



2019 StART Annual Report

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StART 

SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART enhances cooperation between the Port of Seattle and the neighboring communities of Sea-Tac Airport

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List of Acronyms and Abbreviations

Acronym/ Abbreviations	Definition
Airport	Seattle-Tacoma International Airport
DNL	Day Night Average Sound Level
FAA	Federal Aviation Administration
FP Working Group	StART Federal Policy Working Group
Port	Port of Seattle
StART	Sea-Tac Stakeholder Advisory Round Table
UFP	Ultra-fine particle
UW	University of Washington
Working Group	StART Aviation Noise Working Group

1. EXECUTIVE SUMMARY

Background

The Sea-Tac Stakeholder Advisory Round Table (StART) was created in 2018 by Seattle-Tacoma International Airport's (Airport's) Managing Director in collaboration with the six airport-area cities (SeaTac, Burien, Des Moines, Normandy Park, Tukwila, and Federal Way). StART provides Southwest King County cities, communities, airline representatives, the Federal Aviation Administration (FAA), and the Port of Seattle (Port) with the opportunity to:

- Support meaningful and collaborative public dialogue and engagement on airport-related operations, planning, and development;
- Provide an opportunity for the communities to inform the airport-related decision-making of the Port of Seattle and other Southwest King County jurisdictions/organizations; and
- Raise public knowledge about the airport and impacted communities.

The intent is to provide a forum that fosters a spirit of good will, respect and openness while encouraging candid discussion between the Port and residential and business community members and to provide an opportunity to work together to solve problems. StART's effectiveness is driven by a willingness by all parties to fully discuss matters of mutual concern, and all members are asked to pledge their good faith best effort to achieve those ends.

StART is not a formal decision-making body or an inter-local agency. StART does not follow procedural rules of order and does not entertain motions or record votes. StART uses consensus to shape feedback to provide guidance to the Port. Consensus-based actions are the product of discussions among the members to distinguish underlying values, interests, and concerns with a goal of developing feedback and action agendas. Feedback includes both areas of agreement and the articulation of concerns that require further exploration.

2019 Membership

StART is convened by the Airport's Managing Director, who in addition to serving as the chair, serves as the sponsor directing staff to provide technical analysis and expertise to the group. An independent, neutral facilitator provides assistance in the preparation, management, and summation of each StART meeting.

Each of the six airport-area cities appoints two community members to serve on StART along with a non-elected city employee who is typically a city manager. Members are appointed for a 2-year term. The first cycle of appointments concluded in 2019. For 2020, cities can reappoint existing community representatives or identify new ones.

Representatives from Alaska Airlines, Delta Air Lines, and Lynden Air Cargo participate as members, and the FAA provides agency expertise. Depending on the nature of the action items, issue-specific consultants are contracted with to provide analysis and technical expertise. In

2019, consultants included Vince Mestre, technical advisor and resource to the Aviation Noise Working Group; Steve Alverson, Environmental Science Associates, consultant for the noise abatement departure profile analysis; and Brad Nicholas, Harris Miller & Hanson Inc., consultant for the ground noise analysis.

City representation on StART is identical to the Highline Forum’s city representation, and StART reports up to the Highline Forum. In this way, both StART’s community representatives and the Highline Forum’s elected representatives are involved in airport issues and can provide a coordinated approach among stakeholders.

Membership for 2019 included all six airport-area cities until August 2019. At that time, three cities, Des Moines, Burien, and Federal Way, temporarily suspended their membership for the duration of the year. Also, there were a few changes in representatives during the year due to retirements and resignations. The positions were filled with new representatives. The following chart reflects representatives in place (including temporarily suspended members) by the end of 2019.

Member/Association	Name	Title
Burien	John Parnass/ Larry Cripe	Community Member
	Terry Plumb	Community Member
	Brian Wilson	City Manager
	Lisa Marshall (Alt)	City Attorney
Federal Way	John Resing	Community Member
	Chris Hall	Community Member
	Yarden Weidenfeld/ Bill Vadino	Mayor’s Office, Senior Policy Advisor
Des Moines	Sheila Brush	Community Member
	Ken Rodgers/ Steve Edmiston	Community Member
	Michael Matthias	City Manager
Normandy Park	Eric Zimmerman	Community Member
	Earnest Thompson	Community Member
	Mark Hoppen	City Manager
	Jennifer Ferrer-Santa Ines (Alt)	Finance Director

Member/Association	Name	Title
SeaTac	Tejvir Basra	Community Member
	Robert Akhtar	Community Member
	Carl Cole	City Manager
	Steve Pilcher (Alt)	Community & Economic Development Director
Tukwila	Katrina (Trina) Cook	Community Member
	Joon (Thomas) Lee	Community Member
	Brandon Miles	Business Relations Manager
Port of Seattle	Lance Lyttle	Aviation Managing Director
	Mike Ehl/Arlyn Purcell (Alt)	Director of Airport Operations/Director of Aviation Environment and Sustainability
	Eric Schinfeld (Staff)	Sr. Manager, Federal and International Government Relations
	Marco Milanese (Staff)	Local Government Relations Manager
	Stan Shepherd (Staff)	Airport Noise Program Manager
	Tom Fagerstrom (Staff)	Noise Programs Coordinator
	Tim Toeber (Staff)	Airline Resource and Scheduling Manager
Delta Air Lines	Tony Gonchar	Vice President – Seattle
	Scott Ingham (Alt)	Public Affairs Advisor
Alaska Airlines	Scott Kennedy	Manager, State and Local Government Affairs
	Matt Shelby (Alt)	Managing Director, Airport Affairs
Lynden Air Cargo	Laura Sanders	Vice President, Carrier Relations and Customer Experience
FAA (non-members)	Randy Fiertz	Director, Northwest Mountain Region
	Dave Suomi	Regional Administrator, Northwest Mountain Region
	Justin Biassou	Engagement Manager, Northwest Mountain & Alaskan Region
	Joelle Briggs	Manager, Seattle Airports District Office, Northwest Mountain Region
	Jason Ritchie	Assistant Manager, Seattle Airports Districts Office, Northwest Mountain Region
	Chris Schaffer	Manager, Planning and Programming, Northwest Mountain Region

Revision of Operating Procedures

Part way through 2019, member City managers or their representatives met to check in and discuss how best to respond to cities that were temporarily suspending their membership in StART. The participants present identified a gap in the Operating Procedures regarding procedures for membership suspension and re-engagement in StART. New procedures were agreed upon and added to the Operating Procedures (Appendix I).

2019 Accomplishments and Results

Numerous potential ideas and actions that were generated during discussions in 2018 became concrete efforts and programs in 2019. StART participants provided guidance and recommendations as these efforts and programs were implemented. This included input into the direction and scope of technical analyses; suggestions for website layout and design of outreach and communication methods and information to communities, airlines, and the FAA; and new ideas and guidance that incorporated community interests, concerns, and priorities. Toward the last quarter of the year, StART participants began to review results from these efforts. The graphic on the following page is a snapshot of 2019 accomplishments and results.

More details about action items, accomplishments, and results can be found in Appendices II, III, and IV.

Snapshot of StART 2019 Accomplishments and Results

Objective	Action Item/ Accomplishment	Results (as of December 31, 2019)
 <p>Reduce late-night noise by incentivizing air carriers to fly at less noise-sensitive hours or transition to quieter aircraft.</p>	<p>Late-Night Noise Limitation Program established.</p>	<p>In-person and written communications to all air carriers focusing on those who exceed the late-night noise thresholds. Eva Air changing flight to quieter aircraft model. FedEx is transitioning over time to quieter aircraft.</p>
 <p>Reduce late-night noise for 3rd Runway-adjacent communities and communities underneath the 3rd Runway's flightpath by minimizing the use of the 3rd Runway between 12:00 AM and 5:00 AM.</p>	<p>Updated language and signed Revised Runway Use Agreement between the Port and FAA.</p>	<p>3rd and 4th quarter results show that landings have been reduced on the 3rd Runway from an average 10 and often 20 to 30 per night to an average of 2 to 3 per night with numerous nights where there were none.</p>
 <p>Lessen aircraft approach noise for communities south of the airport.</p>	<p>Glide Slope Angle Analysis completed. Consensus reached on recommendation to raise Runway 34R's glideslope.</p>	<p>Approval of funding for preliminary design.</p>
 <p>Reduce whistling noise created by A320s for communities underneath the flight path.</p>	<p>Communication initiated to all relevant air carriers to install a vortex generator on pre-2014 A320 Series aircraft to lessen descent noise.</p>	<p>Ongoing outreach to carriers with pre-2014 A320s. Response from some airlines with timelines for vortex generator installation or other changes (e.g., fleet changes).</p>
 <p>Lessen aircraft departure noise for farther out airport communities.</p>	<p>Consultant nearing completion of Noise Abatement Departure Profile (NADP) Analysis that includes recommendations on feasibility, potential benefits, and any potential tradeoffs.</p>	<p>Recommendation to explore maximizing the utilization of NADP2, the distant NADP. Initial conversations with the FAA and air carriers will commence soon.</p>
 <p>Reduce aviation noise for close-in communities surrounding the airport.</p>	<p>Consultant hired to analyze airfield ground noise sources and identify potential mitigation measures. StART input into scoping.</p>	<p>Analysis will be completed in 2020.</p>
 <p>Influence federal policy relating to jointly agreed aviation priorities.</p>	<p>Establishment of joint Federal Advocacy Plan.</p>	<p>Federal Advocacy Plan will guide next steps. Advocacy trip to Washington, D.C., with cities and the Port planned.</p>
	<p>Joint Port-Cities letters to Congress and the FAA signed by all six cities, finalized, and delivered in person.</p>	<p>Congressional offices providing responses to the issues raised in the letters.</p>
 <p>Address the issue of secondary noise insulation failure.</p>	<p>Initiated policy proposal to U.S. Representative Adam Smith.</p>	<p>Rep. Adam Smith is drafting a secondary noise insulation bill to be introduced in 2020.</p>
 <p>Establish constructive relationships with congressional staff and elected officials who represent our region and state.</p>	<p>Engagement of congressional offices in StART Federal Policy Working Group.</p>	<p>Congressional offices' responsiveness to StART's interests, issues, and ideas.</p>

2. OVERVIEW OF 2019 MEETING OBJECTIVES, PRESENTATIONS, AND DISCUSSION TOPICS

Development of 2019 Priorities and Discussion Topics

At the end of 2018 and the beginning of 2019, StART members were requested to identify priorities and interests for 2019. The participants were asked to respond to two items: (1) List topics you are most interested in discussing in 2019; (2) State information that would be helpful to know or learn more about and/or experiences that would be helpful to have in 2019 that would be important to increasing shared understanding of aviation/airport/community issues.

The responses were utilized to identify continued work, topics for discussion at Working Groups, and future StART agenda items. The following lists are a consolidation of the responses regarding priorities for 2019, as well as information that would be helpful to learn more about.

StART 2019 PRIORITIES
Based on feedback from StART members and public attendees
Not in order of priority

<p><u>AVIATION NOISE</u></p> <ul style="list-style-type: none"> • Understanding Day Night Average Sound Level (DNL) and Sound Exposure Level, why the 65 DNL, and how they are calculated • Part 150 and Part 161 studies • Comprehensive understanding of the Port’s noise programs • Review of practices to reduce noise at other airports and comparison of those practices to what Sea-Tac is doing, not doing, and why • Noise monitoring – what is currently in place, limitations, utilization of data • Pilot operational procedures that could reduce aircraft noise and air pollution • Understanding flight paths/air space <p><u>AIR QUALITY/HEALTH IMPACTS</u></p> <ul style="list-style-type: none"> • University of Washington (UW) ultra-fine particle (UFP) Study • Regional air quality overview • Port air quality programs 	<p><u>FUTURE OF AVIATION/MOBILITY</u></p> <ul style="list-style-type: none"> • Air cargo/Washington State Air Cargo Movement Study • Aircraft design • Hyperloop/bullet trains/other modes of transportation • Airport’s role in regional economic development/impact of regional growth on the airport • Sustainable Aviation Fuels • Paine Field <p><u>FEDERAL POLICY</u></p> <ul style="list-style-type: none"> • Rep. Smith’s aviation-oriented legislation • Priorities identified in the Working Group <p><u>SHORT AND MID-TERM NOISE RELIEF</u></p> <ul style="list-style-type: none"> • Priorities identified in the Working Group • Funding
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Information that would be helpful to know or learn more about and/or experiences that would be helpful to have in 2019 that would be important to increasing shared understanding of aviation-airport-community issues:

NOISE

- More speakers from industry and government on noise, flights patterns, and airline equipment changes to reduce noise
- What airline carriers are the loudest and what time of day/night/frequency do they fly?
- The possibility of enhanced noise data collections from additional noise monitoring stations
- Full explanation of DNL metric
- Examination of other noise mitigation programs at other major airports
- Pilot operational efficiency projects that could reduce aircraft noise and air pollution
- Airfield taxiing projects that minimize reverse thrust noise
- Occasionally, hold StART meetings in communities affected by aircraft noise
- More detail on how flight paths are managed

STUDIES/DATA/SETTLEMENTS/PLANNING

- Metropolitan Airports Commission (Minneapolis St. Paul International Airport) settlement with neighboring communities
- Funding opportunities for additional studies on community impacts of operational growth
- History of the 3rd Runway from various perspectives (Port, FAA, airlines, cities, and community groups)
- Regular updates on Sustainable Airport Master Plan Environmental Review

IMPACTS

- Opportunities for compensation for communities impacted by airport growth
- Port support at the federal level for changing the Airport Noise & Capacity Act (clarify what changes are desired)
- More public communication on mitigations, improvements, agreements, and actions that have been taken to lessen aviation impacts on communities

HEALTH

- Improvements in jet fuel emissions
- How downsizing the number of planes can impact the overall economic health of our region
- Progress on the UW UFP study and the Department of Commerce Local Community Impacts Study

EXPERIENCES/PRESENTATIONS

- Educational visitations by StART members to out-of-state localities that have made progress on addressing the aviation-related impacts on their communities
- Trainings provided to StART members so they can have a better understanding of FAA airport and aircraft rules and procedures
- Discussion on the appropriate level of involvement from State & Federal officials
- Invite the FAA's Air Traffic Control and Terminal Radar Approach Control Facilities to present and take questions

Meeting Progress and Summaries

In 2019, StART focused more intensively on implementing near-term actions relating to preventing, reducing, and/or mitigating aviation noise. The StART Aviation Noise Working Group (Working Group) reviewed programs, data, information, and analysis and provided guidance on implementation strategies. Accomplishments for 2019 included a revised Runway Use Agreement, consideration of a glide slope adjustment, establishment of a late-night noise limitation program, potential shift in noise abatement departure profiles, and outreach and encouragement to airlines to install vortex generators on pre-2014 A320 Series aircraft. StART members also identified the need for and assisted in scoping an intensive ground noise analysis to be completed in 2020. In addition, the StART Federal Policy Working Group (FP Working Group) reviewed potential policy priorities and developed a Federal Advocacy Plan.

In addition to vetting and discussing the action agendas from both Working Groups, there were presentations and discussions at meetings that continued to develop shared understanding of operations and issues identified by members. Meetings also included status reports on near-term actions. These presentations included the following:

- Understanding Airspace/Flights Paths
- FAA Update: Aircraft Noise and Emissions Research
- Components and Requirements of a Part 150 Noise Compatibility Study Panel Discussion
- Late Night Noise Limitation Program 3rd Quarter Results and Expected Outreach
- South King County Fund
- Introduction of the new FAA Community Engagement Officer and his role and responsibilities
- Revised Runway Use Agreement results

The following graphic shows the meeting objectives and progress in 2019. Meeting summaries are attached as Appendix II.

StART–2019 Meeting Progress

February 2019	April 2019	June 2019	August 2019	October 2019	December 2019
<p>Objectives: To recap and preview Aviation Noise and Federal Policy Working Group meetings. To discuss additional potential noise reduction initiatives including the Glide Slope Analysis. To discuss StART’s 2019 priorities.</p> <p>Discussion Topics:</p> <ul style="list-style-type: none"> • Briefing and Discussion: Aviation Noise Working Group • Preview of Federal Policy Working Group • Presentation and Discussion: Glide Slope Analysis Recommendation (Port Staff) • Discussion: Airfield Taxiing Noise Reduction Initiative (Port Staff) • Discussion: 2019 Priorities • Public Comment 	<p>Objectives: To recap the Aviation Noise and Federal Policy Working Group meetings and provide update on the Aviation Noise Action Plan initiatives. To expand understanding of airspace and flight paths. To discuss StART’s 2019 priorities.</p> <p>Discussion Topics:</p> <ul style="list-style-type: none"> • Briefing and Discussion: Aviation Noise Working Group • Briefing and Discussion: Federal Policy Working Group • Briefing and Discussion: Late-Night Noise Limitation Program (Port Staff) • Presentation and Discussion: Understanding Airspace/Flight Paths (Port Staff) • Discussion: 2019 Priorities • Public Comment 	<p>Objectives: To recap the Aviation Noise and Federal Policy Working Group meetings. To expand understanding of the latest FAA aircraft noise and emissions research. To discuss the principles and draft engagement plan for the South King County Fund.</p> <p>Discussion Topics:</p> <ul style="list-style-type: none"> • Briefing and Discussion: Aviation Noise Working Group • Briefing and Discussion: Federal Policy Working Group • Presentation and Discussion: FAA Update—Aircraft Noise and Emissions Research (FAA) • Presentation and Discussion: South King County Fund (Port Staff) • Public Comment 	<p>Objectives: To recap the Aviation Noise Working Group meeting and review the Federal Advocacy Plan. To expand understanding of and discuss the components and requirements of a Part 150 Noise Compatibility Study.</p> <p>Discussion Topics:</p> <ul style="list-style-type: none"> • Briefing and Discussion: Aviation Noise Working Group • Briefing and Discussion: Federal Advocacy Plan • Presentation and Discussion: Part 150 Study Panel Discussion (Consultant, FAA, Port Staff) • Public Comment 	<p>Objectives: To recap the Aviation Noise Working Group and Federal Policy Working Group meetings. To discuss the Late-Night Noise Limitation Program third quarter results. To provide input to the consultant for the Ground Noise Analysis scope.</p> <p>Discussion Topics:</p> <ul style="list-style-type: none"> • Introduction of new FAA Community Engagement Officer • Briefing and Discussion: Aviation Noise Working Group • Briefing and Discussion: Federal Advocacy Plan Review • Presentation and Discussion: Late-Night Noise Limitation Program 3rd Quarter Results and Expected Outreach (Port Staff) • Presentation and Discussion: Ground Noise Analysis Scope (Consultant) • Public Comment 	<p>Objectives: To discuss the results of the Noise Abatement Departure Profiles Noise Analysis. To recap the Aviation Noise Working Group and Federal Policy Working Group meetings. To provide update on the FAA’s end-around taxi procedure.</p> <p>Discussion Topics:</p> <ul style="list-style-type: none"> • Briefing and Discussion: Federal Advocacy Plan • Briefing and Discussion: Near-Term Aviation Noise Working Group Action Agenda • Presentation and Discussion: End-Around Taxi Procedure Update (FAA) • Presentation and Discussion: Noise Abatement Departure Profiles Noise Analysis (Consultant) • Public Comment

3. OVERVIEW OF AVIATION NOISE WORKING GROUP MEETING OBJECTIVES, PRESENTATIONS, DISCUSSION TOPICS, AND ACCOMPLISHMENTS

The Aviation Noise Working Group focused most presentations and discussion on refining and implementing a series of near-term action items, many of which were first discussed in 2018. The Working Group delved into additional analysis; provided guidance on the scope, design, and composition of these action items; and provided community perspectives on priorities, concerns, and communications. In addition to focusing on the analysis and implementation of near-term action items identified during 2018, the Working Group inquired about and explored potential new actions that could reduce noise. The Working Group supported undertaking a comprehensive analysis of ground noise and the development of recommendations from that analysis that have the potential to reduce noise.

The Working Group also received a demonstration of the Airport's new noise comment system and provided input on additional improvements for the system. They reviewed advances in noise monitoring technology with a presentation and discussion on noise monitoring options, strengths and weaknesses of different technologies, and the limits and capabilities of noise monitors. The FAA held a conversation with the Working Group on the roles and responsibilities of the new FAA Regional Community Liaison positions. Port staff provided lessons learned and shared highlights from the AAAE/ACI-NA Airport Noise Conference and Working Group members discussed the possible value in having a few StART members attend a more community-focused noise conference in San Diego in 2020.

The following graphic shows the meeting objectives and progress in 2019. More detail about the goals, descriptions, components, key responsible parties, status, accomplishments, and results of the Near-Term Aviation Noise Action Agenda can be found in Aviation Noise Working Group Meeting Summaries that are incorporated into the main StART meeting summaries in Appendix II.

StART Aviation Noise Working Group Meeting Progress



January 2019

Objectives:

To continue discussions on the Glide Slope Adjustment and to identify and begin discussions on ground noise analysis actions.

Discussion Topics:

- Update on the Implementation of the Draft Rolling Work Plan
- Review of Possible Action Steps for Glide Slope Changes
- Utilization of Reverse Thrust Presentation
- Ground Noise Analysis Options and Considerations



March 2019

Objectives:

To open discussions on potential noise abatement departure profiles and to provide updates on actions in the Rolling Work Plan.

Discussion Topics:

- Updates on Implementation of Draft Rolling Work Plan
- Update and Discussion: Late-Night Noise Limitation Program
- Presentation and Discussion: Noise Abatement Departure Profiles
- Discussion: Ground Noise Analysis Next Steps



April 2019

Objectives:

To review and provide input on the next steps with the Noise Abatement Departure Profiles and Ground Noise Analysis agenda items.

Discussion Topics:

- Updates on Implementation of Draft Rolling Work Plan
- Update and discussion: Late-Night Noise Limitation Program Outreach and Analysis
- Discussion: Noise Abatement Departure Profiles—Noise Analysis Next Steps
- Discussion: Ground Noise Analysis: Timeline and Next Steps



May 2019

Objectives:

To provide update on the FAA Regional Community Liaison/Ombudsman position. To provide updates and discuss numerous items related to the Draft Rolling Work Plan.

Discussion Topics:

- Update on FAA Regional Community Liaison/Ombudsman
- Discussion: Revised Runway Use Agreement
- Presentation and Discussion: Late-Night Noise Limitation Program and Scoring Mechanics
- Discussion: Noise Abatement Departure Profiles—Next Steps
- Discussion: Ground Noise Analysis—Scope of Work

StART Aviation Noise Working Group Meeting Progress (cont.)



June 2019

Objectives:

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

Discussion Topics:

- Updates on Implementation of Draft Rolling Work Plan
- Presentation and Discussion: Noise Abatement Departure Profiles Study
- Presentation and Discussion: Late-Night Noise Limitation Program—External Reporting
- Presentation and Discussion: Noise Monitoring Overview—Are There Options?



August 2019

Objectives:

To provide updates on actions in the Draft Rolling Work Plan including the Noise Abatement Departure Profiles Study. To receive a demonstration on Sea-Tac Airport's new noise comment system. To discuss and resolve a number of process issues brought up in the Working Group.

Discussion Topics:

- Updates on Implementation of Draft Rolling Work Plan
- Discussion: Noise Abatement Departure Profiles Study
- Demonstration and Discussion: Sea-Tac Airport's New Noise Comment System
- Discussion: Working Group Process



October 2019

Objectives:

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

Discussion Topics:

- Updates on Implementation of Rolling Work Plan
- Discussion: Runway Use Plan Finalization and Preliminary Outcome
- Presentation and Discussion: Late-Night Noise Limitation Program—3rd Quarter Results
- Discussion: Noise Abatement Departure Profile Study Update



November 2019

Objectives:

To discuss and get input on the Noise Abatement Departure Profile Study next steps. To provide an update on the Late-Night Noise Limitation Program outreach. To recap and share insights on the recent Noise Conference. To review and discuss input received on the Ground Noise Analysis Scope.

