

# Update

Nº 1 - Spring 1998



## Seattle-Tacoma International Airport Part 150 Noise Study

### Schedule of Meetings

**Feb.-Jun. 1997**

Citizens' Advisory Committee (CAC) selects consultants, develops scope of work

**Nov. 18, 1997**

CAC Meeting: Scope of work, schedule

**Dec. 3, 1997**

Technical Advisory Committee (TAC) Meeting: Scope of work, schedule

**Dec. 3, 1997**

Part 150 Kick-Off Workshop

**Feb. 4, 1998**

Joint CAC, TAC Meeting: Portable Noise Monitoring Stations

**Apr. 22, 1998**

Optional Technical Meeting: Acoustic Terms, Noise Metrics, Measurement Techniques

**May 13, 1998**

Optional Meeting: The Regulatory Environment Surrounding the Part 150 Process. A detailed background of noise regulations, beginning in 1976 with the Aviation Noise Abatement Policy, and more recent regulations such as FAR Part 91 and the most recent changes to the FAR Part 150 Regulation

**June 24, 1998**

Joint CAC-TAC Meeting: Discussion of the Part 150 Process at Minneapolis-St. Paul International Airport. Presentation by Mr. Robert Johnson, Chair, Metropolitan Airports Sound Abatement Council (MASAC), Minneapolis, and Mr. Roy Furhman, Manager, Aviation Noise and Satellite Programs, Minneapolis-St. Paul International Airport

→ **July 22, 1998**

CAC, TAC Meetings: Preliminary Land Use and Noise Data

→ **July 23, 1998**

Open House: Tyee High School  
4424 S. 188th St., Seattle  
4-8 pm

### What is a Part 150 Study?

The full name of this study is an FAR Part 150 (after Federal Aviation Regulation Part 150) Aircraft Noise and Land Use Compatibility Study. This mouthful of a title means that the Study will consider and evaluate possible ways to reduce the impact of aircraft noise on neighborhoods surrounding Sea-Tac Airport and will work with communities to limit the growth of residential populations within high aircraft noise areas. The Study will identify existing noise levels, predict future noise levels, evaluate noise abatement and land use alternatives and then recommend those which realistically can be expected to reduce the number of people affected by aircraft noise.

The Port of Seattle is recognized as a national leader in airport noise abatement efforts. Sea-Tac Airport has a comprehensive set of noise rules and regulations and one of the nation's most extensive sound insulation programs. In addition, the Port has conducted several noise abatement studies in the past, so this effort is intended to update previous work and consider what additional programs may be feasible.

### Study Elements and Schedule:

The Part 150 Study Update has several elements. They are:

- ▶ 1. Inventory of Existing Conditions
- ▶ 2. Noise Measurements
- ▶ 3. Existing and Future Noise Exposure Impacts
- ▶ 4. Future Noise Reduction Alternatives
- ▶ 5. Future Land Use Alternatives
- ▶ 6. Recommended Noise Compatibility Plan
- ▶ 7. Port Commission and FAA Approval

At present the inventory of existing conditions and monitoring of existing noise exposure levels are underway.

### Study Products

The Part 150 Study Update will produce a variety of maps and reports that will lead to the final program recommendations.



# Noise Exposure Maps

Among the most important maps to be produced are Noise Exposure Maps for both current and future conditions. These maps show the number of people and sensitive land uses exposed to significant aircraft noise levels, and how much noise they experience on an annual basis.

These maps are produced by using a specialized computer model developed by the Federal Aviation Administration known as the Integrated Noise Model, or INM. Often called "contour" maps, because they define bands or contours of noise impact around an airport, these noise exposure maps illustrate where various intensities of aircraft noise are experienced.

