

Federal Way, Washington Mayor's Quiet and Healthy Skies Task Force Report

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Noise Impacts: Third Runway

Port of Seattle / Seattle - Tacoma International Airport

2000 = 440,611 OPS

Runway Use Statistics

Statistics are derived from Sea-Tac's flight tracking system and may not be the same as official yearly total operations. The Port of Seattle makes no representation regarding the accuracy of the data reported.

Year	Total	16R		16L		3rd		34L		3rd		34R	
		Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
01/01/2007	329,191	104,880	3,790	14,403	112,722			26,327	15,682			23,044	28,343
<i>Runways 16R and 34L became 16C and 34C in 2008</i>													
Year	Total	16C		16L		16R		34C		34L		34R	
		Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures	Arrivals	Departures
01/01/2008	307,887	92,862	10,793	14,540	102,745	4,729	50	31,299	9,049	1,379	79	8,667	31,695
01/01/2009	300,388	26,911	60,531	18,882	41,095	58,701	1,086	11,481	38,043	28,707	1,523	6,157	7,171
01/01/2010	297,538	47,600	19,929	20,980	91,876	46,134	731	13,148	7,635	13,923	887	8,027	26,668
01/01/2011	302,422	54,232	18,667	19,545	96,456	44,748	829	16,604	9,839	10,079	734	7,739	22,950
01/01/2012	279,889	41,249	19,309	16,737	80,016	39,082	757	16,799	13,580	13,596	770	9,720	28,274
01/01/2013	292,219	31,292	22,350	23,207	87,786	48,270	522	13,060	12,915	14,902	638	10,727	26,550
01/01/2014	335,248	35,811	26,404	24,850	90,005	54,365	429	24,500	10,676	17,775	273	10,295	40,065
01/01/2015	374,521	6,981	7,798	19,119	112,672	91,486	406	7,729	276	49,661	412	11,309	66,672
01/01/2016	407,331	2,107	45,185	22,283	103,477	123,426	226	3,607	5,438	45,351	174	6,672	49,385
01/01/2017	413,182	1,181	44,881	21,136	93,657	114,745	136	1,548	2,879	57,287	153	10,409	65,160

1997 Sea-Tac International Airport Impact Mitigation Study (on Third Runway Impacts)

Table 7.05
Neighborhoods Identified for Overflight Sound Insulation and Avigation Easements

Area	Amount
Neighborhoods (12)	
Marine Hills neighborhood	\$19.8 million
Easter Lake neighborhood	\$27.3 million
Steel Lake neighborhood	\$13.0 million
First Avenue neighborhood	\$20.5 million
Kitts Corner North neighborhood	\$11.2 million
City Center neighborhood	\$16.1 million
Mar-Cheri neighborhood	\$0
Dash Point neighborhood	\$0
Lakota neighborhood	\$0
Mirror Lake neighborhood	\$0
Twin Lakes neighborhood	\$0
West Campus neighborhood	\$0
Total - Federal Way	\$107.9 million

It is recommended that the neighborhoods identified in Table 7.05 be completely insulated and granted avigation easements as noted prior to operation of the Third Runway.

Table 7.03
Neighborhoods Identified for LDN Sound Insulation and Avigation Easements

Area	Amount
Neighborhoods (2)	
Star Lake neighborhood	\$19.5 million
Wildwood neighborhood	\$20.7 million
Subtotal - Neighborhoods	\$40.2 million

It is recommended that the neighborhoods and schools identified in Table 7.03 be further studied to determine the full extent of the proposed insulation and easement program. This study should be completed prior to construction of the Third Runway.

