



SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART FACILITATOR'S MEETING SUMMARY

Wednesday, June 26, 2019

6:00-8:00 pm, SeaTac Airport Conference Center

Member	Interest Represented		Member	Interest Represented	
Terry Plumb	Burien	X	Tejvir Basra	SeaTac	-
Brian Wilson	Burien	X	Robert Akhtar	SeaTac	X
Larry Cripe	Burien	X	Carl Cole	SeaTac	-
John Resing	Federal Way	X	Steve Pilcher (Alt)	SeaTac	X
Chris Hall	Federal Way	X	Katrina (Trina) Cook	Tukwila	X
Bill Vadino	Federal Way	X	Joon (Thomas) Lee	Tukwila	-
Sheila Brush	Des Moines	X	Brandon Miles	Tukwila	-
Steve Edmiston	Des Moines	X	Lance Lyttle	Port of Seattle	X
Michael Matthias	Des Moines	X	Arlyn Purcell (Alt)	Port of Seattle	X
Eric Zimmerman	Normandy Park	X	Tony Gonchar	Delta Airlines	-
Earnest Thompson	Normandy Park	X	Scott Ingham (Alt)	Delta Airlines	X
Mark Hoppen	Normandy Park	X	Scott Kennedy	Alaska Airlines	-
Jennifer-Ferrer-Santa Ines (Alt)	Normandy Park	-	Matt Shelby (Alt)	Alaska Airlines	-
Non-Member			Laura Sanders	Lynden (air cargo)	-
Chris Schaffer,	Federal Aviation Administration (FAA)	X			

Additional Participants:

Kevin Welsh, FAA; Jim Hileman, FAA; Lyndall Bervar, Office of Congressman Adam Smith; Stan Shepherd, Port of Seattle; Eric Schinfeld, Port of Seattle; Marco Milanese, Port of Seattle

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, and to expand understanding of the FAA's latest aircraft noise and emissions research. To discuss the principles and draft engagement plan for the South King County Fund.

Welcome

Arlyn Purcell, Port of Seattle

Purcell welcomed the group on behalf of Lance Lyttle, who just returned today from international travel and would be joining the meeting late. Purcell stated that there is a very full agenda, and the facilitator will be working hard to keep on schedule. Purcell welcomed and introduced the FAA participants who travelled from Washington DC to participate in tonight's meeting.

Facilitator's Update

Phyllis Shulman, Civic Alchemy

Shulman welcomed new members, Bill Vadino, City of Federal Way, and Steve Edmiston, community representative for the City of Des Moines.

Recap of Aviation Noise Working Group Meetings

Stan Shepherd, Port of Seattle

The Aviation Noise Working Group (Working Group) reported on their May 13 and June 10 meetings. The Working Group meeting summaries are attached as Appendix B. The summary focused on key items discussed at meetings relating to the Working Group's Work Plan and items requested for discussion including:

- An update by Beth White, Sr. Strategist with the FAA on the Reauthorization Act requirements for ombudsman/community engagement positions (two are expected to be housed at the FAA's offices in Des Moines). All eight positions have candidates that have been offered positions.
- An update that the revised Runway Use Agreement between the Port and the FAA is in the final stages of review by the FAA.
- Late Night Noise Limitation Program progress and how program information will be communicated to the public, and a preview of and solicitation of feedback on the program's web contents and layout.
- An overview, by the Port's Noise consultant (Steve Alverson, ESA), on the scope and schedule for the ground noise analysis.
- An overview, by the aviation noise consultant, (Vince Mestre, L&B), on noise monitoring systems, what they are, who develops them, and the constraints of the currently available systems.

Recap of Federal Policy Working Group Meeting

Eric Schinfeld, Port of Seattle

The Federal Policy Working Group (Working Group) reported on their May 9 meeting. The Federal Policy Working Group's meeting summary is attached as Appendix C. The summary focused on a review of the Congressional Quiet Skies Caucus' prospective legislative agenda and the process for developing priorities and a work program for the Federal Policy Working Group. Key highlights of the May 9th meeting included:

- Staff from U.S. Representative Lynch and Holmes Norton's offices, co-chairs of the Congressional Quiet Skies Caucus, participated. They discussed the status of the Caucus, as well as proposed legislation by Congressman Lynch and Congressman Smith. They reviewed

the timeline of when the legislative agenda would begin development and shared insights on the overall politics as well as possible political strategies for furthering the agenda.

- The StART Federal Policy Working Group expressed interest in coordinating with national efforts and invited the staff from U.S. Representative Lynch and Holmes Norton's offices to connect with the StART Working Group in the future.
- Participants discussed Working Group priorities related to new federal legislation, revisited the priority areas identified in the previous Working Group related to the FAA Reauthorization Bill, and considered whether there are any policies not covered in existing proposed legislation that they would like to recommend congressional representatives work on.

FAA Update on Aircraft Noise and Emissions Research

Kevin Welsh, Executive Director and Jim Hileman, Chief Scientific and Technical Advisor, FAA Office of Environment and Energy

Welsh provided an overview of the organizational structure and mission of the FAA Office of Environment and Energy. He noted that aviation noise is a factor/consideration for many, if not all, departments at the FAA. He reviewed the current emissions and noise reduction programs and research that are part of the office's mission. Dr. Hileman discussed noise metrics and the evolution of noise reduction within the aviation industry. He then reviewed the latest FAA research on noise which includes the development of tools to improve aircraft performance modeling, surveys on noise annoyance, studies on sleep disturbance as well as cardiovascular health, and research on aircraft and engine noise reduction technologies. Dr. Hileman also reviewed FAA research on aircraft emissions and air quality. He stated that the primary concerns related to aircraft emissions are ozone and particulate matter, and that particulate matter is the key contributor to health impacts. He discussed the focus of FAA emissions research including alternative jet fuels and technology, as well as emissions reduction measurement standards.

