



Ted Stevens Anchorage International Airport (FAR) Part 150 Noise Compatibility Study Update

Study Input Committee Summary Notes
August 20, 2013 1:30 p.m. Airfield Maintenance Facility

<i>NAME</i>	<i>AFFILIATION</i>	<i>PRESENT</i> ✓
Staff and Consultants		
John Parrott	ANC	✓
John Johansen	ANC	✓
Scott Lytle	ANC	✓
Katie Gage	ANC	✓
Teri Lindseth	ANC	✓
Ryk Dunkelberg	Barnard Dunkelberg & Company	✓
Kate Andrus	Barnard Dunkelberg & Company	✓
Rachel Jones	Barnard Dunkelberg & Company	✓
Vince Mestre	Landrum and Brown	✓
 Committee Members		
Merle Akers	Turnagain Community Council	✓
Bob Auth	Spennard Community Council	✓
Mary Lee	Citizen Representative	✓
Jim Seeley	LHD Pilot Association	✓
Patricia Sullivan	FAA Airports Division	✓
Brenda Brown	FAA	✓
Breck Tostevin	Turnagain Community Council	✓
Theodore Tobish	MOA	✓
Susan Hoshaw	Representative	✓
Cathy Hammond	Citizen Representative	✓
David Chilson	FAA	✓
 Other		
Katherine Wood		✓
Jerry Shin		✓
Cathy Gleason		✓

Summary Notes

Mr. Dunkelberg began the sixth meeting of the Federal Aviation Regulations (FAR) Part 150 Noise Compatibility Study Update Input Committee by presenting the meeting agenda as follows:

- ▶ **Introduction**
- ▶ **Committee Discussion of Potential Alternatives for Part 150 Study Update**

Introduction

Mr. Dunkelberg welcomed the committee back and gave a brief overview of the agenda for this meeting. He then identified the next steps for the Part 150 Study Update process. This meeting was discussion-oriented and evaluated a list of proposed alternatives that was received verbally and in writing from committee members during and subsequent to the previous meeting.

Next Steps

Mr. Dunkelberg explained the next steps, which include narrowing a group of alternatives to model. The next Study Input Committee Meeting will likely be in the fall, and it will include a presentation of preliminary alternatives modeling.

The following questions and comments occurred during the meeting:

Questions and Comments on Potential Alternatives

Question: What is ground noise and what is its role in the Part 150?

Answer: Ground noise is a distinct type of noise that is separate from noise generated from aircraft overflight during takeoff and landing. Ground noise is generated from aircraft maintenance run-up procedures and other operation of aircraft taking place on the ground such as taxiing or use of Auxiliary Power Units (APUs). This study will consider and analyze ground noise, but with a focus on noise situations that can be modeled, such as the Ground Run-Up Enclosure. Remember, ground noise from aircraft is separate from noise generated by non-aircraft sources such as snow removal equipment. These non-aircraft sources will not be analyzed in the Part 150 Study Update.

Question: Can ground noise and the effects of placement of noise barriers, berms, and acoustical shielding be modeled?



Answer: Yes, it can. We can look at what sites could be evaluated that may provide some noise benefit.

Comment: Other sites in addition to the gravel strip location should be considered, for example, North Airpark, South Airpark, and the development of the Air National Guard. Noise barriers placed very close to residences behind their backyards are not something that Turnagain desires for aesthetic and quality of life reasons. Rather, Turnagain would prefer that barriers are placed close to the noise source.

Comment: Wide-bodied aircraft with engines that are placed high on the aircraft (i.e., the aircraft type with the highest-located engines in the fleet mix) should be used for modeling purposes because any noise barriers need to be tall enough to block the noise from their engines.

Question: What other factors affect ground noise modeling and barrier specifications?

Answer: Topography of the land between the noise source and the impact location of interest can have an impact on how tall noise barriers need to be.

Comment: The land between Turnagain neighborhood and the sources of ground noise at the airport is very flat, so this topography does not provide any added benefit or serious detriment for noise reduction purposes that might allow for a lower barrier.

Comment: For maintenance run-up noise, a Ground Run-Up Enclosure (GRE) is likely the ideal noise-reduction choice because it would likely provide the most benefit to the most people.