Discussion Topics:

- Discussion: Noise Abatement Departure Profile Study Next Steps
- Discussion: Late-Night Noise Limitation Program Outreach Update
- Recap and Discussion: Noise Conference
- Discussion: Ground Noise Analysis Scope Input Received

4. OVERVIEW OF FEDERAL POLICY WORKING GROUP MEETING OBJECTIVES, PRESENTATIONS, DISCUSSION TOPICS, AND ACCOMPLISHMENTS

The FP Working Group began convening in 2019. The goal of the FP Working Group is to provide an opportunity for collaboration and engagement between members of Congress and regional stakeholders engaged in airport issues. The intention is to create common understanding of information and to focus on both influencing legislation and speeding implementation of policies most important to StART. The membership includes policy staff from several U.S. Senate and Congressional offices.

The FP Working Group members representing Congressional offices provide expertise about federal policy while also providing guidance on when to be assertive with advocacy and what are realistic expectations regarding policy change. The FP Working Group focused on three objectives: (1) prioritize policies that are important and impactful, (2) provide guidance for implementation of policies that are already established, and (3) connect to national advocacy efforts and encourage sponsors and co-sponsors for legislation.

The focus in 2019 was on understanding the state of noise policy in Congress and opportunities for progress, educating on the FAA Reauthorization Bill noise policies and existing noise legislative proposals, establishing prioritization criteria for legislative advocacy, identifying any new policy directions, developing an advocacy action plan, and beginning advocacy efforts. The following graphic reviews legislation that was considered by the FP Working Group for inclusion in the Federal Advocacy Plan. Priority items are in bold font. It is followed by a graphic that outlines prioritization criteria that were created, discussed, and then utilized by the group. The meeting objectives and progress in 2019 are displayed in the final graphic. More detail about the FP Working Group Federal Advocacy Plan can be found in Appendix IV. Federal Policy Working Group Meeting Summaries are incorporated into the main StART meeting summaries in Appendix II.



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

Priorities are in **BOLD** font.

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 phaseout 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”.]**



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

Priorities are in **BOLD** font.

Proposed Noise Legislation

- **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.
- **The Aviation-Impacted Communities Act (Smith-WA)**, which would create an official federal designation of an “aviation impacted community” as “a community that is located not greater than 1 mile from any point at which a commercial or cargo jet route is 3,000 feet or less above ground level.” Through this designation, these communities would be able to work with the FAA to research potential flight operations or flight path changes and/or mitigation.
- **A secondary noise insulation package bill (Smith-WA)**, which would allow the FAA to fund a second residential noise insulation package in instances where the initial insulation fails.
- **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.
- **Quiet Communities Act (Meng-NY)**, which requires the Environmental Protection Agency (EPA) to reestablish an Office of Noise Abatement and Control in order to (1) promote the development of effective state and local noise control programs, (2) carry out a national noise control research program, (3) carry out a national noise environmental assessment program, (4) establish regional technical assistance centers to assist state and local noise control programs, (5) assess the effectiveness of the Noise Control Act of 1972, and (6) conduct related outreach and educational activities. The bill amends the Noise Control Act of 1972 to expand the quiet communities grant program to include grants for establishing and implementing training programs on use of noise abatement equipment and implementing noise abatement plans.

Other Topics for Potential Legislation

- Part 150 reform
- Part 161 reform
- Other ANCA reform
- Increased 65 DNL “penalty” for evening noise
- Flexibility for airports/local communities to address specific impacts
- Increased funding for existing federal noise programs
- Address property valuations impacted by noise
- Incentivizing adoption of new noise reduction technologies for airplanes
- Incentivizing alternative transportation options



*StART Federal Policy Working Group
Federal Aviation Noise and Air Quality Legislation
Prioritization Criteria*

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.

StART Federal Policy Working Group Meeting Progress

March 2019

Objectives:

To establish the FP Working Group's goals and principles, as well as the FP Working Group's initial priorities for engagement. To create a baseline of information and understanding about national policies and proposals related to noise including elements in the FAA Reauthorization Bill.

Discussion Topics:

- Discussion: FP Working Group Goals and Principles
- Presentation and Discussion: The State of Noise Policy in Congress and Opportunities for Progress
- Presentation and Discussion: Review of FAA Reauthorization Bill Noise Policies and Existing Noise Legislative Proposals
- Discussion: Initial Prioritization of Policies for Engagement

April 2019

Objectives:

To review in more depth elements in the FAA Reauthorization Bill. To discuss criteria for developing priorities and level of effort for Federal Advocacy Plan. To begin to identify priorities.

Discussion Topics:

- In Depth Review and Discussion: Sections of the FAA Reauthorization Bill
- Discussion: Draft Initial Criteria for Developing Priorities for the Federal Advocacy Plan
- Discussion: Priorities

May 2019

Objectives:

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

Discussion Topics:

- Updates: Previous FP Working Group Meeting
- In Depth Review and Discussion: Federal Policy Initiatives
- Discussion: Criteria for Developing Priorities for the Federal Advocacy Plan
- Discussion: Priorities

July 2019

Objectives:

To discuss information shared by the FAA. To continue to discuss the FAA Reauthorization Act and new legislation priorities. To provide feedback on the Federal Advocacy Plan for the FP Working Group.

Discussion Topics:

- Discussion: Debrief of FAA Presentation at June StART Meeting
- Introduction of new DC staff for Representative Smith and Representative Jayapal
- Discussion: Update of FAA Reauthorization and New Legislation Priorities
- Discussion: Federal Advocacy Plan Draft

StART Federal Policy Working Group Meeting Progress (cont.)

August 2019

Objectives:

To discuss legislation being drafted by U.S. Representative Smith. To review the updated Federal Advocacy Plan and discuss its implementation.

Discussion Topics:

- Discussion: Feedback on Aviation Impacted Communities Act
- Review and Discussion: Updated Federal Advocacy Plan Draft
- Discussion: Next Steps on Work Plan Implementation

September 2019

Objectives:

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

Discussion Topics:

- Discussion: Secondary Insulation Packages—Option for Federal Advocacy Plan
- Discussion: Review of draft letters to Congressional Representatives and FAA
- Discussion: Outreach to Cities for Letter Signatures
- Discussion: Additional Next Steps on the Federal Advocacy Plan

November 2019

Objectives:

To receive updates and discuss the Senate Appropriations noise policies, joint Port-Cities letters to Congress and FAA, and Representative Adam Smith's legislative efforts.

Discussion Topics:

- Update and Discussion: Senate Appropriations Noise Policies
- Discussion: Joint Port-Cities Letters to Congress and FAA
- Update and Discussion: Representative Adam Smith's Legislative Efforts
- Discussion: Next Steps on Federal Advocacy Plan

December 2019

Objectives:

To receive updates and discuss progress on the FP Working Group's priorities and to plan a trip to Washington, D.C., to discuss issues with Congressional representatives and FAA.

Discussion Topics:

- Update and Discussion: Joint Port-Cities Letters to Congress and FAA
- Update and Discussion: Progress on Federal Policy Priorities
- Discussion: Washington, D.C., Trip Planning

5. StART IN 2020

StART will continue to advance and implement the Near-Term Aviation Noise Action Agenda with significant attention on completing and discussing recommendations from the Ground Noise Analysis. There will be increased emphasis on federal policy advocacy including organizing a delegation of Port representatives and city representatives to meet with the FAA and members of Congress to elevate and discuss issues identified by the FP Working Group. The trip to D.C. will provide opportunities for StART to weigh in on issues and join with others who share mutual interests.

StART will continue to strive toward meeting its purpose to build relationships, create dialogue, and inform Airport-related decision-making on issues that impact surrounding communities. Members will identify priorities for 2020 and discussion topics and additional action items will be developed based on mutual interest.

Appendix I

Revised Operating Procedures





SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

OPERATING PROCEDURES

Revised August 7, 2019

Background

In fall 2017, the Port of Seattle (Port) developed the Sea-Tac Stakeholder Advisory Round Table (StART) to enhance cooperation between the Port and the neighboring cities of SeaTac, Burien, Des Moines, Normandy Park, Tukwila and Federal Way (cities). This voluntary, non-governing regional roundtable is being convened by the Aviation Managing Director, influenced by discussions with leadership from the cities representing their communities.

Purpose

StART provides Southwest King County cities, communities, airline representatives, the Federal Aviation Administration (FAA) and the Port with the opportunity to:

- Support meaningful and collaborative public dialogue and engagement on airport-related operations, planning and development;
- Provide an opportunity for the communities to inform the airport-related decision making of the Port of Seattle and other Southwest King County jurisdictions/organizations; and
- Raise public knowledge about the airport and impacted communities.

The intent is to provide a forum that fosters a spirit of good will, respect and openness while encouraging candid discussion between the Port and residential and business community members from SeaTac, Burien, Des Moines, Normandy Park, Tukwila and Federal Way.

StART is the preeminent forum for information-sharing, discussing the communities' concerns, and providing feedback to the Port for issues related to Sea-Tac Airport. StART's effectiveness will be driven by a willingness by all parties to fully discuss matters of mutual concern. All parties pledge their good faith best effort to achieve those ends (see Commitments from Stakeholders).

Sponsorship

StART is convened by the Port's Aviation Managing Director, who in addition to serving as the chair, will serve as the sponsor. The sponsor will provide staff support and technical analysis/expertise, and work with the facilitator to identify briefing topics and work toward consensus to shape potential solutions.

Reporting Structure

Through discussions at StART meetings, StART members will provide input and feedback to the Port's Aviation Managing Director and staff.

StART shall have an informal relationship structure to the Highline Forum, with opportunities to provide regular reports on StART activity. The Highline Forum provides Southwest King County cities (elected representation and senior staff), educational governing bodies, and the Port with the opportunity to share information, interact with outside speakers and other governmental organizations, and work in partnership on initiatives that benefit the residents of Southwest King County.

Each member-city of the Highline Forum will be given a formal role to designate StART members (see Membership), identify recommended briefing topics to StART, and/or invite StART to present on a regular basis.

After completion and upon achieving consensus from StART members, an Annual Report shall be presented to the Port of Seattle Commission and the Highline Forum. Upon request to the chair, each city will receive a presentation of the Annual Report.

Membership

StART shall consist of the following members:

- Three (3) members serving as stakeholders, designated by each Highline Forum-member city electing to participate. Two (2) members shall be community members who reside, own a business or property, or are employed within the city and who do not serve as an elected official. One (1) member shall be a non-elected city employee.
- Two (2) airline representatives from each of the two highest passenger volume carriers serving Sea-Tac Airport (one representative and one alternate per carrier).
- One (1) air cargo representative.
- Two (2) representatives from the Port. One (1) representative shall be the Port's Aviation Managing Director. The Port's Aviation Managing Director shall designate the second representative.

Each Highline Forum-member city may assign one (1) non-elected city employee to serve as an alternate for the city employee member. The alternate employee from each city must be assigned by the chief administrative officer. Assigned alternates are encouraged to attend all meetings in order to remain current on StART activities. Because it is important for StART's membership to remain consistent in order to effectively address issues, each city has two appointed community members. Community members on StART are not assigned alternates. If one of the community members is unable to attend a meeting, the second StART community member from that city is available to participate and provide information either representative would like brought forth at the meeting.

Members shall be appointed for a two (2) year term; membership shall be renewed in January of every even numbered year. All members and alternates who serve on StART shall serve at the pleasure of their appointing bodies. It is the responsibility of each city or representational body to notify the facilitator anytime a member is appointed to or terminates service on StART.

Suspension, Termination, Reinstatement of Membership

It is the responsibility of each city or representational body to provide written notification to the Aviation Managing Director if they wish to suspend or terminate their membership in StART. If a city or representational body wishes to reinstate their membership, they shall provide written notification to the Aviation Managing Director with their plan for reinstatement that includes identification of designated members.

Federal Aviation Administration

Representatives from the Federal Aviation Administration (FAA) are expected to participate at StART meetings. Periodically, time will be set aside at meetings for representatives to provide updates and briefings at StART meetings.

Facilitator

An independent, neutral facilitator will be selected and provided by the Port to assist in the preparation, management and summation of each StART meeting. The facilitator will preside over the StART meetings and be responsible for ensuring a fair, open, honest, and balanced discussion of issues and ensure the timely administering of the agenda. As a collaborative process provider, the facilitator will not act as an advocate for anyone on any substantive issue.

The facilitator may have non-confidential, informal communications and perform facilitation activities with Port staff, StART members, and others between and during meetings. To ensure a spirit of goodwill, respect, openness and candidness occurs at all StART meetings, the facilitator will manage member engagement and address situations where it appears that a member is not acting in accordance with the Commitments from Stakeholders.

The facilitator will serve as the lead disseminator of all information related to StART and its meetings, including meeting agendas and summaries. The facilitator will keep a running list of aviation topics of interest to be used in the development of StART meeting agendas, which will be periodically updated through discussions with members. The facilitator will be responsible for drafting meeting summaries, which will be provided electronically in draft form to StART members for proposed correction and comment prior to the next meeting. Final meeting summaries will be posted on the Port's StART webpage for public view.

Meetings

- **Frequency**

StART shall meet six (6) times a year unless otherwise agreed to. Meetings will be scheduled on the 4th Wednesday of the month (typically February, April, June, August, October, December) alternating with the Highline Forum. Meetings typically begin at 6 PM and conclude at 8 PM. If

Christmas falls on the fourth week in December, StART will be held on the third Wednesday in December.

Special meetings may be called upon with twenty-four (24) hours notice by the Sponsor. Any regularly scheduled or special meeting may be cancelled upon the concurrence of a simple majority of members. Each party shall designate one of its members to have the authority to so act.

- **Meeting Attendance**

Members will notify the facilitator via email if they are unable to attend, preferably one week in advance.

- **Location**

The location of StART meetings will be at Sea-Tac Airport unless otherwise noticed. It is possible that some meetings will be held at locations away from the airport.

- **Notification of Meetings**

Attendance at StART meetings is open to the public and the media. All meeting materials, including agendas, are considered public documents and available to the public consistent with the requirements of the Washington State Public Records Act Chapter 42.56 RCW. Meeting agendas will be posted one week prior to a meeting for the public to view. Meeting notices, agendas, and final meeting summaries will be posted on the Port of Seattle's StART website: www.portseattle.org/page/sea-tac-stakeholder-advisory-round-table.

- **Meeting Agendas**

Each meeting may include the following agenda items: updates from the Aviation Managing Director, roundtable updates from each member and informational presentation(s).

The facilitator and Port staff will develop the Agenda for each StART meeting. Members will receive advance copies of the Agenda and are able to provide input and suggest changes prior to the agenda's finalization. A running list of aviation topics of interest will be kept by the facilitator and periodically updated through discussions with members.

At the final meeting of the year, members will complete a yearly evaluation.

- **Public Comment**

All StART meetings are open to the public and the meeting agenda is dedicated to StART-related business. Limited time is set aside at each meeting for the public to provide comments pertinent to the topics listed on that day's StART meeting agenda. Members of the public who wish to speak are asked to sign-up before the meeting begins and are provided one to three minutes of time. Due to time limitations, not all who sign-up to speak will necessarily be provided an opportunity to speak. Members of the public are encouraged to submit written comments to Port staff for circulation to the full StART membership.

StART does not engage in dialogue with those who provide public comment during meetings. Questions or requests for information or documents may be made separately from StART meetings.

Feedback

StART is not a formal decision-making body or an inter-local agency; StART will not follow procedural rules of order and will not entertain motions or record votes.

StART will use consensus to shape feedback, which will be captured in a formal meeting summary developed by the facilitator. Consensus-based actions are the product of discussions among the members to distinguish underlying values, interests, and concerns with a goal of developing widely accepted feedback. The facilitator will assist StART in articulating points of agreement, as well as articulating concerns that require further exploration or areas where consensus could not be achieved.

Working Groups

Working groups may be established to allow for work to continue between StART meetings and to give specific issues and topics a more in-depth focus. A working group will be comprised of a subset of StART members and any staff support and technical analysis/expertise as identified by the Port. Working groups adhere to the StART Commitments from Stakeholders. Working groups set their agendas and work plan. Working groups will report out on the progress of their work and are open to suggested topics and guidance on their work plan during StART meetings. StART members who are not a member of the working group may attend as “observers”. Working group meetings are not open to the public.

Amending the Operating Procedures

Operating Procedures may be amended by consensus of the Airport’s Managing Director and the non-elected employee representatives from each of the Highline Forum cities. Proposed modifications to the Operating Procedures will be distributed in writing to the Airport’s Managing Director and the non-elected employee representatives. Any proposed modification to StART’s Operating Procedures will be evaluated at a separately scheduled meeting with the Airport’s Managing Director and the non-elected employee representatives. If there is consensus, modifications to the Operating Procedures will be communicated to the StART members.

Annual Report

StART will have an annual evaluation to review accomplishments and outstanding issues. With assistance from Port staff, the facilitator will produce an annual report based on StART’s yearly evaluation. After completion and upon achieving consensus from StART members, the annual report shall be presented to the Port of Seattle Commission and the Highline Forum. Upon request to the chair, each city will receive a presentation of the Annual Report.

COMMITMENT FROM STAKEHOLDERS

StART members will participate in good faith, which means:

1. Set aside time to prepare for and participate in the meetings.
2. Participate fully, honestly and fairly, commenting constructively and specifically.
3. Speak respectfully, briefly and non-repetitively; not speaking again on a subject until all other members desiring to speak have had the opportunity to speak.
4. Allow people to say what is true for them without fear of criticism from StART members.
5. Avoid side conversations during meetings.
6. Provide information as much in advance as possible of the meeting in which such information is to be used and share all relevant information to the maximum extent possible.
7. Generate and explore all options on the merits with an open mind, listening to different points of view with a goal of understanding the underlying interests of other StART members.
8. Consult regularly with their appointing bodies and provide their input in a clear and concise manner.
9. Each member agrees to work toward fair and practical feedback that reflects the diverse interests of all StART members and the public.
10. When communicating with others, accurately summarize the StART process, discussion and meetings, presenting a full, fair and balanced view of the issues and arguments out of respect for the process and other members.
11. Strive for consensus in shaping feedback and closure on issues.
12. Self-regulate and help other members abide by these commitments.

Appendix II

StART Meeting Summaries

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StART FACILITATOR'S MEETING SUMMARY
Wednesday, February 27, 2019



SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART FACILITATOR'S MEETING SUMMARY

Wednesday, February 27, 2019

6:00-8:00 pm, Seattle Tacoma International Airport Conference Center

Member	Interest Represented		Member	Interest Represented	
John Parness	Burien	-	Tejvir Basra	SeaTac	-
Terry Plumb	Burien	X	Robert Akhtar	SeaTac	X
Brian Wilson	Burien	X	Joe Scorcio	SeaTac	X
Lisa Marshall (Alt)	Burien	-	Carl Cole	SeaTac	X
John Resing	Federal Way	X	Katrina (Trina) Cook	Tukwila	X
Chris Hall	Federal Way	X	Joon (Thomas) Lee	Tukwila	-
Yarden Weidenfeld	Federal Way	-	Brandon Miles	Tukwila	-
Sheila Brush	Des Moines	X	Lance Lyttle	Port of Seattle	X
Ken Rogers	Des Moines	-	Mike Ehl	Port of Seattle	-
Michael Matthias	Des Moines	X	Tony Gonchar	Delta Air Lines	-
Eric Zimmerman	Normandy Park	-	Scott Ingham (Alt)	Delta Air Lines	X
Earnest Thompson	Normandy Park	X	Scott Kennedy	Alaska Airlines	X
Mark Hoppen	Normandy Park	X	Matt Shelby (Alt)	Alaska Airlines	-
Jennifer Ferrer-Santa Ines (Alt)	Normandy Park	-	Laura Sanders	Lynden (air cargo)	X
Non-Member			Non-Member		
Randy Fiertz	FAA	-	Jason Richie	FAA	-
Joelle Briggs	FAA	-	Chris Schaffer	FAA	X

Additional Participants:

Marco Milanese, Port of Seattle
 Eric Schinfeld, Port of Seattle
 Robert Tykoski, Port of Seattle
 Mark Coates, Port of Seattle
 Clare Gallagher, Port of Seattle
 Stan Shepherd, Port of Seattle.

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd | Snider

Meeting Objectives:

To recap and preview Aviation Noise and Federal Policy Working Group meetings. To discuss additional potential noise reduction initiatives. To discuss StART's 2019 priorities.

Welcome

Lance Lyttle, Sea-Tac Airport Managing Director

Lyttle welcomed the group to the first meeting of the year. He thanked the StART members and members of the public who attended and spoke on behalf of StART at the January 22nd Port Commission meeting. Lyttle stated that he looks forward to identifying StART's 2019 priorities based on the discussion at today's meeting. Lyttle acknowledged that this will be the final StART meeting for Joe Scorcio, outgoing SeaTac City Manager and thanked Joe for helping develop StART and his active involvement since StART's inception.

Scorcio thanked the group, encouraged ongoing collaboration, and introduced Carl Cole, the new SeaTac City Manager, who will participate in StART as the City's primary staff representative.

Facilitator's Update

Phyllis Shulman, Civic Alchemy

The facilitator acknowledged that the February meetings of the Aviation Noise Working Group and the Federal Policy Working Group were canceled due to snow. She also stated that the 2018 StART Annual Report was finalized and will be posted to the StART website. A bound copy was handed out to each participating StART entity. The facilitator notified StART participants that it has come to her attention that past StART meetings have been audio recorded by community members and that this could occur at future meetings.

Recap of the 1/14 Aviation Noise Working Group Meeting

Stan Shepherd, Port of Seattle

The StART Aviation Noise Working Group (Working Group) provided a recap of their last meeting. The Working Group meeting summary for the last meeting is attached as Appendix B. The update included:

- Draft language for an updated Runway Use Agreement has been prepared and provided to the FAA for review and response.
- Identification of nighttime noise thresholds is ongoing. The noise consultant expects to have thresholds ready to share with the Noise Working Group at their March meeting.
- A letter is being drafted regarding the A320 whistling noise, requesting information on when modifications will be made. The letter will be reviewed by the Noise Working Group and then sent to all airlines who operate the A320 series aircraft.
- The meeting included a presentation on reverse thrust including when and why it is utilized. It was recommended that the Port request airlines to add language, in airfield operations manuals,

that more clearly describes that reverse thrust be used only when necessary for the safe operation of the aircraft.

- The Working Group will be reviewing the topic of noise abatement departure profiles for aircraft departures.

Preview of Federal Policy Working Group

Eric Schinfeld, Port of Seattle – Federal Government Relations

Schinfeld provided a preview of the Federal Policy Working Group. He stated that the membership of the Working Group included a number of congressional offices including the offices of Senator Cantwell and Senator Murray. Staff from Congressman Rick Larsen, who is the Chair of the U.S. House of Representatives' Aviation subcommittee, will also be participating. The Working Group will provide an opportunity to address federal issues of interest to StART and an opportunity for collaboration between the Port, congressional offices, and communities. Potential areas for collaboration include:

- Identifying what noise/air quality/aviation-related policy issues to focus on. Congressional members can provide guidance on strategy
- Providing input to congressional representatives on how to craft new bills to address community concerns
- Building relationships with the National Quiet Skies Network and with congressional representatives in other areas/districts, in order to build momentum

Questions from StART participants included:

- Will evaluation of the FAA Reauthorizations Bill be a part of the Working Group scope?

Response: Yes – both Fernando Ruiz from Rep. Smith's office and Vince Mestre, noise consultant will be assisting with a review of the Bill.

- Will the focus of the Working Group only include items that were on the handout from the previous StART meeting?

