



SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART FACILITATOR'S MEETING SUMMARY

Wednesday, October 23, 2019

6:00-8:00 pm, Sea-Tac Airport Conference Center

Participant	Interest Represented		Participant	Interest Represented	
Eric Zimmerman	Normandy Park	X	Tony Gonchar	Delta Airlines	-
Earnest Thompson	Normandy Park	-	Scott Ingham (Alt)	Delta Airlines	X
Mark Hoppen	Normandy Park	-	Scott Kennedy	Alaska Airlines	X
Jennifer-Ferrer-Santa Ines (Alt)	Normandy Park	-	Matt Shelby (Alt)	Alaska Airlines	-
Kyle Moore	SeaTac	X	Joelle Briggs	FAA	X
Robert Akhtar	SeaTac	X	Chris Schaffer	FAA	X
Carl Cole	SeaTac	-	Jason Richie	FAA	-
Steve Pilcher (Alt)	SeaTac	-	Tom Fagerstrom	Port of Seattle	X
Katrina (Trina) Cook	Tukwila	X	Lance Lyttle	Port of Seattle	X
David Cline	Tukwila	-	Marco Milanese	Port of Seattle	X
Brandon Miles	Tukwila	-	Arlyn Purcell	Port of Seattle	X
Laura Sanders	Lynden (air cargo)	X	Eric Schinfeld	Port of Seattle	-
			Stan Shepherd	Port of Seattle	-

Additional Participants:

Brad Nicholas, HMMH; Justin Biassou, FAA; David Suomi, FAA

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Meeting Objectives:

To recap the Aviation Noise Working Group and Federal Policy Working Group meetings. To discuss the Late Night Noise Limitation Program 3rd quarter results. To provide input to the consultant on the Ground Noise Analysis scope.

Welcome

Lance Lyttle, Port of Seattle

Lyttle provided an update on the effort to re-engage the suspended cities. Letters have been sent to each city requesting meetings to discuss community concerns, with the hope that the suspended cities return to StART.

Lyttle also shared that the Runway Use Agreement was enacted on September 4, 2019, and that early results are encouraging. Since enactment, there is, on average, significantly less use of the 3rd runway

during the late-night hours (12 a.m. – 5 a.m.). He also stated that the Port has sent a second letter to air carriers regarding the A320 whistle noise fix and has received responses from some carriers.

Facilitator's Update

Phyllis Shulman

Shulman reviewed the schedule for upcoming meetings. The next meetings will be:

- Federal Policy Working Group: November 4, 2019
- Aviation Noise Working Group: November 18, 2019
- Federal Policy Working Group: December 9, 2019
- Full StART Group: December 11, 2019

She reminded cities that StART is reaching the end of its second year. Terms for community representatives expire after two years. Community representatives can be reappointed or new representatives may be appointed. She will coordinate with city representatives on the appointment process.

Introduction of New Community Engagement Officer

David Suomi, Northwest Regional Administrator, FAA

Suomi introduced Justin Biassou, one of eight Community Engagement Officers appointed as part of the FAA Re-authorization legislation. Biassou provided a summary of his background and experience in the aviation industry and reviewed his role and responsibilities.

Biassou will operate as part of national team, working in the Northwest Mountain Region. His focus will be on developing and implementing community outreach strategies, public engagement, and collaboration with key stakeholders on noise-related issues. He will also attend airport-related round tables and provide internal awareness regarding issues identified through his community engagement efforts. He expressed his interest in engaging with StART.

Questions from StART participants included:

- What will be your priorities for the first six months?
 - *Response:* Relationship building – learning what issues are facing different airports and airport communities and listening and collecting information on what issues need addressing.
- Have you engaged with groups similar to this?
 - *Response:* Yes. In the Denver area, a group is just starting a formal round table, similar to StART.
- Do you intend to meet with community members and/or leaders?
 - *Response:* The regional administrator's office, and regional administrator, is still the primary point of contact for this area. Support will be provided to the regional administrator, when needed. The best format for FAA involvement is groups like StART as they provide a more effective structure for engagement, outreach, and sharing of information and concerns.