The presentation can be found [here](#)

Questions from StART participants included:

- How is the designation of "significant" noise determined and is this an appropriate term or measurement?

Response: The use of term "significant" has mathematical connotations. The FAA is aware that the 65 DNL standard is only one way that noise impacts can be described, but that it is the current official standard. The FAA intends to meet the October 2020 Congressionally mandated deadline of releasing the results of their noise annoyance study.

- Is it true that the energy content of biofuel is higher than jet A fuel?

Response: This is true; although, biofuel is only 1-2% higher on a mass basis, and 1-2% lower on a volume basis. Both fuels have about the same fuel economy.

- Are you aware of any study that has identified the elements of petroleum-based jet fuels?

Response: This information is readily available. It is tightly controlled for contaminants, because contaminants can affect the operation of the aircraft and clog fuel lines.

- The WHO Europe Environmental Noise Guidelines suggest that the impacts of aviation on cardiovascular, cognitive, and other health problems are above where they should be. Why is this not a priority for the FAA?

Response: The report prepared by WHO Europe is based on a large collection of data looking at annoyance, not health effects. The noise guidelines are based on annoyance, and include a very slim amount of data on health impacts. The FAA is working with the researchers whose data/reports were referenced in the WHO Guidelines. FAA's preference would be for policy to be based on health impacts studies.

- Is the FAA not in agreement with the data, studies, and guidelines provided in the WHO Europe Environmental Noise Guidelines, and does the FAA reject the report findings?

Response: Not able to speak to FAA's official response, but it is not just the US that did not sign off on the report.

- The FAA's noise annoyance study still has not been released. Why is the study not released and why is it now being coupled with the FAA Reauthorization Act when the study was already completed?

Response: The results of that study were received in 2017, and since then the report has been under review. The FAA Reauthorization Bill contained additional guidance to develop policy recommendations related to the annoyance study results. To account for this additional direction, the timeline for release has been extended.

- The Aviation Environmental Design Tool (AEDT) does not account for particulate matter, why?

Response: AEDT data collection was gathered before the particulate matter standard was set. FAA is now working to include it within AEDT3. Not sure what amount of data will be included, but FAA fully intends for AEDT3 to include extensive information on particulate matter mass. AEDT3 is expected to be released later this year.

- The findings of WHO Europe are important. The connections between pollution and hypertension are well known.

Response: The WHO Europe study is on annoyance, not based on health data. Particulate matter does have an impact on health and that is why there are Environmental Protection Agency restrictions on it.

- If the FAA's vision statement is to decrease the amount of environmental constraints on aviation growth, why is the FAA not looking at alternate transport options?

Response: Transportation alternatives are something that should be considered and is a more appropriate fit with the mission of the US Department of Transportation.

- Does the FAA have any comments on glide slope, or promising findings with ongoing research/work?

Response: Project23 on Massachusetts Institute of Technology's (MIT) website shows some information. They have been conducting a very detailed evaluation, and it looks like there are opportunities for decibel reduction through energy management on approach. MIT is also looking

at dispersion systematically, but there is concern for what that means for the location of flight paths. This is an active area of research.

The FAA presenters were invited to return to StART and provide an update once studies were complete.

South King County Fund

Andy Gregory, Port of Seattle,

Gregory reviewed the newly established South King County Fund, which will provide \$10 million over the next five years for community projects. He discussed that the Fund was established by the Port Commission in November 2018. He discussed the guiding principles to be used for evaluating potential projects. These included:

- Fund projects in the South King County area
- Prioritize community input to inform Port decision-making
- Support Port equity policies and practice
- Provide added benefit to current Port programs to address aircraft noise, environmental health, and sustainability
- Prioritization of projects that are ready to proceed
- Build on established programs and commitments to fulfill current obligations
- Promote innovation
- Encourage matching funds, where possible

Gregory provided an initial overview of the engagement strategies to solicit feedback. The first stage of the strategy will be formative engagement with local elected officials, grass-top community members, and established stakeholder groups. The roll-out timeline was reviewed that included a briefing to the Highline Forum in July, stakeholder interviews with community groups, return to StART at the August meeting and late fall hiring of a community equity plan consultant. The presentation can be found [here](#):

Questions from StART participants included:

- Is the ACE program folded in, or does it remain separate?
Response: It is still unknown. ACE funds will remain in the ACE fund. But funding could potentially grow to allow for geographic expansion of the eligibility pool.
- What are some examples of projects that may come out of this?
Response: It is still too early to share examples, especially with criteria not yet defined.
- In the Commission meeting, Commissioner Gregoire was adamant that this fund not require a matching grant, even though it seems like it will be.
Response: The principles encourage the use of matching funds, but matching funds are not required.
- Who are the communities? Who is eligible?
Response: The definition for eligibility is deliberately general, so to not cut off a community early in the process. At a minimum, communities will include those represented on StART.

- The Department of Commerce’s Aviation Impact Study could use this type of funding. Any reason that this would not be eligible?

Response: There is no particular disqualification apparent.

- Is there a per-project dollar limit on funding?

Response: There is currently no cap in place.

- Are there opportunities for public/private partnerships?

Response: Partnerships can be used to increase involvement/funding/impact. The Port is hoping that private partnerships may emerge from the community engagement process.

- When will communities know if they’re eligible or not?

Response: At a minimum, communities participating in StART will be eligible.