Recent Changes in Aircraft Noise in Federal Way: Increased Operations

Aircraft Operations

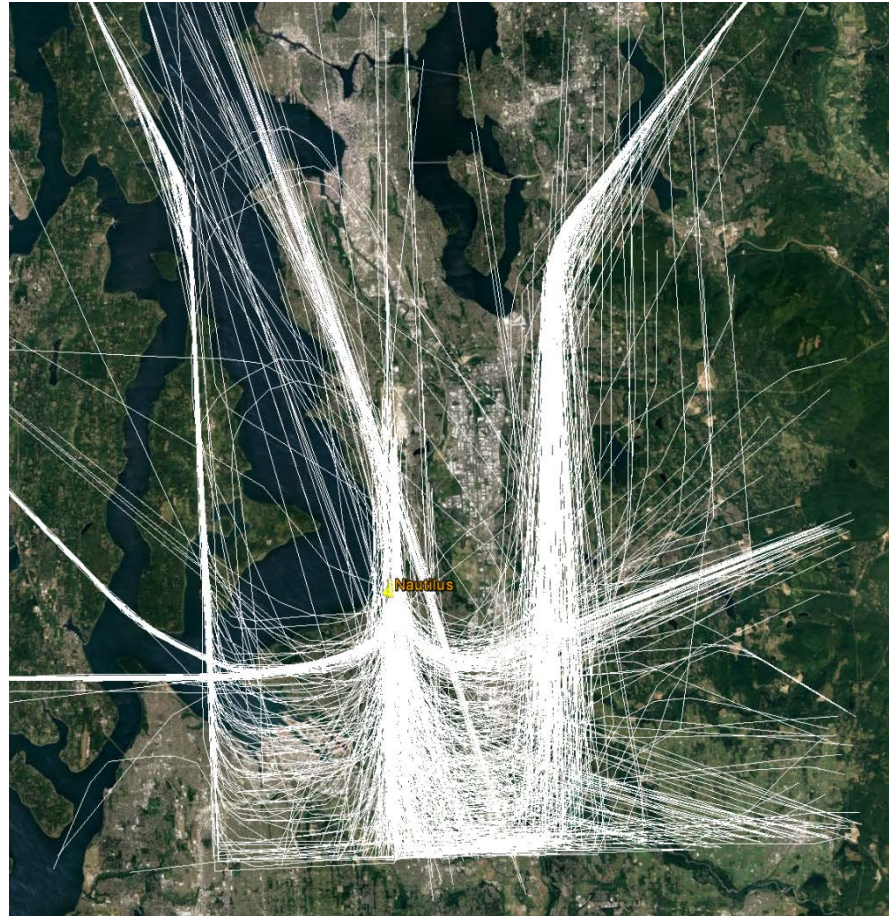
- 2016: 412,170 operations – 8% increase
- 2015: 381,408 operations – 12% increase
- 2014: 340,478 operations – 7% increase
- 2013: 317,186 operations

The difference between 2013 and 2016 was 94,984 operations.

That's 260 more aircraft going over homes per day.

From “Noise Programs & NextGen Briefing” (Port of Seattle Power Point Presentation at May 24, 2017 meeting of Highline Forum held in Sea-Tac International Airport Conference Center) at Slide 4.

Most Impacted Areas



Increasing Federal Way Noise Complaints

Zip Code	City	Complaints January 1, 2014 through June 30, 2015	Complaints July 1, 2015 through May 26, 2017
98001	Algona	6 (0.33/month)	0 (0/month)
98001	Auburn	6 (0.33/month)	10 (0.44/month)
98003	Federal Way	36 (2.00/month)	174 (7.62/month)
98023	Federal Way	91 (5.06/month)	120 (5.25/month)
No zip code listed	Federal Way	1 (0.06/month)	3 (0.13/month)
TOTAL	TOTAL	140 (7.78/month)	307 (13.44/month)