Comment: A brief discussion of hangar-related noise. Most noise generated in and around hangars will occur outside of the hangars, so insulation of hangars for noise and placement of hangars has limited benefits.

Comment: Placement of hangars with regards to noise reduction is already considered by the airport during planning of new facilities.

Comment: There is some dispute over the assertion that the presence of natural vegetation has little noise reduction impact. The cumulative noise-reducing impact of several smaller measures is still important.

Response: Natural vegetation does very little to reduce noise exposure and noise reduction alternatives are not approved for funding by the FAA based on their cumulative effect in combination with other measures, but on their individual merit.



Comment: Even measures that are not approved or funded by the FAA can have a positive impact on noise reduction. Preservation of existing vegetation and planting of new vegetation would both be desirable.

Comment: The Ground Run-Up Enclosure (GRE) only solves the problem of noise generated by run-up procedures. It is an effective solution for that reason and also because construction of GREs receives federal funding.

Comment: Placement of hangar doors and orientation of hangars is a somewhat complex issue. Tenants often have specific preferences for this due to the effects of wind and snow accumulation in front of the doors. It is not possible to require tenants to follow rules on door placement and orientation because that constitutes discrimination against them. Other extenuating circumstances such as permitting and coordination with the orientation of adjacent hangars determine hangar door placement and orientation, as well. So while the Airport can make recommendations, they cannot require that the tenants orient the hangars in a specific way.

Comment: The changed preferential runway use that may result from potential Master Plan recommendations will be modeled for this study.

Question: Will preferential runway use for Lake Hood Seaplane Base be modeled?

Answer: It is important to note that for the Part 150 Study, recommendations resulting in the shifting of noise from one place to another will not be considered because that is inconsistent with the goal of the study, which is to reduce the number of people who are affected by noise. We will look at whether a preferential runway use for Lake Hood Seaplane Base might have some noise benefit.

Comment: Modeling the reduction in the use of reduced thrust (voluntary) could potentially reduce ground noise near the south residential areas.

Comment: Reduction of Auxiliary Power Units (APUs) use might be helpful for noise reduction.

Response: The Airport already has 400 Hz on cargo and all jet bridges on Concourse C (as an implemented recommendation of the Ground Noise Study). It is used fairly frequently. The only thing they don't have is preconditioned air, which during certain temperature ranges might require the use of the APU for heating/cooling.

Comment: Recommend the continuation of measures implemented in the ground noise study to continue after this Part 150 Update.



Question: Although DNL noise is not being studied with regards to the Eagle River area because Eagle River is outside the 65 DNL noise contour, will Single Event Level (SEL) noise still be studied for Eagle River?

Answer: No. The 65 DNL contour is what the FAA uses to measure effects. Approval is based on the DNL analysis. The Single Event Levels produced for this study are considered for informational purposes only.

Question: Will temperature and elevation be considered in noise modeling? These could be causing flyover noise at Eagle River to be higher than might otherwise be calculated.

Answer: Temperature and elevation are both taken into consideration already in the noise model. These are inputs into the model.

Separately, the noise monitoring stations record the actual sound level, just as a human ear would. The sound level that is recorded is based on the existing temperature and elevation conditions and are used to validate the model. We have found that the model very closely matches what we recorded during noise monitoring. Another factor that may cause noise events in Eagle River to seem louder than they actually are is the quietness and rural nature of the area.

Question: Does FAA distinguish between noise generated in urban areas and noise generated in rural areas?

Answer: No.

Question: Is duration of noise events accounted for in the model?

Answer: Yes.

Comment: Assertion that the model/policy is not properly addressing the noise issues that residents of Eagle River are experiencing. Some readings of aircraft flyovers have been taken by residents of Eagle River that are very high, and should justify consideration in this study.

Answer: The metric used by the FAA for the Part 150 Study is a matter of policy, and changes in that policy are really outside the scope of this project.

Question: Could the noise situation in Eagle River be included as an Appendix in the Part 150 Study?

Answer: No. Because Eagle River is outside of the 65 DNL contour, the noise there is an air traffic/air space issue rather than an airport issue. The Part 150 Study Update will focus on those alternatives that would reduce the total number of people who are affected by noise.



Comment: The modeling of close-in departures was requested.