StART participants provided some recommendations for discussion and action items for the next StART meeting including:

- An update on the Revised Runway Use Agreement and a discussion on whether different runways can be used for different quiet hours.
- An update on the status of the proposed taxiway pilot program
- An analysis on how the longest runways, especially during quiet hours, could be used to reduce noise.
- A discussion on Part 150 Studies, and a review as to whether mitigation programs from the prior Part 150 has been fully implemented.

Public Comment

Compiled public comments are included as Appendix A.

Meeting Wrap Up

Arlyn Purcell, Port of Seattle

Purcell stated that the Part 150 topic will be discussed at the next Highline Forum meeting. The August StART meeting agenda will also include a discussion on the Part 150 process as well as a more in depth discussion and opportunity for feedback related to the South King County Fund.

Next Meeting:
August 28, 2019, 6:00 pm – 8:00 pm
Location: Conference Center Sea-Tac Airport

Appendix A

Summary of Public Comments

1. Bernadine Lund (Federal Way) (oral comments):
 - Stated that at the first StART meeting in 2018, trust was highlighted as important, and this requires honesty. This includes the airline industry, Port, and community. Most of the new advertisements and information the community members are getting is about the positive things the airline industry is doing. There are now multiple studies that are coming out about the harm air travel causes to travelers and residents. In addition, air traffic is impacting property values.
 - Commented that airlines need to start warning people of the negative effects of airplanes. Sees this issue similar to what happened to the tobacco industry who was eventually required to advertise health warnings. Commented that changes will be imposed by Congress if airlines are too slow to change.
 - Asked, “What steps can you take to reduce harm to the public?” Suggested that airlines don’t need to wait until Congress forces change. At the last StART meeting, Delta was incorrectly blamed for something they did not do. In the spirit of honesty, she is noting that here, and has personally reached out to Delta who graciously responded.
2. Marianne Markkanen (SeaTac) (oral comments):
 - Inquired this week into getting a sound insulation package for her home, and was bounced back and forth between multiple departments. One of the criteria for the insulation program is that your house had to be built before 1989. No realtor told her this was the case. She was also told the 3rd runway was for overflow air traffic only.
 - Commented that she had been told the eligibility rules for the residential sound insulation program haven’t been updated, even though the third runway was built, and that air traffic has continued to grow. Inquired why have there been no updates to these rules?
 - Suggested to utilize some of the South County Community Fund to modify and add funding to the sound insulation program. Inquired as to why are there no staff from the sound insulation program in these meetings?
3. Debi Wagner (Burien) (oral comments):
 - Stated that a few old, louder planes would be preferred to the non-stop traffic of 1,000 “quieter” planes that are causing sleep disturbance and other issues.
 - Stated lack of support for the use of the word “limitation” in the late night noise limitation program. Stated the opinion that the program hours from 12am-5am were forced on this group by the Port.
 - Commented that there are hundreds of thousands of people affected by noise. Expressed concern that the program to sound insulate homes is not helpful.
 - Expressed concern that the SAMP is going forward without any particulate matter information or information about carbon emissions in the model. Is offended that the WHO report was called ‘junk science’.
4. Ann Kroeker (oral comments):
 - Suggested that StART should have more parties involved, like Puget Sound Sage.
 - Commented that report outs from Working Groups should be done by community members, and not by the Port.
 - Commented that late-night departures increase during the summer.

- Suggested that this is not just about environmental impacts, but effects to other people's jobs. Recommended a full economic impact evaluation of the airport.
 - Expressed concern that even though there might be a reduction in the number of those effected by noise (7M to 300k), that those effected should still be paid attention to.
5. Sue Peterson (Federal Way) (oral comments):
- Stated that recently there seems to have been many more aircraft departing to the south. Stated that the noise is constant-and residents live with it all the time. Stated that 12AM-5AM as a time for night-time noise reduction is not enough since people require more than 5 hours a night of sleep.
 - Stated that she does not believe the FAA, or the Port has the people's best interest at heart.
 - Stated that people are entitled to live a good life and sleep. Realizes that progress is important, but not when progress negatively affects the people who live under the flight patterns.
6. JC Harris (SeaTac) (oral comments):
- Commented that at every meeting there is a summary, recap, or update. During this meeting, over 5 minutes was spent explaining what an ultrafine particle is. Stated that this group is spending too much time on things that should be known already. Expressed the opinion that the only actionable item heard today was about the new fund, which is way too vague.
 - Suggested that the Port could spend the \$10M on the people that have bad Port sound insulation packages and mold in their attics.
 - Recommended that StART Members need to go back to their city councils, and say that the cities need to do the marketing of the South King County Fund.

Appendix B.

StART FACILITATOR'S MEETING SUMMARY
Aviation Noise Working Group
Monday, May 13, 2019
5:30-7:30PM, Conference Room 5A Sea-Tac Airport

Attendee	Interest Represented
Terry Plumb	Burien
Larry Cripe	Burien
Bill Vadino (phone)	Federal Way
Eric Zimmerman (phone)	Normandy Park
Earnest Thompson	Normandy Park
Michael Matthias	Des Moines
Robert Akhtar	SeaTac
Sheila Brush	Des Moines
Robert Tykoski	Port of Seattle
Jennifer Ferrer-Santa Ines	Normandy Park
Stan Shepherd	Port of Seattle
Marco Milanese	Port of Seattle
Scott Ingham (phone)	Delta Airlines
Scott Kennedy	Alaska Airlines
Vince Mestre	L&B

Additional Attendees: Beth White, FAA (phone); Lyndall Bervar, Office of U.S. Rep. Adam Smith (phone); Arlyn Purcell, Port of Seattle

Facilitator: Phyllis Shulman, Civic Alchemy;
Note Taker: Megan King, Floyd Snider

Meeting Objectives:

To update on the FAA Regional Community Liaison/Ombudsman positions. To provide updates and discuss numerous items related to the draft rolling work plan.