Response: No. The handout was developed as a starting point, but the StART discussions do not have to be limited to those items. The Working Group will identify items of relevance from the FAA Reauthorization Bill to work on. The Working Group will distill and develop priorities for their work.

Comments included:

- A bill by Congressman Lynch should be considered as a possible focus. Rep. Lynch is from Massachusetts (Logan Airport/Boston area). Bill focuses on human health studies/evaluations.

Presentation of Glide Slope Analysis Recommendation

Robert Tykoski, Port of Seattle – Airfield/Airspace Planner

Tykoski gave an overview of glide slope analysis and shared the recommendation of the Working Group. The presentation can be found [here](#).

StART discussed the analysis and questions included:

- What is the range of costs for the different alternatives?

Response: Very conceptual costs, but initial estimates vary from \$5 million to \$30 million.

- Are there different technologies that can be considered?

Response: Majority of airports utilize traditional technologies. Sea-Tac Airport has additional elevation changes adjacent to runway ends that make alternative technologies less applicable. There are some technologies that can be considered and will be evaluated further.

- Is there anything StART can do to encourage the Port to implement the recommendation, and what is the timeline?

Response: Schedule for implementation of the recommended alternative can take upwards of four years because it is FAA-owned equipment and requires substantial site work to prepare the area. The Port reimburses the FAA for the expenditures tied to moving the equipment. This is not a short-term near-term fix. Tykoski will inquire as to whether letter writing would have any effect on the timing.

- Does the FAA absorb any of the cost?

Response: No. Since it could be tied to an efficiency project there may be potential for federal funding.

- What are the benefits that come from this? Is there an inverse proportionality, or noise dispersion?

Response: It is assumed that there are benefits as the elevation of an aircraft is raised, ground noise lessens. However; in this instance, the elevation increase is not anticipated to result in a noticeable change in noise with most aircraft.

Comments included:

- This is a good example of what the purpose of the working groups was- to identify near-term efforts that could be done and get the process moving. Although it's not immediate, it will have an impact in the future. If actions aren't started now, it will take even longer.
- A difference of 300 feet, is about the difference of a home being a mile farther away – which is a real difference and would matter for residents in Federal Way.

StART participants confirmed support for the glide slope recommendation.

Airfield Taxiing Noise Reduction Initiative

Mark Coates, Port of Seattle – Airfield Operation

Coates reviewed a new airfield taxiing noise reduction initiative that is being analyzed by the FAA. A graphic can be found [here](#). The FAA is working on the initiative with the support of the airlines. This concept will keep airplanes moving once they land and may reduce noise from aircraft when they power-up to cross runways. The initiative could impact about 50% of arriving flights during south-flow operations. The next step in the initiative is to do a safety risk assessment that identifies and tries to address any risks. Depending upon the risk assessment, the FAA may conduct a test, starting around May. The initiative has a potential to decrease ground noise during conditions when this new taxi flow is in effect. Alaska Airlines and Delta Air Lines are supportive of the concept. The initiative has the potential to lessen the amount of time it takes to get to a gate and should save fuel. The Port will monitor noise levels to see if there is a noticeable difference in noise when the FAA runs the test.

Questions included:

- Will the analysis consider future conditions of higher traffic? Concern is that the end around taxiway will create more noise for the neighborhoods right at the northern end of the airport.

Response: As long as the aircraft remain in motion, less noise will be generated. This would not add any new taxiways at the airport and instead, better utilizes current taxiways. Currently, planes line up with tails pointing toward the west, staging them to cross an active runway. Once clear, all planes cross the runway, sending noise to the west. This concept would reduce the need for that occurrence.

- What is the thrust level when an aircraft powers-up to cross a runway ?

Response: About 40% increase to get the aircraft to move.

- Delta Air Lines has a No Reverse Thrust policy – why doesn't Alaska Airlines?

Response: Alaska Airlines instructs pilots to, when possible, limit reverse thrust to only when needed. Sometimes it is required due to conditions. Delta's manual says the same - use Idle thrust, unless required. The wording in each airlines' flight manuals are slightly different. Reverse thrust is used to slow planes down once they land. Acceleration to get a plane to move from a full stop is not "reverse thrust".

- What measures will be used to quantify a decrease in noise during the test?

Response: There are noise monitors on the west side of the airfield. Part of the assessment could be observing if there is a decrease in noise hotline messages during the testing phase.

Development of 2019 Priorities

Phyllis Shulman

StART participants engaged in small group discussions to develop input into 2019 priorities for StART. Each group reported out their preferences. These preferences will be compiled with previous comments

and Shulman will consolidate comments, analyze what themes emerged, and communicate the results to StART and Working Groups prior to the next StART meeting. It was stated that it is important to consider the availability of StART members when expanding or adding new working groups.

Public Comment

Compiled public comment are included here as Appendix A.

Meeting Wrap Up

Lance Lyttle, Port of Seattle

Lyttle clarified that issues that are not addressed in the scope of the SAMP process can be addressed through a separate process. Lyttle thanked the community members and StART participants for their time and contribution.

Next Meeting:

April 24, 2019, 6:00 pm – 8:00 pm

Location: *SeaTac International Airport Conference Center*

Appendix A Summary of Public Comments

1. Bernadine Lund (Federal Way) (oral comments):
 - Was very upset by the recent Commissioners meeting where it was discussed how SAMP would be handled. It was stated that there were risks to adding quality of life to the SAMP environmental review.
 - Asked whether a lower than 65 DNL could be used for environmental review in the SAMP.
 - Concerned that some public comments on the SAMP were not addressed, and night-time flights would not be addressed.
2. Blanche Hill (Normandy Park) (oral comments):
 - Stated that a two-day summit was coming up on a number of topics including biofuels. Recommends that StART host a summit on alternative forms of transportation, such as hyperloop.
3. David Goebel (Vashon Quiet Skies) (oral comments):
 - Has been recording meetings, for own use, and for note taking. Also, writes reviews on meetings, and posts those articles.
 - Based on internet research, San Diego has 3.5% glide slope angle. Questions whether this means it is possible to get an allowance.
 - Legislation about dispersion – the effect is on the Next Gen neighborhoods including Vashon Island. So, what it would do for us, would be to bring it back to how it was before Next Gen. Also creates cookie cutter approaches, results in planes getting low for many miles.
4. Debi Wagner (Burien) (oral comments):
 - Expressed concern that community representatives from Burien on StART are absent. Inquired about why members can't be replaced, or have a different community member sit in, if they are absent from a meeting. *(Facilitator's response: A City is responsible for appointing community representatives. According to the Operating Procedures, if an appointed community representative can no longer serve or their term expires, the City may appoint a replacement. There cannot be a temporary replacement if a member is still an appointee but is absent from a meeting.*
 - Discussions on noise are self-governed by the Port and FAA, which is the same as the cigarette industry saying smoking is fine. This group should include an independent aviation engineer .
5. Rodger Kadeg (SeaTac) (oral comments):
 - Expressed appreciation and for the work Joe Scorcio has done for the committee and the City of SeaTac. It is finally at the point where instead of butting heads we are working towards solutions. Encourages more working groups. This is looking toward real solutions which is appreciated.
 - Concerned with the responses given to Commissions regarding noise issues and utilizing 65 DNL as the standard in the SAMP. An evaluation of the actual physical impact, irrespective of noise level is required, in the SAMP. A doctor who is lead for SEPA at the

state level, confirmed this. The staff seemed resistant to the Commissioner questions about the 65 DNL level.

6. JC Harris (SeaTac) (oral comments):

- Was struck by the cost of implementation of the glide slope options. Wonders whether changing the glide slope is the best use of funding. The possible cost of changing the glide slope, \$25 million could do a lot of good with public health and noise mitigation. Perhaps StART should determine what funding the Port has available and identify the options/best use for those funds.

7. Anne Kroeker, (written comments):

- We, the audience community, appreciate the involvement of our thoughts and ideas, to the larger committee.
- I cannot emphasize enough how important it would be for this group to give overview and feedback to the SAMP process development, as it has not been a regular SEPA process from the start. Advocating to bring a 3rd party expert analysis to the process would alleviate any surprises later as to what was included or not that should have been and a perspective of how this process has gone for other projects. I believe our State's Department of Ecology would be a source of help here. As I said in my public testimony to the Port Commissioners yesterday, it is best practice and serves all parties better, to have this outside expert direction and input. For example, I believe that not including Night-time flight noise in the parameters of the SEPA Environmental Health analysis, as the Port is suggesting, is outside the scoping process and would be in violation of the following Washington State checklist based on the "chapter [70.107](#) RCW, the Noise Control Act of 1974":

173-60-040

Maximum permissible environmental noise levels.

2. (1) No person shall cause or permit noise to intrude into the property of another person which noise exceeds the maximum permissible noise levels set forth below in this section.

3. (2)(a) The noise limitations established are as set forth in the following table after any applicable adjustments provided for herein are applied.

EDNA of Noise Source	EDNA of Receiving Property		
	Class A	Class B	Class C
Class A	55 dBA	57 dBA	60 dBA
Class B	57	60	65
Class C	60	65	70

4. (b) Between the hours of 10:00 p.m. and 7:00 a.m. the noise limitations of the foregoing table shall be reduced by 10 dBA for receiving property within Class A EDNAs.

5. (c) At any hour of the day or night the applicable noise limitations in (a) and (b) above may be exceeded for any receiving property by no more than:

6. (i) 5 dBA for a total of 15 minutes in any one-hour period; or
7. (ii) 10 dBA for a total of 5 minutes in any one-hour period; or
8. (iii) 15 dBA for a total of 1.5 minutes in any one-hour period.
9. [Order 74-32, § 173-60-040, filed 4/22/75, effective 9/1/75.]
- 10.
- 11.

**12. 173-60-050
Exemptions.**

13. (1) The following shall be exempt from the provisions of WAC [173-60-040](#) between the hours of 7:00 a.m. and 10:00 p.m.:
 14. (a) Sounds originating from residential property relating to temporary projects for the maintenance or repair of homes, grounds and appurtenances.
 15. (b) Sounds created by the discharge of firearms on authorized shooting ranges.
 16. (c) Sounds created by blasting.
 17. (d) Sounds created by aircraft engine testing and maintenance not related to flight operations: Provided, that aircraft testing and maintenance shall be conducted at remote sites whenever possible.
 18. (e) Sounds created by the installation or repair of essential utility services.
19. (2) The following shall be exempt from the provisions of WAC [173-60-040](#) (2)(b):
 20. (a) Noise from electrical substations and existing stationary equipment used in the conveyance of water, waste water, and natural gas by a utility.
 21. (b) Noise from existing industrial installations which exceed the standards contained in these regulations and which, over the previous three years, have consistently operated in excess of 15 hours per day as a consequence of process necessity and/or demonstrated routine normal operation. Changes in working hours, which would affect exemptions under this regulation, require approval of the department.
22. (3) The following shall be exempt from the provisions of WAC [173-60-040](#), except insofar as such provisions relate to the reception of noise within Class A EDNAs between the hours of 10:00 p.m. and 7:00 a.m.

23. (a) Sounds originating from temporary construction sites as a result of construction activity.
24. (b) Sounds originating from forest harvesting and silvicultural activity.
25. (4) The following shall be exempt from all provisions of WAC [173-60-040](#):
26. (a) Sounds created by motor vehicles when regulated by chapter [173-62](#) WAC.
27. (b) Sounds originating from aircraft in flight and sounds that originate at airports which are directly related to flight operations.
28. (c) Sounds created by surface carriers engaged in interstate commerce by railroad.
29. (d) Sounds created by warning devices not operating continuously for more than five minutes, or bells, chimes, and carillons.
30. (e) Sounds created by safety and protective devices where noise suppression would defeat the intent of the device or is not economically feasible.
31. (f) Sounds created by emergency equipment and work necessary in the interests of law enforcement or for health safety or welfare of the community.
32. (g) Sounds originating from motor vehicle racing events at existing authorized facilities.
33. (h) Sounds originating from officially sanctioned parades and other public events.
34. (i) Sounds emitted from petroleum refinery boilers during startup of said boilers: Provided, That the startup operation is performed during daytime hours whenever possible.
35. (j) Sounds created by the discharge of firearms in the course of hunting.
36. (k) Sounds caused by natural phenomena and unamplified human voices.
37. (l) Sounds created by motor vehicles, licensed or unlicensed, when operated off public highways except when such sounds are received in Class A EDNAs.
38. (m) Sounds originating from existing natural gas transmission and distribution facilities. However, in circumstances where such sounds impact EDNA Class A environments and complaints are received, the director or his designee may take action to abate by application of EDNA Class C source limits to the facility under the requirements of WAC 173-60-050(5).
39. (6) Nothing in these exemptions is intended to preclude the department from requiring installation of the best available noise abatement technology consistent with economic feasibility. The establishment of any such requirement shall be subject to the provisions of the Administrative Procedure Act, chapter [34.04](#) RCW.

40. [Statutory Authority: Chapter **70.107** RCW. WSR 94-12-001 (Order 92-41), § 173-60-050, filed 5/18/94, effective 6/18/94; WSR 83-15-046 (Order DE 82-42), § 173-60-050, filed 7/19/83; Order DE 77-1, § 173-60-050, filed 6/2/77; Order 75-18, § 173-60-050, filed 8/1/75; Order 74-32, § 173-60-050, filed 4/22/75, effective 9/1/75.]

- Requiring some standards for testing changes, as new procedures are put into practice, such as has been suggested for the airfield noise assessment options brought forward to your committee, would be useful to tell whether the proposed changes are helping or not. For example, adding noise monitors to the areas on the taxiing field, to see what the noise levels are now and then after the TDFM procedure has started, is the only real way to get solid data on which to base future decisions. Of course, corroboration from noise complaints recorded will help but should not be the sole way to test whether the new system is better or not.
- I agree with the Aviation Noise Working Group's interest in hearing more about sound barriers around the airfield. In addition, has anyone asked, or looked into, the possibility of electric power storage for the airplanes, as they are plugged into the airport power, which might be enough to get them through the taxiing/on-the-ground movement? While I am not an electrical engineer, I do know that hybrid electric engines have been around for a long time and would guess that this question has already been asked and maybe even answered.

Appendix B

StART FACILITATOR'S MEETING SUMMARY
AVIATION NOISE WORKING GROUP
Monday, January 14, 2019
5:30-7:30PM, Conference Center, Sea-Tac Airport

Member	Interest Represented
John Resing	Federal Way
Terry Plumb	Burien
Yarden Weidenfeld	Federal Way
Chris Hall	Federal Way
Earnest Thompson	Normandy Park
Mark Hoppen	Normandy Park
Eric Zimmerman	Normandy Park
Joe Scorcio	SeaTac
Jennifer Kester	SeaTac
Robert Akhtar	SeaTac
Sheila Brush	Des Moines
Tom Fagerstrom	Port of Seattle
Robert Tykoski	Port of Seattle
Tim Toerber	Port of Seattle
Scott Kennedy	Alaska Airlines
Marco Milanese	Port of Seattle
Stan Shepherd	Port of Seattle
Scott Ingham	Delta Air Lines
Steve Osterdahl	Alaska Airlines
Jason Ritchie	FAA
Vince Mestre	L&B

Facilitator: Phyllis Shulman, Civic Alchemy;

Note Taker: Megan King, Floyd Snider

Other Attendees: Tom Eckert, Delta Airlines; Lance Lyttle, Port of Seattle

Meeting Objectives:

To continue discussions on the Glide Slope Analysis and to identify and begin discussions on ground noise assessment actions.

Meeting Summary:

Update on the Implementation of the Draft Rolling Work Plan

The updates included:

- **Runway Use Agreement:** The draft agreement has been forwarded to the FAA on 12/17. Likely review is delayed by the partial federal government shutdown. The next step will be a response from the FAA.
- **Late-Night Noise Limitation Program:** Port staff and the noise consultant are just completing the analysis with a recommendation for noise thresholds. The noise consultant and Port staff are proposing six noise thresholds to capture departure and arrival levels at four noise monitor locations. Staff expects to have updated noise thresholds ready to share with the Working Group by the next meeting. It was stated that communication with the airlines about the program is expected to commence in March 2019. The Port intends to communicate individually with each airline and update the airlines at a number of venues before the program's official launch.
- **A320 Arrival Noise Retrofit:** Port staff shared a first draft of a letter that, once finalized, will be sent to airlines that operate the A320 series aircraft at Sea-Tac. The letter asks for a response from airlines on their schedule and plans for retrofitting their fleets. Port staff will continue to revise the letter including strengthening language as to the Port's goal and preferred outcomes related to the retrofit.

Review of Possible Action Steps for Glide Slope Changes

Port staff presented alternatives for Runway 34R glide slope adjustments and put forth a recommendation. The recommendation (Alternative One) was stated as:

- Runway 34R (south end, north flow) are Cat1/2
- Runway 34R (the 1st/inboard runway) is currently at 2.75 (other runways are at 3.0), and Port will attempt to increase to 3.1

Staff stated that currently, only two airports (Cleveland and Newark) have a glide slope greater than 3 degrees that are Cat 1/2. (SEA is a Cat1/2 on 34 RWY ends). The FAA prioritization process for the project is outside of the Port's control and its potential implementation could also be impacted by the partial federal government shutdown.

Questions included:

- For glide slope changes in height at certain distances, what is the resulting impact on noise levels?
 - *Response: Adjusting the glide slope would not be expected to result in a significant reduction in noise levels, but some reduction could be noticeable in certain locations.*

- Why is the relocation of the glide slope antenna occurring as part of SAMP?
 - *Response: The glide slope antennas are being moved to allow for construction of taxiways associated with SAMP. Two new parallel taxiways will be constructed. The path of one of the taxiways will be over the location of the current antenna. SAMP also assumes changing the 2.75-degree angle to a standard 3.00-degree angle. Flight change procedures typically require a two-year schedule for FAA approval.*
- How would the Port describe the benefit to the community members of the recommended glide slope changes?
- *Response: Only two other airports in the US currently have a CAT 1/2 approach at 3.1 degrees. Alternative One aligns with the desire of StART members to implement action as soon as possible. Other glide slope options put forward could end up being impeded by possible factors that are outside of the Port's control. What is the goal of the change? Would this be an anomaly to have some glide slopes at 3.1 degrees and some at 3 degrees?*
 - *Response: The goal would be to have all glide slopes aligned with one standard, but variation is allowed. Antenna could be sited in a location that allows for future adjustments to glide slope angles.*
- How does the design process work? What are the next steps?
 - *Response: First, there would be a request to the Port Commission for funding and to expedite the process, permission to design "at risk". This would allow the FAA to do a feasibility assessment, if requested.*
- Could this project be conducted outside the scope of the SAMP?
 - *Response: The schedule of the SAMP is underway. If there were to be delays in SAMP, the port could look for means to potentially pull the project outside of that process.*

During the discussion, Working Group members noted that taking action on glide slope is an example of a success, even if it has only incremental benefit. Alaska Airlines lent their support to Alternative One. The FAA must approve any changes to the glide slope.

Next Steps: The Working Group will bring forward a recommendation to StART that a request be made to the Port Commission to expedite the process of changing the glide slope and begin a design "at risk".

Utilization of Reverse Thrust Presentation

The noise consultant presented information defining what reverse thrust is, the purpose of using reverse thrust, how it is utilized in flight operations, and runway and weather conditions that affect its use.

Highlights of this information include:

- Reverse thrust is a misnomer – engines do not run in reverse. With newer aircraft, air instead of being directed out the back of the engine, is directed out towards the sides of the engine.

- Weather affects usage. Reverse thrust provides an improved margin of safety and is less optional in wet conditions. Reverse thrust is just as effective in wet conditions as in dry conditions.
- Short runways are also a reason for the use of reverse thrust.
- In Europe, airports have requests for the reduced use of reverse thrust, but no hard requirements.
- O'Hare Airport in Chicago 'requests' airline pilots to use reverse thrust to the least degree possible. Seattle also requests pilots to use reverse thrust no more than necessary during the nighttime hours. Current language could be more effective if changed to say 'use no more than necessary for safety'.

Alaska Airlines' Director, ATC & Airspace Operations reviewed Alaska Airline's utilization of reverse thrust during normal runway operations. These operations included:

- Reverse Thrust Slide: Max Reverse: (70-100%) is used in emergency situations only.
- Delta Air Lines and Alaska Airlines have policies that encourage use of idle reverse thrust during evening/night hours (10PM-7AM). Use of idle thrust is based on length of runway, weather conditions, load, and whether the auto braking system is operational.

Alaska Airlines and Delta Air Lines are exploring with the FAA if there is a way to change taxi procedures during south-flow operations to increase efficiency and reduce the number of times airplanes have to stop to wait to cross an active runway. This stopping and starting could be a significant contributor to airfield ground noise. For example, going from idle thrust to breakaway thrust is approximately 10 times increase in noise. It was also acknowledged that an increase in noise could occur when multiple aircraft start their engines at the same time. It was stated that what community members might think is noise from reverse thrust may actually be the stopping and starting of taxing engines. StART participants noted that this confirms the experiences of community members, particularly in Normandy Park. Changing taxi procedures has the potential to significantly decrease ground noise, reduce fuel consumption, increase safety, and reduce the time it takes to get to the gates. The airlines are working with the FAA and have designated a 60-day test plan to implement new taxi procedures beginning in March. This plan could also reduce the number of aircraft staged on the SW side of the airport waiting to cross runways.

The decision process for a permanent procedure change includes running a test of the new procedures for 60 days, review of the data by the FAA Safety Board and FAA authorization. FAA has stated that they are supportive of the 60-day test. A StART member stated that the psychological impact of thinking that nothing is being done makes issues worse, or more painful. It is important to communicate the changes that StART is initiating as well as important safety considerations that may constrain choices.

Next steps: Working Group members agreed that it could be useful to create less ambiguous language to pilots to use reverse thrust no more than necessary for safety. The Port will prepare modified language to share with the group during an upcoming meeting. Both, Alaska Airlines and Delta Air Lines representatives stated that their flight manuals direct the use of idle thrust unless needed for safety and agreed that updated language from the Port of Seattle could be helpful. The Working Group collectively expressed support for the test plan.

Airfield Noise Assessment Options and Considerations

The noise consultant reviewed some of the potential topics to consider in an airfield noise assessment.

- FAA has a program they are putting in place that reduces queuing on taxiways, called TDFM (flow management program) that optimizes the release of aircraft from the gates all the way to the next gate at the next airport. The goal is to minimize queuing and to eliminate conflict or delays. Sea-Tac is on list to be included in deployment test, but relatively low on the list because Sea-Tac has limited space to hold aircraft.
- Takeoff Roll: Use of de-rated thrust during takeoff is already being utilized so is not recommended for further analysis.

The Working Group added sound barriers as a potential topic to consider in an airfield noise assessment.

Working Group members commented that it could be helpful to learn more about a ground run-up enclosure (GRE) for aircraft maintenance and communicate this knowledge to the community at large. It was stated that there is confusion in the community about the use of a GRE and whether they contribute to the reduction of maintenance noise. This was recommended as a possible presentation and discussion at a Working Group or StART meeting. It was requested that additional ideas for topics be emailed to the facilitator.