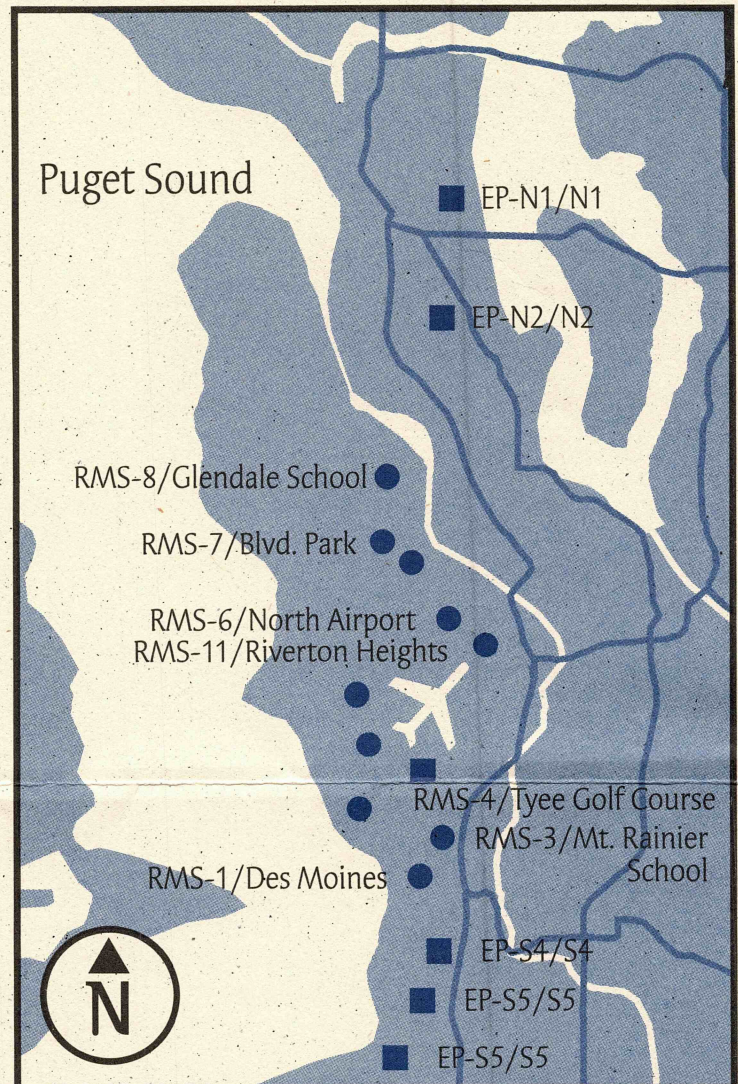
Contours naturally follow the flight paths of aircraft and are calculated by defining the number and type of aircraft, aircraft engine type, which runway is used, the time flights occur, flight distance and flight profiles. Flights occurring between 10PM and 7AM are given a 10 decibel penalty to account for the increased annoyance of night noise. This data is compiled into annual average day/night noise levels known as DNL. Although the FAA defines significant noise levels as those above 65 DNL, this study will produce contour maps out to the 55 DNL level to accommodate community interest. Each noise exposure map will show contours in 5 decibel (dB) increments from 55 to 75 dB DNL.

For a further discussion of acoustic and air traffic control terminology, please see the Glossary available on the study website: <http://www.airportnetwork.com/sea/>

## Field Noise Measurements

In addition to the computer modeled maps, the Part 150 Study includes an extensive program to measure actual aircraft noise in neighborhoods around Sea-Tac Airport. Ten monitoring sites around the airport have been designated as "semi-permanent" in that they will each be used to measure noise for periods of at least one week, four times a year. Monitoring in the same locations during different operating and weather conditions will give the data seasonal credibility, and will help correlate the noise levels predicted by the INM computer model with actual noise measurements.

Some of the monitoring locations will be the same as ones used during previous studies. This consistency of location allows historical comparison of noise data which will prove useful during the analysis phase of the study.



- Temporary Monitoring Sites
- Permanent Monitoring Sites

## Land Use Plans

The land use portions of the study include an inventory of existing conditions where residential, commercial, industrial, park land and sensitive receptor sites such as schools and hospitals are identified. Current activities in the surrounding municipalities will be catalogued including pending developments, growth management, comprehensive plans and other changes which may affect the populations exposed to aircraft noise.

### Study Recommendations

The ultimate purpose of the study is to produce recommendations for actions to be taken by the airport, the municipalities, the airlines and the FAA which might individually or in combination reduce the impact of noise on residential neighborhoods. These recommendations could cover a range



of issues from aircraft ground noise, heard by residents living close to the Airport, to fly quiet programs which might benefit those at a greater distance. Other issues likely to be addressed will be airline adherence to established flight tracks, the extension of sound insulation programs to multi-unit residential buildings, and local land use regulations which might preclude future residential development in areas exposed to significant aircraft noise.

## Where Are We?

### First Open House Workshop

The Part 150 Study Update began with an Open House on December 3, 1997, at Highline High School. Two hundred people attended the forum where the consulting team was available to explain the study and answer questions. The most important part of the workshop was the public input on issues to be addressed by the study. Specific noise problems were identified by area residents and documented. All these comments have been consolidated and will be used as a basis for analysis as the study progresses.

### Areas of Primary Concern

Among the issues most frequently raised by citizens at the Open House were:

- ▶ Adherence to flight tracks
- ▶ Modifying the existing sound insulation program boundaries and including multi-family dwellings
- ▶ Ground Noise including engine run-ups, take off roll and reverse thrust noise
- ▶ Overlap of noise between Sea-Tac and Boeing Field.