Meeting Summary:

Regional Community Liaison/Ombudsman Update: Beth White, FAA

Beth White, FAA, briefed on the structure and descriptions of the new community engagement positions as well as explaining how the ombudsman role will work. White explained that the FAA has added eight total positions, three in regional administrators' offices (Western is in Los Angeles, Great Lakes in Chicago, and East in New York), position assigned to focus on noise complaints, two positions based in the Eastern Service Center in Atlanta, GA, and two positions based in the Western Service Center in Des

Moines, WA. The eight positions will work as a national team and all will work where needed around the country, but most likely the persons holding positions at the Western Center, if available, would be the ones to engage locally. The primary responsibility of the positions will be community engagement. Although they will not necessarily be technically versed in all subjects, they will have broad understanding of information and be able to access other FAA resources when needed. These eight positions are new positions.

Questions and discussion followed the briefing. Additional information included:

- The Community Engagement Officers will support FAA regional teams. This includes participating in round tables, forums, presentations, and with other regional stakeholders. Their role will be to serve as resources to existing forums and initiatives.
- Job descriptions will be made available to StART
- All eight positions have been offered and the candidates have accepted. FAA expects the selected candidates to start their positions in approximately 45 days or sooner.
- Current FAA community engagement efforts in Phoenix, Las Vegas, Denver and a city in Florida are related to either a settlement agreement with the City (Phoenix) or where there are proposed airspace changes in the area.
- Community Engagement Officers will have a broad knowledge of aviation and their experience and background for each position will vary. Those in Service Center locations will report to the Service Center Director, but also to the Public Engagement Group in the Air Traffic Office.
- The ombudsman is a role carried out in the current FAA structure assigned to an individual. The ombudsman's role has been to work across silos. The Community Engagement Officers are newly funded positions and most likely would not take on the ombudsman role.
- Community Engagement Officers will work out of the office of the Regional Administrator, but will not be reporting to the Regional Administrator. Their roles will be advisory.
- Community Engagement Officers will answer community questions, if they have the information, or will facilitate identifying the appropriate resource at the FAA.
- The role will not be to represent or advocate for the community in discussions with the FAA, but will communicate interests and concerns expressed by the public. Community Engagement Officers can participate, when invited, on stakeholder roundtables and forums in order to understand community concerns.
- FAA would consider discussing with the Port whether a workshop would be appropriate related to Wake Recategorization/NextGen.

Revised Runway Use Agreement

Staff updated the Working Group on the Revised Runway Use Agreement stating that the Port and FAA have reviewed the draft language, and recommended very few changes. FAA is currently working through their internal signature process and the Port is aiming for mid-year implementation on the agreement. Discussion centered on understanding the difference between the scope for the environmental review for the Sustainable Airport Master Plan Near-Term Projects and a new Part 150 study. It was clarified that the environmental review will include updated existing noise contours and future expected noise contours in the analysis. The Port anticipates initiating an update to the Part 150 study after the environmental review is complete; the updated Part 150 would build on the results of

the environmental review, as appropriate. The scopes for the two processes are different because they respond to different statutes, purposes, and guidelines.

Late Night Noise Limitation Program Update and Scoring Mechanics: Vince Mestre, Marco Milanese

Staff updated the Working Group on recent outreach efforts related to the program. These efforts included:

- The Port has talked to international and domestic air carrier station managers; the Port will communicate next with air cargo operators.
- Based on feedback from the last meeting, the Port will put together a formal letter to carriers preparing them for the program's implementation
- In June, Port staff will present again at the Airline Airport Affairs Committee about the program.
- An external data communication strategy is currently in design.
 - Data collection will likely begin July 1, with first report-out in October.

The noise consultant summarized the Fly Quiet Program and reviewed some program elements and updated scoring mechanics. The summary included:

- Currently, only winners are announced. The new program will post all scores, so all carrier rankings are visible/shared.
- For purposes of scoring, noise level score is given 0 for loudest, 100 for quietest.
- For north flow, scoring is only for departures.
- Points are subtracted for any maintenance run-ups at night not approved by the airport.
- Late-night operations are defined between 12:00-5:00am. Penalty is 100 points at an SEL of 100 dB, and decreases with decrease in average SEL.
- Annual scores/awards will be published, and significantly expanded to include late-night operation rankings.

Discussion and questions focused on the rationale for 12:00-5:00am being the parameters of the program. The noise consultant reviewed previously presented data and information that informed the decision by the Working Group to focus on that specific time range. The facilitator reminded the members that the discussion was held over months and was guidance provided by the Working Group to the Port. There was interest in considering a wider timeframe in the future. The Working Group was reminded that the purpose of StART is an advisory group, not a decision-making group. It was requested that the Working Group review an early version of how the program's data will be communicated.

Noise Abatement Departure Profiles: Noise Analysis Next Steps: Vince Mestre

Staff shared that the Port is hiring a consultant to conduct the noise abatement departure profile analysis. The analysis will include noise modeling for the "distant" procedure and an evaluation of noise impacts to airport communities. The analysis will confirm whether a "distant" procedure could lessen departure noise for airport communities. The contract is currently being negotiated with a consultant and the analysis will take 2-3 months for completion. The Scope of Work will be provided to StART members, by request. Once the analysis is complete, there can be a determination as to whether there

is any further action to take. It was stated that there are a lot of complex airspace issues that must be considered as well.

