterial	5 lanes	Very Good	45 mph	33,000	
South 160th Street	City of SeaTac	Minor Arterial	4 lanes	Good	35 mph	9,000	

SOURCE #2 - SeaTac, King County (See Note 1)

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Des Moines Memorial Drive South	City of SeaTac	Minor Arterial	2 lanes	Good	35 mph	13,000	

SOURCE #3 - SeaTac/Kent/Tukwila, King County (See Note 1)

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Orillia Road	King County	Principal Arterial	2 lanes	Good	35 mph	27,000	
South 188th Street	City of SeaTac	Principal Arterial	4 lanes	Very Good	40 mph	27,000	

SOURCE #4 - Dieringer, Pierce County

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
East Valley Highway	Pierce County	Principal Arterial	2 lanes	Good Poor	35 mph	11,000	North of Forest Canyon Road South of Forest Canyon Road
8th Street East	Pierce County	Principal Arterial	2 lanes	Fair	35 mph	12,000	
State Route 167	WSDOT	Principal Arterial Fwy	4 lanes	Very Good	55 mph	56,500	
West Valley Highway	City of Auburn	Principal Arterial	4 lanes	Good	40 mph		
State Route 18	WSDOT	Principal Arterial Fwy	4 lanes	Good	55 mph	68,000	Steep Grades
Interstate 5	WSDOT	Principal Arterial Fwy	8 lanes	Fair	55 mph	154,500	

Notes:
1. Limited quality or quantity . Use of Material not anticipated.
2. Local access route congested. Use of Material not anticipated.

TABLE C-4-7

EXPECTED LOCAL ROADWAY HAUL ROUTE SUMMARY (CONTINUED)

SOURCE #5, #8 - Tacoma, Pierce County (See Note 1)

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Marine View Drive/East-West Road	City of Tacoma	Minor Arterial	2 lanes	Fair/Poor	35 mph	8,300	
Taylor Way/54th Avenue East/ Valley Avenue	City of Tacoma	Minor Arterial	5 lanes	Good	35 mph	13,500	
Interstate 5	WSDOT	Principal Arterial Fwy	8 lanes	Fair	55 mph	154,500	

SOURCE #6 - Federal Way, King County (See Note 2)

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Milton Road/16th Avenue South	King County	Collector Arterial	2 lanes	Fair/Poor Excellent	35 mph	5,000	South of 375th Street North of South 375th Street
Enchanted Parkway/ State Route 161	WSDOT	Minor Arterial Minor Arterial	2 lanes 5 lanes	Good	35 mph	23,000	South of 351st Street North of South 351st Street
South 348th Street/State Route 18	WSDOT	Principal Arterial	5 lanes	Good	35 mph	51,000	
Interstate 5	WSDOT	Principal Arterial Fwy	8 lanes	Fair	55 mph	154,500	

SOURCE #7 - Auburn, King County

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Kersey Way/"R" Street SE	Auburn	Principal Arterial	2 lanes	Good	35 mph	12,200	
Private Truck Route	Private						
Ellingson Road/41st Street SE	Algona/Auburn/ Pacific	Principal Arterial	4 lanes	Good	35 mph	10,800	
State Route 167	WSDOT	Principal Arterial Fwy	4 lanes	Very Good	55 mph	56,500	
West Valley Highway	City of Auburn	Principal Arterial	4 lanes	Good	40 mph		
State Route 18	WSDOT	Principal Arterial Fwy	4 lanes	Good	55 mph	68,000	Steep 6% Grade between I-5 and SR 167 (Westbound Uphill)
Interstate 5	WSDOT	Principal Arterial Fwy	8 lanes	Fair	55 mph	154,500	

TABLE C-4-7

EXPECTED LOCAL ROADWAY HAUL ROUTE SUMMARY (CONTINUED)

SOURCE #9 - Maltby, Snohomish County

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Maltby Road/Yew Road/ Paradise Lake Road/State Route 524	WSDOT	Collector Arterial	2 lanes	Good	35 mph	9,300	
State Route 522	WSDOT	Principal Arterial Fwy	2 lanes 4 lanes	Very Good	55 mph	45,500	North of the SR9 Interchange South of the SR9 Interchange
Interstate 405	WSDOT	Principal Arterial Fwy	6 lanes	Good	55 mph	129,000	

SOURCE #10, #11, #11A - Black Diamond, King County (Source 10, See Note 1)

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Black Diamond-Enumclaw Road/ State Route 169	WSDOT	Minor Arterial	2 lanes	Good	50 mph 35 mph	9,000	South of Black Diamond Within Black Diamond
Maple Valley-Black Diamond Road/ State Route 169	WSDOT	Minor Arterial	2 lanes 4 lanes	Fair	50 mph 35 mph	11,000	North of Black Diamond Within Black Diamond
Auburn - Black Diamond Road	King County	Principal Arterial	2 lanes	Good	50 mph 40 mph	7,600	East of Kent-Black Diamond Road West of Kent-Black Diamond Road
State Route 18	WSDOT	Principal Arterial Fwy	4 lanes	Good	55 mph	68,000	Steep 6% Grade between I-5 and SR167 (Westbound Uphill)
Interstate 5	WSDOT	Principal Arterial Fwy	8 lanes	Fair	55 mph	154,500	

TABLE C-4-7

EXPECTED LOCAL ROADWAY HAUL ROUTE SUMMARY (CONTINUED)

SOURCE #12 - Covington/Kent, King County

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
Covington - Sawyer Rd	King County	Minor Arterial	2 lanes	Good/Fair	35 mph	11,000	
Kent - Kangley Rd/South 272nd Street/ State Route 516	WSDOT	Principal Arterial	5 lanes	Excellent/ Very Good	35 mph	25,000	
State Route 18	WSDOT	Principal Arterial Fwy	4 lanes 2 lanes	Good	55 mph	49,000	South of Auburn-Black Diamond I/C North of Auburn-Black Diamond I/C Steep 6% Grade between I-5 and SR167 (Westbound Uphill)
Interstate 5	WSDOT	Principal Arterial Fwy	8 lanes	Fair	55 mph	154,500	

SOURCE #13 - North Bend, King County

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
468th Avenue SE	King County	Collector Arterial	2 lanes	Good/Fair	35 mph	11,000	
Interstate 90	WSDOT	Principal Arterial Fwy	6 lanes	Good	55 mph	70,500	West of North Bend
Interstate 405	WSDOT	Principal Arterial Fwy	6 lanes	Good	55 mph	129,000	

SOURCE #14 - Dupont, Pierce County
SOURCE #15 - Maury Island, King County
SOURCE #15A - Maury Island, Future King County Park
SOURCE #16 - Port Gamble, Kitsap County (Source 16, See Note 1)

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
East Marginal Way South/SR99	WSDOT	Principal Arterial	7 lanes	Good/Fair	45 mph	43,500	The Borrow Source material would be barged into Duwamish Waterway.
West Marginal Way South (Spokane Street to 2nd Ave SW)	City of Seattle	Principal Arterial	5 lanes	Good/Fair	40 mph	13,300	
West Marginal Way South (S Holden Street to Highland Parkway SW)	City of Seattle	Principal Arterial	6 lanes	Excellent	35 mph	18,500	
State Route 509	WSDOT	Principal Arterial Fwy	4 lanes	Good	55 mph	40,500	

TABLE C-4-7

EXPECTED LOCAL ROADWAY HAUL ROUTE SUMMARY (CONTINUED)

SOURCES EAST OF INTERSTATE 5

Expected Source Access Route	Jurisdiction/ Agency	Route Classification	Number of Lanes	Pavement Condition	Speed Limit	Existing ADT	Additional Comments
SW Grady Way (from 167 to Interurban Ave)	City of Renton	Principal Arterial	5 lanes	Good	35 mph	41,000	
Southcenter Blvd./ S 154th Street (from Interurban Ave to SR 99)	City of Tukwila	Principal Arterial	4 lanes	Good	35 mph	10,750	
S 188th Street (from I-5 to Des Moines Mem Dr.)	City of SeaTac	Principal Arterial	5 lanes	Good	35 mph	25,000	
S 200th Street (from I-5 to SR 99)	City of SeaTac	Principal Arterial	4 lanes	Good	25 mph	17,000	Accident Concerns @ I-5 and Military Road / 200th St. Intersection
SR 516 (from I-5 to SR 99)	WSDOT	Principal Arterial	5 lanes	Good	35 mph	29,800	
International Blvd. (SR 99) (from SR 518 to SR 516)	City of SeaTac City of Des Moines	Principal Arterial	5 lanes	Good	35 mph	33,000	

Source: INCA Engineers, January 1997.

Regarding peak period impacts to arterial roadways in the vicinity of the Airport, out of the 40 intersections evaluated, 14 degraded to LOS E, or further into LOS F, as a result of the construction traffic. Major intersections along State Route 99, South 188th Street, and South 200th Street are expected to operate at poor level of service with or without Airport construction traffic. Construction truck traffic attempting to use those routes will experience extreme levels of congestion. The PM peak traffic is the heaviest condition of the day for these routes, and represents about 6 to7 percent of the daily traffic.[12] This flow is fairly consistent from about 2:00 PM to 7:00 PM. Haul traffic should avoid or minimize the use of State Route 99, South 188th Street, South 200th Street, and State Route 516 during these periods.

V. MITIGATION

This supplemental analysis and the Final EIS considered a number of material sites, alternative routes and methodologies to convey material to the construction site. This analysis was performed to document the range of alternatives and representative conditions. Both general and specific impacts associated with the haul process and construction activities have been identified.

A Construction and Earthwork Management Plan could be developed during the design phase to support haul route permit requests and regulatory agency review. The Management Plan and permits should designate preferred haul routes and specific conditions such as hours of operations, traffic control changes, and route mitigation which should be included in the bid documents as contract requirements.

A. Regional System

WSDOT, upon review of the information developed for Final EIS, requested the following conditions as mitigation for use of the State Highway System:

- Legal load limit and other hauling requirements must be enforced on State Highways. In addition to weight requirements, this requires top of loads to be 6 inches or more below top of truck bins or use of covered loads.
- The Construction Traffic Office must be coordinated with for all haul routes and must provide approval for all traffic control plans to be implemented on State Routes.
- Coordination must be maintained through the Construction Traffic Office in order to minimize conflicts between Port construction activities and any WSDOT projects along the haul routes.
- The Port should consider restricting hauling activities during peak hours through congested areas of the State Highway System.
- Increased sweeping and/or flushing must be provided within a 3 to 5 mile radius of both ends of the haul routes in order to provide a clean, safe highway. This will also be necessary to reduce air pollution from dust and to reduce rock damage to cars.
- Routine cleaning of the drainage facilities (pipes, culverts, outfalls, etc.) within the increased

[12] City of SeaTac Historical Counts, June, 1994

sweeping and/or flushing area should be provided for within the contract provisions.

- Sedimentation facilities must be provided for near any drainage outfalls to insure that drainage courses along the haul route do not silt up and that water quality at the outfalls is not compromised.
- Identifiable damage to pavement near the access points for haul must be repaired by the Port or contractor.
- Provisions should be made to handle complaints of broken windows and other damage to vehicles caused by flying debris off the trucks. The contractor should be required to use some system to dislodge and wash away material on the body and undercarriage of the trucks.

In order to reduce overall impacts to the State Highway System, WSDOT recommends that the Port of Seattle provide property on the Duwamish as a barging facility to any contractor who wants to use it.

B. Airport Vicinity and Local Roadway Routes

Possible mitigation to address LOS reductions along various airport vicinity haul routes are summarized in **Table C-4-8**. In addition to those, the following general mitigation are identified:

- Haul truck traffic should avoid or minimize use of arterial routes with afternoon peak hour congestion of LOS E or LOS F. This would include State Route 99 between State Route 518 and State Route 516, South 188th Street, and South 200th Street.
- Haul truck traffic should avoid or minimize use of arterial routes during evening and night conditions with abutting residential land use. This would include South 188th Street, South 200th Street, South 154th Street/Southcenter Boulevard/Grady Way, and Des Moines Memorial Drive.
- Many of the potential haul routes are scheduled for reconstruction or improvements between 1997 and the year 2005. Haul truck traffic should avoid or minimize use of those routes while under construction. The contractor should required to coordinate activities with contractors working on roadway projects.
- The Port of Seattle should coordinate with WSDOT and the Cities of SeaTac, Des Moines, and Burien on the proposed schedule of area roadway improvements. The roadway improvements should be accelerated or delayed as potential mitigation of Third Runway construction activities or efforts to improve existing congestion.

APPENDIX D

ENVIRONMENTAL EVALUATION
OF YEAR 2020 IMPACTS

AND

A FORECAST GREATER THAN THE NEW FORECAST

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APPENDIX D

ENVIRONMENTAL EVALUATION OF YEAR 2020 IMPACTS AND A FORECAST GREATER THAN THE NEW PORT OF SEATTLE FORECAST

The February, 1996 Final EIS (Volume 4 - Appendix R) presents a quantitative examination of several alternative forecasts, based on the Master Plan Update forecast. The purpose of that analysis was to disclose possible environmental impacts that could occur if aviation demand increased at a faster or slower rate than was anticipated. As is shown in Chapter 2 of this Supplemental Environmental Impact Statement, aviation demand has actually increased faster than was anticipated by the Master Plan Update. As a result, a new forecast has been prepared, which is the subject of this Supplemental EIS.

As is discussed in Chapters 1 and 2 of this Supplemental EIS, year 2020 was determined not to be reasonably foreseeable at this time. A number of reasons lead to this conclusion:

1. The aviation industry appears to be emerging from a decade of high volatility. These conditions appear related to the after effects of deregulation, with airline bankruptcies, airline consolidations, and vigorous air fare competition. These factors, combined with the economic conditions of the Puget Sound Region, have led to significantly greater growth in air travel demand than the nation's average. In a three year period, forecasts using virtually the same methodology, with varying base data, produced forecasts that varied by 17% for year 2010. This 17% variation (and the associated schedule acceleration of facilities) has resulted in the primary differences in environmental impact described in Chapter 5 of this document.
2. Although forecasts for near-term years may not match actual experience, typically those differences are relatively small. For more distant years, forecasting is much more uncertain. This uncertainty is inherent in the nature of forecasting and the nature of the air travel industry.
3. FAA guidance on the conduct of Master Plans states "the length of the short, intermediate and long-term activity forecasts should be decided. While 5-10-20 year timeframes are typical, there may be justification for using different time frames. In any event, the short-term forecast should support a capital improvement program, the intermediate-term a realistic assessment of needs, and the long-term a concept oriented statement of needs. The schedules of airport development that are directly related to forecast demand levels should be tied to such levels, rather than dates, because of the possibility of the forecasts being off target."[1/] The Master Plan Update for Sea-Tac was developed as recommended, with the schedule of development being related to demand. As a result, the new (higher) forecast shows that the schedule could be accelerated for certain airport improvements.
4. Airport master plans are typically undertaken every 7-10 years. However, airports that experience large unforeseen growth, typically conduct master plans (or other significant airport planning efforts) sooner, ranging from 3 to 5 years. Therefore, it is anticipated that a new master plan for Sea-Tac will be initiated soon after the year 2000. That future planning effort would generate new aviation forecasts and define the parameters for accommodating

[1/] FAA Advisory Circular 150/5070-6A "Airport Master Plans", FAA, June 1985. Page 15.

forecast demand. As noted in the FAA guidance, the 1996 Master Plan Update has identified the Port's capital improvement plan, and provides a realistic assessment of needs for accommodating 15.7 million enplaned passengers, which is expected to now occur in year 2005. The plan also reflects the longer-term needs, associated with 19 million enplanements, in a more conceptual fashion.

5. Some of the environmental approvals identified by the Final EIS and this Supplemental EIS, may expire within the next 3-5 years. FAA Environmental Guidelines (FAA Order 5050.4A, Paragraph 102) states "Time Limitations for Environmental Documents b. With regard to approved final impact statements.....(1) If major steps toward implementation of the proposed action (such as the start of construction, substantial acquisition, or relocation activities) have not commenced within 3 years from the date of approval of the final statement, a written reevaluation of the adequacy, accuracy, and validity of the final statement shall be prepared...." The Clean Air Act Conformity rules specifically note that a conformity determination "lapses 5 years from the date of the final conformity determination" (40 CFR Part 51.857(a)).
6. Additional planning will be undertaken at Sea-Tac in the future, encompassing facility requirements and environmental impacts, based on forecasts of short-term, intermediate and long-term conditions. If these efforts are undertaken around the year 2000, it is anticipated that aviation industry conditions could stabilize, making air travel demand less volatile and forecasting less uncertain.

Although year 2020 has been determined to not be reasonably foreseeable, the FAA and the Port have prepared this appendix to extrapolate the impacts to the year 2020, based on information in this Supplemental EIS for earlier years. The following scenario's were considered and are listed in **Table D-1**:

- Case 1: new Port forecast and impacts, with an estimate of impacts in year 2020.
- Case 2: Aviation demand grows 10% faster than predicted by the new forecast, and that the Do-Nothing and "With Project" are capable of accommodating all of the passenger demand.
- Case 3: Aviation demand grows 10% faster than predicted by the new forecast, and that under the Do-Nothing alternative, aircraft operations and passenger levels are constrained (or for whatever reason, does not increase) beyond the new Port forecast for year 2010.

Aviation activity levels considered by these scenarios could be as follows:

TABLE D-1

SUMMARY OF ACTIVITY ASSOCIATED WITH TEST CASES

Operations	2000	2005	2010	2020
Do-Nothing				
New Forecast	409,000	445,000	460,000	460,000
Case 1	409,000	445,000	460,000	460,000
Case 2	449,900	460,000	460,000	460,000
Case 3	449,900	460,000	460,000	460,000
"With Project"				
New Forecast	409,000	445,000	474,000	n/a
Case 1	409,000	445,000	474,000	532,000
Case 2	449,900	489,500	521,400	585,200
Case 3	449,900	489,500	521,400	585,200

Enplanements	2000	2005	2010	2020
Do-Nothing				
New Forecast	13,700,000	15,700,000	17,900,000	n/a
Case 1	13,700,000	15,700,000	17,900,000	22,300,000
Case 2	15,070,000	17,270,000	19,690,000	24,530,000
Case 3	15,070,000	17,270,000	17,900,000	17,900,000
"With Project"				
New Forecast	13,700,000	15,700,000	17,900,000	n/a
Case 1	13,700,000	15,700,000	17,900,000	22,300,000
Case 2	15,070,000	17,270,000	19,690,000	24,530,000
Case 3	15,070,000	17,270,000	19,690,000	24,530,000

Table D-2 presents a summary of the probable key impacts of these cases. This assessment focused on the Preferred Alternative - Alternative 3 (North Unit Terminal), as the "With Project" as well as Alternative 1 (Do-Nothing). The extrapolation from the impacts presented in the Final and Supplemental EIS's was performed based on professional estimates of how the various environmental impacts would change in accordance with alternative aviation activity.

The Master Plan Update improvements were designed to accommodate 19 million annual enplanements. As is discussed in Chapter 2, it is anticipated that additional master plans will be undertaken for Sea-Tac in the future. Those plans would identify if and how activity beyond the 19 million enplanements would be accommodated. Thus, this analysis assumes that the "With Project" is limited to the improvements proposed by this Master Plan Update. Assumptions for improvements beyond this plan is speculative and would be the subject of future studies.

(A) Case 1: Current Forecast, Extrapolated through Year 2020

Extrapolating from the new Port forecast, activity in the year 2020 was estimated as listed in **Table D-1**. This case assumes that the unconstrained passenger demand could be accommodated by the Do-Nothing Alternative, through continued spreading of the peak periods. Based on the analysis documented in Chapter 5 of this Supplemental EIS, as well as the Final EIS, impacts in year 2020 were estimated:

- *Noise and Land Use:* As shown in **Table D-2**, with implementation of the proposed Master Plan Update improvements, the 2020 noise exposure impacts are likely to be about 14% greater than the 2010 "With Project" improvements, and about 30% greater than the Do-Nothing impacts. As is noted in Section 5-3 of the Supplemental EIS, noise impacts are anticipated to be less than current conditions in the future, whether or not the improvements are undertaken at Sea-Tac Airport. In the Do-Nothing condition, year 2020 impacts would be 63% less than current impacts. "With Project" impacts in year 2020 could be 53% of current conditions.

- *Air Quality:* An evaluation of the emissions inventory associated with year 2020 activity was evaluated in addition to the pollutant levels that could be experienced along International Blvd. As year 2020 aircraft operations would be the same as year 2010 in the Do-Nothing condition, the aircraft emissions inventory would be the same (2,014 tons of CO and 1,802 tons of NOx). In the "With Project" condition, year 2020 would accommodate more aircraft operations, yet with the improvements, operations would be more efficient. As a result, CO emissions would be decrease over Do-Nothing by about 108 tons (from 2,014 to 1,906 tons). NOx levels would increase by 200 tons.

Based on the dispersion results for year 2010, the impacts in year 2020 were estimated. As is shown, concentrations "With Project" would be equal to or lower than the Do-Nothing alternative.

- *Surface Transportation* - Impacts to the surface transportation system were considered. As described in Section 5-1, use of the regional roadway system is expected to grow each year in the future. **Table D-2** lists airport related traffic levels for each year, which is also expected to continue to grow in proportion to growth in passengers and aircraft operations. Regardless of the improvements undertaken at Sea-Tac Airport, intersections along International Boulevard in the immediate airport area are expected to operate at LOS D or worse (with most intersections operating at LOS F) by 2020. Improvements associated with the SR 509 Extension could alleviate congestion along International Boulevard, but that project would provide benefits to both the Do-Nothing and "With Project" alternatives.

- *Water Resources (Floodplains, Streams, Wetlands, etc.)*: As no other improvements are proposed by this Master Plan Update improvement program to address demand above 19 million enplaned passengers, no other impacts to water resources beyond that identified by the Final EIS would be expected.

- *Property Acquisition* - As no other improvements are proposed by the Master Plan Update improvement program to address demand above 19 million enplanements, no acquisition beyond that identified by the Final EIS would be expected.

- *Socio-Economic Impacts* - As activity levels grow, the level of personnel needed at the Airport would be expected to increase. While the aircraft operations levels would differ between the Do-Nothing and "With Project", all annual enplaned passengers would be accommodated. As the passenger levels would be the same, employment levels would be the same for the Do-Nothing and "With Project" in year 2020. It is anticipated that employment could increase from 392,330 jobs in 2010 to 488,770 jobs in 2020.

- *Earth/Fill Requirements* - As no other improvements are proposed to address demand above 19 million enplanements, no other earth/fill requirements beyond that identified by the Final EIS would be expected.

(B) Case 2: Demand Grows at a Faster Rate than Forecast

The second case reflects a greater growth in aviation demand than is presently forecast. To estimate the effects of a greater rate of growth over what is now forecast, this case considered a 10% greater growth. As a result of this elevated activity level assumption, aviation demand and associated delay and congestion would be substantially greater than now forecast - year 2000 average delay in the Do-Nothing would be approximately 17-18 minutes, and at 460,000 operations reach about 20 minutes. "With Project" the delay would be reduced to 5 minutes in 2000, 7 minutes in 2005, 9 minutes in 2010, and 14 minutes in 2020. Landside improvements would also be needed earlier in time; based on these forecasts, landside improvements could be needed about 5 years earlier than presented by the new forecasts in this Supplemental EIS.

This case assumes that the entire passenger demand could be accommodated by existing facilities through the year 2020 (at 24.5 million enplaned passengers). To accommodate this level of demand, extreme delay conditions would result. It should be noted that Case 3, which follows, examines conditions assuming that the Do-Nothing enplaned passenger levels could be constrained beyond about 17.9 million enplaned passengers. Assuming that the existing facilities can accommodate this demand, the following analysis was performed:

- *Noise and Land Use:* **Table D-2** lists the impacts associated with a forecast that could be 10% greater than the new Port of Seattle forecast described in Chapter 2 of the Supplemental EIS. Relative to Case 1, the Do-Nothing alternative with Case 2 would only differ in year 2000, where the existing airfield could accommodate more traffic. The "With Project" Case 2 could accommodate the demand and thus noise impacts would be greater. As the table shows, Case 2 noise related housing impacts would be as much as 16% greater than the new forecast examined by this Supplemental EIS. If demand were to grow faster than is now forecast, noise impacts would be expected to be greater. By 2020, "With Project" 65 DNL noise impacts could reach 17,470 people in contrast to 11,630 people in 2020 under the Do-Nothing.

- *Air Quality:* Based on the 10% higher activity levels, an emissions inventory was estimated. As is shown, the greater growth in aircraft activity, relative to the new Port forecast, would result in greater emissions in years 2000, and 2005 for the Do-Nothing alternative. As activity would reach the maximum capacity of 460,000 operations between 2005 and 2010, emissions would be the same as the new forecast. While activity levels would be greater "With Project" the emissions inventory would show aircraft contributing less pollution in comparison to the Do-Nothing, because the Master Plan Update improvements would provide substantial delay reduction.

  An extrapolation of the dispersion analysis shows that while concentrations at the intersections would be greater, the "With Project" levels would not exceed those of the Do-Nothing. It would be anticipated that, based on the worst-case weather and activity levels examined, that the concentrations at the most severely congested intersections could increase by 10% to as much as 40%.

- *Surface Transportation* - Using the 10% increase in the new Port forecast, the impacts on the airport and regional airport system were considered. **Table D-2** shows how the greater passenger demand could affect airport traffic levels. Regional traffic would be expected to be the same for the Do-Nothing and "With Project". Because most intersections along International Boulevard are operating at poor levels of service today, the greater levels of airport growth could degrade conditions. Regardless of the improvements undertaken at Sea-Tac Airport, intersections along International Boulevard in the immediate airport area are expected to operate at LOS D or worse (with most intersections operating at LOS F) by 2020. Similar to Case 2, improvements associated with the SR 509 Extension could alleviate congestion along International Boulevard, but that project would provide benefits to both the Do-Nothing and "With Project" alternatives.

- *Water Resources (Floodplains, Streams, Wetlands, etc.)*: As no other improvements are proposed to address demand above 19 million enplanements, no other impacts to water resources beyond that identified by the Final EIS would be expected.

- *Property Acquisition:* As no other improvements are proposed to address demand above 19 million enplaned passengers, no acquisition beyond that identified by the Final EIS would be expected.

- *Socio-Economic Impacts:* If activity were to grow faster than now forecast, the level of personnel needed at the Airport would be expected to be greater. The level of employment would be expected to increase in direct proportion to the increase in enplaned passengers. As the Do-Nothing and "With Project" forecasts would be the same, the employment levels would be expected to be the same. Whereas the new forecasts anticipate 236,800 jobs in 2000, a 10% increase in enplanements would increase employment to 260,480 jobs. By 2010, jobs would be expected to reach 537,650.

- *Earth/Fill Requirements:* As no other improvements are proposed by the Master Plan Update improvements to address demand above 19 million enplanements, no other earth/fill requirements beyond that identified by the Final EIS would be expected.

(C) Case 3: Demand Grows at a Faster Rate than Forecast - is Constrained by Do-Nothing

A number of commentors on the Master Plan Update EIS questioned the assumption that the number of passengers served under the Do-Nothing alternative would be the same as the number served by the "With Project" alternatives. The February, 1996 Final EIS (Volume 4 - Appendix R) discussed the basis for that assumption. Also, in the event that that assumption proves incorrect, the Final EIS presented an analysis of potential impacts of higher forecasts under the "With Project" alternatives, and lower forecasts under the Do-Nothing alternative. Similar to that analysis, Case 3 in this Supplemental EIS analyzes the potential differences in impacts between a "With Project" alternative with a 10% higher forecast and a Do-Nothing alternative in which enplanements are held constant at the 2010 level under the Port's new forecast (17.9 million enplanements). The 17.9 million level was assumed, for analysis and comparison purposes, as the maximum level of passengers served at the Airport due to terminal and landside facility constraints, declining passenger activity due to increasing delay, or other factors. This assumption enables a contrast of the 10% higher forecast with a Do-Nothing unconstrained (Case 2) with a constrained Do-Nothing (Case 3). The following summarize the impacts:

- *Noise and Land Use:* Case 2 and Case 3 noise exposure conditions are identical, as both cases assume that "With Project" demand is 10% greater than now forecast, yet the Do-Nothing aircraft operations levels are constrained at 460,000.

- *Air Quality:* Similar to noise impacts, the aircraft emissions inventory for Case 3 would be the same as Case 2, as the aircraft activity levels of the two cases are the same. The intersection Carbon Monoxide concentration analysis shows that when passenger levels exceed the 17.9 million enplanement level, that the difference between the "With Project" and Do-Nothing pollutant levels could require institution of mitigation measures. The results of the existing and future 8-hour CO evaluation for the Final EIS and this Supplemental EIS show exceedance of the ambient air quality standards regardless of whether improvements occur at Sea-Tac. The results of the Case 3 test, show that 8-hour CO levels at the two intersections could exceed the AAQS and "With Project" concentrations would be greater than the Do-Nothing. If this condition occurred, at the South 188th Street intersection, mitigation should be considered to abate about 2 ppm, and at the South 170th Street intersection about 1 ppm in mitigation should be considered. This mitigation could be accomplished through alterations to the geometry of the intersections to add additional or high capacity turn-lanes, improved signalization or other measures that would be considered in the future planning processes.

- *Surface Transportation:* As noted previously, many of the intersections along International Boulevard are expected to continue to operate at a poor level of service in the future regardless of the improvements undertaken at Sea-Tac. Nevertheless, as shown in **Table D-2**, the amount of traffic to and from the Airport would be approximately 12-39% higher under the "With Project" alternative compared to the Do-Nothing alternative. In any event, mitigation of impacts through intersection and roadway improvements, transit improvements, demand management activities, and/or other measures should be considered in future planning processes.

- *Water Resources (Floodplains, Streams, Wetlands, etc.):* As no other improvements are proposed to address demand above 19 million annual enplanements, no other impacts to water resources beyond that identified by the Final EIS would be expected.

- *Property Acquisition:* As no other improvements are proposed to address demand above 19 million enplanements, no acquisition beyond that identified by the Final EIS would be expected.

- *Socio-Economic Impacts:* If the Do-Nothing condition were not able to accommodate the forecast passenger demand, economic conditions could suffer, particularly if the passenger demand were not satisfied within the region. By 2010, this could result in the loss of 39,230 potential jobs. By 2020, this could increase to a loss of 145,320 jobs (With Project 537,650 jobs versus Do-Nothing 392,330 jobs) or about 40% of the potential jobs.

- *Earth/Fill Requirements:* As no other improvements are proposed to address demand above the 19 million enplanements, no other earth/fill requirements beyond that identified by the Final EIS would be expected.

TABLE D-2
SUMMARY OF IMPACTS ASSOCIATED WITH ALTERNATIVE FORECAST ASSUMPTIONS

Aircraft Noise Impacts (65 DNL and greater noise exposure)

	Master Plan Update Forecast		New Port Forecast (SEIS)		10% Faster Growth (Case2)		10% Faster Growth (Case3)	
	Population	Housing	Population	Housing	Population	Housing	Population	Housing
1994 Existing	31,800	13,620	31,800	13,620	*31,800*	*13,620*	*31,800*	*13,620*
Alt 1 Do-Nothing								
2000	8,970	3,870	11,310	4,820	*12,940*	*5,510*	*12,940*	*5,510*
2005	n/a	n/a	10,450	4,450	*10,950*	*4,660*	*10,950*	*4,660*
2010	9,450	4,060	11,940	5,060	*11,940*	*5,060*	*11,940*	*5,060*
2020	10,800	4,610	*11,630*	*4,950*	*11,630*	*4,950*	*11,630*	*4,950*
Alt. 3 (North Unit Terminal)								
2000	9,890	4,020	11,310	4,820	*12,940*	*5,510*	*12,940*	*5,510*
2005	n/a	n/a	10,440	4,400	*12,120*	*5,110*	*12,120*	*5,110*
2010	9,860	4,190	13,220	5,520	*15,340*	*6,410*	*15,340*	*6,410*
2020	11,240	4,740	*15,060*	*6,350*	*17,470*	*7,370*	*17,470*	*7,370*

Aircraft Emissions Inventory - Annual Tons of Pollutants Emitted

	Master Plan Update Forecast		New Port Forecast (SEIS)		10% Faster Growth (Case2)		10% Faster Growth (Case3)	
	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide	Nitrogen Oxides	Carbon Monoxide	Nitrogen Oxides
Alt 1 (Do-Nothing)								
2000	976	1,234	1,266	1,476	*1,393*	*1,624*	*1,393*	*1,624*
2005	n/a	n/a	1,672	1,626	*1728*	*1,681*	*1,728*	*1,681*
2010	1,245	1,525	2,014	1,802	*2,014*	*1,802*	*2,014*	*1,802*
2020	1,875	2,047	*2,014*	*1,802*	*2,014*	*1,802*	*2,014*	*1,802*
Alt. 3 (North Unit)								
2000	986	1,234	1,266	1,476	*1,393*	*1,624*	*1,393*	*1,624*
2005	n/a	n/a	1,524	1,613	*1,676*	*1,774*	*1,676*	*1,774*
2010	1,249	1,524	1,698	1,784	*1,868*	*1,962*	*1,868*	*1,962*
2020	1,833	2,006	*1,906*	*2,002*	*2,096*	*2,202*	*2,096*	*2,203*

TABLE D-2

SUMMARY OF IMPACTS ASSOCIATED WITH ALTERNATIVE FORECAST ASSUMPTIONS

Carbon Monoxide Concentrations at Receptor 2 (ppm) Note: AAQS 9 ppm

	Master Plan Update Forecast		New Port Forecast (SEIS)		10% Faster Growth (Case2)		10% Faster Growth (Case3)	
	International Blvd./S 188th	International Blvd./S. 170th	International Blvd./S 188th	International Blvd./S. 170th	International Blvd./S 188th	International Blvd./S. 170th	International Blvd./S 188th	International Blvd./S. 170th
Alt 1 (Do-Nothing)								
2000	12.18	9.31	19.1	13.0	*21.0*	*14.3*	*21.0*	*14.3*
2005	na	na	18.1	13.0	*19.9*	*14.3*	*19.9*	*14.3*
2010	11.55	8.96	18.3	13.2	*20.1*	*14.5*	*18.3*	*13.2*
2020	10.43	9.45	*22.8*	*16.4*	*25.1*	*18.1*	*18.3*	*13.2*
Alt. 3 (North Unit)								
2000	12.18	9.03	18.9	12.8	*20.8*	*14.1*	*20.8*	*14.1*
2005	na	na	17.8	12.3	*19.6*	*13.5*	*19.6*	*13.5*
2010	10.57	8.96	17.8	12.5	*19.6*	*13.8*	*19.6*	*13.8*
2020	10.22	9.10	*22.2*	*15.6*	*24.4*	*17.1*	*24.4*	*17.1*

Annual Average Daily Number of Vehicles Accessing Sea-Tac Airport (Total Airport Traffic - Table O-B-1)

	Master Plan Update Forecast	New Port Forecast (SEIS)	10% Faster Growth (Case 2)	10% Faster Growth (Case 3)
Alt 1 (Do-Nothing)				
2000	86,465	89,810	*100,240*	*100,240*
2005	n/a	101,440	*110,170*	*110,170*
2010	110,750	114,040	*124,500*	*111,000*
2020	120,300	*141,100*	*154,380*	*111,000*
Alt. 3 (North Unit)				
2000	83,645	85,860	*102,770*	*102,770*
2005	n/a	97,640	*109,470*	*109,470*
2010	105,140	113,290	*123,890*	*123,890*
2020	129,055	*140,420*	*153,750*	*153,750*

Wetland Impact (Acres)

	Master Plan Update FEIS		New Port Forecast (SEIS)		10% Faster Growth (Case 2 and 3)	
	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3
Wetlands Filled	1.7	10.4	1.7	12.23	1.7	12.23

Note: The Master Plan Update EIS wetland impacts reflect the information reported in the Final EIS. Subsequent refinement of that evaluation has identified 12.23 acres of wetland impact

Stream Relocations (Linear Feet)

	Master Plan Update FEIS		New Port Forecast (SEIS)		10% Faster Growth (Case 2 and 3)	
	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3
Relocation	2,200	6,100	2,200	6,100	2,200	6,100

TABLE D-2

SUMMARY OF IMPACTS ASSOCIATED WITH ALTERNATIVE FORECAST ASSUMPTIONS

Floodplain Impacts (Acres)

	Master Plan Update FEIS		New Port Forecast (SEIS)		10% Faster Growth (Case 2 and 3)	
	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3
Displaced Floodplain	0.00	7.2	0.00	7.2	0.00	7.2

Property Acquisition (total units of property)

	Master Plan Update FEIS		New Port Forecast (SEIS)		10% Faster Growth (Case 2)		10% Faster Growth (Case 3)	
	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3
Single Family	0	391	0	391	0	391	0	391
Apt/Condos	0	260	0	260	0	260	0	260
Business	0	105	0	105	0	105	0	105

Socio-Economic Impacts (Loss of Taxes - Property Taxes and Sales Taxes expressed in millions)

	Master Plan Update FEIS		New Port Forecast (SEIS)		10% Faster Growth (Case 2)		10% Faster Growth (Case 3)	
	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3
Lost Taxes	0	$2.4	0	$2.4	0	$2.4	0	$2.4

Socio-Economic Impacts (Total Jobs - not including construction jobs)

	Master Plan Update FEIS		New Port Forecast (SEIS)		10% Faster Growth (Case 2)		10% Faster Growth (Case 3)	
	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3
2000	205,690	205,690	236,800	236,800	260,480	260,480	260,480	260,480
2005	n/a	n/a	312,290	312,290	343,520	343,520	343,520	343,520
2010	335,344	335,344	392,330	392,330	431,560	431,560	392,330	431,560
2020	418,632	418,632	488,770	488,770	537,650	537,650	392,330	537,650

Amount of Earth/Fill Needed (Million Cubic Yards)

	Master Plan Update FEIS		New Port Forecast (SEIS)		10% Faster Growth (Case 2)		10% Faster Growth (Case 3)	
	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3	Alt 1	Alt 3
Fill Needed	2.4	23	2.4	23	2.4	23	2.4	23

Source: Synergy Consultants, Inc. - extrapolated from the *Supplemental* and *Final Environmental Impact Statement*; May 1997

APPENDIX E

COMMENTS CONCERNING THE

FINAL ENVIRONMENTAL IMPACT STATEMENT

INDEX OF COMMENTS CONCERNING THE FINAL ENVIRONMENTAL IMPACT STATEMENT

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6.	March 18, 1996	Diana Gale	Seattle Water Department	E-6
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9.	March 27, 1996	Keith Harris	Highline Water District	E-13
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12.	March 20, 1996	David Pierce	Department of Natural Resources	E-14

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1

Ms. Barbara Hinkle
Health, Safety and Environmental Management
Port of Seattle
P.O. Box 68727
Seattle, WA 98168

RECD ANM-610
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FEB 13 1996
ANM-610 611

X Mr. Dennis Osssenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Ave., S.W.
Renton, WA 98055-4056

Subject: Proposed Master Plan for Seattle-Tacoma Int'l Airport

Please find my enclosed letter to the Seattle-Post Intelligencer. Please log that letter as an official "opposition" comment to your MASTER PLAN.

Secondly, please provide specific facts and data regarding both normal and flood water runoff mitigation post third runway construction.

I would also like to know if that mitigation has been approved by the Army Corps of Engineers? I would also like to know if either of yout agencies assessed the wetlands post the week of February 5 floods?

Thank you for a prompt reply.

Maria C. Little 2/10/96

Maria C. Little
2650 SW 151st Place
Seattle, WA 98166

cc: U.S. Army Corps of Engineers

Department of Ecology Water Quality Certification

1

February 10, 1996

Mr. Scott Sunde
c/O Seattle Post-Intelligencer
P.O. Box 1909
Seattle, WA 98111-1909

Dear Mr. Sunde:

I am one of those citizens who believes that reporters and their newspapers serve their community with facts and data that promote public discourse, regardless of the subject. In order to do that reporters have to do some work to obtain those facts and data. Please read the EIS yourself before printing such a headline as "Third-Runway Problems Solvable - Study".

A fact: the wetlands that will be mitigated (by the way it is 17 acres per the EIS, not ten) are actually runoff opportunities in times of flooding. Did you see the area during our week of floods? I challenge you to do some investigation into where that water would go if the third runway is built?

The biggest impact of all is to the surrounding communities, and yet the only impact ever mentioned is the 1000 apts, residences and businesses that would displaced by the construction. The EIS does not address mitigating the permanent reduction of quality of life for the other thousands. The surrounding communities have been the backbone of Seattle long before the well-to-do eastside was developed. They have borne their share of "giving"; they bear it each and every day with the existing airport pollution - the traffic, the noise.

It is time for Seattle to grow up and realize that first-class cities have more than one airport, and they do not ask one portion of their city to bear the entire burden of its growth. Give a fully representative, fact-based view of the impact rather than the one spoon fed to you by the bureaucrats.

Sincerely,

Maria C. Little
2650 SW 151st Place
Seattle, WA 98166

cc: Seattle Mayor
FAA, Dennis Ossenkop

2

King County
Solid Waste Division
Department of Natural Resources
Yesler Building
400 Yesler Way, Room 600
Seattle, WA 98104-2637
(206)296-6542

REC'D ANM-610
PLAN, PGM, & CAP BR
FEB 25 1996
ANM-610____

February 20, 1996

Dennis Ossenkop
Federal Aviation Administration
Airports Division, ANM-611
1601 Lind Avenue SW
Renton, WA 98055-4056

Dear Mr. Ossenkop:

Thank you for your letter of February 9, 1996 transmitting a copy of the Final Environmental Impact Statement for the Proposed Master Plan Update Development Actions at the Seattle-Tacoma International Airport (Final EIS). The purpose of this letter is to correct information in the solid waste section in the Final EIS.

In Chapter IV, Section 20, page 1, column 2, paragraph 3 of the Final EIS it states that "The King County Solid Waste Division is currently exporting a portion of the County's mixed municipal solid waste (MSW) to an out of county landfill." This statement is incorrect; all of King County MSW is disposed of in landfills located in King County. A statement to this effect was included in the review and comment letter on the Draft EIS that we sent to you dated July 13, 1995. If possible, we would like the statement in the Final EIS changed to reflect the statement in our review and comment letter.

Thank you again for transmitting the Final EIS to us. If you have any questions, please call Helen Matekel at 296-4409.

Sincerely,

Rodney G. Hansen, Ph.D., P.E.
Manager

RGH:HM:jl
296-35

3

Seattle Water

Diana Gale, Superintendent
Norman B. Rice, Mayor

REC'D ANM-610
PLAN, PGM, & CAP BR
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ANM-610____

Ms. Barbara Hinkle
Health, Safety and Environmental Management Division
Port of Seattle
P.O. Box 68727
Seattle, Washington 98168

Mr. Dennis Ossenkop
Northwest Mountain Region
Airports Division
Federal Aviation Administration
1601 Lind Avenue S.W.
Renton, Washington 98055-4056

Subject: Final Environmental Impact Statement
Proposed Master Plan Update Development Actions
at Seattle-Tacoma International Airport

Dear Ms. Hinkle and Mr. Ossenkop:

With this letter, we are appealing the adequacy of the NEPA/SEPA document for the above referenced project. The Seattle Water Department's appeal is based on concerns related to the impacts of the Airport proposal on our Highline well field. We have contacted Port personnel in vain to determine what appeal procedures are available to us, leaving us to assume that a 15-day comment period applies for SEPA and that an appeal of NEPA may or may not be available. This letter is being written to preserve any rights of appeal available under both SEPA and NEPA.

We believe that the construction of the third runway as described in the EIS will have grave consequences on our well field. Our concern focuses on the placement of Borrow pit #5 adjacent to our well field and directly above the aquifer.

While the FEIS provides some disclosure of the existing conditions which affect groundwater and our well field, it fails to adequately portray the impacts of the project and to identify specific groundwater protection mitigation measures. The conclusions in Section 10 of the EIS are not supported by the study contained in Appendix Q. In particular, if the project proceeds as described in the FEIS, the impacts of exploiting Borrow Pit #5 will not be limited only to the shallow aquifer, as described, nor will the mitigation identified provide sufficient protection. In summary, the EIS has not been responsive to our concern as expressed in our letter of August 3, 1995. The EIS has not quantified the potential for contamination of this critical aquifer as is

Dexter Horton Building, 10th Floor 710 Second Avenue Seattle, WA 98104

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required to fully understand the magnitude of project-related impacts and the appropriateness of proposed mitigation.

Please contact Shawn Aronow at 233-7895 for any matters related to this appeal.

Sincerely,

Scott Haskins
for DIANA GALE
Superintendent of Water

cc: Seattle Law Department

4

REC'D ANM-610
PLAN, PGM, & CAP BR
MAR - 5 1996
ANM-610

March 4, 1996

Ms. Barbara Hinkle
Health, Safety and Environmental Management
Port of Seattle
P.O. Box 68727
Seattle, WA 98168

Mr. Dennis Osssenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Ave., S.W.
Renton, WA 98055-4056

Subject: Proposed Master Plan for Seattle-Tacoma Int'l Airport

Reference: M. Little letter dtd 2-10-96

I have received a very timely and informative reply from the Army Corps of Engineers regarding my February 10, 1996, letter and questions.

When will I hear from either of you? A copy of the reference letter is enclosed.

I have two more questions - how can you mitigate usual storm water runoff with wetlands in another location? Will the runway be perforated?

Sincerely,

Maria C. Little
Maria C. Little

Enclosure:

4

February 10, 1996

Ms Barbara Hinkle
Health, Safety and Environmental Management
Port of Seattle
P.O Box 68727
Seattle, WA 98168

Mr. Dennis Osssenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Ave., S.W.
Renton, WA 98055-4056

Subject: Proposed Master Plan for Seattle-Tacoma Int'l Airport

Please find my enclosed letter to the Seattle-Post Intelligencer. Please log that letter as an official "opposition" comment to your MASTER PLAN.

Secondly, please provide specific facts and data regarding both normal and flood water runoff mitigation post third runway construction.

I would also like to know if that mitigation has been approved by the Army Corps of Engineers? I would also like to know if either of your agencies assessed the wetlands post the week of February 5 floods?

Thank you for a prompt reply.

Maria C. Little
2650 SW 151st Place
Seattle, WA 98166

cc: U.S. Army Corps of Engineers

Department of Ecology Water Quality Certification

2

4

March 4, 1996

Ms. Ann R. Uhrich
Chief, Environmental and Processing Section
Department of the Army
Seattle District Corps of Engineers
P.O. Box 3755
Seattle, Washington 98124-2255

Reference: 95-4-00461 Seattle, Port of

Dear Ms. Uhrich:

First of all, THANK YOU, for your prompt, informative, but cordial, reply to my February 10, 1966 letter to the Federal Aviation Administration and the Port of Seattle.

I am very pleased that you took my questions seriously and addressed them in a straight forward manner - actually I am almost speechless. I am more used to the type of service presently being received by the FAA and the Port of Seattle. → To date, neither agency has responded. Those agencies seem to serve different constituencies than the one I belong to.

In any event, based on your letter I pursued my concern regarding stormwater runoff with the Washington State Department of Ecology and with Representatives Tate and McDermott. I am very concerned that with all the attention regarding potential construction no one has physically surveyed the impact of the February storms (that I have been told).

When I drove East on Hwy 518, water from the Lora Lake area was almost to the highway. Mitigation of wetlands in another location is not of much use when it rains.

Again, thank you for responding. Please be sure the permit process is based on FACTS and DATA - not political pressure.

Maria C. Little
2650 SW 151st Place
Seattle, WA 98166

cc: Washington State Representatives
Randy Tate
Jim McDermott

3

5

REC'D ANM-610
PLAN, PGM, & CAP BR
MAR - 5 1996
ANM-610

July ~~1995~~ March 1996

Federal Aviation Administration
Dennis Ossenkop
Airports Division, ANM-611
1601 Lind Ave. S.W.
Renton, WA 98055-4056

Dear Sir:

As a part of the on-going debate on the third runway issue and the Environmental Impact Study comment period, I wish to register my objection to the change in air-traffic patterns over Central and Southeast Seattle in advance of the final decision on the third runway.

Recent changes in air-traffic patterns are adversely affecting our way of life. Noise levels are increasingly oppressive. It is our understanding that changes in air-traffic patterns are prohibited without an Environmental Impact Study. We are concerned that our community was not included in any study of the air-traffic patterns current or future.

Please record my objection to the change which has occurred in the air-traffic patterns and which is adversely affecting the quality of life in and around the communities of Central and Southeast Seattle.

P.S. I would appreciate a response. Thank you.

Respectfully,

Elizabeth T. Martin
Signature

ELIZABETH T. MARTIN
Name

915 15TH AVENUE, APT. #4
Address

SEATTLE, WA 98122-4519
City, State, Zip

6

Seattle Water

Diana Gale, Superintendent
Norman B. Rice, Mayor

REC'D ANM-610
PLAN, PGM, & CAP BR
MAR 19 1996
ANM-610

March 18, 1996

Mr. Dennis Ossenkop
Northwest Mountain Region
Airports Division
Federal Aviation Administration
1601 Lind Avenue S.W
Renton, WA 98055-4056

Ms. Barbara Hinkle
Health, Safety and Environmental Management Division
Port of Seattle
P.O. Box 68727
Seattle, WA 98168

RE: Final Environmental Impact Statement for the Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport (SAMPU FEIS)

Dear Mr. Ossenkop and Ms. Hinkle:

This letter is a follow-up to our March 7, 1996 meeting with Port of Seattle staff in which we discussed Seattle Water's concerns related to the exploitation of a borrow pit located over an aquifer and adjacent to the wellheads of our Riverton Heights Wells 1 and 2. Borrow Area 5 is located within the federal and state mandated wellhead protection area for these two wells, and are concerned that exploitation of Borrow Area 5 will have grave consequences on the water quality in our well field.

It appears that the Port of Seattle has two options: avoidance or exploitation of Borrow Area 5. In light of our concerns, we believe the more prudent course of action is to relocate Borrow Area 5 outside of Seattle Water Department's (SWD) well head protection area. Our concerns relate to the environmental consequences associated with both physically removing the borrow materials and the use of the area following such activities. If avoidance of Borrow Area 5 were to prove unachievable, we would entertain discussion of the possibility of mitigation. (A general analysis of impacts and an overview of the types of mitigation SWD would need in conjunction with the exploitation of Borrow Area 5 are presented in the Attachment.)

As previously expressed, our preference is for relocating Borrow Area 5. Our position is based on the findings and conclusions found in the AGI report (Appendix Q-A of the

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FEIS) and results from our public health responsibility and contractual obligations to ensure an adequate supply of high quality drinking water. The exploitation of Borrow Area 5 poses clear and unacceptable risks to the water quality of our wells. Beyond the physical risks to be explained below, other risks include loss of use and the subsequent need to develop an alternative water source; alteration in aquifer behavior, necessitating increased monitoring and testing of the well field; and greater vulnerability to contamination from future development.

An aquifer's vulnerability to contamination is dependent on several factors. One set of factors in assessing its susceptibility to the infiltration of contaminants are the hydraulic properties of the material separating the aquifer from the land surface and the mechanisms by which the aquifer is recharged. Another factor is an aquifer's risk of exposure to contamination. This risk is evaluated by assessing the types of contaminants and activities occurring in critical areas, such as the aquifer recharge area or in the vicinity of the well fields.

There are two geologic features that reduce the vulnerability of the Intermediate aquifer to surface contamination sources. Appendix Q-A indicates the Vashon till (Qvt, lodgment till) covers much of the study area at or near ground surface and states that it "forms the first significant aquitard. The fine-grained, compact nature of these deposits retards surface water infiltration and promotes runoff." The second protective geologic feature is the Lawton Clay (Qvl) which separates the Shallow and Intermediate aquifers and significantly retards flow between the aquifers. Figure 5 from Appendix Q presents the generalized geology in cross section. The proposed use of Borrow Area 5 would remove the protective Vashon till over a substantial area. This would be in the vicinity of the wellheads where there is an absence of Lawton Clay.

Exploitation of this borrow area in fact increases the risk of contamination by exposing highly permeable outwash. The FEIS assertion that the outwash layers below the Vashon till would filter out contamination is inaccurate.

NEPA requires that, before certain decisions can be made, all reasonable alternatives involving lesser environmental impacts must be examined. The Port has not factored the presence of the Riverton Wells into the alternatives analysis of borrow sources, nor has it presented such an analysis in the FEIS. Such an analysis must be done in order to understand how avoiding one impact may result in creating another impact elsewhere.

Information about potential borrow sources found in Chapter IV, Page 19-1, Volume 1, and Appendix J, Volume 3 need to be synthesized. There are obvious tradeoffs between truck traffic, air quality, wetlands protection and this currently used public drinking water supply. Nowhere in the FEIS are these adequately characterized. SWD is not convinced that an evaluation of the environmental consequences associated with these tradeoffs will lead to the conclusion that Borrow Area 5 should be exploited. Based on our public

responsibilities, we must remain skeptical until such an analysis is available. No risk to the aquifer is acceptable if it is avoidable. Only when an alternatives analysis is presented, demonstrating that any action beyond avoidance is appropriate for Borrow Area 5, will we be convinced.

Should the Port and FAA, in their consideration of this issue and after preparation of the aforementioned analysis, remain convinced of the desirability and advisability of exploiting this borrow area, then SWD must insist upon a legal agreement defining the means by which exploitation would occur and how mitigation would be provided. The description of mitigation in the attachment to this letter would serve as the starting point for our discussions with you. Such an agreement would require the Port to indemnify Seattle Water Department for any costs arising from enhanced monitoring activities, spills, contamination, and remediation of groundwater. Further, for resolution of our concerns, we would require that this agreement be finalized prior to the FAA's issuance of its NEPA Record of Decision for this project.

We look forward to your timely response so that we may reach a mutually satisfactory resolution.

Sincerely,

Scott Haskins
for DIANA GALE
Superintendent of Water

6

Attachment

Exploitation of Borrow Area 5

Activities associated with exploitation of Borrow Area 5 would include removal of the Vashon till exposing permeable advance outwash deposits (outwash soils) of the Shallow aquifer. This exposure is predicted to increase recharge to the Shallow aquifer. In addition, Appendix Q-A states that Borrow Area 5 appears "to overlie zones in which the Lawton Clay is absent." The absence of Lawton Clay likely results in direct hydraulic connection between the Shallow and Intermediate aquifers in this area. The removal of the protective surface till layer during construction, the resulting increase in recharge, and the absence of the protective Lawton Clay separating the aquifers all contribute to a significant increase in the vulnerability of the Intermediate aquifer to contamination.

The increased vulnerability means surface contaminants can move rapidly into the aquifer systems and beyond the range of cost effective cleanup methods. The end result is a much shortened reaction time to counteract spills or contamination releases.

> Groundwater quality in the Shallow (Qva) Aquifer could potentially be impacted by the proposed improvements through either infiltration of contaminated surface water associated with construction activities or with future airport operations or borrow area development.... Because of the potential for direct recharge to the Shallow (Qva) Aquifer within borrow areas, future development in the areas could potentially present significant water quality impacts to the groundwater system.... In the event of future development of the borrow areas, mitigation against potential groundwater quality impacts to the Shallow (Qva) and Intermediate (Qc[3]) Aquifers will be necessary. This mitigation could include preventing surface water run-on into the borrow areas from outside areas, reserving the borrow areas for activities with little or no potential for groundwater contamination, or developing the borrow areas with appropriate engineering controls. Executive Summary, Appendix Q-A.