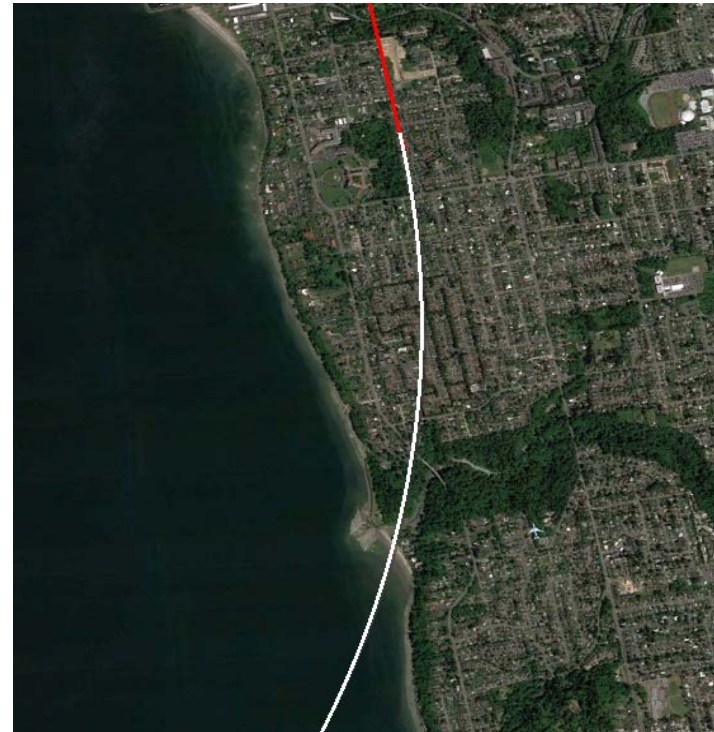
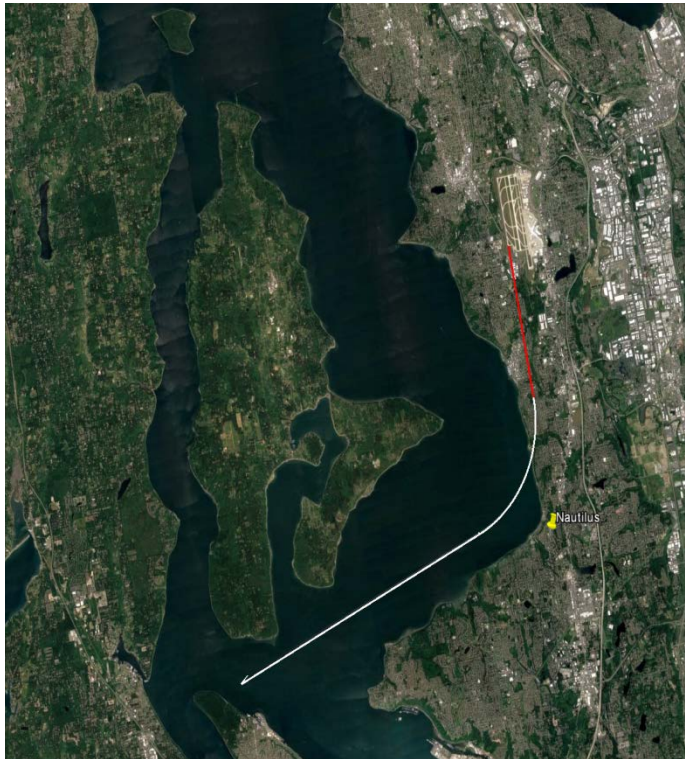
- Compiled from reports provided by the Port to the City of Federal Way Mayor's Office on June 2, 2017

Can it be Abated: Glide Slope

- All runways on the north side (*not* over Federal Way) use the international **standard three-degree glide path.**
- Approaches to the longest runway (34R) that go over Federal Way are on a **lower 2.75-degree glide path.**