StART FACILITATOR'S MEETING SUMMARY
Wednesday, April 24, 2019



SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART FACILITATOR'S MEETING SUMMARY

Wednesday, April 24, 2019

6:00-8:00 pm, Seattle Tacoma International Airport Conference Center

Member	Interest Represented		Member	Interest Represented	
Terry Plumb	Burien	X	Robert Akhtar	SeaTac	X
Brian Wilson	Burien	X	Tejvir Basra	SeaTac	-
Lisa Marshall (Alt)	Burien	-	Carl Cole	SeaTac	X
Larry Cripe	Burien	X	Katrina (Trina) Cook	Tukwila	-
John Resing	Federal Way	-	Joon (Thomas) Lee	Tukwila	-
Chris Hall	Federal Way	X	Brandon Miles	Tukwila	-
Sheila Brush	Des Moines	X	Lance Lyttle	Port of Seattle	X
Ken Rogers	Des Moines	-	Mike Ehl (Alt)	Port of Seattle	-
Michael Matthias	Des Moines	X	Tony Gonchar	Delta Airlines	-
Eric Zimmerman	Normandy Park	X	Scott Ingham (Alt)	Delta Airlines	X
Earnest Thompson	Normandy Park	X	Scott Kennedy	Alaska Airlines	X
Mark Hoppen	Normandy Park	X	Matt Shelby (Alt)	Alaska Airlines	-
Jennifer-Ferrer-Santa Ines (Alt)	Normandy Park	-			
Laura Sanders	Lynden (air cargo)	X	Non-Member		
Non-Member			Jason Richie	FAA	X
Stan Shepherd	Port of Seattle	X	Chris Schaffer	FAA	X
Chris Maaza	FAA	X	Marco Milanese	Port of Seattle	X
Anthony Sutterfeld	FAA	X	Eric Schinfeld	Port of Seattle	X

Additional Participants: Robert Tykoski, Port of Seattle; Tom Fagerstrom, Port of Seattle; Steve Rybolt, Port of Seattle; Clare Gallagher, Port of Seattle

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd|Snider

Meeting Objectives:

To recap the Aviation Noise and Federal Policy Working Group meetings and to update on the Aviation Noise Action Plan initiatives. To expand understanding of airspace and flight paths, and to discuss the 2019 priorities for StART.

Welcome

Lance Lyttle, Sea-Tac Airport Managing Director

Lyttle recognized Commissioner Steinbrueck, who was in attendance. Lyttle shared that the FAA has provided input and is working with Port staff to finalize language for the Revised Runway Use Agreement. This was a near-term action item that was recommended by the Aviation Noise Working Group. Also, he stated that letters were sent to eight carriers who operate A320 series aircraft, asking for their timeline and/or plans to modify their aircraft to address a whistling noise that occurs in descent.

Facilitator's Update: Phyllis Shulman, Civic Alchemy

Phyllis welcomed new member, Larry Cripe the new community representative from the City of Burien. Port staff provided a brief update on the timing of the SAMP process and opportunities, separate from StART, for community involvement. Steve Rybolt, Port of Seattle, provided a brief update on the Sustainable Airport Master Plan (SAMP). This included:

- The public comment period for SAMP scoping ended on September 28, 2018. All comments received (individual comments as well as topic summaries of comments) are available on the Port's website (<https://www.portseattle.org/plans/sustainable-airport-master-plan-samp>).
- Port staff are currently working with the FAA on the NEPA schedule. The Port's website will be updated as dates for the SAMP process and schedule are decided.
- The evaluation will look at cumulative impacts and that will include looking at data prior to 2018.

Recap of the Aviation Noise Working Group Meetings: Stan Shepherd, Port of Seattle

The Aviation Noise Working Group (Working Group) reported on their March 11 and April 8 meetings. The Working Group meeting summaries are attached as Appendix B. The summary focused on the status of a number of the Working Group's recommended efforts including:

- A scope of work for a soon to be hired consultant to analyze Noise Abatement Departure Procedure Profiles and whether they lessen noise for airport communities.
- A scope of work and timeline for hiring a consultant to do a comprehensive Airfield Noise Assessment. The assessment will consider maintenance operations, reverse thrust, taxiing noise, and many other potential noise sources. The assessment will identify sources of airfield noise and evaluate possible options for reducing its impact.

Questions from StART participants included:

- What is the updated timeline for the revisions to runway taxi routes that the airlines are working with the FAA to pilot?

Response: The FAA is in negotiations with the labor union to establish the pilot. Currently, the potential start time for the pilot is around October.

- Has an official written request from the Port to the airlines and FAA been made for this pilot?

Response: No formal request has been made by the Port, but the Port could communicate to the FAA and airlines the importance of this pilot effort to the communities.

ReCap of Federal Policy Working Group Meetings: Eric Schinfeld, Port of Seattle – Federal Government Relations

The Federal Policy Working Group (FP Working Group), reported on their March 4 and April 1 meetings. The Working Group meeting summaries are attached as Appendix C. Schinfeld mentioned that the Working Group is made of both StART participants and representatives from a number of congressional offices. Items discussed at the meetings included:

- The history of federal legislation and policies related to noise.
- An initial list of federal policies that the FP Working Group may want to consider as a priority.
- An overview of the sections of the FAA Reauthorization Act pertaining to aviation noise and public health.

The FP Working Group drafted and utilized a set of criteria and selected an initial set of priority focus areas related to the FAA Reauthorization Act. They discussed what might be appropriate initial action steps for each priority.

The next meeting in May will review proposed legislation, and how to advocate for legislation underway. The goal of the Working Group is to have 3-5 policies identified for both the Reauthorization Bill and new legislation that the group will focus on moving forward over the next year.

Briefing: Late-Night Noise Limitation Program: Tom Fagerstrom, Port of Seattle

Fagerstrom provided an update on the Late-Night Noise Limitation Program and current efforts to communicate with air carriers to educate them about the program's upcoming launch mid-year and to encourage them to voluntarily limit late-night flights and/or consider flying quieter aircraft. He also announced the top Fly Quiet airlines for 2019: Southwest, Jazz (Air Canada Express), and Spirit Airlines.

Fagerstrom stated that all airlines will continue to be briefed on the program and encouraged to limit late-night operations and/or change to quieter airlines. He gave an overview of the current outreach efforts. The Airport Airline Affairs Committee, which includes all air carriers operating at the airport, has been briefed. Port staff has also provided a briefing at the station manager and international station manager meetings. All airlines flying in/out of Sea-Tac have will be notified via a formal letter. If requested, staff will also brief air carriers individually. Port staff are currently working on redesigning the Port website and are developing a communication and rollout plan for the program.

One StART member suggested that Flight Operations and Chief Pilots should also be notified in addition to the airlines. StART participants were interested in knowing what procedures Spirit Airlines are following that make them fly quieter than other airlines. It was stated that their pilots follow noise abatement flight procedures very closely. Port staff will explore this question further with Spirit Airlines.

Presentation: Understanding Airspace/Flight Paths

Robert Tykoski, Port of Seattle, FAA representatives

A focus of the meeting was a presentation on airspace and flight paths. Robert Tykoski, Port of Seattle, with assistance from FAA staff, reviewed the air traffic control process including the difference in responsibility between the Tower, TRACON, and the Center. Graphics were shown that explain the location and interaction between flight paths. They identified some of the factors that impact flight paths including topography, aircraft mix, and airspace complexity (interaction between flights from Boeing Field, Paine Field, Renton Municipal Airport, Joint Base Lewis- McCord, and Sea-Tac Airport.). The presentation can be found [here](#).

Questions from StART participants included:

- The current noise mitigation strategy does not allow flights to turn until five miles out. How was this determined?

Response: This policy was put in place a very long time ago. FAA continually evaluates procedures that can result in efficiencies.

- How does the handoff from Tower to TRACON take place?

Response: The handoff is all automated.

- How is the protected missed approach airspace handled when flights departing cross that path?

Response: Tower controllers will not turn aircraft or transfer control until they have cleared any conflict. And any departing airplane will not be cleared for takeoff if there is potential for conflict.

- In the future, through Next Gen technology advances, would the ILS glide slope antennas go away?

Response: Not certain they would come down as they provide redundancy. It is likely that equipment would remain in place, rather than rely solely on a satellite-based system.

- Given all of the increase in flights, is there a point when the system reaches saturation?

Response: Yes, there reaches a point when you cannot accommodate additional planes without delay.

2019 Priorities

Phyllis Shulman

The meeting concluded with a review of StART's 2019 priorities recommended by StART participants captured during small group discussions and through written comments. The five key priorities that emerged are:

- Aviation Noise
- Air Quality/Health Impacts
- Future of Aviation/Mobility

- Federal Policy and continuing the Federal Policy Working Group
- Short and Mid-Term Noise Relief

These priorities will be used to drive future StART agendas as well as inform priorities for the Working Groups.

Discussion of the priorities included suggesting that StART focus more on long-range actions and reducing marketing to airlines. Participants were reminded that the Port has to accommodate airlines that chose to serve the Sea-Tac.

Public Comment

Compiled public comments are included here as Appendix A.

Meeting Wrap Up

Lance Lyttle, Port of Seattle

Lyttle thanked the group for continuing to take time and participate in StART.

Next Meeting:
June 26, 2019, 6:00 pm – 8:00 pm
Location: *SeaTac International Airport Conference Center*

Appendix A

Summary of Public Comments

1. Jim Alkire (Vashon Island) (oral comments):
 - Stated that plane noise is paramount and Vashon residents have the same problems these other communities have - being woken up by airplanes in the night. Planes are at about 5500 feet on the north end of the island during south flow, and the same occurs on the south end of the island during north flow.
 - Mentioned that Vashon is a rural community, and by county requirements, the area must be kept rural. When you have the next gen flight path, 250 times a day, it ceases to be a rural community.
 - Requested that flight patterns be looked at so they are not so loud.
2. Christine Rohe (Vashon Island) (oral comments):
 - Commented that Vashon Island is public space – thousands of acres are open to the public. These open spaces are no longer quiet and are being impacted by the aircraft noise. The quiet is gone.
3. David Goebel (Vashon Quiet Skies) (oral comments):
 - Commented that Spirit Airlines may be quiet for some, but that their planes still have a whistling noise because of the vortex generator issue.
 - Mentioned that in 2018, the airport was still below peak operation.
 - Asked for a correction of RNAV approach on the airspace presentation slide.
 - Provided statistics about HAWKZ RNAV, and compliance with protocol before and after NextGen.
4. Anne Kroeker (oral comments):
 - Commented on the impact of aircraft noise on public space in Federal Way. Gave the example of last July 4 at Celebration Park in Federal Way where noise from plane after plane impacted festivities.
 - Commented on priorities, that there are two lenses that should always be considered: the carbon climate impact, and the equity impact. Would recommend both be added as criteria when deciding on actions.
 - Suggested that Fly Quiet awards be at different levels. That airlines that fly at late-night get an award for who is quietest from 12-5am.
 - Asked why would cargo carriers care about Fly Quiet awards?
 - Recommended the Fly Quiet Program should include fining airlines penalties when aircraft are noisy and that money be utilized for neighborhood noise mitigation or restoration.
5. Bernadine Lund (Federal Way) (oral comments):
 - Stated that flights are harming the public and exposing them to particles, noise, etc. Studies estimate deaths from airport impacts as about 700 deaths per year. This is equivalent to four plane crashes a year worth of people deaths because of living under the flight path. Referenced World Health Organization studies.
 - Commented that current airline growth is not sustainable. Suggested that airlines need to take responsibility for their impact to the public by adding public compensation to airline business plans.

6. Walt Bala (Burién) (oral comments):

- Expressed concern that FAA could not respond to some of the questions brought up in the meeting.

Appendix B

StART FACILITATOR'S MEETING SUMMARY

AVIATION NOISE WORKING GROUP

Monday, March 11, 2019

5:30-7:30PM, SeaTac Airport Conference Room

Member	Interest Represented
Terry Plumb	Burien
Chris Hall	Federal Way
Ken Rodgers	Des Moines
Earnest Thompson	Normandy Park
Eric Zimmerman	Normandy Park
Jennifer Kester	SeaTac
Jennifer-Ferrer-Santa Ines	Normandy Park
Michael Matthias	Des Moines
Robert Akhtar	SeaTac
Tom Fagerstrom	Port of Seattle
Robert Tykoski	Port of Seattle
Marco Milanese	Port of Seattle
Stan Shepherd	Port of Seattle
Scott Ingham	Delta Air Lines
Chris Schaffer	FAA
Vince Mestre	L&B

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Other Attendees: Lance Lyttle

Meeting Objectives:

To open discussions on potential noise abatement departure profiles and to provide updates on actions in the Rolling Work Plan.

Meeting Summary:

Brief status update on the Rolling Work Plan initiatives:

- Runway use plan letter agreement (limits 3rd runway usage between 12AM – 5AM) has been forwarded to the FAA and is still under review.

Late-Night Noise Limitation Program Update:

Port Staff provided an overview and update on the Late-Night Noise Limitation Program. The Program overview included:

- Focus on operations between the hours of 12 am to 5 am
- SEL noise thresholds will be established at four noise monitors to capture departures and arrivals
- Website reporting on operations that exceeded the thresholds will occur on a regular basis
- Airlines that have exceeded threshold will be notified
- Operations that exceed the thresholds will negatively affect the airline's Fly Quiet Award score
- All airlines will be briefed on the program and encouraged to limit late-night operations or change to quieter aircraft

Staff reviewed the current thinking about departure and arrival noise thresholds with the goal of identifying the noisiest aircraft. Staff gave examples of sample reports that would be posted on the Port's website. The reports identify the noisiest flights in a given month.

Questions included:

- Is there a way to differentiate noise from reverse thrust during arrivals?
 - *Response:* No, monitors measure general levels.
- Why are the closer in monitors not being used?
 - *Response:* The monitors that are currently being used for other Fly Quiet categories are being proposed for use. The chosen noise monitors also have the best alignment with the runways being monitored.
- What are the current Fly Quiet scores based on?
 - *Response:*
 - Flying within noise abatement procedures
 - Adhering to Sea-Tac's nighttime engine testing procedures.
 - Average noise levels of their operation
- Is the FAA aware of Sea-Tac's noise abatement procedures?
 - *Response:* The Port and FAA meet on a monthly basis to review procedures.
- Has the FAA ever taken action for an air carrier not following noise abatement procedures?
 - *Response:* No. The FAA does not have the ability to fine or penalize airlines for flying outside the noise abatement procedures, as noise abatement procedures are secondary to safety. If there is a consistent issue of non-compliance, the Port and FAA will monitor and correct. Airports cannot penalize or fine air traffic controllers or airlines for non-compliance with noise abatement procedures. Non-adherence with a flight procedure is different than non-adherence with a flight standard, and flight standards issues are very rare. Noise abatement is not considered a flight standard issue.
- Who would monitor/regulate non-compliance with noise abatement procedures if it is not the Port or the FAA?

- *Response:* It is a combined responsibility of both the FAA and Port. 99% of flights are within the noise abatement procedures. In instances where there is non-compliance, the Port works with the FAA to understand why.
- Are the noise monitors taking into account GBAS, which will allow for different approach paths?
 - *Response:* They are all near existing flight paths and GBAS has yet to be initiated and will not change flight paths.
- Why do the monitoring points have different SEL levels?
 - *Response:* The varying levels that would trigger a penalty vary based on the location of the monitor in relation to the flight path.
- Is noise monitor 18 at Woodmont Elementary School?
 - *Response:* Noise monitor 18 is located directly beneath the 3rd runway flight path, not at Woodmont Elementary School.
- Looking at data for night flights how will anomalies be handled?
 - *Response:* Port will more closely analyze data when there is an anomaly and can work with the airline to understand why. There is chance for simultaneous noise events to be corrupted with ambient noise such as motorcycles or fireworks. Can look at the profile, and see if there is a noise spike, that could be attributed to something else. There can also be a way that the data is reported, for example, reporting exceedances on percentage of flights, rather than number of flights.

Additional information included how the program will be rolled out to the air carriers and a review of the goals of the program. It was noted that federal law prohibits airports in the US from charging a higher night- time landing fee as is happening at some international airports.

Noise Abatement Departure Procedure (NADP) Profiles Presentation:

The noise consultant presented information about NADP. He reviewed that it includes two procedures:

- Close-in: noise reduction close to airport (potentially increased noise farther out on flight path)
- Distant: noise reduction farther out from airport (potentially increased noise close to the airport)

Advisory circular 91-53A dictates requirements for NADP profiles. The noise consultant reviewed the difference in altitude along departure flight tracks -- distant versus a close-in procedure. Trade-offs were discussed including that there is always a smaller area of noise reduction for close in as opposed to distant. Detailed modeling is required as well as an inventory of current procedures is needed to consider whether there is benefit in introducing the procedures. Next steps to explore NADP would include an inventory of current air carrier take-off procedures, understanding the impact it would have on close-in and farther out communities, detailed modeling, and formulating a request to airlines. It was mentioned that some airlines are already using distant procedure, because of fuel saving benefits. A study by UPS has been conducted that shows significantly reduced fuel usage, as well as noise reduction.

Additional information in response to questions and comments included:

- Noise reduction benefit between a close-in and distant procedure observed at John Wayne Airport is on the range of 2-3 dB noise reduction in the areas immediately below/adjacent to the runway.

- Lower fuel consumption is associated with flap retraction and the reduced amount of time with additional drag.
- The airlines have operations specifications detailed in an agreement between the airline and FAA in the region where the airline is based. This includes emergency procedures, lost radio contact, etc. If a departure procedure is going to change, the airlines need to change their Ops Specs. The Ops Specs are proprietary.
- The Port can request the airlines to utilize a distant procedure, but the Port would first want to conduct modeling to see what the impact would be. The Port may find that some airlines are already implementing distant procedures.
- Cost savings occur due to reduced fuel burn, which is significant.

The Working Group expressed support to take the next steps. This will require the hiring of a consultant to conduct the noise evaluation. It was stated within a few months a consultant could be hired and some preliminary results could be prepared. It was requested that the preliminary results be added to the June agenda for the Working Group. In addition to hiring a consultant, the Port can start discussions with airlines to get information on their current procedures.

Airfield Noise Assessment Next Steps:

Airport staff reviewed the possible scope and timing of an airfield noise assessment. The scope could include:

- What are sources of airfield noise?
- How might they be prevented, reduced, and/or mitigated?
- Actions (procedural and mechanical) that might be helpful to change those noise sources
- Evaluation of whether physical barriers would reduce noise and be appropriate

Other potential scope elements could include:

- Reverse Thrust
- Taxiing
- Additional temporary noise monitors in the neighborhoods east and west of the airport
- Location of sources – different noise levels in different areas of the airfield
- Maintenance
- Survey other airports / examples of what is being done at other airports
- Cargo operations
- Construction Noise
- Taxiing aircraft
- Past applicable P150 recommendations

It was stated that it is important to identify improved information sharing between the airport and community regarding whether to build a Ground Run-up Enclosure for aircraft testing. It was suggested that maybe there is a place on the Port's website that could be utilized for this purpose. Also, it was stated that the scope should be distinct from the SAMP process.

The Port will put out a Request for Proposals to consulting firms and then review them, interview, and select from the qualified bidders. Since this study is more extensive, it will require at least six months to hire a consultant.

**StART AVIATION NOISE WORKING GROUP
 FACILITATOR'S MEETING SUMMARY
 Monday, April 8, 2019
 5:30-7:30PM, Sea-Tac Airport Conference Room**

Member	Interest Represented
Earnest Thompson	Normandy Park
Eric Zimmerman (call in)	Normandy Park
Tom Fagerstrom	Port of Seattle
Marco Milanese	Port of Seattle
Stan Shepherd (call in)	Port of Seattle
Scott Kennedy	Alaska Airlines
Chris Hall	Federal Way
Vince Mestre	L&B
Chris Schaeffer	FAA
Shelia Brush	Des Moines
Tim Toerber	Port of Seattle
Tony Gonchar	Delta Air Lines
Robert Tykoski	Port of Seattle
Terry Plumb	Burien

Facilitator: Phyllis Shulman, Civic Alchemy
Note Taker: Emily Jackson, Floyd Snider

Meeting Objectives:

To review and provide input on the next steps with the Noise Abatement Departure Profiles and Airfield Noise Assessment agenda items.

Meeting Summary:

Update on Implementation of Draft Rolling Work Plan

- A320 arrival noise letter was sent out to air carriers at Sea-Tac; applies to pre 2014 A320 series aircraft only. Nine airlines operate A320 series aircraft at Sea-Tac. Letter requests airlines to share if and when they plan to retrofit planes with a vortex generator to lessen the noise generated by the aircraft.
- Updated Runway Use Agreement was provided to the FAA. Initial response from the FAA stated they agree, in principle, to language limiting 3rd runway landings between 12am-5am. Response included additional comments. Next steps include completing discussion and any revisions to language with the FAA with the anticipation of implementation by mid-year.

Late Night Noise Limitation Program Update on Outreach and Analysis

Staff reviewed the planned implementation and current outreach related to the program and the SEL thresholds to be utilized in the program. They reiterated that the program will focus on operations between 12am-5am and that any exceedances of the SEL thresholds will factor into the air carrier's overall Fly Quiet Award scores. Staff will continue to review SEL data and will refine what the appropriate SEL thresholds are, if necessary. Staff provided a sample January and February report that identified which airline carriers and aircraft types were the noisiest during the late-night hours. Staff also stated that when an unexpected aircraft exceeds the noise thresholds that there will be an effort to understand what the situation was that created that event and provide that information to the airline if requested.

Initial outreach to airlines is now in process including briefing airlines at various air carrier meetings. A one-page handout is being utilized as part of the outreach effort and was shared at the meeting. Discussion focused on ways to meaningfully connect to airlines including encouraging Port staff to meet one-on-one with airlines, when needed. A request was made to track the outreach efforts and report back to the Working Group on a list of who was contacted, how they were contacted, and what the response was to date.

Staff commented that the airport noise complaint hotline has not received more complaints regarding the new Cathay Pacific flight during late night hours. The aircraft that they are flying is considered a quieter aircraft (A350). It was requested that additional community education about the program might be needed.

Noise Abatement Departure Profiles: Noise Analysis and Next Steps

The noise consultant reviewed the scope of the technical analysis to be conducted. The purpose of the analysis is to identify noise tradeoffs for establishing a distant NADP. The analysis would include:

- Survey airlines on current departure procedures
- Set-up a noise model for single event noise analysis for existing departure procedures for noise dominant aircraft
- Run a noise model for same aircraft using one or more distant NADPs
- Produce a table of delta single event noise (SEL) at specific locations north and south of the airport

The scope of work would produce a contour plot of change in single event noise. Once the data is evident, then a decision would be made as to whether the change would be beneficial. If it were decided that it could be beneficial, then the Port would formulate a request to the airlines, which, if adopted, may require airlines to modify operations specifications in consultation with the FAA. At this stage, the study is informational only in order to analyze whether this concept has benefits and to whom.

Airfield Noise Assessment: Timeline and Scope

Port staff reviewed the potential scope and process for doing a comprehensive analysis of airfield ground noise. The idea for the analysis came out of StART Aviation Noise Working Group discussions as participants expressed interest in identifying ground noise sources and exploring ways to reduce their impact on surrounding communities. The purpose of the assessment would be to identify and evaluate airfield noise sources and identify possible noise reduction options including operational procedural changes, if appropriate. This analysis will require hiring a consultant and due to the size of the contract, would need to go out for procurement including consultant interviews. It would take approximately 4-6 months to complete the hiring process.

Numerous benefits of completing the assessment were identified including:

- Differentiating perception of noise sources from actual sources (e.g. reverse thrust versus stopping and starting of aircraft on runways)
- Evaluating potential opportunities for noise barriers
- Evaluating potential for operational changes to improve noise

Next Meeting: May 13, 2019, 5:30pm – 7:30pm, Seattle-Tacoma International Conference Center, Airport Office Building Room 4A

Appendix C

StART FACILITATOR'S MEETING SUMMARY

FEDERAL POLICY WORKING GROUP

Monday, March 04, 2019

5:30-7:30PM, Conference Center, Sea-Tac Airport

Member	Interest Represented	Present
Terry Plumb	Burien Community Member	X
Michael Matthias	Des Moines City Manager	X
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
Fernando Ruiz	Congressman Adam Smith, Legislative Assistant	X
Lyndall Bervar	Congressman Adam Smith, District Rep	X
Zachary Carstensen	Office of Congresswoman Pramila Jayapal, Director, Outreach and Engagement	X
Lylianna Allala	Office of Congresswoman Pramila Jayapal	-
Stasha Espinosa	Office of Patty Murray	-
Adam LeMieux	Office of Congressman Rick Larsen	
Eric Schinfeld	Port of Seattle, Sr. Manager, Federal & International Government Relations	X
Resources	Title	
Dave Kaplan	Port of Seattle, Local Government Relations	X
Stan Shepherd	Port of Seattle, Manager of Noise Programs	—
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
Vince Mestre	L&B	X

Other Attendees: Lance Lyttle, Port of Seattle, Tom Fagerstrom, Port of Seattle

Meeting Objectives:

To establish the Working Group's goals and principles, as well as the Working Group's initial priorities for engagement. To create a baseline of information and understanding about national policies and proposals related to noise including elements in the FAA Reauthorization Bill.