Another factor in determining the vulnerability of an aquifer is its risk of exposure to contamination. As stated in the SAMPU FEIS:

> Water quality degradation in Miller and Des Moines Creeks and their tributaries is characteristic of pollutants commonly found in urban stormwater runoff. Such pollutants, including nutrients, organics (e.g. oil and grease), metals, fecal coliform bacteria, and suspended solids, have contributed to occasional violations of Class AA water quality standards and federal water quality criteria in these basins. Page IV.10.03

On the following page, the SAMPU FEIS points out that: "copper, lead and zinc are generally the most common and abundant metals in urban runoff." Forty percent or more of the total copper and zinc in stormwater runoff may be in dissolved forms. Nutrients and salts also occur in dissolved form in urban stormwater runoff. The dissolved portions

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of pollutants are significant because they are particularly difficult to remove and are generally not removed by coarse soils.

Due to the coarse nature of the outwash layers, they have little filtering or adsorptive capabilities. Any material that comes in contact with the exposed surface gravels will have the potential to move rapidly into the groundwater below.

We dispute the statement on page IV-7-11, Volume 1 of the SAMPU FEIS: "Pollutants released in advance and recessional outwash likely would be absorbed or removed by soil particles; therefore it is unlikely that they would reach the Highline Aquifer or Deep Aquifer." We strongly disagree with this conclusion, which forms a basis of our objection. Further, this statement is unsupported and contradicts other sources such as the Department of Ecology Stormwater Management Manual for the Puget Sound Basin (SMMPSB) which states that outwash soils are unsuitable for infiltration of stormwater and should not be used for this purpose.

As identified in the SAMPU FEIS, potential sources of pollutants on construction sites include fuels, lubricants and solvents associated with the operation and maintenance of the large fleet of heavy equipment that will be necessary for the project. For efficiency, contractors prefer to fuel and maintain heavy equipment on the site rather than driving off-site. This results in spills of fuel, lubricants and solvents. Any time heavy equipment is operating, there will occasionally be mechanical failures with subsequent leakages on site. In particular, hydraulic lines occasionally break resulting in spillage of hydraulic fluid from the break and during repair. Other chemicals often found on construction sites include various herbicides, detergents for cleaning equipment, cement, and various compounds used for dust control.

There will also be significant pollutant loading on the site from airborne sources over a long time period with the adjacent freeway and with the over head air traffic. Were the site to be left unprotected, other permanent impacts to the aquifer would result. For instance, the use of the site for parking (as described in the SAMPU FEIS) would create a variety of potential pollutant sources associated with construction of the facility and subsequent vehicular use. Large parking areas often include fueling, maintenance and washing activities. Each of these would generate significant pollutant loading. Construction activities would pose many of the risks discussed in the previous section. Since they were discussed there, they are not repeated here. Vehicular use generates pollutants from exhaust, tire and brake wear, oil drippings, pavement wear and fuel leaks. Typical parking lot runoff includes oil and grease, silt, heavy metals and phosphorous. In addition, de-icers are generally used by parking lot operators. These all have the potential of entering the ground and groundwater.

Mitigation

Construction Related

If the site is used as a source of borrow material, the protective till layer will be removed creating significant risk of introducing pollutants to the underlying groundwater. Some of the measures necessary to reduce, but not prevent, this potential are as follows:

- Typical construction site Best Management Practices should be evaluated, modified for application on this site and applied;
- All equipment refueling and maintenance should occur off-site;
- Materials for spill collection and containment should be carried on all equipment;
- Off-site drainage should be collected and routed around the site;
- The site should not be allowed to be used for construction staging. Cement storage or concrete mixing should not be allowed on site;
- Dust control should not use chemical or oil products;
- Chemicals and herbicides should not be used or stored on the site;
- At the conclusion of construction activities on each portion of the site, that portion should be covered with at least 18 inches of topsoil and re-vegetated; and
- The Port should establish a program for independent monitoring of construction activities and long-term pollutant infiltration.

Permanent Mitigation

Since outwash soils will be left exposed following use of the site for borrow, the site will remain as a potential pathway for introduction of pollutants to the underlying aquifer. The risks associated with this will depend, in part, on the future use of the site.

Measures that would be necessary to reduce this potential are as follows:

- For any future land use, the surface of the site should be sealed;
- Stormwater best management practices should be reviewed carefully and modified for application on this site;
- If the site is used for parking, there should be prohibitions against any on-site maintenance, fueling or vehicle washing; and
- No underground storage tanks should be allowed on the site.

Further, SWD will require the Port to indemnify Seattle Water Department for any costs arising from enhanced monitoring activities, spills, contamination, and remediation of groundwater.

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March 18, 1996

VIA FACSIMILE AND OVERNIGHT MAIL

Mr. Dennis Ossenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

Ms. Barbara Hinkle
Health, Safety
and Environmental Management
Port of Seattle
P.O. Box 68727
Seattle, Washington 98168

Re: Final Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport

Dear Mr. Ossenkop and Ms. Hinkle:

On behalf of our clients, the cities of Burien, Des Moines, Federal Way, Normandy Park and Tukwila, Washington and the Highline School District, individually and collectively as the Airport Communities Coalition ("ACC"), we are providing comments on the Final Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport ("FEIS"),[1] which was issued by the

[1] U.S. Dep't of Transp., Fed. Aviation Admin., Final Environmental Impacts Statement for Proposed Master Plan Development Actions at Seattle-Tacoma International Airport ("FEIS") (Feb. 1996).

7

Federal Aviation Administration ("FAA") and the Port of Seattle ("Port") on February 9, 1996.

As you are aware, the ACC submitted extensive comments on the Draft Environmental Impact Statement ("DEIS"). We do not repeat those detailed comments, but instead merely note that the FEIS continues to contain many of the same fundamental flaws that were present in the DEIS. The final document does not, therefore, satisfy the legal requirements of the National Environmental Policy Act ("NEPA") the Washington State Environmental Policy Act ("SEPA") and other environmental statutes applicable to this project. Key inadequacies which have not been remedied include:

- The FEIS never identifies the "action" being taken by the respective agencies.
- The FEIS contains insufficient analysis of the cumulative impacts of the proposed Airport expansion and other on-going and foreseeable future projects in the region.
- The FEIS fails to give sufficient consideration to a reasonable range of alternatives. The final document only contains a conclusory summary analysis of the alternatives which were considered.
- The FEIS fails to describe or analyze properly the significant environmental impacts of the Master Plan Update proposals.
  - The analysis of noise impacts is based on implausible assumptions and omits critical information regarding the nature and extent of such impacts.
  - The analysis of construction impacts grossly understates the effects that would result from transporting, dumping and moving nearly 27 million cubic yards of fill necessary to build an additional runway and the other facilities proposed.
  - The analysis of land use impacts fails to recognize or assess the extent to which the Master Plan Update is inconsistent with comprehensive plans of neighboring cities, in

7

violation of the Washington Growth Management Act and federal law.

  - The analysis of air quality impacts fails to comply with federal guidelines and inaccurately represents the air quality impacts associated with aircraft and vehicular traffic, as well as the substantial construction activities.
  - The analysis of air quality impacts fails to recognize or acknowledge the significant increase in air toxics which would result from the expanded facility at the Airport.
  - The analysis of wetlands impacts omits important information about wetlands permitting and mitigation requirements and ignores local wetlands protection requirements, including, but not limited to, requirements for mitigation within the area drainage basin.
  - The analysis of transportation impacts contains improper assumptions and omits critical information on, among other things, regional transportation impacts.
  - The analysis of environmental effects on numerous resources, including, but not limited to, air and water quality, is based on the unreasonable assumption that the same number of planes and passengers would use Sea-Tac regardless of whether the Airport is ever expanded. As a result of this assumption, the FEIS grossly underestimates the effects of the proposed expansion on the environment.
- The FEIS fails to adequately consider reasonable mitigation measures or to explain how the few mitigation measures suggested would mitigate the identified impacts.

Because of these and other deficiencies in the FEIS, neither the FAA nor the Port can rely on the FEIS to support approval of the Master Plan Update or its related development actions, including, but not limited to, approval of a revised Airport Layout Plan ("ALP"). Accordingly, we request that the

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FAA postpone issuance of a Record of Decision on the FEIS and that the Port and the FAA delay future action on the Master Plan Update and revised ALP until a legally adequate environmental document can be prepared.

As noted in our letter of March 16, 1996, we have transmitted under separate cover the following documents in support of our comments for inclusion in the record of both FAA and Port actions:

Ron Judd et al., *World-Class Airport Vital to Region's Economic Future*, Seattle Post-Intelligencer, June 2, 1995 at 112.

Steven A. Morrison and Clifford Winston, *An Econometric Analysis of the Demand for Intercity Passenger Transportation*, 2 RESEARCH IN TRANSPORTATION ECONOMICS 213 (Theodore E. Keeler ed., 1985).

Steven A. Morrison and Clifford Winston, The Evolution of the Airline Industry (The Brookings Institution, 1995).

Port of Seattle & Mestre Greve Associates, Position Statement and Compliance Report (Jan. 30, 1996).

T.M. Sell, *New Airport Chief Inherits Old Problem of Capacity*, J. Am., Nov. 5, 1993, at C1.

T.M. Sell, *Sea-Tac Beginning to Burst*, Valley Daily News, Apr. 14, 1994, at A1.

Clifford Winston, Evaluation of the FAA's Forecasts of Traffic at SEA-TAC Airport (Mar. 15, 1996).

Bob Simmons, *Port Noise Complaint*, Eastsideweek, Oct. 6, 1993, at 7.

Gina Marie Lindsey, Testimony to the U.S. House of Representatives, Committee on Transportation & Infrastructure, Aviation Subcommittee, Seattle, Washington, Mar. 18, 1996.

Robert Wallace, Testimony to the U.S. House of Representatives, Committee on Transportation & Infrastructure, Aviation Subcommittee, Seattle, Washington, Mar. 18, 1996.

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If you have any questions, please feel free to contact me.

Sincerely,

Perry M. Rosen

Perry M. Rosen

95-023-FAA **8**

REC'D ANM-610
PLAN, PGM, & CAP BR
MAR 20 1996

ANM-610
MAR 18 1996

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue
Seattle, Washington 98101

Reply To
Attn Of: ECO-088

Mr. Dennis Ossenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Ave, S.W.
Renton, Washington 98055-4056

Dear Mr. Ossenkop:

In accordance with our responsibilities under Section 309 of the Clean Air Act and the National Environmental Policy Act, the Environmental Protection Agency (EPA) has reviewed the **Final Environmental Impact Statement (EIS) for Proposed Master Plan Update Development Actions at Seattle-Tacoma (Seatac) International Airport.** The final EIS evaluates four Alternatives, including a No-Action Alternative to meet regional air travel needs beyond the year 2000.

We appreciate the well-organized and detailed final EIS. Many of our questions on the draft EIS have been addressed in the final EIS. Our remaining concerns regarding noise issues are detailed below. Our air quality comments will be submitted in a subsequent letter due to the Federal Aviation Administration's extension of the comment period for air quality issues.

We remain concerned about the noise analysis in Chapter 3 of the final EIS. It has been brought to our attention, between the issuance of the draft EIS and the final EIS, that the present impacts from air traffic affect the Rainier Valley more than what is indicated in the final EIS. Monitoring done on-site using FAA approved noise monitoring techniques has shown unusually high readings for average and peak noise levels. The Record of Decision should document this highly impacted area and mitigation measures should be adopted accordingly.

Many low-income families and minorities reside in the

8

95-023-FAA

Rainier area which qualifies it for consideration under the Environmental Justice Executive Order 12898 (EO), "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations" which is intended to foster nondiscrimination in federal programs that substantially affect human health or the environment. It directs federal agencies to coordinate and formulate agency strategies that identify and address, as appropriate, disproportionately minority populations and low-income populations. The EO also highlights the importance of providing minority populations and low-income populations access to public information and opportunities to participate in matters that relate to human health or the environment.

EPA encourages the lead agency to involve the Rainier Valley residents in the planning process for this EIS and to learn how the affected population perceives its existing burden and risk. Unique cultural practices and level of education/communication and language skills must be taken into consideration when dealing with the affected community through public meetings and media. The EIS should describe existing demographic conditions and the potential social impacts of the proposed alternatives. The following additional information should be included in the Record of Decision:

- analysis of noise impacts on Rainier Valley residents;
- impacts to the community economic structure (i.e., housing values, impacts to businesses, etc.);
- a discussion of the coordination to date with the concerned residents in the Rainier area;
- a plan for future coordination with these residents.

Thank you for the opportunity to review this final EIS. If you have any further questions, you may contact John Bregar at (206)553-1984.

Sincerely,
Richard B. Parkin
Richard B. Parkin, Manager
Geographic Implementation Unit

9

HIGHLINE WATER DISTRICT

Serving the Southwest Metropolitan Area since 1946

RECD ANM-610
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APR 01 1996
ANM-610

March 27, 1996

Mr. Dennis Ossenkop
N.W. Mountain Region
Airport Division
Federal Aviation Administration
1601 Lind Ave. S.W.
Renton, WA 98055-4056

Ms Barbara Hinkle
Health, Safety and Environmental Division
Port of Seattle
P.O. Box 68727
Seattle, WA 98168

Re: Port of Seattle Response to Highline Water District letter in Draft E.I.S. for Master Plan Update at Seatac International

Dear Mr. Ossenkop and Ms. Hinkle:

The response to our July 27, 1995 letter with regard to specific issues effecting the Highline Water District's existing and future groundwater issues were not adequately addressed.

The District now has water rights to 17.5 million gallons per day (MGD) of ground water within the Highline area.

What steps will be taken by the Port of Seattle to mitigate the contamination of the ground water? What steps will be taken by the Port of Seattle to mitigate the loss of ground water recharge to the aquifers now being used and those that will be used in the future?

These two simple questions were not addressed by the Draft Environmental Impact Statement for the Master Plan Update at Seatac International Airport.

We are expecting a response to our questions which would be acceptable to our District.

Sincerely,

Keith A. Harris

Keith A. Harris
Manager, Planning/Construction

KAH:maf

23828 - 30th Ave. S. • P.O. Box 3867 • Kent, WA 98032 • 824-0375 / FAX: 824-0806

JUN 06 '96 10:15AM POS AV/ENG P.2/2

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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
P.O. Box 47600 • Olympia, Washington 98504-7600
(360) 407-6000 • TDD Only (Hearing Impaired) (360) 407-6006

March 18, 1996

Ms. Barbara Hinkle
Port of Seattle
PO Box 68727
Seattle WA 98168

Dear Ms. Hinkle:

Thank you for the opportunity to comment on the Final Environmental Impact Statement (FEIS) for the Master Plan Update Improvements for Seattle-Tacoma International Airport. We reviewed the FEIS and have the following comments.

1. Page IV.10-5, the last paragraph states that most of the glycols from aircraft deicing are collected and conveyed to the Industrial Waste System (IWS) and treated by the IWS treatment plant before being discharged to a sewer line that carries effluent to the Midway Sewer District Treatment Plant. It is true that most of the glycols are collected by the IWS system, although there are still some capital improvements which must be made at deicing locations where the planes are too long and their tails hang out over the storm drain. The IWS treatment system does not treat glycols. The IWS system (a dissolved air flotation plant) was designed to remove total suspended solids (TSS) and oil and grease. The effluent from the IWS flows out the Midway Sewer District's outfall and is not treated by the Midway Sewer District Treatment Plant.

2. The preferred alternative will impact the IWS system. The Port has submitted an Engineering Report in compliance with the NPDES permit which addresses the issue of upgrading the IWS system, but does not address the additional loading to the IWS from expansion of the airport. This issue will have to be addressed before the Department can approve the engineering report.

If you have any questions, please call Ms. Lisa Zinner with our Water Quality Program at (206) 649-7276.

Sincerely,

Elizabeth J. Phinney

Elizabeth J. Phinney
Environmental Review

EJP:95-3377
cc: Janet Thompson / Lisa Zinner, NWRO

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service **11**

Centers for Disease Control
and Prevention (CDC)
Atlanta GA 30341-3724
March 21, 1996

RECD ANM-610
PLAN, PGM, & CAP BR
APR 01 1996
ANM-610

Mr. Dennis Ossenkop
Federal Aviation Administration
Northwest Mountain Region
1601 Lind Avenue, S.W.
Renton, Washington 98055-4056

Dear Mr. Mr. Ossenkop:

Thank you for sending a copy of the Final Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport. We are responding on behalf of the U.S. Public Health Service (PHS).

The proposed project, as noted in the FEIS, could involve a number of potential adverse impacts upon health and safety. However, we believe the sponsors have done a very good job of addressing each of these potential impacts, and we believe the overall mitigative plans, if adequately implemented, monitored for effectiveness, and meets federal and state regulations, will be acceptable. We note that in general, adverse impacts are expected to decrease in the future as improved technology results in lower air, noise, and water pollutant emissions.

Because pollutant loading will increase because of greater amounts of storm water runoff, and because of the large number of hazardous substances sites in the project areas, the proficient implementation of the "Spill Prevention, Control, and Countermeasures Plan", and the "Hazardous Substances Management and Contingency Plan," and the coordination of these plans with existing emergency procedures must be assured to protect ground water impacts, and protect health and safety.

Thank you for adding this address to your mailing list to receive future DEIS's which may indicate potential public health impacts and are developed under the National Environmental Policy Act (NEPA). On behalf of the Department of Health and Human Services (DHHS), PHS, please use this address rather than Mr. James Dickson, DHHS.

Sincerely yours,

Kenneth W. Holt

Kenneth W. Holt, M.S.E.H.
Special Programs Group (F-29)
National Center for Environmental Health

WASHINGTON STATE DEPARTMENT OF
Natural Resources

12

JENNIFER M BELCHER
Commissioner of Public Lands
KALEEN COTTINGHAM
Supervisor

RECD ANM-610
PL..., PGM, & CAP BR
MAR 21 1996
ANM-610

March 20, 1996

Dennis Ossenkop
Environmental Protection Specialist
Northwest Mountain Region
Federal Aviation Administration
US Department of Transportation
1601 Lind Avenue SW
Renton, WA 98055-4056

RE: Final Environmental Impact Statement (FEIS) Seattle/Tacoma International Airport Master Plan Update

Dear Mr. Ossenkop:

I have reviewed the above document and have the following comments:

* The Washington State Surface Mining Act (RCW 78.44) requires a Reclamation permit be obtained prior to mining when certain thresholds are exceeded. The thresholds are: Three acres disturbed, highwalls in excess of 30 feet high with faces and slopes steeper than 1:1 (45 degrees). These thresholds would seem to apply for the various "borrow sites" depicted in the FEIS.

* There is an exception which can be applied in this situation. The exception states that a permit is not required for on-site development if the sites are adjacent or contiguous. From the information presented in the document it appears that the borrow sites are not adjacent or contiguous to the proposed fill project. However, the land appears to be under one ownership (Port of Seattle) and the argument can be made that although the sites are not adjacent or contiguous, the sole purpose or dedicated use for the entire ownership is for the airport facility.

A Surface Mine Reclamation Permit is NOT required for the borrow sites located within the Port of Seattle ownership.

SOUTH PUGET SOUND REGION
28329 SE 448TH ST ▪ PO BOX 68 ▪ ENUMCLAW, WA 98022-0068 ▪ FAX: (360) 825-1672 ▪ TTY: (360) 825-6381 ▪ TEL: (360) 825-1631
Equal Opportunity/Affirmative Action Employer
RECYCLED PAPER

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All other sites where fill materials will be acquired are required to have a reclamation permit in place before the removal of materials can commence if the mining exceeds the thresholds of the Surface Mine Act. If a permit is not in place, that operation is subject to shutdown. The shutdown could stay in effect until the permit is issued.

Thank you for the opportunity to comment.

If you have questions, I can be reached through the South Puget Sound Region Office at (360) 825-1631.

Sincerely,

Bonnie B. Bunning
Region Manager

David S. Pierce

David S. Pierce
Surface Mine Field Inspector

DSP/bh
MAR96/67

Enclosure

APPENDIX F

RESPONSE TO COMMENTS ON THE DRAFT SUPPLEMENTAL EIS

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APPENDIX F

DRAFT SUPPLEMENTAL EIS COMMENTS

A 45-day comment period, ending on March 31, 1997, was conducted concerning the Draft Supplemental EIS. Simultaneous with the general public comment period, a 45-day comment period was conducted concerning the Updated Draft Conformity Analysis, in accordance with the 40 CFR Part 93. All of the comments submitted during these comment periods were reviewed and responses have been prepared to address all substantive comments. In a few instances, the comments resulted in revisions to the analysis presented in Volumes 1 and 2 of the Final Supplemental EIS. The most notable changes made between issuance of the Draft and Final Supplemental EIS related to corrections and revisions to the air quality analysis and production of the Final Conformity Analysis presented in Appendix B.

To aid in the review of comments and the preparation of responses, the comments were grouped by issue and/or chapter of the Draft Supplemental EIS. A code (for example, 3-D) was then given to each unique comment to facilitate the review of the individual comment and the identification of the corresponding response. **Table F-1** provides an index to the documents received as comments, which are reproduced in **Appendix G**. In this response to comments appendix, the commentors documents are identified as a comment number in sequential order that they were received, as noted in the first column of Table F-1. Also noted are the general locations of the comment within the commentor's letter.

The following issue groups were identified:

TABLE F-1

TABLE OF CONTENTS OF COMMENTORS

Document Number	Author	Organization
1.	Peter Allan	
2.	Fred Schmidt	Colorado State University
3.	Bob Klug	North East District Council
4.	Heather Loadholt	Woolpert
5.	James Bartlemay	C.A.S.E.
6.	John Geddie	
7.	Dan Caldwell	
8.	Joseph McGeehan	Highline School District
9.	Dan Caldwell	
10.	David Dorough	
11.	Dan Caldwell	
12.	Dan Caldwell	
13.	Dan Caldwell	
14.	Dan Caldwell	
15.	Dan Caldwell	
16.	Dan Caldwell	
17.	Frances Wells	
18.	David Wagner	
19.	Wallace Meyers	
20.	Arden Forrey	
21.	Barbara Stuhring	
22.	Marie Feckley	
23.	Loretta Borvers	
24.	Cecelia Youngblood	
25.	Dan Caldwell	
26.	George Bowers	
27.	Adam Smith	U.S. Congress
28.	Perry Rosen	Cutler & Stanfield
29.	Perry Rosen	Cutler & Stanfield
30.	Chris Vance	King County Council
31.	James Rymsza	
32.		March 4, 1997 Public Hearing Transcript
33.	Adam Smith	U.S. Congress
34.	Debi DesMarais	C.A.S.E.
35.	Stanley Scarvie	
36.	Joan Cox	
37.	Mr. & Mrs. M.C. Nordhaus	
38.	Mr. Fred McKnight	
39.	Molly Nordhaus	
40.	Mr. Overholdt & Ms. Chomica	
41.	A. Brown	
42.	Bethany Woodward	
43.	Mr. & Mrs. Wattum	
44.	Mike Rees	Magnolia Community Club
	Philip Schneider	Washington Department of Fish and Wildlife
45.	Chuck Clark	US Environmental Protection Agency -- EPA
46.	Dennis McLerran	Puget Sound Air Pollution Control Agency- PSAPCA

TABLE F-1

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47.	Joseph Williams	Washington Department of Ecology - ECOLOGY
48.	David Pierce	Washington Dep. of Natural Resources - DNR
49.	Bob White	Regional Transit Authority - RTA
50.	Norm Abbott	Puget Sound Regional Council - PSRC
51.	Debi DesMarais	
52.	A. Brown	
52A	A. Brown	
53.	Henry Frause	
54.	Minnie Brasher	
55.	Len Oebser	Regional Commission on Airport Affairs - RCAA.
56.	David Wagner	
57.	Helen Kludt	
58.	Susan Overholt	
59.	Mr. & Mrs. Miedema	
60.	Elisabeth Desimone	
61.	Alice Bilz	
62.	Rosemarie McKeeman	
63.	Harvey Rowe	
64.	Renee Montgelas	Washington Department of Transportation WSDOT
65.		RCAA Internet comments
66.	Calvin Hoggard	City of SeaTac
67.	Jorgen Bader	Seattle Community Council Federation
68.	David Bradley	Washington Department of Ecology - ECOLOGY
69.	Peter Kirsch	Airport Communities Coalition - ACC
70.	Perry Rosen	Airport Communities Coalition - ACC
71.	Eric Anderson	MAKERS Architecture & Urban Design
72.	Sandra Shes	
73.	Ben Stark	
74.	Fredrick Stouder	City of Burien
75.	Angelena	
76.	Warren Pugh	
77.	Ray Akers	
78.	Margaret L. Springer	
79.	Eileen Farley	Ravenna-Bryant Community Association
80	Derek Brown	
81	Derek Brown	
82	Derek Brown	
83	Rosemarie McKeeman	
84	Kenneth Holt	U.S Department of Health & Human Services
85	Willie Taylor	U.S. Department of Interior
	Anonymous	

Indices (HT #) refers to the page of the hearing transcript - Comment Document #32.
Indices such as (55RCAA,5E) refers to document #55, RCAA is the author and 5E is the authors comment number.
Indices (57L2-3) refers to document #57, page 2 through 3.

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1. PROCESS COMMENTS

1-A. Hearing Format (location, timing, etc.) A number of commentors expressed objections with the format, location, and time of the March 4, 1997 Public Hearing. Comments included: the location was hard to find, that attendees did not know that free parking was provided, that the hours required people to travel during rush hour traffic, that the Port Commissioners were not present, and that the format of the hearing required those testifying to face the hearing officer. Such comments were received from Mr. Eglin (HT 8), Ms. Clark (HT 20), Mr. Bartlemay (HT 25 and letter), Ms. Basareb (HT 78), Ms. Cox (36L), Mr. & Mrs. Nordhaus (37L), Mr. Rees (44L), Mr. Oebser (55RCAA,8E), Mr. Wagner (56L), Ms. Bilz (61L), Mr. Anderson (71L), Angelina (75L), Ms. Cox (36L), Mr. Bader (67L2-3), and Ms. Springer (78L). Several commentors suggested that additional hearings are warranted.

Response: As the hearing officer noted at the beginning of the hearing, testifiers were asked to face the court recorder to ensure that their testimony was recorded accurately. The location of the hearing (at the Airport) was chosen to provide a site centrally located to those interested in the issue. As the hearing ran from 4 p.m. until 8 p.m., it was scheduled to enable individuals working various shifts to attend. In addition, although the Port provided free parking to those in attendance, public transportation to/from Sea-Tac Airport is available for those wishing to avoid driving. The location of the hearing at the Airport is not hard to find, as most airport employees know where the Airport Auditorium is located and this site is included in signage inside the terminal.

The purpose of the public hearing was to provide an opportunity for citizens and groups to submit formal comments concerning the Supplemental EIS. The Port Commission will consider the Final EIS and the Supplemental EIS, including all comments received at the hearing or in writing, before making their decision on the project.

An extensive number of public hearings have been conducted concerning the proposed Master Plan Update or Third Runway. As agencies and the public have also had the opportunity to submit comments in writing, no additional hearings are warranted. See also response to **comment 1-D**.

1-B. Hearing Announcement: Ms. Brown (HT 53) commented that "It (the Port's Forum newsletter) said that this was a tentatively scheduled meeting and to call a particular number to see if it was for sure. As of seven o'clock this morning that number still has no message on it". Mr. Akers (77L-1,5) indicated that "the FAA has not provided for the inclusion of communities of southeast Seattle in the planning process for the 3rd runway." and notice was inadequate to non-English speaking residents. Ms. Springer (78L) commented that the Port's Forum arrived on the day of the public hearing.

Response: The February 1997 edition of the Port's Forum newsletter was published before a date and location of the hearing were finalized. As a result, the Forum stated: "A 45-day public and agency comment period will follow, as well as a public hearing tentatively scheduled for March 4, from 4 p.m. to 8 p.m., in the Airport Auditorium. For confirmation of the hearing date, call the Airport's construction information line, 439-7777 or 1-800-408-9886." The Port initiated this hotline in response to citizen concerns with the construction of the 34R RSA. This phone line has maintained a recording concerning airport construction activities. Individuals had the capability of either speaking with an attendant, or if the attendant was not available, leaving a message and receiving a return call. No requests for clarification of the meeting date/time/location were left on this line.

No requests were made to publish notices in any specific non-English language and no language other than English is broadly spoken in the Puget Sound Region. Thus, notification of the availability of the Draft Supplemental EIS and the conduct of the March 4, 1997 Public Hearing occurred in newspapers of general circulation. Notices were published in the Seattle Times/Post Intelligencer, Tacoma News Tribune, and the Highline News (in addition to the Port's Forum Newsletter). In addition, as noted in response to **comment 1-C,** copies of the document were available for citizens of the region to review at area libraries.

1-C. Availability of the Draft SEIS - A number of commentors reported that the Draft Supplemental EIS was not widely available with sufficient time to enable citizens to comment on the document. A number of commentors indicated that the Draft Supplemental EIS was not available as reported in the local public libraries. Such comments were received from: Mr. Eglin (HT 10), Ms. Ruble (Congressman Smith), Ms. Clark (HT 20), Mr. Bartlemay (HT 24 and letter), Mr. Stark (HT 43), Ms. Basareb (HT 77), Mr. Newby (HT 85), Ms. Milne (HT 50), Mr. Caldwell, Ms. Wells (17L), Mr. Wagner (18L), Mr. Meyers (19L), Ms. Stuhring (21L1), Mr. Bowers (29L), Mr. Rosen (ACC), Congressman Smith (33L), Ms. Cox (36L), Mr. & Mrs. Nordhaus (37L), Mr. Overholdt & Ms. Chomica (40L), Ms. Brown (41L), Mr. & Mrs. Wattum (43L), Ms. Brown, Mr. Oebser (55RCAA,8A,8B,8C,8D), Mr. Wagner (56L), Ms. Desimone (60L), Ms. Bilz (61L), Mr. Rowe (63L4), Mr. Anderson (71L), Ms. Shes (72L), Angelena (75L), Mr. Bader (67L2-1), and Ms. Springer (78L).

Response: The Draft Supplemental EIS was distributed 7 days in advance of the Federal Register notice publication, which began the official 45-day comment period on February 13, 1997. The advance distribution was conducted, in the same manner as the Final EIS, to ensure that the documents were available to the public at the start of the 45-day period. See also response to **comment 1-D.**

During the public hearing, several residents noted that the copy placed in the Des Moines Public Library was not available at the time that the local public notices were published. As requested by the King County Library distribution office, 15 copies were hand delivered by messenger service to the King County Library central distribution office on February 7, 1997. The Des Moines Library indicates that they did not receive a copy of the document until February 28, 1997. The King County Library central distribution office has indicated that a miscommunication occurred between their office and their cataloguing department. As a result, while they received the documents on February 7, 1997, they were not forwarded to the individual libraries in an expedited fashion. Several of the local community libraries contacted the central distribution office, where it was confirmed that the documents were received on February 7, 1997. One commentor stated "The White Center County Library does not have a copy to this day". Copies placed in the King County library system are available at all library locations by requesting that copies be forwarded to specific locations.

Standard notification of the availability of the Draft SEIS was made. This included widespread distribution of the document, notices published in the Seattle Post Intelligencer, Seattle Times, Highline News, and Tacoma News Tribune, in addition to the Federal Register. In addition, the Port's monthly "Forum" newsletter, which is distributed to 27,000 interested individuals and organizations, contained notice of the Draft SEIS in the February edition and the March edition noted the public hearing.

Three hundred (300) copies of the Draft SEIS were printed, and over 230 copies were distributed to Federal, State, and local agencies, citizens, and organizations. As requests for copies were made, the FAA and Port distributed the remaining copies. In addition, Kinko's was provided with a copy to enable citizens or groups to purchase a copy. Although citizens indicated that the cost to obtain a copy of the Draft SEIS from Kinko's was $120, the actual cost is $60. Twenty five (25) copies (15 copies were provided to the King County Library system and 10 copies were provided to the City of Seattle Library System)[1/] were distributed to area libraries so that residents could review the documents at locations in the region, in addition to copies available for review at the Port, FAA, and PSRC offices.

Copies of the documents were placed on file at the following 17 library locations:

Beacon Hill Library, 2519 - 1st Avenue, South, Seattle
Boulevard Park Library, 12015 Roseberg South, Seattle
Seattle Public Library, 1000 - 4th Avenue, Seattle
Magnolia Library, 2801 - 34th Ave W, Seattle
Rainier Beach Library, 9125 Rainier Avenue S., Seattle
Bothell Regional Library, 9654 NE 182nd, Bothell
Burien Library, 14700-6th SW, Burien
Des Moines Library, 21620-11th South, Des Moines
Federal Way Regional Library, 34200-1st South, Federal Way
Foster Library, 4205 South 142nd, Tukwila
Kent Regional Library, 212 - 2nd Ave N, Kent
Vashon Ober Park, 17210 Vashon Highway, Vashon
Tacoma Public Library, 1102 Tacoma Ave S., Tacoma
University of Washington, Suzallo Library, Government Publications, Seattle
Valley View Library, 17850 Military Road South, SeaTac
West Seattle Library, 2306 - 42nd Ave SW, Seattle
Bellevue Regional Library, 1111 - 110th Ave NE, Bellevue

Based on the comments received, the Final Supplemental EIS will be placed in three additional City of Seattle libraries.

[1/] A greater quantity of Draft EIS copies were provided to the King County Library, but at their request, the number of copies was reduced to 15 when issuing the Final EIS.

Distribution in this manner ensured that individuals could search the card catalogue and if, the document was not available in a specific branch, the library would transfer one of seven unassigned copies to that location.

Copies of the pages D-9 and D-10, that were omitted during the original printing, were discovered on February 8, 1997 and copies were mailed to all groups receiving the document on February 13, 1997.

1-D. Length of Comment Period - Ms. Ruble (for Congressman Adam Smith), Mr. Bartlemay (HT 25 and letter), Mr. Stark (HT 43), Ms. Wells (17L), Mr. Wagner (18L), Mr. Meyers (19L), Ms. Stuhring (21L1), Mr. Bowers (26L), Representative Adam Smith, Mr. Rosen (ACC), Mr. Vance (30L), Ms. Cox (36L), Mr. & Mrs. Nordhaus (37L), Mr. & Mrs. Wattum (43L), Ms. Brown, Mr. Oebser (55RCAA 8C), Mr. Wagner (56L), and Mr. Akers (77Lpg3) indicated that the comment period was too short and/or requested an extension of the comment period .

Response: Requests for extension of the air quality conformity comment period were granted to enable the close of the NEPA/SEPA comments to occur simultaneous with the conformity comments. Extensions to either the air quality conformity or NEPA/SEPA comment period beyond March 31, 1997 were not justifiable, as the Supplemental EIS considers the same environmental factors and methodologies as discussed in the Final EIS.

1-E. PSRC Process - Ms. Basareb (HT 77) commented "when the Puget Sound Regional Council chose to endorse the third runway, it was done with a lie. The Port knew at that time .... They were going to have to do an additional SEIS ...". A similar comment was made by Mr. Newby (HT 82).

Response: While the FAA and Port staff were aware of the FAA's 1996 Terminal Area Forecast (TAF) when the PSRC voted in July, 1996 to amend the MTP to include the runway, the impact of the TAF was not known. As described in the Draft Supplemental EIS, the FAA TAF is a national forecast performed largely without reference to specific data and conditions at specific airports. Considerable analysis was required to determine whether and how the national factors which the FAA applied to Sea-Tac Airport in preparing the TAF might apply in light of specific historical experience and specific data with respect to Sea-Tac. That review showed, to the satisfaction of the Port and the FAA, that the TAF forecasts for this Airport could not be used as published and required adjustment to accurately reflect conditions at this Airport. See also response to **comment 2-C**. The FAA and the Port did not make the decision to prepare a Supplemental EIS until December 1996 after the new forecasts had been thoroughly considered and possible impacts understood. As soon as the decision was made to prepare the Supplemental EIS, the FAA issued a Notice of Intent, which was published in the Federal Register on December 27, 1996.

1-F. Copies of documents: Mr. Allan (1L), Mr. Schmidt (2L), Mr. Klug (3L), Ms. Loadholt (4L), Mr. Geddie (6L), and Ms. Youngblood (24L) requested a copy of either the draft or final Supplemental EIS.

Response: Three hundred (300) copies of the Draft Supplemental EIS were printed, and over 230 copies were distributed to Federal, State, and local agencies, citizens, and organizations. As requests for copies were made, the FAA and Port distributed the remaining copies. In addition, Kinko's was provided with a copy to enable citizens or groups to purchase a copy. Copies of the Final Supplemental EIS will be distributed to the same mailing list, plus those requesting copies, until all printed copies are distributed.

1-G. Documentation: Numerous commentors expressed concern with the content (such as a summary, an index, a list of tables/exhibits, and a list of authors), organization and/or thoroughness of the Supplemental EIS. Comments were received from: Mr. Bartlemay (5L), Ms. Cox (36L), Mr. & Mrs. Nordhaus (37L), Mr. & Mrs. Wattum (43L), Mr. Pugh (76L), Mr. Oebser (55RCAA,7D-6), and Mr. Bader (67L2-2,2-5,3-17,7-3,7-4,7-6). Mr. Bader (67L2-2) asked why scoping was not conducted.

Response: FAA guidelines contain the following concerning the content of a Supplemental EIS (5050.4A, Paragraph 104c):

> "The format and contents of a supplement are not specified and are expected to vary depending upon the extent of changes. (1) A separate document which discusses the changed circumstances, identifies the parts of the original environmental document which have been affected, and presents the new data. (2) Changes to the original environmental document in the form of new pages to replace existing pages and/or new pages to be added."

FAA guidelines state (FAA Order 5050.4A, Paragraph 104d):

> "Supplements are subject to the same circulation and filing requirements as the original document and to the same approval level (unless a new element is present which would raise the required approval level). Scoping is not required. A supplement is considered part of the documentation for decision-making...." (Emphasis added)

Each copy of the Draft Supplemental EIS contained a table of contents and Chapter 1, "Introduction and Summary". Separate copies of the summary chapter were not printed; however, copies of the entire document were provided to any individual or organization requesting copies, until all of the printed copies of the Draft Supplemental EIS were distributed.

An index was prepared and available for the Final EIS (see Chapter VI) as was a table of contents. In response to the comments received, the Final Supplemental EIS contains an Index. A Table of Contents was prepared and followed the fact sheet. Both the Final EIS and the Draft Supplemental EIS contained a listing of tables and exhibits following the table of contents.

Public comments on the Final EIS and Draft Air Conformity Analysis was produced at 50% of their original size to reduce the amount of paper required to publish the EIS. This is a standard practice for large projects.

The Final EIS contained a detailed listing of preparers (see Chapter VI) including the firms and staff members. As the same individuals prepared the Supplemental EIS, the Fact Sheet listed the firm names.

1-H. Revised Document: Ms. Stuhring (21L1) stated "With the vague wording, we don't know if changes will be made after the Final Supplemental is published." Similar comments were submitted by Ms. Brown (52AB161, AB162).

Response: The Draft Supplemental EIS described the impacts associated with a higher forecast of demand, based on the current trends in aviation activity. The Supplemental EIS, coupled with the analysis conducted in the Final EIS, reflects the anticipated impacts of the proposed Master Plan Update improvements. Because both documents were prepared, and result in the detailed evaluation of two aviation demand conditions, no further analysis is anticipated.

The production of the Final EIS was based on the review comments of agencies and the public as was the approach in preparing the Final Supplemental EIS. Thus, preparation of the Final Supplemental EIS reflects the comments received and responded to in this appendix. Only if the comment warranted, and noted by the response, has the main body of the Supplemental EIS been modified in response to a comment.

1-I. Review of References: Ms. Stuhring (21L1) and Mr. Oebser (55RCAA 4-1) requested that the "Wetland Mitigation Plan" and "Miller Creek Relocation Plan" be distributed to the libraries for local review. Mr. Oebser (55RCAA,7D-1/2/3) commented that incorporation's by reference are inappropriate and all documents should be available for review in one document. Mr. Bader (67L2-4,3-1,7-5) indicated that critical underlying data was not made available to the public.

Response: It is not possible to include all documents in the Final EIS or Supplemental EIS that were relied upon in preparing the technical analysis. This is particularly true of a study process which began in the late 1980s, and which is culminating in the Master Pan Update EIS process. As result, it is an accepted industry and legal standard to incorporate by reference documents, such that individuals questioning the underlying data have an opportunity to review the references. All underlying data has been made available to the general public for review at the FAA offices in Renton, Washington during normal business hours.

One commentor indicated that the underlying forecast data was not available. The Draft and Final Supplemental EIS describes in detail the forecast data and the methodology which they are based upon. A technical report (*Working Paper 2, Constrained Aviation Forecast Update, Forecast Update, Capacity Analysis and Landside Evaluation for Seattle-Tacoma International Airport*), describing the forecast preparation was cited, is incorporated by reference and is available for review during normal business hours at the FAA Offices in Renton and at the Port of Seattle Offices at Sea-Tac Airport.

The Port of Seattle has submitted the referenced wetland mitigation permit and stream relocation plan documents to the U.S. Army Corps of Engineers (COE) as part of the Section 404 permit request in December 1996. The COE have requested some formatting revisions, which are currently being completed. The COE is expected to issue public notice of the permit application in May 1997, at which time the final permit application material will be available for public review.

1-J. NEPA: Ms. Brown (52AB163,AB164) asked how NEPA applied to the Supplemental EIS. Mr. Frause (53L2) expressed concern with the Port and FAA serving as joint lead agencies.

Response: The Final EIS and the Supplemental EIS meet the requirements of the National Environmental Policy Act and the Council of Environmental Quality (CEQ) guidelines. FAA guidelines (FAA Order 5050.4A, Paragraph 104) identify the requirements for a Supplemental EIS. See response to **comment 1-G**. Under the NEPA and SEPA implementing guidelines, the FAA and the Port were joint lead agencies in preparing the Final EIS and Supplemental EIS. Authority over NEPA EIS compliance rests with the FAA and SEPA authority rests with the Port of Seattle. This relationship only applies to the NEPA/SEPA compliance and not to other planning efforts, such as the Master Plan or Part 150, which are the airport operators responsibility.

1-K. Responses: Ms. Stuhring (21L), Ms. DesMarais, Ms. Brown, and Ms. McKeeman (62L), and Mr. Rowe (63L6) requested that the response comply with NEPA Chapter 1503.4(5). Ms. Farley (79L1) commented that the Final EIS did not adequately respond to their comments. Ms. Brown (HT 90) indicated that because there have been so many studies that there has been confusion as to where comments were sent.

Response: The responses to comments received on the Draft EIS, Final EIS and the Draft Supplemental EIS meet the requirements of the National Environmental Policy Act, Council on Environmental Quality, and State Environmental Policy Act. The responses have been prepared to answer the questions (and in some cases comments) submitted.

Over the last 8 years, numerous studies have been conducted by various agencies and organizations. While most groups have attempted to clarify who was preparing the study and how comments were to be submitted, comments were often sent to incorrect parties. In most instances, the receivers have forwarded the comments to the appropriate agency or organization, and all publicly sponsored studies have published the comments/responses.

1-L. Programmatic: Mr. Bader (68L4) and Mr. Hoggard (66SeaTac,Pg 1) indicated that the Final EIS and Supplemental EIS are programmatic.

Response: Detailed comments concerning this allegation were not submitted. The Final EIS and the Supplemental EIS were prepared at a project specific level and identify project specific impacts. Commentors indicated that projects were only "peripherally assessed" in the EIS. Contrary to the commentor belief, a full assessment was performed concerning all projects included in the Master Plan Update.

2. PROJECT/PURPOSE AND NEED

2-A. Forecast Methodology: Mr. Bader (67L,3-8,3-14,3-18) questioned how the forecasts were prepared, variables considered, and requested definition of demand.

Response: Chapters 1 and 2 of the Draft Supplemental EIS contains a detailed discussion of how the forecasts were prepared. All technical terms are defined in the document.

2-B. TAF issues - Ms. Brown (HT40,52AB9,AB18) questioned why the new forecast is reflecting a 2.5% growth rate when "rest of the world is projecting a 3.1 percent growth for the US and 5 percent for the world overall". Mr. Scarvie(35L) questioned the projected growth rates.

Response: While the commentor is correct with regard to the growth forecast for Sea-Tac Airport, the commentor is not correct with regard to "the rest of the world". In February 1997, the FAA issued its FAA Aviation Forecasts: Fiscal Years 1997-2008. The national forecast released indicates that "annual domestic growth is expected to average 4.2% and annual international growth is projected to be 5.8 percent" through the year 2008. The 1997 Terminal Area Forecast (TAF) reflects the translation of the national forecast to possible conditions at specific airports. As was noted in the Draft Supplemental EIS, the Sea-Tac Airport fiscal year 1997 FAA TAF anticipates an annual growth rate of 3.2% for the period 2000-2005, and 3.1% from 2005-2010. The new Port forecast reflects an annual passenger growth rate of 3.7% between 1995 and 2000 and then a slowing to an annual growth rate of 2.7% through 2010, which is based on the anticipated change in population, per capita income, and air fares.

2-C. Port forecast vs TAF: Ms. Brown (HT55,41L-2,52AB4,AB5,AB6,AB7,AB8,AB16, AB17), Ms. Stuhring (21L1), Mr. Scarvie (35L), Ms. Brown (41L), Ms. DesMarais (34L2a, L17), Ms. Brasher (54L), Mr. Oebser (55RCAA,3.17), Mr. Wagner (56L), Ms. McKeeman (62L), Mr. Bader (67L3-9,3-10,3-13), and Mr. Pugh (76L) questioned why the Port's forecast was used in the SEIS when it is lower than the FAA's TAF. Mr. Abbott (50PSRC-4) requested clarification of the role of air fares on demand. Ms. Brown (52AB150) questioned the reliability of the new forecasts.

Response: As is described in the Draft SEIS, a detailed comparison was made of the FAA's 1997 fiscal year Terminal Area Forecast and the Port's new forecast. While differences were identified between the two forecasts, it is not possible to determine, with absolute certainty, which forecast is likely to be more accurate in the long-range. Thus, because the Port's forecast was determined to be reasonable and was prepared at a level to enable the evaluation of environmental impacts (unlike the TAF), it was used in preparing the Supplemental EIS.

Differences in assumptions relative to three key issues led to the differences in the results:

1. The Port's forecast assumed that air fares would not continue to decline at the same rate as the national level (as assumed in the TAF) as recent studies have shown that west coast airports have already experienced significant reductions in air fares relative to the east coast and Midwest airports. Airfares from west coast airports are expected to stabilize as benefits of lower-cost operators penetrate the east coast markets. Compared to the national average, greater reductions in east coast fares would be expected, with more moderate reductions for west coast markets.

   Declines in air fares have a substantial impact on generating demand for air travel. As was described in the Final EIS and the Draft Supplemental EIS, the methodology used in the forecasts is based on a review of historic activity. This methodology showed that 99% of changes in aviation demand can be explained by changes in three variables: air fares, per capita income, and population. If per capita income and population remains constant, and air fares decline (as was evidenced by the summer Southwest Airlines fare war), demand will increase. Similarly, if population and income are held constant and air fares are increased, demand for air travel will decrease.

2. The growth in the number of air carrier seats per departure used in the TAF reflect historic trends at Sea-Tac of 0.35 seats per year. The Port's forecast reflects a 1.0 seats per departure per year reflecting the aircraft orders and delivery schedules by airlines using Sea-Tac Airport. FAA national estimates of air carrier seats per departures growth are 1-2 seats per year.

3. The FAA TAF uses national commuter traffic assumptions, whereas the Port's forecast reflects anticipated aircraft and passenger characteristics associated with Horizon, the primary commuter carrier. The FAA's TAF assumes continued use of smaller turboprop type aircraft whereas the Port's forecast, based on Horizon's historic trends, assumes that the turboprop aircraft will be eventually replaced with larger turboprop or smaller jet aircraft.

The net effect of these differences results in the FAA TAF being about 10% greater than the Port's forecast in year 2010, a difference acceptable to the FAA for planning purposes. The FAA's documented review of the forecasts are discussed in a February 26, 1997 memorandum titled "Comparison of the 1997 FAA Terminal Area Forecast and the Port of Seattle January 1997 Aviation Activity Forecast" which is incorporated by reference. This memorandum is available for public review at the FAA offices in Renton, Washington during normal business hours.

Appendix D of the Draft Supplemental EIS identifies the possible environmental impacts associated with a forecast greater than the Port's new forecast, reflecting a form of sensitivity testing. An infinite number of alternative forecasts could be evaluated, but that approach is not reasonable, nor would it shed substantial new information concerning the environmental impacts from the proposed improvements at Sea-Tac Airport. In accord with NEPA and SEPA requirements, the Supplemental EIS was prepared using the most reasonable forecast available, and assessed foreseeable conditions.

To prepare an evaluation of environmental impacts, the forecasts must be translated into a detailed description of aircraft operating conditions, reflecting factors such as aircraft types (including estimates of engine types), general times of operation, etc. As is noted in the Supplemental EIS, one reason that the FAA's TAF was not used was that it is not prepared at a level of detail sufficient to define an aircraft fleet mix or hours of operations, which are essential to the evaluation of environmental conditions, such as noise and air quality. As is described in the response to comments concerning noise issues, aircraft fleet mix has a notable effect on the resulting environmental impacts. Thus, evaluation of impacts associated with a demand level would require the evaluation of the fleet mix associated with that demand. While current regulations mandate the phase-out of Stage 2 aircraft, little is precisely known about which specific aircraft will be flying in years beyond 2010. Estimates of fleet are possible, but their impact on the resulting environmental condition description are significant, and a slight change from one aircraft type to another could have significant ramifications on noise and air pollution conditions. Because of this variability, the resulting impact analysis would have little meaning. As a result, Appendix D achieves an objective of arraying the possible impacts that might occur in time frames beyond year 2010. See response to **comment 2-Q and 2-J**.

One commentor indicated that an EIS is required to use worst-case data, and thus should have used the FAA TAF. NEPA and SEPA do not require the use of worst-case conditions. However, in certain conditions, agencies encourage the use of worst case conditions, such as the air quality analysis. As a result, certain worst-case conditions were used in assessing the impacts of the Port's new forecast.

The Draft Supplemental EIS acknowledges that Master Plans are typically undertaken every 7-10 years, or for airports experiencing unforeseen growth, plans are undertaken every 3-5 years. Thus, it is anticipated that the Port would likely undertake a new Master Plan Update after the year 2000. As is also noted, the environmental review analysis is typically only valid for a 3-5 year period. Thus, future environmental evaluations would be expected to use any new planning assumptions (forecasts and/or new facility requirements).

Richard DeNeufville (in a paper prepared for MASSPORT titled "Understanding and Using Forecasts") noted:

> "Forecasts are necessary for planning, for decision-making, and for review and understanding of prospective choices. Planning, as a profession, focuses specifically on trying to deal constructively with possible futures. Decision-makers need a clear perspective on the likely consequences of their options. Discussions of alternative plans likewise routinely resolve into debates about whether the most appropriate forecasts were considered. Forecasts are basic. Unfortunately, however, forecasts are inevitably inexact and debatable. A prediction is not a fact that can be unambiguously measured. The number of passengers ten years hence at any airport is not something that anyone can know in advance, or can calculate in the same way we can compute the speed of a car or weigh its load on a bridge. All forecasts are estimates, based on expectations about other factors, derived from assumptions. Any forecast of future traffic is based on a logical house of cards. It can be criticized by using different assumptions, and coming up with a different forecast. And the new forecast in turn is equally vulnerable to criticism. No forecast can be proven to be right in advance..."

Page 2-2 of the Draft Supplemental EIS provides a similar characterization of the difficulties inherent in the preparation of aviation demand forecasts.

See also response to **comment 1-D**.

2-D. Do-Nothing/With Project Forecast and Capacity: Several commentors questioned how the Do-Nothing forecast was set and how the "With Project" was established. Others questioned why the "With Project" forecast did not represent the maximum capacity of the

Third Runway airfield, when the Do-Nothing forecast represented the maximum capacity of the existing airfield. Such comments were submitted by: Ms. Brown (52AB2,AB3,AB24, AB25,AB116,AB117), Mr. Klug (3L1), Mr. Hoggard (66SeaTacPg1,3-3,4-4), Mr. Rosen (70L6), Mr. Kirsch (69ACC,ES-1,Pg3.2,4.3), and Mr. Bader (67L3-8,4-2).

Response: Chapter 2 of the Draft Supplemental EIS provides a detailed description of the forecasts and their application to the Do-Nothing and "With Project" alternatives. The alternatives evaluated in the Final EIS and Supplemental EIS reflect the capability of the alternative in contrast to the demand. If the alternative is not capable of serving the demand, due to operating constraints (i.e., airfield limitations due to poor weather), the activity levels reflect those limitations. If the alternative can satisfy the demand, the activity level represents the demand.

The Final EIS and Supplemental EIS identify the theoretical maximum capacity of Sea-Tac's existing airfield as 460,000 annual operations. Thus, in time frames when the demand exceeds this capacity, the activity level reflects the constraint (i.e., 460,000 annual operations). If the capacity exceeds the demand, the activity that could be accommodated then represents the demand; Alternative 3 ("With Project") was evaluated using the forecast demand. Because demand is not expected to exceed the Third Runway capacity in a timeframe near the planning horizon, the ultimate capacity of the Third Runway was not used.

The capacity of the two alternatives were prepared based on the operating capability of the facilities and an examination of existing conditions at Sea-Tac and conditions at other major U.S. air carrier airports. As noted in Chapter 2, aircraft operating delay has reached 17-20 minutes per operation at airports such as Newark and JFK. This delay level, if allowed to occur at Sea-Tac with either the Do-Nothing and "With Project" airfields, would enable a certain level of activity. That level of activity was determined to be the operating capacity of that airfield alternative. See also response to **comment 2-Q** which also discusses the long-term operating capability of the Airport. It would not be reasonable to set the "With Project" activity level at its ultimate capacity (630,000 annual operations), as it is uncertain when the region would generate such demand for air travel; a linear extrapolation of the new forecast indicates that this could occur near year 2030 which is well beyond any reasonably foreseeable planning horizon.

The table below lists the activity levels associated with the two alternatives.

COMPARISON OF THE NEW PORT OF SEATTLE FORECAST
"With Project" to Do-Nothing

	With Project			Do-Nothing		
Operations	**2000**	**2005**	**2010**	**2000**	**2005**	**2010**
Annual	409,000	445,000	474,000	409,000	445,000	460,000
Peak Month	38,600	41,800	44,000	38,600	41,500	42,100
Peak Month/Avg Day	1,246	1,352	1,423	1,246	1,341	1,360
Avg Annual Day	1,121	1,219	1,299	1,121	1,219	1,260
Peak Hour	78	94	99	78	82	82

	With Project			Do-Nothing		
Operations	**2000**	**2005**	**2010**	**2000**	**2005**	**2010**
Enplaned Passengers						
Annual	13,700,000	15,700,000	17,900,000	13,700,000	15,700,000	17,900,000
Peak Month	1,540,000	1,730,000	1,940,000	1,540,000	1,730,000	1,940,000
Peak Month/Avg Day	49,500	55,700	62,400	49,500	55,700	62,400
Avg Annual Day	37,534	43,014	49,041	37,534	43,014	49,041
Peak Hour	5,210	5,740	6,300	5,210	5,460	5,930

Source: P&D Aviation, December 1996.

A commentor suggests that demand is lower during poor weather conditions, and implies that, as a result, delays will also be lower. In support of this argument, the commentor correctly points out that aircraft are routinely diverted to an alternative airport or flights are canceled to avoid poor weather delays. The fact that flights are canceled during poor weather conditions today is indicative of the need for the new runway. It is true that airlines use sophisticated techniques to consolidate passengers from canceled flights to other flights during periods of reduced arrival acceptance rates in an attempt to minimize passenger impacts. However, as passenger demand continues to increase, the airlines' ability to consolidate passengers will become increasingly difficult. As a result, without the proposed runway, flights canceled or diverted because of poor weather conditions in Seattle will continue to cause an increasing level of inconvenience and cost to the traveling public and the airlines.

Further, while the demand for air travel is based on several factors, including fare levels, population and income, it is <u>not</u> based on weather conditions, which vary from day to day. It is true that certain general aviation pilots will choose not to fly during poor weather conditions due to inadequate certification. However, commercial aviation demand is generally independent of weather except in extreme conditions. Therefore, even though more flights would be canceled without the proposed runway, the Draft Supplemental EIS appropriately defined the impact of delay based on unconstrained demand, which is independent from the effect of poor weather delays.