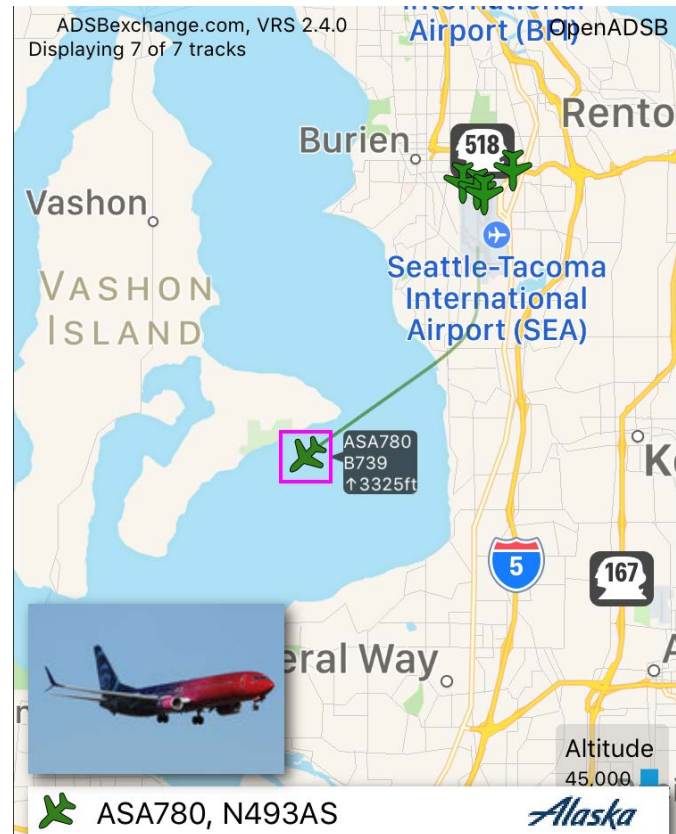
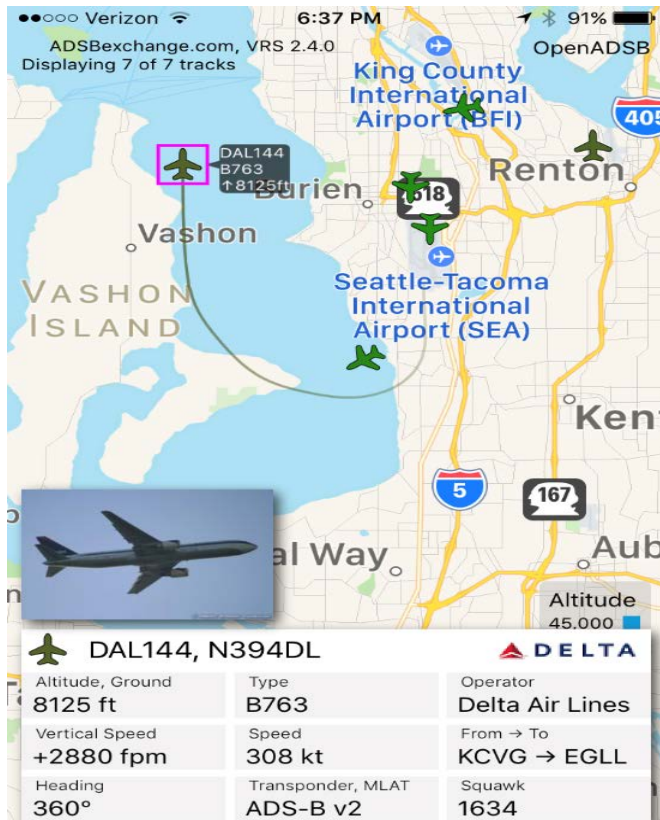
Can it be Abated: Flight Tracks

- The tracks headed to and from the northwest go out of their way over the residential areas, when flying over the Puget Sound would be more efficient with a greatly reduced noise impact.



Can it be Abated: Flight Tracks

- Aircraft departing for Alaska and Asia should also be taking advantage of the unpopulated areas instead of flying over the most populated.



Can it be Abated: Flight Tracks

- Instead of the just-depicted flight paths, which completely avoided all of Federal Way, the Sea-Tac Airport Noise Mitigation plan for south flow departures does the opposite (from “Sea-Tac Airport Noise Abatement Procedures for Jet Aircraft” at Port of Seattle website)



Noise Impacts: Some Recommendations

- Support Congressman Smith's **Aviation Impacted Communities Act**
- Lobby to **change all glide slopes to at least three degrees (or higher) and flight paths so as not to go over populated areas.**
- Make case that **third runway should only be used for its original purpose: inclement weather.**
- Purchase a **portable noise monitor**

Efforts toward Curfew for Cargo Flights

- Port handled 425,800 metric tons of air cargo in 2017—an increase of **16.34 percent in one year!** This was the **sixth straight year with an increase in total air cargo.** As of June 27, 2018, cargo had risen **another 5.1 percent**
- Port’s stated goal is to “[t]riple air cargo volume to 750,000 metric tons.”
- In cargo marketing publications, Port emphasizes Sea-Tac’s **“24-hour operation with no curfews.”**
- Middle-of-the-night cargo flights have led to numerous complaints. Airport director and Port Commissioners have publicly spoken about trying to get resolution on this issue.

(Taken from May 1, 2018 Port of Seattle listserv; 1-26-2017 Port press release; Presentation of Port of Seattle Airport Operations Director Mike Ehl at June 27, 2018 meeting of Sea-Tac Airport Stakeholders Roundtable (StART)); “Port of Seattle 2018-2022 Long Range Plan” Objective 3 (slides 9 and 12); and “Air Cargo at the Port of Seattle” (Marketing Piece provided by Port staff on July 9, 2017))

Efforts toward Curfew for Cargo Flights

- Current law does not allow such restrictions unless:
 - Agreed to by all aircraft operators OR
 - Approved by the FAA after an expensive and time-consuming “Part 161” submission
- Part 161 submission has been approved only one time since 1991 at a small airport in Florida.