Meeting Summary:

Working Group Goals and Principles

Eric Schinfeld, Port of Seattle – Federal Government Relations

Port staff highlighted areas of potential focus, possible initial goals, and principles to consider when deciding on priorities. It was stated that the Federal Policy Working Group provides an opportunity for collaboration and engagement between members of Congress and regional stakeholders engaged in airport issues. The Working Group provides an opportunity to effect change on policies. The Working Group members representing Congressional offices will be able to provide expertise about Federal policy while also providing guidance on when to be aggressive with advocacy and what is realistic expectations regarding policy change. Three possible objectives were shared: 1) prioritize policies that are important and impactful, 2) provide guidance for implementation of policies that are already established, and 3) connect to national advocacy efforts and encourage sponsors and co-sponsors for legislation. The intention is to create common understanding of information and to hone in on influencing policies or implementation of policies most important to StART.

The State of Noise Policy in Congress and Opportunities for Progress

Fernando Ruiz, Legislative Assistant, Congressman

Vince Mestre, Aviation Noise Consultant

Fernando and Vince provided an overview of the history of and current state of noise policy and advocacy in Congress as well as discussed opportunities for policy change or influence. Key information included:

- International Civil Aviation Organization sets standards for levels of noise. Federal policies are set in accordance with those standards.
- Improving on day/night average sound level metric may be a focus area as it does not seem to measure noise annoyance. FAA is required to re-evaluate this metric.
- Possible areas to improve funding could include increasing and providing more flexibility for airport improvement grant funding.
- The House of Representatives currently has a Quiet Skies Caucus focused on issues ranging from noise, emissions, and other impacts. Members have airports in or near their district.
 - Organizational meetings for the Caucus have begun.
- Congressman Larson is Chair of the Aviation Subcommittee and is a strong ally for legislation.
- Washington's senators are strong on noise legislation.
- In 1979, Congress delegated noise safety evaluation to FAA. As a result, Federal air regulation Part 150 was published and became administrative law.
- Key argument in 1979 was whether FAA or EPA should be in charge of setting noise levels.

- Airport Noise and Capacity Act (ANCA) passed in 1990 favors the aviation industry and restricts the imposition of curfews as well as charging landing fees based on noise.
- 65 DNL was established in ANCA, so it would take congressional action to change the DNL.
- People do not respond to sound in the same way that a sound-level meter does. Acoustic (DNL and other) and non-acoustic factors both influence the way people react to noise (e.g. people could be responding to fear of uncontrolled airport growth, so knowing limits on future growth could be important).
- Within the FAA the program guidance level is where details on how policies get implemented are established. In addition to Congressional action it is important to influence the FAA's process for establishing program guidance. Currently, there is no process for community members' engagement.
- The infrastructure bill could be a vehicle for policy change.

There was also discussion about how the averaging of noise is not reflective of noise impacts.

Review of FAA Reauthorization Bill Noise Policies and Existing Noise Legislative Proposals
Eric Schinfeld, Port of Seattle

Eric provided a handout identifying the possible universe of policy areas for action that included new legislation as well as numerous sections of the FAA Reauthorization Act. (*See Attachment A*) There are numerous opportunities to influence the FAA Reauthorization Act since it is already law. It was stated that the Working Group may want to distribute the focus between reducing aviation noise (for example, regulating engines, flight paths) and mitigating aviation noise (for example, changing where funding can be spent for insulation). New legislation that could provide focus included three bills to be proposed by Congressman Adam Smith.

Discussion focused on:

- how to improve mitigation for aviation noise particularly expanding where federal funding criteria for noise insulation
- how to increase local regulatory control and flexibility for communities to develop unique and tailored regulations to address impacts
- expanding the future planning horizon and creativity for innovation
- the need to pay attention to due dates in the FAA Reauthorization Act when prioritizing what the Working Group will focus on
- the bipartisan nature of the issues
- past constraints and considerations for installing noise insulation for apartment buildings
- whether remedies for devaluation of property could be considered
- exploring potential transportation alternatives (for example, hyperloop)
- whether legislation could be developed to incentivize airlines to switch to quieter technologies and whether there is sufficient funding for research
- case law that states that the FAA and airlines are immune to noise litigation
- whether there is a way to charge a fee to the flying public to pay for mitigations

These additions were made to the potential list of issues to focus on:

- Add Section 174 of the FAA Reauthorization Bill

- Identify where there are deadlines/timelines for responses to the FAA Reauthorization Bill
- Discuss spending levels for noise mitigation efforts
- Create a penalty for evening noise
- Revisit ANCA
- Flexibility for airports/local communities to address specific local impacts

The Working Group began to discuss criteria that could be considered when deciding on priority actions. These initial thoughts included:

- Identify early wins that immediately reduce impacts on communities
- Look at what is possible and practical
- Dream big

Next steps:

The Working Group will continue to sort through options and continue discussion of priorities at the next Working Group meeting. Members requested readable information about what is in the FAA Reauthorization Act as well as Part 150 and Part 161. Fernando offered to provide press releases and other information regarding the FAA Reauthorization Bill.

Future Meeting Scheduling

1ST Monday of each month. Meetings will initially be scheduled through June.

Next Meeting:
April 1, 2019, 5:30 pm – 7:30 pm
Location: *SeaTac International Airport Conference Center*

ATTACHMENT A

In fall 2018, Congress passed into law a new Federal Aviation Administration (FAA) reauthorization bill, with a variety of new policy and funding authorizations. Among many areas of activity, the legislation included several studies and policies related to airplane noise and emissions.

While there are outstanding questions related to implementation of the new work, the most relevant related to Sea-Tac Airport are as follows:

- Sec. 173, which sets a one-year deadline for the FAA to complete the ongoing evaluation of alternative metrics to the current Day Night Level (DNL) 65 standard.
- 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.
- Sec. 179, which would study the relationship between jet aircraft approach and takeoff speeds and corresponding noise impacts on communities surrounding airports.
- 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.
- Sec. 186, which would initiate a review of the potential benefits, costs, and other impacts that would result from a phaseout of covered stage 3 aircraft.
- 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.
- 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.
- 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.
- 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.

In addition, U.S. Representative Adam Smith proposed two pieces of airplane noise and emissions legislation last year, and is considering a third for 2019:

- **The Protecting Airport Communities from Particle Emissions Act**, 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.

- **The Aviation-Impacted Communities Act**, which would create an official federal designation of an “aviation impacted community” as “a community that is located not greater than 1 mile from any point at which a commercial or cargo jet route is 3,000 feet or less above ground level.” Through this designation, these communities would be able to work with the FAA to research potential flight operations or flight path changes and/or mitigation.
 - **A secondary noise insulation package bill**, which would allow the FAA to fund a second residential noise insulation package in instances where the initial insulation fails.
-

START FACILITATOR'S MEETING SUMMARY
FEDERAL POLICY WORKING GROUP
Monday, April 1, 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	X
Chris Hall	Federal Way Community Member	X
Brian Wilson	Burien City Manager	-
Sheila Brush	Des Moines Community Member	-
Jennifer Ferrer-Santa Ines	Normandy Park Finance Director	X
Earnest Thompson	Normandy Park Community Member	-
Kyle Moore	SeaTac Government Relations and Communication Manager	-
Robert Akhtar	SeaTac Community Member	-
Fernando Ruiz	Congressman Adam Smith, Legislative Assistant	X
Lyndall Bervar	Congressman Adam Smith, District Rep	X
Zachary Carstensen	Office of Congresswoman Pramila Jayapal, Director, Outreach and Engagement	X
Lylianna Allala	Office of Congresswoman Pramila Jayapal	-
Stasha Espinosa	Office of Sen. Patty Murray	-
Adam LeMieux	Office of Congressman Rick Larsen	-
Louise O'Rorke	Office of Sen. Maria Cantwell	X
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	-
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
Megan King	Note taker, Floyd Snider	X

Additional Participants:

Mary Ellen Eagan, Harris Miller Miller Hanson, Inc.

Meeting Objectives:

To deepen shared understanding of the noise elements in the FAA Re-authorization Bill, and to discuss criteria for developing priorities and level of effort for this working group's advocacy on the implementation of these provisions moving forward. This group will also work to begin identifying 2-4 FAA bill implementation priorities.

Meeting Summary:

In-Depth Review of Sections of the FAA Re-authorization Bill

Eric Schinfeld, Port of Seattle – Federal Government Relations

Mary Ellen Harris is a consultant based out of Boston who has been working for many years on aircraft noise and policy issues. She was invited as a guest to provide an up-to-date overview of the key components of the FAA Re-authorization Bill as it relates to relevant noise provisions. She does not work for or represent the FAA; therefore, her opinions are independent and are based on her experience.

Highlights of the Bill include:

- FAA Re-authorization Bill reauthorizes the FAA and programs until the end of FY 2023. Implementation plans for this legislation are still in early stages of development.
 - FAA is in the process of working to prioritize contents of the bill.
 - The FAA has been receiving short-term authorization for a number of years; this is the first long-term authorization which allows for more long-term planning.
- Subtitle D is an entire section devoted to airport noise and includes actions focused on noise.
- Provisions in Subtitle D fall into:
 - Studies: Aircraft noise effects, noise annoyance, health impacts, phase out of Stage 3 aircraft
 - NexGen Provisions: review of stakeholder engagement, appointment of regional ombudsmen, study effects of speed changes on noise
 - Supersonics: FAA must take "leadership position"
 - Misc.: mandatory use of helicopter routes in Long Island, and Stage 2 aircraft at 4 airports (not Seattle)
- Noise Provisions with direct impact at airports:
 - Updating noise exposure maps – if significant change in noise level
 - Addressing community noise concerns – consider dispersal headings for certain RNAV departure procedures
 - Requested by airport
 - Must not cause safety concern
 - Must not increase noise over other areas
 - FAA grant funding for pilot environmental mitigation programs

The overview included reviewing key aspects of relevant provisions. The provisions were summarized in a handout provided at the March StART Federal Policy Working Group meeting. Numerous provisions have completion dates that look unlikely to be met. It was stated that it is likely that some of the regional

ombudsmen have been hired, but there have been none publicly announced. Some of the required work is already underway including work on supersonic aircraft, revision of Part 150 land use compatibility guidelines (Section 187), and the study on potential health and economic impacts of overflight noise (Section 189).

Questions and responses included:

- Is there anything study-wide related to noise or environmental impacts missing from the list of noise provisions?

Response: There are other things being studied, but not called out in this legislation.

- Has the regional ombudsman for this region (West Coast Region) been hired?

Response: None have been publicly announced.

- How can it be expected that the FAA will meet the timelines for implementation?

Response: It seems unlikely they can meet the stated timelines. She believes that the FAA is trying now to sort out priorities and timelines.

- Is there the possibility that communities can have any impact on the FAA's prioritization?

Response: It is recommended to meet and communicate with the FAA to try to influence the prioritization of task requirements.

- If this is a 5-year re-authorization that is about study and research, is the FAA meeting their requirement by conducting the studies, or is there any requirement to make adjustments based on the outcome of the studies?

Response: Some provisions require outcome changes.

- SeaTac has seen a 41.6% flight traffic increase since early 2000s, which has resulted in significant impact to communities, but the FAA doesn't consider this a "significant impact"?

Response: Part 150 for Seattle will be updated once NEPA documents are completed. As part of the environmental review of the Master Plan, environmental noise impacts are reviewed, and in addition to that, the Part 150 review is conducted

- is there any action plan or penalties if deadlines are missed?

Response: There could be some effort (hearings) from the congressional side to hold FAA accountable to completion, as expected by bill.

- Section 190 -has this grant program been developed yet?

Response: Not yet. This program does not have a deadline, so likely not a top priority. Given that, it may provide a good opportunity to influence the grant requirements and project scopes.

- Is it clear what the FAA's priorities are?

Response: No. Noise and land use are underpinnings for many of the other issues so would expect those to be the priority.

- Is there political pressure related to any of these provisions?

Response: There is on all of them, but the noise, land use, and NextGen sections are the ones with more visibility.

- Do the congressional reps have any focus on any of these sections?

Response: The Congressional Quiet Skies Caucus is looking to add language to the transportation appropriations bill requiring FAA to prepare a timeline for implementation of all noise provisions in the FAA Reauthorization bill.

Draft Initial Criteria for Developing Priorities for the Working Group Work Plan

Eric Schinfeld, Port of Seattle

Draft prioritization criteria (Attachment A) were presented to the Working Group for input and discussion. The criteria would be utilized to decide on key areas of focus /action for the Working Group. Some of the draft criteria are more relevant to utilize for reviewing new legislation versus reviewing provisions in the FAA Re-authorization Bill.

Draft criteria included:

- Applies to Sea-Tac's specific operational procedures and impacts
- Provides near-term benefits
- Provides significant impact
- Recognizes relevant timelines
- Increases flexibility and innovation
- Addresses community priorities
- Incorporates/advances leading edge research
- Potential for broader advocacy partnerships

The working group recommended three additional criteria:

- Creates measurable outcomes tied to clear metrics
- Engages a wide variety of stakeholders
- Maintains national focus on an important issue

Community representatives will check in with their communities and provide additional thoughts and/or criteria at the next meeting. The Working Group discussed whether to prioritize criteria and concluded that there could be different priorities depending on the topic/action.

Priorities Discussion:

The Working Group discussed which of the FAA Re-authorization Bill noise provisions are the highest priorities for the Working Group to take action on/try to influence. It was noted that Sec. 173, 187 and 188 were related. The Working Group decided that their priorities would be on: Sections 173, 187, 188, 189, and 190.

Once priorities were identified, discussion focused on what it means for StART to try to influence the FAA on these provisions? Ideas included:

- Sections 173/187/188 - Work with the Congressional Quiet Skies Caucus and discuss how StART could support and partner with current national efforts. Joint advocacy may include pressuring FAA to meet deadlines and complete work. It was suggested that staff from the Congressional Quiet Skies Caucus present to the next StART federal working group. This is a follow-up action item.
- Section 189 - Have an informational conversation between the FAA in DC and Port representatives to understand expectations and how they will proceed. Once that is understood StART can shape next steps.
- Section 190 – Meet with the local FAA rep (or FAA in DC) in the short-term to set the stage for partnership going forward. This will also potentially focus the FAA to brief the congressional delegation on things they are already tracking. Focus could be on communicating with the FAA on:
 - Making implementation of the grant program a priority
 - Engaging the regional ombudsman
 - Grant parameters including potentially changing the requirement that projects be within a 5-mile designation
 - Design of the grant program including funding partnerships
 - Early identification of potential projects and their costs
 - Reality checking the appropriated funding for the grants and advocating for additional funds

Next Steps

- Eric will provide summary of March and April meetings at next full StART group meeting.
- Agenda for the May Working Group meeting will include a report back on informational conversation between the FAA in DC and Port representatives regarding Section 189.
- Agenda for the June Working Group meeting will include next steps regarding Section 190.

Next Meeting:
May 6, 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
As of March 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 advocacy partnerships**: prioritizes measures that might appeal to airport-area communities and their Members of Congress from across the country for coalition-building purposes.

StART FACILITATOR'S MEETING SUMMARY
Wednesday, June 26, 2019



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 O1DB 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.

StART FACILITATOR'S MEETING SUMMARY
Tuesday, August 28, 2019



SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART FACILITATOR'S MEETING SUMMARY

Wednesday, August 28, 2019

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

Participant	Interest Represented		Participant	Interest Represented	
Eric Zimmerman	Normandy Park	-	Tony Gonchar	Delta Air Lines	-
Earnest Thompson	Normandy Park	-	Scott Ingham (Alt)	Delta Air Lines	X
Mark Hoppen	Normandy Park	X	Scott Kennedy	Alaska Airlines	X
Jennifer-Ferrer-Santa Ines (Alt)	Normandy Park	-	Matt Shelby (Alt)	Alaska Airlines	-
Tejvir Basra	SeaTac	X	Laura Sanders	Lynden (air cargo)	X
Robert Akhtar	SeaTac	X	Chris Schaffer	FAA	X
Carl Cole	SeaTac	X	Arlyn Purcell (Alt)	Port of Seattle	X
Steve Pilcher (Alt)	SeaTac	-	Lance Lyttle	Port of Seattle	X
Katrina (Trina) Cook	Tukwila	X	---	---	
David Cline (Alt)	Tukwila	X	---	---	
Brandon Miles	Tukwila	-	---	---	

Additional Participants:

Mary Ellen Eagan, HMMH; Janell Barrilleaux, FAA; Cayla Morgan, FAA; Joelle Briggs, FAA; Marco Milanese, Port of Seattle; Eric Schinfeld, Port of Seattle; Stan Shepherd, Port of Seattle; Tom Fagerstrom, Port of Seattle

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Meeting Objectives:

To recap the Aviation Noise Working Group meeting and review the Federal Policy Working Group advocacy Work Plan. To expand understanding of and discuss the components and requirements of a Part 150 Noise Compatibility Study.

Welcome

Lance Lyttle, Port of Seattle

Lyttle welcomed the group and stated that the intent of StART was and still is to provide a forum for communities to discuss and address aviation-related issues of concern. He commented that because of the participation by communities, the FAA, and the air carriers, StART has taken some good first steps. Lyttle emphasized that there is still more to do, and recognizes the sensitive nature of this work. He apologized for Commission approval of the preliminary design funding for selected Sustainable Airport Master Plan (SAMP) Near-Term Projects without advance community outreach. He stated that he

understands the concerns and looks forward to the public comment period for the SAMP Near-Term Projects environmental review. Lyttle shared that the Port will begin more proactive notification to flag Commission topics of interest to the airport cities. He reviewed the projects that received preliminary design funding approved at the Commission meeting.

Lyttle expressed disappointment with some StART members for using this Commission notice issue as a reason to suspend participation in StART. He emphasized that the Port is committed to being a partner, and will work to improve trust, but that trust is a two-way street. He expressed concern that some StART members are not adhering to the Stakeholder's Commitments within the Operating Procedures. He concluded his remarks by stating that he believes that work done so far initiated by StART is constructive. He is committed to working with StART and encouraged Burien, Des Moines and Federal Way to rejoin the StART process. Lyttle's complete talking points are included in Appendix B.

Lyttle invited other StART participants to comment in response to his statements. The comments included:

Mark Hoppen: Commented that it is easy to see why some cities around the airport, with the legacy of the 3rd runway conflict, are quick to react. He referenced that the cities' situation is similar to a line in the movie "Matilda" – "You're big, I'm small, nothing you can do about it" is the feeling that some of the cities have living next to a major economic engine. He extended appreciation for Lyttle's statement, and expressed hope that all other associated parties, FAA and airlines, are also acting in similar good faith.

David Cline: Spoke on behalf of the Tukwila mayor and city council. He stated that Tukwila remains committed to continuing its participation in StART and to work constructively on solutions. He stated that Tukwila and the Port have long histories in the region and he recognizes that progress in improving relationships can be made over time.

Scott Kennedy: Thanked the Port for convening StART. He recognizes that in a process such as StART's that rough patches will be unavoidable, but emphasized that Alaska Airlines is committed to the process and continuing the work to address these challenges and maintain constructive conversations. He stated that the Alaska Airlines Vice President of Communications has reiterated their commitment to StART. He commented that the work already accomplished and in process is valuable; bringing flight operations and experts to the table is beneficial; and looks forward to continuing coordination.

Carl Cole: Shared that three years ago, the Port and City of SeaTac began re-negotiating their Interlocal Agreement (ILA). Cole commented that by the time they met with the Port, he felt a little intimidated, but as time went on, he stopped objectifying staff as "the Port" and began relating to them as individuals. Through the ILA process, Cole stated that he learned a lot about airport operations, and that the Port representatives learned just as much about issues for communities living adjacent to the airport. He applauded that open and honest negotiations came under Lyttle's leadership and recognizes the benefit of StART. He emphasized that if the impact of efforts coming out of StART helps make one person hear one fewer plane, it is worth it. He shared appreciation for the effort, and commented that SeaTac will continue their participation in StART.

Scott Ingham: Expressed gratitude for including Delta Air Lines in StART. He highlighted a number of initiatives that are now underway – the glide slope adjustment, the ground noise study, revised runway use agreement, taxi utilization study, and late-night noise limitation program – that were initiated by StART and stated that these are all big steps. Ingham spoke to the importance of collaboration and supported StART's intent to improve the ability to work together.

Eric Zimmerman: Provided a statement in writing to be read at the meeting in his absence. The written text is included in Appendix C. He stated that StART was offered as a forum to discuss, learn, and explore solutions. He commented that the Port, FAA, and Airlines have all participated in good faith, and where allowed by federal law, have shown eagerness to implement changes. As an aggregate, multiple incremental changes may result in an actual noticeable change. Without changes to federal law, major operational changes aren't possible. Zimmerman encouraged communities who have chosen to temporarily suspend their participation to rejoin and work toward collaborative incremental changes.

Facilitator's Update

Phyllis Shulman, Civic Alchemy

Shulman reviewed the meeting schedule for September and October. No Working Groups meetings will be held on the first Monday in September due to the holiday. The Federal Policy Working Group will meet on the 2nd Monday instead of the Aviation Noise Working Group. The Aviation Noise group will not meet in September.

Summary of Aviation Noise Working Group Meetings

Tom Fagerstrom, Port of Seattle

The Aviation Noise Working Group (Working Group) reported on their August 12 meeting. The Working Group meeting summary is attached as Appendix D. The briefing focused on key items discussed at the meeting related to the Working Group's Work Plan including:

- An update on the Revised Runway Use Agreement - the primary intent is to limit use of the 3rd Runway during the late-night hours. According to an FAA review of the draft agreement, draft language relating to the Preferential North Flow during night hours would trigger an environmental review (approximately one year). If the goal is to put the key changes in Revised Agreement related to the 3rd Runway in effect as soon as possible, removing the Preferential North Flow language should allow for prompt approval. No objections to this strategy were expressed in the Working Group.
- The Late-Night Noise Limitation Program implementation. The program is active. Noise levels are currently being monitored between 12AM-5AM. Third quarter results expected to be published in October.
- An update that the Noise Abatement Departure Profile (NADP) analysis is underway. The analysis will identify the NADP that could offer the greatest noise reduction for the community. Currently, airlines are being surveyed to determine which procedures they are currently using and why.
- Contracting for a firm to do the Ground Noise Analysis is almost complete and additional discussions will occur at the next Working Group meeting.
- Overview of the Port's new noise comment system, including what information is collected and the type of reports that can be created utilizing the information.