Summary of Aviation Noise Working Group Meetings

Tom Fagerstrom, Port of Seattle

The Aviation Noise Working Group (Working Group) reported on their October 14 meeting. The Working Group meeting summary is attached as Appendix B. The briefing on the October 14 meeting focused on three items:

- Noise Abatement Departure Profile Analysis Results: Steve Alverson, ESA, presented preliminary results on the noise modeling analysis of departure procedures his firm conducted for close-in and distant departures at Sea-Tac. The Distant Procedure was identified as the procedure that provides the most benefit to the greatest number of people. Alverson will present full results of the noise modeling analysis to StART at the December 11 meeting.
- Late Night Noise Limitation Program: 3rd quarter results are now available and posted on the Port's website.
- Revised Runway Use Agreement Implementation Update (presentation can be found [here](#)):
 - Prior to the revised agreement, 36% of flights landed on the 3rd runway between the hours of 12:00am and 5:00am, an average of ten flights per night, some nights as many as 20–30 flights.
 - Since September 4 (date of agreement finalization), there is an average of fewer than two landings per night, and for 15 nights there were no 3rd runway landings.
 - The 3rd runway will be used during some occasions, including, for example, runway rubber removal, repair of runway lighting, and ILS equipment adjustments. These maintenance activities, which occur during the night, will result in intermittent 3rd runway use. Inclement weather may also require use of the 3rd runway, such as low visibility, snow removal, and high winds.
 - The Port will continue to monitor data on a daily basis. The Port will also communicate and provide feedback to the FAA on late-night 3rd Runway use. StART will continue to receive updates.

A StART member commented that this is a big accomplishment that took a lot of time and effort.

Questions from StART participants included:

- With winter weather approaching, how many of the night landings on the 3rd runway during the 3rd quarter were caused by weather delays?
 - *Response:* Most likely, none were caused by weather delays.
- Looking at the data, there seem to be spikes on some days, then some days with no landings. What would cause this?
 - *Response:* In this 3rd quarter data, all spikes were due to runway closures on the other runways.

Summary of Federal Policy Working Group

Marco Milanese, Port of Seattle

The Federal Policy Working Group (FP Working Group) reported on their September 9 meeting. The FP Working Group meeting summary is attached as Appendix C. The FP Working Group supported adding the development of legislation to their work plan that could possibly provide added funding and eligibility for secondary noise insulation if the original sound insulation funded through the FAA and Port had failed.

In addition, the briefing focused on other key items discussed at the meeting including:

- Review of draft letters to be sent to the FAA and members of Congress on the working group's shared priorities. Strategies for outreach and soliciting signatures from all six municipalities was discussed.
- Appreciation to Congressman Smith for his leadership on aviation noise-related issues.
- Strategies for building relationships with other airports, including communities who have similar interests.
- Discussion on having a local delegation go to DC to meet with elected officials and FAA.

A representative from the City of SeaTac commented that the City fully supports these letters to Congress. It was stated that the FP Working Group initiated and had significant input into the development of the letters.

Late Night Noise Limitation Program

Tom Fagerstrom, Port of Seattle

Fagerstrom provided a detailed summary of the 3rd quarter results from the Late Night Noise Limitation Program. He commented that the 3rd quarter data is posted on the Port's website. (<https://www.portseattle.org/programs/late-night-noise-limitation-program>). He shared some details from the data including:

- 14 airlines exceeded the noise thresholds during the 3rd quarter.
- 6% of late-night flights exceeded thresholds, and of these 62% were air cargo operations.
- EVA Air was at the top of the list for most exceedances for the third quarter. They currently have two late night passenger departures.
- FedEx Express also shows up frequently for exceedances, primarily due to a nightly landing of an MD-11 aircraft.
- China Airlines Cargo also has a 2–3 times-a-week departure that consistently exceeds noise thresholds.
- American Airlines had a few exceedances with their A321 aircraft. Port staff looked into data to determine the reason and identified that the aircraft were lifting off the runway a bit later than other late-night departures.
- Cathy Pacific provided an example of an airline that, though flying late at night, had no noise threshold exceedances during the quarter due to their decision to serve the route with a very modern, quieter aircraft.

Fagerstrom reviewed next steps for the program. Letters will be sent to all late night operators and in-person meetings will be scheduled with airlines who frequently exceed the noise threshold.

The presentation can be found [here](#).