The City of SeaTac further asserts that infrastructure limitations will prevent the Airport from generating and accommodating the forecast demand. However, as is shown through the comparison of measures of efficiency, as described in Chapter 2 of the Draft Supplemental EIS, such infrastructure limitations have existed or exist at other airport locations. Surface transportation limitations are often overcome, through increasing use of HOV access, and passengers increasing their overall trip time.

2-E. Forecast Ranges: Mr. Bader (67L3-2,3-6,3-7) questioned if the forecasts represent ranges or hard numbers and why the Draft SEIS discusses a domestic air carrier load factor of 65.3% whereas other Port data indicates other load factors.

<u>Response</u>: The initial preparation of the forecasts during the Master Plan Update resulted in the development of a high, mid, and low forecast. The Master Plan Update high range forecast indicated that enplaned passengers could reach 19.4 million enplanements in 2010 and 25.7

million enplanements in 2020. The forecasts used in the Draft and Final EIS represented the mid-range forecast (15.3 million enplanements and 405,800 operations in 2010, and 19.7 million enplanements and 441,00 annual operations in 2020). The new Port forecast was not prepared as a range. A specific forecast was prepared based on 17.9 million annual enplaned passengers in 2010.

Mr. Bader contrasts the Airport's average domestic airline load factor of 65.3% with individual classes of airlines (i.e., commuter carriers) load factors. As is noted in the Master Plan Update, load factors vary according to the average of the domestic air carriers, the domestic commuter, and international operations. As was noted in the Draft Supplemental EIS, the domestic air carrier load factor was assumed in the new forecasts to remain constant at 65.3% based on 1995 actual conditions being about 65%.

2-F. TAF Availability: Mr. Bader (67L3-3,3-4,3-5) questioned when the TAF became available, if it makes a difference that the FAA forecast is based on fiscal year versus calendar year, and which forecasts were considered in the context of page 2-2 of the Draft SEIS.

Response: The 1996 TAF was placed on the internet by the FAA Washington Office of Policy and Plans in early 1996. However, the Northwest Mountain Region Office of the FAA did not become aware of the release of these forecasts until May 1996, as the historical process of releasing the data was to forward copies to the regional office by paper. Because the data was placed on the internet, the normal paper distribution was not conducted.

The FAA's TAF reflects annual passenger and aircraft operations levels based on a calendar year. The Supplemental EIS refers to the forecasts by fiscal year, as that date reflects the FAA's fiscal year in which the forecasts were prepared.

The questioned reference is in regard to the FAA's 1996 and 1997 Fiscal Year TAF's and thus the plural was appropriate.

2-G. Hotel Forecast: Mr. Caldwell commented that "Greater Seattle does not have the (hotel) rooms available nor under construction to support the claimed passengers." Ms. Stuhring (21L3) questioned the number of connecting passengers today and in the future that "stay overnight at airport hotels".

Response: The forecast of passenger traffic was prepared based on standard methodologies which identify what factors have a high correlation with aviation activity. The Master Plan Update showed that changes in passenger demand can be explained with over a 99% confidence based on three key variables: population, per capita income, and air fares. Contrary to one commentor's belief, the population of the region is influential in generating demand for air travel as evidenced by the strong correlation.

Of the 11,400,000 enplaned passengers in 1995, about 70% began or ended their air travel in the Puget Sound Region (7,900,000 enplaned O&D passengers). While the Puget Sound Region has a substantial quantity of passengers that use the Airport for vacation/business meeting travel, not all passengers are visitors, and not all visitors use hotels/motels. Of the O&D enplaned passengers, about 4,700,000 are visitors (non-residents) to the Puget Sound Region (about 41% of all passengers).

2-H. Flight Plan Forecast: Mr. Abbott (50PSRC,1) commented that the new Port forecasts are 6% above the Flight Plan forecast for year 2010 and "slightly higher" when extrapolated to 2020. Mr. Abbott (50PSRC,1) also noted that the TAF reflects a 6% per year growth of international passengers.

Response: Comments acknowledged concerning the Flight Plan forecasts. The Draft Supplemental EIS reflects the correct average annual growth rate of international passengers of 0.6%.

The following table lists the Flight Plan forecasts, confirming the comments submitted.

COMPARISON OF DEMAND FORECASTS
(Master Plan Update, FAA TAF, and new Port of Seattle forecast)

Unconstrained Aviation Demand Forecast Comparison

	1995	2000	2005	2010
Operations				
Flight Plan	**n/a**	**411,000**	**429,000**	**447,000**
Master Plan Update	n/a	379,200	392,500	405,800
FAA 1997 TAF	386,536	433,470	478,050	528,200
New Port of Seattle	386,536	409,000	445,000	474,000
Enplaned Passengers				
Flight Plan	**n/a**	**12,700,000**	**15,000,000**	**17,000,000**
Master Plan Update	n/a	11,900,000	13,600,000	15,300,000
FAA 1997 TAF	11,386,000	13,920,000	16,290,100	18,950,000
New Port of Seattle	11,386,000	13,700,000	15,700,000	17,900,000

N/A = Not available

2-I. Pavement Generates Demand: Mr. Kirsch (69ACC,Pg4.4) commented "There is empirical evidence that, all things being equal, airports with greater runway capacity will have higher levels of activity." This position was supported by the ACC's consultant Dr. Winston.

Response: On behalf of the ACC, a report prepared by Dr. Clifford Winston was submitted in comments on the Draft Supplemental Environmental Impact Statement disputing the aviation demand forecast assumptions. The central conclusion of the Winston paper is that the aviation demand forecast used in the Draft Supplemental EIS understates the effect that an additional runway at Sea-Tac would have on demand.

As is noted in the Draft Supplemental EIS, the forecast process began with the identification of the region's demand for air travel based on population, per capital income and air fares. As such, that forecast represents the forecast of activity that would be unconstrained by limitations in the airport system. Once the demand for air travel is defined, it is then possible to determine how airport constraints can limit the ability to serve the demand. As is stated in the Final EIS, the proposed improvements will not affect the variables that define demand: population, per capita income, and air fares. The unconstrained demand includes all of the economic activity and all of the air travel demand that would exist if the Airport could handle all flights and all passengers who want to use the Airport when they want to use it, without significant delay. In other words, even assuming that runway stimulate demand, all of that stimulated demand is included in the unconstrained demand forecast.

Dr. Winston's primary claim is that additional demand would be generated due to construction of the new runway. However, the building of additional capacity would not cause demand to exceed the level projected in the unconstrained forecast. The FAA forecast did not assume that future aircraft delay would limit demand, so it is not logical that a reduction in aircraft delay would increase demand.

The "New Port of Seattle" forecast presented in the Draft Supplemental EIS recognized airfield capacity as a physical constraint if the new runway is not built. While 14,000 fewer annual aircraft operations were forecast under the Do-Nothing alternative, the same level of annual enplaned passenger demand was forecast to be served. The airlines could accomplish the same passenger levels with fewer operations by utilizing larger average aircraft, higher load factors, or a combination of both. In fact, many of the flights served under the "With Project" scenario are those that would otherwise be canceled due to excessive delay under the Do-Nothing scenario.

Winston's report states that airline travel is influenced by air carriers' fares and their service time and that an important dimension of service time is the time it takes a passenger to get from their origin to their destination. It is doubtful that a significant number of passengers would change their travel plans solely on the basis of an expected increase in travel time, due to the unpredictability of weather conditions. Air passengers do not plan trips because the weather is good on a given day, neither would a reduction in travel time during poor weather encourage additional people to travel by air.

Dr. Winston concluded in his March 1997 report, that additional capacity could facilitate more competition, which would lead to lower fares and greater demand. Sea-Tac is currently served by <u>all</u> of the Major airlines (defined by the FAA as airlines with revenues over $1 billion), including the preeminent low fare carrier, Southwest. Material increases in competition are unlikely when all of the Majors currently serve the Airport.

Dr. Winston states that there exists a direct correlation between enplanements and operations. During the period 1970 to 1990, historical data bears this out. However, since the early 1990s, U.S. domestic carriers have fundamentally changed their air service patterns, by moving to smaller aircraft types with an emphasis on flight frequency. Load factors have dramatically increased in the last few years, disproving the direct correlation between increase in enplanements and increase in operations. Airlines have reduced the size of their respective fleets, eliminating the excess capacity acquired in 1980s. In higher demand markets, replacement aircraft have more seats than the equipment being replaced. In markets where demand is "thin", airlines have either reduced scheduled frequencies or begun using equipment with fewer seats.

Dr. Winston developed demand models, including a model employing an independent variable reflecting the number of runways. He cited a 'statistically significant' positive effect on enplanements and operations and stated "Our findings constitute specific quantitative evidence that refutes the FAA's core assumption that capacity does not have an effect on demand." However, this analysis is highly questionable for two reasons. First, the number of runways at a given airport is only one component of airfield capacity. The length, separation, and configuration of the runways, in addition to airspace and air traffic control considerations, determine the effective capacity of the runway system at an airport. Second, Winston's use of a runway variable does not prove that new runways cause higher demand. It may demonstrate nothing more than that airports with higher demand subsequently built additional runways.

Dr. Winston's demand models used the regression models developed for the FAA Terminal Area Forecast with the addition of an independent variable representing the number of runways and whether the subject airport is a hub. Winston's regression for aircraft operations using the 100 airport sample is questionable because the sign of the coefficient for yield (average fare) is positive. A positive sign means the value of the forecast dependent variable will be larger as the value of the independent variable increases. For example, as the population of the area increases, demand for air travel will increase. The coefficient for yield should have an inverse relationship to air travel demand (i.e., as fares increase, air travel demand will decrease). In Winston's 100 airport operations regression the yield coefficient is positive, which means, as fares increase, demand increases. The same flaw is seen in the enplanement regression using the 50 airport sample.

The use of additional independent variables should only strengthen the correlation of the regression formula, but, in this case, the inclusion of the runway variable weakened the correlation. An important measure of the strength of the linear relationship between the independent and dependent variables is given by the coefficient of determination, R^2. The possible values of R^2 are between zero and one, with values closer to one expressing stronger relationships. The R^2 values for Dr. Winston's aircraft operations regressions are 0.415 and 0.668, respectively, for the 50 airport and 150 airport samples. The R^2 values for his enplanement regressions are 0.616 and 0.625, respectively, for the 100 airport and 150 airport samples. These R^2 values do not represent strong correlation. In contrast, the Port's forecast achieved an R^2 of 0.99, indicating a very strong correlation. This demonstrates that it is more accurate to forecast the number of aircraft operations using the variables of population, per capita income, and air fares, and <u>not</u> consider a variable regarding the number of runways.

2-J. Planning Horizon: Mr. Oebser (55RCAA,7A-1), Mr. Kirsch (69ACC,ES-2,ES-3,Pg 1.3,4.1-4.2, 4.9) requested explanation of the rationale for not evaluating through year 2020 and why 630,000 annual operations (the estimated capacity with the proposed Third Runway) was not considered.

Response: As is discussed in Chapters 1 and 2 of this Supplemental EIS, specific activity levels and their associated environmental impacts in the year 2020 were determined not to be reasonably foreseeable at this time. A number of reasons lead to this conclusion:

1. The aviation industry appears to be emerging from a decade of high volatility. These conditions appear related to the after effects of deregulation, with airline bankruptcies, airline consolidations, and vigorous air fare competition. These factors, combined with the economic conditions of the Puget Sound Region, have led to significantly greater growth in air travel demand than the nation's average. In a three year period, forecasts using virtually the same methodology, with varying base data, produced forecasts that varied by 17% for year 2010. This 17% variation (and the associated schedule acceleration of facilities) has resulted in the primary differences in environmental impact described in Chapter 5 of this document.

2. The evaluation of environmental impacts requires translation of the annual forecast into a detailed level of information concerning peak hour activity, fleet mix (including engine use), and distribution of activity. The environmental evaluation also requires the prediction of numerous other factors, including: emissions of automobiles and other vehicles, aircraft noise and air emissions factors, air traffic control technology, changes in land use in communities near the Airport, regional changes in roadways and mass transportation systems, and national changes in air transportation. Because these variables have a significant influence on the resulting environmental impacts, predicting beyond 2010 would require the forecaster to identify conditions that are not realistically predictable at this time. In addition, the variability in the results, would produce an impact evaluation that would have little relationship to probable actual conditions. The FAA and the Port know no credible scientific, statistical or other evidence which can predict the necessary variables in a reasonable way which will permit an analysis which is not highly speculative for the distant future years. However, to enable decision-makers to understand possible impacts through the year 2020, Appendix D was prepared for the Draft Supplemental EIS assuming a linear extrapolation from conditions in year 2010. Appendix D was provided in an attempt to test whether those impacts, were they to occur, would change the decision-makers determinations on the project and, in their decisions, the decision-makers will make that determination. However, it is probable that the impacts shown in Appendix D overstate the adverse impacts for the reasons set forth elsewhere in the EIS/SEIS. Stated differently, it is probable that the impacts would not be significantly greater than shown in Appendix D.

3. Although forecasts for near-term years may not match actual experience, typically those differences are relatively small. For more distant years, forecasting is much more uncertain. This uncertainty is inherent in the nature of forecasting and the nature of the air travel industry.

4. FAA guidance on the conduct of Master Plans states "the length of the short, intermediate and long-term activity forecasts should be decided. While 5-10-20 year timeframes are typical, there may be justification for using different time frames. In any event, the short-term forecast should support a capital improvement program, the intermediate-term a realistic assessment of needs, and the long-term a concept oriented statement of needs. The schedules of airport development that are directly related to forecast demand levels should be tied to such levels, rather than dates, because of the possibility of the forecasts being off target."[2] The Master Plan Update for Sea-Tac was developed as recommended, with the schedule of development being related to demand. As a result, the new (higher) forecast shows that the schedule could be accelerated for certain airport improvements.

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[2] FAA Advisory Circular 150/5070-6A "Airport Master Plans", FAA, June 1985. Page 15.

5. Airport master plans are typically undertaken every 7-10 years. However, airports that experience large unforeseen growth, typically conduct master plans (or other significant airport planning efforts) sooner, ranging from 3 to 5 years. Therefore, it is anticipated that a new master plan for Sea-Tac will be initiated soon after the year 2000. That future planning effort would generate new aviation forecasts and define the parameters for accommodating forecast demand. As noted in the FAA guidance, the 1996 Master Plan Update has identified the Port's capital improvement plan, and provides a realistic assessment of needs for accommodating 15.7 million enplaned passengers, which is expected to now occur in year 2005. The plan also reflects the longer-term needs, associated with 19 million enplanements, in a more conceptual fashion.
6. Some of the environmental approvals identified by the Final EIS and this Supplemental EIS, may expire within the next 3-5 years. FAA Environmental Guidelines (FAA Order 5050.4A, Paragraph 102) states "Time Limitations for Environmental Documents b. With regard to approved final impact statements.....(1) If major steps toward implementation of the proposed action (such as the start of construction, substantial acquisition, or relocation activities) have not commenced within 3 years from the date of approval of the final statement, a written reevaluation of the adequacy, accuracy, and validity of the final statement shall be prepared...." The Clean Air Act Conformity rules specifically note that a conformity determination "lapses 5 years from the date a the final conformity determination is reported" (40 CFR Part 93.157(a)).
7. Additional planning will be undertaken at Sea-Tac in the future, encompassing facility requirements and environmental impacts, based on forecasts of short-term, intermediate and long-term conditions. If these efforts are undertaken around the year 2000, it is anticipated that aviation industry conditions could stabilize, making air travel demand less volatile and forecasting less uncertain.

See response to **comment 2-Q**.

Impacts associated with air traffic levels in excess of 600,000 annual operations were not evaluated, as there is no certainty of the timing in which that level of activity would occur. As was noted, if the forecast trend were extended in a linear fashion, this level of activity might possibly occur somewhere around the year 2030. The evaluation of key environmental issues, such as air quality and noise, require information concerning aircraft fleet, aircraft engine types, time of operation, ground vehicle use, airport and non-airport traffic use of roadways, etc. As aircraft fleet and ground vehicles are very sensitive to the time frame because of noise and air pollution emissions, it is not reasonable to assess the environmental impacts during such a distant time frame, where extreme uncertainty exists.

Information regarding the potential impacts in the year 2020 (or at 630,000 annual operations) is not essential to decisions regarding the Master Plan Update projects and is not essential to a reasoned choice among alternative courses of action. For the reasons stated above, the prediction of variables is so uncertain, and the results of the impact analysis are so speculative that this information is of limited value in the decision-making process. Also, as discussed in detail in the alternatives section of the EIS/SEIS and in other documents, even if the impacts of the Master Plan Update improvements are greater than anticipated (e.g., as shown in Appendix D), conclusions concerning these proposed improvements, relative to their alternatives, would not differ.

The Airport, other surrounding activities, aircraft and automobiles are all subject to existing environmental regulation, and such regulation is likely to continue in some form. As the Airport builds projects in later years, it will be subject to further reviews by the FAA, USEPA, and other agencies, all of which enforce the environmental laws as they exist at the time with respect to environmental impact analysis, air quality, wetlands protection and other factors. The Airport cannot serve 600,000 annual operations without further development which cannot proceed without further governmental approvals. The Final EIS/Supplemental EIS have gone as far as they can go responsibly, avoiding speculation about conditions which cannot be predicted for the period after 2010. See also response to **comment 2-S**.

As is discussed in the Draft Supplemental EIS (pages 2-10 through 2-12, and 2-27) studies of airport capacity showed that there are limits to the number of passengers that can be accommodated with the landside improvements contemplated in the Master Plan Update. Beyond 19 million annual enplanements, additional terminal and other landside facilities may be needed to avoid unacceptable levels of congestion and delay. The capacity of the Airport under existing conditions was considered and discussed in *Working Paper 2, Constrained Aviation Forecast Update, Forecast Update, Capacity Analysis and Landside Evaluation for Seattle-Tacoma International Airport.* A copy of this working paper is available for review at the FAA offices in Renton, Washington and the Port of Seattle offices at Sea-Tac Airport. This working paper is incorporated by reference in this Supplemental EIS.

Based on the analysis presented in Working Paper 2, a similar comparison can be made concerning the theoretical maximum number of passengers that could be accommodated after the Master Plan Update improvements are completed. The design capability of the Master Plan Update improvements, as identified in Master Plan Technical Report No. 8, is 38 million annual passengers (19 million enplaned passengers). Therefore, as activity increases beyond this level, congestion and passenger inconvenience would increase. However, like the existing facilities, more passengers could be processed, but with the growing congestion. Using the 400,000 passenger per narrow-body equivalent gate (and the number of gates that will be available upon completion of the Master Plan Update) as many as 48 million annual passengers (24 million enplanements) could be accommodated if extraordinary congestion was allowed. This level of passenger traffic, however, could be constrained by limitations in the roadway network and the availability of parking. Similar to the terminal system, the roadway system and parking facilities with the Master Plan Update are designed to accommodate 19 million annual enplanements. Thus, expansion or development of new public, rental car and employee parking facilities would likely be required soon when annual passenger levels reach 40 to 42 million annual enplanements.

2-K. Project Purpose - Mr. Rowe (HT 34/35), Ms. Brown (HT 52), Ms. Stuhring (21L13), Mr. McKnight (38L), Ms. DesMarais (34L16), Mr. Kirsch (69, ACCPg1.4,2.5,3.2), Mr. Bader (37L3-15,3-16,4-1,4-2,4-3,4-4), and Ms. Brown (52AB97a,AB97b,AB98,AB99,AB100, AB157) questioned the purpose, use and/or benefits of the Third Runway. Mr. Abbott (PSRC-2) stated "it is true that its purpose until approximately 2010 is to address delay. But the SEIS should distinguish between the benefits of the third runway before and after 2010." Mr. Hoggard (66SeaTac,3-4) commented "The DSEIS acknowledges that the revised forecast will alter the timing of impacts of the proposed action, but fails to comprehensively summarize how such changes will correspond to the timing or relationship of proposed or anticipated improvements."

__Response__: See Chapter I of the Final EIS and Chapters 1 and 2 of the Supplemental EIS for a definition of the project purpose and need. The purpose of the Third Runway is "to improve the poor weather airfield operating capability in a manner that accommodates aircraft activity with an acceptable level of delay". As was described in the Final EIS and Supplemental EIS, the Third Runway will reduce aircraft operating delay and as a result, pay for itself in 3-5 years, depending upon the year completed, based on data prepared by the Capacity Enhancement Update. See also response to **comment 2-AC**.

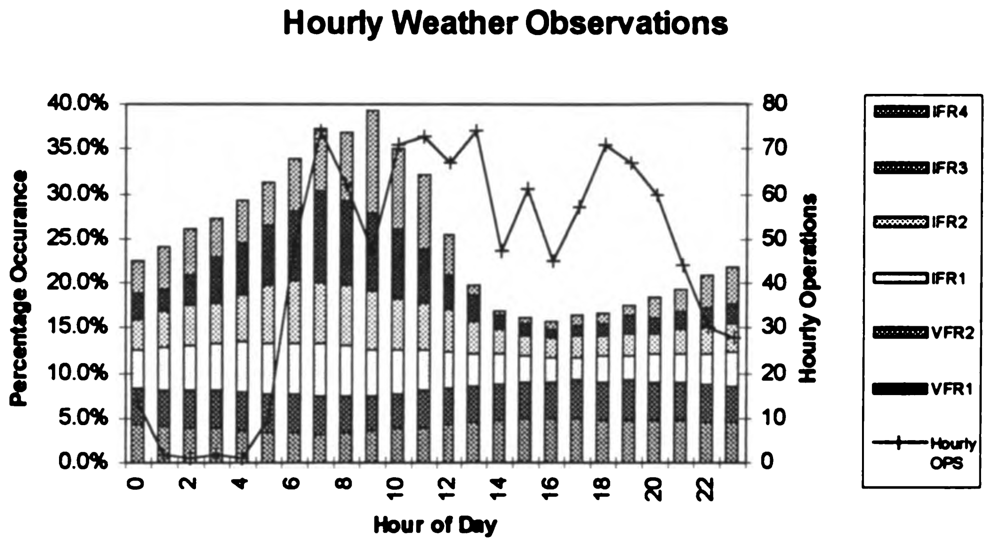
While the purpose of the Third Runway is to address poor weather operating constraints, these constraints affect the capacity of the existing airfield. When this constraint is relieved, added airfield capacity would be available, as demonstrated by the "With Project" scenarios being able to accommodate the forecast demand now anticipated to occur between 2008 and 2010.

Contrary to Ms. Brown's comments, the Supplemental EIS is correct in noting that 99% of the aircraft types using Sea-Tac Airport would be capable of using an 8,500 foot long runway, which is the proposed length of the Third Runway. Also the Master Plan Update benefits include the ability to have unrestricted service to the Pacific Rim, through the extension of 34R (see page 5-2 of the Supplemental EIS, which was incorrectly numbered 5-1 in the Draft Supplemental EIS). Ms. Brown also indicated that the delay costs were inconsistent between page 5-2 and pages 5-5-7 and 5-6-16. The data on page 5-2 represents delay cost savings from a Third Runway, whereas the other references to delay quantify the total cost of delay, including delay that would not be affected by the proposed improvements, such as those that are not related to poor weather (such as aircraft mechanical problems, etc.).

Contrary to the City of SeaTac's comments, the Supplemental EIS Chapter 2 contains a detailed discussion of how the new forecasts affect the timing of facilities. This chapter, coupled with the impact and mitigation discussed in Chapter 5 identify the timing of impacts and need for mitigation.

2-L. Weather need: Mr. Matthews (HT 58), Ms. Stuhring (21L13), Ms. DesMarais (34L16) questioned the percentage of time that poor weather occurred, indicating that most of the poor weather occurs at night. Weather concerns were also submitted by Ms. Brown (52AB28), Mr. Kirsch (69ACC,ES-1,Tab I - Hockaday)

__Response__: "Poor weather", defined as conditions with ceiling less than 5,000 feet and visibility less than 5 miles (abbreviated 5,000/5), represent conditions when Sea-Tac Airport is reduced to a single arrival stream (IFR and VFR2). Final EIS Volume 4, Appendix R Exhibit R-2 reproduced below, shows the distribution of weather conditions by hour of the day in contrast to the hourly level of aircraft operations, based on 10 years of weather data. This chart shows the percentage of each weather condition by hour of the day.



Only during IFR4 would some aircraft not be capable of operating during such poor weather (600 Runway Visual Range or lower). This condition occurs only 0.3% of the year.

During the early morning peak operation period, single approach conditions occur as much as 57% of the time. Average delays per operation during these conditions are higher than the 24-hour average since hourly demand is also higher. During the late evening peak, single approach conditions occur less often, and as a result, fewer delays are incurred. Nonetheless, while demand, weather conditions and average delay per operation do in fact vary by hour of the day and by month of the year, use of annual average statistics for calculating the annual average delay per operation is indeed an appropriate and reasonable methodology.

The ACC and other commentors suggested that the Draft Supplemental EIS weather analysis overstated poor weather because it was based on 11 winters and 10 summers of data. To verify the adequacy of the Draft Supplemental EIS weather analysis, additional analyses were performed using 26 years of historical weather data obtained from the National Oceanic and Atmospheric Administration. The 26-year average occurrence for each of the applicable weather conditions between 1964 and 1991, as shown in **Exhibit F-1**, is equivalent to the 10-year average occurrence of weather conditions defined in the Master Plan Update and Draft Supplemental EIS. Therefore, the analysis did not overstate the occurrence of poor weather conditions, even though it represented more than 120 months.

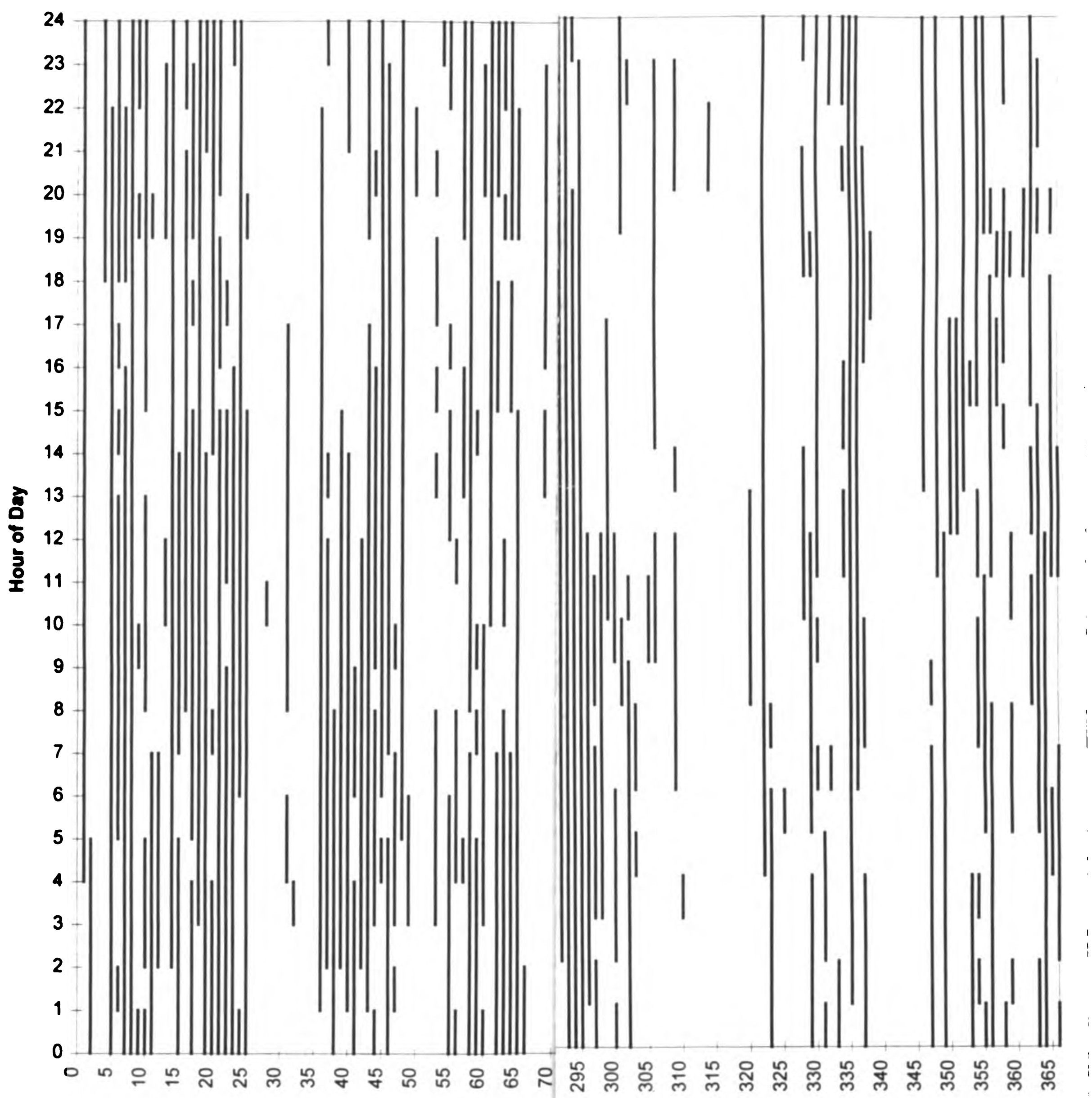
Commentors also suggested that the Draft Supplemental EIS assumed certain visual flight rule (VFR) weather conditions (between 2,500 and 1,000 feet ceiling and three miles visibility) are instrument flight rule (IFR) conditions. Contrary to the comments, the weather analysis used to support both the Final EIS and the Draft Supplemental EIS is based on those conditions that influence the use of either a single approach or a dual approach stream at Sea-Tac Airport. While Federal Aviation Regulations (FAR) define IFR as conditions in which the ceiling is less than 1,000 feet and the visibility is less than three statute miles for the purpose of general rules under which aircraft are operated, local use of dual independent approaches (referred to as visual parallel approach procedures or VAPS) at Sea-Tac Airport requires a minimum ceiling 500 feet above the minimum vectoring altitude, or 5,000 Above Ground Level. Therefore, whenever the ceiling/visibility is below 5,000/5, arrivals are sequenced into the Airport on a single approach. The weather analysis used in the Final EIS and the Draft Supplemental EIS was performed based on the approach minimums associated with VAPS.

The analysis also recognized that when the ceiling/visibility is below 5,000/5 but above 800/2, air traffic controllers often instruct aircraft to perform a sidestep maneuver, whereby aircraft are sequenced to one runway, but then directed to "sidestep" to the parallel runway. While this procedure enhances operational efficiency relative to a single stream operation, it does not provide the benefit of dual dependent or independent approaches. The categories of weather minima defined in both the Final EIS and the Draft Supplemental EIS appropriately considered the actual air traffic control operating environment at Sea-Tac Airport.

Based on the review of 26 years of weather data, the year 1972 is most representative of average conditions during the 26 year period. **Exhibit F-2** shows the hourly occurrence of weather conditions during each hour of the year. In response to the comment that the Draft Supplemental EIS assumed IFR weather lasts for 24 hours rather than for short periods, a supplemental analysis demonstrates that 50% of all single approach conditions occur for six hours or more. This assumption has little impact on performance during nighttime hours, since hourly demand between 10 p.m. and 7 a.m. is well below the single approach acceptance rate. Unlike some airports where poor weather conditions occur for relatively short durations, poor weather at Sea-Tac Airport tends to last for an extended duration during daytime hours, often during peak operating periods. Moreover, aircraft operational delays often continue to occur even after the poor weather conditions subside, since it takes time to clear the system of aircraft that had been waiting either to land or to take-off. As a result, the methodology employed in the Master Plan Update Final EIS and Draft Supplemental EIS appropriately reflects the nature of poor weather conditions at Sea-Tac Airport.

Finally, commentors suggested that the average annual occurrence of poor weather does not appropriately reflect the distribution of weather during peak months and during peak hours. It is important to recognize that delays are incurred based on the relationship between hourly demand and hourly airport acceptance rate. During the winter months, single approach conditions occur as often as 60% of the time (see **Exhibit F-3**), which is well above the annual average of 44%. While demand during these months is less than the summer peak months, significant levels of aircraft delay are incurred. During the summer months, the occurrence of single approach conditions is reduced to 30-40% but hourly demand is higher. As a result, average delays during single approach conditions are much higher in the summer than in the winter, albeit such delays occur less frequently.

The air quality analysis notes that peak hour airport activity and worst case meteorology do not occur at the same time. For air quality purposes, worst case meteorology is not a reference to poor weather. Worst case meteorology refers to conditions that represent the worst air pollution



Source: NOAA hourly weather observations
at Seattle-Tacoma Airport (SEA)
From 1964 to 1991.

Prepared by: Landrum & Brown

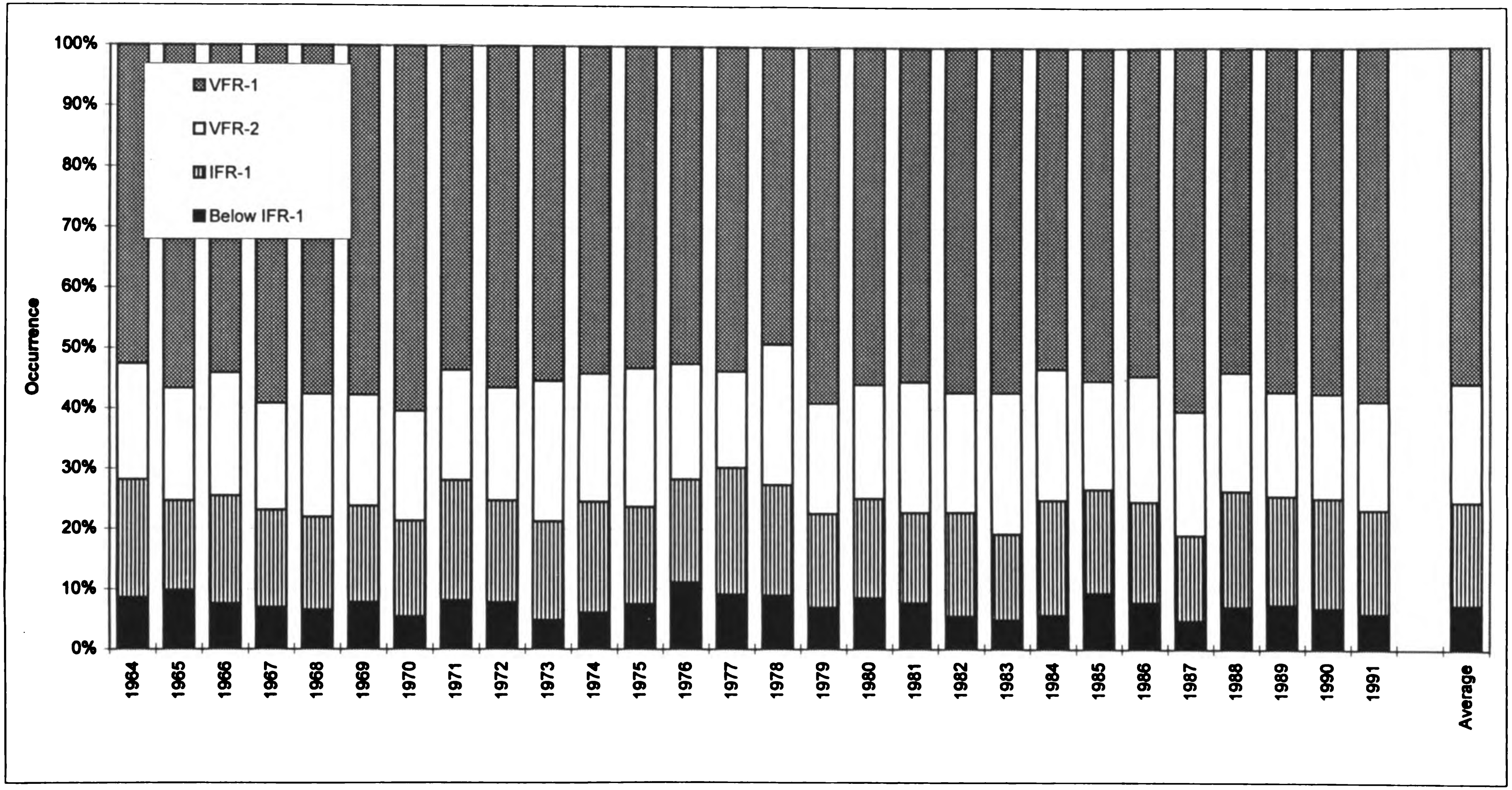
Draft, 5/7/97

H:\SEA\MRH\[CHR72IFR.XLS]Chart_721

Sea-Tac Inter

Exhibit

F-2



Source: NOAA hourly weather observations at SEA from 1964 to 1991.

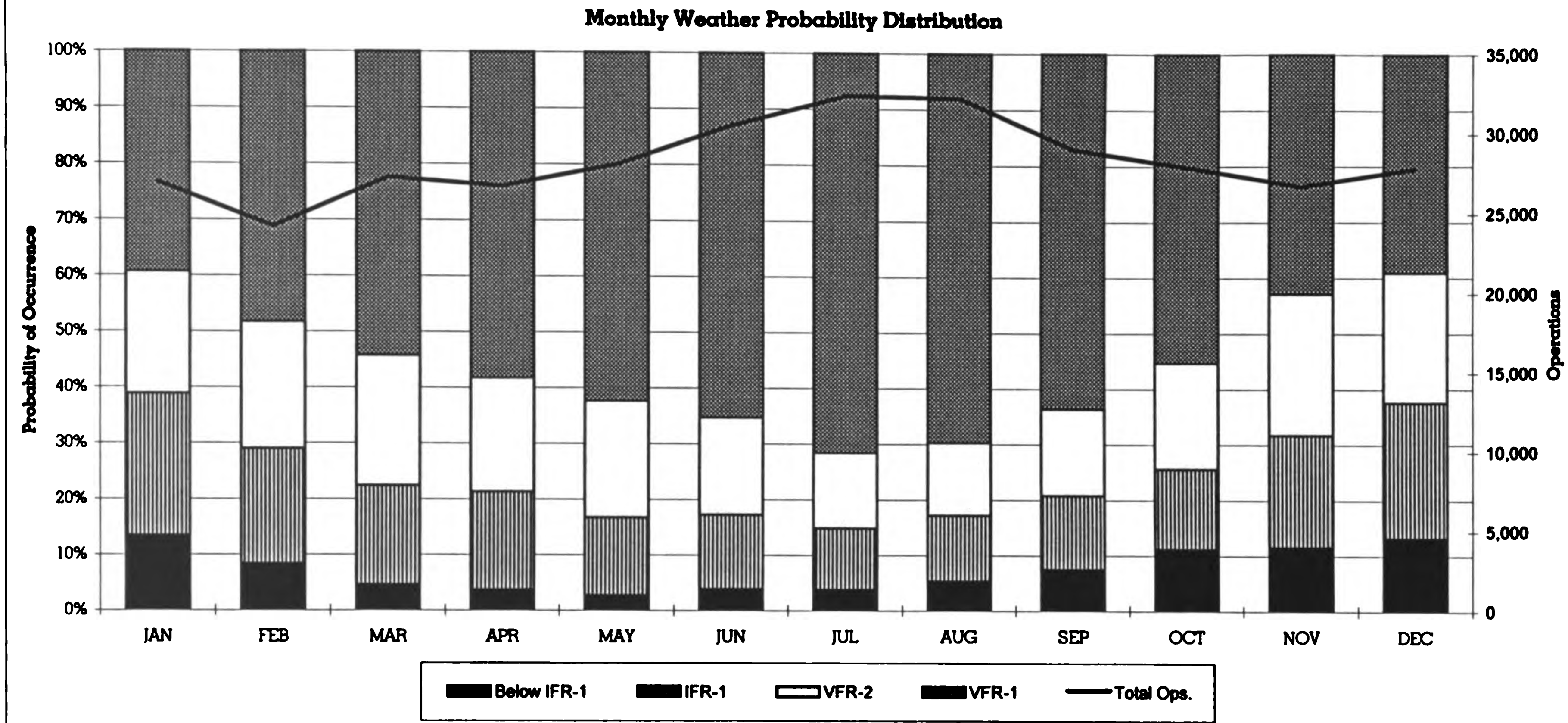
Draft, 5/7/97

H:\SEA\MRH\[OCCBYYR.XLS]CHARTS

Sea-Tac International Airport

Annual Distribution of Weather Categories

Exhibit F - 1



Weather Categories:

Categories	Ceiling (ft)		Visibility (sm)
VFR-1	>=5,000	and	>=5
VFR-2	>=2,500 & <5,000	or	>=3 & <5
IFR-1	>=800 & <2,500	or	>=2 & <3
Other IFR	<800	or	<2

Source: NOAA hourly weather observations at Seattle-Tacoma Airport (SEA) from 1964 to 1991 and SEA 1993 Tower Counts.

Prepared by: Landrum & Brown

Draft, 5/7/97

H:\SEA\MRH\[SEA_MON.XLS]Monthly Charts

Expected Weather Occurrence by Month

Month	VFR-1	VFR-2	IFR-1	Below IFR-1	Total	1993 Total Ops.
JAN	39.3%	21.8%	25.4%	13.4%	100.0%	26,851
FEB	48.3%	22.7%	20.6%	8.4%	100.0%	24,099
MAR	54.2%	23.4%	17.8%	4.6%	100.0%	27,159
APR	58.2%	20.5%	17.6%	3.7%	100.0%	26,635
MAY	62.3%	21.0%	14.0%	2.7%	100.0%	28,014
JUN	65.2%	17.5%	13.4%	3.9%	100.0%	30,462
JUL	71.5%	13.6%	11.1%	3.8%	100.0%	32,337
AUG	69.7%	13.1%	11.8%	5.4%	100.0%	32,234
SEP	63.6%	15.6%	13.3%	7.5%	100.0%	29,071
OCT	55.2%	19.2%	14.4%	11.2%	100.0%	27,973
NOV	42.9%	25.4%	20.2%	11.6%	100.0%	26,757
DEC	39.0%	23.3%	24.5%	13.2%	100.0%	27,869
Average	55.7%	19.8%	17.1%	7.4%	100.0%	339,461

Sea-Tac International Airport

Monthly Distribution of Weather Categories

Exhibit F-3

conditions. Worst case Carbon Monoxide conditions typically occur during winter periods, yet peak airport activity occurs during the summer.

2-M. Airfield Capacity: Ms. DesMarais (34L2b) questioned why the Sea-Tac Communities Plan showed an airfield capacity of 260,000 annual operations. Ms. DesMarais (34L2b) questioned the capacity of Sea-Tac with a Third Runway and "why did the draft EIS make us believe that Sea-Tac could handle 525,000 annual operations when the SEIS now admits that no more than 460,000 is capacity".

Response: The SeaTac Communities Plan, completed in 1974, evaluated the capacity of the two runway airfield, based on technology (air traffic and aircraft fleet) that was present at that time. Based on early 1970s technology, the two air carrier runway airfield (the airfield at that time also included a general aviation 17-35 runway in addition to the 2 existing air carrier runways) at Sea-Tac was identified as having a capacity of 331,000 annual operations in 1973, which was expected to decrease to 278,000 operations by 1993 due to the increased use of "heavy jets" at the Airport.[1] Since the 1970s, new technology has resulted in greater efficiencies, which lead the 1992 Flight Plan EIS to identify Sea-Tac's existing airfield capacity to be about 460,000 annual operations. The Flight Plan capacity was re-confirmed in preparing the Supplemental EIS. As is noted in the Final EIS, and the Supplemental EIS, no other technology exists other than an LDA (see response to **comment 3-E**) to reduce delay that occurs during poor weather conditions.

Contrary to the commentor belief, the Final EIS did not state that Sea-Tac could handle 525,000 annual operations. The Final EIS presents data considered during the 1995 Capacity Enhancement Update which evaluated two forecast activity levels (Future 1 - 425,000; and Future 2 - 525,000 annual operations). As were discussed in all past studies, processing increasing levels of activity through Sea-Tac's existing facilities will result in exponentially increasing levels of delay and congestion.

2-N. Delay: Mr. Abbott (PSRC-4) requested clarification of the ATOMS trend versus the delay costs. Mr. Kirsch (69ACC,Pg2.8-2.9) commented that "at 15 percent increase in activity levels, delay and associated costs have increased. This claim is directly contradicted by FAA Air Traffic Operations Measurement System ...data". Mr. Kirsch (69ACC,Tab I - Hockaday); and Mr. Bader (67L3-16,3-17,4-4,4-5) requested clarification of where delay is described in the Final EIS and Supplemental EIS and its definition.

Response: The Draft Supplemental EIS correctly notes that the FAA's Air Traffic Operations Monitoring System (ATOMS) data shows that delay is decreasing, when quantified by the number of operations delayed by 15 minutes or more. However, using other delay measurement tools, delay has increased at Sea-Tac Airport (see response to **comment 2-O**).

Dr. Hockaday alleges that the definition of acceptable delay has changed from 4-6 minutes in the Final EIS to 15-20 minutes in the Draft Supplemental EIS. This conclusion is based on an incorrect interpretation of the delay curve on Pages 2-9 of the Draft Supplemental EIS which

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[1] *Sea-Tac Communities Plan*, Port of Seattle, April 1975

shows the relationship between average aircraft delay per operation and the number of annual operations. This graph demonstrates the FAA's definition of an airport's "practical capacity" according to the National Plan of Integrated Airport System (NPIAS), which occurs at the level of annual operations in which average delay per operation is five minutes. This is consistent with the 4-6 minute level of acceptable delay defined in the Final EIS. The graph also demonstrates that the theoretical maximum capacity at an airport can be defined at a level of annual operations in which the average delay per operation is 15-20 minutes. However, this does not suggest that delay levels of this magnitude are acceptable. To the contrary, because of the cost to the airlines and the inconvenience to the traveling public, delay levels of this magnitude are clearly unacceptable, which shows the costs and benefits of the proposed runway.

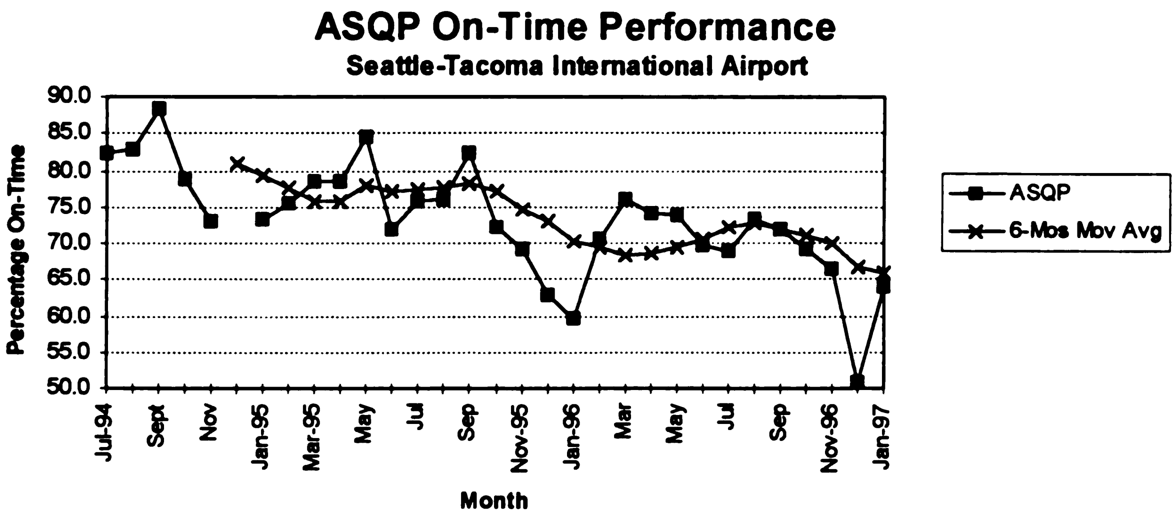
It should also be acknowledged that an annual average delay level of 15-20 minutes indicates a wide variation between the level of delay incurred between good and bad weather conditions (i.e., ceiling/visibility above and below 5,000 feet/five statute miles). While good weather delays would likely remain at acceptable levels, delays during poor weather conditions in which a single approach is used for arrivals would be well in excess of 20 minutes per operation. In fact, as demand grows a significant number of flights either would be delayed well into the nighttime noise abatement period or would be canceled. Passengers affected by flight cancellations would be accommodated on a later flight or would be rerouted through another city. In any event, poor weather delays would result in a severe inconvenience to the traveling public. As is evidenced by the new Port of Seattle forecasts, a divergence between the operating capability of the existing airfield and the Third Runway airfield is expected to occur around the year 2008. This divergence would result through flight cancellations as demand approaches the 460,000 annual operations. After the demand exceeds the operating capability, flight cancellations (with passengers consolidated on existing flights), and the spreading of peak hour operations would enable the passenger demand to be accommodated.

To further illustrate the impact of future delay, occasionally flights are canceled today during low visibility conditions. In most cases, load factors enable airlines to consolidate passengers of canceled flights onto other flights later in the day. However, this practice will become more difficult as passenger demand continues to increase. The "gap" in average delay per operation between good and poor weather conditions will continue to increase, and, as a result, on-time reliability will continue to worsen. Passenger demand would therefore continue to be served, albeit at a deteriorating level of service.

A definition and quantification of aircraft delay is discussed in numerous locations in the Final EIS, including Chapters I and II, as well as Appendix R (such as pages R-6 through R-13, and R-36 through R-33). Information concerning delay is also provided in the Supplemental EIS in Chapter 2. The sources of delay are noted in their specific locations. Airline Service Quality Performance (ASQP) delay is discussed in Appendix R of the Final EIS, as well as Chapter 2 of the Supplemental EIS.

2-O. On-Time Performance Ms. DesMarais (34L16) indicated that Sea-Tac was rated with a good on-time performance in 1995.

Response: Contrary to Ms. DesMarais' comments, over the last few years Sea-Tac's on-time performance rating has declined. The chart below shows the monthly on-time performance rating from July 1994 through January 1997.



6 Mos Mov Avg = Six month moving average

As the chart shows, on-time performance at Sea-Tac has declined from above 80% of the flights being on-time to about 65% of the flights being on time during this period. Relative to the other 28 airports for which on-time performance is regularly recorded, Sea-Tac ranked 22nd in 1996, 20th in 1995, and 18th in 1994.

2-P. Wake Vortex Constraint Ms. DesMarais (34L20) stated "Page 2-10 discusses the wake vortex and says 82.5 operations per hour ... would be reduce by 2% to a newly enacted rule. (B) could you explain how one large aircraft takeoff every 22 seconds can occur at O'Hare with this same kind of rule in place."

Response: Page 2-10 of the Supplemental EIS discusses the fact that a change in aircraft separation requirements made during 1996 in response to safety issues associated with wake vortex turbulence was found to reduce Sea-Tac's capacity by about 2%. Comparisons between Sea-Tac's operational capability and that of Chicago O'Hare International Airport should not be made, because Sea-Tac's existing noise abatement procedures constrain the operating capability of the runway system. O'Hare accommodates over 900,000 annual operations on six intersecting runways (three sets of parallel runways, with the parallel runways located more than 800 feet apart), and does not operate with daytime noise abatement flight tracks and runway use. Because aircraft can be turned immediately on departure from O'Hare, the operational capacity of O'Hare's six runway system is greater than that at Sea-Tac.

2-Q. Long-Term Development Needs - Ms. Brown (HT 39, 41L2) commented that the new forecasts indicate a need for more than one new runway. Comments concerning the longevity of the Third Runway were expressed by Mr. Carpenter (HT 104), Ms. Brown (52AB19), Mr. McKnight (38L), Mr. Oebser (55RCAA,7C-4), Mr. Rowe (63L2), Mr. Kirsch (69ACC,Pg1.4,4.2), and Mr. Bader (67L1-3,4-7,5-1). Mr. Abbott (PSRC-1) requested that "clear statement of the estimated capacity of the expanded Sea-Tac facility (be provided) if delay remains at the approximate level experienced today." Mr. Hoggard (66SeaTac, 4-7) requested clarification of the long-term surface transportation constraints.

Response: As is shown beginning on Page 2-25 of the Draft Supplemental EIS, the proposed Third Runway is anticipated to accommodate the forecast level of aviation demand well into the 21st century. Based on current technology, and anticipated growth in demand, the Third Runway would accommodate demand through the year 2030. New technology would be expected to increase that longevity. Terminal and landside constraints will likely arise soon after the year 2010, based on the new forecasts.

The long-term capacity of a Third Runway airfield at Sea-Tac, at 630,000 annual operations was identified based on the 20 minute existing delay level experienced at other airports such as Newark, LaGuardia. The level of delay experienced in 1995 at Sea-Tac Airport (about 10 minutes) would be experienced with a Third Runway and present technology, at about 540,000 annual operations. Extrapolating out the new forecasts, indicate that 540,000 annual operations would occur after 2020. This maximum is truly theoretical and could not be achieved without further actions by the Port of Seattle to addressing terminal and landside improvements which would require further governmental approvals accompanied by required environmental impact analysis. Future terminal and landside improvements and a future master plan would be subjected at that time to appropriate environmental impact analysis and compliance with applicable laws, such as SEPA/NEPA.

Mr. Kirsch indicated that the "Master Plan Update improvements are designed to accommodate a 'theoretical maximum' of 600,000 to 630,000 operations." is not a correct statement. A byproduct of correcting the existing poor weather operating deficiency is that the capability of the future airfield could enable about 600,000 to 630,000 operations, assuming the high delay levels at existing U.S. airports. However, page 2-27 of the Supplemental EIS also acknowledges that the terminal and landside facilities of the proposed improvements are designed to accommodate 19 million enplanements. Thus, future terminal and landside improvements would likely be needed soon after the year 2010. It is anticipated that a future Master Plan would address these needs. See also response to **comment 2-C and 2-J**.

As is shown in the Final EIS, Chapter IV, Section 15 "Surface Transportation Impacts" and the Supplemental EIS Section 5-1, the level of service afforded on many of the area roadways is expected to decrease in the future regardless of whether or not improvements are undertaken at Sea-Tac Airport. In addition, local jurisdictions have identified intersections in the Airport vicinity that are exempt from level of service standards through their comprehensive plans, due to existing and projected low level of service (LOS E or LOS F). Because of growing surface transportation conditions region-wide, surface transportation conditions are expected to represent an increasing constraint on the Airport area.

2-R. **Albuquerque:** Ms. Brown (HT 90/91,52LPg5) and Mr. Oebser (55RCAA,7C-2c) commented that Albuquerque found that hauling the quantity of fill needed at Sea-Tac to be infeasible and that the 8,500 foot length is insufficient to accommodate all aircraft. Other concerns with the 8,500 ft length were submitted by Mr. Rowe (63L5).

Response: The purpose behind the runway development at Albuquerque is to expand the capacity of the Airport to satisfy forecast growth in aviation demand. To satisfy that need, two "With Project" alternatives were considered: improve an existing non-intersecting general aviation runway or construction of a new parallel runway. Improvements are proposed at Albuquerque to address a specific need (growth in air traffic demand). Based on this need, the development of a new runway was found not to be the preferred alternative, because of difficulty in acquiring the land needed for the runway; the land needed is actively being used by the Department of Defense. The questionable feasibility of obtaining the land, coupled with the amount of fill required, made this option not prudent.

Different conditions exist at Sea-Tac, and as a result, a different need is being satisfied. As is described in the Final EIS and the Supplemental EIS, the purpose and need being satisfied at Sea-Tac is associated with poor weather related arrival delay. As a result, unlike Albuquerque, the only prudent and feasible alternative is the development of the Third Runway. For arrivals, the length of the Third Runway (8,500 feet) is capable of accommodating 99% of all aircraft types.