Summary of Federal Policy Working Group Meetings

Eric Schinfeld, Port of Seattle

The Federal Policy Working Group (FP Working Group) reported on their July 8 and August 5 meetings. The Working Group meeting summaries are attached as Appendix D. The briefing focused on key items discussed at the meeting including:

- The FP Working Group has been working with other groups and lawmakers to identify how to best focus effort and strategies to have the greatest impact.
- An overview of the FP Working Group's Work Plan. The Work Plan identifies key priorities for action and implementation steps addressing three general categories:
 - Provisions passed last year by Congress in the FAA Reauthorization Bill that are relevant to the interest of StART members
 - Current legislation:
 - Representative Steven Lynch – Air Traffic Noise and Pollution Expert Consensus Act
 - Representative Adam Smith - Protecting Airport Communities from Particle Emissions Act
 - Other:
 - WHO Europe Environmental Noise Guidelines – clarity on the study and how FAA is potentially incorporating it into their studies moving forward
 - Metroplex Airports – Requesting that the GAO study of FAA noise programs should include other airports, not just Metroplexes
 - High Speed Rail and other options to address growing demand for travel

Schinfeld stated that the Work Plan also includes topics from the Aviation Noise Working Group's Work Plan. He also noted that the Work Plan is a living document that will change over time as StART continues to engage in discussions. The current Work Plan reflects the input and priorities of all six jurisdictions that have been part of StART. The FP Working Group will follow the schedule in the Work Plan unless there are factors that arise that impact its execution.

Part 150 Study Panel Discussion

Mary Ellen Eagan, HMMH

Stan Shepherd, Port of Seattle

Cayla Morgan, FAA

Janell Barrilleaux, FAA

Mary Ellen Eagan, an independent consultant from Harris Miller Miller & Hanson (HMMH), who is a national expert on Part 150 Studies, provided an overview of the history, purpose, components, and process of a Part 150 Study. She noted that the legislation defining Part 150 studies is more than 30 years old and has been revised multiple times. She stated that a Part 150 Study is a voluntary program that airports undertake primarily because they are interested in improving land use compatibility around an airport. She reviewed the phases of a study that include: first determining the scope, goals, participants,

and schedule of the project; then data collection followed by developing a noise exposure map that represents current conditions and 5-years into the future; and finally, produce a noise compatibility program that determines appropriate mitigation within the 65 DNL area. She stated that a Part 150 study typically takes 1-3 years to complete.

She reviewed some differences between a master planning process and a Part 150 Study and how data from a master planning process can dovetail with a Part 150 Study. She noted that if an airport is undergoing a master planning process and elects to undertake a Part 150 Study, that the Study typically utilizes data from and follows the master planning process.

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

Stan Shepherd, Port of Seattle, described the Port's sound insulation program. He reviewed the eligibility requirements, how those are determined and constraints on the program based on FAA requirements and State law. He shared data on the implementation of the program and the timetable for additional insulation projects. He shared some details about the program and its implementation including:

- The Noise Remedy Boundary takes the noise contour generated by modeling, and modifies it to follow roadways, natural breaks, and other areas, so line does not cut through homes, etc.
- Avigation easements are permanent. Port is aware that some building materials degrade over time, but the FAA does not currently fund and State law does not allow for second insulation of structures that have already been insulated.
- To qualify for the program, homes must be built before 1987, or 1986 in Des Moines, due to cities revising building codes requiring builders to meet or exceed the FAA standards in new construction.
- There are approximately 140 homes in the noise contour that are potentially eligible and have not yet been insulated. The individuals coming into the program now are typically new homeowners. Information has been sent to all 140 homes, and 48 applications have been received so far. Of those, about 7 did not qualify because of the year the home was built. 34 of the remaining homes qualified for insulation after sound testing was conducted (7 did not qualify). 9 homes have been completed this year, with more homes starting in September. 16 homes remain eligible and waiting on homeowner participation.
- FAA pays 80% of eligible construction related costs with the Port paying 20%
- The program is now focusing on condominiums consisting of 3 complexes with approximately 133 units. Firms have been hired to inspect complexes. Insulation is due to be completed by 2021.
- 18 potentially eligible apartment complexes (877 units) have been identified. The Port will conduct a pilot project on one building in 2022.
- Seven places of worship have been identified that may be potentially eligible for sound insulation.
- The South 3rd Runway Approach Transition Zone is an area off the end of the runway protection zone. There are approximately 16 single family homes and six apartment buildings in this area that may be voluntarily purchased by the Port.

After the presentations, the panel members including Cayla Morgan and Janell Barrilleaux from the FAA, answered questions asked by StART participants and covered topics including how Noise Exposure Maps are developed, the role of noise monitors in Part 150 studies, and the regulations surrounding homeowner noise insulation.

Questions from StART participants included:

- If the FAA grant funding cannot cover re-insulation, or repair, is that something that can be done with other funds?
 - *Response:* No, state law considers that a gift of public funds.
- Has the policy of insulating the interior of homes to achieve 45 DNL been in place for a while, or is this new?
 - *Response:* It has been a policy with the FAA for several years.
- Who pays the other 20%?
 - *Response:* Airport revenue.
- Some of the people that have the biggest complaints live in areas that are zoned commercial/industrial (non-conforming use) – Is there any anecdotal input for actual use? Is that considered?
 - *Response:* Yes – those are counted in existing compatible land use, which would identify properties that are inconsistent with the surrounding zoning.
- When would the environmental reviews/components be conducted within the Part 150 Study?
 - *Response:* Actions that are a result of a Part 150 would be identified for further environmental reviews, as needed. Specific reviews would be conducted independently of the Part 150 Study but prior to the implementation of each action.
- There have been complaints about the speed of the home insulation program. Why can't more houses be done sooner?
 - *Response:* The process includes hiring a contractor, hiring an architect to identify the best approach for noise reduction (windows, doors, chimney caps, etc.) and obtaining the products. Due to the limited number of manufacturers, delivery of products can be delayed. Speed is also determined at the rate homeowners apply for the program.
- One of the criteria is that homes must be built prior to 1987 to qualify for the sound insulation program. Are you saying that homes built after this year do not qualify?
 - *Response:* Correct- homes built within the program boundary after 1987 are required to meet city building codes that achieve similar sound level reductions.
- Based on interactions with community members, this doesn't seem correct. There may be homes built after 1987 that were not built to standard. I would recommend that the cities and/or Port consider assessing the situation and consider making exceptions to that aspect of the criteria.
 - *Response:* Building codes were enacted by the local jurisdictions (1986 in Des Moines and 1987 in the rest of King County) that either met or exceeded the noise reduction standards that the FAA requires. These standards were meant to ensure that any new

development would be constructed airport noise compatible. The FAA also has a policy that any structure built after October 1, 1998 is not eligible. The October 1, 1998 date is based on the FAA Final Policy on Part 150 approval of Noise Mitigation Measures.

- Was there a provision in the FAA Reauthorization Bill that was looking at secondary insulation?
 - *Response:* There was one in an early draft but that item did not make it into the final FAA Reauthorization Bill. This is an issue shared by many homeowners near airports around the country.
- There is no mention of the devaluation of homes within the 65DNL contour. Have you encountered this in other cities?
 - *Response:* As part of a Part 150 study? No. there have been studies about noise and property valuation, but the findings have been inconsistent as change in valuation often is caused by other factors.
- A Part 150 Study is limited to noise – is there any way this could be expanded to particulates?
 - *Response:* Not without Congressional action.
- Part 150 Studies are fully voluntary, but is there anything that can make it mandatory?
 - *Response:* There have been one or two Part 150 Studies that have been required as part of a record of decision for environmental studies, but otherwise, they are fully voluntary and it is up to the airport to decide whether to do one. The FAA may not continue funding for insulation programs if a Part 150 is not up to date.
- What is the relationship between noise exposure maps and the Part 150 study?
 - *Response:* A Part 150 Study results in two components – a noise exposure map, and noise compatibility program that outlines implementation. Noise exposure contours are often developed as part of other studies such as with a NEPA study. The FAA can require noise exposure contours, but these do not have the same full detail (land use, etc.) as a noise exposure map for a Part 150. The NEPA study conducted for the Sustainable Airport Master Plan will include the current 65 DNL noise exposure contour, but will not include the full Part 150 Noise Exposure Map. Sometimes airports will also generate contours as part of master planning, then revise/update those when they conduct the formal study, to make sure it's current.
- The Port has 24 noise monitors at the airport, how can the data for these be used in a Part 150 Study?
 - *Response:* The FAA does not allow noise monitor data to impact contours, but the data can be used to confirm the model. Noise measurements can have less accuracy than what is used in the development of the noise model. Predictions from the noise model can be looked at and compared to collected data, but the data can't be used as model input. Sometimes there is noise corruption at noise monitors, such as community noise events that can be captured/recorded as aircraft noise.

- Since the FAA can change flight paths, how do you determine the impacts of one community versus another?
 - *Response:* Whether it appears to be the case or not, the FAA’s policy has never been to shift noise from one community to the next.

- Do all large airports conduct Part 150s, and if so, how often?
 - *Response:* Most large airports conduct Part 150 studies; although, some large ones do not. Port of New York/New Jersey are engaged in their first one now. Miami has not done one. They may have done noise mitigation, but they have not conducted a Part 150 Study. A few airports were able to document programs, meet requirements, and receive federal funding without going through the process. In general, most large airports have though. 275 airports participating in the AIP program, \$107M has been spent in studies, \$5.9B has been spent on mitigation.

The FAA panelist concluded the panel by responding to the concern that the airport’s Part 150 Study is out of date and that it will be a few years before the next Part 150 Study is undertaken. The Port and the FAA recognize that operational levels have increased since the last Part 150 Study. The FAA and Port have worked together to determine how best to address this. They are considering waiting until the updated forecast is approved by the FAA; reviewing the contours run by the consultant for the assessment; and comparing the contours and data to the 2018 contour to see if there is an increase over non-compatible uses. Next, they will determine if it’s prudent to then start the Part 150 . The FAA wants to make sure they have good data through the updated forecast to make decisions.

Public Comment

Compiled public comment are included here as Appendix A.

Meeting Wrap Up

Lance Lyttle, Port of Seattle

Lyttle restated an apology for the Port’s oversight of not informing cities prior to the July Commission meeting and vote. He expressed the hope that the cities who have temporarily suspended their membership in StART will rejoin. Lyttle thanked all participants and the public for taking the time to attend and participate.

Next Meeting:
October 23, 2019, 6:00 pm – 8:00 pm
Location: *Conference Center Sea-Tac Airport*

APPENDIX A

Summary of Public Comments

- Marianne Markkanen (SeaTac) (oral comments):
 - Shocked that Burien and Des Moines have suspended their involvement in StART. Expressed appreciation that SeaTac participants are still involved. Those who are currently deciding not to participate were instrumental in the beginning of this group and developing all the projects that are on the work plan of the working groups.
 - Commented that she is one of the homeowners that have been rejected from the sound insulation program due to when her house was built in 1999. She was not warned by her realtor. The house was purchased before the 3rd runway was built.
 - Stated that the level of noise in her house is astounding. She is paying for exterior house cleaning due to all of the residue on the siding from particulates.
 - Stated that she experiences plane traffic every minute.
 - Stated that her home valuation was lowered by \$18,000 as a result of noise.
 - Thinks that not allowing a house built after 1987 to qualify for the sound insulation program is not appropriate and that it is a crime that the FAA does not have enough money to fund more insulations. Suggested there should also be an appeals process, so there can be an evaluation of individual homes.
 - Expressed that she believes it is a disgrace that sound insulation was completed in only nine homes in 2018.
- David Goebel (Vashon Island) (oral comments):
 - Commented that the Vashon area is very rural and attracts a community that prefers quiet and is averse to noise.
 - One of only two PBNs are on top of Vashon Island. Flight tracks that used to be spread out, are now directly over them, within a plane's width.
 - Commented that the intention is that these planes would transition through Elliott Bay, but there were no PBNs on the east side; therefore, the conventional approaches on the east side do not mix well. So, they get to 6000 feet and level off, because they have nowhere else to go. In the past, the planes had a better descent than they do now with greener skies.
 - Stated that what is happening is that instead of decreased noise there is more carbon emissions and more noise. There have been no studies after NexGen to evaluate the impacts of these new flight patterns. Recommended that it is important that in the scoping of SAMP that the Port consider the cumulative effect. Now with flight track data, actual data can be used for evaluation.

APPENDIX B

StART TALKING POINTS – 8/29- LANCE LYTTLE

- I want to thank everyone for coming this evening, especially right before a holiday weekend. Your participation is greatly appreciated.
- I would like to make a few comments before we begin tonight's formal agenda.
- My intention in forming StART, in close collaboration with your city representatives, was to provide a forum for community input and action, with stakeholders from all parties at the table working to address current operational concerns.
- Because of the cities', the air carriers', and the FAA participation, we've taken some good first steps. There is more to do, and we value the contributions made toward constructively addressing the concerns of the communities.
- Knowing that this is a sensitive topic, we again wish to apologize about the lack of timely notification regarding the Commission's recent action to approve preliminary design funding related to certain projects within the Sustainable Airport Master Plan (SAMP) Near-Term Projects (NTP). The oversight was not intentional, and we remain committed to prompt communication with airport-area communities on SAMP-related and other relevant issues.
- Preliminary design funding is a practice for local jurisdictions – including your own – to do limited planning work so that a decision to proceed, or not, is more informed. We understand your concerns about the SAMP Near-Term Projects and look forward to engaging you fully in the upcoming public comment periods.
- In fact, the Port will begin a new communication to the Highline Forum members in advance of each Commission meeting, highlighting what is on the upcoming agenda and a short explanation of the item. City managers and administrators will have it in advance of the meeting and can include it in a weekly report, if that is of interest.
- Port Commission agendas are always published Thursday in advance of each meeting; that will continue. This proactive communication is to provide more assistance in flagging possible items of interest.
- I want to take this opportunity to clarify exactly which five SAMP-related projects preliminary design work was approved for:
 - Design work for a **permanent fire station on the west side of the airfield**, so that we can get to west side emergencies more quickly;
 - Design work for a **maintenance facility on the west side of the airfield**, consolidating with services already located in that area;
 - Design work for the **main terminal Ground Transportation lot**, to better manage the TNCs, taxis, limos and other vehicular congestion entering the garage;
 - Design work for the **southbound lanes of the North Airport Expressway**, to identify congestion points related to widening the Arrivals roadway deck; and

- Design work for **Taxiway A/B improvements**, which would necessitate moving the glideslope antenna and allow for a glideslope change to 3.0 degrees or higher as recommended by StART.
- I am disappointed that some StART members have used the Port's communication oversight on the SAMP Near-Term Projects as a justification to pull away from the StART process and to make broader statements about the transparency, commitment and character of the Port and its staff.
- Trust is a two-way street, and I was glad to see it referenced in some of the communications we received from the cities voting to suspend participation. Working together, we have focused on problem-solving with conversation and creativity. I am committed to being a good partner, and I will continue to work to earn and keep your trust. However, as I stated, trust is a two-way street. I have seen some StART community representatives repeatedly not operate in good faith as members of the roundtable and in accordance with the agreed-upon operating procedures.
- My view is that we can work together to find ways to coexist in a mutually beneficial way. I welcome a conversation about how we can form true partnerships toward real outcomes, with all parties held to the same standards.
- Our commitment to productive engagement is more important than any single frustration or slight. That is why the work identified through StART needs to continue. I believe we have done good work here.
- I look forward to engaging with all parties about the best way to work together. We are open to how we can move ahead, and we will be meeting with each of the cities individually.
- Burien, Des Moines, and Federal Way are all welcome to rejoin the conversation at the table, with a renewed and shared commitment to the goals of StART and the process by which we have collectively agreed to operate.
- Collaboration and partnership are what result in achievement. So again, I say thank you for your commitment and participation in helping to improve conditions for the South King County communities around the Airport.
- With that I'll turn it over to Phyllis.

APPENDIX C

WRITTEN STATEMENT PROVIDED BY ERIC ZIMMERMAN,

StART Community Representative, City of Normandy Park

In recognition of the airport's direct and growing impact on the Seattle metro area, START was founded to offer diverse airport stakeholders a forum to discuss issues, conduct learning, develop shared understandings, identify problems, and, where possible under federal law, explore solutions.

The Port, FAA, airlines, and city professional staffs have voluntarily participated in good faith, engaged significant staff and budget resources, and where allowed by federal law, have shown both willingness and eagerness to explore any changes, which are likely to benefit airport-impacted communities. It is recognized that these changes would be incremental and not transformational-- the only type of change currently possible without action by Congress, but still worth pursuing. As an aggregate, multiple incremental changes seem likely to achieve tangible positive benefit for communities -- and a small positive change is better than none at all. In addition, partial and incremental mitigation of future negative changes seems very viable within the START model.

Absent transformational legislative action by Congress, incremental changes are also the only close-in community changes, which are legally viable. Any city which votes to discontinue a collective pursuit of positive incremental changes, so that unrealistic changes or disruption to airport use can be emphasized, risks increasing harm to their community instead of finding ways to decrease it.

The Pacific Northwest depends on SeaTac airport for its positive impact on economic activity, jobs, and overall future. Another regional airport is needed, but, so is SeaTac, and great regional economic harm would occur through restrictions on demand-driven use of the airport. Moreover, no such restrictions are legal.

I ask START members to embrace the process and return to the table to pursue collective incremental changes and mitigation which offer a strong chance of achieving positive community impact, until such a time as Congress provides a legislative framework for additional regulation of airport noise and pollution. As well, I challenge START participants to use the forum to educate their communities on what changes are and are not possible under federal law.

APPENDIX D

StART FACILITATOR'S MEETING SUMMARY
Aviation Noise Working Group
Monday August 12, 2019
5:30 – 7:30, Conference Center SeaTac Airport

Attendee	Interest Represented
Mark Hoppen	Normandy Park
Tejvir Bashra (phone)	SeaTac
Eric Zimmerman	Normandy Park
Jennifer Ferrer-Santa Ines	Normandy Park
Jennifer Kester	City of SeaTac
Bill Vadino	Federal Way
John Reising	Federal Way
Stan Shepherd	Port of Seattle
Marco Milanese	Port of Seattle
Robert Tykoski	Port of Seattle
Clare Gallager	Port of Seattle
Tom Fagerstrom	Port of Seattle
Scott Ingham	Delta Airlines
Chris Schaffer	FAA
Vince Mestre	L&B

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Other Attendees: Commissioner Fred Felleman; Lance Lyttle, Arlyn Purcell, Alex O'Brien, Port of Seattle; Steve Alverson, ESA Airports (phone)

Meeting Objectives

To provide updates on actions in the Rolling Work Plan including the Noise Abatement Departure Profile Noise Analysis. To receive a demonstration on Sea-Tac Airport's new noise comment system. To discuss and resolve a number of process issues brought up in the Working Group.

Meeting Summary

Introductions

Commissioner Felleman expressed appreciation for participants and their efforts. He stated that he is impressed by and supportive of the work that has been done through StART.

Lyttle notified the group that the Cities of Buren and Des Moines have temporarily suspended their participation in StART. He emphasized that his hope is that they will rejoin StART. Lyttle mentioned that he is appreciative of the time/effort/work that has been done so far, and hopes the participants from the other cities will remain, and continue the good work that will benefit all surrounding communities.

A StART member stated they he also is appreciative of the opportunity that StART provides to cooperate and that he supports the ongoing work and progress made so far, and will continue to participate in the progress that has been made. This member emphasized maintaining realistic expectations of what can be accomplished in the near term and what requires longer-term legislative changes. A different StART member disagreed with that perspective.

Updates on Implementation on Draft Rolling Work Plan:

Late-Night Noise Limitation Program

Marco Milanese, Port of Seattle

- Program is live as of July 1, 2019. Noise statistics are being collected from the four noise monitors. Data will be reported quarterly, with the first report out in October.
- The Working Group will be updated on how information is reported out to the airlines and the public. The Late-Night Noise Limitation Program has a webpage that provides additional information.

Revised Runway Use Agreement

Stan Shepherd, Port of Seattle

- The first runway use agreement between the Port and FAA was put into effect in 2009. Through discussions at the Working Group meetings StART participants recommended revising the agreement, for the purpose of reducing the use of the 3rd runway during the late-night hours
- The FAA identified one issue with the revised agreement, which if maintained would trigger an environmental review, as it would be considered a change to operational procedures. The language was related to the north flow preferential use during nighttime hours. If the Port wanted to maintain the inclusion of this language, then the FAA process for assessing the Revised Runway Use Agreement would take about a year in order to perform the environmental review. Port staff stated that their recommendation to the Working Group was to remove the text that would trigger the review in order to expedite implementing the revised agreement. It was stated that the text regarding the north flow preferential use could be worked on as part of a separate process with a longer time frame. Guidance on this issue was requested from the Working Group. There was no objection to going forward in this manner.

Glide Slope Adjustment

Robert Tykoski, Port of Seattle

- The Port has received Commission approval to enter into a reimbursable agreement with the FAA to further the planning associated with the glide slope relocation.
- Stated that it will take about four years to implement. The design process for the adjusted flight procedures is the primary time driver.

Discussion and questions included:

- What is the length of time to implement? Originally, recalled implementation was expected to be 2-3 years.
 - *Response:* The timeline for the procedure development and design is 2-3 years with full implementation closer to 4 years.
- Can this timeline be expedited?
 - *Response:* Likely not, as that is the time required to design and publish a revised procedure. The Port is already doing what they can to expedite the process and will continue to see if they can identify other ways to speed up the timeline.

Updates on Implementation of Noise Abatement Departure Profiles Noise Analysis

Steve Alverson, ESA

Alverson provided an update on the Noise Abatement Departure Profile (NADP) Noise Analysis. The update included:

- ESA is underway with their scope of work.
 - The first step in the process is surveying the airlines to know the profiles they are currently using, so ESA can model the difference between the Distant NADP and the NADPs the sample airlines are flying.
 - Five airlines have been surveyed.
 - The NADP analysis is focusing on the 737-800, as it is the predominant aircraft flown at Sea-Tac.
 - Have received responses back from United and Southwest so far.
 - Have also heard from others that they are working on compiling information and will provide their responses by the August 15th deadline.
 - Next steps include summarizing the information received, and then modeling the departure profiles to see how they compare to each other, and if there is a preference for one over the other.
 - Results will be summarized by 8/30, and they will then begin modeling noise exposure, with preliminary results by 9/9, and final results by 9/30.
 - Assuming schedule is maintained, Steve will be at the October StART meeting to present results.

Discussion and questions included:

- Will the analysis consider if changes in departure procedures will affect other procedures, and how that would be resolved?
 - *Response:* This is not included in the current scope, but typically proposed procedures will be within the same range. Looking at effects would be the next phase, if procedure changes would be broadly implemented. The initial plan was to first identify if there were benefits from any of the procedures, and then do additional analysis, if necessary.

- If this is a long-term process, would it make sense to include evaluation of the 3rd runway at the same time, in case that it's use may change?
 - *Response:* If there is a benefit to procedures identified, they could be applicable to any runway. The extra step is identifying the population that could possibly be impacted or benefited. Alverson will attempt to evaluate this under their current contract. Mestre added that there could be conflicts with a potential step-down procedure, which may have a near-term effect, but could change over time if the FAA decides to implement any additional Next Gen approach procedures.
- How is the noise reduction quantified?
 - *Response:* The analysis will look at single-event noise contours from each procedure and look at the changes. It will also look at grid-points along the centerline of each procedure to see how noise is changing and where residences are in reference to those contours.
- Recommendation by a StART participant that the evaluation specifically include impact on number of people, not just land use. It was noted that this is an equity and social justice issue, so it is important to consider and understand.
 - *Response:* ESA's current contract is not scoped to count people, but census information can be used to get rough estimates in population.

Ground Noise Study

Stan Shepherd, Port of Seattle

The overview included:

- Final interviews were held last week with potential consultants to conduct the study. A preferred consultant has been selected and the contracting process is underway. The expectation is that the contract will be finalized within a month and there will likely be a briefing at the October Working Group meeting.
- The purpose of the Ground Noise Study will be to identify ground noise emanating from the airfield, and then to identify options or opportunities for noise reduction.