Questions from StART participants included:

- When letters are sent, who are receiving those letters?
 - *Response:* The Airline Airport Affairs Committee contact will receive the letters.
- What time is the China Airlines Cargo flight?
 - *Response:* It is a Boeing 747 to Taipei, that leaves between 2–2:30 a.m., 2–3 times per week. Although, sometimes they operate a departure in the afternoon. The Port’s noise office receives complaints about this flight more than any other single aircraft event. China Airlines Cargo does not have any other aircraft type, so a different aircraft is not an alternative for them at this time.
- Of the exceedances, how many are arrivals versus departures?
 - *Response:* Port staff will review the data.
- Why are smaller aircraft exceeding the noise levels?
 - *Response:* It could be how heavy the load is on the aircraft or a specific operation that would have caused the exceedance.
- How does a missed approach show up on the monitor?
 - *Response:* Missed approaches are removed from the dataset.
- Is there any way that quarterly results can be directly communicated to the communities so that the information is easily accessible?
 - *Response:* The Port will send out a public notification to communities that the results are available online.

Discussion focused on whether analysis can also focus on identifying patterns and/or identifiable events that cause exceedances, for example possible weather occurrences. It was stated that it could be helpful to provide the public with information, when possible, about causes so that the public can differentiate between aircraft type and other causes. It was stated that it is also important to display data in a way that helps to put the exceedances into context; for example, the percentage of an airline’s flights that exceed the thresholds compared to the number of flights flown. It was recognized that the exceedances reported still represent a significant amount of noise in certain areas, and it is important to continue to identify opportunities to reduce late night noise.

Sea-Tac Ground Noise Analysis Kickoff Discussion

Brad Nicholas, HMMH

Brad Nicholas, an independent consultant with HMMH, an aviation noise consulting firm in Burlington, MA, was introduced as the consultant hired to undertake the Sea-Tac Ground Noise Analysis. Nicholas provided a brief overview of the general nature of noise issues that frame the study. He reviewed acoustic terminology, aircraft noise effects on human activity including sleep interference, and information on the

difference between how sound is propagated in the air versus reflecting off of the ground. He touched on how specific surfaces, air temperature, physical barriers, and wind can create variations in sound.

His presentation can be found [here](#).

Nicholas shared a draft of the scope of the analysis. The analysis is intended to include all hours, but the analysis can focus in on certain hours, if requested. The draft analysis scope includes:

- Ground noise data research
 - Airport records, contacting operators about current procedures, atmospheric conditions that may increase ground noise
- Noise monitoring:
 - Obtain / analyze data from existing monitors
 - Collect / analyze additional temporary monitoring data
 - Station observers at noise collection locations, as well as on the airfield, to be able to identify the noise source
- Ground noise source analysis including:
 - Taxi / idle
 - Auxiliary Power Units (APUs): generator used to generate power when engines are not in use
 - Engine maintenance run-ups
 - Ground service equipment
 - Reverse thrust
- Identification of mitigation options
 - Review and discussion with StART participants
 - Identification of range of options based on HMMH's experience, other airports, and feedback from StART
- Analysis on whether barriers are applicable
- Written report of project results

Questions from StART participants included:

- Will there be monitors inside the buildings, or only outside?
 - *Response:* Monitors will be outside. If one is measuring indoors where the structures are already reducing the noise level somewhat, it can be challenging to determine what is the source of noise.
- Are APUs plugged in?
 - *Response:* No; these are part of the plane. The plugged in hoses are pre-conditioned air. Gate noise can be a concern, and the study will look at that.
- If ground power is available, who decides if an airline uses ground or aircraft power?

- *Response:* The airlines decide whether to use ground power or their APU. The study will analyze which is quieter. The sustainability group at the airport has started to analyze whether there is benefit to using ground power rather than APUs. This analysis can be coordinated with the study.
- Are there other airports where ground noise mitigation measures have been proposed and been successful without impacting operations?
 - *Response:* Some mitigation measures that have been tried include barriers, run-up walls, push-back operations from the terminal, and revised parking positions. It is important to identify when a mitigation will have a positive effect through the collecting and analyzing of data.
- Why would construction of a single large barrier encompassing the airport not be a benefit?
 - *Response:* Barriers need to be close to the source of noise to have an impact. However, for safety reasons at an airport, they cannot be near the airfield or anywhere close to active operations. Barriers may have benefit if placed in the community, but only in the area immediately behind it and the barrier has to be close to the community, and very tall, to be effective.
- Will geographic conditions be considered as well as atmospheric in the data collection?
 - *Response:* Yes; the study will consider those conditions in understanding and analyzing how ground noise travels.
- Do you have any examples of sound absorbers that can be placed around runways?
 - *Response:* There are examples where sound absorbers are utilized around ground equipment, but not runways. These are typically structures that utilize noise-absorbing materials inside a metal shell.
- What is the timeline for scoping and for getting information from this group? Is there time for collecting feedback from those not in attendance, or time for those here to think about it more?
 - *Response:* Timeline is still being finalized. The Port and HMMH will provide an opportunity for all six cities to provide feedback as well as additional time for StART participants to comment.
- What is the contract duration?
 - *Response:* 24 months, but the analysis will not take that long. The HMMH scope includes multiple check-ins to provide updates and solicit feedback throughout the process. HMMH will work with the Port to identify appropriate timeline for those check-ins. Updates will be provided to the Aviation Noise Working Group as well as the full StART group.
- Has a questionnaire or series of questions been developed to solicit feedback from the communities?
 - *Response:* No, not yet.