2-S. **Deferring the Runway**: Mr. Abbott (PSRC-2), Mr. Oebser (55RCAA,7C-6/7/8), and Mr. Kirsch (69ACC,ES-1,Pg2.2-2.3) requested clarification for delaying the commissioning of the Third Runway and requested that the document identify potential consequences of the delay. Mr. Kirsch (69ACC,Pg2.3,2.6-2.7,3.2) stated "this re-ordering of priorities reveals the true impetus for the Third Runway: increasing capacity in all weather..."

Response: As is noted in other responses to comments, no change occurred in the proposed need for the Third Runway or other Master Plan Update improvements, as discussed in Chapter 2 of the Supplemental EIS. See also response to **comment 2-K** and **comment 3-A**.. As is acknowledged in the Draft Supplemental EIS, the Port is proposing to initiate construction of the Third Runway immediately, and to build the runway at a slower pace than was assessed in the Final EIS. This slower construction schedule was assessed, because with the higher demand forecasts, substantial terminal and landside improvements would be required which could not be undertaken simultaneously with an accelerated runway construction schedule. The Airport has many deficiencies, many of which require urgent attention. The faster growth in passenger demands is currently placing, and will continue to increase, pressures of congestion and passenger inconveniences on the existing terminal and landside facilities. In light of limited resources, and the disruptions and environmental impacts caused by major construction, the Port has revised the complex interrelated construction schedules. In addition, upon further examination, the Port determined that it would not be possible to accelerate the construction to enable its use by year 2000.

As is discussed on page 2-21 of the Supplemental EIS, delaying the availability of the Third Runway will result in adverse consequences. Poor weather related arrival delay would not be resolved and as activity levels grow, the delay levels would be expected to increase. The Final EIS, and Table 2-4 of the Draft Supplemental EIS, summarize the delay conditions that will occur as demand increases and the poor weather condition is not relieved. By 2000, when activity is now anticipated to reach 409,000 annual operations, average all weather delay levels will have increased to about 11 minutes. By 2004, activity would reach 437,000 operations annual which would result in average all weather delay levels of over 23 minutes. Thus, during the period in which the runway is not available, the growth in air travel demand is expected to result in an increase in total average all weather delay by about 155%.

As delay increases without the Third Runway, operators might be encouraged to test operating at other existing airports in the region. However, as is noted in the Final EIS (page II-10) and the Supplemental EIS (page 3-5), other airport locations have found that demand must reach levels that do not currently occur in the Puget Sound Region for a second airport to be successful. However, when the test of a supplemental airport is not successful, all operations re-consolidate at the primary airport. As is noted in the Final EIS, several operators have attempted to provide service over the years from Paine Field. However, demand has not been great enough to enable service to be successful. See response to **comment 3-C** concerning the impact if this were successful.

The Supplemental EIS primary impact analysis is for the year 2010 and earlier, with additional analysis for the decade between 2010 and 2020. As the Supplemental EIS notes, forecasting for years beyond 2010 is uncertain, and the uncertainty grows after that. There are many variables that can not be predicted within a reasonable margin of error.

Analyzing environmental impacts for these distant years is complicated by the inability to predict the environmental context in which the Airport will exist. A valid, useful analysis requires speculation for these future years of numerous critical factors, including: emissions of automobiles and other vehicles, aircraft noise and air emission factors, air traffic control technology development and implementation, changes in land use in communities near the Airport, changes in roadways and mass transportation and changes in air traffic nationally and regionally. For example, emissions of vehicles are changing. Considerable industrial effort is currently being devoted to reducing automobile emissions and to development of practical alternatives to internal combustion engines, and it is reasonable to expect that those efforts will achieve some reductions in environmental impacts near the Airport.

The Airport, other surrounding activities, aircraft and automobiles are all subject to existing environmental regulation, and such regulation is likely to continue in some form. As the Airport builds projects in later years, it will be subject to further reviews by the FAA, USEPA, and other agencies, all of which enforce the environmental laws as they exist at the time with respect to environmental impact analysis, air quality, wetlands protection and other factors. The Airport cannot serve 600,000 annual operations without further development which cannot proceed without further governmental approvals.

The Final EIS/Supplemental EIS have gone as far as they can go responsibly, avoiding speculation about conditions which cannot be predicted for the period after 2010.

2-T. Location of the Third Runway - Mr. Eglin (HT10) stated "presently the runway is supposed to be over Avenue 12. Last week I read that they have to move it farther to the west...". Ms. Brown (52LPg7) asked "Why if the technology conference.... Concluded that there is 2500 foot spacing requirement between runways....is a Third runway that is only 800 feet from one of the present runways..."

Response: The preferred location of the Third Runway has not changed since issuance of the Draft and Final EIS. The runway is planned to be located about 2,500 feet west of existing runway 16L/34R, to enable dependent arrival streams. This location places it in the general vicinity of 12th Avenue South. The 2,500 foot separation refers to the distance associated with dependent parallel arrival streams.

2.U - moved to another location/comment number

2-V - moved to another location/comment number

2-W. Terminal Improvements: Mr. Bader (67L5-2,5-3,5-4,5-5) questioned the evaluation of terminal and landside facility needs.

Response: Chapter 2 of the Draft Supplemental EIS (beginning on Page 2-11) contains a detailed discussion of how the forecasts were prepared and their relationship to the terminal and landside improvement needs. As is noted, congestion and inefficiencies will continue to mount as passenger and surface traffic levels increase. These inefficiencies and congestion are the reason for undertaking the improvements.

2-X - moved to another location/comment number

2-Y. Temporary/Permanent Ramps: Ms. Montgelas (64L2) noted that the temporary interchanges will "require a temporary break in limited access which will need to be negotiated through the NW Region TransAid Section." and require other actions. Ms. Montgelas also questioned the listing of two new permanent ramps off-SR 518. Ms. Montgelas expressed concern with the ramps off SR-518. Mr. Hoggard (66SeaTac,7-4) indicated the City's support for the use of the construction only interchanges.

Response: Comments acknowledged. The Port would be expected to continue to coordinate with WSDOT concerning the acceptance of the temporary or permanent interchanges.

Table 2-7 of the Supplemental EIS contained a typographical error. The development of the North Unit Terminal contained the statement, including "development of ramps off SR-518 near 24th Avenue S...." and also "Interchange at 20th/SR-518 for access to the cargo complex". These were intended to be the same ramps. As is noted in WSDOT's comments on the Draft EIS, operational concerns exist with one ramp (or interchange) in this area, due to the traffic weaves that would occur from the on-ramps at S. 154th and the off-ramps to Des Moines Memorial Way. As a result, the Port anticipates continuing to review this interchange, and refinements as to the location to be developed during the design phase (including the Six Point Added Access evaluation) of the North Unit Terminal. It is anticipated that WSDOT acceptance of a final site would occur. If the new ramp (or interchange) is not approved by WSDOT, and if it is determined that this materially affects the surface transportation analysis, additional environmental review will be conducted prior to decisions regarding construction of the North Unit Terminal. See also response to **comment 5-K**.

2-Z. Fuel Needs: Ms. Stuhring (21L13) questioned if the new forecasts will require an increase in the Airport's fueling system. Mr. Bradley (68DOE,4) commented that the DSEIS forecasts a "40% increase in jet fuel use by the year 2010. The document does not discuss how this increase in fuel usage will be accomplished without causing further contamination of the soil and groundwater..."

__Response__: As was discussed in the Final EIS, the present fuel storage facility maintains a 22 day supply. When 441,000 annual operations occur, the existing capacity could be reduced to about a 13 day supply; with 474,000 annual operations the supply could be about 11 days. Commercial airports typically operate with a 7 to 10 day supply. Therefore, with the present approach to fueling and forecast activity levels, expansion of the fuel storage facilities is not anticipated.

The Port is presently considering ways of addressing terminal area aircraft fueling needs. The Final EIS and Supplemental EIS assumes that the existing terminal needs are met using the existing fueling system, while the North Unit Terminal would be served by a hydrant fueling system. Any changes in this approach would be subject to the applicable environmental evaluations. Leakage of the existing underground fueling lines is discussed in the Final EIS, Chapter IV, Section 21 "Hazardous Waste".

2-AA. Cargo Development: Ms. Brown (HT 92) expressed concern with the need for the runway at Sea-Tac being justified by the presence of cargo facilities, yet "in the year 2000 getting rid of them anyway"

__**Response:**__ The need for the runway is discussed in the Final EIS and Supplemental EIS. Justification for expanding Sea-Tac Airport, in lieu of developing a new/supplemental airport, is not based on the availability of cargo support facilities at Sea-Tac. Chapter II of the Final EIS, as summarized in Chapter 3 of the Supplemental EIS, provides a detailed description of all of the studies of a supplemental airport and what lead to the conclusion that it is not a feasible alternative to the proposed improvements at Sea-Tac.

The Master Plan Update identifies the need for expanded cargo facilities (in addition to replacement facilities due to relocations), based on an anticipated growth in air cargo tonnage. The existing cargo facilities, located north of the main terminal will be expanded, and in the longer-term, additional cargo facilities could be developed in the area known as the South Aviation Support Area. Some cargo facilities will require relocation due to the North Unit Terminal and new air traffic control tower.

2-AB. SASA: Ms. Stuhring (21L8) asked how the SASA evaluated in 1993 differs from the Master Plan Update. Ms. DesMarais (34L29) requested clarification of the Master Plan Update improvements to occur in SASA and mitigation that would be undertaken.

Response: The 1994 Final EIS and Record of Decision for the South Aviation Support Area (SASA) contained a preferred alternative that consisted of:

- Relocation of three line maintenance facilities (currently located north of South 188th Street to the SASA) which were expected to be displaced by terminal development;
- Development of a base maintenance facility;
- Development of a hush house;
- Development of a ground service equipment facility; and
- Hardstand for as many as 15 parked aircraft.

The alternatives addressed in the Master Plan Update EIS would result in virtually the same land profile, with many of the same facilities as defined in the SASA Final EIS. Depending upon the Master Plan Update "With Project" alternative, the Master Plan Update and SASA proposal are similar relative to: line maintenance facilities; the ground service equipment facility; a possible hush house; and a hardstand for aircraft. Where the Master Plan Update differs from the SASA EIS, is that the Master Plan Update recommends re-development of the displaced cargo facilities and/or cargo facility expansion in SASA site. In addition, the Master Plan Update recommended the addition of dual taxi capability to and from the SASA, versus the single taxi lane assumed in the 1994 Final SASA document. The Final EIS and Supplemental EIS assess the differences among the types of facilities that would be located in the area known as SASA in the Master Plan Update "With Project" alternatives.

A re-issuance of the SASA EIS (or any further supplementation of this EIS) is not necessary in light of the revised development proposal and the preparation of the Master Plan Update EIS/Supplemental EIS. The noise and air quality conditions (and all other environmental impacts mandated for consideration by NEPA/SEPA) associated with the proposed Master Plan Update improvements are reflected in the Final EIS and Supplemental EIS. Mitigation actions included in the Final EIS and Supplemental EIS that are a result of the improvements to occur in the SASA area include: wetland mitigation, Des Moines Creek relocation, construction BMPs, and systems to accommodate stormwater runoff, etc. The FAA has reviewed the SASA EIS in preparing this Final EIS/Supplemental EIS. The SASA Draft and Final EIS are incorporated by reference into the Supplemental EIS. Copies are available for review during normal business hours at the FAA office in Renton, Washington or at the Port of Seattle Aviation Offices at Sea-Tac Airport.

A commentor also asked how aircraft would taxi to the SASA area and how fueling would be completed. Aircraft would taxi from the existing runway system to the Master Plan Update improvements in the area known as SASA by way of the dual taxiway system to Runway 34R included in the Master Plan Update improvements. Fueling for users in this location are anticipated to occur through truck fueling (versus underground hydrants) that would be supplied through existing fuel trucking locations. Should fueling needs change, appropriate environmental processing would be undertaken.

2-AC. Project cost/benefits and Financing - A number of commentors submitted comments concerning the reliability of the cost estimates, magnitude of the cost of the project, the Port's financing capability and financing plan, and that the Final EIS used lower cost projections. Such commentors included: Mr. Caldwell (HT 18, letter), Mr. Oebser for Congresspersen Keiser (HT 29), Ms. DesMarais (HT), Ms. Milne (HT 50), Mr. Newby (HT 81), Ms. McKeeman, Ms. Brown (52AB20,AB29), Ms. Brasher (54L), Mr. Rowe (63L1,L5), Mr. Anderson (71L), Ms. Shes (72L), Mr. Pugh (76L), Mr. Mediema (HT 19), Ms. Brown (HT 90,52AB30,52AB101), Ms. Bilz (61L), Mr. Oebser (55RCAA,4-8,7C-1/2/3), Mr. Bader (67L4-8,1-8c), and Mr. Kirsch (69ACC,ES-1,Pg 1.4).

Response: The Port has prepared a financing plan for the proposed improvements and determined that the improvements can be completed through use of funding from the Aviation Trust Fund, use of Passenger Facility Charges (the $3 ticket tax), and bond financing. The proposed financing plan does not rely on the Port's overall County tax levy, which has not been used at Sea-Tac Airport to finance past improvements.

The cost of the proposed Master Plan Update improvements presented in the Final EIS represented the cost of the project without escalation and taxes. The cost of the Third Runway was identified in the Final EIS as $450 million (acquisition, runway, and mitigation) while the entire Master Plan Update was estimated at about $1.6 billion. Since the issuance of the Final EIS, the Port has prepared its financing plan for the runway, representing the new construction schedule assessed in the Draft Supplemental EIS. With the new construction phasing, the Port was then able to estimate cost escalation and taxes, increasing the cost of the runway to $587 million. Included in the new cost evaluation is a 30% contingency, versus the 3% referenced by one commentor. Independently, the FAA has reviewed the cost estimates and determined that they have been formed using standard methods and reflect a reasonable planning level cost estimate.

The estimates used by the Port to identify the cost of importing the fill ranged from $3 to $12 per cubic yard of fill, depending upon the length of the haul. Information concerning the cost of fill was developed by the Port's 1995 Seattle-Tacoma International Airport Third Dependent Runway Preliminary Engineering Report (see Table XII-2). Additional information regarding the cost of fill was developed by the Port's 1996 Alternative Fill Material Delivery Study.

In February 1997, the Port of Seattle released a financing plan in response to Port Commission Resolution 3212. This financing plan for the Third Runway, including cost escalation, contingency, and sales tax, reflect a project cost of about $587 million. Key elements of the financing plan are:

1. Port seeking maximum amount of Federal funding from the Aviation Trust Fund. This was estimated at $260 million that would be committed through a Letter of Intent (LOI) by the FAA and provide funds over a 10-year period beginning in 1998;
2. Port leveraging the Passenger Facility Charge, as many other airports have begun to do. Approximately $100 million of the runway would be funded in this manner;
3. Approximately $27 million from Airport retained earnings expected over the next five years;
4. Issuance of Airport revenue bonds to be paid back by the airlines operating at the Airport. Two bond issues are currently envisioned: $30 million in 1997 and about $170 million in 2001; and
5. No local real property taxes would be used and funds from the Port tax levy would not be used - such that all costs are paid for or recovered through airport user fees.

In evaluating the cost of airport improvements, one of the key factors considered is the airline cost per enplaned passenger (CPE). The Port has evaluated the cost of the improvements and determined that the improvements are financially feasible using airport revenue sources. A comparison of the CPE at Sea-Tac to other commercial airports is shown below. In 1996, the cost of maintaining and operating Sea-Tac was $4.50 per enplaned passenger, (reduced from the 1994 level of $6.13 per enplaned passenger). Construction of the Third Runway would increase the CPE $1.66 in the maximum year (to $6.16). In comparison, the annual cost per enplanement at other airports is as follows:

Airport	Cost per Enplanement
Detroit Metro (1994)	$ 5.14
Sea-Tac (1996)	$ 4.50
San Jose (1994):	$ 7.67
Orlando (1994)	$ 8.51
Chicago O'Hare (1994)	$ 8.85
Miami International (1995)	$ 8.94
Pittsburgh (1995 estimated)	$11.18
Honolulu	$11.64
New Denver International	$18.15

One commentor indicated that the increased costs from implementing the proposed Third Runway (and other Master Plan Improvements) would increase landing fees to airlines such that aircraft operations would decrease. The cost per enplanement includes landing fee charges and is a more comprehensive reflection of the costs of all improvements and maintenance. As is shown above, the costs are at the lower end of the cost per enplanement at several other comparable airports, and thus would not significantly affect passenger demand.

To consider the cost versus benefit of the runway, the Port prepared a Net Present Value evaluation based on the financing plan. A positive net present value accounts for the time value of money and quantifies the extent to which benefits outweigh the financial costs. Two worst-case scenarios were considered to determine alternate net present values – and both approaches result in a positive net present value. Using delay costs reflecting only the airline operating costs (not including any passenger impacts) the net present value of the Third Runway is $673 million. If lower delay reduction projections were used, the net present value would be $44 million. Using all worst-case scenarios combined, the net present value is still a positive $10 million, showing that the Third Runway would be cost effective and produce benefits to the airfield system.

In accordance with the requirements of the National Environmental Policy Act and the State Environmental Policy Act, the Final EIS and Supplemental EIS presents the costs/impacts and benefits of the proposed Master Plan Update Improvements.

See response to **comment 2-Q** concerning the long-term capability of the Third Runway.

2-AD. Mitigation Costs - Mr. Stark (HT 44), Ms. DesMarais (HT 45), Ms. Milne (HT 51), Ms. Basareb (HT 77), Mr. Newby (HT 85), Mr. James (HT 108), Ms. Stuhring (21L14), Congressman Smith, Ms. Nordhaus (39L), Ms. Brasher (54L), Ms. Brown (52AB15, AB30,AB41,AB118), and Mr. Kirsch (69ACC,ES-5,Pg 1.4,4.27-4-30) commented that the cost of mitigation would be much greater than identified in the Final EIS or Supplemental EIS.

Response: The Final EIS and the Supplemental Environmental Impact Statement identify mitigation measures to address significant adverse impacts caused by the proposed improvements (see response to **comment 10-H**). The cost of mitigation associated with the proposed Master Plan Update improvements is about $60 million. The City of Burien, through funding from the State of Washington, commissioned a study to examine mitigation that the communities might desire above and beyond that identified by the Final EIS and Supplemental EIS. An initial draft estimated that that the cost of community mitigation might approach $3 billion. As is shown in response to **comment 4-J**, a review of that study indicates that such mitigation was not appropriately identified and evaluated.

2-AE. Safety: Mr. Caldwell, Ms. DesMarais (34L14), Ms. Stuhring (L14), and Mr. Akers (77L12) expressed concern with aircraft safety due to the proximity of Sea-Tac, Boeing Field, and Renton Airport. Ms. Brown (52AB10,AB11,AB12,AB152,AB153, AB154) stated "Isn't excluding Boeing Field impacts inconsistent with the cumulative impacts approach required by environmental regulations?" and indicated other cumulative impacts relative to Boeing Field. Ms. Brown (52AB102) requested clarification of "minimizes aircraft pushbacks and taxiing conflicts as flights enter and exit the terminal".

Response: The FAA's 1995 Capacity Enhancement Study Update computed the number of runway crossings that would result from the use of the proposed new parallel runway at Sea-Tac. The delay analysis presented in the Draft and Final EIS discusses the impacts to the system from the runway crossings. The Capacity Enhancement Study Update also examined the impacts associated with interaction between Sea-Tac and Boeing Field. Renton was not directly considered because there are no significant airspace interactions with that airport. However, the simulation analysis reflected the air traffic procedures that control traffic at all regional airports, including Renton. The interaction with Boeing Field was reflected in the analysis, as arrivals to

Boeing's Runway 13 would require a gap in the arrival stream to the proposed new runway at Sea-Tac during south flow operations. During north flow operations, the impact of the interaction of BFI is expected to be negligible. The FAA also performed a sensitivity analysis which demonstrated additional delay savings would result from eliminating the interaction between BFI and SEA.

It should also be acknowledged that, like most reliever airport operations in the United States, air traffic control procedures have evolved to minimize operational impacts of the primary commercial airport. In many cases, procedures are established so that the reliever airport is subservient to the primary airport.

The commentor suggests that the interactions between Sea-Tac and Boeing Field would be greatest during instrument meteorological conditions. However, the commentor also acknowledged that general aviation demand is often reduced during such conditions. As a result, it is likely that demand at Boeing Field would be greatly reduced during those periods in which the greatest impacts are expected to occur. The commentor therefore overstated the likely operational impacts to performance at Sea-Tac due to interactions with BFI.

One commentor requested a definition of "a lag in Boeing Field aircraft traffic". The context of this statement was not provided. However, it is presumed that the reference is to when the stream of traffic is not constant, where a gap is provided.

The Final EIS and Supplemental EIS provide the appropriate level of cumulative impact evaluation required by NEPA and SEPA. Boeing Field "impacts" were considered in the Master Plan Update and EIS for their cumulative effects relative to the Sea-Tac improvements, as noted above and in response to **comment 6-M and 7-O**.

The reference to "minimizes aircraft push-back and taxiing conflicts" refers to the terminal/gate improvements and taxiway improvements that would alleviate the issues identified, by enabling greater efficiencies. See also response to **comment 4-A**.

2-AF. JFK Cap Ms. DesMarais (34L19) requested clarification of the JFK cap discussed in Chapter 2 of the Supplemental EIS.

__Response__: In 1968, the Federal Aviation Administration issued Title 14 of the Code of Federal Regulations, Part 93, "The High Density Traffic Airport Rule." The rule was promulgated to provide a temporary solution to airspace congestion at several major busy airports in the nation. Part 93 established a limit on the number of movements that certain airports could actually efficiently handle. Limits were established for general types of aircraft activity such as Air Carriers and Scheduled Air Taxis and were based on capacity of the Airport during Instrument Flight Rule (IFR) conditions. Such conditions are considered to be "worst case" weather conditions and were assumed to exist 100 percent of the time. Only five airports in the United States were subjected to the Quota Rule and are also referred to as "slot controlled" airports. These airports are: John F. Kennedy, LaGuardia, Newark, Washington National, and O'Hare. Since the enactment in 1968, the rule has been revised several times to reflect the improvements made at the airports and in the National Airspace System. Some of the affected airports, and carriers operating at the airports, have recently sought permanent removal of the Rule.

2-AG. Size of SeaTac relative to Other Airports - Mr. Eglin (HT9) commented about the size of Sea-Tac relative to other airports, indicating its "stupid to invest more money". Similar comments were submitted by Ms. Brown (52AB23,AB30), and Mr. Rowe (63L3) with comments about other airports such as Denver and Montreal.

Response: See response to comment in the Final EIS (R-18-2 beginning on Page R-200) which shows Sea-Tac's size relative to other similar airports. The Master Plan Update has acknowledged that Sea-Tac has several constraints that are a function of its location and land envelope. However, in accordance with the PSRC decision, the Third Runway will solve the existing poor weather operating constraints.

2-AH. Improvements: Ms. Stuhring (L13) commented "I protest the wording the 'improvements'... None of the proposals are 'improvements'.

Response: Comment noted.

3. ALTERNATIVES

3-A. Alternatives relative to need: Mr. Kirsch (69ACC,Pg3.1,3.4-3.7) commented "the DSEIS does not identify or examine alternatives which address newly articulated justification for the project."

Response: The President's Council on Environmental Quality regulations require that EIS's "Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." Chapter II, Section "Individual Alternatives to Satisfying the Needs" of the Final EIS (and Chapter 3 of the Supplemental EIS) sets forth the alternatives that are evaluated for meeting the identified needs. The broad categories of alternatives that were considered include (1) the use of other modes of transportation; (2) the use of other airports or construction of a new airport; (3) activity/demand management; (4) new runway development alternatives; (5) technology alternatives; (6) blended alternatives; and (7) landside development at Sea-Tac. Within each of these broad categories of alternatives, the EIS addressed a number of sub-alternatives.

Chapter 3 of the Draft Supplemental EIS provides a comprehensive review of the range of alternatives. This comment appears to be generated by the change in the forecasts relative to the existing capacity of Sea-Tac's airfield – see also response **to comment 2-D and 2-K.** No changes in the purpose of the proposed improvements occurred between issuance of the Final EIS and the Draft Supplemental EIS, as discussed on page 2-18 of the Draft Supplemental EIS. Also a detailed review was conducted concerning alternatives in light of the new information to determine if the new data changed the Final EIS conclusions concerning the alternatives. To the degree that the new forecasts have altered the conclusions concerning the alternatives, they are discussed in Chapter 3 of the Supplemental EIS. See also response to **comment 3-B, and 3-C.**

With regard to the range of alternatives considered, it is necessary to consider the breadth of options associated with each category of alternatives and the relationship between this EIS/Supplemental EIS and past planning efforts/environmental assessments that have evaluated the feasibility of various options. Each of the broad alternative categories encompasses a number of specific strategies for addressing the given needs. Thus, while only one blended alternative category was considered, that blended alternative encompassed a wide range of possible combinations. Some specific alternatives may not have been directly mentioned in this Supplemental EIS, but have been considered in previous studies such as Flight Plan and have been incorporated into the Final EIS/Supplemental EIS by reference.

3-B. New Airport or Technology: Mr. Rowe (HT 36), Mr. Caldwell, Mr. Forrey (20L), Mr. Overholdt & Ms. Chomica (40L), Ms. DesMarais (34L1,L16), Ms. Brown (52AB156), Mr. Oebser (55RCAA 6-2), Ms. Bilz (61L2), Mr. Rowe (63L3), Mr. Kirsch (69ACC,Pg 1.4), Mr. Bader (67L3-12), and Ms. Farley (79L2) suggested that a supplemental airport was not adequately considered and developed. Ms. DesMarais (34L1), Mr. Oebser (55RCAA,6-1f,6-5), and Mr. Kirsch (69ACC,ES-2,Tab I - Hockaday) indicated that technology (GPS, LDA) or telecommunications was not considered.

Response: Chapter II of the Final EIS and Chapter 3 of the Draft Supplemental EIS address the alternative of developing a new airport or using an existing airport. As that discussion shows, after extensive consideration of all of the possible site locations, this alternative was not found feasible for each of the following reasons:

1. There is no sponsor, identified source of funds, or acceptable site for a new airport. This is evidenced by the fact that no party or group intervened during the Flight Plan Study, Major Supplemental Airport Study or in any forum since; and
2. Extensive study of this issue resulted in the consideration of all alternatives for addressing air transportation capacity issues in this Region. Based on this process, the Puget Sound Regional Council (PSRC) adopted Resolution A-93-03 and EB-94-01 confirming that no feasible sites exist. The Port of Seattle and the FAA have reviewed the regional planning studies and have independently concluded that a supplemental airport would not satisfy the needs addressed by the Final EIS and this additional environmental analysis; and
3. Neither the lack of a sponsor, nor the conclusion of the PSRC process appears to depend on the level of anticipated demand for air travel in the region; and
4. If a supplemental airport site could be identified, market forces would not enable it to successfully compete with Sea-Tac until regional origin and destination air travel demand exceeds 10 million enplanements annually. Using the new forecasts, Sea-Tac is anticipated to accommodate 10 million origin & destination annual enplanements around the year 2005, about 5 years earlier than identified in the Final EIS due to the accelerated demand. As is noted in the Final EIS, air carriers typically find that to initiate operations at a new facility requires demand for 20-30 operations per day. This would amount to

about 1 million enplanements a year or 10% of Sea-Tac's enplaned passengers. As described on Page II-10 of the Final EIS, when origin & destination enplanements are less at one competing facility, competition entices traffic to stay at the facility with the greater level of service. As a result, a supplemental airport site would not off load sufficient demand to address the current poor weather operating constraints at Sea-Tac. Therefore, the increased demand would not alter the conclusions concerning this alternative. See also response to **comment 3-C.**

The commentor claims that the Draft Supplemental EIS ignored the role of new technology as an alternative to the construction of a new runway. To the contrary, the Final EIS and Draft Supplemental EIS considered the entire range of technological initiatives on the horizon, including, but not limited to, the following:

- Airport Surface Capacity Technology
- Terminal Air Traffic Control Automation
- Precision Runway Monitor
- Microwave Landing System
- Traffic Alert and Collision Avoidance System
- Wake Vortex Avoidance/Advisory System
- Localizer Directional Aid (LDA) Approaches
- Global Positioning System
- Flight Management System

Each of these technologies is designed to reduce the variance in spacing between successive arrivals and departures, thereby enhancing overall performance with and without a new runway. However, none of these technologies are capable of addressing the fundamental constraint -- the lack of a second approach during poor weather conditions. In fact, most of these technological initiatives offer a greater opportunity to improve performance with a Third Runway than without a runway. For example, FMS or GPS procedures could be developed to reduce the impacts of a Third Runway interactions with Boeing Field. Therefore, it is possible that the delay reduction benefits of the new runway as defined in the Draft Supplemental EIS are, in fact, conservative.

The Final EIS, and Supplemental EIS, considered the use of GPS (Global Positioning System) – see pages Supplemental EIS page 3-6 and Final EIS beginning on pages II-14. The Final EIS acknowledges that GPS will be increasingly used in the future to ease airspace congestion and efficiency. As that discussion shows, no technologies are available (or in the planning stages) to address wake vortex issues that occur with runway separations closer than 2,500 feet. See response to **comment 3-E** concerning technology, such as the LDA..

3-C. Alternative Airport - Paine Field - Mr. Forrey (20L) commented that Paine Field is a viable alternative, as evidenced by "one commuter airline is beginning operations at Paine Field". Comments concerning other alternative airports, including Paine Field, were submitted by Mr. & Mrs. Nordhaus (37L), Mr. McKnight (38L), and Ms. Bilz (61L).

Response: In March 1997, Horizon Airlines announced that it was contemplating re-initiating commuter service at Paine Field with approximately 10 operations daily; Their February 1997 announcement indicated 4 to 5 flights. In the past, various commuter operators have attempted to initiate service at Paine Field, without success. Upon failure, the airline either ceased operating or consolidated its operations at Sea-Tac. The Final EIS considered the effect of a airline initiating service at an existing airport in the region. Horizon's initiation of 10 daily operations would represent less than 1% of Sea-Tac's existing total aircraft operations or passengers (about 3,650 annual operations and 135,000 annual passengers assuming the announced DHC-8 aircraft at 100% load factor). See response to **comment 3-B** above.

3-D. Non-SeaTac Alternatives: Ms. Brown (52aAB1,AB155), and Mr. Anderson (71L) asked why alternatives "outside of Sea-Tac (are not) being considered now that the FAA TAF forecasts indicate the Third runway does not provide adequate capacity but will cost more than building an average US Airport...". Mr. Kirsch (69ACC,Pg 2.9) commented that inadequate consideration was given to non-development actions.

Response: Chapter II of the Final EIS addressed the full range of alternatives to the Master Plan Update improvements. Consideration was given to the effect of the higher demand on the feasibility of non-Sea-Tac alternatives, as discussed in Chapter 3 of the Supplemental EIS. See response to **comment 2-Q** concerning the capacity with the Third Runway.

3-E. LDA: Mr. Oebser (55RCAA,6-4), and Mr. Kirsch (69ACC,Tab I - Hockaday) commented that the Supplemental EIS inaccurately considered the benefits of the Localizer Directional Aid (LDA).

Response: The commentors suggest that use of an LDA approach would provide an equivalent benefit to a new runway during certain weather conditions. As is noted in the Final EIS, the LDA was shown to only satisfy visual flight rule condition weather (VFR2). While VFR2 condition arrival constraints could be addressed by an LDA, the remaining half of poor weather (Instrument Flight Rule - IFR) would not be addressed. Use of the LDA approach would not solve the low visibility problem, and its use would be further restricted by the need to perform mixed operations (i.e., arrivals and departures) on the LDA runway which would limit its effectiveness in VFR2 conditions. Therefore, an LDA approach would not provide the same level of delay reduction during poor weather conditions as a new runway.

The commentor further suggests that ceiling minimums as low as 620-680 feet above airport ground level (AGL) are being achieved for simultaneous dual approaches with the LDA at St. Louis; therefore, he implies that similar minimums could also be achieved at Sea-Tac Airport. While the published single approach LDA ceiling minimums at St. Louis are, in fact, 1,200 MSL (or approximately 620-680 AGL), the St. Louis simultaneous dual approach minimums are 1,200 feet AGL. Because the Sea-Tac Airport's runways are spaced closer together than those at St. Louis, and because the north thresholds of the Sea-Tac runways are even, it is likely that the ceiling/visibility minimums for a dual LDA approach at Sea-Tac would be no lower than 1,500/5. Finally, it should be noted that use of an offset LDA approach to Sea-Tac Airport would increase the noise footprint to the west of the Airport because of the 4,300 separation required between arrival streams and thrust increase to turn into the existing runway.

Because more than half of the poor weather condition would not be relieved by the LDA, it was not pursued as a prudent alternative.

3-F. Demand Management: Mr. Caldwell recommended demand management in light of "Sea-Tac Airport is only 24.9 paying passengers per flight". Other concerns over the examination of Demand Management were submitted by Mr. Oebser (55RCAA,6-3). Ms. Stuhring (L14) commented that the need for a 12,500 foot runway could be eliminated if flights bound for Asia departed in the "cool of the summer evenings". Mr. Kirsch (69 ACC,Pg3.3) indicated that demand management, in addition to the terminal and landside improvements would obviate the need for the Third Runway.

Response: The ACC commented that in light of the Basic Airline Agreement's expiration before the Third Runway's completion, that Demand Management could be implemented. As is discussed in the Final EIS, demand management can take various forms, and the actions that affect the airline basic agreement process typically related to pricing policies. The funding plan for implementing the new runway will be put in place before the expiration of the agreements. Relative to pricing controls, for the purpose of managing demand, the conclusions of the Final EIS remain unchallenged:

"Historically, airport operators have not been successful in changing the operating behavior of major airlines through *pricing policies*. An average of 3-6 percent of airline operating costs are associated with the operating fees charged at airports. The level of charges (fees) that would be necessary to change airline operating behavior (resulting in a reduction in operations with greater load factors) would increase airport revenues dramatically and raise legal issues. Such an increase in fees that would affect the level or type of operations would be highly questionable; it could be viewed as imposing an undue burden on interstate commerce and being contrary to the tenets of airline deregulation."

As is summarized in the Final EIS and Draft Supplemental EIS, demand and system management would not meet the needs at Sea-Tac, as the action would not reduce or alter demand in a manner other than as experienced today. Airlines have already implemented demand management actions, such as yield management to increase load factors. As a result, the average seats per departure at Sea-Tac in 1995 was 153 seats, with a load factor of 65%, resulting in an average of about 100 passengers per departure. Additional demand management would not obviate the need for addressing the poor weather constraint for reasons explained in the Final EIS in Chapter III. See also response to **comment 2-I**.

Departures at Sea-Tac currently experience takeoff weight penalties due to the runway lengths when the destination distance is over 4,500 miles when temperatures exceed 76 °F. By the year 2020, approximately 681 departures annually (0.3% of all departures or 1.3% of passenger aircraft and 15.3% of all-cargo aircraft) will be subject to takeoff weight penalties during warm weather. This loss of weight operating capability would result in passengers and cargo not getting to their destinations as desired or increase operations to serve the demand. If flying during cooler hours, such as evenings, were an option to the air service needs of the region, flights would occur during those hours. However, because of freight shipping needs, flight distance, and time zone issues, these flights typically operate in the early afternoon.

3-G. Commuter Diversion: Mr. Kirsch (69ACC,ES-2,Pg3.5-3.6) commented ".. an increased emphasis on point-to-point service by commuter planes, making the diversion of commuter operations a realistic means of relieving capacity problems…."

Response: The possibility of commuter diversions was considered in the demand management evaluation as discussed on page II-12 of the Final EIS. No new information has been produced to alter this conclusion. See also response to **comment 3-C**. In addition, the use of a supplemental airport – for commuter or other operations – was extensively considered in the Flight Plan Project and Flight Plan EIS. The Flight Plan Final Report and Draft Programmatic EIS dated January 1992, and the Flight Plan Project Final EIS, dated October 1992, are incorporated by reference in this Supplemental EIS. Copies are available for review during normal business hours at the offices of the Puget Sound Regional Council, the FAA, and the Port of Seattle offices at Sea-Tac Airport.

3-H. Other Modes of Transportation: Mr. Oebser (55RCAA,6-1), Mr. Bader (67L1-2) commented that inadequate consideration was given to rail issues, particularly since WSDOT is pursuing rail options.

Response: Washington State Department of Transportation's policy concerning rail are identified in Washington's Transportation Plan: 1997-2016, dated April 1996. This plan contains the State's plans relative to Intercity Rail, Freight Rail and Public Transportation. This plan, excluding private vehicle operation costs, is expected to cost about $105 billion. This plan places a high priority on high capacity transit and intercity passenger rail. However, the plan continues to call for small investments for the foreseeable future, which will not enable a significant off-load of air passengers. Therefore, based on this plan, the conclusions concerning rail, as identified in the Final EIS and the Draft Supplemental EIS are appropriate; rail will not satisfy the need for the Third Runway. See also response to **comment 2-S and 3-A through 3-J**.

3-I. Blended Alternative: Mr. Oebser (55RCAA 6-6) commented that blended alternatives were not adequately considered.

Response: Detailed consideration and reconsideration to blended alternatives was considered in the Chapter II of the Final EIS and Chapter 3 of the Supplemental EIS respectively. As none of the actions individually or collectively would address the needs identified for the proposed improvements, no further consideration was conducted.

3-J. Single Alternative: Ms. Stuhring (L1) commented "Shouldn't it be down to one final choice, rather than have the public on a continual merry-go-round of 4 different scenarios?"

Response: FAA guidelines for the preparation of a Supplemental EIS indicate that equal consideration must be given to all prudent and feasible alternatives. Thus, all three build alternatives and the Do-Nothing were considered.

3-K. Runway Length/Alternative Alignment: Mr. Kirsch (69 ACC, ES-2, Pg 3.6-3.7) commented "A shorter runway could satisfy the asserted need for increased poor weather arrival capacity." and suggested that a 5,200 foot long runway with either a 1,200 or 2,500 foot separation.

Response: During the Master Plan Update thorough consideration was given to commuter length runways, as is documented in the Final EIS (pages II-33 through II-34B). As is shown, most of the costs and environmental impacts would result from such a runway, but the benefits would be minimal, since fewer operations could be accommodated on a commuter-length runway than on an air carrier length runway. The commentor argues that a shorter runway designed to accommodate general aviation and commuter aircraft would meet the purpose and need while significantly reducing the project costs. This comment fails to recognize the process by which air traffic controllers sequence each aircraft from its destination to a runway via one of four radial fixes or "cornerposts." In essence, each arrival is routed over one of four navigational fixes located to the northeast, northwest, southwest or southeast of Sea-Tac Airport, based on the location of the flight's origin airport. This is done to avoid crossovers and provide the most efficient processing of aircraft to a particular runway. International arrivals from the Pacific Rim are typically routed over the northwest fix and then would be assigned to the new runway, whereas many commuter markets are routed over the southeast fix and would be assigned an existing runway. Consequently, most arrivals from the Pacific Rim, which require 8,500 feet, would be unable to use the new runway if it were only 5,200 feet long. Thus, considerably less than 31% of total commuter flights would be able to practically use the runway.

Assigning all commuter and general aviation traffic to the new runway would require air traffic controllers to segregate this traffic from all other traffic before reaching one of the four cornerposts. This increase aircraft flying times and delays, since aircraft would be forced to fly further to reach the appropriate fix. The increased aircraft flying time and delay would be significant and would be counter-productive to the efforts to reduce flying time and delay – as that is the fundamental benefit of the Master Plan Update projects.

It should also be noted that, although certain jets are capable of landing on a 6,000 foot runway during still wind conditions and dry pavement, it is likely that many pilots would refuse a runway of this length, given the availability of a longer parallel runway. This is especially the case during crosswind conditions, since no crosswind runway is available at Sea-Tac Airport, and during wet pavement conditions, which are frequent at Sea-Tac Airport. Any time a pilot refused the new runway due to length, additional delays and increased controller workload would result. The availability of an 8,500-foot runway provides the flexibility to accommodate virtually all arrivals, regardless of aircraft type and weather conditions, thereby enhancing the opportunity to reduce delays. As a result, a "short" runway option was not considered to be a reasonable alternative.

For more information, please see Master Plan Update Technical Report No. 6, "Airside Options Evaluation" dated September 1994, which is hereby incorporated by reference. A copy of this document is available for public review during normal business hours at the Renton, Washington office of the FAA and at the Port's Sea-Tac Airport offices.

Finally, the commentor states that "a runway parallel to BFI Runways 13-31 appears to offer the only opportunity for significant IFR runway capacity increases at Sea-Tac." This recommendation shows a lack of understanding of airport capacity, air traffic control operations and noise implications. A 13-31 runway at Sea-Tac would require either a converging approach or a diverging departure in only one direction. Such a converging approach would not enable dual approaches below IFR minimums, and therefore, it would not increase IFR capacity at Sea-Tac. Further, the noise impacts and the construction costs would likely be significantly higher than the proposed alignment. The alternative of a non-parallel runway was identified and discussed in the Final EIS, Chapter II.

3-L. Do-Nothing Alternative - Mr. Forrey (20L) commented that future conditions should be compared against the existing condition, instead of a Do-Nothing. Ms. Stuhring (L1) commented that "The Do-Nothing alternative will automatically trigger a DO-SOMETHING process at other airports in the state." The ACC's consultant (Smith Engineering) commented that a "With Master Plan but Without Runway" alternative should have been considered. Mr. Hoggard (66SeaTac,3-1) indicated that the impacts should be judged against existing conditions and mitigation provided to address these conditions.

Response: The EIS was prepared in accordance with the National Environmental Policy Act and the Washington State Environmental Policy Act, which calls for the comparison of the Build ("With Project") alternatives to the No-Build (Do-Nothing). To enable decision-makers to compare the future conditions with current conditions, an existing condition is presented. As required by these regulations, the Do-Nothing Alternative must represent the no-action alternative, which is characterized in the Final EIS, with the earlier forecasts, and the Supplemental EIS with the higher forecasts. "With Master Plan but Without Runway" would not have addressed the needs at Sea-Tac.

3-M. Do-Nothing: Ms. Brown (52AB94) questioned what would happen if the North Employee Parking Lot is not built.

Response: If any one or more of the proposed improvements is not undertaken as needed, the Do-Nothing condition for that element would result. In the case of the North Employee Parking Lot, greater pressure would be placed on off-airport parking locations as existing parking facilities are needed and will continue to be needed for passenger traffic. If this lot were not undertaken, alternative sites would continue to be explored. See also response to **comment 10-C**.

4. AFFECTED ENVIRONMENT

4-A. Cumulative Impacts: Mr. Oebser for Congressperson Keiser (HT 30), Ms. Brasher (54L), Mr. Oebser (55RCAA,7D-4/5), Mr. Hoggard (66SeaTac,1), and Mr. Stark (73L1) expressed concern that the cumulative impact of the Master Plan Update was not evaluated or were not evaluated adequately.

Response: The Final EIS and the Supplemental EIS provide an analysis of the cumulative impacts. Chapter III of the Final EIS, and Chapter 4 of the Supplemental EIS discusses the actions included in the cumulative impact evaluation. There appears to be some confusion relating to the sentence "However, until specific projects are proposed for these developments, the total cumulative impacts can not be identified". This statement refers to the anticipated, but not yet defined, development that is planned to occur in the vicinity of the Airport.

One commentor expressed concern that the impact of the SR 509 Extension/South Access was not addressed in the Supplemental EIS. Current plans call for the development of the SR 509 Extension/South Access between 2010 and 2020, with the roadway completed by 2020. The Final EIS presents the impacts of the proposed Master Plan Update improvements under two conditions, with and without the SR 509 Extension/South Access in year 2020. Because the Supplemental EIS analysis considered impacts in years 2000, 2005, and 2010 reflection of that regional roadway in the Supplemental EIS analysis was not applicable. Both documents discuss the generalized impacts of such a road, but note that the specific impacts can not be identified until a final alignment has been selected by the State and local jurisdictions.

4-B. Expert Panel: Ms. Brown (HT 52) stated "With regard to the expert panel back last spring, they basically found that the Port had not complied with the mitigation that they were supposed to..... and that they found that the noise modeling was not credible." Ms. Stuhring (L6) questioned what actions have the Port undertaken, and what is the timetable for implementation of the remaining actions. A similar comment was made by Mr. Rymsza (31L), Mr. Abbott (50PSRC-4) and Ms. Nordhaus (39L). Other concerns with the Expert Arbitration Panel were submitted by Mr. Rowe (63L5), Mr. Hoggard (66SeaTac,6-4), and Ms. Farley (79L2).

Response: Chapter 4 of the Draft Supplemental EIS summarizes the purpose and outcome of the Expert Panel. In its final order of March 27, 1996 relative to the noise issue, the majority of the Panel (two members, with one dissenting opinion) concluded that "although the Port of Seattle has scheduled, pursued, and achieved an impressive array of noise abatement and mitigation programs, the Port has not shown a reduction in real on-the-ground impacts sufficient to satisfy the noise reduction condition imposed by Resolution A-93-03" (Emphasis added). The Panel concluded "that the Port could have done more, and that, had it done so, the additional improvement probably would have made a material difference in real, on-the-ground noise impacts, turned a marginal improvement into a meaningful one, and therefore affected the final outcome of this proceeding." Contrary to several commentors belief, the Panel noted that Sea-

Tac's noise abatement program is one of the most comprehensive noise compatibility plans in the U.S. However, their finding was not that the Port had not complied with their commitments, but that the actions implemented had not achieved the specific standards of the PSRC resolution.
In conclusion, the Panel offered a list of recommended noise reduction measures to be considered. The following summarizes the status of implementing the Port's responsibilities under the recommendations:

Action	Status
A. Evaluate and upgrade its existing noise monitoring system to include the use of approximately 25 noise monitors, develop a schedule for completion by the end of 1998, and thereafter disseminate regular reports to the public using data from the new noise monitoring system to include DNL, SEL and Time Above metrics.	Noise consultant selected, system specifications under development. The consultants contract calls for the conduct of public coordination which will be initiated in 1997.
B. Work with the FAA and/or airlines to:	
1. Analyze the potential for reducing the use of thrust.	In process. Issue was discussed at the SeaTac Noise Advisory Committee meeting in September 1996
2. Voluntarily minimize the number of flights in the middle of the night (1:30-5:30 am.).	Plan to initiate in 1997
3. Continue to enforce Airport Rules and Regulations to minimize the number of variances for the Nighttime Limitations Program.	On-going. Letter was sent to all operators reminding them of the Stage 2 curfew.
4. Work with foreign air carriers to gain cooperation in ensuring that Stage 3 aircraft continue to be used for nighttime international flights.	Completed. Letter sent to international carriers. Currently all use Stage 3 aircraft at night.
5. Work with the owners/operators of Stage 2 aircraft under 75,000 pounds to voluntarily limit or eliminate their use.	Initiated in early 1997 with contacts to aircraft operators.
6. Continue to work to enforce Airport Rules and Regulations to minimize nighttime engine run-ups.	On-going
C. Modify its existing contract with noise experts to specifically include the need to review methods of mitigating the impacts of low frequency noise and vibration, and to supply such information to the Port.	Completed - Language was added to existing contract.
D. Design and implement a noise compatible land use plan for Port properties within its current acquisition zone.	In Progress. Evaluated Port and local jurisdiction visions and developed preliminary land use concepts.
E. Complete the "sensitive use" public buildings insulation pilot studies.	Port has completed insulation of 5 out of 21 Highline Community College classroom buildings Three pilot projects completed (a church, a private school, and a condominium complex) One additional church will be completed in 1997 One convalescent center is under design.

F. Seek a public commitment from FAA to evaluate actions needed to prevent apparent violations of the North Flow Nighttime Departure Noise Abatement Procedures to the extent that safety and efficiency allow.	Completed. Discussions at June and September, 1996 Sea-Tac Noise Advisory Committee meetings resulted in an update of the Puget Sound Nighttime Procedure language. FAA conducted briefings for controllers emphasizing Elliot Bay compliance. Puget Sound South Procedure compliance rates have increased 100%.
G. In carrying out the Part 150 Study:	
1. The Port of Seattle will invite the Regional Council, the FAA, and affected parties to participate, and ensure that they are able to participate actively and constructively, in the Port's upcoming Part 150 study, which will commence in the fall of 1996 and is expected to take two to three years.	The schedule has been delayed slightly due to the preparation of the Supplemental EIS. A citizen advisory group has been established based on recommendations from the agencies and local jurisdictions.
2. Part 150 Study participants will be invited to take part in developing the scope of the study, consultant selection, and in all other milestones and products of the project, such as development of noise exposure maps; development of noise reduction and land use compatibility measures; and Port consideration and approval of the program.	Citizen Advisory Group is participating in the consultant selection process and scope development. Additional opportunities for public participation will occur as the study progresses.
3. Items to be considered in developing the scope of the Part 130 Study will include but not necessarily be limited to:	See specifics below
a. Relocation of run-up areas where daytime engine run-ups occur, to reduce ground-related noise.	To be completed in G2
b. Evaluating the potential net benefits of preferential runway use during low activity periods.	To be completed in G2
c. Evaluating benefits and impacts of changes to departure climb profiles.	To be completed in G2
d. Analysis of need to adjust Noise Remedy Program boundaries to include those in 65 DNL by the year 2000, provided that the Port will not reduce its established Noise Remedy Program boundaries for currently eligible properties.	To be completed in G2
e. Evaluating scope, boundaries and funding for public use and multi-family buildings.	To be completed in G2
4. If, as a result of the Part 150 Study, a proposed noise reduction strategy results in a net improvement but causes a transfer of noise impacts to other communities, the Port of Seattle, Regional Council, FAA and communities affected by airport noise will seek agreement on guidelines or other equitable procedures for dealing fairly with conflicting views and needs of different communities.	Will depend on the outcome of the Part 150.

5. The Port of Seattle will ask the FAA to include within its Record of Decision on the Master Plan Update Final Environmental Impact Statement the requirement to conduct a Part 150 Study with the goal of assessing needed additional noise abatement and mitigation.	Completed.
H. School Insulation 1. The Port of Seattle will commit up to $50 million for school insulation.	Completed. Commission Resolution 3212
2. The Port of Seattle will meet with the Highline School District to try to reach agreement on a plan for insulating the District's schools. If direct talks between the District and Port fail to produce agreement on a noise insulation program for the District's schools, the Port may request that the PSRC assist the parties in selecting an independent mediator.	Communication was initiated with the District and a response is awaited.
3. The Port will initiate the Highline School District school insulation program consistent with an agreement reached by the District and Port.	To be completed based on H2
4. Once the Port of Seattle completes the sound insulation program for schools affected by aircraft noise exposure of 65 DNL from Sea-Tac International Airport, it will investigate feasibility and funding for insulating schools affected by then current 60-65 DNL aircraft noise exposure from Sea-Tac. Sound insulation must comply with FAA eligibility criteria to achieve measurable noise benefit.	To be completed based on H2 and H3
I. Deliver to the Regional Council on or before September 5, 1996, a detailed timetable for carrying out the steps specified in subsections A through H of this section, including (a) defined milestones against which the Port's progress toward completion of those steps may be measured, and (b) a schedule for progression planning, design, and construction of a third runway at Sea-Tac Airport.	Completed. Most recent update presentation was made February 27, 1997

As is noted above, the Port has committed to the implementation of these actions. Their implementation would be expected to provide mitigation above and beyond the existing Noise Remedy Program.

4-C. Expert Panel/Congressional hearing: Ms. Brown (HT 52) stated "The EIS still has not addressed the issues that have been raised by the Expert Panel." She (HT, 52AB95) also indicated that the issues raised at the Congressional hearing were also not addressed and that the summary of the meeting did not adequately summarize the testimony.

Response: The Final EIS and the Supplemental EIS have addressed all issues appropriate to an Environmental Impact Statement. Relative to the Expert Panel, the PSRC has addressed these issues before finalizing its decision on whether to include the runway in the Metropolitan Transportation Plan. The purpose of the Congressional hearing was to enable the congressional members of the Aviation Subcommittee to hear directly from the interested parties their issues associated with the Third Runway. The conduct of the hearing enabled that purpose to be completed; no other issues applicable to the EIS arose from the congressional hearing.

4-D. Runway Vote: Ms. Brown (HT 92) stated "on the same day that they voted in the third runway there was a vote saying that they needed an alternative airport." Mr. Rowe (63L5,L6) indicated that the voters should get a chance to vote on the Third Runway.

Response: The only vote representing the voice of the Puget Sound Region has occurred before the Puget Sound Regional Council. As is summarized in the Draft Supplemental EIS, the General Assembly voted to amend the Metropolitan Transportation Plan to include the Third Runway. No votes were taken approving an alternative airport; to the contrary, the PSRC process concluded that an alternative airport is not feasible.

4-E. PSRC Re-Review: Mr. Bader (67L1-4,3-18d) commented that because of all the changes in the Master Plan Update, that it should be "re-submitted to the Puget Sound Regional Council for its re-examination...". A similar comment was submitted by Ms. Farley (79L2).

Response: No additional review is warranted in light of all of the information that is available. As is noted in response to **comment 2-H**, the Flight Plan considered forecasts that are about 6% less than the new forecasts. In addition, sufficient notification and awareness of the conduct of the Supplemental EIS occurred beginning in January 1997. Since that time, there has been no indication that the information that has become available would alter the conclusions of the general assembly's consideration of these issues.

This is an issue that has been raised in the Airport Communities Coalition and its member municipalities suit filed in King County Superior Court against the PSRC and the Port for "violations of the Growth Management Act (GMA), the State Environmental Policy Act (SEPA) and other laws governing governmental decision-making within the state of Washington", which is discussed in Chapter 4 of the Supplemental EIS. Thus, this issue will be determined by the courts.

4-F. Des Moines Creek Technology Campus (DMCTC): Ms. Stuhring (21L) asked why "plans were canceled for CTI".

Response: The plans for the Des Moines Creek Technology Campus, to be occupied by CTI were canceled in early 1996 based on the site development needs, mitigation requirements and costs.

4-G. VISION 2020: Mr. Abbott (50PSRC-4) noted the incorrect adoption date of VISION 2020 on page 4-6.

Response: Comment noted. The Final Supplemental EIS reflects the corrected date.

4-H. Des Moines Comprehensive Plan Appeal: Mr. Abbott (50PSRC-4) noted that the Supplemental EIS did not note the Port's appeal of the Des Moines Comprehensive Plan.

Response: Comment acknowledged. As the Port appealed the Des Moines Comprehensive Plan at the time the Draft Supplemental EIS document was being printed, it could not be acknowledged. The Final Supplemental EIS reflects this appeal.

4-I. Metropolitan Transportation Plan (MTP) Consistency: Mr. Abbott (50PSRC-4) commented that the statement "no amendments have occurred (to the local plan) to bring about transportation compatibility with the Airport, as directed by the Updated MTP." is not precisely correct.

Response: The commentor notes that as a result of the Updated Metropolitan Transportation Plan (MTP), the PSRC "sent a letter to jurisdictions alerting them to the amendments and to the need to assure that they were consistent with the MTP as amended." This is reflected in the Final Supplemental EIS.

4-J. Burien Mitigation Study: Mr. Oebser (55RCAA,5-4,5-5,5-6,5-7,7B-2), Mr. Anderson (71L), Mr. Kirsch (69ACC,ES-5,Pg4.27-4.31), Mr. Bader (67L6-4,6-5), Mr. Akers (77L8) commented that the results of the Burien Study should have been noted. Mr. Kirsch (69ACC) and Mr. Stouder (74Burien) submitted the report "Sea-Tac International Airport Impact Mitigation Study, Initial Assessment and Recommendations" as comments on the Draft Supplemental EIS.

Response: In late summer 1996, the City of Burien issued a preliminary draft report titled "City of Burien Seattle-Tacoma Airport Master Plan Update Studies Environmental Issues Mitigation" That document contained numerous incomplete sections and, based on the Port's review and comments submitted to the City of Burien, contained extensive mis-characterization and erroneous information. The Port of Seattle submitted comments on the preliminary draft report in a 3-page letter to the City of Burien dated November 25, 1996 (including a 14-page attachment). This letter (and attachment) are incorporated in this Supplemental EIS by reference. A copy is available for review during normal business hours at the Renton, Washington Office of the FAA and at the Port offices at Sea-Tac Airport. The Draft Burien Mitigation Report was then not issued until March 27, 1997.