Discussion and questions included:

- Is there a plan to keep Burien and Des Moines updated as things move forward? StART participant stated that it is important to keep cities updated who are temporarily suspended, even if representatives are currently not participating.
 - *Response:* It was stated that reports would continue to the Highline Forum as well as the larger StART group. Meeting summaries are posted on StART's website. Port staff responded that they will consider how best to conduct outreach to the cities who suspended participation.
- Is there an update on the taxiway procedure test?
 - *Response:* The FAA is still considering the pilot test and had stated that the fall is a more likely time for a pilot. Also, because it is a change to air traffic control, it requires union negotiation, which takes time. Both Delta Airlines and Alaska Air Lines are supportive of the pilot. Port staff indicated that it might be possible to record noise data to better understand the noise benefits of the procedure.

Sea-Tac Airport's New Noise Comment System Demonstration

Alex O'Brien, Port of Seattle

Alex provided a demonstration of the new noise comment system including an initial overview of the types of reports and data that can be generated from the system. He solicited feedback and recommendations on the type of reports and data of interest to the working group. Highlights of the demonstration included:

- The system is integrated with the Port's current flight tracking database and is used to manage comments and provide a response as quickly as possible.
- The mobile app download instructions, online comment form and contact phone number can be found at: <https://www.portseattle.org/page/submitting-comment-airport-noise-programs>
- Includes a mobile app that can be downloaded from the Port's website.
- Internal reporting data was displayed. Data can be sorted by city .
- Data can also be sorted by who is making the comment – top commenter has over 3,000 in current data set (since July 11, 2019).
- Data can also be sorted by location of comments.
- Two big technology changes have affected the number of comments – the Airnoise.io button and other mobile apps.

Discussion and questions included:

- Can cities request specific data to be provided?
 - *Response:* Yes
- What kind of analysis does the Port expect to conduct based on the information being collected?
 - *Response:* Looking for trends, reviewing flight paths, and trying to identify unusual issues that may be causing the comments.
- Can the analytics become useful for the FAA to help them identify potential future changes to flight patterns?
 - *Response:* The goal of this system is comment management and response. Comments are not used by the FAA as an analytic to change flight patterns.
- What information would be most useful to StART?
 - *Response:* There can be recognizable patterns and collecting the data may be useful.
- Can the system report the number of people commenting instead of the number of comments?
 - *Response:* Yes
- Has Port Noise Programs ever considered showing some of this data to the public to show greater transparency?
 - *Response:* The system is only a month old, but Port staff will discuss the possibilities.

City representatives stated that there is information that could be helpful to them including number of comments per city or zip code, number of people complaining, and number of complaints per person. Reports could be sent to cities or made available on the website. Port staff responded that they would

prepare some sample reporting data and share it at the October Working Group meeting. Staff will provide some options for discussion at the meeting. Port staff requested that Working Group participants provide any ideas on what information they would like provided. Ideas can be provided by email to the facilitator. Cities also have the option of filing a public disclosure request for data.

Working Group Process Discussion

Phyllis Shulman, Facilitator

Shulman surveyed Working Group participants for other near-term or mid-term action items or issues that the Working Group may want to add to the Work Program. Shulman stated that most of the items initially identified by StART are currently being worked on, or have shifted to the Federal Policy Working Group. It was requested that any additional potential issues be brought up for discussion at the October meeting. A Working Group participant commented that one priority issue is health and ultra-fine particulates as well as the health effects of noise. Shulman reminded the Working Group that health was identified as a priority during the 2019 StART prioritization process. It was requested that the Working Group continue to have updates on the taxiway study as well as an update on whether the FAA is meeting their deadlines related to the FAA Reauthorization Act. It was requested that the work of the Aviation Noise Working Group and the Federal Policy Working Group be sure to be coordinated. It was requested that an update on the Q-320 whistle noise be provided at the next Working Group meeting.

Working Group Process Issues

Phyllis Shulman, Facilitator

Shulman discussed a number of Working Group process issues that were brought up in a previous meeting.

Use of Consultants

- Cities can request to have their own consultants participate in presentations. They would be responsible for financing their involvement. The city making the request would be responsible for providing information on the purpose of the consultant's involvement, the nature of their expertise, and contact information for the consultant. The Port will make the final determination regarding their involvement.

Audiotaping Working Groups:

- Shulman stated that Working Group meetings would not be audiotaped. Currently, relationships are in a low-trust state. It is important that participants can engage in open conversations without concern that comments will be utilized out of context or misused. Audiotaping in low trust as well as litigious environments diminish involvement. StART is striving to change the nature of interactions from adversarial to cooperative.

Future Meetings Dates/Times:

Next meeting: October 7, 2019, 5:30 pm -7:30 pm, Seattle-Tacoma International Airport, Room 4A

APPENDIX E
StART FACILITATOR'S FEDERAL POLICY MEETING SUMMARY
Monday, July 8, 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	X
Sheila Brush	Des Moines Community Member	X
Jennifer Ferrer-Santa Ines	Normandy Park Finance Director	-
Earnest Thompson	Normandy Park Community Member	X
Kyle Moore	SeaTac Government Relations and Communication Manager	-
Robert Akhtar	SeaTac Community Member	X
Larry Cripe	Burien Community Member	X
Steve Edmiston	Des Moines Community Member	X
Lyndall Bervar	Congressman Adam Smith, District Rep	X
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	-
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	-
Emily Jackson	Note taker, Floyd Snider	X

Additional Participants:

Yasmine Medhi and Jessica Mulligan, Office of U.S. Representative Pramila Jayapal (D-WA);
Amanda Wyma Bradley, Office of U.S. Representative Adam Smith (D-WA)

Meeting Objectives:

To discuss information shared by the FAA. To continue to discuss the FAA Reauthorization Act and new legislation priorities. To provide feedback on the Draft Work Plan for the Working Group.

Meeting Summary:

Introduction of new DC staff for Representative Smith and Representative Jayapal

Eric Schinfeld, Port of Seattle – Federal Government Relations

Jessica Mulligan, Office of U.S. Representative Pramila Jayapal

Amanda Wyma-Bradley, Office of U.S. Representative Adam Smith

Yasmine Medhi, Office of U.S. Representative Pramila Jayapal

New staff from Representatives Smith and Jayapal introduced themselves and their respective work in initiatives related to transportation and aviation. The staff stated that Congresswoman Jayapal had an amendment that was passed by the House of Representatives as part of the FY2020 transportation appropriations bill. This amendment would transfer \$2 million to fully fund items from the 2018 FAA Reauthorization Act related to Subtitle D - Airport Noise and Environmental Streamlining. It will ultimately be up to the agency how they use the money, but Congress can hold them accountable via this directive. The staff stated that Congressman Smith has two aviation bills, one that has already been introduced and a new Aviation Impacted Communities Act that will be introduced soon.

StART members shared perspectives, concerns, and recommendations including:

- The focus of these initiatives should be on health impacts broadly, not just noise.

Debrief of FAA Presentation at June StART Meeting

Eric Schinfeld, Port of Seattle

Working Group Participants

StART members shared perspectives, concerns, and recommendations related to the FAA presentation at the June StART meeting, including:

- Several participants felt the information provided by the FAA did not appear to be new, and would have liked the FAA to provide the presentation further in advance in order to pre-brief and support relevant questions.
- The participants had a general consensus that the FAA should consider the results of independent studies in their research, including those conducted by the WHO. They would also like to see the results of the 2017 survey of noise annoyance.
- One participant felt the amount of research taking place appeared to be fairly extensive, particularly with regards to runway use and reverse thrust, and that these studies could be used to develop impactful interim actions/operational changes.
- One participant was concerned about Section 174, what it means for the new noise maps, and future Part 150 updates.

The Federal Policy Group discussed the following goals for the group related to the study:

- Request that the FAA provide a formal response to the WHO Europe noise study, .

- Request the FAA to release the results of the 2017 survey of noise annoyance along with related policy guidance.
- Work to find and secure federal grant dollars for the Port to apply toward implementing impactful interim actions.

Update on FAA Reauthorization and New Legislation Priorities

Eric Schinfeld, Port of Seattle

Working Group Participants

Revised draft priorities were presented to the Working Group (attached) related to the FAA Reauthorization Bill, along with priorities for the group related to existing proposed legislation and ideas for additional policies not covered in existing proposed legislation. Participants discussed whether these were still the priorities that the group would like to recommend congressional representatives work on. The group discussed whether they should limit themselves to these priorities or if they have capacity for more items. The group discussed moving forward with drafting additional policies for legislation.

Federal Advocacy Work Plan Draft

Eric Schinfeld, Port of Seattle

Working Group Participants

The group was presented with a draft work plan identifying issues, topics, goals, and steps for the priorities the group has selected (attached). Participants discussed ideas and strategies for advocacy. These strategies included:

- Working with a national coalition (including partners at the Boston round table and other cities) to gain congressional support for bills. For Section 189 this could include making sure that the intent of the legislation is not missed and that studies are carried out for all cities named in the legislation.
- Requesting a congressional assessment on whether the proposed bills will pass, along with a timeframe for implementation after passing.
- Direct engagement with high-level decision makers at the FAA.
- Engaging with Congress on what mitigation ideas would be allowed under Section 190.
- Discussion of the GAO letter, whether it applies only to metroplexes, and whether an additional letter for single sites is needed.

Next Steps

- Eric will draft initial thoughts about possible new legislation based on the issues that have previously come up from the group for consideration.
- Eric will update the Federal Advocacy work plan matrix to incorporate suggestions from the group with a focus on the FAA bill, new legislation, and engaging with Congress to speed up operation of near-term items.

Next Meeting:
Monday, August 5, 2019, 5:30 pm – 7:30 pm
Location: SeaTac International Airport, Room 4A

**FAA Reauthorization Act of 2018 Relevant Noise Provisions
(checkmark represents Federal Working Group priorities)**

- **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. 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”.]**

IN PROCESS:

- **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]**

OTHER:

- **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. 186, which would initiate a review of the potential benefits, costs, and other impacts that would result from a phaseout of covered stage 3 aircraft. [Must be started by 4/5/19 and completed by 4/5/20]

2019 Federal Noise Legislation

- ✓ **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.
- ✓ **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.

OTHER ISSUES FOR CONSIDERATION:

- Secondary noise insulation packages
 - 65 DNL noise contour
 - Flexibility for airports/local communities to address specific impacts
 - Increased funding for existing federal noise programs
 - Incentivizing alternative transportation options
-

StART FACILITATOR'S FEDERAL POLICY WORKING GROUP MEETING SUMMARY

Monday, August 5, 2019

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

Member	Interest Represented	Present
Terry Plumb	Burien Community Member	-
Michael Matthias	Des Moines City Manager	-
Chris Hall	Federal Way Community Member	X
Brian Wilson	Burien City Manager	X
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
Bill Vadino	Federal Way	X
Larry Cripe	Burien Community Member	X
Steve Edmiston	Des Moines Community Member	X
Lyndall Bervar	Congressman Adam Smith, District Rep	X
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	X
Adam LeMieux	Office of Congressman Rick Larsen	-
Louise O'Rorke	Office of Sen. Maria Cantwell	X
Eric Schinfeld	Port of Seattle, Sr. Manager, Federal & International Government Relations	X
Resources	Title	
Stan Shepherd	Port of Seattle, Manager of Noise Programs	X
Arlyn Purcell	Port of Seattle, Director of Aviation Environmental Services	X
Consultants		
Emily Jackson	Note taker, Floyd Snider	X

Additional Participants:

Amanda Wyma-Bradley, US Office of Rep Smith, phone
 Jessica Mulligan (US Rep Jayapal)

Meeting Objectives

To provide feedback on draft legislation from U.S. Representative Adam Smith. To finalize the Work Plan for the Working Group.

Meeting Summary

Feedback on Aviation Impacted Communities Act

Lyndall Berver, U.S. Representative. Adam Smith

Amanda Wyma-Bradley, U.S. Representative Adam Smith

Staff from U.S. Representative Adam Smith's office gave an overview of the bill that Rep. Smith is preparing to introduce. They discussed that there are many different stakeholder groups interested in the bill including the Beacon Hill neighborhood that is interested in being eligible for noise mitigation. The bill identifies a process for communities to be eligible for "designated communities status". The bill creates a provision for a designated community to select a community advisory board that has to authority to identify studies, which can be used to develop a noise mitigation action plan for the community. It also provides funds for mitigation. Feedback was solicited from StART Working Group participants.

Feedback and questions from StART participants included:

- The word "jet" is not broad enough and should be changed to "turbo powered aircraft".
- Who sets parameters and limitations for mitigation? City of Sea-Tac's #1 priority is improved mitigation options.
 - *Response:* It is up to the communities and the community board to identify mitigation options. 55 DNL and above will be the baseline for eligibility.
- Concern about Vashon and how they will be covered.
- What form will FAA's rationale take if the FAA determines that community advisory board recommended mitigation measures will not be effective and won't be used?
 - *Response:* No decision has been made, but agree more concrete language needs to be included.
- Clarify the definition in who is covered in Section.7-2
- How will this compel the FAA to release their 2017 study?
 - *Response:* Rep. Smith is considering changing the language to identify the National Academy of Science as opposed to FAA study.
- Consideration of international studies should be included in the bill.
- Add a provision to the bill to add city manager/administrator/designee to community boards to ensure that the city voice is heard. Also, need a provision for elected officials to participate in providing input.
- Mitigation funding for loss in home value should be included – i.e. if home values decrease by some percentage (say 15%) an arbitration claim could be made in compensation.
- Suggest a stronger community voice for representatives/flexibility to have elected officials, community stakeholders, citizen experts, and city managers. Language should be clear on the process for deciding who participates on a community board or define who may sit on committee so that all parties may be included. Language in new law for state process for small airports could be used as a model.
- How are communities defined? Neighborhood versus cities. Too many communities could cause administrative headaches.
- Airport advisory committees exist for several local communities (Burien, SeaTac, Des Moines)
- FAA is often a non-verbal member. How will the FAA participation be defined?

- Burden needs to be shifted to the FAA to respond to community's interests by changing language to "shall" for implementation of suggestions. Usually burden is on the community.
- Port of Seattle indicates that they want to be supportive of communities and address their concerns. Concern about FAAs ability to provide funding for so many communities if the legislation remains so broad. Administrative concerns about too many community boards. Concern that organized communities could shift flight paths to communities that have not organized themselves. This could result in moving the burden of impacts rather than solving problems.
 - *Response:* They could consider reducing who is included in the legislation to only major airports. But, eliminating smaller rural airports may also shrink the number of allies in Congress.
- Agree that only major airports should be included, otherwise this is too complicated. Address most impacted communities first, otherwise could pit communities against each other.
- Focusing on major airports would allow funding to go further with the most impacted communities.
- Suggest adding to legislation the creation of a flight tax per passenger and something similar per cargo plane.
- Suggest reviewing and possibly utilizing Congresswoman Jayapal's language to define airports/regions.
- Recommend adding a mechanism for resolving disagreement or confusion within community advisory board recommendations. Consider adding a neutral party or facilitator for dispute resolution.

Congressman Smith's staff requested that any additional feedback/comments from StART be provided to their office by Friday, August 23rd, as a first deadline, so they may be incorporated in an early draft. Next steps included finalizing the draft in the Fall and providing a preview to the Working Group before being introduced. The date of introduction is not known at this time.

Review of Updated Federal Advocacy Work Plan Draft

Eric Schinfeld, Port of Seattle

Schinfeld provided an overview of the Working Group's Draft Work Plan. The Work Plan reflects previous Working Group decisions about priorities and where they would like to focus their engagement. The Work Plan identifies the topics/issues and the process steps. Feedback on the Draft Work Plan was solicited.

StART participant comments included:

- GAO letter can be used to get some quick wins along with accomplishing long term goals

The Working Group agreed by consensus that the items in the Work Plan reflect their interests and that they are ready to move forward with the items listed. There was acknowledgement that additional items may be added to the list in the future.

Schinfeld provided an overview of the general steps for advocacy. These included:

- Step 1. Communication by letter
- Step 2. Coalition building

Step 3. Direct engagement with DC and FAA (by phone and in person)

Step 4. Introduce Legislation

Step 5. Getting FAA decision makers in the room

Discussion focused on comments related to the process steps for the Work Plan. Comments included:

- Identify the responsible parties for carrying out the steps.
- Identify how local and state elected officials will be included.
- Provide an opportunity to review and provide feedback from the larger StART group.
- Recommend looking at how other communities are advocating to the GAO for their needs. Identify how to reach out to other airport roundtables. Sheila Brush will send the John F. Kennedy Airport group's comments to facilitator for distribution.
- Goals that are program shaping, for example, human health studies on the impacts of aircraft noise have the potential to be more impactful.
- Jayapal letter to FAA asking for a timeline on FAA Reauthorization noise provision implementation and could be used to establish congressional intent. This forum could be used to help draft a letter.
- Reach out to other airport communities in legislation to identify shared outcomes
- If a trip to DC, to meet with the FAA and Congressional representatives, is considered, subject matter experts, in addition to elected officials should be included.

Next Steps on Work Plan Implementation

Working Group participants discussed how best to structure and schedule the Working Group given that a number of the items on the Work Plan are timely. It was agreed that the Working Group would schedule monthly meetings through 2019. There was a recommendation that draft letters could be shared and commented on via a shared document program like Google docs or Dropbox. Finalization of letters could occur during Working Group meetings. Schinfeld will update the Work Plan based on comments, will begin drafting the GAO letter, letter to the delegation, send an invitation out for Google docs, and identify other action items. Sheila Brush will provide a GAO letter template.

Next Meeting:

Monday September 9, 2019, 5:30 pm – 7:30 pm

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

StART FACILITATOR'S MEETING SUMMARY
Wednesday, October 23, 2019



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/slots 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

StART FACILITATOR'S MEETING SUMMARY
Wednesday, December 11, 2019



SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART FACILITATOR'S MEETING SUMMARY

Wednesday, December 11, 2019

6:00-8:00 pm, SeaTac 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	X	Scott Kennedy	Alaska Airlines	X
Jennifer-Ferrer-Santa Ines (Alt)	Normandy Park	-	Matt Shelby (Alt)	Alaska Airlines	-
Robert Akhtar	SeaTac	X	Justin Biassou	FAA	X
Carl Cole	SeaTac	X	David Suomi	FAA	X
Steve Pilcher (Alt)	SeaTac	-	Tom Fagerstrom	Port of Seattle	X
Katrina (Trina) Cook	Tukwila	X	Lance Lyttle	Port of Seattle	-
David Cline	Tukwila	-	Marco Milanese	Port of Seattle	X
Brandon Miles	Tukwila	X	Arlyn Purcell	Port of Seattle	-
Laura Sanders	Lynden (air cargo)	-	Eric Schinfeld	Port of Seattle	X
Laurel Dunphy	Port of Seattle	X	Stan Shepherd	Port of Seattle	X

Additional Participants:

Jason Poole, FAA; Steve Alverson, ESA, Tom Eckert, Delta Airlines

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Meeting Objectives:

To discuss the results of the Noise Abatement Departure Profiles Noise Analysis. To recap the Aviation Noise Working Group and Federal Policy Working Group meetings. To update on the FAA's end-around taxi procedure.

Welcome

Laurel Dunphy, Port of Seattle

The Airport Operations Director, Laurel Dunphy, chaired the meeting in the absence of Lance Lyttle and Lance's alternate, Arlyn Purcell. Dunphy acknowledged and thanked two of the community representatives who will not be returning in 2020 - Trina Cook, Tukwila community representative, and Earnest Thompson, Normandy Park community representative. She also announced that Port representatives will be meeting with representatives from the cities who have temporarily suspended their involvement in StART on December 17.

Dunphy reviewed several StART accomplishments in 2019, including the Revised Runway Use Agreement that is resulting in reduced 3rd runway use at night, conversations that are on-going with airlines regarding reducing late-night noise as part of the Late-Night Noise Limitation Program, and finalizing the scope for the Ground Noise Analysis. She shared that Lyttle is committed to continuing the work with the communities.

Dunphy reminded cities that StART community representative terms are up at the end of the year and that cities can re-nominate current members or nominate new members to serve on StART. It was requested that cities provide the names of representatives serving the 2020-2022 term by the end of January.

Facilitator's Update

Phyllis Shulman

Shulman requested cities provide their selected representatives information by the end of January and include if participants are interested in participation on either working group. Shulman will try to meet individually with new members to provide an orientation to StART prior to the first meeting of the new year.

There will be no StART meetings in January. Meetings will resume in February with the Federal Policy Working Group meeting on the 1st Monday in February, and the Aviation Noise Working Group meeting on the 2nd Monday in February. The next main StART meeting will be on February 26.

Recap StART Federal Policy Working Group Work Plan

Eric Schinfeld, Port of Seattle

Schinfeld reviewed that the role of the Federal Policy Working Group (FP Working Group) is to develop a shared policy agenda. The priorities identified by the FP Working Group include advocacy for proposed legislation, identifying ideas for new legislation, and actions included in the 2018 FAA Re-authorization Bill. The FP Working Group met on November 4 and December 11. Meeting summaries are attached in Appendix B. Schinfeld provided an overview of the meetings including:

- Joint letters, co-signed by the six cities, to Congress and the FAA were finalized and mailed, as well as delivered in person in Washington, DC to Congressional staff. These letters summarize policy priorities and ask to engage directly with the FAA on some of these shared priorities. Responses to the letters will be shared with the FP Working Group. It is anticipated that the February FP Working Group meeting agenda will include updates and responses from Congressional staff.
- U.S. Representative Adam Smith is drafting legislation responding to the interest expressed in public comment as well as in StART in allowing for secondary noise insulation packages in limited situations where the initial infrastructure has “failed”. There are very specific situations where the insulation may no longer work for reasons that are not the fault of the homeowner. The bill has been through technical review by FAA and by the House Transportation Committee and is expected to be introduced in a few weeks.
- Discussion of sending a delegation to Washington DC to meet with FAA and members of Congress to discuss issues and advocate for shared policy interests. It was stated that it is important to meet face-to-face, particularly with the FAA and members of Congress on issues of importance. The goal would be to meet with the FAA, US Senators Murray and Cantwell; US Representatives Smith, Jayapal, and Larsen; and, if time allows, potentially other members of Congress including US Representatives Lynch and Speier. A tentative date of March 25-26

is being considered as that is a time when both House and Senate are in session, and is after the State legislative session has concluded. Once a date is set, preparation will be important in order to develop a shared message and a unified voice.

- US Representative Jackie Speier (who represents communities near San Francisco International Airport) has introduced eight pieces of legislation related to airplane noise and emissions. These bills will be brought to the next Working Group for review as well. As any new bills are introduced, the Working Group will have the opportunity to review and evaluate them in future meetings as well.
- State Representative Orwall is drafting legislation regarding secondary insulation. Eric will connect with Reps. Orwall and Smith to discuss the crossover between their proposed bills.

End-around Taxi Procedure Update

Jason Poole, FAA

Jason Poole, FAA Air Traffic Manager, provided an update on the proposed end-around taxi procedure. The FAA organized a work group to analyze, through modeling, whether this procedure was feasible and reduced taxi time from the runways to the gates. Dave Suomi stated that there are some airports that have infrastructure (extended pavement around the perimeter of runways) that allow for an end-around taxi procedure such as at Atlanta Hartsfield International. The work group reviewed current taxiways, aircraft staging areas, and current routes for aircraft taxiing. The work group analyzed parameters for the use of a new end-around taxi procedure during south flow operations and during inclement weather.

The FAA work group ran models to evaluate the pros and cons of the procedure. Even though the concept looked like it may have advantages, the analysis showed that there were numerous constraints and challenges with the procedure and that it would increase airfield operational complexity, congestion, and potentially decrease safety. It was noted that the analysis also showed that taxi times would increase and departures would be slowed. He reported that the FAA determined that the procedure is not feasible. He notes that the airports where the end-around taxi procedure has worked have more space on the perimeters of the airfield that allows for movement away from active runways. He noted that land surrounding SeaTac's active airfield is constrained. The presentation can be found [here](#).