Airfield Noise Assessment: Scope of Work: Stan Shepherd, Port of Seattle

Staff explained that a consultant will be hired to analyze sources of airfield noise and identify, if practical, where modifications can be made to reduce noise. The assessment will consider aircraft taxiing, reverse thrust, APUs, aircraft stops between runways, takeoff queuing, maintenance run-ups, etc. A member mentioned that the term “reverse thrust” should be revised to “nothing above idle reverse” in the assessment. The scope will also assess atmospheric conditions impacting noise propagation, will gather information on airline policies/procedures for the use of Idle reverse, will include evaluation of mitigation options including physical structures and changes in aircraft operating procedures. Single event method will be used to identify the sources of the noise, while mitigation may look at DNL because it’s cumulative and looks at the combination of all the noise sources. The Scope of Work has been developed and the hiring process will take around 3-4 months. Once a consultant is hired, it will like take approximately six months for the assessment to be completed.

The Working Group also discussed noise monitoring equipment manufactured by Medusa Sound as a possible low-cost option to identify noise sources. Port staff will do some information gathering about the equipment and report back at the next Working Group meeting.

Future Meetings Dates/Times:

The 2019 Working Group meeting schedule was modified based on the timing of a number of the action items in the Rolling Work Plan. It was proposed to skip meetings scheduled for July and December. Working Group participants will look ahead and determine whether meetings are needed based on agenda items. It was agreed on to cancel the meetings in July and December.

Next Meeting: June 10, 2019, 5:30pm - 7:30pm, Seattle-Tacoma International Conference Center, Airport Office Building Room 4A

StART FACILITATOR'S MEETING SUMMARY
Aviation Noise Working Group
Monday June 10, 2019
5:30 pm – 7:30 pm, Conference Room 4A, Sea-Tac Airport

Attendee	Interest Represented
Terry Plumb	Burien
Larry Cripe	Burien
Eric Zimmerman (phone)	Normandy Park
Steve Edmiston	Des Moines
Earnest Thompson	Normandy Park
Chris Hall	Federal Way
Robert Akhtar	SeaTac
Sheila Brush	Des Moines
Jennifer Ferrer-Santa Ines	Normandy Park
Jennifer Kester	City of SeaTac
Stan Shepherd	Port of Seattle
Marco Milanese	Port of Seattle
Robert Tykoski	Port of Seattle
Tom Fagerstrom	Port of Seattle
Scott Ingham (phone)	Delta Airlines
Steve Osterdahl	Alaska Airlines
Bill Vadino	Federal Way
John Reising	Federal Way
Vince Mestre	L&B

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Other Attendees: Steve Alverson, ESA Airports (phone); Arlyn Purcell, Port of Seattle; Rosa Johnson, Port of Seattle

Meeting Objectives:

To provide updates on actions in the Rolling Work Plan. To gain a deeper understanding of the Noise Abatement Departure Profiles Noise Analysis and review advances in noise monitoring technology. To preview and provide feedback on the Late Night Noise Limitation Program beta site.

Meeting Summary:

Updates on Rolling Work Plan's Implementation

Late Night Noise Limitation Program:

- Educational briefings on the upcoming rollout of the Late Night Noise Limitation Program was presented to cargo and passenger air carriers at a number of venues. Communication will continue including a letter to all airlines operating at Sea-Tac. Additional conversations with air carrier representatives will continue.

Revised Runway Use Agreement:

- FAA is continuing their review of the agreement including an assessment by their Environmental Division. Port staff clarified the goal of the revised agreement is to limit the use of the 3rd runway as much as possible during late night hours, irrespective of aircraft type. Staff also clarified that the Working Group had reviewed the language and provided feedback at earlier meetings. Sometime in the future revisions to the language could be considered.

General Discussion:

- General discussion focused on the interest expressed by some members to audio record Working Group meetings. There was also interest in revisiting past discussions and implementation items. The facilitator reminded the Working Group that the goal of the group was to make progress on developing and giving guidance on near-term and other potential actions that could reduce noise. She reinforced that to be able to make progress, the Working Group needs to move forward even if some members are unable to attend some meetings.

Updates on Implementation of Noise Abatement Departure Profiles Noise Analysis

Steve Alverson with ESA Airports was hired to do the analysis. He provided background on close-in and distant departure profiles and shared information about the upcoming analysis. The overview included:

- The airline's approved departure procedure can be used at any airport. Airlines can choose the noise-abatement procedure by runway in coordination with the FAA for each airport.
- Most airlines choose to use just one departure procedure to keep it consistent and straightforward for the pilots, but airlines could choose different procedures for different runways.
- The analysis will not be looking at the 3rd Runway since it is rarely used for departures.
- There are two noise abatement departure procedures: a close-in departure procedure that benefits those living close to a runway-end and a distant departure procedure that benefits those living farther from a runway end. If you choose one procedure, it can have noise benefits for one area, and negative effect for other area, hence the purpose of this analysis.
- Analysis will start by first surveying the airlines, asking them what departure procedure they are using, and by aircraft type.
- Once the information is gathered, ESA Airports will model the existing conditions for the 737-800, the dominant aircraft at the airport. ESA Airports will see if there is a benefit for one procedure over another for that aircraft.
- ESA Airports will not use DNL as a measurement; instead, SEL (single event level) will be used.

- The airlines survey work is due to the Port by 8/15 and the analysis will then move into modeling existing conditions.
- From the ESA's initial look, it does not seem that a close-in departure procedure is the right fit for Sea-Tac, but that will need to be verified by analyzing specific noise levels.
- The final report and findings will be presented to StART in the Fall.

Questions and discussion followed the briefing.