Mr. Kirsch (69ACC) and Mr. Stouder (74Burien) submitted the Draft Burien Mitigation Study as comments on the Draft Supplemental EIS. As is noted on page 1-1 of this report, the purpose of the study "was to assess the projected impacts of the proposed Third Runway and to develop mitigation strategies for the Cities of Burien, Des Moines, Federal Way, Normandy Park, and Tukwila, the Highline School District, and the Highline Community Hospital...The provisions of this State grant stipulated that the study cannot be used to oppose the proposed Third Runway....*The amount provided in this subsection shall not be expended directly or indirectly for litigation, public relations, or for any consulting services for the purpose of opposing the construction of the proposed third runway.*"

The City of Burien, as lead for the Study, indicated verbally to the Port of Seattle that the report represents consultant recommendations, and does not represent the recommendations of the respective Airport Communities Coalition (ACC) communities. It is also important to note that while Mr. Stouder submitted the document as comments on the Draft Supplemental EIS, the report acknowledges that its focus is based on the February 1996 Final EIS. As no significant changes were made in the document between the summer 1996 version and the March 1997 version, the Draft Burien Mitigation Report does not contain any comments specifically directed at the analysis contained in the Draft Supplemental EIS. Thus, it is assumed that the purpose for submitting it as comments on the Draft Supplemental EIS is for entry into the administrative record and for agency consideration of the merits of the mitigation proposed.

In general the primary conclusion of the report is that the benefits and impacts of the Airport are disproportionately borne within the region. Communities within the immediate airport environs experience the primary adverse impacts, yet do not recoup an equivalent proportion of benefits. While the specifics of the nature and substance of impacts are disputed by the Master Plan Update, Final EIS, and Supplemental EIS, the disproportionate nature of impacts is not disputed. Thus, the focus of the review relative to the Final EIS and Supplemental EIS was:

- Did the Final EIS and/or Supplemental EIS fail to recognize significant adverse environmental impacts; and
- Have reasonable steps been taken to avoid or minimize the significant adverse environmental effects of the proposed improvements.

The FAA and Port have reviewed the Draft Burien Mitigation Report and concluded that the Final EIS and the Supplemental EIS have identified all significant adverse environmental impacts from the proposed improvements in accordance with FAA Orders 1050.1D and 5050.4A and applicable NEPA and SEPA requirements. The Draft Burien Mitigation Report did not identify any new significant adverse environmental impacts associated with the proposed improvements that have not already been identified or addressed in the Final EIS and Supplemental EIS. In addition, the FAA and the Port have taken reasonable steps, through the identification of mitigation measures and improvements to the Master Plan Update since issuance of the Final EIS, to avoid or minimize the significant adverse environmental impacts of the proposed improvements.

The majority of differences in the mitigation between the EIS and the Draft Burien Mitigation Report relate to noise mitigation. Of the nearly $3 billion in mitigation identified by the Draft Burien Mitigation Report, the following summarize the mitigation measures:

- Noise Mitigation: ($2,448.4 million)
    - 65 DNL & Greater: Acquisition and Redevelopment. The acquisition includes comprehensive plan defined neighborhoods[1] within 65 DNL noise contours — $ 1,933.9 million
    - 60-65 DNL: Sound Insulation and easements - includes all comprehensive plan defined neighborhoods[1] within 60-65 DNL — $ 222.7 million
    - 55 DNL & Greater: Public Facility Insulation — $ not estimated
    - Outside DNL contours: SEL Overflight — $ 119.2 million
    - Outside DNL contours: Within flight tracks — $ 172.6 million
- Property Value Mitigation — $ 38.7 million
- Surface Traffic Mitigation ($491.2 million)
    - Level of Service Mitigation — $ 117.6 million
    - Physical Damage (State and Local system from increased general usage) — $ 131.2 million
    - Bridge Mitigation from general usage — $ 54.4 million
    - Traffic Mitigation — $ 188.0 million
- Environmental Monitoring Efforts and Other Mitigation — $ not estimated

In reviewing the Draft Burien Mitigation Report, the following fundamental issues were identified:

1. Impacts of the Third Runway project are not appropriately identified. Mitigation is identified for conditions that would occur even if the Do-Nothing/No-Build option were pursued;
2. The recommended noise and land use mitigation lacks any basis in Federal noise policy without the commensurate land use policies in place by the local jurisdictions. The mitigation identified is not followed by an evaluation of land use planning policies to complement these actions and therefore does not indicate that such mitigation is warranted;
3. The evaluation of future conditions is based on an incorrect "assumption" concerning the capability of the existing airport facilities. Existing airport activity exceeded the assumed capacity limit during the last two consecutive years;
4. Inconsistencies in methodology were used in the Draft Burien Mitigation Report; and
5. Mitigation suggested has not been placed in the context of actions taken to date by the Port of Seattle, the FAA or other parties.

The primary purpose of the study was to identify impacts associated with the Third Runway. However, the Draft Burien Mitigation Report did not differentiate between current impacts or impacts in the future without the project versus impacts associated with the Third Runway. For instance, the approach used in the Final EIS and Supplemental EIS identified mitigation based on the difference between the impacts of a future Do-Nothing alternative versus the impacts in that

[1] For neighborhoods that are at least 1/3 within noise contours.

same time frame "With Project". In the example of noise impacts, the Draft Burien Mitigation Report includes mitigation for all properties within the "With Project" 60 DNL noise contour and does not subtract the impacts that would occur if the Do-Nothing Alternative occurred. Therefore, the Draft Burien Mitigation Report includes as mitigation impacts that either currently occur or would occur in the future without the Third Runway.

Similarly, in evaluating surface transportation impacts, the Draft Burien Mitigation Report identifies the level of service standards adopted by local communities for local streets (see Table 8.02). While an increase in surface traffic, as a result of growth in airport traffic, is generically discussed and attributed to the Third Runway, no specific traffic levels are identified. As is shown in the Final EIS, and the Supplemental EIS, airport facilities are expected to accommodate the forecast growth in enplaned passengers with or without the proposed improvements through the reasonably foreseeable future and the proposed improvements are not expected to result in a significant adverse impact to local roads. Thus no mitigation is needed to address project-related impacts. Instead, the Draft Burien Mitigation Report does not identify future growth in surface traffic, and does not differentiate between airport and non-airport surface traffic demands. Thus, the level of service impacts, and the physical damage impact, identified by the Draft Burien Mitigation Report improperly attribute impacts to the Third Runway.

As is noted in the table above, a significant quantity of mitigation is associated with aircraft noise impacts and land use compatibility conflicts. The Final EIS and Supplemental EIS recommend mitigation for significant project-related noise impacts within the 65 DNL noise exposure contour, the standard used by the FAA for environmental impact studies and Part 150 Noise Compatibility Planning Studies. This is the noise exposure contour that has been used in the last two consecutive Part 150 Noise Compatibility Studies at Sea-Tac Airport. The Draft Burien Mitigation Report uses quieter noise levels, which fails to recognize ambient noise levels from other community sources, and lacks any basis in Federal noise policy. Such mitigation is identified for public facilities impacted by 55 DNL (impacts of which are not identified by the Draft Burien Mitigation Report, but mitigation is listed in Plate 7.6). As is shown in the Final EIS, surface traffic on area roads results in noise impacts in excess of these levels. However, the Draft Burien Mitigation Report does not include other noise sources that may equal or exceed the noise from aircraft overflight. In addition, the Draft Burien Mitigation Report uses two noise mitigation approaches (the 400 foot topographic line and the flight track corridors) that have no technical substantiation. The study does not define the technical merits behind selecting the 400 foot topographic line (as this is not a mitigation applied to any other commercial airport) or 5 miles. Further, the flight track corridor mitigation is identified as a noise impact [specifically page 7-9 refers to these impacts as "psycho-acoustic noise impacts (aircraft noise appears louder because the aircraft is visible)"]. As the flight track methodology gave equal consideration to turbo-prop corridors versus jet corridors, it is questionable how noise is reflected in the methodology, as turbo-props are typically substantially quieter than jets. Finally, these approaches do not differentiate between impacts that would occur without the proposed improvements or those associated with the project.

Other non-standard approaches are used in evaluating impacts to resources such as endangered species. Despite the Final EIS containing a biotic assessment, including coordination under

Section 7 of the Endangered Species Act with respective agencies, the Draft Burien Mitigation Report includes recommended studies and development of "A preservation and protection plan" (page 7-38). Section 7.14 of the Draft Burien Mitigation Report includes stormwater runoff volume mitigation. The mitigation defined by the Draft Burien Mitigation Report is simply stated "Additional runoff volumes may result from a decrease in permeable surface within the drainage-shed. Further studies should be conducted to determine specific 'floodprone' areas." (Page 7-23) However, unlike the analysis presented in the Final EIS, the Draft Burien Mitigation Report does not quantify the amount of stormwater to be accommodated. As the Final EIS assesses the total quantity of stormwater runoff generated by the proposed improvements, it is questionable what additional mitigation is necessary. The Draft Burien Mitigation Report is not specific. Other similar examples exist throughout the Draft Burien Mitigation Report.

Other significant differences between the two studies relate to forecast activity levels. The Draft Burien Mitigation Report indicates that all activity over 380,000 annual operations is associated with the operation of the Third Runway. See responses to **comment 2-A through comment 2-I**. In light of the annual activity accommodated in 1995 and 1996, this element of the Draft Burien Mitigation Study has already been shown to be flawed. In consideration of the traditional environmental impacts (noise, air quality, water quality, wetlands, floodplains, etc.), the projections from the Final EIS were used. These projections were based on an identification of the Do-Nothing and "With Project" forecast of operations, with both alternatives being able to accommodate the demand of 441,000 operations that was projected in 1994 by the Master Plan Update. However, when considering the socio-economic conditions, a different forecast assumption is made – namely that it is not possible for existing airport facilities to accommodate more than the existing airfield's annual service volume (380,000 annual operations).

As was repeatedly noted to the consultants preparing the draft analysis, annual activity at Sea-Tac exceeded their theoretical cap in 1995 and 1996. The Draft Burien Mitigation Report concludes that any growth in activity above 380,000 operations (which was originally forecast to occur by year 2000) is associated with the Third Runway. Page 4-16 of the draft report states "As the ASV level after which airport improvements are required if future demand levels are to be accommodated, 380,000 operations is Sea-Tac's consensus threshold.....These activity levels *(above 380,000)* will not occur at Sea-Tac Airport without construction of the Third Runway, and related improvements" ***(emphasis added)***. Annual activity accommodated at the Airport in 1995 and 1996 shows this to be an invalid assumption. Thus, use of this assumption inappropriately inflates the cost of mitigation.

In numerous places, the Draft Burien Mitigation Report indicates that inadequate consideration, if any, was given to the cumulative environmental impacts of the Master Plan Update improvements coupled with other planned regional development actions. However, the Draft Burien Mitigation Report's surface transportation evaluation notes that surface transportation impacts are understated because a cumulative impact evaluation was included. As was noted in the Final EIS, and elaborated upon in the Supplemental EIS, the environmental evaluation in both Master Plan Update studies reflected a cumulative impact evaluation. For many of these regional plans, project specific impacts are not known or are not reasonably foreseeable at this time. For instance, the location of a facility will determine if wetland impacts or other natural feature impacts would occur. Thus, without knowing the specific alignment of a road, the probable quantity of impacts can not be identified. Thus, it was appropriate for the Final EIS to identify the probability of impacts in those cases, but to indicate that specific quantities could not be known until a project specific proposal was up for consideration by regional decision-makers. On the other hand, many of the improvements are related to surface traffic and would serve a specific traffic purpose. Thus, for the traffic analysis it was possible to consider specific impacts.

Relative to the socio-economic evaluation, the Draft Burien Mitigation Report cites specific studies for the conclusions of the direct, indirect, and induced impacts. It is hypothesized that proximity to Sea-Tac has resulted in a reduction in property values (or a slowing of appreciation) as a result of the project. However, the report appropriately notes that such effects were typically felt when the airport first began jet service or as a consequence of a change in conditions. Yet, this key issue was then dismissed, without discussion of how historic conditions have affected noise and property values. However, the report fails to note several key considerations:

- Jets have operated at Sea-Tac since the early 1960s. As based on the cited research, the primary adverse effects on property values would have been experienced at that time;
- Noise impacts peaked in the late 1980s/early 1990s and have declined, as is evidenced by the noise impact evaluations. The Draft Burien Mitigation Report (Page 2-8) notes that between 1991 and 1994, noise exposure impacts declined 52%. Thus, if noise exposure was found to have an adverse property value impact, the converse would have to apply; that appreciation has accelerated (or actual losses have been recovered) with reduced noise exposure.
- The Draft Burien Mitigation Report indicated that the direct impacts (declines in private property values and tax base) produce indirect impacts (changes in land use). Thus, if it is concluded that property value impacts have not occurred as a result of airport impacts, then changes in land use from this cause would not occur. Similarly, if changes in land use do not occur, or if local land use planning avoids such impacts, induced impacts of changes in community services and adverse impacts from changing demographics would not occur.
- The Draft Burien Mitigation Report assumes that property values losses are directly proportional to increases in aircraft operations at a 1:1 ratio. This assumption has not basis in any study of airport impacts and bears no relationship to actual noise levels
- The Draft Burien Mitigation Report provides no explanation for other causes of property value losses and fails to recognize that local jurisdictions are responsible for land use planning. Thus, if it were concluded that such direct impacts occurred, local land use planning could offset at least some and possibly avoid these impacts. Similar comments exist concerning the assertion of disproportionate share of benefits from the Airport. Local jurisdictions, through their comprehensive planning process influence land uses. Thus, local jurisdictions bear significant responsibility for not "getting their fair share" of socio-economic benefits.

As is noted in response to **comment 10-F**, potential impacts on real property values were considered by the Final EIS, and recalculated as a response to comment on the Draft Supplemental EIS. As is shown in the response to comments, the Port's existing Noise Remedy Program has (or will when completed) already compensated residents if such a loss in property values has actually occurred. Changes in noise exposure area will be mitigated as part of the noise/land use mitigation identified in the Final EIS and Supplemental EIS (see page 5-6-5 of the Draft Supplemental EIS).

The Draft Burien Mitigation Report justifies its recommended noise mitigation by citing noise mitigation undertaken at other commercial airports. However, the mitigation undertaken at other airports is not placed in the context in which the mitigation was initiated (i.e., the degree of existing noise mitigation needed versus on-going noise reduction efforts or mitigation directly recommended as a result of a proposed airport improvement). It implies that the Sea-Tac EIS was negligent, by stating "Recent airport noise mitigation programs - such as the program in place at Dallas/Fort Worth International Airport developed by Landrum & Brown, Inc. - have shown the importance of mitigating entire neighborhoods, rather than individual structures." However, the Draft Burien Mitigation Report fails to note the radical differences between the mitigation in place at Sea-Tac today in contrast to D/FW (before their new runways were initiated). Similarly, in contrasting Sea-Tac with D/FW, the Report makes a omission when stating "entire neighborhoods were mitigated which fell within the 65 LDN (sic) contour." whereas Sea-Tac's existing program has historically been structured in a manner as to avoid neighborhood disruption.

The Draft Burien Mitigation Report correctly notes that relative to noise and land use compatibilities, most airports have designed and conducted such mitigation through the Part 150 Study (or its predecessors). However, when contrasting the six airports to Sea-Tac, the authors ignore the extensive noise abatement and noise remedy program that has been undertaken and completed by the Port at a cost of over $200 million, originating back to the early 1970s. The largest mitigation program cited (D/FW) will result in an expenditure of $150 million upon completion of the mitigation program that is currently underway (versus expenditures to date for Sea-Tac.). In addition, the Report fails to note that the Port has undertaken more Part 150 Studies than any other airport in the country in an attempt to mitigate existing impacts, and each study has resulted in additional noise reduction actions. Therefore, to provide a more accurate comparison of Sea-Tac to these other airports, the noise mitigation must be added to the $50 million included in the Final EIS and the $50 million included in the Port Resolution 3212 (in response to the Expert Panel recommendations). Thus, Sea-Tac's existing noise mitigation program (not including the millions incurred in mitigating other environmental impacts, such as water quality and stormwater runoff) exceeds nearly all costs incurred at commercial airports – showing that the Port is a leader in the industry in mitigating environmental impacts. It is anticipated that the Port's investment in mitigating noise impacts will exceed $350 million when the Third Runway is completed (including the $200 million expended to date, an addition $100 million already committed by the Port Commission, and the $50 million in mitigation identified by the Final EIS.)

Similarly, it appears that the mitigation associated with the three of the Washington State non-airport projects exceeded the requirements of NEPA and SEPA. The Report states "The State of Washington has demonstrated its desire to go beyond 'traditional' mitigation...". However, the context of these projects and the development of the mitigation is not identified. By appearances, the mitigation could be a result of litigation settlement or mitigation reflecting negotiated/mediated mitigation through a SEPA appeal. In addition, given the nature of those projects, the mitigation could be appropriate to the situation and, in some cases, reflects generally accepted mitigation items for commercial or infrastructure improvements, unlike the actions suggested relative to Sea-Tac Airport.

Finally, no new significant adverse environmental impacts were identified by the Draft Burien Mitigation Report.

4-K. SeaTac Re-zone: Mr. Stark (73L1) noted that the "13 acres zoned multi-family east of SR 509 are between S. 170th and S. 176th, not 160th and 170th." and expressed concern with the characterization of the City of SeaTac's Westside Citizens Ad Hoc Advisory Committee.

Response: Comments acknowledged. The Final Supplemental EIS corrects this error.

4-L. Advance Projects: Ms. Brown (52AB84) asked if any of the actions underway at Sea-Tac are being done to prepare for the Master Plan Update improvements.

Response: The Port has undertaken no construction actions that would prejudice the outcome of the evaluation of the Master Plan Update, including the Third Runway. As is acknowledged, the FAA and Port have given careful consideration to preparing and approving separate environmental analysis for projects that have no significant adverse impacts and are separate and independent from the Master Plan actions.

5. SURFACE TRANSPORTATION

5-A. Existing Conditions: Mr. Rowe (HT 35), Ms. Bilz (61L2), Mr. Rowe (63L2) expressed concern with the existing surface transportation conditions. The ACC's consultant (Smith Engineering) indicated that "The DSEIS may be inadequate in that it relies upon base year conditions data that may no longer describe conditions..."

Response: Comments acknowledged. Existing and future Do-Nothing conditions are identified in the Final EIS and Draft Supplemental EIS. As this analysis shows, the congestion that currently exists is not solely attributable to Airport related traffic. In addition, the Port of Seattle is currently paying the City of SeaTac approximately $2.0 million a year in parking tax revenues. The parking tax is used by the City to fund programmed transportation improvement projects in the vicinity of the Airport, which are aimed at reducing congestion.

An extensive data collection effort was undertaken in 1994 in order to define trip generation characteristics of Airport related traffic. Since 1994, Airport traffic levels have grown as have regional traffic levels and the relationship of regional traffic to airport traffic would not be expected to change significantly during this timeframe. It is also important to note that relative to the main purpose of an EIS, the existing conditions are not as important as the future comparisons of the Do-Nothing to the "With Project". The existing conditions are provided for the sole basis of enabling decision-makers to understand the relationship of future conditions to existing conditions.

5-B. Cargo Truck Traffic: Ms. Stuhring (21L3) questioned the number of current and future truck trips that originate in Eastern Washington transporting goods that will be transported as cargo.

Response: The Port of Seattle conducted a detailed survey of air cargo operations to determine the trip generation characteristics and origin-destination patterns of both air cargo employee and truck traffic. According to the survey results, none of the truck trips generated by air cargo operations originate in Eastern Washington. However, if Eastern Washington truck trips travel to a transfer station before traveling to the Airport, these truck trips would be assigned to the transfer station location, not to Eastern Washington. Approximately 2,020 daily trips by truck transporting cargo access Sea-Tac Airport. By 2010, the number of truck trips in the Do-Nothing and "With Project" are expected to reach 3,630 daily trips.

As is noted in the Final EIS, 46% of cargo is transported in commercial passenger aircraft. Therefore, if the Eastern Washington cargo was transported to an Eastern Washington airport, this method could increase air traffic at Sea-Tac (where the cargo would be transferred from one cargo or passenger aircraft to another). If sufficient demand existed to fly cargo or passengers direct from Eastern Washington locations, either passenger or air cargo flights would originate in those locations instead of Sea-Tac.

5-C. Traffic Growth: Ms. Stuhring (21L3) questioned how additional aircraft operations affects surface traffic levels.

Response: Airport traffic is complex in its nature and is based on several types of traffic (see Table C-1-1 of Appendix C of the Supplemental EIS). There is no fixed relationship between the number of aircraft operations and the amount of Airport related traffic generated, as the relationship varies by airline, by aircraft and by season. However, the current annualized relationship between total airport traffic (passenger, cargo, employee, etc.) and passengers indicates that 1.6 to 1.7 vehicle trips occur per average annual weekday passenger.

5-D. Project Impacts - Traffic Levels: Ms. Brown (HT70,52AB121), Ms. Stuhring (21L3), Ms. DesMarais (34L8), Mr. McKnight (38L), and Ms. Monteglas (64WSDOT5) questioned why there are more cars with the Do-Nothing than "With Project". Ms. Stuhring (21L13) also asked if the Final EIS was "off (in error) 5 to 10 years". Mr. Hoggard (66SeaTac,3-2, 4-3) commented "Revise the traffic analysis to address the impact of passengers who are displaced to commercial facilities and associated shuttle services.." and similar other project related impacts. Mr. Abbott (50PSRC-2) questioned why passenger forecasts increased 17% but airport traffic levels only increase 7.75% over the Final EIS and requested clarification of other data. Mr. Kirsch (69ACC,Pg4.26), Ms. DesMarais (51L11) and Mr. Rosen (70L6) commented that the Do-Nothing and "With Project" traffic levels for employees and maintenance trips were the same, despite the increase in the size of the airport. The ACC's consultant (Smith Engineering) indicated that the modeling was biased in favor of the Preferred Alternative.

Response: As is shown in Table C-1-1, Airport traffic consists of several different types of traffic (e.g., passenger, cargo, employee, etc.). Passenger traffic (including off-site parking) differs between the Do-Nothing and "With Project" based on the mode of access assumptions defined in Table C-1-3 which is derived by the facilities associated with each alternative. Differences would exist in the facilities available among the Do-Nothing and "With Project" in curb-frontage, parking, rental cars, and off-site parking. Because each passenger mode of access has a different trip generation characteristic, the differences in facilities available account for the differences in passenger related airport traffic. As is shown in Table C-1-1, there is no difference in airport employee, air cargo, general aviation, maintenance, or other traffic between the Do-Nothing and "With Project". A difference would occur for the airfield operations area traffic between the Do-Nothing and "With Project" due to the difference in aircraft operations.

The Final EIS analysis reflects the forecast of aviation demand and resulting surface transportation. As current estimates of demand indicate that aviation activity could be 17% greater than the earlier forecasts, the need for facilities was also re-evaluated. As facility needs are based on forecast activity, some facilities could be needed 5 to 10 years sooner than evaluated by the Final EIS – if this level of growth continues.

As is noted in the Draft Supplemental EIS, the new Port of Seattle forecasts are approximately 17% greater than the forecasts prepared in 1994 for the Master Plan Update. A commentor questioned why the passenger forecasts differ by 17% but the Airport surface traffic only differed by 7.75%. A comparison of the 2010 "With Project" airport traffic levels was performed which shows that the Final EIS listed Airport passenger traffic for this scenario as 62,900 (See Table O-B-3) while the Draft Supplemental EIS listed the Airport passenger traffic as 66,000 passengers per day (see table C-1-3) – a 5% difference. Airport surface traffic levels also increased approximately 5% from the Final EIS level of 105,140 vehicles per day to the Draft Supplemental EIS level of 110,390 vehicles per day. The difference associated with the level of passenger airport traffic between the Final EIS and that prepared for the Supplemental EIS (based on the new forecasts) is associated with additional mode choice and trip generation data that has been collected by the Port, as well as a reflection that as demand grows, the peak month average day traffic will begin to flatten out, appearing more like an average annual day. The new mode choice data indicates a slight increase in higher occupancy vehicle usage.

Contrary to a commentors indication, no biases were induced into the evaluation of the Preferred Alternative. The following summarizes the trip generation factors, and other factors that differentiate the alternatives.

The trip generation characteristics developed for Airport traffic were reviewed and modified after the completion of the Final EIS for use in the Supplemental EIS. Differences between employee parking and air cargo traffic are associated with the correction of trip generation errors that occurred in the Final EIS. For example, according to the trip generation calculations presented in the Final EIS, there were more employees driving single occupant vehicles than there were actual employees. This was corrected for the Supplemental EIS to reflect the impact of transit usage, carpooling, and ride sharing. The differences in passenger off-site parking is due to more accurate recent information that has been collected by the Port. The number of passenger using the off-site parking facilities during the PM peak hour was overestimated in the Final EIS due to the lack of hourly passenger forecasts.

The Do-Nothing and "With Project" employee and maintenance traffic levels are the same for the Do-Nothing and "With Project" levels. If two facilities provide the same level of service, but one is larger, it would appear that employee and maintenance activity would be greater with the larger facility. However, because the Do-Nothing alternative would generate significant inefficiencies, it is reasonable to assume that the employment level would need to increase to address the higher level of congestion and inefficiencies. Therefore, the Do-Nothing employment and maintenance would likely be similar to the "With Project". While slight differences might exist, they would be minor and not likely have an effect on surface traffic or air quality conditions.

The Final EIS and the Supplemental EIS reflect the surface traffic resulting from off-site commercial parking facilities and their associated shuttle service. As was noted in the Final EIS, the Do-Nothing results in greater use of these facilities (as no on-airport parking improvements would occur with this alternative). As a consequence, the Do-Nothing alternative will generate more passenger off-site parking trips than the "With Project" alternative. Appendix C-1 provides a detailed description of Airport related traffic and differences between the Do-Nothing and "With Project" alternatives.

A commentor was correct in noting that the Airport traffic levels associated with the Master Plan Update Forecasts were incorrectly reported in Table D-2 of the Draft Supplemental EIS – Table 5-1-1 correctly listed the data. This table was corrected in preparing the Final Supplemental EIS.

5-E. Peak Hour: Mr. Kirsch (69ACC,ES4,Pg4.25) stated "the Draft SEIS minimizes the effect of Airport-bound vehicles on commuter traffic and does not analyze the effect of increased operations at Sea-Tac on surface traffic during the peak hour of Airport activity." A similar comment was submitted by Mr. Rosen (70L6).

Response: During the scoping process for the Master Plan Draft EIS, reviewing agencies were asked for input to the surface transportation analysis, including whether the analysis should focus on peak hour of total traffic or the peak hour of airport traffic. The agencies indicated a desire to use the peak hour of total traffic, which is the generally recognized approach to preparing NEPA/SEPA documents and is consistent with transportation impact analysis standards for this region.

The Airport's peak hour of activity occurs during the noon hour and represents approximately 8% of daily Airport traffic. The Airport activity during the PM peak hour (5 p.m. to 6 p.m.) represents approximately 6% of the daily Airport traffic. According to surface traffic volumes in the vicinity of Sea-Tac, the PM peak hour represents approximately 9% of total daily traffic, and the noon hour represents approximately 6% of total traffic levels. Regional (non-airport) traffic levels are substantially greater than Airport traffic on the local roadway system. Since the traffic volumes generated by Airport activity are included in these surface traffic volumes, PM peak hour clearly represents the hour when total traffic on the roadway system near the Airport is greatest.

5-F. Traffic shifts: Ms. Brown (52AB79) questioned if consideration was given to the effects of shifting traffic from one location to another.

Response: The surface transportation forecasts are based on the Puget Sound Regional Council's (PSRC) adopted 1995 Metropolitan Transportation Plan (MTP). This plan is based on a surface transportation modeling program that assigns traffic volumes in response to increasing congestion on the roadway system. As congestion grows on one roadway segment, vehicular traffic will shift to a less congested parallel roadway segment to avoid congestion. This "trend" is reflected in the modeling prepared for the Final EIS and Supplemental EIS.

5-G. Project Impacts - Congestion/LOS: State Representative Blalock (HT 12, 14) indicated that the proposed Master Plan Update improvements will result in adverse surface transportation impacts in contrast to what the introduction states. Similar concerns were submitted by Mr. Dodge (HT62) and Mr. Newby (HT84). Ms. Basareb (HT 78) commented that the EIS does not properly address impacts on area roads. Similar comments were submitted by Ms. Brown (52AB21,AB22,AB120), Mr. Rowe (HT35), Mr. Rowe (63L2), Mr. McKnight (38L1), Mr. Hoggard (66SeaTac3)and Ms. Bilz (61L2).

Response: Two forms of impact from the project would occur: construction and operating impacts. As operating impacts are the long-term, on-going impacts, Section 5-1 "Surface Transportation Impacts" discusses these impacts. Impacts limited to the duration of the construction phase are separately discussed in Section 5-4 "Construction Impacts".

Representative Blalock implied that the tables in the Draft Supplemental EIS indicate that 10 out of 36 intersections will have a lessening of level of service as a result of the proposed project. However, this lessening of level of service will occur regardless of whether the proposed improvements occur, because regional roadway congestion is anticipated to grow. However, when comparing the "With Project" to the Do-Nothing/No Action, the proposed project will not change the level of service, and in some cases result in improvements. Under the National Environmental Policy Act (NEPA) and State Environmental Policy Act, this is the appropriate comparison (see response to **comment 3-L** above). With the higher aviation demand forecasts assessed in the Draft Supplemental EIS, the "With Project" will enable the Airport to accommodate the forecast aircraft operations and enplanement demand. While the Do-Nothing will accommodate forecast passenger demand, it would not be accommodated in an efficient fashion, resulting in delay and congestion. As no changes in level of service would occur when comparing the "With Project" to the Do-Nothing, no mitigation is required.

It is important to note that the Port of Seattle is contributing revenues towards transportation improvement projects in the vicinity of the Airport. The City of SeaTac parking tax results in the collection of about $2.0 million a year from on-airport parking. These revenues contribute to fund programmed transportation improvement projects focused on relieving congestion on the surface transportation system in the vicinity of Sea-Tac Airport.

Ms. Brown asked if the results were biased due to the use of "mixing different versions" of the Highway Capacity Manual. The Draft and Final Supplemental EIS were prepared using one version of the Highway Capacity Manual (HCM) – the 1994 version. The Final EIS reflected the use of the 1994 and the 1985 version, because at the time of the analysis, the 1994 version had not been fully accepted by local agencies for the evaluation of signalized and two-way stop controlled intersections. Since the publication of the Final EIS, local agencies have recognized the new methodology of the 1994 HCM. Because the manuals were applied equally to the Do-Nothing and "With Project" alternatives, no bias could occur.

5-H. Regional Origin-Destination (O&D) Traffic: Ms. Monteglas (64WSDOT3) requested clarification if all regional O&D patterns indicate that all traffic begins and ends in the Puget Sound region. Mr. James (HT109) commented that it is difficult to address use of the Airport in regards to O&D patterns.

<u>**Response**</u>: Ms. Monteglas' comments refer to Exhibit 5-1-1. This exhibit was prepared based on the data from the PSRC's adopted 1995 Metropolitan Transportation Plan. Therefore, while traffic may originate outside the region, its O&D point would be reflected through the location where the traffic enters the region (the communities located on the fringe of the region). The origin-destination patterns for each type of airport traffic (passenger, employee, cargo, etc.) is documented in Appendix C-1 of the Supplemental EIS.

5-I. Model Assumptions: Ms. Brown (52AB77,AB78) questioned the accuracy of the traffic modeling assumptions. The ACC submitted concerns (by Smith Engineering) concerning the TRAFFIX Model.

<u>**Response**</u>: The surface transportation models used in the Master Plan Update and EIS were selected in consultation with the Puget Sound Regional Council (PSRC) transportation planning staff. As evidenced in the PSRC's December 9, 1994 letter, the PSRC has reviewed the methodologies and regional transportation data underlying the EIS and concurred with the approach used in incorporating this data. The traffic modeling was performed using professionally recognized methodologies. As the commentor was not specific, no further response could be prepared.

TRAFFIX is an industry recognized model for the evaluation of development proposals. TRAFFIX was used for the EIS surface transportation analysis since it could accommodate a study area of up to 70 intersections, and it could accommodate the annual average growth rates determined from the Puget Sound Regional Council's <u>Metropolitan Transportation Plan.</u> TRAFFIX allows the user to program background traffic (non-Airport) separately from project traffic (Airport), and it includes a signal optimization feature that would allow an unbiased evaluation of future conditions at signalized intersections.

Smith Engineering indicated that TRAFFIX requires extensive user interface, and thus, user discretion to perform the modeling and that such interface induces bias. All models which are used to examine development proposals require user interface, and reflect the users understanding of the surface system, and traffic reaction to that system. The modeling performed for the Final

EIS and the Supplemental EIS reflects the use of consistent assumptions across the Do-Nothing and "With Project" alternatives. Therefore, no bias was introduced to the "With Project".

The ACC's consultants, Smith Engineering, commented that the TRAFFIX is not an adequate model, and that a "focused" model derived from the PSRC Metropolitan Transportation Plan (MTP) model would have been more appropriate. At the beginning of the EIS process, the Surface Traffic Consultant met with various State and local agencies to discuss the modeling approach and protocol In meeting with the PSRC, several options were discussed, including: 1) using the PSRC MTP model; 2) coordinating with the PSRC to develop a "focused" surface traffic model from the MTP; 3) using another surface transportation model (such as TRAFFIX) that incorporates growth trends forecast by the MTP. With PSRC's approval, the TRAFFIX model was identified and growth trends from the MTP incorporated into the model. Options 1 and 2 were not pursued as the MTP model does not provide the level of detail needed for an EIS analysis, and a "focused" model could not be derived without extensive modifications, requiring significant participation by PSRC. Contrary to the commentor's indication, the PSRC and the EIS Surface Traffic Consultant felt that the "focused" model could not have been prepared with the same time, effort, and cost as was involved with the TRAFFIX.

As was indicated by the U.S. EPA's consultant (see letter 45 page 8), which states "In general, the use of the Traffix model was appropriate for this study, and the resulting traffic forecasts for the major roadways appear to be reasonable. A screening-level review of the traffic analysis did not uncover any major flaws that would justify a more detailed review."

5-J. Freeway Analysis: Ms. Monteglas (64WSDOT,5) commented that the freeway analysis does not accurately represent saturated conditions.

Response: The freeway analysis included as part of the surface transportation analysis relied upon the Highway Capacity Manual (HCM) methodology. During the EIS scoping process, reviewing agencies (including WSDOT), selected the HCM methodologies for the freeway analysis. The Draft Supplemental EIS analysis was prepared with WSDOT's concurrence, using the recently updated 1994 HCM methodologies (see response to **comment 5-G**). The HCM methodologies were used consistently throughout the EIS to evaluate the potential surface transportation impacts associated with the Master Plan Update alternatives.

5-K. Ramp Evaluation: Ms. Monteglas (64WSDOT5) indicated that the project will impact ramps on SR 518 and requested mitigation.

Response: The proposed Master Plan Update is not expected to have significant adverse impacts on SR 518. However, as regional surface transportation improvements are undertaken in the Airport area, it is expected that the Port will contribute its fair share toward addressing congestion to which airport traffic contributes. See also response to **comment 2-Y**.

5-L. SR99 Interchange: Ms. Monteglas (64WSDOT3) questioned if the SR99 interchange shown on Page 5-1-21 will be funded by the Port.

Response: The interchange referenced in Appendix C-1 is included in the City of SeaTac's Transportation Improvement Program as project number ST-033. This interchange is not part of the proposed Master Plan Update improvements, and thus, the Port is not the sponsor. No discussions have occurred between the City and the Port concerning funding of this interchange. The City's TIP identifies the cost of this project as $1.25 million and is identified as funded by the Washington State Department of Transportation.

5-M. TIP's: Ms. DesMarais (34L28) questioned which projects listed in the regional or local transportation improvement plans have been approved by their sponsor, the FAA and/or the Port. She also requested that the source of funds for these improvements be identified. Ms. Brown (52Pg33) indicated that "the road improvements on page C-1-23 for year 2000 on Military Road South, South 200th and I-5 will not ease congestion on South 200th.

Response: Appendix C-1 of the Draft Supplemental EIS (beginning on pages C-1-21) identify the roadway projects that have been included in various Transportation Improvement Plans, including those prepared by WSDOT, PSRC, and the City of SeaTac. By issuance of a TIP, it is presumed that the sponsoring agency is recommending the implementation of the actions/improvements in the TIP. In recommending the improvements, it is also presumed that the sponsors considered possible sources of funds. The Port has not made any commitment to implement/fund any actions within a TIP, except for the actions included in the Master Plan Update. In reviewing the City of SeaTac TIP, it was noted that the City is assuming that the Port will fund certain improvements, however, no commitment has been made by the Port of Seattle. Instead, the Port has indicated (as noted on Page C-1-21) that is would fund its pro-rata share of projects. The FAA has made no approvals of projects included in any TIP, nor are any FAA funds expected to support those projects. The MTP approved in 1995 was determined by PSRC to be a conforming plan, under the Federal and State clean air act requirements for CO, Ozone, and PM10. In preparing the MTP, the PSRC conducted substantial amounts of public coordination, including public/agency call for projects, preparation of an EIS, etc.

5-N. RTA: Mr. White (49RTA) summarized the RTA plans and noted that "It is the RTA's belief that location of the Sea-Tac Airport Station (of the light rail system) at the airport terminal will ensure efficient, convenient and reliable transportation…." Ms. Monteglas (64WSDOT3) submitted a similar comments. Mr. Bader (67L15) commented that the RTA plan included in the Metropolitan Transportation Plan is not representative of the current voter-approved plan. Mr. Hoggard (66SeaTac, 1) noted that the "RTA light-rail line…development .. will drive growth further".

Response: Comments noted. However, the Final EIS and the Supplemental EIS reflect a Sea-Tac Airport Station to be located along International Blvd., as this is the preferred location of the City of SeaTac (see EPA comments concerning air conformity), in order to reflect the cumulative impacts of RTA actions. However, a final location is expected to be established through a multi-agency site evaluation process.

Comments from the RTA suggested inclusion of a terminal station location in the Master Plan Update and associated Supplemental EIS. However, this is not an appropriate change. First, the 1995 Metropolitan Transportation Plan (MTP) does not reflect the RTA light rail until after the year 2010. Thus, the MTP does not reflect the revised RTA plan. Because the air conformity analysis requires use of the Metropolitan Planning Organization's (PSRC) most current data, this option is not possible at this time. See also response to **comment 3-L** and **comment 5-O**. Although the light rail system is speculative as to timing and design, an assessment of its impact would also be highly speculative because of the lack of basic information for analysis. It is expected that such a system would relieve roadway congestion to some extent but, would not significantly affect the forecasts for surface traffic activity at the Airport.

5-O. Traffic TDM's: Mr. Abbott (50PSRC-2) and Ms. Monteglas (64WSDOT3) states that the Master Plan and EIS do not include Transportation Demand Management (TDM's), but the Final Supplemental EIS should "discuss specific traffic demand strategies". Mr. Hoggard (66SeaTac,4-8) indicated that the Do-Nothing should also represent TDM strategies to reduce off-airport parking shuttle trips."

Response: The Port of Seattle has been an active participant with other agencies in the region in reducing vehicle trips to the Airport. The Port currently supports a Commute Trip Reduction program which promotes employee transit usage, carpooling, and ride sharing. The Port also supports the approved RTA system as a regional TDM strategy. Continued support for regional programs is expected, such as the regional TDMs in the Metropolitan Transportation Plan. TDM's would be expected to have a beneficial impact by reducing surface transportation congestion.

The commentor also requested that the EIS reflect the RTA use by 2010. Reflection of RTA light rail use in 2010 is not appropriate, as the MTP reflects that this system would not be available until after the year 2010. As the RTA Implementation Plan is currently in draft form (it has not been finalized) and is not incorporated into the MTP, it could not be reflected in the EIS and air conformity analysis.

One commentor suggested "The DSEIS implies that the preferred alternative will limit these courtesy van and shuttle trips (related to off-site passenger parking activity) to 1,320 trips per day; whereas the Do-Nothing alternative assumes that the Airport will allow the courtesy and shuttle vehicles to grow unconstrained to 5,280 trips per day in the year 2010". Currently there are no TDM requirements for commercial shuttle trips occurring from off-site parking lots. The traffic forecasts referred to by the commentor are actually the traffic forecasts of Airport traffic to and from off-site parking lots, and do not include courtesy van or shuttle trips (see Table 5-1-1). The difference between the Do-Nothing and "With Project" traffic forecasts recognize that more passengers will be forced to off-site parking under the Do-Nothing alternative (see response to **comment 5-D**).

5-P. PRT: Mr. Dodge (HT), Mr. Abbott (50 PSRC-2) commented that the EIS did not consider issues such as "the people mover that Raytheon is building and how it could move traffic" (also known as the PRT).

Response: The Final EIS acknowledges in Chapter III (Affected Environment) that the City of SeaTac's Transit Supportive Land Use Master Plan recommends a PRT. In January 1997, the City of SeaTac issued a draft feasibility report for public review. The Port recognizes that this might serve as a Transportation Demand Management action for the Airport area, but does not support the system until it can be shown feasible and sources of funds identified. Thus, inclusion of the PRT in the Master Plan Update EIS and Supplemental EIS would be premature at this time.

5-Q. Document Title: Ms. Monteglas (64WSDOT5) noted that the State Transportation Plan title has changed.

Response: Comment noted. The Final SEIS will reflect the title change.

5-R. Delay at a Location: Ms. Monteglas (64WSDOT5) questioned the delay at the intersection of 28th Avenue South/South 200th Street.

Response: The intersection delay at the intersection of 28th Avenue South and South 200th Street for the year 2000 Do-Nothing was calculated to be 644 seconds and is accurately reported in the Draft Supplemental EIS. Extensive delays were calculated for the southbound left-turn movement.

5-S. Elimination of South 170th Street Access: Mr. Hoggard (66SeaTac,4-5) commented that "The elimination of access from South 170th Street to Perimeter Road was not adequately assessed." Mr. Hoggard (66SeaTac,4-7) indicated that the characterization of impact fees was not correct that the document should "acknowledge that the City's impact fees are based on new development within the community that generates PM peak trips which are projected to use the City's roadway network."

Response: Contrary to the commentors indication, the closure of South 170th Street between International Blvd. and Air Cargo Road was examined in detail in the Final EIS and the Supplemental EIS. Airport traffic was rerouted according to the origin-destination patterns developed for Airport traffic. Regional (non-Airport traffic) was rerouted according to the anticipated destination and the forecast traffic trends. Since most of the rerouted traffic would use South 170th Street to cross the Airport Expressway and the regional highway system, these volumes were reassigned to the existing International Boulevard interchange with SR 518 or the South 188th Street interchange with I-5. In addition, the elimination of the South 170th Street access lead to the identification of the improvements to the intersection of International Boulevard at South 160th Street.

The analysis contained in the Draft Supplemental EIS correctly represented an evaluation of only the peak PM trips that are generated by the project and that use city streets.

5-T. Commission Action: Mr. Kirsch (69ACC) and the Smith Engineering Attachment indicated that in late March 1997, the Port Commission approved various elements of the Master Plan Update relative to ground transportation improvements.

Response: Contrary to the commentors indication, the Port Commission did not take action on proposed ground access improvements in March 1997. A presentation was made before the Commission in late March providing a status report concerning access conditions, and actions that are under consideration to address existing surface transportation issues.

6. AIR QUALITY/CONFORMITY COMMENTS

6-A. Existing air quality - Ms. Pompeo (HT 16), Ms. Clark (HT 21), Mr. Corvari (HT 71), Ms. Richter (HT 73), Mr. Brown (HT 38), Mr. Dorough (10L), Ms. Feckley (22L), Mr. Brown, and Mr. Overholdt & Ms. Chomica (40L) commented that existing air pollution conditions, including jet fuel smells, are bad and getting worse.

Response: Comments acknowledged. Existing air quality conditions are discussed in the Final EIS and Supplemental EIS. Air quality in the Puget Sound Region is generally improving, as reflected by the area's redesignation from non-attainment to maintenance status for Ozone and Carbon Monoxide in the fall of 1996.

6-B. Measurement locations: Ms. Stuhring (21L4) expressed concerns with the location of permanent monitors for particulates, nitrogen oxides, lead, sulfur dioxide. She further requested that "SeaTac Airport provide permanent monitoring stations so the surrounding communities can determine if the ambient air is hazardous to health" Mr. Akers (77L-6) expressed concern that airport emissions are not measured in southeast Seattle.

Response: The State of Washington conducts monitoring in locations where pollutants are typically of concern. The Final EIS discussed the location of air measurements in the Airport vicinity (see Pages D-26 and D-53). The Port of Seattle and the US EPA, Puget Sound Air Pollution Control Agency, and Department of Ecology entered into a Memorandum of Agreement (MOA) to fund an air measurement program in the Airport vicinity. The reason that the Port participated, and provided a significant majority of the funding, was to enable the agencies to become familiar with pollutant levels in the Airport area. Relative to the criteria pollutants, the Port has understood that air emissions in the Airport area are less than the National Ambient Air Quality Standards and are typical of urban air in the Puget Sound. The Carbon Monoxide concentrations, measured in 1996/97 as part of the MOA, demonstrated conclusively that the emissions are less than the NAAQS and are typical of urban areas where automobiles are the primary source. The Port anticipates that the remainder of the measurements will show similar results, indicating that permanent monitors for precursor pollutants are not warranted.

6-C. Fuel Dumping: Ms. Meltzer (HT 74) commented that she has complained about fuel dumping but that FAA has only reported one complaint. Mr. Newby (HT 83) commented that fuel dumping over the residential area is unconscionable. Ms. Meltzer (HT) also commented that the residue discussed does not wash off, and could not be mold. Other concerns with jet fuel dumping were submitted by Mr. Oebser (55RCAA2-3), Ms. Bilz (61L2), Mr. Bader (67L6-1), Mr. Hoggard (66SeaTac,5-2), and Mr. Akers (77L-7).

Response: The response to comment R-10-9 in Appendix R of the Final EIS (Volume 4) notes that fuel dumping is not common and is performed only in emergency situations when aircraft cannot land safely with the fuel present in the aircraft. Prior to the completion of the Final EIS, no fuel dumping incidents had been reported in or around Sea-Tac Airport within the last two and one half years, according to Mr. Tom Davidson, FAA Air Traffic Manager, Seattle Tower. However, based on more recent conversations with Mr. Davidson, he confirmed that one reported fuel dumping incident may have occurred on July 8, 1996. No additional data is available concerning the amount or location of the fuel dumping. Mr. Davidson indicated that fuel dumping incidents are rare. If an emergency incident arises and it becomes necessary to release fuel, the Seattle FAA TRACON personnel recommend that the fuel be dumped over non-populated areas. In addition, the cost to the airlines of unnecessarily fuel dumping would also be prohibitive due to the high cost of fuel.

In instances where fuel is dumped, the evaporative nature of fuel results in it evaporating before it reaches ground, as aircraft are at an altitude above 3,000 feet as they are vectored to return or land at Sea-Tac. No information exists concerning the quantity of fuel dumped on the July 8, 1996 incident.

As is noted in the Final EIS, testing was conducted of residue identified by area residents due to concerns with fuel dumping and engine exhaust residue. The lab testing indicated that the material is essentially biological, consisting of mold and bee pollen. This material was found to have an oily consistency, which would account for it being difficult to remove from certain surfaces.

The Noise Office at Sea-Tac Airport receives comments and complaints concerning aircraft noise and other airport nuisance issues. About 2-3 calls per month note issues with jet exhaust, fuel smells, and/or concerns with fuel dumping.

6-D. Traffic Levels: Ms. DesMarais (HT 48) stated "I want to know why there are less cars on the road when all of the predictions for vehicle miles traveled and single passenger autos in the future are going to increase .. " Ms. Brown (HT55,52Pg7) questioned why the "With Project" would result in less air pollution when it would result in greater levels of traffic. Congressman Smith (33L) states "the SEIS neglects to explore the third runway's impact on air ….. quality."

Response: The analysis presented in the Final EIS and the Supplemental EIS reflect the Puget Sound Regional Planning Commission's estimate of how regional traffic levels are anticipated to change in the future. The PSRC projections indicate that regional roadway traffic levels will increase in the future. While vehicular travel is anticipated to increase in the future, vehicle emission levels are anticipated to decrease, resulting in lower pollutant emissions. See also response to **comment 5-D** above concerning why total airport traffic levels are less with the "With Project" than the Do-Nothing.

The air quality analysis presented in the Final EIS and Supplemental EIS reflects the requirements of the National Environmental Policy Act, Clean Air Act Conformity regulations, and EPA guidelines. As is discussed in the Draft Supplemental EIS, the reduction in congestion (aircraft and surface traffic) would result in the "With Project" producing less pollution even though a greater level of traffic would be accommodated during the peak hour in comparison to the Do-Nothing.

6-E - Combined into another comment/response

6-F. Aircraft engines: Ms. Brown (HT 70) stated "the only way that we could get those numbers was to assume one of the planes was only flying with one engine and was a DC9, and we know those fly with two.." Ms. Brown (52AB32,AB44) also indicated that the "pollution calculations are underestimated" using "a realistic fleet mix, all aircraft engines being used in flight, and a realistic landing/takeoff cycle time" (LTO). Ms. Brown (52AB109) asked how runway use affects the pollutant calculations.

Response: The air and noise modeling of various aircraft types reflected the appropriate number of engines that operate on these aircraft. The fleet mix used in the analysis reflects the accurate fleet mix for peak hour, peak month average day, and average annual conditions in accordance with the activity actually occurring at Sea-Tac. In addition, the LTO cycle, as defined by the EPA emission factors were used. It is believed that the commentor has compared the LTO time in mode information listed in the Final and Supplemental EIS to the time in mode information listed in EPA's document AP-42 for a typical airport. The times listed in the AP-42 document were prepared by the EPA in the 1970s and, in certain circumstances, no-longer reflect true aircraft operating times. As a result, the FAA's 1995 Capacity Enhancement Update was consulted to obtain correct operating times in the delay/idle mode. The approach and climbout time in modes were altered to reflect the Sea-Tac specific mixing height (the vertical mixing of pollutants), as defined in EPA guidance. Takeoff time, as reported in AP-42 reflects current operating times, and thus were employed in the analysis.

A review of the EDMS air quality model was performed to determine the number of engines applied to the DC 9 and DC 10 aircraft. The version of EDMS used in preparing the Final EIS and Supplemental EIS reflects the appropriate number of engines in use on these aircraft types (2 engines for the DC9 and 3 engines on the DC10).

Runway use affects the air pollution evaluation, as the usage defines where aircraft taxi to and from and the amount of activity to a specific location. Because of these effects, runway usage was reflected in the environmental analysis presented in the Final EIS and Supplemental EIS.

6-G. Particulates: Ms. Basareb (HT 79) stated "The air pollution has not measured and is not measuring particulates, which is one of the biggest things that the airport dumps....." Ms. Brown (52A32) commented "No particulate is estimated in the EDMS 944 model. Particulates are significant and should be calculated." Similar comments were submitted by Mr. Oebser (55RCAA,2-1ab,2-7), Mr. Bader (67L6-1), Mr. Hoggard (66SeaTac,5-1), and Mr. Kirsch (69ACC,Pg 4.24).

Response: As is discussed in the Final EIS and the Draft Supplemental EIS, detailed consideration was given to particulate emissions, as measured by PM_{10}, from construction activities. To show a worst case condition, arid summer conditions (using modeling assumptions from Spokane) were used to evaluate construction related emissions, as discussed in the construction sections of the documents.

Although more particulate data was included in an earlier EDMS version, the FAA has indicated that this data was not accurate. Therefore, the aircraft emissions standards included in the EDMS used in the air quality analysis for the EIS was revised by the FAA to include only that data for which reliable particulate information is known. The FAA and EPA have not updated the particulate data because no reliable data on aircraft particulate emissions is available to incorporate into the model. Coordination with the air quality agencies as part of this EIS indicated that they are aware of the limited availability of particulate data for aircraft sources.

6-H. Air Measurements: Mr. Oebser for Congressperson Keiser (HT 30) commented that "It specifically relies on computer modeling. For example, to date, no conclusive canister testing -- testing the air you breathe -- has been completed." Concerns with the lack of actual air measurements were also expressed by Ms. Basareb (HT 79). Mr. Anderson (71L) commented that actual air measurements in the Sea-Tac area exceed "any other location in King County by a factor of 2".

Response: The analysis presented in the Final EIS and the Draft Supplemental EIS was prepared in accordance with the requirements of NEPA and SEPA, as well as the EPA's conformity rules, using EPA approved computer models. As the commentor notes, until 1997, insufficient information existed concerning actual air pollutant conditions in the airport area. As a result of the 1996 Memorandum of Agreement between the US EPA, Puget Sound Air Pollution Control Agency, Department of Ecology, and Port of Seattle, measurements are being undertaken. Initial results of the Carbon Monoxide measurements, the only measurement conducted at the publication date, were discussed in the Draft Supplemental EIS. These results show that Carbon Monoxide levels are typically much less than the predictive modeling results that were used in the Draft Supplemental EIS and conformity analysis would suggest. See also response to **comment 6-B**.

6-I. Governors Certificate: Mr. Oebser for Congressperson Keiser (HT 31,32) and RCAA (2-5) commented that a Governor's certificate had been issued by the Department of Ecology, whereas the regulations require issuance by the governor. Mr. Wagner (56L) commented that the certificate is "1)conditional; 2)deferred to an alternative state agency which does not have the federal authority....3) was submitted to the wrong official"

Response: 49 USC 47106(c)(1)(B) requires that a certificate be issued by the "Chief Executive Officer" of the State for projects involving a new parallel runway. As with many state functions, the governor (as the Chief Executive Officer) can delegate tasks to appropriate departments under state law. The Department of Ecology has indicated that Governor Lowry delegated this responsibility to Ecology, under his authority by state law. This type of delegation has been used for other certificates issued within the State of Washington as well as in other states, in accordance with FAA Order 5050.4A Paragraph 47(e)(5)(e)2. In addition, conditional governor's certificates are not unusual.

The delegation of responsibility for environmental certifications to the state Department of Ecology (known as Ecology) is fully consistent with state law. In creating Ecology, the Washington State Legislature granted Ecology broad powers with regard to the air and water resources of the state. The enabling legislation for Ecology states: "it is the purpose of this chapter to establish a single state agency with authority to manage .... our air and water resources .... and to carry out a coordinated program of pollution control involving these and related land resources." (RCS 43.21A.020. See also RCW 43.21A.150 (grants Ecology authority to work with the Federal government in the study and control of environmental problems), RCW 43.27.090 (granting Ecology board powers with regard to water quality standards and regulatory programs), and RCW 70.94.331 (granting Ecology broad powers with regard to air quality standards and regulatory programs, including the responsibility for coordinating with the Federal government with respect to the control of air pollution).

6-J. Construction: Ms. Stuhring (21L5) asked if "the Draft SEIS considered the increase in car and truck engine emissions while idling in slowing heavy traffic" Ms. Brown (52AB89,AB90,AB91,AB92,AB93,AB108) expressed concern with the construction air pollution evaluation and impacts and the effects of "strip mining". Mr. Kirsch (69ACC,Pg4.21-4.22) commented that construction equipment must be definable and emissions quantified.. Mr. Clark (EPA) also expressed that inadequate consideration was given to other construction vehicle emissions.