Nicholas solicited input from StART participants on the scope. He requested that historical records of noise complaints could be useful to provide data on locations, times of day, etc. He specifically requested feedback on: identification of which sources of ground noise should be included as part of the analysis; and suggestions for specific locations and times for where and when ground noise monitoring should occur.

Comments from StART participants included:

- Taxiing, idling, and reverse thrust are a significant problem for Normandy Park, Burien, and Des Moines. Would like to see a focus on the way aircraft land and move across the airfield, as well as anything that can be done to reduce the directional noise of planes pointed toward these communities.
- Be certain that there is an assessment of noise coming off the hard stands during aircraft operations.
- StART participants suggested the following locations for where noise monitoring should occur:
 - South SeaTac
 - Normandy Park, immediately west, running toward the south-southwest of the 3rd Runway
 - Maywood School area (southwest of 3rd Runway)
 - Directly north of the airport
- Highline Forum could also be another group to engage for feedback and reporting out as that group will include all surrounding communities.

Public Comment

Compiled public comments are included here as Appendix A.

Meeting Wrap Up

Lance Lyttle, Port of Seattle

Lyttle thanked the community representatives, air carriers, FAA representatives, and the public for participating, as well as Nicholas for his presentation.

Next Meeting:

December 11, 2019, 6:00 pm – 8:00 pm

Location: *Conference Center Sea-Tac Airport*

Appendix A

Summary of Public Comments

1. David Goebel (Vashon Island) (oral comments):

- President of Vashon Island Fair Skies. Vashon Island is accessible only by ferry, is very rural, and has extremely low ambient noise.
- Welcomed Justin and acknowledged that his new position will be a challenging one. Stated that he has been trying to get the decision graph for flow changes over Vashon Island and has not been able to. He has learned that the air traffic control tower has a preference for south flow, driven by the allowance of more simultaneous throughput; even with unlimited visibility and moderate winds. At times, the air traffic control tower will switch flights to north flow. This day was a good example. Even with a correct weather forecast, limited morning visibility, and afternoon clearing the flights stayed in south flow.
- Commented that people who live on Vashon Island and are impacted by these flight paths have to plan their whole day around the noise. He stated that residents have to plan the timing on their daily activities. Planning requires knowledge of whether aircraft are in south flow or north flow as there are almost three times more flights overhead when in south flow.

2. Karen Gale (Vashon Island) (oral comments):

- Commented that she spoke yesterday at the Port Commission meeting and is also a Vashon Island resident.
- Stated that it would be a mistake to call it simply an increase in airport noise. She and others are grieving a loss of a way of life due to noise pollution. She commented that she has lived on Vashon Island since 1992, and ever since 2000 the island has been totally saturated by noise pollution. She stated that she can read the words on the bodies of the aircraft as they pass overhead since they are flying so low.
- Emphasized that NextGen should not be allowed to put all noise impacts onto a single community, that everyone in the region should share the burden of aviation noise impacts.
- Commented that there are multiple health factors and impacts caused by these flights.
- Stated that NextGen was implemented without the opportunity for public input.
- Recommended a return to the broad dispersion of flight paths to spread the impacts at the lowest achievable noise levels.
- Asked the FAA to stop the use of NextGen, and for the Port to install noise monitors on Vashon Island to record and document the actual impacts.