- Noise data and contours can be overlaid with land use maps and aerials to show where they will overlap with residential areas and other land uses which will give indicators on the impacts to people. The Port can also use their GIS department to look at populations in the different contour areas.
- The analysis will focus on the most common aircraft type (737-800) at the airport. Based on this initial analysis, it can be determined whether there are benefits associated with the departure procedure and whether other aircraft types should also be evaluated.
- The consulting firm will ask the airlines to complete a survey on their departure procedures. An FAA-approved model will then be used to analyze the procedures.
- Through an advisory circular, airlines are encouraged to use the appropriate NADP when the Port asks them to use the noise abatement departure procedures that work best for the airport. ESA Airports has not encountered an airline that refused to implement a particular noise abatement departure procedure when asked to do so.
- A representative from Alaska Airlines responded by stating that the procedures Alaska flies is the "distant" procedure. Alaska would be most receptive to talking through what's best, most efficient, most quiet, etc. It takes about a year to train everyone on a change in procedure.
- A representative from Delta Air Lines responded by stating that Delta would engage their Chief Pilot in reviewing procedures, and they would be willing to collaborate.
- This type of analysis will generally not cause a substantial change to a 65 DNL contour. The changes that we'll expect to see from this modeling will likely be seen outside of the 65 DNL contour.
- A member shared concern that the effort and funds spent over time to calibrate a model would end up being more expensive than the collection of empirical data.

Late Night Noise Limitation Program:

Port staff shared an early draft of their planned webpage for the Late Night Noise Limitation Program. This is a beta site, so is not live, or accessible yet to the public. Staff reviewed a few key points including:

- The webpage will be hosted on the Port of Seattle's website and accessible through multiple links.
- The webpage will include a description of the program, a summary of the four noise monitors, and a table of the quarterly data/results.
- Site visitors will be able to view Excel file reports that include details on airlines, flights, times/dates of late night exceedances of the established monitoring thresholds.
- Statistics collection will commence in the 3rd quarter of 2019 and 3rd quarter data will be ready for publication early in the 4th quarter.

Discussion, questions, and feedback included:

- Include another tab in the full report that showed the number of citizen complaints for those same hours in order to provide more transparency.

Response:

- *Port will look into if it is possible to include that data.*

- Include responses to citizen complaints on the website.

Response:

- *Port will look into it. Could also include links to current site for registering complaints.*

- Additional definition and explanation of the noise thresholds and acronyms could be helpful.

Response:

- *The thresholds are included on the inset map, but additional information can be added.*

- Compare quarterly reports to previous quarters.

Response:

- *Will look at trends, comparison to previous quarters, plus any good news – such as an air carrier adjusting times, or changing aircraft as a result of the program’s implementation.*

- Identify the time of most complaints and the flight causing it.

Response:

- *Staff will look into it. Every airline operating between 12:00am-5:00am will be shown, regardless of whether they exceeded a noise threshold or not.*

- Create more opportunities, for example, issue press releases identifying the air carriers who are loudest at night.

Response:

- *Port staff is working on various communication strategies.*

A member inquired as to whether noise monitors will pick up reverse thrust noise on the airfield. Monitoring of noise on the airfield will be part of the upcoming ground noise analysis.

Noise Monitoring Overview – Are There Options?

StART’s noise consultant, Vince Mestre, provided an overview of noise monitoring options. He pointed out the challenges of noise monitoring including the array of monitoring points throughout areas surrounding an airport that can be corrupted by other generators of noise – lawn mowers, vehicles, motorcycles, animals, etc. He described system components and how different monitoring systems work. There are only six airport system vendors in the world, mostly in Europe. The cost of installations varies, but each can cost tens of thousands of dollars to install. It was pointed out that the quality of the microphone is critical for accurate monitoring, and that lower quality microphones, those in smart phones for example, do not pick up low frequency noise such as reverse thrust and engine run-ups.

The noise consultant then reviewed the small variety of noise monitoring systems that are currently on the market or in development and their strengths and weaknesses. These included:

- Medusa: Two companies – Ryan and 01DB have had this setup for years. Medusa is an array of multiple microphones, whose purpose is to segregate out community noise from aircraft noise through determining directionality and time difference between sounds. It only works in areas where the analysis is attempting to separate overhead noise from ground level noise. It would not be an effective noise monitoring method for adjacent neighborhoods to Sea-Tac, as it would not pick-up ground level/airfield noise.
- MONA: Being developed at Stanford University. They are developing open source software (free, sharable, modifiable) for MONA. If this is successful it could provide a future opportunity to consider.
- Array of Things: Developed by Argonne National Laboratories for the City of Chicago. Can include air, environmental, light and noise monitors.
- NoiseTube: Provides measurement of daily noise levels by utilizing mobile phones and visualizes those measurements on maps. There are issues because phone microphones are not high quality. but could be useful in identifying noise hotspots.

In summary, airport noise monitoring systems are complicated and expensive. Data acquisition and analysis software is the majority of system costs, not the microphones or meters. Microphone quality is key to accurate data recording. New community-based measurement methods are coming online, but they are not mature at this time.

Discussion of a Part 150 Study

Some Working Group members wanted to get more information about the Port's timing and approach in regard to a Part 150 noise study. Port staff explained that the next Part 150 is anticipated to be done when the SAMP Environmental Review is complete. The noise consultant provided more details about what a Part 150 is including:

- The FAA will not allow noise contours outside of the 65 DNL included within a Part 150, which is why they can be included as appendices in a Part 150 final report.
- Part 150 is a voluntary process. There is nothing in FAA regulations that trigger one. However, if airports want to conduct certain programs and qualify for FAA funding, then it is a requirement. It is a land use planning tool.