### Current Events

The Study is currently in the inventory and initial noise monitoring stage. The next major activity will be an Open House where initial noise monitoring results and an inventory of existing noise and land use conditions will be presented. These results will be available in several forums including:

- ▶ **Second Part 150 Update Open House on July 23, 1998 from 4 to 8 PM at Tyee High School (4424 S 188th Street)**
- ▶ **Sea-Tac Part 150 Website at <http://www.airportnetwork.com/sea/>**
- ▶ **Local Libraries will have a notebook of materials available in July.**

Through these varying methods, the public should be able to keep fully informed about the study programs and findings.

Both the noise results and the existing conditions will be crucial baseline information for the next analytical steps in the study, and will serve as the first chapter of the final Part 150 report. This inventory will map existing conditions at the Airport and its environs, by assembling data from airport facilities, adjacent jurisdictions' planning documents and existing land uses. In addition radar tracking information concerning aircraft flights is being assembled together with current noise abatement program information, noise complaints and other materials which will be used in the analysis of future noise abatement and mitigation recommendations.

Consultant Ryk Dunkelberg discusses the regulatory environment surrounding the Part 150 process at a recent meeting of the Citizens' Advisory Committee and the Technical Advisory Committee at SeaTac Airport.



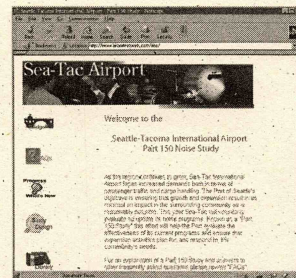


## What's Next?

The third Part 150 Update Study Open House will occur in the fall - tentatively planned for October or early November. The subject will be additional noise monitoring results, preliminary baseline noise contours, and preliminary land use impacts associated with existing conditions. In addition, forecasts of aviation activity will be discussed. Notice of the exact date and location of this Open House will be distributed prior to the event and will be posted on the Website.

## Website

Not everyone is able to attend Airport meetings. So, to keep the public informed about study progress, a website has been established. It will contain a wide variety of material to satisfy the interests of many participants. Information will include:



- ▶ Part 150 Study Scope
- ▶ Committee and Workshop Meeting Schedules
- ▶ Public Involvement Plan
- ▶ An Introduction to Acoustics
- ▶ Noise Monitoring Locations
- ▶ Noise Data from those locations
- ▶ Noise Exposure Maps when they are produced
- ▶ Newsletters
- ▶ Interactive Capability where the public can ask questions or register comments
- ▶ Other topics of interest as they are produced.



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# Public Involvement

The Part 150 Study Update has an extensive public participation process with committees of area residents, airport users, and public officials. Public workshops, meetings and briefings, are held regularly and a variety of public information materials including this newsletter will be circulated at intervals throughout the study.

## Committees

Two standing committees have been established for this study: a Citizens Advisory Committee (CAC) composed of representatives from King County Council districts, as well as the local cities around the Airport and a Technical Advisory Committee (TAC) comprised of airport users, municipal planning representatives and others professionally involved with the Airport. The two committees will be meeting both separately and jointly during the course of the study.

In addition several sub-committees will be formed to concentrate more closely on issues which emerge as being of particular interest. All committee meetings are open to the public; their dates, locations and times will be posted on a web site. A Public Involvement Plan outlining all the activities of the Part 150 Update Study has been produced and discussed by the CAC and TAC committees. It is also available to review on the website.

## How to Become Involved

There are many ways to participate in this study:

- ▶ Attend workshops and meetings
- ▶ Check the website and post your comments
- ▶ Call the Part 150 team for information: Michael West of Pacific Rim Resources is available at 206 623.0735.
- ▶ Call the Port of Seattle Noise Office: Ron Seymour is available at 206 248.6863
- ▶ Write to Ron Seymour, Seattle-Tacoma International Airport, Noise Abatement Office, P.O. Box 68727, Seattle, WA 98168

## Port of Seattle Commission

Jack Block  
Patricia Davis  
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Clare Nordquist

## Executive Director

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## Director, Aviation Division

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# OPEN HOUSE ANNOUNCEMENT

A Part 150 Study Update

Open House will be held

July 23, 1998

Tyee High School

4424 S. 188th Street

4PM to 8PM

Directions: Take I-5 to South 188th Street

The topic will be results from the first round of noise monitoring, as well as information collected through the inventory process. Members of the consulting team and Airport staff will be available to present information and answer questions in an informal format.



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## Important Telephone Numbers

Sea-Tac Noise Information and  
Complaint Line

206 433.5393, or 800 826.1147

## Noise Abatement Office Staff

Stephanie Shadle 206 431.4091

Ron Seymour 206 248.6863

Lynae Jacobson 206 248.6891

Stan Shepherd 206 431.4095

Noise Remedy Office 206 431.5913

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