3. Roxanne Thayer (Vashon Island) (oral comments):

- Stated that she has been a resident of Vashon Island since 1980 and is now exposed to 16–20 hours of constant aviation noise disturbance every single day.
- Commented that the FAA developed a map of how NexGen path would be determined, and Vashon Island was not on the map. Stated that this was an oversight since the island is there. She questioned the professionalism of the group that made this decision, then realized there is an island in the path, with no reconsidering.

- Commented that there are very loud flights over their homes, 1–6 minutes apart unless there is a wind shift.
 - Stated that Vashon Island residents are willing to share in the distribution of aviation noise, but this is 16–20 hours a day and is impacting the ability to sleep.
 - Commented that she thought that they would keep their home forever, but at this rate, if aviation noise doesn't change, she will have to move.
 - Requested that the FAA please reconsider NextGen as it is not OK for this community.
4. Robert Luke (Vashon Island) (oral comments):
- Stated that he has been a Vashon Island resident since 2014, a little before NexGen was implemented. Commented that the change in aviation noise before and after NextGen was quite dramatic.
 - Shared that yesterday, about 20 Vashon Island residents were present at the Port Commission meeting.
 - Commented that the noise problem has become a significant issue. Of the complaints received by the airport, Vashon comprises 1/3 to 1/2 of the total complaints. Vashon Island has twice the number of complaints as the nearest zip code.
 - Emphasized that this is something that can be changed. This issue came about with NextGen, and can be solved with a system that diversifies flight paths, raises elevations when not able to make the turns that were envisioned with NextGen and Greener Skies, or changing the flight path to fly over the water instead of over the island. Stated that there is no reason why aircraft couldn't fly over the water instead of the island.
 - Provided suggestions for StART, which included:
 - Airbus 320 series planes are a particular concern, Vashon Island is right in the path when the whistling sound kicks in. Almost 100% of the planes that disturb him are A-320s. A-320 operations should be added to the Fly Quiet Exceedances / negative points system.
 - Asking Delta Air Lines and Alaska Airlines to take some leadership and commit to making the A-320 modifications sooner than later as it will make a big difference to those on Vashon Island.

Appendix B

StART FACILITATOR'S MEETING SUMMARY AVIATION NOISE WORKING GROUP

Monday October 14, 2019

5:30–7:30 pm, Sea-Tac Airport Conference Center

Attendee	Interest Represented
Eric Zimmerman	Normandy Park
Mark Hoppen (phone)	Normandy Park
Tom Fagerstrom	Port of Seattle
Marco Milanese	Port of Seattle
Lance Lyttle	Port of Seattle
Steve Osterdahl	Alaska Airlines
Vince Mestre	L&B
Steve Alverson (phone)	ESA

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Meeting Objectives

To provide updates on actions in the Rolling Work Plan. To discuss preliminary outcomes of the finalized Runway Use Plan and 3rd quarter results from the Late Night Noise Limitation Program. To provide an update and discuss elements of the Noise Abatement Departure Profile Analysis.

Meeting Summary

Updates on Implementation on Draft Rolling Work Plan

Marco Milanese, Port of Seattle

- Ground noise analysis: The consultant is on-board, and will be at the October 23 StART meeting to review the scope of the analysis and solicit feedback and input from StART's membership.
- A320 whistle noise: The Port has sent out a 2nd round of letters to airlines requesting information about their plan to retrofit aircraft to minimize the noise. Recently, Air Canada responded with their plan for retrofitting and Alaska Airlines has responded that they will provide their plan shortly.
- The newly appointed FAA community liaison will be at the October 23 StART meeting to introduce himself.

Runway Use Plan Finalization & Preliminary Outcomes

Tom Fagerstrom, Port of Seattle

- The agreement was signed, effective September 4, 2019.

- Prior to the updated agreement, the Port observed an average of 36% of late-night flights (12 AM to 5 AM) landing on the 3rd Runway. This equates to an average of about ten flights/night with some nights as frequent as 20-30 flights.
- Since the effective date of the new agreement, approximately 10% of late-night flights landed on the 3rd Runway, an average of less than two flights per night. On 13 late-nights, there were no landings on the 3rd runway. The highest frequency of 3rd runway late-night landings was on 10/7, with ten flights.
- The 3rd Runway will still occasionally be used during the late-night hours, primarily when maintenance work is occurring on the other two runways. Inclement weather may also require use of the 3rd Runway.
- The Port will monitor, and coordinate with the FAA to track compliance with the agreement.
- Data is reviewed daily. Airport Operation's staff communicates when they anticipate maintenance activities that may put flights onto 3rd Runway during the late-night hours.