During the discussion, a number of items came up that needed additional clarification including:

- The SAMP environmental review process and how that relates to a Part 150
- Understanding what triggers a Part 150 and whether this issue should be considered in the Federal Policy Working Group
- Understanding of the rationale for timing of a Part 150
- Other questions or information the Working Group members would like to discuss in a future meeting related to a Part 150

The Working Group discussed the need for a Part 150 discussion at a future StART meeting. It was requested by a few Working Group members to bring their outside consultant to a future discussion. It was agreed that there would be a discussion at a future StART meeting on the Part 150 process. Members

were asked to submit Part 150 questions or topics they would like discussed by email to the facilitator to help frame the discussion.

Future Meetings Dates/Times:

Next meeting will be August 12, 2019, 5:30 pm -7:30 pm, Seattle-Tacoma International, Airport Office Building Room 4A.

Appendix C.
StART FACILITATOR'S FEDERAL POLICY MEETING SUMMARY
Monday, May 6, 2019
5:30-7:30 pm, Conference Center, Sea-Tac Airport

Member	Interest Represented	Present
Terry Plumb	Burien Community Member	X
Michael Matthias	Des Moines City Manager	-
Chris Hall	Federal Way Community Member	X
Brian Wilson	Burien City Manager	-
Sheila Brush	Des Moines Community Member	X
Jennifer Ferrer-Santa Ines	Normandy Park Finance Director	X
Earnest Thompson	Normandy Park Community Member	X
Kyle Moore	SeaTac Government Relations and Communication Manager	X
Robert Akhtar	SeaTac Community Member	X
Lyndall Bervar	Congressman Adam Smith, District Rep	-
Zachary Carstensen	Office of Congresswoman Pramila Jayapal, Director, Outreach and Engagement	-
Lylianna Allala	Office of Congresswoman Pramila Jayapal	X
Stasha Espinosa	Office of Sen. Patty Murray	-
Adam LeMieux	Office of Congressman Rick Larsen	-
Louise O'Rorke	Office of Sen. Maria Cantwell	-
Eric Schinfeld	Port of Seattle, Sr. Manager, Federal & International Government Relations	X
Resources	Title	
Dave Kaplan	Port of Seattle, Local Government Relations	-
Stan Shepherd	Port of Seattle, Manager of Noise Programs	X
Arlyn Purcell	Port of Seattle, Director of Aviation Environmental Services	-
Marco Milanese	Port of Seattle, Community Engagement Manager	X
Clare Gallagher	Port of Seattle, Director of Capital Project Delivery	X
Jason Ritchie	FAA Assistant Manager, Seattle Airports District Office	-
Consultants		
Phyllis Shulman	Facilitator, Civic Alchemy	X
Emily Jackson	Note taker, Floyd Snider	X

Additional Participants:

Natasha Silva, Legislative Assistant, U.S. Representative Stephen Lynch (D-MA); Blake Paradis, Legislative Assistant, U.S. Representative Eleanor Holmes Norton; Larry Cripe, Burien

Meeting Objectives:

To review and discuss options and begin to identify priorities related to new federal policy. To continue discussion on criteria for developing priorities.

Meeting Summary:

In-Depth Review of Sections of Federal Policy Initiatives

Eric Schinfeld, Port of Seattle – Federal Government Relations

Natasha Silva, U.S. Representative Stephen Lynch

Blake Paradis, U.S. Representative Eleanor Holmes Norton

Staff from U.S. Representatives who are co-chairs of the Congressional Quiet Skies Caucus discussed the status of the Caucus and proposed legislation by Congressman Lynch. The Caucus has not begun meeting in 2019 so the legislative agenda has yet to be determined. It is expected that the Caucus will begin meeting in a month or two. It is not known at this time if there is any additional legislation that is going to be proposed other than the Air Traffic Noise and Pollution Expert Consensus Act (Lynch–MA) (*see Attachment C*) and The Protecting Airport Communities from Particle Emissions Act (Smith–WA) (*see Attachment C*). The staff stated that aviation noise issues were bipartisan even though, likely due to the geography of major airports, there are more members who are Democrats. The staff stated that the political strategy for passing the bills could include linking bills to the infrastructure bill pending introduction, but that the infrastructure bill may not manifest. The more likely political strategy would be to do stand alone legislation.

StART members shared perspectives, concerns, and recommendations including:

- Creating legislation to allow airports more flexibility in utilization of the passenger facility fee
- Support for the National Academy of Sciences involvement
- Support for funding for development of hyperloop technology
- Examining the health impacts of aircraft noise and pollution especially as related to Next Gen flight paths
- Require the FAA to utilize the National Academy of Sciences for their health impacts studies

Legislative staff responded to a number of questions from StART participants including:

- The Lynch bill currently has approximately 25 co-sponsors to date.
- The Congressional Quiet Skies Caucus currently does not have any legislation pending to change the 65 DNL.
- The Congressional Quiet Skies Caucus will likely focus on keeping the FAA moving forward and accountable to measures passed into law in last year's FAA Reauthorization Bill.

Discussion on Criteria

Eric Schinfeld, Port of Seattle

Working Group Participants

Revised draft prioritization criteria (Attachment A) were presented to the Working Group. Participants were asked whether there were any modifications to the criteria based on discussions with other community members. One participant suggested that criteria include options that can provide more immediate mitigation of community impacts. It was also suggested that some criteria could be consolidated. Criteria will be utilized as guidance when deciding what issues and strategies the Working Group would like to focus on.

Priorities Discussion

*Eric Schinfeld, Port of Seattle
Working Group Participants*

Participants discussed Working Group priorities related to new federal legislation, revisited the priority areas identified in the previous Working Group related to the FAA Reauthorization Bill, and considered whether there are any policies not covered in existing proposed legislation that they would like to recommend congressional representatives work on. It was recommended that a consultant, currently working with the City of Des Moines, provide an additional perspective on which sections of the FAA Reauthorization Bill would be important to focus on. If the consultant is available, they will be invited to the next Working Group meeting. Some ideas for new policy included giving airports more local control especially related to facility charges, changes to the 65 DNL noise contour, and additional mitigation funds to cover retrofitting of original residential noise insulation measures.