Question: What is the definition of a non-compatible land use?

Answer: A non-compatible land use is defined by the federal government based on certain kinds of noise-sensitive land uses that are present within the 65 DNL or greater noise contour. The Part 150 Noise Study uses the 65 DNL and greater contour to represent non-compatible land uses and determine eligibility for federal funds for noise mitigation. Any noise sensitive uses (such as residences, transient lodgings, schools, hospitals, nursing homes, churches, auditoriums, concert halls, and outdoor music shells and amphitheatres) within the 65 Day Night Average Sound Level (DNL) and greater contour are considered to be non-compatible with aircraft noise. Therefore, noise sensitive uses within this contour could be eligible for federal funding for noise mitigation measures. These measures and potential eligibility will be analyzed in the Part 150 Study Update.

Question: Does the Airport keep track of the time of day of the run-up operations?

Answer: Yes, but only between the hours of 10 PM and 6 AM, when approval must be granted for operations taking place during that time frame. Generally, run-ups during that time frame are approved for aircraft with early morning flight times.

Comment: It seems as though these overnight run-ups are always approved even if the run-ups could reasonably be done after 6 AM.

Response: That is the case. As with other types of aircraft operations, an Airport cannot restrict a ground-run up because it would be discriminatory. Additionally, it is important to note that most run-ups do take place at night because that is generally the only time when the aircraft is not needed for revenue generation.

Comment: Historical data on which measures recommended in previous studies have been implemented is important and should not be discounted. Continuing effort should be made to track implementation and success of those measures.

Response: It is often difficult to track success of implemented measures, but implementation of previous measures will be included in the Part 150 Study where information is available.

Question: What can be done regarding consideration of alternatives to the construction of a Ground Run-Up Enclosure (GRE)?



Response: Preferred placement location(s) for a ground run-up pad can be examined. Run-up pads can be strategically located so as to reduce noise, and can be recommended in the Part 150 Study.

Comment: Please recommend two alternative locations for a ground run-up pad because for certain reasons, one of the locations may not be usable at a given time.

Response: The recommendations made in the Ground Noise Study already caused the run-up pad to be thoughtfully-placed. They normally perform run-ups at designated locations including Taxiway Q and J, which are near the Runway 14 end and Runway 7R end, respectively, and in general, aircraft are parked heading towards the wind and with the exhaust pointing away from terminal buildings and residential areas. However, if a GRE was constructed, the secondary ground run-up location could be examined with respect to noise as part of the GRE siting process.

Comment: The GRE could be located nearer to noise-sensitive land uses because it is meant to contain noise; however, the two run-up pad locations would need to be located farther away because they do not contain the noise.

Comment: There is a lack of operational rules for plane and helicopter traffic patterns at Lake Hood Sea Plane Base.

Response: The ceiling dictates that the Air Traffic holds responsibility for establishing the patterns, therefore a change in the pattern ceiling would not affect the 65 DNL in any substantial way and would not be considered as a recommendation for the Part 150 Study Update.

Comment: From a pilot's perspective, most planes leaving Lake Hood climb as high as quickly as possible, so even if you changed something on the pattern altitude, it probably would not change the noise much.

Comment: Helicopter traffic patterns are currently being studied at Lake Hood Sea Plane Base.

Comment: Pilot education is one of the best ways to create change. A committee process for pilot education involving various stakeholders would be ideal.

Comments: Widespread agreement on the creation of a committee process for pilot education.

Question: Why is evaluation of grants and other funding sources outside the scope of this project? Isn't that a crucial element?



Answer: The evaluation of funding is not a part of this Part 150 Study Update.

Question: Could funding sources be recommended by the consultants based on their expertise?

Answer: The identification of any grants and other funding sources that the consultants are aware of based on their expertise can be included in the Part 150 Study Update. But none are known of as of this time.

Comment: FAA has never said in writing that restricting aircraft based on noise is in violation of grant assurances. I would bet that the airport has nothing in writing from FAA that says this.

Response: Weight restrictions for aircraft cannot be used if noise reduction is the justification for the restriction because it is considered discriminatory toward aircraft operators. Aircraft weight, can, however, be restricted based on pavement strength, but this is a safety issue, not a noise issue.