StART participant thanked the group and commented that this is a substantial change for the good. It was recommended that the Port share the data about the change in 3rd Runway use with the local communities.

Late Night Noise Limitation Program: 3rd Quarter Results

Tom Fagerstrom, Port of Seattle

Fagerstrom reviewed the Program's 3rd quarter results for 2019, the program's inaugural quarter. Highlights included:

- EVA Airlines had 85 flights that exceed an established noise threshold, accounting for 71% of their total late-night operations.
- FedEx Express had 57 flights exceed an established noise threshold, accounting for 67% of their total late-night operations. Almost all are arrivals using the same airplane model— an MD11.
- China Airlines Cargo had 31 flights exceeding an established noise threshold, accounting for 89% of their total late-night operations.

Fagerstrom shared that there were some unexpected results. American Airlines had five late-night flights that exceeded an established noise threshold, all on the same on A321 flight to Dallas. Alaska Airlines had two exceedances out of 976 late-night flights, less than 1% of operation. Delta had zero exceedances. Each airline will be contacted, and the airline rankings will be posted online. The data will include details about the date, time, aircraft, etc. for each late-night exceedance. Online data will also show all airlines that had operations during the late-night hours, but did not exceed thresholds.

Quarterly data also included overall information including:

- 3,874 operations during the late-night hours (12 AM to 5 AM)
- 239 exceeded noise thresholds, 6% of total late-night operations
- 62% of exceedances were cargo operators

Next steps will include the release of the full quarterly report in a week or so, review of results at the October 23 StART meeting, letters to all air carriers with the results, and in-person meetings between the

air carriers with the most late-night noise exceedances and the Airport Managing Director. A StART participant stated that these results provide new concrete data points that can inform conversations with the airlines and the community.

Noise Abatement Departure Profile Analysis Update

Steve Alverson, ESA

ESA was contracted to conduct the Noise Abatement Departure Profile (NADP) analysis. This analysis was conducted to determine the NADPs in use at Sea-Tac and provide recommendations for which profile offered the community the greatest overall noise benefit. ESA surveyed five airlines operating 737-800s. These aircraft are the most prevalent aircraft type of flights operating at Sea-Tac. The analysis was based upon existing NADPs normalized to Stage Length 4 conditions, and aircraft noise was modeled using the Aviation Environmental Design Tool (AEDT). The analysis compared sound exposure level contours (SEL) for the close in and distant NADPs for 4 runway ends (16L, 16C, 34R, 34C).

Alverson provided a short review of concepts relevant to understanding the analysis:

- NADP1 – The Close-in NADP, provides noise reduction for noise sensitive areas near the departure end of the runway. Thrust cutback initiated prior to initiation of flaps/slats retraction. This is the standard departure internationally.
- NADP2 – The Distant NADP, is intended to provide noise reduction for areas farther downstream. Thrust cutback is initiated after flap/slat retraction. Climb power may be reduced at 800 feet above field elevation. This is the standard departure in the US.
- Reduction of noise in one area results in an increase in noise in another area.
- NADPs vary according to airline, based on Standard Operating Procedures, flight optimization, and software utilized. They also vary due to aircraft and engine type.

Alverson discussed how the analysis was done and preliminary findings of the analysis. This included:

- Modeling: Used AEDT Version 2d.
- Used 737-800 due to the prevalence of use throughout the domestic fleet, prevalence at Sea-Tac, and robust Sound Exposure Level (SEL) footprint.
- Surveyed Alaska, American, Delta, Southwest, and United. All are using distant profile, except Delta. However, further discussions are being held with Delta to clarify their NADP.
- In the model, “Stage Length” is used to show variability in weight of aircraft. For the model, ESA used Stage Length 4 to ensure consistent analysis.
- Analysis showed that the Close-in SEL contours fall primarily within the Port mitigation areas, the Distant SEL contours do not.
- Census information was utilized to count people within census areas for both the 80 and 90 dBA SEL contours. Results showed that the Distant NADP encompasses 3,111 to 26,353 fewer people than the Close-in NADP depending on the runway used.
- ESA recommends the greatest benefit in noise reduction to the most people would be to utilize the Distant NADP – NADP2.