Future discussion will continue to focus on identifying and implementing appropriate strategies for advocacy. These strategies may include working with other communities and coalitions (locally and nationally), working with Congressional delegation and committee members on advocacy and engagement, and direct engagement with the FAA.

Next Steps

- Eric will draft initial thoughts about possible new legislation
- Sheila will contact the Des Moines consultant and identify whether they can attend the Working Group meeting in June
- The Working Group will be rescheduled only for the June meeting to the first Tuesday night, if the consultant is available
- Eric will provide meeting handouts, if ready, prior to the Working Group meetings

Next Meeting:

TENTATIVE: Tuesday, June 4, 2019, 5:30 pm – 7:30 pm

Location: SeaTac International Airport, Room 4A

ATTACHMENT A

*StART Federal Working Group
Federal Aviation Noise and Air Quality Legislation
DRAFT Prioritization Criteria
Revised as of May 2019*

1. **Applies to Sea-Tac's specific operational procedures and impacts**, rather than – for example – policies designed to address metroplex issues.
2. **Provides near-term benefits**: prioritizes measures that could have immediate impact on community concerns related to aviation activities at Sea-Tac.
3. **Provides significant impact**: prioritizes measures that would truly affect the issues of concern – including “out of the box” thinking beyond air travel.
4. **Recognizes relevant timelines**: for implementation of FAA Reauthorization measures in particular, priorities action within Congressionally mandated deadlines
5. **Increases flexibility and innovation**: prioritizes measures that allow for new approaches to existing concerns, including allowing local communities to address issues in ways that might differ from national standards.
6. **Addresses community priorities**: focuses action on those topics that are of most concern to local residents.
7. **Incorporates/advances leading edge research**: prioritizes those measures that align with the most current thinking on aviation activity impacts, and/or those measures that would increase scientific understanding of aviation activity impacts.
8. **Potential for broader regional advocacy partnerships**: prioritizes measures that might appeal to a large cross-section of residents and other stakeholders from the Puget Sound region.
9. **Potential for broader national advocacy partnerships**: prioritizes measures that might appeal to airport-area communities and their Members of Congress from across the country for coalition-building purposes.
10. **Tied to metrics and evaluation**: prioritizes actions that can have a quantifiable, measurable impact on addressing key issues of community concern.
11. **Raises awareness of a core concern**: prioritizes measures that, by pursuing implementation, could lead to increased community understanding and engagement.

ATTACHMENT B

Federal Aviation Noise and Air Quality Legislation for StART Federal Working Group Consideration

FAA Reauthorization Act of 2018 Relevant Noise Provisions

- **Sec. 173, which sets a one-year deadline for the FAA to complete the ongoing evaluation of alternative metrics to the current DNL 65 standard. [Must be completed by 10/5/19]**
- Sec. 174, which requires an airport to submit a revised noise exposure map if a change in operation would establish a substantial new noncompatible use, or would significantly reduce noise over existing noncompatible uses. [Ongoing, no specific deliverable timeline]
- Sec. 175, which requires the FAA to “consider the feasibility of dispersal headings or other lateral track variations” when proposing a new area navigation departure procedure or amending an existing procedure that would direct aircraft between the surface and 6,000 feet above ground level over noise sensitive areas. [Ongoing, no specific deliverable timeline]
- Sec. 179, which would study the relationship between jet aircraft approach and takeoff speeds and corresponding noise impacts on communities surrounding airports. [Must be started by 10/5/19 and completed by 10/5/20]
- Sec. 180, which would create a Regional Ombudsman for each FAA region to serve as a regional liaison with the public, including community groups, on issues regarding aircraft noise, pollution, and safety. [Must be completed by 10/5/19]
- Sec. 186, which would initiate a review of the potential benefits, costs, and other impacts that would result from a phase-out of covered stage 3 aircraft. [Must be started by 4/5/19 and completed by 4/5/20]
- **Sec. 187, which sets a two-year deadline to complete the ongoing evaluation of alternative metrics to the current Day Night Level (DNL) 65 standard AND provide initial recommendations of proposed changes based on the findings. [Must be completed by 10/5/20]**

- **Sec. 188, which would evaluate alternative metrics to the current average day-night level standard, such as the use of actual noise sampling and other methods, to address community airplane noise concerns. [Must be completed by 10/5/19]**
- **Sec. 189, which would study the health impacts of noise from aircraft flights on residents in the metropolitan areas of Boston, Chicago, DC, New York, Northern California, Phoenix, Southern California and Seattle. [Must be started by 4/5/19]**
- **Sec. 190, which would create a pilot grant program involving not more than 6 projects at airports for environmental mitigation projects that will measurably reduce or mitigate aviation impacts on noise, air quality, or water quality at the airport or within 5 miles of the airport. [No timeline designated for enactment; the pilot program “shall terminate 5 years after the Secretary makes the first grant”.]**

ATTACHMENT C

Air Traffic Noise and Pollution Expert Consensus Act (Lynch–MA), which would direct the FAA to enter into appropriate arrangements with the National Academies of Sciences, Engineering, and Medicine to provide for a report on the health impacts of air traffic noise and pollution.

The Protecting Airport Communities from Particle Emissions Act (Smith–WA), which would direct the FAA to report on ultrafine particles and their health impacts for communities around the 20 largest U.S. airports. The study would also analyze the potential impacts of mitigation options, emissions reductions, and the increased use of aviation biofuels.