Response: In the air quality analysis, the impact of slower moving traffic due to congestion was considered, based on the surface transportation analysis. The Supplemental EIS gave detailed consideration to construction related pollution levels. As is noted in the Supplemental EIS, Appendix B, a construction emissions inventory was prepared that quantified the emissions from construction haul, earth movement/excavation and construction employee traffic. Section 5-4 "Construction Impacts" presents the detailed air quality dispersion evaluation that was prepared for the construction activity. As this analysis shows, populations exposed to pollutant concentrations were considered, along with all other pollutant sources, which indicated that concentrations are well below the National Ambient Air Quality Standards.

For purposes of this response, it is assumed that the commentor is referring to the excavation of fill from the on-site sources as "strip mining". The Final EIS, Chapter IV, including but not limited to Section 19 "Earth", Section 23 "Construction Impacts", as well as the Supplemental EIS Section 5-4 "Construction Impacts" contains a detailed discussion of the impacts associated with the on-site borrow sources.

The EPA comments concerning construction emission are partially correct, in that other construction vehicle emissions were not directly itemized, as they had been accounted for in the overstatement of emissions from haul, employee and earth moving emission, as verified by several sensitivity tests. In calculating the emissions from construction activities, three evaluations were performed: 1) emissions from vehicles using MOBILE5A emission factors (for on-road movements, including employees and material delivery); 2) emissions from earth movement activities (using time of operation and EPA emission factors)[1] including activities associated with the embankment and movement of fill within the construction sites; and 3) use of other construction equipment for non-site preparation activities (using time of operation and EPA emission factors). A review of the Master Plan Update staging, as defined in Table 2-7 of the Supplemental EIS, shows that construction activity will be at a peak between 1999 and 2001. Further, the haul related to the Third Runway will be at its peak in year 2000. Therefore, year 2000 would result in the greatest quantity of construction emissions.

As is noted in the Final EIS and Supplemental EIS, a range of construction possibilities exist, and a final construction plan for the Third Runway will not be developed until contractor(s) are selected to supply the fill needed for the embankment. However, two scenarios were examined in the Final EIS/Supplemental EIS: Option 1: Maximum use of on-site material and Option 2: Maximum use of off-site material. To test the impact of alternative ways of completing the construction activities, four cases were evaluated. To avoid confusion with the options described above or the Alternatives considered in the EIS, the construction cases were re-labeled as Case A through Case D.

		Annual Tons		
	Construction Methods	CO	NOx	VOCs
A	Maximum off-site sources (Option 2) using average annual trips, fill placement, construction employees, average terminal/landside construction	70	114	14
B	Maximum on site fill with movement from 2 on-site sources (Option 1, average hour off-site truck trips), fill placement, construction employees, average terminal/landside construction,	55	94	11
C	Maximum off-site material delivery (Option 2 - using 16 hours of peak hour truck trips) with all emissions occurring in Region, Maximum on-site material delivery (Option 1), fill placement, construction employees (Because this scenario overstates material needs by 50%, this accounts for emissions by other construction equipment sources).	99	118	18

[1] *Nonroad Engine and Vehicle Emission Study*, EPA Office of Mobile Sources, October 1991 and data available on the Internet through EPA.

D	Maximum off-site fill (Option 2), accounting only for emissions in the Region, fill placement, construction employees, average terminal/landside construction (other equipment)	42	72	8

Case C was used as the basis of the construction emissions estimates in the Draft Supplemental EIS and the Updated Draft Air Conformity Analysis, because it represented the highest emissions of any of the four cases evaluated. In its comments, EPA questioned the use of this case because it did not specifically include any emissions from "other construction" equipment. As noted in the table above, Case C substantially overstates the amount of fill that will be needed for the entire Master Plan Update improvements, and the related emissions because it assumes two mutually inconsistent options for getting the needed fill: maximizing fill from both on-site and off-site sources at the same time. This case is not plausible, because if the Port actually maximized getting fill from on-site and off-site sources at the same time, it would obtain about 50% more fill than will be needed for project construction. By substantially overestimating the fill related emissions, this case already incorporates worst case assumptions without specifically accounting for "other construction" equipment.

Because Case A is the plausible case with the highest construction emissions, consideration was given to using it in the Final Supplemental EIS and Final Conformity Analysis. Nevertheless, with EPA's verbal concurrence, Case C was continued to be used because it reflects the highest emissions of any case evaluated. This ensures that worst case assumptions are reflected in the Final EIS and Conformity Analysis.

6-K. SIP: Ms. DesMarais (34L6) questioned how the emissions inventory was prepared that is contained in the SIP and Maintenance Plan.

Response: Neither the FAA nor the Port of Seattle prepared the SIP. Questions concerning the specific information used in preparing that data should be directed to the Department of Ecology and Puget Sound Air Pollution Control Agency. Appendix R of the Final EIS attempts to reconcile the SIP emissions inventory with the emissions inventory prepared for the Final EIS.

It is the FAA's and Port's understanding that automobile emissions in the SIP/Maintenance Plan do not differentiate between airport and non-airport emissions. As a result, since the only sources which are clearly airport emissions are associated with aircraft, the EIS contrasts SIP aircraft emissions data with the aircraft emissions data prepared for the EIS.

6-L. Conformity -- process: Ms. DesMarais (34L7) stated "Summary says that CO AAQS violations will occur but the FAA does not believe they are subject to a general or transportation conformity determination....Why does the FAA believe they are exempt..."

Response: The Final EIS and Supplemental EIS (Appendix B) discuss Transportation Conformity and its relationship to the air conformity analysis prepared for these studies. The modeled Carbon Monoxide violations of the AAQS are predicted to occur based on conservative assumptions regardless of whether or not the Master Plan Update improvements are implemented. As a result, conformity can be demonstrated under two conditions: the de minimis levels are not exceeded or concentrations do not exceed the Do-Nothing levels. As is noted above, the results of CO monitoring in the Airport vicinity show ambient air concentrations well below those predicted by modeling and consistent with other urban areas in the Puget Sound Region. Thus, although the modeling is used to predict future conditions, there is a safety factor built into the modeling assumptions.

6-M. Boeing Field: Ms. Brown (52AB12,AB13) asked "Aren't their exceedances or larger exceedances in pollutants such as nitrogen oxides if Boeing Field is considered?" A similar comment was submitted by Mr. Akers (77L12).

Response: Emissions from Boeing Field are accounted separately in the SIP/Maintenance Plan. Concentrations of pollutants from Boeing Field would not be expected to influence pollutant concentrations in the Sea-Tac vicinity. Additionally, as noted in the response to **comment 6-N**, regional scale pollutants such as Nitrogen Oxides are more affected by area-wide loadings than site specific conditions. The analysis of pollutants from BFI was appropriately done in the SIP.

6-N. NO2 Violations: Ms. DesMarais (AirL8) expressed concern that the project would create a NAAQS violation "at 188th in 2010" and that the "South 154th Street exceedance is a new violation recently discovered and is directly related to increased aircraft operations..." She also expressed concern "since the last digit is not printed." Ms. Brown (52AB103) indicated similar concerns.

Response: The proposed improvements would not create a new modeled exceedance of the Nitrogen Dioxide (NO_2) ambient air quality standard. The analysis presented in the Supplemental EIS shows that with the worst case assumptions used in the evaluation of the Do-Nothing, modeled exceedances of the NO_2 standard could occur. For all locations that are modeled to exceed the standard, the Do-Nothing concentrations of NO_2 are greater to or equal to the "With Project". Thus, no new exceedances are modeled to occur. At three locations (Receptors 5a, 9a, and 188th Street-west) where the NO_2 standard is not expected to be exceeded, the "With Project" could result in a slight increase over the Do-Nothing, but would not result in an exceedance of the standard.

Additionally, NO_2 has been recognized by EPA to be a regional scale pollutant for which it is not appropriate to model localized impacts. As stated in the preamble to the general conformity regulations (40 CFR Par 93):

> "The EPA believes that, as a technical matter, application of existing air quality dispersion models to assess project level emission changes for these regional scale pollutants (ozone & NO_2) is generally not appropriate. That is, photochemical grid models are generally not sufficient to assess incremental changes to areawide ozone concentrations from emissions changes at a single or group of small sources. Emission changes should amount to some significant fraction of base emissions before photochemical grid modeling results can be interpreted with sufficient confidence that the results are not lost in the noise of the model and input data" *58 Federal Register 63214, 63244 (November 30, 1994)*

Additionally the Puget Sound area complies with the NO_2 standard. The air agencies have discontinued sampling for NO_2 in the Region because the standards have never been exceeded. There is no technical basis for concern that the standard is about to be exceeded and no legal need to show conformity for this pollutant.

6-O. Weather effects: Ms. Brown (52AB104) asked why winter temperatures were used and how summer temperatures would affect the modeling.

Response: The air quality modeling was performed in accordance wit h conservative guidelines established by the U.S. EPA. The Final EIS includes a general discussion on typical conditions during which poor air quality may result within the Region. The discussion notes that high concentrations of Carbon Monoxide typically occur during November through February, during the colder winter months that are often accompanied by stable atmospheric conditions which reduce pollutant dispersion. Carbon Monoxide in particular is emitted by incomplete combustion during colder weather when engines operate less efficiently. Ozone levels are the highest on hot summer afternoons from mid-May to mid-September. Ozone is created from a complex series of atmospheric reactions when hydrocarbons and Nitrogen Oxides accumulate in the atmosphere and are exposed to sunlight. Ozone can often form miles from the pollutant sources. A comprehensive evaluation of ozone would, therefore, require consideration of all major sources within the entire Puget Sound Region. Accordingly, a proposed project's potential contribution to Ozone production is typically evaluated by examining emissions of the precursor pollutants VOC's and Nitrogen Oxides. Therefore, NO_2 concentrations would be higher during summer conditions, yet Carbon Monoxide levels would be lower.

6-P. Receptors: Ms. DesMarais (AirL6-7) states that the "DEIS did not choose the highest receptor from the screening analysis.." Ms. Brown (52AB107) commented that the receptors "do not adequately reflect (1) the significant number of intersection take-offs that are planned (2) the data from either end of the new proposed runway or (3) the new end of 34R runway". Mr. Hoggard (66SeaTac,12-10) requested clarification of the air quality impacts on 4(f) properties.

Response: In preparing the analysis, significant coordination was conducted with the U.S. EPA, Puget Sound Air Pollution Control Agency, Washington Department of Ecology, and the Puget Sound Regional Council. The selection of receptors was based on compliance with EPA modeling guidelines, as well as communications from the air agencies. See response to **comment 6-N** concerning EPA comments concerning conformity use of models. Locations on the airfield were not used, as the sites are subject to airport security requirements and do not represent locations subject to the national ambient air quality conditions. Also see response to **comment 6-Z**.

As the air quality analysis shows, the proposed improvements are not anticipated to create new exceedances of the ambient air quality standards nor are they expected to exacerbate predicted exceedances. Specific DOT 4(f) properties were not modeled for air quality concentrations. However a review of the air pollutant contours, as well as roadways with the greatest traffic levels, indicates that pollutant levels at DOT 4(f) sites would be substantially less than at the sites evaluated. This approach is supported by EPA air modeling guidelines.

6-Q. Future: Mr. Oebser (55RCAA2-4) questioned if pollutant emissions would increase each year through 2010. Mr. Kirsch (69ACC,ES-4,4.22-4.23) stated "it is preposterous to assert that air pollutants emitted by aircraft during take-offs would decrease even through the number of departing aircraft will increase." Mr. Oebser (55RCAA,2-6) questioned that NOx emissions do not rise proportionately. Ms. DesMarais (L2-4) commented that with greater aircraft operations the total tonnage of aircraft emissions of NOx do not differ substantially, raising questions concerning the credibility of the analysis.

Response: The projected change in emissions in the future will vary by source and pollutant type. If aircraft operations and surface traffic activity were held constant, emissions would be expected to change as follows:

- Emission reduction requirements for autos would result in a slight reduction each year of auto emissions;
- CO emissions for aircraft would decline annually, as newer aircraft are transitioned into the fleet;
- NOx emissions would slightly increase annually, as noise reduction technology and more efficient combustion in newer aircraft would result in an increase in these emissions;

However, as is noted in the Final EIS and the Supplemental EIS, activity is not anticipated to remain constant. As activity increases, and either the Do-Nothing occurs or the "With Project" actions are implemented, changes in the time sources operate in a specific mode also occurs.

The quantity of emissions associated with aircraft activity is based on the total quantity of aircraft operations, in proportion to the time that the aircraft operate in specific modes (the landing-takeoff cycle). These modes of operation are characterized by: landing, climbout, takeoff and taxi/idle/delay. As is shown in Appendix C-2, of the entire time in mode cycle, aircraft operate in the landing, climbout and takeoff portions of the cycle 4.95 minutes versus 16.01 minutes for taxi/idle delay in the Do-Nothing. The "With Project" alternatives would result in the same time in the landing, climbout, and takeoff modes, but 3.34 minutes less in the taxi/idle/delay modes due to the benefits of the proposed improvements. Therefore, while total operations "With Project" are 9% greater in year 2010 than the Do-Nothing, the 20% reduction in the delay/idle/taxi mode would largely offset the added emissions from higher total activity levels.

6-R. Future standards: Mr. Oebser (55RCAA,2-1de) requested discussions of the EPA's proposed standards for ozone and PM2.5.

Response: In late 1996, the U.S. EPA announced its proposed rulemaking for new ambient air quality standards for Ozone and Particulate Matter. As these standards have not been formally adopted by EPA, they are not applicable for consideration as part of this Supplemental EIS or the air conformity analysis.

Based on consideration by independent scientists and literature search, the EPA has announced proposed new national ambient air quality standards for particulate matter and ground-level ozone. *In their press release announcing the standards, the EPA Administrators stated that "The EPA proposal would provide new protection to nearly 133 million Americans, including 40 million children.....* Particulate matter (PM) or soot, comes largely from combustion from sources like power plants or large incinerators. Ozone is primarily the haze of chemicals from car exhausts and smoke-stack emissions that shrouds many cities on hot summer days."

Currently, the EPA has national ambient air quality standards for Ozone, Carbon Monoxide, Nitrogen Oxides, Lead, Particulate Matter of 10 microns or greater, and Sulfur Oxides. The proposal would establish standards for Particulate Matter of 2.5 microns in diameter, as well as standards for coarse particle pollution. The EPA is considering a 24-hour PM2.5 standard ranging from 18 to 65 micrograms per cubic meter ($\mu g/m^3$), and an annual PM2.5 standard of between 12.5 and 20 $\mu g/m^3$. In addition, the current annual PM10 standard would be retained, but become more stringent at 40 ug/m^3 in contrast to the current standard of 50 $\mu g/m^3$. The EPA also proposes to increase the stringency of the Ozone standard, which is currently 0.12 parts per million (on a 1 hour measurement) to 0.08 parts per million over eight hours.

It is not clear whether or when the proposed rule will be promulgated. It will be implemented through amendment to the State Implementation Plans (SIPs) for these pollutants. If the rulemaking stays as scheduled, the revised SIPs would be due in 2002 for particulate matter and in 2000 for ozone control strategies and that deadlines for achieving full compliance would occur several years thereafter for both types of pollution. The control strategies and deadlines for achieving compliance would be outlined in those SIPs. Therefore, it would be premature to speculate on the outcome or impact of the proposed changes to the NAAQS at this time.

6-S. De-Minimis Finding: Mr. Oebser (55RCAA,2-8) indicated that the project was significant and shouldn't be able to demonstrate de-minimis. Ms. DesMarais, Ms. Brown, Mr. Clark (EPA), Mr. McLerran (PSAPCA), Mr. Williams (DOE) expressed concern with errors in the emissions inventory and the effects of those errors on the ability to demonstrate de-minimis. In light of this issue, EPA and PSAPCA suggested that the public be provided the opportunity to comment on the final conformity analysis.

Response: The EPA's consultant SAIC identified three key areas of concern with the assumptions made in the Draft Supplemental EIS air quality conformity analysis regarding: Use of temporal factors (temporals), use of surface traffic emission factors, and construction emissions. Based on their review of these issues, the agencies questioned whether the proposed improvements would be under the de-minimis levels identified in the general conformity regulations (i.e., less than 100 tons increase for CO, NOx, and VOC). In response to these issues, the air quality analysis was reviewed and errors corrected. As part of preparing the revised analysis, the EIS air quality contractor re-examined over 17,000 data elements input into each emissions inventory computer model. As a result, several other data elements were also corrected. In general, the issues identified by SAIC resulted in an increase in emissions, and for the year 2005, resulted in an increase in the 2005 "With Project" emissions. The EIS air quality contractor found several other errors or inconsistencies, some of which increased emissions for the "With Project" alternative, some of which increased emissions for the Do-Nothing, and some of which applied equally to both. In particular, one roadway related error that resulted in an increase in the Do-Nothing emissions for the year 2005. Other errors that were corrected, resulted in minimal effects on emissions, but nevertheless were included in the final analysis. As the revised analysis shows, the resulting comparison of the Do-Nothing and "With Project" show that the proposed projects remain within the de-minimis levels.

The following generally summarize the SAIC comments and how the Final Supplemental EIS analysis reflects these comments:

Temporals: The EDMS model, used to develop the emissions inventory, requires the use of temporals to describe how the peak hour activity relates to average daily traffic, monthly traffic, and annual levels. The temporals used in the Draft Supplemental EIS analysis reflected actual conditions. However, as a result, the annual level of activity was not properly represented in future years for both the Do-Nothing and "With Project" alternatives. The Final Supplemental EIS includes a revised analysis that reflects accurate temporals, and as a result, the annual aircraft emissions for the Do-Nothing and "With Project" are greater than the levels presented in the Draft Supplemental EIS. It is important to note that limitations on the format of temporal data results in the Final Supplemental EIS analysis reflecting a slightly higher annual activity level than is forecast (for example, only 474,000 annual operations are forecast "With Project", but EDMS limitations forces the model to over-estimate at 476,018 annual operations due to decimal place limitations of the temporals). This overestimation occurs for all years and all scenarios. However, because of the divergence between the Do-Nothing and With Project activity levels in year 2010, the EDMS annual activity levels provide an over statement of the differences (460,352 operations in the Do-Nothing and 476,018 under the "With Project").

In addition, SAIC noted that the peak hour takeoff levels were incorrectly input by a fraction. These temporals were also corrected.

EDMS use of MOBILE5A Emission Factors: The EPA's consultant noted that the Draft Supplemental EIS analysis for year 2005 reflected conflicting surface vehicle emission factors between the Do-Nothing and "With Project". The EDMS only used surface vehicle emission factors for years 2000, 2010, and 2020. The Do-Nothing analysis reflected use of year 2000 factors whereas the "With Project" reflected year 2010 factors, and as a result the Do-Nothing emissions were overstated relative to the "With Project". In correcting this error for the Final Supplemental EIS, the year 2000 surface vehicle emission rates were used for both the Do-Nothing and "With Project".

While performing quality assurance on the remainder of the data files, the air quality contractor also identified corrections to the year 2005 and 2010 roadway volumes for the Do-Nothing and "With Project" alternatives. The most significant correction was correcting the omission of 8,000 vehicles to a roadway link for the year 2005 Do-Nothing alternative. The automobile related emissions for 2005 Do-Nothing in the Final Supplemental EIS were increased to account for this omission. Other less significant changes include: 1) corrections to the roadway speeds for the

2000 Do-Nothing, and the 2005 and 2010 Do-Nothing and "With Project" alternatives 2) corrections in the data input concerning roadway geometry for selected links in the 2005 and 2010 "With Project" alternatives; 3) correction of inputted parking lot volumes for all years and all alternatives; 4) correction of the inputted heating plan temporals for all years "With Project" alternatives; 5) correction of inputted tank farm temporals for all years and all alternatives; 6) corrections to the inputted temporals for surface coatings temporals for years 2005 and 2010 for the Do-Nothing and "With Project" alternative.

Construction Emissions: The EPA's consultant reviewed the construction emissions alternatives and commented that the alternative selected included borrow source equipment, employee traffic, and haul traffic, but did not include other construction equipment use. See response to comment 6-J. As is noted, four test cases were developed in preparing the Draft Supplemental EIS. Case C was presented in the Draft Supplemental EIS as it represented the worst-case emission, and because it overstated emissions from the haul/borrow activities by about 50%, the test cases showed that the overestimation would account for the "other" construction emissions. Case C was retained for comparative purposes for this EIS.

Final Emissions Inventory: Based on the complete re-evaluation (quality assurance) of the data used in the Draft Conformity Analysis, a final emissions inventory was produced. Because some of the data affected the results of the EDMS dispersion analysis, the screening and refined evaluation was re-assessed. As shown in Section 5-2 "Air Quality" and Revised Appendix B, the dispersion analysis did not change significantly.

Year	CO	NOx	VOC
2000			
Operating	(127)	(28)	(12)
Construction	99	118	18
Total	(28)	90	6
2005			
Operating	(315)	(16)	(61)
Construction	100	14	12
Total	(215)	(2)	(49)
2010			
Operating	(224)	16	(75)
Construction	92	48	14
Total	(132)	64	(61)
De Minimis (maintenance area)	**100**	**100**	**100**

Under EPA's general conformity regulations, a conformity determination is required only for pollutants for which the area is non-attainment or maintenance, and where project related impacts exceed the de-minimis thresholds. The Puget Sound Region is maintenance for CO and Ozone; therefore, the conformity issue is relevant for CO and the Ozone precursors (NOx and VOCs). The de-minimis threshold for each of these pollutants is 100 tons. As is shown above, the revised emissions analysis shows that the project will not increase emissions above the de-minimis levels. A more detailed discussion of the changes are contained in Attachment E to the Conformity Analysis (presented in Appendix B).

The FAA has concurred with the agency's requests for a public review of the final conformity analysis. As a result, a 30-day review and comment period on the Final Conformity Analysis will be available.

6-T. Criteria Pollutants: Mr. Kirsch (69ACC,4.24) commented "While CO and NOx may be relevant to ... Conformity ....the DSEIS' focus on these pollutants to the exclusion of others fails to satisfy the requirements of NEPA and SEPA." Pollutants identified of concern are particulates, VOCs, and air toxics.

Response: The analysis for the Final EIS and the Supplemental EIS was prepared for CO, NOx, VOCs, SOx, and particulates. However, with concurrence from the air offices at EPA, Ecology, and PSAPCA, the analysis focused primarily on the pollutants for which the area has been designated maintenance (CO, NOx, and VOCs). An evaluation of air toxics was performed, as is discussed in Chapter IV, Section 7 "Human Health" of the Final EIS. In addition, Appendix D of the Final EIS discusses air toxic monitoring efforts that have been conducted by the Port and other agencies.

6-U. Traffic Analysis: Mr. Clark (EPA-3) suggested that the Final Supplemental EIS should assure "that the planning assumptions used in the Traffix model are consistent with planning assumptions" from the PSRC, the City of SeaTac and others.

Response: As is discussed in detail in Appendix C-1 of the Draft Supplemental EIS, the surface traffic analysis reflects 1) the planning data and assumptions prepared by the PSRC – the Metropolitan Planning Organization for the region; 2) the Transportation Improvement Programs of various local jurisdictions, including the City of SeaTac. However, as is noted in the comments from Ms. Monteglas (WSDOT) not all of these regional roadway improvements are acceptable to WSDOT (see response to **comment 5-L**). Extensive coordination was conducted with PSRC to ensure compatibility and consistency of the data and methodology used in preparing the surface transportation analysis. The forecasts obtained from the PSRC transportation planning model were compared with the anticipated growth identified in the land use elements of neighboring jurisdictions comprehensive plans, and adjusted as necessary.

The largest area of concentrated growth in the vicinity of the Airport is located within the City of SeaTac's Aviation Business Center designation, south of the Airport. As is noted in Appendix C-1 (page C-1-32), the anticipated growth in the area was included separately and in addition to the growth trends forecast by the PSRC transportation model.

6-V. Traffic Analysis: Mr. Williams (DOE) suggested "A discussion specifically identifying the major access routes to the existing airport, the major access routes under the master plan including access to the north terminal, and the traffic volumes on those routes both with and without the project would be helpful." And "The truck activity associated with the fill for the third runway should be described in better detail... A description of the number of trucks per hour on the haul routes within the airport environs would be useful."

Response: Much of the requested descriptions of access routes are available in the Final EIS and the Draft Supplemental EIS in the appendices. Additional text has been included in the Final Supplemental EIS describing passenger and cargo vehicular access to the Airport.

No additional data can be provided at this time identifying the specific levels of haul that will occur on a final selected haul routes, as the routes will be selected as a result of the material delivery bids. Therefore, the Final EIS and the Supplemental EIS present worst case evaluations, assuming the maximum levels of traffic on any one roadway. Extensive detail is provided in the Supplemental EIS in Section 5-4 "Construction Impacts" concerning haul traffic levels on area roads. Table 5-4-5 lists the intersection level of service ratings associated with three haul volume alternatives, for all haul route alternatives. See also response to **comment 8-F**.

6-W. Final Conformity Process: Mr. Clark (EPA) and Mr. McLarren (PSAPCA) suggested that the public and agencies be given another opportunity to comment on the final conformity analysis in light of the issues above.

Response: Under the general conformity regulations, no public process is required if the agency can show that the project's emissions do not exceed the de-minimis threshold. The Port and FAA have prepared the more detailed analysis so that the impacts and benefits of the project are fully disclosed in the Final EIS and Supplemental EIS, as well as the facts and assumptions underlying the de-minimis conclusions are available for review. Based on the comments from EPA and PSAPCA, the FAA and Port have agreed to conduct an additional 30-day comment period concerning the Final Conformity Analysis.

6-X. Input Assumptions - Emissions: Ms. DesMarais (L5) commented that inaccurate peak hour aircraft operations were used in the analysis.

Response: The peak hour of aircraft activity has been accurately evaluated in the Final EIS and the Supplemental EIS. A series of sensitivity tests were performed to ensure that worst-case conditions of aircraft emissions were assessed, as is described in Appendix R of the Final EIS. See also response to **comment 5-E** concerning peak hour surface traffic levels.

6-Y. Pollutant contours: Ms. DesMarais (L7) expressed concern with the pollutant contours presented in the Final EIS, based on runway use. Ms. DesMarais (L8) also indicated that the DOE analysis showed results 100 times greater than the contours.

Response: Pollutant contours were created for the Final EIS using a grid of 400 receptor locations equally spaced at approximately 300 meters (980 feet) apart -- See Appendix D of the Final EIS. The pollutant contours are based on the maximum concentrations according to the worst case wind angle for each pollutant for each receptor location. The worst case wind angle represents the wind direction at which the highest concentration of pollutant by receptor was calculated.

The Final EIS and Draft Supplemental EIS analysis, which identified the worst case wind angle, differs over the 1991 Ecology Study, which was preliminary and considered only three wind directions (North-0, South-180, and Northwest-345). Because the Ecology Study only considered three wind directions, it may not have identified worst-case conditions. However, both studies confirmed that the highest aircraft related pollutant concentrations occur closest to the Airport. The pollutant contours indicate that pollutant concentrations from airport activity gradually decrease with distance from the Airport and the highest concentrations occur next to the Airport.

The receptors modeled for the Draft Supplemental EIS analysis were located off the ends of the runways or at the edge of Airport property ("fenceline") – or at the closest publicly accessible locations possible. The selection of receptors was based on compliance with EPA modeling guidelines, and were identified in consultation with the EPA, DOE, and PSAPCA.

The 1991 Ecology study screening analysis predicted one-hour average concentrations of 9 ppm NO_2 for a receptor location on South 154th Street. The Ecology study notes that a one-hour average standard does not exist for NO_2 and is therefore not comparable to the annual NO_2 standard. The DOE study also notes "it is expected that a more refined study with actual meteorological data and variation of temporal factors would reduce, on an annual basis, the predicted value ten-fold, or more – maybe even below the 0.05 limit." See also response to **comment 6-N**.

The results of a screening analysis, such as the one included in the Final EIS, typically overestimate pollutant concentrations and are intended to identify locations of potential exceedances and the need for further analysis. Typically, the results of the refined dispersion analysis are much lower than pollutant concentrations identified by the screening analysis, and reflect a more accurate portrayal of actual conditions.

6-Z. **Modeling Analysis**: Mr. Kirsch (69ACC) submitted a technical analysis that asserted the following:

- The data in the text does not match the results of the modeling (pg 1 of Envirometrics)
- The EDMS emissions inventory failed to include the emissions associated with added delay at roadway intersections (Envirometrics Pg 2)
- Locations of NOx receptors does not comply with EPA guidelines (pg 2)
- Only one year of meteorological data was used (pg 2/3)
- Temporals of "With Project" and Do-Nothing do not match Chapter 2 discussion

__Response__: *Data files*: The data in the text of the Draft Supplemental EIS reflects the results of the modeling, including the modeling data provided to the commentor. For the air quality analysis, two types of EDMS input files were prepared for the emissions inventory and dispersion analysis. The emissions inventories are based on peak departure activity by all aircraft types using the Airport, and aircraft departure delay based on the FAA's Capacity Enhancement Update (see Table C-2-4 of the Draft Supplemental EIS). To maximize pollutant concentrations, the EDMS refined dispersion analysis input files applies as a reasonable worst case evaluation (a test case evaluation) consideration of peak activity and peak hour aircraft departure delay which applies no benefit with a new runway towards reducing departure delay. The commentor apparently applied the input files used in the EDMS refined dispersion analysis to verify the emissions inventory.

The commentor notes that the EDMS model is not capable of estimating emissions from idling surface vehicles. However, as is noted in the Final EIS and the Supplemental EIS, the EDMS is an EPA approved model, and is the only model specifically developed to assess airport situations. Emissions from idling and moving vehicles for all peak hour surface traffic levels are considered through use of average vehicle speeds for both the Do-Nothing and "With Project" conditions. The EDMS model was used to determine which sources represent potential problem sources. As was shown by the Final EIS, and the Supplemental EIS, the primary source of emissions in the Airport area are from surface traffic. As a result of surface transportation congestion, an additional model (CAL3QHC) was used to assess conditions at highly congested intersections in the Airport area. EPA's consultant SAIC specifically commended the use of this model.

Receptor Location: The selection of receptors was based on compliance with EPA modeling guidelines, as well as coordination with the US EPA Region X, Washington Department of Ecology and the Puget Sound Air Pollution Control Agency. See response to **comment 6-Y**. The receptors located to the north of the Airport were located along existing and the proposed future location of South 154th Street, which is considered publicly accessible. The relocation of South 154th Street is needed to address the Runway Safety Areas for 16L and 16R, as well as the Third Runway. The future location along South 154th Street considers the future street location.

Meteorological Data: The refined dispersion analysis is based on the evaluation of five years meteorological data (1988 through 1993) conducted for the Final EIS in accordance with EPA modeling guidance. The Final EIS analysis indicated that the highest pollutant concentrations occurred with use of 1993 meteorological data. Therefore, the Supplemental EIS evaluation focused on use of the 1993 meteorological conditions as a worst case evaluation.

Temporals: The temporal distributions, one of the data inputs required by the EDMS, are based on historic departure activity adjusted to account for peak hour departures, and forecast peak monthly average day activity and annual operations. See response to **comment 6-S**.

6-AB. Taxi Distances/Intersection Departures: Mr. Hoggard (66SeaTac,5-3) noted that the noise analysis evaluated intersection departures, and questioned why the air quality analysis reflected increased taxi-distances and time.

Response: To represent worst-case noise conditions, the noise analysis evaluated the impact of aircraft using intersection departures under the "With Project" once 34R has been extended an additional 600 feet (after year 2010). The reference to intersection departures is the assumption that aircraft not requiring the additional 600 feet for takeoff, will likely use an intersection departure or the existing threshold. However, from an air quality perspective, a worst case condition assumes that the aircraft is required to taxi further to the threshold for departure. Therefore, it was appropriate that this approach was applied to the air quality evaluation for the

"With Project" condition. Further, limitations in the EDMS model do not enable the evaluation of intersection departures in the same manner as is available in the noise model.

7. NOISE AND LAND USE

7-A. Existing Noise: Ms. Gedes (HT 23), Mr. Corvari (HT 71), Ms. Feckley (22L), Mr. Brown, Mr. Rymsza (31L), Ms. Nordhaus (39L), Ms. Overholt (58L), and Ms. Bilz (61L2) expressed concern with existing noise. Ms. Stuhring (21L6), and Mr. Oebser (55RCAA3-6) commented that the existing condition should have been updated to 1996. Mr. Kirsch (69ACC,ES-3,Pg 4.6-4.7) expressed concern the future noise reduction was over stated because 1994 is used as the base year.

Response: Comment noted. Existing noise conditions are discussed in the Final EIS and the Supplemental EIS. See response to **comment 3-L** concerning the NEPA/SEPA comparison.

The noise exposure contours prepared for the Draft and Final EIS reflect conditions during 1994. During 1994, Sea-Tac Airport accommodated 379,000 annual operations (approximately 1,040 average daily operations). In 1996, Sea-Tac accommodated 395,000 annual operations (about 1,082 average daily operations, about a 4% increase over 1994 levels). As is described in the Final EIS, about 80% of the total operations at Sea-Tac were Stage 3 aircraft. By 1996, about 85% of the operations were by Stage 3 aircraft. As a result, it would be expected that noise exposure conditions in 1997 would be less than are shown for 1994. This trend was also predicted by the Part 150 Noise Exposure Maps prepared in 1991, which showed conditions in 1991 and a projection five years into the future to 1996.

7-C. Two Sections: Ms. Stuhring (21L6) asked why the noise analysis was divided into two sections of the Supplemental EIS.

Response: Section 5-3 "Noise Impacts" of the Draft Supplemental EIS presents the results of the noise analysis. Appendix C-3 was provided to enable those with a greater interest in the noise evaluation to review the assumptions used in noise contours for the new forecast, such as fleet mix, runway use, flight tracks, etc.

7-D. NRP Boundary: Ms. Stuhring (21L6) questioned how the Noise Remedy Program Boundary was established and how the new acquisition area will be mapped. A similar concern was submitted by Mr. Kirsch (69 ACC, Pg 5.3) and Mr. Stark (73L2).

Response: The Noise Remedy Program Boundary was established in 1985 under the Part 150 Study by using a combination of existing contours, the noise contour developed for the year 2000 and neighborhood boundaries. It served to determine the residential areas that were acquired (acquisition was completed in 1995), and serves as the boundary for the Port's offering sound insulation to single-family residences. The approach transition area will be implemented if single family residents in that area wish to be acquired. Appropriate mapping will be prepared by the Port if and when a decision is made to implement such a program.

7-E. School Noise: Ms. Brown (HT 63) commented that the EIS should address noise at schools based on when the school is in use. Ms. Nordhaus (39L) commented "they (the Port) have been unwilling to allow an independent evaluator to estimate the cost of noise insulation for the Highline schools.." Ms. Stuhring (21L12) commented that two schools were not considered (7th Day Adventist School and Casey Treat's School). Ms. Brown (52A40) commented that "the Kindercare kindergarten" was not identified. Ms. DesMarais (34L) asked if the Sea-Tac Occupational Skills Center would be relocated. Other school concerns were submitted by Ms. Bilz (61L2).

Response: Four schools were identified specifically by the Draft Supplemental EIS as requiring sound insulation because the project would increase noise by 1.5 DNL or more within the 65 DNL and greater noise exposure contour over the Do-Nothing noise levels. The contour reflects average noise over a 24-hour period, in accordance with FAA guidance.

The Port has offered to fund an independent audit of sound insulation needs. However, the contractor selected by the Highline Schools has a conflict of interest. As a result, the Port refused to fund the effort if it were conducted by that contractor. As noted in response to **comment 4-B**, the Port has continued to offer to sound insulate the noise affected schools.

The schools noted by commentors (7th Day Adventist and Casey Treat's School -- Christian Faith Center, Kindercare) were not listed in any of the public school or private/parochial school directories. As the Port has already agreed to sound insulate schools within a specific area, including the general area identified by the commentor, these schools might be eligible for sound insulation, subject to the conditions placed on all public facilities. The Kindercare facility is considered a day-care facility. According to FAA land use compatibility guidelines (FAR Part 150, Table 1), daycare facilities are not considered noise-sensitive facilities in the same manner as schools, colleges, and vocational centers because their primary purpose is not academic instruction, even though some educational activities may take place. Consequently, daycare centers are not included in the list of noise-sensitive facilities.

The Final EIS and the Draft Supplemental EIS propose that the SeaTac Occupational Skills Center facility be sound insulated to address the significant change in noise that would result from the proposed Master Plan Update improvements.

7-F. Flight Path: Ms. Brown (HT 89) expressed concern that the noise contours do not accurately represent where aircraft fly "because the planes aren't really flying where the noise models assume." Ms. DesMarais (34L5b) questioned "What kind of a degree turn will the large aircraft have to make to reach the old corridor noise abatement line when taking off from the third runway and at the south end ..." Ms. Farley (79L,1) commented that the flight tracks are not shown.

Response: The noise modeling reflected use of the most accurate data available, the FAA's radar data which show actual aircraft movements.

As noted in the Final EIS and the Supplemental EIS, the primary use of the Third Runway is anticipated to be arrivals, but departures could occur. When departing, aircraft would be expected to use the existing departure flight corridors. Aircraft would make the same turn as departures currently use when departing to the south. The location of flight tracks are shown in Exhibits C-22 and C-23 of the Final EIS; as the flight tracks were not altered in the Supplemental EIS, they were not repeated in this document. Conflicts are not expected with departures from other runway ends, as aircraft operational separation requirements would avoid such conflicts. See also response to **comment 7-J** below.

7-G. Project Impacts: Ms. Stuhring (21L6,7), and Mr. Oebser (55RCAA,3-3) questioned the impacts of the proposed Master Plan Update on aircraft noise exposure. Ms. DesMarais (34L9) noted that noise impacts will increase between 2000 and 2010 and questioned what mitigation would be provided. Ms. DesMarais also asked why the impacts increase between 2000 and 2005. Mr. Abbott (50PSRC-3) requested clarification concerning the statement that noise impacts are expected to be less in the future, but areas outside the Noise Remedy Boundary would be affected. Mr. Oebser (55RCAA,3-15) questioned that future noise be less than current, and that the project would "result in slightly greater noise in comparison to the Do-Nothing". Similar concerns were submitted by Ms. Overholt (58L).

Response: The proposed Master Plan Update improvements would result in an 11% greater noise exposure population in comparison to the Do-Nothing alternative in the year 2010. This comparison represents the impacts within 65 DNL and greater noise exposure. Impacts would be 2% less within 60-65 DNL and 33% greater within 70 DNL and greater, as shown in Table 5-6-1 of the Supplemental EIS when comparing "With Project" to the Do-Nothing. In addition to comparing the impact of the "With Project" and Do-Nothing in a specific year, the future impacts were also compared to the existing conditions. As is stated, the year 2010 noise impacts would be about 42 to 46% smaller than existing impacts.

Because the total area exposed (square miles, population and housing) in future years will be less than the existing impacted area, the Final EIS and the Supplemental EIS notes that impacts would be less in the future. While total impacts would be less, some new areas will receive exposure to 65 DNL and greater noise. In a small area, along the northwest portion of the 65 DNL noise contour, the noise contours with the Third Runway would extend beyond the bounds of the existing Noise Remedy Program, resulting in the recommendation to slightly alter the properties eligible for that program. See response to **comment 7-J** below. The Final EIS and Supplemental EIS identify mitigation for areas that would be impacted by the proposed Master Plan Update improvements that are not within the Noise Remedy Program. Noise exposure impacts are expected to increase between 2000 and 2005, with or without the proposed Third Runway, but will be smaller than the existing impacts.

In accordance with Federal Aviation Regulation (FAR) Part 36, aircraft are categorized as Stage 1 (loudest), Stage 2 and Stage 3 (the quietest). The Airport Noise and Capacity Act requires the phase-out of Stage 2 aircraft by year 2000. Stage 1 aircraft were phased-out in 1985. Due to advanced engine technologies and better design, each Stage 3 aircraft produces only a fraction of the noise energy produced by a similarly sized Stage 2 aircraft. To produce approximately the same total noise energy level, it would be necessary to increase the numbers of forecast Stage 3 operations by a factor proportionate to the ratio between the noise energy of the Stage 2 and Stage 3 aircraft. For example, if a Stage 2 aircraft is ten decibels louder than a comparably sized Stage 3 aircraft, ten times as many Stage 3 operations would be required to produce the same total noise level. In locations with mixed Stage 2 and Stage 3 operations, each Stage 2 aircraft removed from the fleet could be replaced by approximately ten similarly sized Stage 3 aircraft without enlargement of the noise exposure area. At Sea-Tac, the forecast increase in operations is approximately 9% between 2000 and 2005. The noise reduction that is resulting from the phase-out of Stage 2 aircraft more than offsets that growth in operations.

7-H. **Des Moines Memorial Drive**: Ms. Stuhring (21L5) commented that Des Moines Memorial Drive (a historic road) should not be used for haul.

Response: The Final EIS notes the presence of the memorial at the corner of S. 156th and Des Moines Memorial Drive. As the historical marker notes, the granite memorial was installed when the original trees, in honor of World War I veterans, were removed when the roadway was widened. Des Moines Memorial Drive is a designated minor arterial and truck route within the City of SeaTac. Use of this road as a haul route would be consistent with that City designation.

Impact of the project (including fill haul) on this road are discussed in the Final EIS and the Draft Supplemental EIS.

7-I. **North SeaTac/Des Moines Creek Park**: Ms. Stuhring (21L7) asked what the impact would be in the future at North SeaTac Park. Mr. Hoggard (66SeaTac,7-6) indicated that inadequate consideration was given to Des Moines Creek Park.

Response: As is shown in Table 5-6-4 of the Supplemental EIS, no significant change in noise exposure impacts (1.5 DNL or greater increase "With Project" relative to the Do-Nothing, within the 65 DNL noise contour) are expected to occur at the North SeaTac Park or Des Moines Creek Park:

Aircraft Noise Exposure

	North SeaTac Park		Des Moines Creek Park	
	Do-Nothing	"With Project"	Do-Nothing	"With Project
Year 2000	71.3	71.3	72.0	72.0
Year 2005	71.0	71.3	71.5	70.5
Year 2010	71.3	71.2	71.7	70.0

Construction activity would not affect noise exposure at North SeaTac Park. As is noted in the Draft Supplemental EIS, beginning in page 5-4-15, haul related noise impacts from the south borrow sources are less than WSDOT standards for construction noise. As is noted, during daytime hours, construction noise is likely to be overshadowed by aircraft takeoff and landing noise. During nighttime hours, parks are not in use and aircraft operations are at a relatively low level. Therefore, during these hours the maximum levels described in the Supplemental EIS would not represent an incompatibility.

7-J. Insulation: Ms. Stuhring (21L7) questioned when insulation of churches and nursing homes would be completed, as well as the removal of the mobile homes. Ms. Stuhring (21L12) commented that the Port has agreed to provide $50 million to insulate schools based on two runways, and would this be expanded based on three runways. Ms. DesMarais (34L5) questioned the area affected by flight tracks to the Third Runway, and why this area would not be subject of insulation or other mitigation actions. Ms. Brown (52A36,A37,A38,Pg14,AB119) and Mr. Oebser (55RCAA,3-32) asked "what are the increased impact considering only 10% of the homes are cold climate (more insulation in cold climate homes)". Other questions concerning insulation were submitted by Ms. Bilz (61L2).

Response: Mitigation identified in the Draft Supplemental EIS indicates that the proposed project would not require the insulation of additional churches or nursing homes, as the project is not expected to cause a significant increase in noise relative to the Do-Nothing at these sites. Expansion of the Noise Remedy Program sound insulation program is proposed, as discussed beginning on Page 5-6-5 of the Supplemental EIS, to address noise from the Third Runway. Because these actions would address the significant impacts caused by the proposed Master Plan Update improvements, no other mitigation is required. The 1993 Noise Compatibility Plan amendments included an effort to insulate other public buildings "Measure M-2b - The Port will conduct a pilot program to sound insulate four public use buildings. The pilot projects will determine the feasibility, procedural requirements, and costs for sound insulation of other use structures."

The Port agreed to provide $50 million in funding to insulate schools currently affected by aircraft noise. See response to **comment 4-B**. As is shown in the Draft Supplemental EIS, noise exposure impacts are expected to decrease in the future relative to current and past conditions. Future impacts with the proposed Master Plan Update improvements are expected to be 42-46% less than current impacts.

The insulation of the schools would be expected to be conducted in accordance with FAA sound insulation guidance. The commentor is correct that in some locations in the U.S., schools have been provided with air conditioning. However, this provision has been based on local temperatures during the school season, and requirements that the windows be inoperable to achieve the needed noise reduction. As a result, during warm weather conditions air handling has been required and, given local temperatures, air conditioning was deemed necessary. Architectural investigations and local conditions at each school determine the specifics of the improvements required to achieve the necessary sound attenuation.

No changes in the impacts would be expected based on "cold climate" issues, as the noise impacts quantified by the aircraft noise analysis reflect outdoor sound levels. Cold climate homes are defined as homes that were built from masonry (brick or stone), as opposed to wood stick frame construction. Generally, brick and stone constructed homes are better insulated than wood frame homes because of the heavier materials used in the construction process. In fact, mason-constructed homes show up to a 20-25 dBA reduction in sound inside as compared to noise outside. For this reason, brick and stone homes do not require noise insulation for walls (older plaster work is much thicker than sheet rock), although they still require insulation on windows and doors. Approximately 10 percent of the housing stock in the impacted areas is constructed with brick or stone materials. Despite the commentor's belief, the homes in the Airport area that are wood frame have been found to provide 10-15 dBA attenuation of noise, without sound insulation. The attenuation capability of homes in the area were not used in defining the Noise Remedy Program boundary nor in the evaluation of property value impacts discussed in the Final EIS.

7-K. **Runway Extension**: Ms. Stuhring (21L7) and Ms. DesMarais (34L30) questioned where in the EIS the impacts of the extension of Runway 34R are located. Ms. DesMarais (34L30a) also requested clarification of how the 600 ft runway extension would be developed. Ms. Brown (52AB31) questioned which runway would be extended.

Response: As is discussed in the Final EIS and Supplemental EIS, the Master Plan Update proposes the extension of existing Runway 16L/34R by 600 feet to the south. This extension would also require the development of a Runway Safety Area (RSA) that extends an additional 1,000 feet beyond the threshold of the extended runway. Due to the terrain south of the existing airfield, an embankment must be developed to provide the requisite level ground. From the present runway safety area (which extends 535 feet beyond the end of the existing runway threshold), the recommended Master Plan Update improvements would extend the embankment an addition of 1,065 feet. The fill necessary to accommodate this extension (including the RSA) have been included in the Final EIS and Supplemental EIS analysis. The impact of the runway extension in addressed in each environmental section of Chapter 5 of the Supplemental EIS or is Chapter IV of the Draft and Final EIS.

7-L. **Barriers/Berm**: Ms. Stuhring (21L7) requested consideration of "concrete noise barriers". Mr. Oebser (55RCAA,3-16) requested consideration of an earth berm to shield noise from the west side of Sea-Tac.

Response: Noise barriers have not been evaluated, as the project is not anticipated to significantly increase ground related noise to noise sensitive areas.

The use of berms, barriers and forested areas to interrupt the flow of noise from the source to the receiver is of limited benefit. The greater the distance between the barrier and the receiver, the less the effect in reducing noise. A barrier sufficiently high to effectively reduce noise levels beyond the barrier could only be placed in areas not subject to height restrictions and clearance zones. These restrictions normally prevent the use of barriers to abate noise from aircraft on the runway. Terrain issues also reduce the potential benefits of a berm/barrier. It is anticipated that an earth berm would not be feasible to abate noise associated with the proposed new parallel runway. However, vegetative cover would provide assistance in noise reduction and would be considered in the design/development phases.

7-M. GMA: Congressman Smith (33L2) stated "..The SEIS fails to take growth management into account. Growth management regulations require the Port of Seattle to coordinate plans with local governments and adhere to local land use laws. The new runway would allow the airport to service twice as many passengers. Increased traffic to and from the Airport would require additional parking and roadway expansion. "

Response: Sea-Tac Airport has been designated an essential public facility by the City of SeaTac. In addition, the PSRC General Assembly (consisting of virtually all elected officials in the region) voted by an overwhelming majority (84%) in Resolution A96-02 to amend the Metropolitan Transportation Plan to include the Third Runway. The EIS has assumed the implementation of approved Transportation Improvement Project (TIPs), for which various jurisdictions have indicated their "commitments" through approval of the plans.

The PSRC recently contacted cities in the vicinity of Sea-Tac Airport to assure they make any necessary amendments to the transportation element of their local comprehensive plans to ensure consistency with the amended regional policy. The Port has brought a petition for review before the Central Puget Sound Growth Management Hearing Board which alleges that the City of Des Moines' Comprehensive Plan amendment in December, 1996 fails to reflect the necessary changes required under Resolution A96-02.

7-N. Environmental Justice: Ms. Woodward (42L) commented that the EIS failed to examine impacts over the Rainier Valley and that environmental justice impacts occur due to noise impacts. A similar concern with EO 12898 issues was submitted by Mr. Oebser (55RCAA,5-8), Mr. Bader (67L6-6), Mr. Akers (77L-2,8,9,10.14), Mr. Hoggard (66SeaTac,12-2).

Response: The Final EIS, and Supplemental EIS address noise exposure impacts to the Rainier Valley, which is outside the 60 DNL and greater noise exposure contour (see response to comment R-5-5, page R-61 of the Final EIS). Chapter IV, Section 6 "Social Impacts" of the Final EIS contains a discussion of environmental justice issues and shows that the proposed Master Plan Update improvements would not result in a disproportionate impact to sensitive populations. Exhibit IV.6-1 of the Final EIS shows the percentage of population for each census tract in the study area exposed to 65 DNL or greater noise levels. Tables IV.6-1 and IV.6-2 of the Final EIS show a variety of demographic and socio-economic data for census tracts in the study area. Page IV.6-7 of the Final EIS notes that all Master Plan Update alternatives would meet the intent of Executive Order 12898 (Environmental Justice) to not adversely affect one sector of the community as measured by race, income, religion or age.

After the noise exposure contours were prepared for the Draft Supplemental EIS, a review was conducted of the environmental and social conditions that were found to significantly change relative to the comparable impacts in the Final EIS. The Draft Supplemental EIS was drafted to reflect a disclosure of all changes in impacts, with emphasis on areas of significance or significant change.

The noise contours prepared for the Draft Supplemental EIS are larger, resulting in greater noise exposure impacts, than the contours prepared for the Final EIS using lower aviation demand forecasts. However, when comparing the noise contours to the Census tracts, the 65 DNL and greater noise exposure contours of the Supplemental EIS fall within the same census tracts as the smaller (Final EIS) noise contours. Consideration of environmental justice issues was addressed in the Final EIS (see pages IV.6-6 and Exhibit IV.6-1). The noise contours for the Final EIS and the Supplemental EIS were overlain on the census tracts. Tracts where the percentage of non-white population exceeds the King County average of 15.3% were then identified. As is shown in Exhibit IV.6-1 (and listed in Tables IV.6-1 and IV.6-2) of the Final EIS, the majority of the noise affected census tracts contain percentages of non-white populations less than the King County average; the majority of the noise affected area consists of white populations. Within the study area of 60 DNL and greater area, the census tracts containing percentages of non-white populations greater than the King County average encompass the Airport, and are primarily north and east (much of which is outside the 65 DNL noise contour). Table F-7 lists the population impacts associated with the noise contours prepared for the Supplemental EIS by noise exposure contour and by Census Tract.

The evaluation of environmental justice issues for the Supplemental EIS also considered the effect of the project (by comparing the "With Project" to the Do-Nothing) and the characteristics of the population in the area of changed impact. The development of the third parallel runway will result in a slight shift in noise from the eastern portion of the study area to the western portion of the area (the project would result in 13,220 people in contrast to the Do-Nothing impact of 11,940 people in year 2010 within 65 DNL and greater noise exposure). Census blocks 270, 274, 280, 285, and 287 all have non-white populations (13.1%, 10.8%, 13.9%, 6.4% respectively) less than the King County average of 15.3%. Increased impacts would occur (when comparing the year 2010 "With Project" to the Do-Nothing) to census tracts 264, 273, 281, and 284.01 which have greater than King County non-white populations (20%, 16.5%, 16.7% and 20.5% respectively). Only census tracts 264 is located under the approach/departure path of the new runway and has a non-white population of 20%, which exceeds the county average; this tract is at the edge of the 65 DNL noise contour. Of the census tracts experiencing an increase in noise "With Project" over the Do-Nothing, four (with a population affected of 590) would experience an increase in noise and have a non-white population greater than the county average, while five tracts (with a population affected of 1,170) have a non-white population less than the county average.

Because the impacts of the higher demand forecasts were not different than discussed in the Final EIS, the Draft Supplemental EIS did not contain a discussion of these issues.

TABLE F-7

Population Impacts by Census Tract

Contour/ Tract	% Non-White	% Elderly	Existing	Year 2000 Do-Nothing	Year 2000 With Project	Year 2005 Do-Nothing	Year 2005 With Project	Year 2010 Do-Nothing	Year 2010 With Project
65-70 DNL									
112	33.3	11.5	670	-	-	-	-	-	-
263	17.7	17.7	-	-	-	-	-	-	-
264	20.0	14.0	3,290	1,120	1,120	1,240	1,050	670	1,170
270	13.1	9.7	1,050	1,020	1,020	900	930	1,300	1,560
271	11.6	14.0	550	230	230	210	220	260	250
273	16.5	9.6	670	410	410	380	390	410	410
274	10.8	12.6	1,205	1,020	1,020	860	950	2,010	1,800
280	13.9	9.0	1,230	280	280	270	260	580	830
281	16.7	9.2	640	180	180	190	170	160	220
284.01	20.5	4.9	30	20	20	20	20	20	10
285	8.1	10.3	840	210	210	240	200	430	500
287	6.4	10.7	1,145	180	180	190	170	450	610
288.01	7.7	17.8	880	1,240	1,240	1,150	1,170	1,710	1,750
288.02	16.4	10.1	1,110	-	-	-	-	-	-
289	11.5	14.6	3,235	3,010	3,010	2,670	2,800	2,580	2,550
290.01	7.5	26.6	1,390	260	260	280	240	120	150
290.02	15.4	5.3	6,040	1,150	1,150	1,040	1,070	290	150
300.01	14.3	4.7	2,255	-	-	-	-	-	-
Subtotal			26,230	10,330	10,330	9,640	9,640	10,990	11,960
70-75 DNL									
264	20.0	14.0	10	-	-	-	-	-	-
270	13.1	9.7	570	-	-	-	-	-	-
271	11.6	14.0	60	-	-	-	-	-	-
273	16.5	9.6	170	130	130	120	130	130	140
274	10.8	12.6	1,090	120	120	90	-	140	170
280	13.9	9.0	250	70	70	70	140	70	230
281	16.7	9.2	120	30	30	30	10	30	10
284.01	20.5	4.9	20	10	10	10	10	10	10
285	8.1	10.3	150	30	30	30	100	30	160
287	6.4	10.7	70	-	-	-	-	-	40
288.01	7.7	17.8	1,240	530	530	430	310	510	310
289	11.5	14.6	1,820	30	30	-	-	10	-
Subtotal			5,570	950	950	780	700	920	1,070
75 DNL & Greater									
273	16.5	9.6	-	-	-	-	-	-	-
274	10.8	12.6	-	-	-	-	-	-	-
280	13.9	9.0	-	-	-	-	-	-	45
281	16.7	9.2	-	20	20	20	45	20	55
284.01	20.5	4.9	-	5	5	5	15	5	20
285	8.1	10.3	-	-	-	-	30	-	55
288.01	7.7	17.8	-	5	5	5	10	5	15
Subtotal			-	30	30	30	100	30	190

Contour/ Tract	% Non-White	% Elderly	Existing	Year 2000 Do-Nothing	Year 2000 With Project	Year 2005 Do-Nothing	Year 2005 With Project	Year 2010 Do-Nothing	Year 2010 With Project
65 DNL & Greater									
112	33.3	11.5	670	-	-	-	-	-	-
263	17.7	17.7	-	-	-	-	-	-	-
264	20.0	14.0	3,300	1,120	1,120	1,240	1,050	670	1,170
270	13.1	9.7	1,620	1,020	1,020	900	930	1,300	1,560
271	11.6	14.0	610	230	230	210	220	260	250
273	16.5	9.6	840	540	540	500	520	540	550
274	10.8	12.6	2,295	1,140	1,140	950	950	2,150	1,970
280	13.9	9.0	1,480	350	350	340	400	650	1,105
281	16.7	9.2	760	230	230	240	225	210	285
284.01	20.5	4.9	50	35	35	35	45	35	40
285	8.1	10.3	990	240	240	270	330	460	715
287	6.4	10.7	1,215	180	180	190	170	450	650
288.01	7.7	17.8	2,120	1,775	1,775	1,585	1,490	2,225	2,075
288.02	16.4	10.1	1,110	-	-	-	-	-	-
289	11.5	14.6	5,055	3,040	3,040	2,670	2,800	2,590	2,550
290.01	7.5	26.6	1,390	260	260	280	240	120	150
290.02	15.4	5.3	6,040	1,150	1,150	1,040	1,070	290	150
300.01	14.3	4.7	2,255	-	-	-	-	-	-
Co. Avg.	15.3	10.0	na	na	na	na	na	na	na
Grand Total			31,800	11,310	11,310	10,450	10,440	11,940	13,220

Source: Gambrell Urban, using 1990 Census Tract Data and Supplemental EIS noise contours.
May not add due to rounding - Notes less than 10

As the information above notes, the proposed noise exposure impacts will not disproportionately affect minority communities. See also response to comment 10-L.