Cargo Flight Hours: Recommendations

- **Short Term:**
 - Support for Port's efforts and pressure to intensify efforts to get voluntary compliance from most egregious offenders
 - Pressure on Port to see if some cargo flights could be voluntarily moved to other airports
 - Pressure on Port to cease affirmatively marketing 24-hour availability for cargo aircraft
- **Long Term:**
 - Consider, if able to retain additional allies and if voluntary compliance proves impossible, pressure on the Port to go through a Part 161 submission.

Other Health Impacts: Ultra-Fine Particles (UFPs)

- Ultra-fine particles (UFPs) are particles less than 100 nanometers (i.e. *billionth* of a meter) in diameter.
- University of Washington School of Public Health is currently engaged in a study funded by State Legislature on levels of UFPs in areas impacted by Sea-Tac International Airport.
 - Due December 1, 2019.
 - Former Quiet and Healthy Skies Chair John Resing is on the advisory committee.

From “Ultrafine Particles Near Airports” by Dr. Tim Larson and Dr. Edmund Seto (Power Point Presented at November 15, 2017 meeting of Highline Forum) AND Budget Proviso contained in Washington State Operating Budget passed by the State Legislature in 2017.

Other Health Impacts: Ultra-Fine Particles (UFPs)

- U-W study is not a study on the health effects of UFPs.
- Prior studies on health effects of UFPs were “limited largely to roadway traffic studies” but suggested “associations with cardiovascular, respiratory, and possibly cancer health effects.”

From “Ultrafine Particles Near Airports” by Dr. Tim Larson and Dr. Edmund Seto (Power Point Presented at March 28, 2018 meeting of Highline Forum)

Other Health Impacts: Recommendations

- Support FUNDING NEEDED FOR “second phase” of U-W study on health effects of UFPs.
- Support efforts of Congressman Smith to get passed bill mandating a federal study on health effects of UFPs.
- Encourage Port of Seattle to continue supporting research into relationship between UFPs and aircraft and into health effects of UFPs.
- Ensure scoping on the Sustainable Airport Master Plan (SAMP) EIS includes examination of UFPs (and other emissions/pollution, general health and quality of life issues) and need for mitigation of such.

Sustainable Airport Master Plan (SAMP)

- **Projects** increase in annual passengers handled from 46.9 million in 2017, to 56 million by 2027 (**19.4% increase**), to 66 million by 2034 (**40.7% increase from 2017**)
- **Proposes** construction by 2027 of second passenger terminal with nineteen gates, taxiway extensions, additional air cargo facilities, and approximately thirty other infrastructure projects

Sustainable Airport Master Plan (SAMP)

- SAMP projections for future operations seem underestimated since they project 398,910 operations in 2019, a number *already* exceeded in 2016 (412,170)
- Even with these clearly underestimated projections, SAMP *still* projects 540,400 operations by 2034 (31.1% increase over 2016)

From “Forecasts of Aviation Activity” (Technical Memorandum No. 4 at Page 6-24 (Table 6-8)) AND “Noise Programs & NextGen Briefing” (Port of Seattle Power Point Presentation at May 24, 2017 meeting of Highline Forum)

Environmental Review of SAMP

- Impact on human health and environment must be analyzed under Washington's State Environmental Policy Act (**SEPA**) and federal National Environmental Policy Act (**NEPA**)
- **"Scoping"** July 30, 2018 - September 28, 2018
- **Draft Environmental Impact Statement (DEIS)** expected Summer 2019 followed by another public comment period

SAMP Environmental Review: Some Recommendations

- Encouragement of Port Commission's efforts to explore alternative airport locations
- Advocating for Federal Way's interests with respect to Puget Sound Regional Council's (PSRC's) Central Puget Sound Regional Aviation Baseline Study and supporting siting of new regional airport once study is completed.
- Supporting State Rep. Mike Pellicciotti's aircraft noise abatement bill ensuring Federal Way is included in area within which Port may operate noise abatement program

SAMP Environmental Review: Some Recommendations

- Engaging technical and legal expertise needed for analysis of and response to forthcoming SAMP environmental review
- Supporting Dept. of Commerce study of Sea-Tac Airport impacts, including by contributing a share of funding
- Forming Aviation Impacts Committee of City Council