Discussion and questions included:

- Is the recommendation for Delta or other Close-in NADP airlines to change to a distant procedure? Is there anything that can be done by the airlines already flying the Distant NADP?
 - *Response:* There is still conversations to be held with Delta to clarify which NADP they actually use at Sea-Tac. It will be helpful to continue conversations with airlines that already fly Distant NADP to confirm that they are actually utilizing a Distant NADP.
- Are airlines required to pick one, or the other type of NADP?
 - *Response:* Airlines can select an NADP by runway end or by aircraft type. If an airline makes a modification to their NADP, then this modification to their NADP must be applied to any airport where that NADP is used.
- Is this a big ask, to ask airlines to use a Distant NADP?
 - *Response:* There is a fuel-reduction benefit for an airline to utilize a Distant NADP. It does require revision of procedures and manuals, but no reprogramming of flight computers.
- What is the process for airlines to make this change?
 - *Response:* FAA has an Advisory Circular that states that an airport can make a request to an airline to use a specific NADP, but the airlines are not required to adopt it.
- What are next steps for the analysis? Is it necessary to analyze all aircraft types?
 - *Response:* The work that has been done is a good indication of what results would look like for all aircraft types. We would not expect a big difference for other aircraft. The Distant NADP will continue to be the preferred NADP, given the noise sensitive areas north and south of the airport. It is not a simple task to ask airlines to change to a Distant NADP, but it is worth considering particularly when you factor in the fuel cost savings.

Vince Mestre recommended that it could be helpful to talk to the two main aircraft manufacturers for input on the benefits of fuel optimization for Distant NADPs and possibly asking if they can engage with airlines they work with on this topic.

Facilitator's Wrap Up

Phyllis Shulman, Facilitator

Shulman reminded the Working Group to be recommending whether there are additional topics/action items for the Aviation Noise Working Group to consider. This question will be on the agenda at future meetings to solicit any new topics the group may wish to pursue.

Future Meeting Date/Times:

NOTE: The next meeting will be held on November 18, 2019, 5:30-7:30, Seattle-Tacoma International, Airport Office Building Room 4A. The previous scheduled date of November 11 will be canceled as it falls on Veteran's Day.

Appendix C

StART FACILITATOR’S FEDERAL POLICY WORKING GROUP MEETING SUMMARY

Monday, September 9, 2019

5:30-7:30 pm, Seattle Tacoma International Airport Conference Center

Member	Interest Represented	Present
Jennifer Ferrer-Santa Ines	Normandy Park Finance Director	X
Kyle Moore	SeaTac Government Relations and Communication Manager	X
Lyndall Bervar	Congressman Adam Smith, District Rep	X
Yasmine Mehdi	Office of Congresswoman Pramila Jayapal	X
Louise O’Rorke	Office of Sen. Maria Cantwell (phone)	X
Eric Schinfeld	Port of Seattle, Sr. Manager, Federal & International Government Relations	X
Resources	Title	
Marco Milanese	Port of Seattle, Manager of Community Engagement	X
Consultants		
Phyllis Shulman	Facilitator, Floyd Snider	X
Emily Jackson	Note taker, Floyd Snider	X

Meeting Objectives: To discuss an additional action and next steps for the. To review and get feedback on a number of draft letters and options for outreach to cities.

Meeting Summary:

Secondary Insulation Packages: Option for Work Plan
Eric Schinfeld, Port of Seattle

Schinfeld provided an overview of the purpose of secondary insulations packages for lowering noise levels inside of homes. He stated that over \$300 million have been spent over the last 30 years in sound insulation. The Port’s program is now moving on to addressing sound insulation in apartments, condos, and places of worship. There has been some feedback received by the Port that there are cases where the sound insulation that was installed and funded through the FAA and Port has failed possibly due to improper fabrication, construction, or aging over time. The FAA rule is for one time issuance of the insulation and does not allow a second benefit if there is a failure. Interest was expressed in the last StART meeting to develop a proposal for eligibility for a secondary benefit if these initial packages fail. It may require passing new legislation to address this issue that would need to include a technical definition for failure. Schinfeld asked for guidance from the FP Working Group participants as to whether they were interested in adding the development of this legislation to the Work Plan.

Discussion included:

- There are some stories that some homes only received partial installation (portions of homes). Port staff shared interest in identifying whether and where these homes are that may have only

partial installation and consider how to remedy this. The City of SeaTac StART representative expressed support for identifying and evaluating whether and where these homes are.