7-O. Impact Area: Mr. Rees (44L) commented that noise impacts over Magnolia should have been identified and that the combined effect of noise from Sea-Tac and Boeing Field should be shown. Ms. Brown (52AB14, 52Pg14) asked "how much larger would the noise mitigation boundaries be if Boeing Field noise and Sea-Tac noise for ALL aircraft operations including foreign carriers were considered?" A similar questions was submitted by Mr. Oebser (55RCAA,3.22), Mr. Bader (67L3-12), and Mr. Akers(77L12).

<u>**Response**</u>: Magnolia, as shown by the noise contours in the Supplemental EIS, lies outside the area affected by 60 DNL and greater noise levels from Sea-Tac Airport.

In response to this commentor's questions concerning the Draft EIS, the Final EIS discussed the impact of the noise from Boeing Field and Sea-Tac. Noise contours prepared for Boeing Field for the years 1993, 1998 and 2008 were evaluated relative to the contours presented in the EIS for the existing, 2000 and 2010 cases. In the combined existing case (1993 Boeing Field and 1994 Sea-Tac), only one area which does not fall within the 65 DNL contour for one of the two airports would be included within a combined 65 DNL contour for aircraft noise. This area is at the far north end of the existing Sea-Tac 65 DNL, in an area which consists of industrial land. In future years, the decreased size of the Sea-Tac contours would reduce noise in this area, such that the combined noise from Sea-Tac and Boeing Field would not result in areas affected by DNL 65 or greater, and thus would not influence the mitigation. Furthermore, there is no difference in this finding for either the "Do-Nothing" or "With Project" alternatives.

7-P. Noise Model: Ms. Brown (52AB42, Pg16) commented that the "Noise Model needs to correlate better with actual noise measurements." Mr. Oebser (55RCAA,3-4,3-9,3-18) requested use of the newest version of the noise model and clarification of the departure climb profiles used in the modeling.

__Response__: The INM has been found to correlate accurately with actual noise measurements. The following comparison was provided in Appendix R of the Final EIS, showing a strong correlation of existing modeled noise to the actual measured levels.

	LDN (dBA) Levels		
Location	Existing (1994) Noise Contour	1994 Measured Level	Difference
NMS-1	67.8	68.9	0.9
NMS-2	65.3	68.9	3.6
NMS-3	70.8	71.2	0.4
NMS-4	78.4	79.6	1.2
NMS-5	65.6	66.9	1.3
NMS-6	76.1	77.6	1.5
NMS-7	70.8	70.0	-0.8
NMS-8	68.2	68.1	-0.1
NMS-9	64.8	67.6	2.8
NMS-10	68.0	69.2	1.2
NMS-11	70.3	73.9	3.6

Source: - Existing noise data extracted from INM evaluations by Landrum & Brown, 1995. Measured noise levels for 1994 supplied by Port of Seattle Noise Abatement Office for January through December 1994.

Ms. Brown and Mr. Oebser (55RCAA) cite an FAA evaluation of the Integrated Noise Model Version 2.7. INM Version 4.11 was used in the noise evaluation presented in the Final EIS and Supplemental EIS. The departure climb profile referenced by the Mitre document has been updated in newer versions of the model, and thus reflects current departure climb profiles. See response to **comment 7-C.**

Several commentors noted that the FAA has released two new versions of the Integrated Noise Model, with the most recent being INM Version 5.1. The newest version provides a mechanism for conversion of INM Version 4.11 formatted data files into the format required by Version 5.1. The capabilities of the newer model include greater latitude for user generated flight profiles, as well as many additional aircraft types.

With the possible exception of ground noise from departure thrust, noise contours would be expected to be virtually the same between the two versions of the noise model. Version 5.1

takeoff profiles provide for use of greater breakaway thrust (the initial thrust applied to begin the roll down the runway on takeoff) resulting in larger back blast noise to the rear and side of the aircraft in early takeoff. These differences, however, would not be expected to significantly change the noise contours presented in the Supplemental EIS.

7-Q. Vibration: Ms. Brown (52Pg14) stated "Vibrations from Stage 3 have not been considered."

Response: Stage 3 aircraft produce lower levels of vibration than do comparably sized Stage 2 aircraft, and therefore, the level of vibration will decline as Stage 2 aircraft are phased out of the fleet. Vibration was not specifically assessed, as only noise levels above 80 DNL are associated with significant vibration. As only airport properties are affected by this sound level, no analysis was necessary.

7-R. Fleet Mix: Ms. Brown (52Pg16,AB43,AB44) stated that "realistic current and future fleet mix is needed to predict noise contours." And "Does the noise model adequately take into account the side noise from hush kits such as the MD80s". Ms. Brown (52AB110) asked if the analysis reflected that some Stage 3 aircraft are noisier than some Stage 2 aircraft. Other fleet mix questions were raised by Mr. Oebser (55RCAA,3-19,3-20,7C-5), and Mr. Hoggard (66SeaTac,6-4,6-5).

Response: See response to comment 7-C concerning the presentation of the assumptions used in the modeling. The aircraft fleet mix presented in the Final EIS and the Supplemental EIS accurately reflect the aircraft operating during their respective time periods. While information on the B-777 had not yet been made available in format for inclusion in the INM version 4.11 noise model, the FAA Office of Environment and Energy has approved the use of the B-767-200 with JT-9-D as having equivalent noise levels and flight characteristics. In accordance with FAA requirements, that substitution was used for the projection of future noise levels generated by both the B767 and B777 aircraft. No noise data is presently available for the new-generation SST or the "New Large Aircraft", although the FAA published a policy statement that it expects "any future SST airplane shall produce no greater noise impact on a community than a subsonic airplane certified to Stage 3 noise limits."[6] Similarly, no information exists concerning the New Large Aircraft (NLA), as no designs have been produced. Their use at Sea-Tac is not forecast by the Master Plan Update, nor were they specifically incorporated into the computer input files for noise computations. However, as the SST and NLA would be required to meet Stage 3 levels, another existing aircraft would likely serve as a surrogate, similar to the B-777 surrogate described earlier.

The level of noise allowable under Federal Aviation Regulation (FAR) Part 36 increases as the number of engines and the weight of the aircraft increases. Consequently, some heavy Stage 3 aircraft are louder than some light Stage 2 aircraft. However, for aircraft which are the same weight and same number of engines, Stage 3 aircraft are quieter than Stage 2 aircraft. The noise characteristics of each aircraft are reflected in the noise modeling. The noise curve information included in the INM reflect accurate representations of noise emissions from hush kit aircraft such

[6] Federal Register, Vol. 59, No. 149, August 4, 1994, pg. 39679-80.

as the DC-9-30. No known hush kits exist for the MD 80, as this aircraft meets Stage 3 noise levels.

The City of SeaTac's comments requested clarification concerning how extensions to the phase-out timetable could be granted, and which agency determines if such extensions are granted. The phased change from a Stage 2 to Stage 3 fleet is set forth by the 1990 Airport Noise and Capacity Act and Federal Aviation Regulation Part 91. The conversion by carriers may be met by either 1) removing a percentage of its Stage 2 aircraft from operation by given deadlines, or 2) adding sufficient Stage 3 aircraft to its fleet to meet required percentages. Under the law, exemptions may be granted for up to four years.

Deadline	Phase-Out of Stage 2	Phase-In of Stage 3
12/31/94	25%	55%
12/31/96	50%	65%
12/31/98	75%	75%
12/31/99	100%	100%

The phase-out and phase-in schedules have been met by all airlines to date. The FAA has established detailed procedures for reporting compliance and seeking variances under FAR Part 91. To date, while several airlines have sought exemptions from the interim timeframes, no exemptions have been granted.

7-S. **DNL/Health/Noise Effects**: Mr. Oebser (55RCAA,3-1,3-8,5-1,5-2), Mr. Bader (67L6-1), and Mr. Akers(77L13) questioned the continued use of DNL (suggesting other metrics and presentation of 55 DNL), asked for health related information concerning noise, including a detailed literature search. Mr. Kirsch (69ACC,ES-3,Pg4.10-4.14) expressed concern that the analysis did not evaluate "interference with speech and learning which will result from increased operations.." Similar school concerns were expressed by Mr. Bader (67L6-2).

Response: The Final EIS and the Supplemental Environmental Impact Statement present noise impact comparison based on the use of the DNL, SEL and Time Above (TA) metrics. To date, the only land use compatibility guidelines that have been accepted for use in determining incompatibilities with aircraft noise are related to the DNL. Reflected in the DNL noise contours is the increased flight frequency that would occur in the future, with or without the proposed improvements. Thus, in identifying land uses, such as schools, these land use compatibility guidelines as defined in FAR Part 150 were used. While the EPA "levels document" notes concerns with noise above 55 dBA, the land use compatibility guidelines identify incompatibilities beginning at 65 DNL. Because of concerns with noise less than 65 DNL, the Final EIS and Supplemental EIS present noise conditions associated with the 60 DNL contour.

Chapter IV, Section 7 "Human Health" of the Final EIS presents the impact of aircraft noise on various activities in addition to potential impacts on human health.

7-T. Mitigation funds: Mr. Oebser (55RCAA,3-1DEF) requested an identification of noise mitigation funds, including an annual expenditure listing. A similar request was submitted by Ms. Bilz (61L2), and Mr. Hoggard (66SeaTac,6-7).

Response: It is estimated that the cost of noise mitigation associated with the proposed Master Plan Update improvements is about $40 million. An annual expenditure listing of future funds is not available. This mitigation is in addition to the $300 million that has been budgeted by the Port as part of the existing Noise Remedy Program. Approximately, $200 million has been expended to date. About $35 million of the mitigation cost is associated with the acquisition of the potential Approach Transition Area. Development of the time schedule for the Approach Transition Area acquisition will be determined during the Port's 1997 Part 150 Study. The insulation of the homes identified by the Final EIS and Supplemental EIS will be completed before the commissioning of the Third Runway. Funding for the implementation of the mitigation has been included in the cost of the proposed improvements – see response to **comment 2-AC**.

7-U. SEL Data: Mr. Oebser (55RCAA,3-2,3-10) requested the presentation of SEL contours and a comparison of the SEL contours to actual measured data.

Response: The Final EIS and Supplemental EIS present SEL information at 1,290 sites. In addition, SEL contours were developed for five predominant aircraft types operating at the Airport. While a comparison of SEL data for the existing noise modeling conditions to the actual conditions would be an interesting comparison, it was not performed, as the intent of an Environmental Impact Statement is to identify the impacts of a proposed improvement relative to doing nothing – see also response to **comment 3-L**.

7-V. Modeling Assumptions: Mr. Oebser (55RCAA,3-5,3-12,3-21) requested that the document provide the noise modeling assumptions and sensitivity tests.

Response: The noise modeling prepared for the Final EIS and the Supplemental EIS was prepared using industry accepted procedures and complies with the FAA's intended use of the model. The document contained a summary of the specific input assumptions to the noise model. See response to **comment 7-C**. Actual data files input to the noise model are available from the FAA and were provided to anyone requesting such data.

7-W. Seasonal contours: Mr. Oebser (55RCAA 3-7) requested the preparation of contours showing seasonal changes in operating conditions.

Response: Information collected by the Noise Office indicates that the fleet mix operating at the Airport is relatively constant. While monthly fluctuations in activity occur, with peak month conditions occurring during the summer, the conditions at Sea-Tac are not different than other airports. In addition, the Day-Night Average Sound Level (DNL) metric, and the associated land use compatibility guidelines, were established to represent average annual conditions. While noise contours representing seasonal operating conditions might be interesting and would clearly reflect the operating conditions examined, they would not be useful in examining land use impacts. Therefore, the Final EIS and the Supplemental EIS focused on the average annual conditions.

7-X. Runway Use: Mr. Oebser (55RCAA,3-11), and Mr. Rowe (63L2) questioned the runway use relative to the costs and benefits of the runway. Mr. Kirsch (69ACC,ES-1,Pg2.3-2.4) states that "The Port and the FAA now admit that a third runway will be used to handle approximately 44 percent of arrivals by 2010." Mr. Hoggard (66SeaTac, 6-3) commented that the noise analysis should "include impacts of smaller propeller-powered aircraft" using the Third Runway.

Response: The Draft Supplemental EIS examined the use of the Third Runway as follows:

	2005				2010			
	Arrivals		Departures		Arrivals		Departures	
	DN	WP	DN	WP	DN	WP	DN	WP
16L	10.9%	28.4%	55.4%	22.9%	11.0%	17.5%	55.1%	25.2%
16R	50.3%	16.9%	5.8%	35.9%	50.1%	15.9%	5.9%	33.5%
16X	n/a	16.0%	n/a	2.5%	n/a	27.7%	n/a	2.5%
34L	28.0%	18.3%	5.9%	14.4%	28.1%	17.2%	6.0%	14.2%
34R	10.8%	16.7%	32.9%	22.7%	10.9%	5.3%	33.0%	23.1%
34X	n/a	3.7%	n/a	1.6%	n/a	16.4%	n/a	1.6%

Source: Supplemental EIS, Tables C-3-5 and C-3-14. DN= Do-Nothing (Alternative 1); WP = With Project (Alts 2,3, 4)
16X and 34X refer to the proposed Third Runway.

The runway use noted above reflects the anticipated use of the runway by jet and propeller aircraft.

As the table above shows, the proposed Third Runway is anticipated to primarily serve arrival activity. A new parallel runway, with the runway usage evaluated in the Supplemental EIS, would have saved the airlines $24 million annually if it had been available for use in 1994 and will considerably improve the efficiency of air transportation for passengers and shippers by reducing delay. The delays saving is expected to grow to around $146 million annually when activity reaches 425,000 operations (near the year 2002). As a result, if the runway were available for use in year 2002, the delay savings would compensate for the cost of construction in less than five years.

One commentor indicated that the purpose and need for the project has changed since issuance of Final EIS based on a letter from Mr. Wall of the FAA which states "dual arrival streams will be used whenever the volume of traffic dictates this. This will be true in nearly all weather conditions". However, the commentor does not cite an earlier portion of the Mr. Wall's letter that states "... for the purpose of environmental analyses and cost/benefit studies, certain assumptions were developed and used. Those assumptions reflect our opinion on how Sea-Tac will operate with three runways." Mr. Wall's references are to the purpose and need and runway use assumptions used in the Final EIS.

As is indicated in the Draft Supplemental EIS, the purpose and need for the proposed Master Plan Update improvements, including the Third Runway have not changed since issuance of the Final EIS. Mr. Wall's letter confirms that the need for the runway is to address poor weather operating needs. As Sea-Tac is presently capable of operating with dual arrival streams during good weather (VFR1), the Third Runway would enable the Airport to accommodate dual arrival streams during poor weather (VFR 2, and IFR). Thus, the purpose and need articulated in the Final EIS and Supplemental EIS are consistent with the letter from Mr. Wall.

It is unclear as to the reference of the ACC's comment concerning the 44 percent usage of the runway. As is noted in the Final EIS/Supplemental EIS, poor weather occurs about 44 percent of the year at Sea-Tac. Also, the addition of the arrival runway usage in the table above (adding the 16X and 34X arrival usage) indicates that the total usage of the runway would be by about 19.7 % in year 2010 and about 44.1% of average annual arrivals in year 2010. As is noted in the Supplemental EIS, the need being addressed by the runway is poor weather, but usage of the Third Runway would occur during good weather as well as poor weather, because of operational efficiencies. This runway usage reflects the FAA's best estimate of how the runway would be used.

7-Y. Population: Mr. Oebser (55RCAA,3-13) requested the population impacts by Census block and the methodology for determining the impacts.

Response: Information concerning the population affected by aircraft noise levels is presented in the Draft Supplemental EIS based on political jurisdiction. See response to **comment** 7-N for census related information.

7-Z. Run-up Data: Mr. Oebser (55RCAA,3-14) requested publication of the run-up data used in the noise exposure contours. Ms. Overholt indicated a belief that the noise analysis did not reflect ground run-ups. Mr. Hoggard (66SeaTac,6-6) indicated that "ground-level noise impacts must be assessed" and expressed concern with other ground level noise issues including use of thrust reverse.

Response: Ground level noise was not discounted in the Final EIS or the Supplemental EIS. Appendix C of the Final EIS contained a detailed discussion concerning the effect of ground run-ups on noise exposure contours, as the noise contours for all years and alternatives included the effects of run-ups. Exhibit C-12 shows noise contours for ground movement noise only and Table C-6 shows the run-up activity. Because the forecasts altered the future level of activity as well as fleet mix, the Supplemental EIS noise analysis reflects a revised ground run-up evaluation. Table C-3-12 lists the revised run-up data and Page C-3-4 discusses the ground noise evaluation, including taxi noise. See response to **comment** 7-AA concerning topography impacts.

It is anticipated that use of reverse thrust will not change significantly in the future. The PSRC, however, requested that the Port work with the airlines in minimizing use of reverse thrust when safety and other factors allow. The Port agreed to pursue discussion with the airlines on this issue.

7-AA. Topography: Mr. Oebser (55RCAA,23) requested that the noise maps "incorporate topographical features".

Response: Version 4.11 of the Integrated Noise Model enables the noise exposure contours to reflect surface elevation as a factor in noise levels on the ground. The slant range distance from individual aircraft flights to ground locations is calculated, appropriate noise levels are determined for that distance/thrust combination, and the associated noise energy is summed for all operations affecting the location. Topography is one of several factors used in determining the distance between the aircraft and the ground site.

Mr. Oebser also indicated that the USGS base mapping feature of INM Version 5.1 should have been used in preparing the noise contours. The USGS base maps were not used. Instead, maps developed specifically as part of the Part 150 Study, and updated for the EIS process, were used as they provide better geographic references for public readability.

7-AB. Mitigation Suggestions: Mr. Oebser (55RCAA,3-24,3-25,3-26,3-27,3-29,3-30) suggested alternative noise abatement procedures such as departure climb profiles, Preferential runway use, a Part 161 process, social surveys, school insulation, public building insulation, expanded acquisition. Ms. Kludt (57L5) suggested "a limit on the number of flight operations".

Response: See response to **comment 4-B**, as many of the references were to the Expert Panel recommendations and the Port Commission Resolution 3212 responded to a number of these requests. As is noted, a Part 150 Study is underway at Sea-Tac which would be expected to address many of these actions. See response to **comment 2-V** concerning acquisition and response to **comment 7-D** concerning the Noise Remedy Boundary.

7-AC. Social Impact: Mr. Oebser (55RCAA,5-3,5-5) commented that the SEIS did not have a social analysis and should have combined the induced Socio-economic impact with the social impact.

Response: A detailed social impact evaluation was prepared for the Final EIS, as is discussed in Chapter IV, Section 6 "Social Impacts". The commentor also notes that Chapter IV, Section 8 "Induced Socio-Economic Impacts" also discusses such impacts. As these sections note, the primary impact of the proposed improvements on the social environment are a result of the proposed property acquisition. As the new forecasts and information that are discussed in the Draft Supplemental EIS did not alter the proposed acquisition, the social and induced socio-economic impacts were summarized in Section 5-7 "Other Impacts".

7-AD. Flight Tracks w/ Runway: Mr. Rowe (62L2) stated "it appears that with the third runway that the Port of Seattle is going to disregard the 'Noise Abatement Procedures' and try to have planes taking off in all directions…"

Response: This perception is incorrect. When the Third Runway is used for departures, the departures will be expected to fly the existing noise abatement flight corridor, and will not take-off in "all directions".

7-AE. Future Noise: Mr. Kirsch (69ACC,Pg 4.10) stated "…noise impacts attributable to the third runway would be greater than current noise exposure."

Response: Relative to the total population exposed to aircraft noise, future impacts with and without the Third Runway are expected to be less than existing conditions. This is clearly demonstrated by the fact that 31,800 people are currently exposed, and that future impacts by 2010 are not expected to exceed 13,220 people (as is discussed in Appendix D of the Draft Supplemental EIS, by year 2020 impacts would about 15,000 people - less than half of the existing impacts). An area, confined to the approach paths to the new runway, would experience greater noise impacts that is currently experienced, as is documented in the Final EIS and the Supplemental EIS.

7-AF. Land Use Loss/Influence: Mr. Stark (73L1) commented "No attempt has been made in the DSEIS to determine impacts to the community through loss of land use…" Mr. Hoggard (66SeaTac,1,12-6) indicated that "The DSEIS fails to acknowledge the role of Sea-Tac International Airport (STIA) as the primary driver of land use in the immediate vicinity and lacks any responsible examination of its relative impact on the land use plans of the City of SeaTac." as well as other fiscal impacts on the City.

Response: The Final EIS presented the impact of the loss of property, as is described in Chapter IV, Section 6 "Social Impacts" and Section 8 "Induced Socio-Economic Impacts". As is shown, the land to be acquired represents a small portion of the community, and would represent less than a 5% loss in tax base.

Chapter IV, Section 2 "Land Use Compatibility" of the Final EIS presents a detailed examination of the impact of the proposed improvements on land use in the Airport vicinity. It is not the responsibility of an EIS to address the past impacts of an existing facility on the surrounding area – see also response to comment 3-L. The Port has an extensive positive track record in attempting to work with the local jurisdictions with land use compatibilities and incompatibilities, dating back to their participation in the Sea-Tac Communities Plan. However, the Port of Seattle has no authority over land use planning and zoning by local jurisdictions. Therefore, while the Airport exerts impacts on the local community, and the Port has worked to minimize these impacts where possible, action and inaction by the local communities has exacerbated many of these impacts. To the degree that cumulative impacts of the proposed Master Plan Update and other proposed regional projects are known, they are discussed in the Final EIS and Supplemental EIS.

7-AG. Intersection Departures: Mr. Hoggard (66SeaTac,5-1,6-2) noted that intersection departures were evaluated and questioned the number that are predicted to use this procedure and what mitigation will offset the procedure.

__Response__: Appendix C-3 of the Draft Supplemental EIS states that after the 600 foot extension to Runway 34R: "intersection departure requests are expected to become common from that runway. After extension, the intersection of Taxiway H and Runway 16L provides approximately the same length (9,500 feet) for south flow takeoffs as would be available under the current runway layout for takeoffs from the intersection of Taxiway Q and Runway 34R during north flow (9,425 feet)." As the Supplemental EIS notes, about 90 to 95% of the operations could depart from an intersection instead of the full threshold. The impact of intersection departures is not anticipated to be significant, as all residents within the 65 DNL and greater would be sound insulated by the time that the extension of Runway 34R would be completed (year 2010 or later).

7-AH. Quantity of homes to be acquired - Mr. Mediema (HT 20) commented that "now, 900 homes and businesses would be displaced." Ms. DesMarais (HT 46,34L13) questioned the acquisition area. Mr. Hoggard (66SeaTac, 11-1) requested a map showing the precise location of the approach transition area. Mr. Hoggard (66SeaTac,11-2) also requested an assessment of the conversion of the West SeaTac area to other uses as well as a recognition of the City's new mobile home park relocation standards. Mr. Hoggard (66SeaTac,12-8) also stated "No proposal is made to mitigate impacts to commercial land use.

__Response__: As is noted in Chapter IV, Section 6, the Master Plan Update improvements will require the acquisition and relocation of 388 single family homes, 260 condos/apartments and 105 businesses.[7/] Included in this acquisition area are properties in the Runway Protection Zone (RPZ), contrary to the understanding of one commentor. The runway-related acquisition quantities can then be added to the potential Approach Transition Area acquisition (which is identified to mitigate annoyances from low flying operations to the new runway) which includes: 153 single family units, 8 apartment buildings (60 units), and 2 mobile home parks (96 units).

The "approach transition area" extends about 2,500 feet beyond the RPZ. Because of limited feedback from area residents, the Port proposed in the Final EIS to develop the implementation approach to this mitigation during the Part 150 Study. The Port continues to be committed to acquisition in this area, subject to the acceptance of the action by the affected residents. A map showing the location of the Approach Transition Area acquisition was provided in the Final EIS – see Exhibit IV.2-3. The Part 150 Study would be expected to consider the City's new mobile home relocation standards as part of developing the implementation plan for this action.

As is noted in the Final EIS and Supplemental EIS, the Port has not developed a plan for the acquired area that will not be used for the runway (residual land). As noted, once a plan is developed and specific uses identified, it is anticipated that the development proposals will be subject to the requisite environmental analysis.

7/ As is noted in the Supplemental EIS, the Port is coordinating with the FAA concerning the acquisition of businesses in the southern Runway Protection Zone of the new runway. Based on interviews with property owners, most businesses do not wish to relocate and most would not be incompatible with the RPZ.

No significant impacts to commercial land uses are expected. As is noted in the Supplemental EIS, the Port is attempting to minimize the acquisition of commercial properties, the majority of which are located in the Runway Protection Zones of the Third Runway. During the fall of 1996, Port of Seattle representatives met with and inventoried the businesses in these locations. The significant majority of these business owners indicated a preference to retain their present location and most of the operations at these businesses are compatible with an RPZ location. As a result, the Port of Seattle is proceeding with an evaluation of purchasing the necessary easement from these business owners. The few businesses that are required to be relocated because their use would conflict with the requirements of the RPZ, or those which indicate a preference for relocation will be acquired, following the provisions of the Uniform Act.

7-AL. **Part 150 Mitigation**: Mr. Kirsch (69ACC,5.2) commented that it is not proper to defer mitigation to an upcoming Part 150 Study.

Response: The only reference to the Port's upcoming Part 150 Study occurs for two issues: 1) PSRC resolution A96-02 notes that the Port will request that the Record of Decision include the requirement to conduct a Part 150 study (see response to **comment 4-E**), and 2) that establishing the implementation methods for the Approach Transition Area would occur during the Part 150. Therefore, the Final EIS and Supplemental EIS define appropriate mitigation to the significant impacts that have been identified; definition of mitigation measures has not been deferred. However, because of the logistics of the approach transition area acquisition, and the lack of public comment concerning the desirability of this action, the implementation methodology is deferred to the Part 150.

8. CONSTRUCTION

8-A. **Quantity of truck trips:** State Representative Blalock (HT 13) stated that 1.2 million truckloads of fill will be necessary to "complete the third runway". Ms. Brown (52AB85, AB120) asked if construction activity would be as great if the Third Runway did not occur.

Response: The Draft SEIS indicates that 1.2 million truckloads of fill will be necessary for the entire Master Plan Update improvements, including fill associated with non-third runway projects. The runway reflects about 75% of the needed fill and would represent about 900,000 truck trips. The Surface Transportation analysis was prepared in such a way so that the impact of construction could be clearly understood - Section 5-4 "Construction Impacts" presents the impact of traffic plus construction activity, while Section 5-1 "Surface Traffic Analysis" shows just the surface traffic conditions (without construction).

8-B. Haul Routes: Ms. Stuhring (21L) commented that as regional traffic grows, speed on I-405 will be reduced to 26 mph. Ms. DesMarais (34L12) and Ms. Brown (52AB86, AB87, AB88) asked what routes would be used to haul material from the on-site sources. Mr. Hoggard (66SeaTac,7-1,7-2,7-3,9-22,9-23) commented that the EIS should reflect "a mitigation which acknowledges the intent of creating a dirt hauling agreement that is satisfactory to the City of SeaTac prior to a final adoption of the Master Plan environmental documents." Mr. Hoggard (66SeaTac,9-24) expressed concern with the data in Table 5-4-2 and Table 5-4-3.

Response: The surface transportation analysis reflects the growth in regional traffic levels on area roads, including I-405. As is noted in the Draft Supplemental EIS, traffic on I-405 is expected to result in congested conditions during peak periods. Thus, haul traffic is not anticipated to use this route, except during non-peak periods.

The Final EIS and Supplemental EIS examine several possible routes for the transport of material from the on-site sources to the embankment area. The preferred route would be to transport material through Port-owned land. However, if this is not possible, routes such as Des Moines Memorial Way were examined (see pages IV.23-3 of the Final EIS and pages 5-4-4 of the Supplemental EIS). Impacts of these haul routes are described in the "Construction Impacts" section of both documents. To use as much of port-owned land as possible, trucks would have to cross South 200th Street by way of an at-grade crossing controlled by flaggers. Crossing of South 188th Street may not be required, as a haul route could be developed using the taxiway bridge over South 188th Street. Use of the taxiway bridge service road would not affect aircraft use of Runway 16L/34R. If an at-grade crossing of South 188th Street occurs, it would be controlled by flaggers and would not occur during the peak hours.

It is anticipated that contractors will be required to obtain all necessary haul and transport approvals. As NEPA and SEPA do not require project sponsors to obtain permits before an environmental document can be approved, it is not appropriate to require such conditions for this project. The Supplemental EIS correctly notes that the construction process "must comply with valid and legally enforceable local permits, operating conditions, legal load limits, and restoration associated with the source sites(s) and haul routes." Contrary to the City of SeaTac's comments, this is not an indication that "permits required by local jurisdictions are not enforceable". However, it is anticipated that local ordinances may reflect a desire to block the proposed Master Plan Update improvements, and to the degree that a court finds such an obstruction, it is believed that such ordinances and any associated permits may not be legally enforceable.

The corrections noted by Mr. Hoggard concerning Tables 5-4-2 and 5-4-3 are noted, and were corrected where appropriate in the Final Supplemental EIS. Construction traffic impacts and congestion was analyzed based on intersection volumes. Background conditions at South 200th Street/Military Road at I-5 were correctly noted in the Draft Supplemental EIS.

8-C. Quantity/Quality of Fill Required: Ms. Brown, and Ms. Overholt (58L) indicated that the quantity of fill is changing or was not accurately analyzed in the Final EIS. Ms. Stuhring (21L5) questioned if the fill was "adjusted for the needed volume of fill in case there is settling". Ms. Brown (52AB74,52AB123, AB128, AB132, AB137, AB138, AB142) stated "what are the densities and type of fill (quality of material) needed for the Master Plan Update Projects and other necessary projects." and other construction concerns. Mr. Kirsch (69ACC,ES-3, Pg 4.16, 4.19) stated "The Port previously stated that 23 million cubic yards of fill dirt would be required.....Now the Port admits ....it will take at least 26..." and questioned the quality of the fill to be placed. Mr. Kirsch (69ACC Pg 4.16-4.17), with information from an ACC consultant, indicated that inaccurate fill requirements were noted due to "erroneous" calculations based on swells and shrinkage of fill.

Response: No changes in the quantity of fill have occurred between publication of the Final EIS and the Supplemental EIS. Table IV.23-1 of the Final EIS presents the same quantity of fill 22.96 million cubic yard (mcy) in place fill or 26.4 mcy uncompacted fill as is reported in the Supplemental EIS (Table 5-3-1) for the entire Master Plan Update. The fill requirement associated with the Third Runway is 17.25 mcy in place or 19.84 mcy uncompacted. As is noted in the Supplemental EIS, the Port has determined that material will not be excavated from on-site borrow sources #5 and #8, which are the only borrow sources in the vicinity of "where the wellhead is and have Seattle water..." As is noted in the EIS, the fill can be obtained from on-site sources (including borrow sources and common material) and/or off-site sources. Sufficient supplies of fill exist, such that the fill needs will not "use all of the local areas fill for the next 10 years...".

The volume of fill noted in the Final EIS and Supplemental EIS accounts for both the shrinking and swelling of material as it is hauled and placed. A combined value of 15% was used to adjust the required fill volumes. A commentor suggested that a value of 21.7% should have been used. The actual value would depend on the specific conditions of the fill material being hauled, and the compaction density at which it is placed, which varies depending on the location within the embankment. The adjustment value of 15% was determined based on the Preliminary Engineering evaluation conducted by the Port and discussions with local contractors.

If a higher value of 21.7% were used, it would not significantly change the outcome of the construction impact evaluation performed for the Final EIS or Supplemental EIS. This higher shrink/swell factor would result in an approximate 6% increase in estimated trucks, or only 1 to 3 additional trucks per hour, per direction on average. This small increase would not affect the analysis and is offset by the conservative nature of the haul analysis reflected in the Supplemental EIS. The assumptions for the haul analysis are conservative because: 1) the volume of material a truck can transport ranges from 22 to 28 cubic yards and the analysis assumed 22 cubic yards; 2) the analysis focused on the peak year condition (e.g. highest background traffic volumes) for a five year haul process; 3) the use of the peaking factor.

The Port's 1995 "Seattle-Tacoma International Airport Third Dependent Runway, Preliminary Engineering Report" contains an analysis of the embankment and fill placement options. This geotechnical analysis is summarized in Chapter IV, Section 19 "Earth Impacts" of the Final EIS beginning on page IV.19-8. See also response to comment 10-A.

8-D. Fill Sources: Ms. Stuhring (21L5) stated "When the excavation areas and haul routes are finally decided on, will the affected parties have a chance to challenge and comment on the choices." A similar comment was made by Mr. Oebser (55RCAA1-14b), and Ms. Overholt

(58L). Mr. Schneider (L-2) suggested that sources in the region be used to minimize impacts to wildlife from opening and expanding existing sites. Ms. Brown (52Pg18) questioned the acreage of landscape that would be impacted at the off-site borrow source locations. Ms. Brown (52AB133,AB134,AB135) questioned the availability of off-site sources. Other fill source questions were submitted by Mr. Kirsch (69 ACC, Pg 4.18) and Mr. Bradley (68DOE 2).

__Response__: The Final EIS and the Draft Supplemental EIS present a detailed examination of the probable sources of fill material and haul routes. No further environmental processing is anticipated unless the mode of transport changes or other conditions change. If new borrow source sites or un-permitted sites are used, owners of these sites will be expected to comply with any permitting and approvals. If the Port developed an off-site borrow source that has not been considered in the Final EIS or the Supplemental EIS, it would also be required to comply with legally enforceable permitting and approvals.

Table IV.23-3 and Appendix J (Page J-2) of the Final EIS describe the amount and quality of fill available at each of the off-site fill locations.

8-E. Wear & Tear/Windshield Impacts: State Representative Blalock (HT 14) asked if the Port will address cracked windshields and construction load issues. Other windshield concerns were submitted by Ms. Overholt (58L). Ms. Stuhring (21L13), Mr. Hoggard (66SeaTac 9-20), and Mr. Oebser (55RCAA,7B-2) commented that mitigation for road rehabilitation must be provided.

__Response:__ Table 5-4-8 of the Draft Supplemental EIS contains a listing of overall best management practices that will be undertaken by the Port during construction. Included in the listing are actions that will prevent dust, debris, and rocks from being tracked onto area roads, such that cracked windshields would be minimized. Also included is a requirement that contractors repair any damage that they cause to area roads. Because of concerns raised by WSDOT, the Port is reviewing this issue and considering how other large projects have addressed this issue. The primary focus of the Port's review is ensuring that contractors address impacts that their operations cause.

The Final EIS and the Supplemental EIS properly characterize the Port's requirement of contractors. As noted in Table 5-4-8, contractors will be required to repair damage that they create.

8-F. Impact of construction on traffic conditions; Ms. Clark (HT 21) commented that impacts of construction on traffic conditions should be examined. Ms. Brown (HT 56) indicated that the EIS analysis trivialized the impact of the truck trips and that it would take 50 years to transport the fill requirements. Ms. Basareb (HT 78) and Congressman Smith expressed concerns with construction related traffic impacts. Ms. Brown (52AB82,AB83,AB111, AB139, AB141), Mr. Anderson (71L), and Mr. Oebser (55RCAA 1-6) questioned the truck trips and evaluation assumptions. Ms. Brown (52AB80) questioned the consideration of traffic safety. Mr. Oebser (55RCAA 1-1, 1-2, 1-3, 1-5) requested clarification of peak hour truck trips and daily trips)

Response: The Draft and Final EIS, as well as the Draft Supplemental EIS, presented detailed information concerning the impact of construction activity on surface traffic conditions (see Section 5-4 "Construction Impacts" of the Supplemental EIS). Reflected in the analysis of the Draft SEIS is a worst-case condition of 109 one-way truck trips per hour (218 two way trips). On a daily basis this could represent as many as 2,336 daily truck trips (2 -way). In contrast, SR 509 (between I-5 and the Airport) accommodates 80,000 existing daily vehicular trips. Therefore, the truck trips would increase traffic by 2.5%. Based on this evaluation, surface traffic conditions were evaluated and are discussed in Section 5-4 of the Supplemental EIS.

Two alternative conditions of haul were evaluated in both the Final EIS and the Supplemental EIS. Under Option 1, it was assumed that minimal material would be available from the on-site sources (maximize off-site sources) and would result in 109 trucks per hour, per direction as was identified in the Final EIS. For the Supplemental EIS, a longer construction period, resulting in the haul duration being increased from the Final EIS of 3 years to the Supplemental EIS of 5 years, which would decrease the average annual hourly truck trips from 109 to 66 vehicles per hour per direction. See table 5-4-3 of the Supplemental EIS for a comparison of the Final EIS construction methods to that evaluated in the Supplemental EIS. Because peak hour truck trips could vary between 66 vehicles per hour and 109 vehicles per hour on the regional system, both levels were examined in the Supplemental EIS, as summarized in Table 5-4-4.

Option 2 in both the Final EIS and the Supplemental EIS analyzed the impacts of a maximum use of on-site material sources (minimized off-site sources). This option under the Supplemental EIS haul conditions reduced the off-site truck traffic to 26 one-way truck trips per hour. Option 2 Supplemental EIS on-site truck traffic was estimated as 50 one-way truck trips per hour. Transport of on-site haul material would occur either on local roads (Option 2A in Table 5-4-5) or by use of construction roadways built on airport property (Option 2B). Haul routes in the vicinity of the Airport considered for transport of material from either on-site or off-site sources are displayed in Exhibit 5-4-2.

The truck capacity assumed for this haul was 22 cubic yards per truck. This could easily be hauled by a number of truck and trailer combinations with seven or more axles under Washington State regulations. It is anticipated that this haul is likely to be done by a contractor(s) with a range of equipment capable of greater capacity (greater than the 22 cubic yards assumed by this analysis) within legal load limits.

The haul for the runways would be expected to be completed in a manner similar to the haul that was conducted for the 34R RSA. No changes in the number of truck trips would occur due to use of covered trucks or trucks hauling subject to the freeboard requirement noted in Table 5-4-8.

The Draft Supplemental EIS presents an evaluation of vehicular trips and truck trips on all possible haul routes. Previously, the Port examined production rates of various equipment to determine that haul could be completed in 2.5 years, with the runway being completed in late 2000. However, in light of the need to undertake a number of airport improvements, the Draft Supplemental EIS examined a 5 year haul, with the runway being completed by 2004.

Consideration was given to safety concerns associated with traffic levels and fill haul. The commentor indicated that the placement of the fill will generate "dust storms" that will be distracting to drivers on adjacent roads. It is anticipated that the placement of fill will not result in dust storms. As is noted in the Final EIS and Supplemental EIS, during dry conditions, contractors will be required to use water or chemical stabilization to ensure that fugitive dust is minimized.

One commentor indicated that Appendix J of the Final EIS assumed "70 miles per hour highway design speeds, all lanes open, and level terrain for some highways." This comment reflects an incorrect understanding of the analysis performed. The approach used in the Final EIS and Supplemental EIS has used conditions that are conservative and representative of actual conditions. As one example of the conservative approach, HOV lanes were not considered as additional capacity even for use by HOV traffic. All traffic analyzed was analyzed as using general purpose lanes. General purpose lane configurations that would exist in year 2000 were assumed to be open and operating. Some of these may be under construction/reconstruction during the five year haul. As mitigation, the Port will coordinate the Airport haul with WSDOT to ensure minimal interference between construction activities.

Regarding the issue of roadway terrain, the expected haul routes were driven to identify potential concerns and operational constraints. WSDOT as-built records were then reviewed and data collected regarding the severity of grades and length of grade for the regional roadway under consideration as a potential haul route. That data was used to determine passenger car equivalent values for the heavy vehicles using Highway Capacity Manual methodologies. Trucks were analyzed as being loaded in all conditions even through on the return trip they would be empty and have higher operating capability. The effect of heavy vehicles on grade in slowing traffic flow and reducing capacity was considered and is reflected in the level of service results presented in Table IV.23-4 of the Final EIS, and Table 5-4-4 of the Supplemental EIS. These tables show existing, Do-Nothing and "With Project" conditions. As would be expected, some regional routes function at LOS E and F during peak periods, even without the proposed construction traffic. Those roads, in combination with steep grades, could be impacted by construction related traffic. It is anticipated, either through Port approval of the contractor routes or contractor efficiencies, that these routes would not be used for hauling during congested periods.

8-G. Borrow Location: Ms. Stuhring (21L5,14) questioned how close will the on-site borrow sources be to Des Moines Creek, and to the Des Moines Business Park. She further questioned how close such excavations can come to salmon bearing streams per state law. Ms. DesMarais (34L11,24) and Ms. Brown (52AB112,AB126,AB129) requested clarification how Borrow Source 1 would be excavated and redeveloped and why the maps continue to show Borrow #5 and 8 if they are not going to be used. Ms. Brown (52AB6,AB130) questioned the fill assumptions from Borrow 1 and other locations.

Response: The Port's proposal to excavate fill from the on-site borrow source #1 or #2 comply with the setback and buffer requirements of the Des Moines Environmental Sensitive Areas

Ordinance in the same fashion as was proposed by the Des Moines Creek Technology Campus (Des Moines Business Park).

As is noted in the Supplemental EIS, the Port and City of Des Moines have completed a Final EIS for the proposed Des Moines Creek Technology Campus. See response to **comment 4-F**. The Final EIS addressed excavation of only 0.5 MCY (Million Cubic Yards) from this site, as reflected in the Final EIS for the proposed development. However, since completion of the Final EIS, this development proposal has been abandoned. As was identified in the Port's 1995 Preliminary Engineering Study, about 6 mcy of material is available on the site. Thus, the Supplemental EIS examines the possibility of excavating the larger quantity. Section 5-4, beginning on page 5-4-11 discusses the redevelopment opportunities that exist for the borrow source areas. In addition, Exhibit 5-4-6 shows redevelopment possibilities for the borrow source areas. See response to **comment 10-J** concerning a mining permit. As is noted in the Washington Department of Fish and Wildlife March 31, 1997 letter, "The plans (Miller Creek Relocation Plan) I have seen for the channel realignment were well done and if successful will be better than the existing channel."

Page IV.19-5 of the Final EIS provides a description of the Borrow Source Area 1 which characterizes that the site as "The area slopes gently to moderately to the northwest, toward Des Moines Creek ... Elevation ranges from 250 to 350 feet above MSL". This statement is a general characterization of the site, which does contain undulating hills.

The Supplemental EIS and Final EIS maps continue to show Borrow Source #5 and 8 so that the reader can understand the location of source sites that will not be excavated for fill for the Master Plan Update improvements ..." Because of the need to develop an employee parking lot as soon as possible at the Borrow Source 5 location, the Port decided to forgo the material that is available on the site. Borrow Source 8 was eliminated from consideration due to the quantity of wetland present on the site.

See also response to **comment 8-C**.

8-H. Specifics: Ms. Stuhring (21L5) stated "The Draft SEIS still does not clarify if dirt hauling will occur during peak hours of traffic, or if mining will occur during night hours. Only with more specific information can the impact of such activities be assessed."

Response: The Final EIS and Draft Supplemental EIS examine the impact of hauling in five conditions (AM peak, PM peak, afternoon, evening, and night). The consideration of impacts in such a fashion ensures that the full range of impacts are identified and disclosed.

8-I. Peat bog: Mr. Dodge (HT) commented about the presence of a peat bog "in the immediate area of Lake Blue and the retention pond area". Ms. Brown (41L-1) indicated concern for peat bogs.

Response: The Port is aware of the presence of peat on Port-owned land in the Airport vicinity. Areas of known peat presence are in the vicinity of Tub lake, in the area north of S. 154th Street (between 16th and 24th), and near the Northwest Ponds. Based on the preliminary engineering analysis, no peat is known to exist in the area where the Third Runway embankment will be built. However, during the preliminary engineering effort, the Port did consider how the embankment could be engineered if peat were discovered. It was found that the embankment could be engineered in such a manner that the peat is not removed and the embankment would be reinforced/strengthened to allow stabilization.

8-J. Social Impacts: Mr. Forrey (20L3), and Mr. Oebser (55RCAA,7B-1) expressed concern with the schematic maps and "No estimate of road miles from each haul site (some 20 miles away), and attendant exposed regional population are given". Similar comments were submitted by Ms. Brown (52AB113,AB114). Ms. Stuhring (21L5), Mr. Oebser (55RCAA, 1-16) requested a definition/quantification of social impacts from truck hauling. Mr. Hoggard (66SeaTac,12-9) commented "Borrow pits will impact future city land use, aesthetics, and socio-economics."

Response: The Final EIS (Chapter IV, Section 23), and the Supplemental EIS (Section 5-4) contain detailed of the impact on the social environment from the construction fill transport. Included in Tables 5-4-2 and 5-4-3 are listings of the conditions along the haul route. The Port's 1995 Preliminary Engineering Report lists the distances to the off-site sources. Commentors suggested that the exhibits showing the off-site borrow sources should include a scale. As the map is schematic, and not to scale, it would not be appropriate to add a scale. As is noted in Section 5-4 of the Supplemental EIS, the on-site borrow sources would not represent constraints to future uses. The Port intends to restore the sites at a minimum to provide the appropriate drainage to prevent formation of wetlands. Other restoration options are discussed beginning on page 5-4-11.

Several commentors imply that the excavation of fill from the on-site sources will restrict the usage of this land to open space or other usage. It is important to note that the presence of some of these sites would be restricted because of their location relative to aircraft overflights. While some uses might be restricted, the Supplemental EIS shows that commercial uses could occur after excavation (see section 5-4). However, as is noted no specific re-development plans have been identified. The social impacts of the excavation from the borrow sites are discussed in the Final EIS and Supplemental EIS, including the impact on the population and human environment as a result of construction impacts.

8-K. Study area: Mr. Overholdt & Ms. Chomica (40L), Mr. Klug (3L5), Mr. Anderson (71L2), and Ms. Shea (72L2) stated that the study area for the construction analysis should include Normandy Park, Burien and Des Moines.

Response: Comments noted. The evaluation of construction impacts included these jurisdictions, was well as numerous others. The analysis area for the EIS was determined during the scoping process and reviewed by the neighboring jurisdictions.

8-L. Construction BMPs: Ms. DesMarais (34L-21,23a) commented that the *Supplemental EIS* contained a listing of BMPs that were not used "during the RSA project" and that that during the RSA construction "dirt height in the haulers exceeded the top of the beds and were not covered, roads were coated with dust and debris, trucks were not cleaned before entering and departing the construction area...". Because of these issues, she and Ms. Brown (52AB76, AB127) expressed concern that the BMPs would not lessen construction impacts. Mr. Schneider (L-2) suggested erosion controls and the identification of a Sedimentation and Erosion Control Representative. Ms. Monteglas (64WSDOT7) suggested other construction actions. Mr. Hoggard (66SeaTac8-7) requested clarification of the sentence at the top of page 1 of Table 5-4-8 and suggested additions to the BMPs.

<u>Response</u>: Contrary to the commentors indication, the RSA projects resulted in minimal impacts on the surrounding communities due to the success of the BMPs. Only in a few instances were complaints with this activity registered and issues were immediately addressed. A substantial number of complaints were received concerning other construction projects in the area not under the Port's jurisdiction, such as the International Blvd. enhancement project. Port contractors complied with the BMPs in most instances. When non-compliance was found, the Port was quick to see that the contractor complied. Trucks were not covered, as material was loaded below the freeboard, or in some cases exceeded the height of the vehicle as long as it was moist material and would not blow off the vehicle. Trucks were cleaned before entering public roads, through actions as listed in Table 5-4-8.

As is noted in Table 5-4-8 of the Supplemental EIS, the Port's BMP's call for the appointment of an experienced Sedimentation and Erosion Control Representative.

The introductory line of Table 5-4-8 should have read: "It is anticipated that this listing would be included in the requests for bids, <u>and included in contractors construction plans</u>" (underlined representing the correction included in the Final Supplemental EIS.). The Port will enforce compliance with the BMPs, and it is expected that the local jurisdictions will also enforce the provisions of the permits.

It is anticipated that the Haul Route Supervisor will be a full time employee, yet the employee may have duties in addition to supervising the haul routes. The reference to the "Storm Water Management Manual..." has been revised to the "King County Surface Water Design Manual".

8-M. Construction Noise: Ms. DesMarais (34L) questioned "how will construction noise, combined with aircraft noise and other noise impacts .... affect the environment? B(0 People? (C) Animals?" Mr. Oebser (55RCAA,1-13,1-14) questioned the effects of combined construction noise with aircraft noise and suggested that construction not occur at night. Mr. Hoggard (66SeaTac,7-5) indicated that the construction noise evaluation is inadequate and that "maximum noise levels" should be identified, particularly during the nighttime hours.

<u>Response</u>: Final EIS Chapter IV, Section 23 "Construction Impacts", Chapter IV, Section 16 "Plants and Animals" and Supplemental EIS Section 5-4 "Construction Impacts" discuss the impact of noise and construction on people and animals. As is noted in the Final EIS and the Draft Supplemental EIS, aircraft overflights are expected to overshadow noise from construction

activity, except during low periods of aircraft activity. Beginning on Page 5-4-14, maximum construction noise levels are identified.

8-N. 34R Truck Trips: Ms. Brown (52AB81,AB140) asked "how many cubic yards of fill were the double haul trucks for ....(34R RSA)... able to haul on the average?"

Response: The 34R RSA required 475,000 cubic yards. Based on a 10-hour work day, the project resulted in about 200 round truck trips per day or 400 one-way truck trips per day. This project has been completed to date with about 46% of the trucks being truck/trailer combinations and 54% being truck trains. These vehicles carried 22-23 cubic yards of uncompacted material.

8-O. Wetland Mitigation Roadway: Ms. Brown (52AB125) expressed concern with the construction traffic levels due to the wetland mitigation construction.

Response: The Draft Supplemental EIS identifies the construction traffic levels in contrast to the existing traffic levels in the vicinity of the proposed wetland mitigation site in Auburn.

8-P. Prolonged Construction: Mr. Kirsch (69ACC,ES-3,Pg 1.3,1.4,4.21) commented that a longer construction period will "prolong the region's exposure to extreme traffic congestion and dangerous road conditions".

Response: Comment noted. However, as is acknowledged in the Supplemental EIS, an extended construction schedule for development of the Third Runway embankment offers the opportunity to reduce the impacts on surface transportation conditions. The Supplemental EIS acknowledges that this could increase the duration in which adverse impacts are experienced by residents, but the magnitude of the impact could also be lessened.

8-Q. On-Site Borrow: Mr. Kirsch (69ACC,ES-4,Pg 4.18-4.19) commented that the Draft SEIS "ignores the consequence of strip-mining on local water resources, neighborhood character and the potential for future development". Mr. Kirsch (69ACC,Pg 4.18) commented that strip mining is not permissible under the Des Moines zoning ordinance "which might require "post-excavation restoration."

Response: The Final EIS and the Supplemental EIS presented a thorough consideration of the consequence of use of fill material from the on-site borrow sources. Chapter IV, Sections 19 "Earth Impacts" and 23 "Construction Impacts" in the Final EIS provide a detailed discussion concerning the on-site borrow sources. Section 5-4 of the Supplemental EIS includes additional information concerning construction related impacts. As is noted, no specific re-development proposals exist for the properties, with or without the proposed Master Plan Update improvements. However, as is shown in the Supplemental EIS Section 5-4, significant re-development opportunities are available. As is noted in response to **comment 8-J**, the social impacts of the on-site sources are discussed in the Final EIS and Supplemental EIS, including impacts to local residential areas, groundwater, surface water, biotic communities, etc. See also response to **comments 10-A through 10-D** concerning ground water impacts.

To the extent these policies seek to preclude the expansion of the Airport, which has been deemed an essential public facility, these policies may be inconsistent with Countywide Planning Policies, the 1995 Update of VISION 2020 PSRC resolutions, the essential public facility provisions of GMA, and King County's Comprehensive Plan. See also response to **comment 10-J.**

8-S. Stockpile Common fill: Mr. Kirsch (69ACC,Pg 4.17) commented that the "DSEIS does not discuss how or where this fill (common material) will be stockpiled if it cannot be transported immediately to the construction site".

Response: Final EIS Chapter IV, Section 19 provides a detailed discussion concerning possible stockpiling and as shown on Exhibit IV.19-1, has identified the location and impacts of as many as 4 stockpile locations. Because these locations, and the associated impacts do not differ over the information presented in the Final EIS, it was not necessary to repeat the information in the Supplemental EIS.

8-T. Alternative Transport Impacts: Mr. Kirsch (69ACC,Pg 4.20) stated "this (worst-case) assumption overlooks the distinction between the types of impacts associated with truck transport ..... and those which might be associated with alternative transport method.."

Response: The FAA and the Port have clearly recognized the differences in impacts between conventional truck haul, as discussed in the Final EIS and Supplemental EIS, and alternative methods of delivery. As a result, the Final EIS and Supplemental EIS acknowledge that if a delivery method other than that evaluated in these documents is selected, that additional environmental processing could be required.

8-U. Interchange Accidents: Ms. Brown (52AB83) stated that WSDOT considers the SR 509 and SR 518 interchange as the areas most hazardous interchange and that additional truck traffic should not be directed to this location. The Draft Burien Mitigation Report (74Burien) identifies that WSDOT accident information for the SR 509/SR 518 interchange area record 548 accidents over the past 16 years, or 3 accidents per month.

Response: Comments noted. The concern about accident rates at SR 509/SR518 interchange was addressed in response to comment R-12-28 in the Final EIS (Appendix R). WSDOT has specifically requested that the Port take action to promote proposed construction haul use of SR 509 as a preferred option by all contractors, reducing demands on the regional roadway network east of the Airport (see Final EIS page J-25).

WSDOT indicates that it has considered this interchange in their safety improvement program due to a continuing problem with red light violations involving southbound left-turns and westbound through movements. The interchange itself is not considered hazardous for use by trucks. WSDOT's proposed solutions to the interchange accident problem involve mostly small operational type improvements such as rumple strips, additional signing, and possible modifications to improve the visibility of the traffic signals. WSDOT has also preliminarily identified a project to add a direct ramp connection to provide for a south to east bound movement, eliminating that movement from the at-grade interchange. The ramp project is considered a low priority project by WSDOT and will not likely be programmed for some time.