- Questions about whether there is an opportunity to expand the footprint of mitigation and the potential cost. It was stated that current federal law only allows for mitigation within the 65 DNL.
- Concern has been expressed in the past about whether all homes built after 1987 were built to code with the required noise reduction insulation and whether those homes should be eligible for the sound insulation program.
- General agreement that evaluating whether homes built after 1987 met building codes could provide a helpful scale on what the range of the problem could be.
- Clarification that fixing the secondary insulation issue does not necessitate legislation as the FAA has the ability to change its own regulations if desired.
- An alternative strategy might be to work with Congress and the FAA regarding the interpretation.
- General support was given to add this item to the FP Working Group's Work Plan with additional detail and discussion to follow.

Review of Draft Letters

Eric Schinfeld, Port of Seattle

Schinfeld provided a review of draft letters to be sent to the FAA and members of Congress and asked for revisions and feedback from the participants. He stated that no new information is contained in these letters. The letters serve to provide information presented in the FP Working Group's Work Plan. He shared that he thought it would be most strategic to remove references to StART so that cities who have temporarily suspended their participation can still sign on to the letters. The letters still represent their interests. Schinfeld asked that participants review and provide any additional edits to him.

Discussion of the draft letters included:

- Clarifying the difference between metroplexes and single sites. Metroplexes are for NexGen flight paths only. Sea-Tac airport is not a metroplex or NextGen flight path. NextGen flight paths concentrate noise in a limited area. The letters recommend including single sites at major airports to be included in the studies.
- Clarifying what the two FAA studies currently are.
 - Noise annoyance study: will provide information on how many people are annoyed by noise. The second study is about what to do if people are annoyed and if many of the annoyances occur outside of the 65DNL whether a better metric can be developed to capture the area of annoyance. The letters request the FAA to release the noise study and the associated policy guidance.
- Recommending that Schinfeld clarify in the letters what is in the FAA studies that need to be included in their release.
- As it relates to the FAA study on the impact of overflight noise on human health contained in last year's FAA Reauthorization, there was a question related to the study's scope and potential concerns about scope creep. The Port believes there is value in being clear with the FAA as to the desired scope to avoid this exact issue.

Congressman Smith's staff stated that their office has a response from the FAA related to the WHO Europe noise study that she is able to share with the group. This response could potentially change the strategy regarding the letter. She will distribute the FAA response to the FP Working Group so that they may consider how best to respond to modify their strategy.

Next Steps: Participants agreed to review the letters and provide content input to Schinfeld.

Outreach to Cities for Letter Signatures

Eric Schinfeld, Port of Seattle

Participants discussed what might be effective strategies for getting the letters signed by all original six municipalities who were part of StART. The City of SeaTac's representative offered to take the lead on circulating and discussing the letters with the other cities. It was stated that this outreach could begin now. Congressional staff recommended that once the letters are finalized to send a hardcopy to their offices in Washington DC and email the letter as well to both DC and local offices.

Additional Next Steps on the Work Plan

Eric Schinfeld, Port of Seattle

Schinfeld led a discussion on overall strategy and next steps for items on the Work Plan. At the top of the list is building relationships with other airports, including communities who have similar issues. Initial strategy was to travel to DC to discuss items on the Work Plan with members of Congress. This travel will likely hinge on whether the six cities provide support for and sign onto the letters. He shared that these types of visits go very well anytime solutions are presented rather than problems. Schinfeld asked the participants for any additional near-term priorities for the Work Plan.

Discussion included:

- Curiosity was expressed on the WHO Europe study and whether any airports in the world had adopted the standard. Schinfeld responded not to the Port's knowledge. It is widely considered that implementation of the WHO Europe standard would be very difficult.
- Additional consideration needs to occur on how best to work with Quiet Skies groups in other communities.
- Determining who would go on the DC trip. Initial thoughts included mayors and city councilmembers from the original six cities that formed StART, and possibly a few StART community representatives. It would require coordination. The target date for a "go/no go" on the trip is October 15th.

Schinfeld concluded the meeting by stating that the letters should be sent by October 7th and that additional discussion at the October FP Working Group meeting should focus on the potential secondary insulation legislation. He also stated that planning for the DC trip should be in process. Schinfeld confirmed that he will send the drafts of letters out for support.

Next Meeting:

Monday Oct 7, 2019, 5:30 pm – 7:30 pm

Location: *SeaTac International Airport Conference Center, Room 4A*