9. BIOTIC COMMUNITIES/WETLANDS/FLOODPLAINS

9-A. Corps of Engineers: Ms. Brown (HT 89) states "The draft environmental impact statement, the Corps of Engineers was intricately involved and now they're not any more."

Response: The Corps of Engineers was a cooperating agency in the preparation of the Draft and Final EIS. In December 1996, the Port of Seattle submitted a permit application for wetland fill. The Draft Supplemental EIS provides a summary of the permit application submitted to the Corps.

9-B. Bald Eagles: Ms. Brown (HT 86,52AB50,AB51,AB52) stated that the EIS failed to "mention the nesting bald eagles on the east side". Ms. Stuhring (21L11) commented that the EIS should include a broadened study area for birds.

Response: Section 17 "Endangered Species of Flora and Fauna" of the Final EIS notes the nesting eagles at Angle Lake, located east of the existing airfield and other known eagle nesting locations in the communities near Sea-Tac. A biological assessment was prepared for the Final EIS which confirmed that the Master Plan Update improvements would not adversely affect the habitat of the bald eagles.

The Final EIS contained a detailed assessment of the impact of the proposed improvements on biotic communities (plants and animals) and impacts to threatened or endangered species. In response to citizen comments concerning the possible siting of raptor nests in the area of the Third Runway embankment, an additional investigation was conducted as reported in the Supplemental EIS. This investigation found that raptors are not nesting in the area of the embankment.

9-C. Project impacts: Ms. Basareb (HT) indicated that wetlands had not been properly evaluated.

Response: Chapter IV, Section 11 "Wetlands" of the Final EIS contains a detailed analysis of the wetland impacts. Section 5-5 of the Supplemental EIS addresses wetland impacts and discusses the Port's progress in the U.S. Army Corps of Engineers section 404 wetland fill permit process. See also response to **comments 1-J**.

9-D. Impact on drinking water and fish: Mr. Oebser for Congressperson Keiser (HT 33) asked what the impacts of the project would be on drinking water and fish. Ms. Brown (52AB53) and Mr. Oebser (55RCAA,4-7b), Ms. Overholt (58L) requested more detail concerning impacts on fish, including salmon.

<u>**Response**</u>: Final EIS Chapter IV, Section 10 "Water Quality and Hydrology", and Section 16 "Plants and Animals" discuss the impacts on water quality and fish habitat. As is discussed, the proposed improvements are not anticipated to adversely affect drinking water or fish habitat. No adverse impacts are expected to salmon from the proposed improvements, as is discussed beginning on Page IV.16-4 and IV.16-10 of the Final EIS. As discussed in the Final EIS, the relocation of Miller Creek will enhance fisheries habitat by converting the existing drainage ditches into a stream channel that maintains required water conveyance as well as fish habitat.

9-E. Flooding: Ms. Brown (HT 97), Mr. Brown (HT 102), Ms. Overhold (58L), and Ms. Clark (HT 96) indicated concern with flooding on the west side of the Airport and the impact of the runway on this area. Ms. Brown (52AB35,AB115) indicates that "recent construction at the airport increased the area of impervious surface which caused 1996 flooding" and that floodplain compensation is inadequate.

<u>**Response**</u>: Chapter IV, Section 12 "Floodplains" of the Final EIS contains a detailed description of the impact of the proposed improvements on floodplains. As this document states "Without mitigation, construction, and operation of the proposed Master Plan Update alternatives could result in significant adverse floodplain impacts, including reduction of 100-year floodplain area and flood storage capacity, increased volumes of stormwater runoff and peak flows, and increased flooding potential in downstream areas on both Miller and Des Moines Creeks. Because mitigation would be required to prevent reduction of 100-year floodplain area and flood storage capacity, the proposed Master Plan Update alternatives would not result in loss of flood storage or conveyance capacity. In addition, flow modeling results using detention requirements for the new development show that the proposed Master Plan Update alternatives would not increase peak flows or potential flooding in downstream areas of Miller of Des Moines Creek." The accelerated demand evaluated in the Supplemental EIS would not alter this conclusion.

Increased flooding in the local communities has not resulted from construction activities at Sea-Tac Airport. In early 1997, the Port completed its Comprehensive Stormwater Review (see response to **comment 9-R**), in accord with the NPDES requirements. Key findings of this study, titled <u>Sea-Tac International Airport Storm Drainage System Comprehensive Plan</u>, dated February 1997 are:

- "The capacity of the existing SDS (Storm Drainage System), which was developed over a period of approximately 50 years, was for the most part, sized to handle the 10-year storm event. Future SDS projects will be sized to handle the 25-year, 24-hour event, the generally accepted design standard...
- Despite the historic lower design standard upon which the present SDS was sized, hydraulic modeling results indicate that about 95.5% of the SDS is capable of handling at least the 25-year, 24-hour storm

event. Hydraulic modeling result indicate that the hydraulic capacity would be exceeded during the 25-year, 24-hour storm event in 7,900 feet of SDS piping (about 4.5% of the system), located in various sections of the system. The design capacities of these segments would be exceeded by 20 percent or more for 15 to 60 minutes....

- As stipulated in the NPDES permit, the SDS was evaluated using 1974 as the base condition. Due primarily to the transfer of contributing area from the SDS to the Industrial Waste System (IWS), the area of the SDS that drains to Des Moines Creek has decreased by approximately 98 acres (about 12%) since the 1974 base condition.... Since 1974, approximately 55 acres of the area of the SDS draining to Des Moines Creek have been converted from pervious to impervious due to paving and building construction. Approximately 17 acres draining to Miller Creek were converted from pervious to impervious.
- The estimated peak flows for design storms have decreased in the southeast and southwest basins and increased slightly in the north basin since the 1974 predeveloped base condition. From the analysis, it is apparent that existing SDS basin detention facilities at the Lake Reba Regional Detention Facility at the north end and the Northwest Ponds and Tyee Pond on the south end are adequate to meet current STIA detention requirements. As a result, additional detention is not required to reduce peak flows in any of the major SDS drainage basins." (Pages 1-2 through 1-4)

As the Airport represents less than 27% percent of the Des Moines Creek basin and 4% of the Miller Creek basin, this change is small in contrast to the substantial amount of urban development in the area and would not cause flooding conditions.

9-F. Wetland values: Ms. Stuhring (21L9) questioned how the wetland values were determined and by whom? Ms. Overhold (58L) commented that the wetlands provide values of filtering and runoff control.

Response: The wetland functions and values were discussed in the Final EIS, and are noted in the 404 permit, which is summarized in Section 5-5 of the Supplemental EIS. This evaluation was prepared between August 1995 and December 1996 in accordance with procedures used by the U.S. Army Corps of Engineers guidelines by biologists at the firm Parametrix. The function and values assessment was prepared based on an evaluation of the wetlands, consideration of the other natural resources in the area, and consideration of the biological and physical characterizations of the wetlands.

The functions and values evaluation found that the functions associated with these wetlands are primarily associated with the hydrologic functions (which were valued as potentially important). The biological functions associated with these wetlands are low because the wetlands:

1. Are small in size;
2. Are isolated from significant habitat and occur in a highly urbanized area;
3. Lack permanent open water, ponding or soil saturation; and
4. Contain a high occurrence of non-native plant species.

9-G. SASA Wetlands: Ms. Stuhring (21L8), and Mr. Bradley (68DOE, 2, 3) questioned if the Port has begun the permitting process for SASA.

Response: The fill of wetlands in the area known as SASA has been included in the wetland evaluation of the EIS, and is included in the 404 permit application submitted to the COE.

9-H. RSA Wetlands: Ms. Stuhring (21L9) commented that the Port had proceeded with correcting the RSA and questioned the quantity of wetland filled.

Response: The Port has completed the correction of the RSA for 34L and initiated the RSA correction for 34R, as noted in the Supplemental EIS. The 34L RSA required no wetland fill while the 34R RSA filled less than 5,000 ft^2 of wetland (as noted in the MDNS issued for that project in April 1996). The filling of this wetland was completed subject to a Nationwide 26 permit issued to the Port of Seattle by the U.S. Army Corps of Engineers (reference no. 93-4-00066).

9-I. North Employee Parking Wetlands: Ms. Stuhring (21L9) questioned the filling of wetlands for the North Employee Parking Lot.

Response: The development of the North Employee Parking Lot is proposed to occur north of SR 518 and west of 24th Avenue South and would require the filling of 0.81 acres of wetland. The commentor suggested that the wetland impacts could be avoided if the parking lot were developed on the east side of 24th Avenue S. However, as is noted in the Master Plan Update and the Final EIS/Supplemental EIS, that site is proposed for development of cargo/freight forwarder warehousing. If the parking lot displaced the cargo/freight forwarder warehousing from the east side of 24th Avenue South, the only other Port-owned land that is available would be the site of the North Employee Parking lot. However, the land available at this location that could be used for the cargo/warehousing capability would not be large enough to accommodate anticipated needs. Restrictions exist on portions of the site of the North Employee Parking lot due to the Runway Protection Zone, which restricts certain land uses that could pose a safety risk.

9-J. Pond and Netting: Ms. Stuhring (21L10) commented that "the Draft SEIS states a need to remove wildlife attractions and on the other hand deliberately creates wildlife attractions in the form of retention ponds and uncontrolled floods." She further questioned why Tyee and Reba detention ponds have not been netted if wildlife hazards are such a concern.

Response: The development of on-site detention ponds at Sea-Tac was undertaken before it was understood that these facilities attract wildlife hazards to aircraft operations. The FAA's airport certification guidance contains specific requirements for wildlife management, including the removal of wildlife attractants. This philosophy is also noted in an FAA advisory memorandum dated February 9, 1996 which states "The FAA is opposed to any land-use development or practice that attracts or sustains populations of hazardous wildlife within the vicinity of an airport, or causes movement of hazardous wildlife ..."These land-use development/practices include man-made wetlands...."

Tyee Pond operates as a dry pond, with Des Moines Creek passing through the pond. Thus netting is not warranted in light of the infrequent ponding. Lake Reba was developed before guidelines were developed for wildlife attractants. It is anticipated that netting of this facility will likely occur in the future, along with any future open water detention facilities in the immediate vicinity of the runway system.

9-K. Mitigation Approval: Ms. Stuhring (21L9) questioned "What environmental agency has given the Port and the FAA permission to allow such an MASSIVE upheaval to our ecosystem". Mr. Frause (53L4) questioned the agencies responsible for the permits.

Response: Before implementation of the Master Plan Update improvements can occur, permits from various agencies must be obtained, as listed in the fact sheet for the Final EIS and Supplemental EIS, and Chapter III of the Final EIS. This includes a Section 404 permit from the U.S. Army Corps of Engineers. Public notice of the permit will be conducted to ensure that interested parties have the opportunity to review and comment on permit issues.

9-L. Mitigation: Ms. Stuhring (21L) commented "Where and when in the State of Washington have wetlands been removed and mitigated by starting new man-made wetlands in a watershed miles away".

Response: Several mitigation projects in Washington State have included habitat mitigation in watersheds outside the basin of impact. For example, Paine Field has recently entered into a Memorandum of Agreement with resource agencies for a wetland mitigation bank that includes wetland habitat mitigation in a watershed adjacent to the watershed of impact. Seattle City Light has negotiated Roosevelt Elk and wetland habitat mitigation in the Nooksack drainage basin to compensate for impacts associated with three reservoirs constructed in the Skagit River basin. Wetland mitigation projects for highway improvements, completed by the Washington State Department of Transportation, often consolidate impacts to several smaller wetlands into a larger wetland several miles away from the area of impact.

Mitigation for certain wetland functions is proposed to occur in the basin of impact for the proposed improvements at Sea-Tac Airport. The non-habitat functions of the wetlands (flood storage, water quality, water conveyance, etc.) and certain habitat functions (fish habitat) are being replaced through on-site stormwater management and the Miller Creek Relocation Plan. On-site habitat improvements for birds and small mammals will occur as a result of the Miller Creek Relocation Plan and the acquisition of the residential property along at least 1-mile of Miller Creek. Removal of residential land use from Miller Creek enhances riparian buffers for fish, small mammals, and amphibians. The relocation of Miller Creek results in the planing of at least 3-acres of plowed land with native vegetation that will provide habitat functions.

While the wetland mitigation is strictly occurring in an adjacent watershed, the proposed mitigation is benefiting the same geographic region as the impact area, namely Central Puget Sound. Habitat benefits to Central Puget Sound area occur by incorporating features (permanent flooding, hydrologic connections to significant salmonid habitat, and greater habitat diversity) into the mitigation design to benefit species and populations that are not watershed dependent.

9-M. On-Site Mitigation: Ms. Stuhring (21L10) suggested that wetland mitigation occur in the area of the on-site borrow because the wetlands serve to replenish the aquifer. Ms. Kludt (57L) commented that mitigation should occur in the same basin. Other concerns with mitigation outside the basin were submitted by Mr. Oebser (55RCAA 4-3), Mr. Kirsch (69 ACC, Pg 4.14), Mr. Taylor (85DOI), and Mr. Pugh (76L).

Response: In accordance with FAA guidelines, wildlife attractants are not to be encouraged in the immediate airport vicinity. Therefore, development of replacement wetlands in this area would conflict with airport safety requirements. Also, much of the wetlands that would be filled are not capable of aquifer recharge due to the presence of glacial till in most of these areas. The till serves as an effective barrier to such aquifer recharge. Instead, the wetlands that are proposed to be filled provide a hydrological function of conveying seep flows to Des Moines or Miller Creeks. See Appendix Q of the Final EIS.

9-N. Local Regulations: Congressman Smith (33L) stated ".. the SEIS overlooks how affected wetlands will be replaced in accordance with the local regulations." A similar comment was submitted by Mr. Kirsch (69ACC,Pg 5.3) and Mr. Hoggard (66SeaTac, 10-1).

Response: In developing the wetland mitigation plan, extensive care was placed on replacing the wetland values in the Airport area where practical and where the replacement would not conflict with the safety of aircraft operations. The final mitigation plan achieves this balance by replacing the hydrologic functions of streams and wetlands within the drainage basin of impact. At this junction, it is premature to know specifically to what extent there would be a conflict with local regulations. Efforts are being made to comply with local regulations. However, as discussed in the Draft Supplemental EIS, it will not be possible to replace filled wetlands in the same sub-basin as the wetlands to be filled due to sitting criterion. See also response to **comment 9-U**.

9-O. Relocated Creeks: Ms. DesMarais (34L23) and Ms. Brasher (54L) asked what effect the relocation of Des Moines Creek and Miller Creek would have on "Des Moines Way, 509 and other major roadways" as well as the creeks. Ms. Kludt (57L1) questioned the effect of fill on the creeks and drainage patterns. Ms. Brown (52AB67) questioned the quantity of soil to be excavated from the creek and characterized the "soil is so soft". Mr. Oebser (55RCAA 4-1,4-5) and Ms. Kludt (57L2) questioned the ability to relocate Miller Creek in light of a Settlement (Kludt vs King County) and concerns that impacts on Des Moines Creek were ignored.

Response: The relocation of these creeks to enable the implementation of the proposed Master Plan Update improvements would not affect the operation, use, or maintenance of these roadways. As is noted in the Washington Department of Fish and Wildlife March 31, 1997 letter, "The plans I have seen for the channel realignment were well done and if successful will be better than the existing channel." As is noted in the Governor's Certificate, the approval of the project is conditioned on the project not altering the drainage divide in such as way that increases in stream flows. As was shown in the Final EIS, the proposed improvements will not alter in-stream flows.

Natural stream channels frequently cross areas of soft soil. The existing Miller Creek channel crosses the same soft soils the new channel would be constructed in, and these soft soil conditions have been considered in the channel design. Since the channel relocation does not propose heavy structures that could not be supported by the soils, no long-term or operational problems are expected.

The presence of soft soils have been considered during the planning of construction activities. If construction occurs when the soils are wet, pads may be required to support construction equipment. If construction occurs during the summer months, when the water content of the soils is lower, their strength would be sufficient to support construction equipment.

The commentor submitted a settlement agreement in the Kludt et al v. King County and Port of Seattle case . A substantial amount of change has occurred in the Miller Creek Basin since this settlement. This case related to stormwater runoff and flooding in the vicinity of Miller Creek, among other matters. In the settlement agreement, the Port agreed to undertake certain steps regarding drainage detention. The concerns addressed in the settlement agreement, i.e., stormwater detention, have been considered with regard to the Master Plan Update projects, as documented in the Final EIS and Supplemental EIS. Stormwater detention to address stormwater runoff from the Master Plan Update improvements is included in the Master Plan Update and assessed in the Final EIS/Supplemental EIS. Also concerns with flooding in Miller Creek led to a desire to not increase in-stream flows. As is shown in the Final EIS, the proposed Master Plan Update improvements will not increase in-stream flows (see Final EIS, Chapter IV, Section 10 "Water Quality and Hydrology").

9-P. Relocated Creek: Mr. Schneider requested that "a minimum of one LWD for every two channel widths." as well as other actions to the creeks. Mr. Hoggard (66SeaTac,10-4) indicated that the relocated creeks must meet the buffer requirements of the City of SeaTac.

Response: The proposed creek mitigation will be modified to generally provide 1 piece of large woody debris (LWD) for every 2 channel widths. Because of the nearly flat profile of the stream channel, hydraulic analysis may demonstrate smaller amounts are desirable in certain locations. Wood will also be included in the floodplain and riparian buffer areas. The wetland and stream relocation plans are proposed to meet the City of Sea-Tac's requirements where physically possible and where aircraft safety is not compromised.

9-Q. Wildlife Attraction: Ms. Brown (52AB47,AB48,AB49) asked if the elements of the Master Plan Update, such as the runway or runway extension, are consistent with the requirements of wildlife attraction. Ms. Bilz (61L2) expressed concern for the wildlife once wetlands are lost. Mr. Bradley (68L1) stated "as part of the mitigation for lost hydrologic functions, however, we expect to see some habitat mitigation that will not result in danger to aircraft..."

Response: Airport facilities are designed so as to minimize their attraction by wildlife. However, as part of the Airport's certification, the Port is required to have a wildlife management program to address wildlife conflicts. Thus, if wildlife were encouraged by some attractant, the wildlife management program would require the Port to remove the wildlife or the attractant. The Port is proposing to replace wetland habitat impacted by the proposed project with new wetland habitat values outside the basin. This loss of habitat in the Airport area was examined in the Final EIS and shown as to not have a significant adverse impact.

In replacing the non-wildlife attractant values from the impacted wetlands, the Port would anticipate improving certain conditions in the area. However, this will be done so as to minimize use of habitat that is an attractant to species that could pose a safety issue. An example of habitat improvement is the removal of existing residential land use impacts from the portions of Miller Creek in the acquisition area. See response to **comment 9-N** for details of habitat mitigation proposal in the impacted drainage basin.

9-R. Comprehensive Storm Drainage Plan: Mr. Oebser (55RCAA,4-4) questioned why the Port's February 1997 Airport Storm Drainage System Comprehensive Plan" was not acknowledged in the Draft SEIS and how the Final EIS differs from it.

Response: The Port's "Sea-Tac International Airport Storm Drainage System Comprehensive Plan" was issued two weeks after the publication of the Draft Supplemental EIS. As the executive summary for the report states: "This study has addressed existing stormwater runoff requirements associated with facilities that are in place today....This study complies with requirements from the Washington Department of Ecology (WDOE) that arose during an amendment to the STIA NPDES permit (August 1996). See also response to **comment 9-E**.

9-S. Mitigation Goals: Mr. Oebser (55RCAA 4-7a) indicated that the mitigation plans should be more specific as to how the goals will be achieved (i.e., fish enhancement).

Response: The mitigation plan included as Appendix P to the Final EIS identifies specific actions the Port would implement to relocate Miller Creek and enhance fish habitat. These actions will be incorporated into detailed engineering plans that show specific locations and types of all habitat improvements. The permitting process will allow additional opportunities for public comment on these plans.

9-T. Lake Reba: Mr. Anderson (71L) commented that impacts on Lake Reba were not adequately examined. Mr. Hoggard (66SeaTac,11-7) stated "Acknowledge that a plan for Lake Reba relative to operation and flood control procedures will be prepared to the satisfaction of the City."

Response: A thorough consideration was given to Lake Reba during the preparation of the Final EIS, as documented in the water quality and hydrology evaluation presented in the Final EIS (see Chapter IV, Section 10). The proposed improvements are not anticipated to affect Lake Reba or the detention facility.

9-U. In-Basin Limits: Mr. Kirsch (69 ACC, Pg4.14-4.15) noted that "no explanation for why these limiting conditions (all undeveloped, non-forested, non-wetland sites with average slopes less than 5%) were imposed." Mr. Hoggard (66SeaTac,11-5) noted that the criteria "ignore(d) the fact that other areas, though developed or partially developed" could serve as mitigation sites. Mr. Hoggard (66SeaTac, 11-6) requested clearer maps, with property ownership noted.

Response: The limiting conditions were used to define land potentially suitable for wetland mitigation. They define conditions that are generally required for the development of successful wetland mitigation. Undeveloped land is an important criterion because it would not be economically feasible or ecologically suitable to displace residential or commercial development to construct a wetland mitigation project. Mitigation was not considered on lands that supported forested cover because forests are highly valued for aesthetics and they already provide important wildlife habitat functions. Permitting agencies discourage the elimination of forested habitat to construct wetland mitigation. Sites with slopes greater than 5 percent were not considered suitable for wetland mitigation because constructed wetlands must be nearly level to allow distribution of water over a relatively large area. Construction of a relatively large mitigation project on a slope greater than 5 percent would be excessively expensive. Finally, the water source for a wetland constructed on a slope could be difficult to identify and guarantee. Numerous small undeveloped areas were not considered as feasible mitigation sites because of their close proximity to development, and lack of habitat corridors. These limitations would affect the success of the mitigation.

For purposes of the Supplemental EIS, no additional maps are warranted. However, it is anticipated that as part of the U.S. Army Corps of Engineers permitting process, that other maps may be requested.

9-V. Stormwater Impacts: Mr. Kirsch (69ACC,Pg4.31) stated "the document includes no more than a cursory mention of these impacts (impervious surfaces, increase stormwater runoff flow rates and volumes and increased pollutant loadings) and includes only a vague reference to mitigation".

Response: A thorough consideration was given to the issues during the preparation of the Final EIS, as documented in the water quality and hydrology evaluation presented in the Final EIS (see Chapter IV, Section 10).

9-W. 401 Certification/GMA: Mr. Bradley (68 DOE, 2) stated "If a water quality certification is issued... it will be provisional upon compliance with ...(SEPA) and the Growth Management Act (GMA). The Port should work with the surrounding jurisdictions to ensure that comprehensive plans ... include recognition of the proposed airport expansion project..." and comply with BMPs, NPDES and State General Sand and Gravel Permit.

Response: The proposed improvements will be undertaken in a manner that complies with all applicable Federal, State and local regulations, and with all applicable permits and approvals required by law. Both the Puget Sound Regional Council (PSRC) and the Port have contacted surrounding jurisdictions to advise them of their need to make their local comprehensive plans consistent with regional policy.

9-X. **154th Relocation costs:** Mr. Bradley (68 DOE, 3) stated "The DSEIS describes this scenario (tunnel under RSA) as the most costly, but there is no breakdown of the associated costs." and notes that this information would likely be needed during the permitting process.

Response: Comment noted. This information will be available if requested during the Section 404 permitting process.

9-Y. **Bank Stabilization:** Mr. Bradley (68 DOE, 4) stated "...bank stabilization may be necessary to ensure that the mitigation site is protected in a way to allow success."

Response: Comment noted. The Port is anticipating that bank stabilization will be required at the Auburn wetland mitigation site due to erosion of the Green River riverbank. While this erosion is not anticipated to adversely affect the mitigation site, it would be necessary to enable a continuous County/City trail along the western portion of the river. King County is investigating stabilization options.

9-Z. **Omitted Wetlands**: Mr. Hoggard (66SeaTac,10-2) stated "The DSEIS does not identify a Class II wetland located at approximately 1000 S. 158th Place S." as well as other private property. Mr. Taylor (85DOI) commented that "additional impacts would occur as a result of small size and closer proximity to human activities."

Response: All wetlands listed in the City of SeaTac's Critical Areas Map, the King County Sensitive Areas Map Folio, and the U.S. Fish and Wildlife Services National Wetland Inventory were included in the impact analysis. Additionally, wetlands were identified in off-site areas by aerial photograph interpretation and visual inspection from public roadways. A visual inspection of the area at 1000 S. 158th Place in the City of SeaTac did not identify any wetlands. A similar visual inspection of the Vacca properties indicates that this land was likely once wetland that was converted to farmland.

As is noted in the Final EIS, the Supplemental EIS and the Section 404 Permit application, a delineation of wetlands located off of Port-owned land was not conducted due to the Port's inability to gain access to these properties. Therefore, it is presumed that the U.S. Army Corps of Engineers will establish a process for the Port to identify and mitigate wetlands located on newly acquired property as part of the permit approval process.

Significant coordination occurred with the U.S. Army Corps of Engineers (COE) and the U.S Fish and Wildlife concerning the wetland issues. All impacts to wetlands that could be identified on Port-owned land occurred. This delineation of wetlands has been confirmed by the COE.

10. ALL OTHER ISSUES

10-A. Stability of the soil/mud slides- Mr. Eglin (HT 10) questioned the stability of the embankment and other airport construction locations in light of the number of mud slides that occurred during December 1996-February 1997. Ms. Clark (HT 21), Ms. Brown (HT 54), Ms. Clark (HT 96), Mr. Caldwell, Mr. Brown, Ms. Brown (HT 102, 52AB45, AB57,AB66,AB68,AB69,AB70, AB71,AB73,AB131), Mr. Forrey (20L), Ms. Overholt (58L), Mr. & Mrs. Miedema (59L) had similar soil condition, mudslide, impact of aircraft vibration and seismic concerns relative to the proposed Third Runway embankment. Ms. Stuhring (21L5) questioned if contaminated soils exist and if they will be used on the project, while Ms. DesMarais (34L25a-e) asked if soil would be cleaned of debris.

Response: Subsurface material over most of the site is primarily till and recessional outwash that has moderate to good bearing capacity, low to moderate compressibility, and is suitable subgrade material. Over-excavation of unsuitable subgrade materials beneath the proposed new runway, taxiways, and embankment toes would be required, however. Over-excavation would include 10 to 20 feet of soft soils in swales that cross the new runway and north safety area; two existing fills, ranging from 15 to 42 feet thick; and, potentially, soils in wetland areas.

The Port's 1995 Seattle-Tacoma International Airport Third Dependent Runway Preliminary Engineering Report evaluated these areas, and quantified the amount of suitable and unsuitable soils in the fill placement areas or S. 154th/156th Street relocation. Chapter IV, section 19 "Earth" of the Final EIS discusses the impacts of the proposed Master Plan Update improvements on earth conditions, including seismic and landslide conditions. Two seismic hazard areas occur on the site of the proposed new parallel runway. Geotechnical investigations indicate these seismic hazards are loose, saturated sediment, about 5 to 20 feet deep, that likely would liquefy during a seismic event. During runway construction, the sediment would be removed and replaced with compacted fill. Seismic hazard areas also occur on Borrow Source Areas 1, 5, and 8. Excavated cut slopes in these areas would be prone to failure during a seismic event. No new information has arisen to alter this conclusion.

The preliminary assessment indicated that there is little potential for contamination associated with activities that have occurred or currently occur on the undeveloped northwestern portion of the Airport facility. A review of federal and state agency data bases revealed one site north of SR-518, two sites immediately south of South 176th Street, three sites on the Airport, and five sites west of the Airport in the new parallel runway development area that are either confirmed or suspected as environmental contamination risk sites.

The potential for widespread contamination of the area appears relatively low. Localized contamination, however, is likely. Potential risks include soil and groundwater contamination by petroleum products associated with underground storage tanks at existing or former residential properties, current or former gas stations, and commercial and industrial facilities, including Sea-Tac Airport. The concrete batch plant currently operating at the north end of this area presents a small risk, as does any site on which machinery that uses petroleum products operates or is serviced.

The large volume of fill underlying the north end of the Sea-Tac runways also presents some risk, primarily because, at the time the fill was placed, monitoring the fill for the presence of hazardous waste generally was not practiced. Some potential exists, therefore, for the presence of zones of contaminated soil within the fill mass.

A commentor questioned if contaminated material will be placed in the fill. The Port does not currently plan to use contaminated material in the fill. However, if such fill were used it would be encapsulated in such a manner, in accordance with Federal and State standards to ensure that risk of spreading does not occur. Suitable construction debris may be used if the material is found to meet the requirements of ensuring that the embankment is stable.

The existing ground in the vicinity of the runway extension or the proposed new runway would not be affected by potential increases in vibration. Fills required in these areas would be placed to minimize post-placement settlement. Settlement of underlying native soils would occur as a result of the surcharge pressure or "weight" of the embankment fills. These settlements would be expected to be minor and would occur during placement of the embankments. Settlement would be minor especially where the underlying native soils consist of recessional outwash or glacial till. Significant post-placement settlement could occur in areas where the underlying native soils consist of soft silt or organic-rich material. These soft soils would be excavated and removed from the site, and replaced with suitable material to minimize post-placement settlement of the embankments. During construction, the embankment fill would be compacted to such a degree that post-placement settlement resulting from saturation of the fill material would be within acceptable limits.

10-B. Aquifer: Mr. Caldwell (HT 17) commented that the "diversion" (relocation) of Miller and Des Moines Creeks will affect the City of Seattle Aquifer and Highline Aquifer. Ms. Brown (HT 41, Lt-1) indicated that the Seattle Water aquifer will be contaminated. Ms. Stuhring (21L10), Mr. Overholdt & Ms. Chomica (40L) indicated that the removal of the wetlands will adversely affect the aquifer. Other aquifer concerns were expressed by Ms. Basareb (HT 77), Ms. Clark (HT 96), Ms. Brown (lt,41L-1,52AB65), Ms. DesMarais (34L4), Mr. Oebser (55RCAA 4-5), Mr. & Mrs. Miedema (59L), Mr. Rowe (63L3), Mr. Anderson (71L), Mr. Kirsch (69 ACC, Pg 4.31), Mr. Bader (67L6-7)

Response: As noted in Chapter IV, Section 10 of the Final EIS, the proposed relocation of Des Moines and Miller Creeks will not alter the in-stream flows. Further, any infiltration associated with these streams that benefits the underlying aquifers will not be affected by the proposed relocations. As is noted in the Draft Supplemental EIS, the wetland functions and values assessment found that the wetlands have little value in groundwater recharge (see page 5-5-5 of the Draft Supplemental EIS). As is noted earlier, the compacted glacial till soils prevent infiltration, which has lead to the formation of wetlands.

The Port of Seattle has conducted several reviews with the Seattle Water Department (now known as the Seattle Public Utilities) to determine the risk of contaminating the aquifer from developing the North Employee Parking Lot. See response to **comment 10-C**. As is noted, the detailed examination of potential groundwater contamination shows that there is very little risk of contamination to the Shallow Aquifer. The Seattle Public Utilities accesses the Intermediate Aquifer, which is located under the aquitard between the Shallow and Intermediate aquifer.

10-C. Seattle Water- Mr. Caldwell commented that the Seattle Water Department issues identified in the comments on the Final EIS were not addressed in the Supplemental EIS. Ms. Brown (41L1) stated "Seattle Water Department ... have requested a legal agreement requiring the Port to indemnify 'costs arising from enhanced monitoring activities, spills, contamination, and remediation of groundwater." Mr. Bradley (68DOE,1) expressed concern with contamination from the north employee parking lot.

Response: The Port of Seattle and the Seattle Public Utilities (previously known as Seattle Water Department) have had numerous coordination sessions concerning the Master Plan Update. Seattle Water's original concern, as noted by their desire for the Port to indemnify the Department against potential contamination, centered on the excavation of 1.75 mcy fill from Borrow Source Area 5, which would have removed much of the till covering the aquifer. The till provides a natural barrier for contaminants from impacting the aquifer. Independently, the Port determined that excavation of the material from that site was not warranted due to the cost to obtain the material and operational issues. As a result, much of Seattle Water's concerns were addressed. Further coordination was conducted to ensure that the soil conditions in the area would ensure the protection of the aquifer.

Based on concerns of Seattle Water, the Port undertook additional groundwater and geotechnical investigations concerning soil characteristics, including permeability and adsorptive capacity. This analysis found:

> "Permeability (or hydraulic conductivity) and adsorptive capacity of soil are significant factors because they largely control the rate at which contaminants can infiltrate and migrate in the subsurface....Near surface soils across the site largely consist of till or a thin layer of fill and recessional outwash over till. .. The till (or till-like outwash) underlying the site consists of a very dense mixture of silt, sand, and gravel. The ability of till to transmit water is very low. This is due in part to its relatively high silt content typically ranging between 25 percent and 40 percent ... and to its compression beneath thousands of feet of glacial ice after deposition... Calculating hydraulic conductivity from available grain size data ... resulted in permeability values in the range of 3 to 4 x 10^{-5} cm/sec. ... These data and the wide recognition of Vashon Till as a low permeability aquitard, show that the till underlying the site has a very low permeability... We therefore conclude there is low potential for contaminants released during construction in the fill/outwash area to infiltrate..."

> "Summary and Mitigation Recommendation: We conclude the proposed parking lot has a very low potential to impact groundwater quality in the Shallow Aquifer. This conclusion is based on the fact that threats to groundwater quality are largely governed by the degree to which surface water can be contaminated and then infiltrate and reach underlying groundwater. ... The extremely small fraction of surface water that does manage to bypass all of the above (drainage system, pavement basecourse, trench backfills, topsoil horizon, etc.) will have to migrate downward through up to 80 feet of dense till before reaching the Shallow Aquifer. In our opinion, the rate and volume of this movement would be so slow that it would pose essentially no risk to groundwater quality." Draft Groundwater Quality Impact Evaluation Proposed North Employee Parking Lot, Seattle Tacoma International Airport" AGI Technologies, April 1997.

10-D. Highline Aquifer: Mr. Caldwell and Ms. Brasher (54L) expressed concern with the Highline Aquifer. Ms. Brown (52AB33) expressed concern with the Highline Aquifer and commented that it "is already contaminated with jet fuel".

Response: Potential impacts of the Master Plan Update alternatives on the Highline Aquifer are discussed in Chapter IV, Section 10 of the Final EIS and in Appendix Q-A of the Final EIS. The Seattle Water Department and Highline Water District operate three and two wells, respectively, in the Highline Aquifer and Deep Aquifer. The presence of existing low permeability silts, clays, and glacial till between potential sources of contamination and these aquifers restricts infiltration and percolation of contaminants originating on the ground surface downward into the aquifers. For this reason, the aquifer currently have a low susceptibilities to contamination and are unlikely to be adversely affected by Airport operations. No reports of contamination to this aquifer from airport activities have been reported.

Construction activities could have impacts on Highline Aquifer susceptibility to contamination and recharge. If excavation of materials at on-site borrow source areas removes glacial till (i.e., aquitard) that now restricts movement of contaminants downward into advance outwash deposits and the uppermost aquifer, potential susceptibility to contamination could increase. The potential risk of contamination would depend on several factors, including the depth of advance outwash or other materials between the aquifer surface and contamination, the characteristics of these deposits (e.g., particle size distribution), and the type, characteristics (e.g., fate and transport) frequency, and quantities of any contaminants spilled on the ground surface. These factors would influence movement of contaminants and the potential of spilled materials to reach the aquifer. Refueling or maintenance of construction equipment would not be conducted at borrow source areas to avoid spills of diesel fuel, hydraulic fluid or lubricants that could otherwise occur. Implementing best management practices, such as installing proper temporary fuel storage and spill containment or designated maintenance areas would eliminate or further reduce spills and contamination potential.

Construction activities could potentially increase or decrease aquifer recharge. Excavation activities at borrow source areas could potentially increase aquifer recharge by removing aquitards (i.e., glacial till), exposing more permeable advance outwash, and increasing infiltration of precipitation. Construction of additional impervious surfaces could reduce infiltration of precipitation and recharge of the aquifer. Potential increases or decreases in recharge would be expected to be proportional to the total area contributing to recharge of the aquifer.

10-E. Quality of water: Ms. DesMarais (HT 47) stated that "We want to know why the Port can dump hazardous waste into our streams without getting fined each time... We had 3,600 parts per million glycol in Miller Creek which is a salmon-bearing creek". Ms. Stuhring (21L13) expressed similar concerns with glycol and urea. Ms. DesMarais (HT 48) stated that "We want to know why the Port can leave maybe a thousand buried oil septic tanks in the north parking lot area that are full or half full and not have to drain and remove them." Ms. Brown (52AB59) voiced concern over contamination from potentially leaking underground heating oil tanks. Mr. Hoggard (66SeaTac,9-21) stated that the EIS should "specify improvements to be made at deicing locations where the places are too long and their tails hang out over the storm drain."

Response: The Port's "*Annual Stormwater Monitoring Report for Seattle Tacoma International Airport for the Period July 1, 1995 through June 30, 1996*" provides a detailed listing of the quality of stormwater discharged from the Airport. This report is hereby incorporated by reference in the Final Supplemental EIS. A copy is available for public review during normal business hours at the FAA Renton, Washington offices and the Port of Seattle Sea-Tac Airport offices. As this report notes:

> "The results show that stormwater runoff from STIA subbasins that drain the airfield (runways and taxiways) is cleaner than comparable regional areas .... Many analytes were consistently not detected, or were found at levels well below receiving water criteria .... The Port's Stormwater Pollution Prevention Plan (SWPPP) has achieved measurable results, reducing bacteria and ammonia at SDE4, and reducing petroleum products in the Taxi Yard runoff. Runway deicing chemical application resulted in stormwater pollutants below any toxic levels, although no standards exist. BOD_5 and ammonia were similar to concentrations measured last year. Little of the urea applied to the North and South Satellite areas during deicing decomposed to ammonia before exiting the STIA outfalls. Concentrations of ammonia were less than 30% of the acute criterion. .... Aircraft deicing glycols in STIA stormwater appeared well below toxic levels even during periods of heaviest application...." (Executive Summary Pages 1 and 2)

At the time that the Port acquired much of the residential area in the Noise Remedy Program, there were no Federal, State or Local laws requiring the removal of underground oil tanks. Thus, where appropriate, these facilities were left in place. However, with the passage of the new laws, the Port has made progress to remove the underground oil tanks in accordance with Federal, State and local laws. Implementation of the proposed Master Plan Update improvements will result in a cleanup of any areas where leaking underground storage tanks are discovered. In addition, all underground storage tanks will be removed from the sites of the future improvements.

10-F. Impact of the project on property values: Mr. Bartlemay (HT 24) commented that "they're losing value in their property.... and that isn't even considered in this Supplemental EIS or any EIS that has been printed so far." Similar property value impacts were expressed by Mr. Caldwell, Ms. Brown (52AB122), Mr. Hoggard (66SeaTac,12-5,12-7), and Mr. Bader (67L6-3). Ms. Brown (HT 67,AB144,AB145,AB146) commented that she submitted detailed real estate data showing losses in property values that was ignored and that the EIS evaluation doesn't "pass a sanity check".

Response: Chapter IV, Section 7 of the Final EIS discusses the issue of property value impacts. Appendix T of the Final EIS contains the data submitted on the Draft EIS. This commentor has indicated that Sea-Tac Airport has adversely depressed property values. However, no credible information has been identified that would support this conclusion. Historic trends indicate that property values in South King County in general have not appreciated as fast as northern King County. In addition, several of the issues identified in the data supplied by the commentor could also be attributed to overall economic conditions in the region (such as overall property declines in the early 1990s) instead of airport related actions.

For a number of reasons, it is believed that negative property value impacts have not resulted in the vicinity of Sea-Tac Airport. This appears to be supported by a recent court case. As was noted in the Final EIS (see page IV.7-4), in 1995 a jury failed to award damages over claims of property value impacts by citizens in the Airport area. Further, the Port of Seattle's Noise Remedy Program has offered to sound insulate residential properties affected by 65 DNL and greater noise levels. This program, costing about $15,000 to $20,000 per property would compensate for lost property values. As was noted in the Final EIS, using studies of aircraft noise related property value impacts, noise could adversely affect property values by 1% of value for every decibel above 65 DNL. Given the average property value of $150,000 in the Airport area, this would translate into a loss of $3,750 for properties affected by 65-70 DNL or $11,250 for properties affected by 70-75 DNL. Thus, the expenditure for sound insulation has exceeded the possible loss in property value.

Using the same methodology that was employed in the Final EIS, using the new noise impacts presented in the Supplemental EIS, a revised evaluation was performed.

	Comparison of Do-Nothing to With Project			
	Year 2005		Year 2010	
Jurisdiction	Units	Value	Units	Value
65 DNL & Greater				
Burien	820	$ 2,550,000	1,740	$ 8,025,000
Des Moines	(1,240)	$(5,250,000)	(1,840)	$(8,100,000)
SeaTac	550	$ 3,862,500	680	$ 6,375,000
Unincorporated	(140)	$ (750,000)	700	$ 2,025,000
Total	(10)	$ 412,500	1,280	$ 8,325,000

Note: (xx) indicates that noise impacts would decrease, and as a result, theoretical property appreciation would occur.

Based on the new noise contours, only 170 homes would be within the 65 DNL and greater noise exposure contour that are not currently eligible for the Port's Noise Remedy Program. The proposed sound insulation of these properties that would be newly affected by the Third Runway (which are affected by 65-70 DNL and greater sound levels), will offset any loss in property values that would be experienced with the operation of the new runway.

10-G. Retaining wall/borrow redevelopment: Ms. Stuhring (21L13) commented that the Draft SEIS does not identify a specific design for the embankment or the eventual use of the on-site borrow sources. Mr. Schneider suggested restoration habitat for the on-site borrow.

Response: The Final EIS and the Supplemental EIS address the appropriate level of information concerning the proposed improvements. No further evaluations are anticipated for the Third Runway embankment.

No specific site redevelopment plans exist for the on-site borrow sources. Therefore, if future development proposals arise concerning the long-term use of these sites, appropriate environmental analysis and public coordination would be conducted. The Department of Fish and Wildlife suggested habitat restoration. Suggestions concerning restoration will be considered, assuming that wildlife attractions can be minimized, and airport safety maintained.

10-H. Mitigation funding and plans: Mr. Oebser for Congressperson Keiser (HT 30) stated "The only reference to mitigation funding is the City of SeaTac's parking tax". Mr. Oebser (HT), and Mr. Kirsch (69ACC,Pg 5.1-5.2) further indicated that the EIS does not contain detailed and/or adequate mitigation plans.

Response: The Final EIS and the Supplemental EIS present mitigation for various environmental impacts. Key mitigation includes: acquisition, sound insulation, wetland development, stream relocation, construction best management practices, etc. Where mitigation is required, the level of detail required by NEPA/SEPA is provided. See also response to **comment 2-AD**.

Most of the comments were directed at the noise mitigation included in the Draft Supplemental EIS. As was noted in the Draft Supplemental EIS, the Port's existing Noise Remedy Program addresses all but about 170 homes that would be exposed to 65 DNL and greater aircraft noise levels through 2010 with implementation of the proposed improvements. The proposed mitigation measures included in the Draft Supplemental EIS provide mitigation for residential areas experiencing a significant increase in noise as a result of the proposed improvements, and which are not currently slated to receive sound insulation through the Noise Remedy Program. See also response to **comment 7-G**.

10-I. Economic impacts: Ms. Basareb (HT 77) commented that the economic impacts on schools and the city were not properly addressed. Ms. Brown (52AB143) and Mr. Anderson (71L) asked what the "socio-economic, economic and environmental impacts of all cities surrounding Sea-Tac Airport are considered." Mr. Bader (67L6-4) submitted similar concerns.

Response: Final EIS Section 6 "Social Impacts", and Section 8 "Induced Socio-economic impacts" addresses the economic impacts using generally accepted methods of quantifying impacts. The Final EIS and the Supplemental EIS examine the economic, socio-economic and environmental impacts that the proposed project would have on all communities in the affected area. Many of the commentors could be referring to the socio-economic impact evaluation performed for the Draft Burien Mitigation Report which is addressed in response to **comment 4-J**.

10-J. Mining Permit: Ms. Brown (HT 88, 52B75), and Ms. McKeeman (62L) commented that a strip mining permit will be required. Mr. Pierce (48L) noted that a mining permit would not be needed for the on-site borrow sources, but that the wetland mitigation site would require a permit.

Response: The Port does not presently anticipate requiring a mining permit for the on-site borrow sources. As was noted in the Draft Supplemental EIS, Appendix E (Page E-14) a permit is not required if the project is located on contiguous or adjacent properties, as was confirmed by the Department of Natural Resources, and re-affirmed in their March 31, 1997 letter.

The DNR also noted that a mining permit will be required for the wetland mitigation site. This permit will be sought by the Port and is estimated to require 3-4 months to process.

10-K. Retaining wall: Ms. Brown (HT 94,52AB61,AB62,AB63,AB64,AB72) states "The retaining wall is over three times the standard height for a retaining wall, yet there was virtually no discussion of the engineering difficulties, the engineering risks, or whether or not they can even design it." and expressed other design concerns. Ms. DesMarais (34L25h-j,27) questioned the design/slope of the embankment/retaining walls. Ms. DesMarais (34L26) questioned how the drainage swales that are shown in the Supplemental EIS would function.

__Response__: There is no "standard height" for a retaining wall. Retaining walls are designed and engineered to a height necessary to serve the intended purpose. Any retaining walls used in the Third Runway embankment represent walls that can be engineered and designed.

A final design has not been initiated for the Third Runway embankment. However, as is discussed in the Preliminary Engineering Report and Final EIS, the embankment could take numerous forms. The Final EIS and Supplemental EIS discuss and illustrate possible designs.

Exhibit IV-4-5A on page 5-4-45 of the Supplemental EIS shows a possible design for the northern portion of the embankment. Included in the graphic is a drainage channel and drainage swale. As a final design has not been developed for the embankment, final plans for swales have not been prepared. The purpose of the swale is to channel stormwater runoff from the slope of the embankment, and then drain this area into a receiving stream (for portions of the Third Runway this would be Miller Creek and Des Moines Creek). The Third runway pavement would drain into the IWS. As the surfaces that would drain into the swales would not be paved, and no human/industrial activities are expected to contaminate the runoff, the runoff would be expected to meet NPDES requirements.

10-L. Ray Akers Operating Change Issue: Ms. Brown (HT 89,52Pg15,52AB96) indicated that the EIS does not mention "Ray Akers; he has a suit. They found that the flight manual has changed, which normally requires an environmental impact statement...." Mr. Akers (77L-3, 4,11,Pg3) indicated that "FAA withheld vital information about current and projected numbers of arrivals/departures which overfly the communities of southeast Seattle." as well as mitigation for the impacts.

__Response__: One commentor indicated that a law suit had been initiated by Mr. Akers concerning a change in flight tracks. The FAA and the Port are not aware of a law suit; Mr. Akers has submitted an administrative appeal of the Final EIS, as is noted in Chapter 4 of the Draft Supplemental EIS. Issues raised by Mr. Akers have been identified in the Final EIS Volume 4 Appendix R (page R-61) in addition to the response to comments in the Draft Supplemental EIS. The comments indicated that residents north of the Airport, particularly in Columbia City and the Rainier Valley, expressed concern over perceived increased noise exposure levels from aircraft overflights during the spring-summer of 1995. Based on these comments, the Port and FAA investigated the cause of the citizen comments. North flow arrivals and departures typically occur during VFR (good weather) conditions. Therefore, based on the number of "good weather days" that the Seattle area experienced in the spring and summer of 1995, Sea-Tac Airport operated, largely, in a north flow arrival and departure pattern. Additionally, the number of aircraft operations occurring at the Airport have grown over prior years. The increased number of aircraft operations combined with the occurrence of VFR weather conditions during the summer months of 1995 resulted in additional operations to the north of Sea-Tac during good weather conditions. However, there has been no alteration in the location (relative to the ground) of arriving or departing flight tracks. In addition, the Port of Seattle has compared the flight tracks from prior periods with actual spring 1995 tracks. This comparison showed that that no changes in flight tracks are occurring to areas to the east. See also response to **comment 7-N**.

10-M. Use of Tax Dollars: Mr. Forrey (20L) commented that local taxes have been used in planning.

Response: No local property taxes have been used in funding the Master Plan Update or the EIS on the Master Plan Update. The Port of Seattle does not use its property tax levy for airport purposes. Taxes collected on aviation activity, through either the Aviation Trust Fund or the local $3 airline ticket tax, are used for airport projects.

10-N. Airport drinking water: Mr. Brown commented that the water at the drinking fountain at the Airport "tasted like dirt"

Response: Because of complaints from passengers, the Port has periodically tested the drinking water at the Airport. While all potable water standards are met in the Airport drinking water supply, the water has shown to have a high Iron content. This iron content often leads to comments concerning the taste.

10-O. Water Quality: Congressman Smith states "the SEIS neglects to explore the third runway's impact on air and water quality. Specifically, the SEIS fails to fully examine the impact of the run-off from the project into local waterways; many of which contain critical habitat."

Response: Final EIS Section 9 "Air Quality" and Section 10 "Water Quality and Hydrology" contain a detailed discussion of the impact on these environmental characteristics. The increased aviation demand, examined by the Supplemental EIS, would alter the air quality impacts over the impacts presented in the Final EIS, and are presented in Section 5-2 "Air Quality Impacts" of the Supplemental EIS. Section of the Final EIS, Section 10 also discusses the impact of stormwater run-off from the project on surrounding communities. In addition, impacts of the project on critical habitats are discussed in the Final EIS, Section 16 "Plants and Animals (Biotic Communities)" and Section 17 "Endangered Species of Flora and Fauna". The increased demand would not affect water quality or hydrology, or impacts on habitat.

10-P. Constructed Aquifer: Ms. DesMarais (34L25f-g) asked for more specifics concerning the constructed aquifer.

Response: The Final EIS, page IV.10-17 notes that the Port will consider the development of a constructed aquifer to address water quality and hydrology; Appendix Q-C of the Final EIS provides more detailed information concerning the performance and objectives of the constructed aquifer. During the design phase for the embankment, the Port will perform further considerations of how a constructed aquifer could be used to address water quality and hydrology issues. The Draft Burien Mitigation Report expressed concern with the benefits of a constructed aquifer, while the Department of Ecology has suggested that further investigation be conducted. The Port intends to conduct a further investigation, as part of final project design, to determine the costs versus the benefits.

10-Q. Appendix D Traffic Data: Ms. Brown (52Pg 7) questioned why the evaluation of environmental conditions in Appendix D showed that less NOx would occur With Project in comparison to the Do-Nothing.

Response: As Appendix D notes, the evaluation of possible impacts in the year 2020 (as well as a forecast 10% higher than the new Port forecast) is based on a proportional evaluation relative to the emissions identified in Section 5-2 "Air Quality Impacts" of the Supplemental EIS. As the evaluation for years 2005 and 2010 "With Project" would result in less emissions than the Do-Nothing, the same relationship would be expected to occur by 2020. See also response to **comment 6-D**. Because the proposed improvements would reduce congestion, the reduction in pollution from reduced delay more than offsets the added pollutants from the "With Project" accommodating more air traffic than the Do-Nothing over the foreseeable future.

10-R. Landscape Cover: Ms. Brown (52AB54) requested clarification of the 274 acres of landscape cover impact.

Response: Chapter 5-7 "Other Impacts" of the Supplemental EIS provides a summary of the environmental impacts that were found to not be substantially affected by the new data that has become available since publication of the Final EIS. As a result, the landscape cover would not be altered by the increased demand. Chapter IV, Section 16 "Plants and Animals" of the Final EIS contains a thorough discussion of landscape cover that would be affected by the proposed improvements.

10-S. Hazardous Waste: Ms. Brown (52AB55,AB56) questioned the cost of cleanup and noted other risks could occur in the area.

Response: The cost to clean-up any contaminated areas that would be disturbed as a result of the proposed improvements have been factored into the cost estimates for the proposed improvements. This inclusion is reflected in the high contingency that was used in preparing the cost estimates. As is noted in Chapter IV, Section 21 "Hazardous Waste" minimal hazardous waste sites exist in the areas of the proposed improvements.

10-T. Measurement Units: Ms. Brown (52AB147) asked why the EIS used "measurement units biased in favor of the Third runway"

__Response__: The Final EIS and Supplemental EIS use measurement units in accord with standard industry practice for the evaluation of environmental impacts. These measurement units would not bias the impacts of the "With Project" when comparing those impacts to the Do-Nothing, as is required by National Environmental Policy Act and State Environmental Policy Act evaluations. See also response to **comment 3-L**.

10-U. Litigation/Compliance: Ms. Brown (52AB148,AB158,AB159,AB160) commented that litigation or regulation compliance could affect the construction schedule. A similar comment was submitted by Mr. Oebser (55RCAA,6-1e). Ms. Kludt (3) indicated that the projects will not comply with State and Federal rules and regulations.

__Response__: Litigation could theoretically affect the timing of the implementation of the proposed Master Plan Update improvements. However, until such litigation is filed (and acted upon by the court), it is not possible to define the type of impact that could result. It is also unknown if, in any future litigation that may be filed, whether the party filing suit will seek to enjoin construction, and if it does, whether the court would enter an injunction or stay order. As is shown in the Final EIS and Supplemental EIS, the proposed improvements will comply with all applicable environmental regulations. The commentor cites compliance issues which were addressed in the Final EIS. One commentor indicated that the effects of delays should be analyzed in the EIS. The alternative of delaying the improvements was evaluated, see Chapter II of the Final EIS or Chapter 3 of the Supplemental EIS (pages 3-6, 3-7, and 3-15).

10-V. Health Impacts: Ms. Brown (52AB151), Mr. Oebser (55RCAA,2-3,2-1a,2-2), and Ms. McKeeman (62L) asked why health data was not addressed.

__Response__: No airport related health studies have been conducted concerning the Sea-Tac Airport area. As a result, the Final EIS Chapter IV, Section 7 "Human Health", summarized generally recognized literature concerning probable health issues. See also response to **comment 6-C**.

10-W. Third runway promise: Mr. Rowe (63L4) indicated that the Port had promised to not build a Third Runway.

__Response__: As is stated in the 1985 Master Plan Update Executive Summary (Final Report, Page 1): "A series of policy guidelines and assumptions were developed to reflect both stated Port policy and institutional and environmental constraints. For example, it was determined at the onset that no new runways at Sea-Tac would be considered, primarily because (1) the existing runway configurations had previously been determined to provide adequate capacity for the planning period, (2) there had already been an enormous investment into the existing runways, and (3) construction of the proposed new runway would have a large environmental impact."

This statement has been construed by many neighbors of the Airport as a commitment not to expand the existing airfield. It must also be noted that when the 1985 study was initiated, the findings of the Comprehensive Planning Review and Airspace Update Study had not been completed. The Comprehensive Planning Review and Airspace Update Study found that the assumptions of the Master Plan relative to the adequacy of the existing airfield were incorrect; poor weather conditions were beginning to create significant delays which would worsen in the future as airport activity levels grew. Thus, the 1985 Master Plan was conducted prior to the identification of a worsening poor weather constraint.

10-X. Future Planning: Mr. Hoggard (66SeaTac,2) requested additional information concerning "planned subsequent environmental studies and mitigation plans and their relationship to this phase of environmental assessment and mitigation."

Response: The Final EIS and the Supplemental EIS contain specific mitigation for significant impacts caused by the proposed improvements. No further environmental analyses are anticipated, unless conditions change. See also responses to **comment 10-H, comment 10-P, comment 1-H, comment 2-U, comment 2-V, comment 2-AB, comment 4-B, comment 8-D, and comment 7-T**.

10-Y. Other Impacts: Mr. Hoggard (66SeaTac,13-1) requested substantiation that the new forecasts and new data would not alter the impacts discussed in Section 5-7 of the Supplemental EIS.

Response: Comment noted. The Final Supplemental EIS elaborates on why the conclusions presented in the Final EIS remain valid in light of the new forecasts and additional information.