Questions from StART participants included:

- One of the things the community was interested in was moving aircraft further from the west, and closer to the terminal. Was there anything your group discovered that could result in this without the full end-around taxi procedure change?
 - *Response:* Given the layout of SeaTac Airport, and limited airfield space, there aren't many options available. The best way to reduce aircraft from the western side of the airfield, is to have less aircraft staged on airfield awaiting a gate. That is best done by improving the flow and timing of arrivals.
- As we anticipate more gates coming online, will additional gates alleviate, worsen, or make no difference to current taxiway staging?
 - *Response:* This is a difficult question to answer. Ideally, there would be improvement, but demand would need to be balanced with the capacity of the airport.

- Is there a way to designate one runway for takeoff and one for landing? Would that make a difference?
 - *Response:* To determine runway use, air traffic controllers look at safety and efficiency, and airport through-put. During low operational volumes, air traffic controllers, based on the Revised Runway Use Plan, often determine one runway for takeoff and one for landing. Each day the FAA advises pilots which are the approach and departure runways.
- One of the reasons this end-around taxi procedure concept was brought up in StART was to see if noise impacts to the communities on the west side of the airfield would be reduced if aircraft did not have to stop and throttle-up their engines when staged for crossings. Can the FAA share thoughts on this?
 - *Response :* (Dave Suomi, FAA) – End around taxiways do work well at some airports, where there is a true dedicated taxiway. In these locations, the aircraft are taxiing approximately 1500 feet off the end of the runways at a lowered elevation. In these cases, the taxi procedure does not intrude with the runway operations. The real estate at SeaTac is not adequate to support this procedure, because of the airfield taxiway proximity to runways.

Noise Abatement Departure Profiles Analysis

Steve Alverson, ESA

The focus of the meeting was on the Noise Abatement Departure Profiles (NADP) Analysis. Steve Alverson, ESA, the consultant hired to do the analysis, attended in person and reviewed the analysis methodology, the results of the analysis, and recommendations for action. Alverson reviewed the definitions of the two departure profiles, a Close-In NADP and a Distant NADP. He clarified the analysis was based on the responses from the five airlines surveyed as to which procedure they are utilizing when operating Boeing 737-800s. 737-800s were chosen for the analysis due to their prevalence at Sea-Tac Airport. After additional review, Delta Air Lines confirmed that it is using a Distant NADP (the slide presentation does not show this update) and not a Close-In NADP as was initially reported by Delta. All five airlines surveyed utilize the Distant NADP. The analysis also includes terrain effects on noise contours, which are important to consider given the variability in terrain in the region.

Alverson concluded that the analysis shows that utilizing the Distant NADP would provide the most benefit for noise reduction in certain communities north and south of the airport. For some communities, there would be no change, particularly those to the west and east of the airport. Alverson presented the noise modeling results from the analysis. He emphasized that as a part of their standard operating procedures, most of the domestic airlines are already using the Distant NADP, so the change would not be as dramatic as if they were not. However, there would still be associated noise reduction benefits. Based on the analysis, and the potential for noise reduction for some communities, he recommended that the Port request all airlines to implement the Distant NADP, or the ICAO (international) equivalent, and track/report implementation, as well as evaluate changes in noise exposure levels over time. There is an FAA Advisory Circular that allows for airports to work with airlines to select the NADP that makes the most sense for their airport.

Next steps include some additional analysis, discussions with the FAA, discussions with individual airlines to understand exactly how they are flying the Distant NADP, the development of educational communication materials, and additional input from StART. ESA will also be analyzing the departure profiles of the 777, a much louder aircraft, to see if there is a significant variation in the noise contours between the 777 and the 737-800. The presentation can be found [here](#).

Questions from StART participants included:

- Does simulation software have the ability to look at other levels of noise contours, to see where is the extent of the 60 dB, 70 dB contour, etc. to capture other noise levels that may be resulting in disruption to communities?
 - *Response:* Yes, the model has a lot of flexibility, but the model is limited by 10,000 feet in aircraft height, so you lose the ability of the model to accurately delineate for lower SEL dB levels. The contours become somewhat nebulous due to the limitation of the data and the model.
- How difficult would it be to generate a map that evaluates 65 or 70 SEL dB?
 - *Response:* It is not difficult, but one would have to look at where the 10,000-foot altitude is reached, and how accurate the contours may be at that noise level. (Follow up statement from participant that this information would be beneficial for conversations with communities.)
- What is the difference between 80 and 90 dB?
 - *Response:* 80 dB is perceived as about half as loud as 90 dB.
- Are there some areas where there is no measurable change to noise to communities neighboring the airport?
 - *Response:* There will be a difference, but that difference is not shown here, as it is likely very small and cannot be shown effectively on a contour.
- Is there no difference in noise reduction between the Close-In and Distant NADP for the City of SeaTac?
 - *Response:* The analysis so far did not look only at specific communities. Given SeaTac's close proximity to the airport, noise reduction as a result of the distant NADP would likely be limited.
- Is there a way to communicate the data in a different way so that community members get a better understanding of the impacts, for example to create a scoring system?
 - *Response:* You could possibly do that, but there are limitations as there is no acoustic way to create a scoring system and the scoring system would be difficult to substantiate.
- What procedure do cargo carriers use?
 - *Response:* Domestic cargo carriers typically use the Distant NADP and international cargo carriers likely use the Close-In NADP.

Recap Aviation Noise Working Group Near-Term Action Agenda

Tom Fagerstrom, Port of Seattle

Tom Fagerstrom reported on the Aviation Noise Working Group (Working Group) November 18 meeting. The meeting summary is attached in Appendix C. His summary focused on the status and results of several of the Working Group's efforts to address noise including:

- Vince Mestre, noise consultant, provided information about possible next steps related to the Noise Abatement Departure Profile Analysis. He reviewed the FAA Advisory Circular and the role that airports play in implementing these procedures. Next steps included Port staff setting up a discussion with the FAA air traffic division and flight standards to determine if there are any airspace issues with either the Close-In or Distant NADP. Implementation would include making a formal request to airlines to change to a Distant NADP.
- Additional outreach and dialogue regarding the Late-Night Noise Limitation Program's 3rd Quarter Results. Sit-down meetings were held with the three airlines with the most exceedances. The conversations have been productive and options are being discussed that could possibly result in future schedule or fleet changes. Airlines have expressed interest in additional information. Initial conversations with the three airlines are summarized as:
 - EVA Air is open to schedule adjustments in the future, possibility moving a departure, if feasible, as well as potentially changing from a 777 aircraft to a 787 aircraft at some time in the future.
 - FedEx Express is in the process of phasing out the MD-11 aircraft, which is the primary noise exceeder. They also noted that they will be looking at adding flights in the busy holiday season, so they anticipate more exceedances in the 4th quarter.
 - China Airlines Cargo is discussing the possibility of moving a flight out of the late-night time hours. They do not have the option of changing aircraft, as they do not have other aircraft types in their fleet.
- Results from the Revised Runway Use Agreement continues to show a significant decrease in landings per night on the third runway. Landings are averaging two per night, down from over 10 per night. A few exceptions occurred due to runway closures on two occasions.
- Additional information is provided in the Working Group Meeting notes and the 2019 summary of the Working Group Action Agenda provided as a handout.

Comments from StART participants included:

- StART member from Normandy Park has noticed a big difference in noise reduction at night since the Revised Runway Use Agreement was put into effect. Stated that other community members have also noticed the reduction. Commented that the many community members appreciate the change. Thanked StART for this work.
- It was requested that clear and easily understandable communication materials regarding the results of the Noise Abatement Departure Profiles Analysis be prepared for communicating with communities. Input into and review of the communication materials can be provided by the Aviation Noise Working Group.

Public Comment

Compiled public comment are included here as Appendix A.

Meeting Wrap Up

Laurel Dunphy, Port of Seattle

Dunphy thanked StART participants and thanked Trina Cook for her participation over the last two years. Given that this was the last meeting of 2019, StART participants were asked for any year-end reflections.

Trina thanked the Port for initiating StART. She stated that in the beginning, she did not have a grasp on what this process would be like. She commented that she is an airport fan and has a very different perspective about the airport from some of the other community representatives. Trina acknowledged that she has learned as much from the other community representatives as the Port representatives. Hearing from the other communities has changed her perspective and she sees and acknowledges the good work the Port is doing (with noise, and other topics like ground transportation). She thanked StART participants for the work so far and wished the group good luck with continuing on.

Eric Zimmerman thanked the Port and participants for continued involvement and work that has been done so far. He shared optimism that the suspended communities will come back to the table to continue the good conversations together.

Next Meeting:

February 26, 2020, 6:00 pm – 8:00 pm

Location: *Conference Center at Sea-Tac International Airport*

Appendix A

Summary of Public Comments

1. Anne Kroeker (Des Moines) (oral comments):

- Commented that she doesn't speak for the cities who aren't present, although she is from one of the cities not currently represented.
- Stated that she is perplexed that StART continues without the suspended cities. Emphasized that the data collection and analysis can continue, but when, hopefully the suspended cities come back, that they will be able to provide input into actions and analysis being considered.
- Commented that the trust of the community is important and is critical going forward. Stated that communication to communities should share what is the work of StART, different than what is solely the work of the Port. Perhaps materials generated from the work of StART should be released and identified as being materials from StART, and not just from the Port. This would help build trust of the community.
- Stated that it seems that the east coast seems to get better and newer aircraft than the west coast. Perhaps the airlines could be asked to bring in newer / quieter planes to the west coast, because of the needs of the communities. Commented that a direct ask to the airlines could be considered.

Appendix B
Federal Policy Working Group Meeting Summaries

StART FACILITATOR'S FEDERAL POLICY WORKING GROUP MEETING SUMMARY

Monday, November 4, 2019

5:30-6:30 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
Robert Akhtar	SeaTac	X
Flannery Fox	Office of Sen. Patty Murray	X
Yasmine Mehdi	Office of Congresswoman Pramila Jayapal (phone)	X
Jessica Mulligan	Office of Congresswoman Pramila Jayapal (phone)	X
Resources	Title	
Eric Schinfeld	Port of Seattle, Sr. Manager, Federal & International Government Relations	X
Consultants		
Phyllis Shulman	Facilitator, Civic Alchemy	X
Emily Jackson	Note taker, Floyd Snider	X

Additional Participants:

Rihanna, City of Normandy Park Fellow

Meeting Objectives: To receive updates and discuss the Senate Appropriations noise policies, joint Port-Cities letters to Congress and FAA, and Representative Adam Smith's legislative efforts.

Meeting Summary:

Update on Senate Appropriations Noise Policies

Flannery Fox, Legislative Outreach Aide, Senator Patty Murray

Fox provided an update on language in the Senate's FY2020 transportation appropriations bill relating to the FAA. She stated that there is increasing attention on aviation noise issues from the Senate, particularly around intensifying interest from senators for FAA to meet its deadlines on releasing reports identified in the FAA Reauthorization Bill. The specific language is as follows:

- "Noise and Community Outreach. —The Committee directs the FAA to improve the development of flight procedures in ways that will give fair consideration to public comment and reduce noise through procedure modification and dispersion to reduce the impact on local communities. The FAA should utilize state-of-the-art technologies, metrics, and methodologies to measure actual noise at ground level experienced in communities affected by flight paths and not rely solely on computer modeling or other theoretical measures. The FAA should give high priority to evaluating where increased noise levels disrupts homes and businesses, and threatens public health, and should provide appropriate resources to regional offices to work with local communities to meet this objective. The Committee directs the FAA to provide a report to the House and Senate Committees on Appropriations within 90 days of enactment of this act that details the efforts

made by the FAA during the last two fiscal years to comply with Committee’s directives on this topic. The report must include detailed information on specific locations that have been reevaluated using the requested methodologies, the number of flight paths that have been altered as a result of that testing and community input, the number of properties that have been purchased, and any other mitigation efforts undertaken by the FAA.

- “Noise Health Effects Research. —The Committee has included language for 2 years requesting the FAA to prioritize research conducted through FAA’s Center of Excellence for Alternative Jet Fuel and Environment, and the Aviation Sustainability Center on the impact of aviation noise on both sleep and cardiovascular health. The Committee has also previously directed the FAA to evaluate alternative metrics to the current day night level 65 standard and other methods to address community airplane noise concerns, including cumulative noise impacts from increased frequency of flights. Communities across the country contend with an increased frequency of passing aircraft on a daily basis and the Committee is concerned that the FAA is not heeding this direction and therefore requests the FAA to provide a report to the House and Senate Committees on Appropriations within 90 days of enactment of this act that details the efforts made by the FAA during the last two fiscal years to comply with the Committee’s direction. The report must include detailed findings of the research completed to date and the alternative metrics identified to evaluate noise impacts that will adequately address community concerns.”

Questions and discussion included:

- How can local cities influence the FAA to release data/reports?
 - *Response:* Senate is often surprised by how hard it is to get answers from the FAA for Senate inquiries. Continued engagement and pressure from the community is important. Organization at the grassroots level and the formation of coalitions is important. Aviation noise is an issue in many states.
- When might final action on appropriations occur?
 - *Response:* Currently no clear answer on that. There are many factors at play.
- How can we best identify which senators from other states have interest in aviation noise issues?
 - *Response:* Ideally, the Working Group would utilize contacts already established by community representative along with additional outreach.

Joint Port-Cities Letters to Congress and FAA

Eric Schinfeld, Port of Seattle

Schinfeld reviewed the slightly different content contained in each letter. He stated the importance of including signatures from all six original cities participating in StART. This request was made to all six cities and all are in process of finalizing their agreement to sign on to the letters. Schinfeld expressed optimism that the letters will be finalized and sent by the end of November.

Questions and discussion included:

- Is it best to have city managers or mayors sign the letters?
 - *Response:* The Port does not have a strong preference. If cities have a preference (e.g. elected officials sign the congressional letter and city manager signed the letter to FAA) they may decide as they see fit.
- How likely will there be a response from either congressional representatives or FAA on the letter?
 - *Response:* Congresswoman Pramila Jayapal is planning a response. As far as implementing what is requested in the letter to the FAA, the FAA operates cautiously according to their hierarchy and procedures. They are likely considering what a plan might be to respond to

the potential consequences of the studies' conclusions. The current delay in meeting the deadline to release the studies is not unusual.

The Working Group discussed the role of the new FAA community engagement officer noting that the position lacks neutrality since reporting is to the regional director of FAA rather than being independent.

Update on Representative Adam Smith's Legislative Efforts

Eric Schinfeld, Port of Seattle

Schinfeld provided updates on four items:

- Lyndall Bervar, Congressman Adam Smith, forwarded an email to the Working Group regarding FAA's response to the WHO guidelines.
- Based on Sheila Brush's suggestion, a letter was sent to the Government Accountability Office requesting that the GAO study incorporates analysis of NextGen's impact on Single-Site airports in addition to multiple-airport metroplexes.
- Based on discussion at the last StART Federal Policy meeting, the work plan now includes the development of a new piece of legislation that allows funding of failed noise insulation. It was stated that regulations do not prevent this; it is only the FAA's interpretation of the regulation. Congressman Smith's office is interested in championing this legislation. They are in the process of drafting the legislation. There is optimism that this could be passed fairly quickly. A draft bill will be available in the next week or so and will be shared by email.
- Congressman Smith's Particle Emissions Bill is scheduled for a hearing. The bill proposes a study on aviation related ultrafine particle impacts on human health, and aviation biofuels.

A working Group community representative commented on the importance of StART and these Working Group meetings and that the progress brings optimism.

Next Steps on the Work Plan

Eric Schinfeld, Port of Seattle

Schinfeld led a discussion on the immediate next steps for the Work Plan which includes taking steps to build relationships with communities and airports nation-wide, traveling to DC to have direct conversations with elected officials and the FAA, and emphasizing to the FAA the importance of completing and releasing studies identified in the FAA Reauthorization Bill. Travel to DC would likely be at the end of January to early February. The Port will work with cities as well as with the Working Group to discuss representation, focus, and coordination. Trip planning will be a topic at the December Working Group meeting along with a review of the draft failed insulation legislation.

Next working group meeting is rescheduled for Monday, December 9. It was stated that there would likely not be a meeting in January.

Next Meeting:
Monday Dec. 9, 2019, 5:30 pm – 7:30 pm
Location: *SeaTac International Airport Conference Center, Room 4A*

StART FACILITATOR'S MEETING SUMMARY

Federal Policy Working Group

Wednesday, December 11, 2019

5:00-5:45 pm, Seattle Tacoma International Airport Conference Center

Member	Interest Represented	Present
Kyle Moore	SeaTac Government Relations and Communication Manager	X
Robert Akhtar	SeaTac Community Representative	X
Resources	Title	
Eric Schinfeld	Port of Seattle, Sr. Manager, Federal & International Government Relations	X
Consultants		
Phyllis Shulman	Facilitator, Civic Alchemy	X
Megan King	Note taker, Floyd Snider	X

Additional Participants:

Dave Kaplan, Port of Seattle

Meeting Objectives: To receive updates and discuss progress on the Federal Policy Working Group's priorities and to plan a trip to Washington DC to discuss issues with Congressional representatives and FAA.

Meeting Summary:

Update on Joint Port-Cities Letters to Congress

Eric Schinfeld, Port of Seattle

Schinfeld provided an update on the joint Port-Cities letters to Congress and the FAA drafted by the Federal Policy Working Group. The letters were finalized and mailed, as well as delivered in person in Washington, DC to Congressional staff last week. He emphasized the importance of all six cities signing the letter, providing for the opportunity for a joint policy agenda. Responses to the letters will be shared with the Working Group. Schinfeld anticipates that the February Working Group agenda will include updates and responses from Congressional staff.

Schinfeld provided an update on a bill US Representative Adam Smith is drafting on secondary noise insulation. Rep. Smith's office received feedback from FAA, the US House Transportation Committee, and others. The draft bill is expected to be formally introduced in the coming weeks. Schinfeld also communicated with Airports Council International who stated that they would work to support the bill on behalf of all US airports. He also stated that Rep. Smith is continuing to draft the Aviation Impacted Communities Act.

Schinfeld shared that US Representative Jackie Speier (who represents communities near San Francisco International Airport) has introduced eight pieces of legislation related to airplane noise and emissions. These bills will be brought to the next Working Group for review as well. As any new bills are introduced, the Working Group will have the opportunity to review and evaluate them in meetings.

Questions and discussion included:

- Is Rep. Speier involved with any legislative committees that can help to get these bills approved?
 - *Response:* She is on the Congressional Quiet Skies Caucus.
- At one point, the question of whether the FAA could reinterpret the current regulation about noise insulation was raised – has FAA stated whether they would be willing to consider that?
 - *Response:* FAA has stated they will not reinterpret the current regulation, without a bill requiring them to do so.
- Why was the re-insulation piece left out of the 2018 FAA Reauthorization Bill?
 - *Response:* Unable to find out any information about this.

Schinfeld stated State Representative Orwall is drafting state legislation regarding secondary insulation. He will connect with Reps. Orwall and Smith to discuss the crossover between their proposed bills, such as consistency with definitions of “failure”.

Washington DC Trip Planning

Eric Schinfeld, Port of Seattle

The Working Group discussed the goal of the Washington DC trip: to meet with FAA and members of Congress to discuss issues and policy interests. It was stated that it is important to meet face-to-face, particularly with the FAA, as the communities desire the FAA’s direct involvement in making changes. Face-to-face meetings with members of Congress also help to elevate the importance of the issues being discussed. The goal would be to meet with FAA, US Senators Murray and Cantwell; US Representatives Smith, Jayapal, and Larsen; and, if time allows, potentially other members of Congress including US Representatives Lynch and Speier.

Schinfeld went over a number of logistical considerations including:

- Planning the trip for when both the House and Senate are in session.
- Planning the trip when State legislators could also be included, in particular, State Representative Orwall or State Senator Keiser. This would speak to planning the trip after the conclusion of the State legislative session.
- March looks to potentially be the best month because it also avoids spring break for schools.
- The trip would likely be for 2 days. March 25-26 would be a good starting point to check schedules for availability.
- Initial thinking is that each entity would pay for their own representatives to attend.

Next steps include:

- Schinfeld will check with possible attendees and coordinate with the cities to see if the tentative date will work and get a first response of who each entity might like to send.
- Schinfeld will check with the airlines who are part of StART to see if they have any interest in participating or supporting the group’s trip.
- Schinfeld will check with Congressional offices to confirm availability on proposed dates.

The Working Group discussed the size and structure of the delegation. Initial ideas were to include two Port Commissioners, city managers/electeds from six cities, Airport Managing Director, two State

legislators, and a few community representatives. The discussion included how decisions could be made regarding who would be invited to attend. The Working Group tended towards having each city decide on its representatives, based on some simple criteria, for example how many each city could choose and commitment to agreement on a unified voice. The Working Group emphasized the importance of having a strong community voice in addition to the voice of officials, noting that hearing from community members can be more impactful than hearing from “professionals”. Once a date is set, preparation will be important in order to develop a shared agenda.

The Working Group meeting closed with a reminder that there would be no Working Group meetings in January. The next Federal Policy Working Group meeting is tentatively scheduled for February 3, 2020.

<p style="text-align: center;">Tentative Next Meeting: February 03, 2020, 5:30 pm – 7:30 pm Location: <i>SeaTac International Airport Conference Center, Room 4A</i></p>

Appendix C
Aviation Noise Working Group Meeting Summary

AVIATION NOISE WORKING GROUP
StART FACILITATOR'S MEETING SUMMARY

November 18, 2019; 5:30 pm – 7:30 pm

Seattle-Tacoma International Conference Center, Room 4A Conference Room
17801 International Blvd. ([Directions](#))

Attendee	Interest Represented
Eric Zimmerman	Normandy Park
Robert Akhtar	SeaTac
Mark Hoppen (phone)	Normandy Park
Jennifer Kester	SeaTac
Scott Ingham (Alt.)	Delta Air Lines
Tom Fagerstrom	Port of Seattle
Marco Milanese	Port of Seattle
Stan Shepherd	Port of Seattle
Jason Ritchie	FAA
Vince Mestre	L&B

Additional Participants: Lynae Craig, Alaska Airlines (phone), Lance Lyttle, Port of Seattle

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Emily Jackson, Floyd Snider

Meeting Objectives:

To discuss and get input on the Noise Abatement Departure Profiles Study's next steps. To provide an update on the Late-Night Noise Limitation Program outreach. To recap and share insights on the recent AAAE/ACI-NA Noise Conference. To review and discuss input received on the Ground Noise Study Scope.

Meeting Summary

Noise Abatement Departure Profile Study: Next Steps

Vince Mestre

Mestre provided a review of the Noise Abatement Departure Profiles Study and described the implementation steps, if action is taken. He stated that based on the study, NADP 2 (ICAO B for international carriers), known also as the distant procedure, is the preferred departure profile that offers the greatest potential noise reduction benefit for local communities. Next steps include the Port making a formal request through a letter to each airline asking them to utilize the NADP 2 for each runway and changing their operations specs (if not already using NADP 2), and then, communicating the changes to the FAA. Once there is FAA approval, pilots would be authorized to use NADP 2.

Discussion and questions included:

- Based on previous conversations, it seems that most of the airlines are currently flying a distant procedure, is that correct?

- *Response:* This is true for the Boeing 737, but no other aircraft types have been surveyed for this analysis. Airlines have often adopted this procedure since it saves fuel.
- What are international airlines doing?
 - *Response:* International airlines from Asia with wide body aircraft primarily use the distant procedures, and European airlines use a combination of both procedures.
- Will changing to the NADP 2 procedure result in an increase of noise for Normandy Park residents, even though it may have benefits for other communities? It would be helpful to have a clearer understanding on where the benefits are and whether there are impacts on Normandy Park.
 - *Response:* The Port will work with the consultants to clarify where there are potential benefits and impacts and develop visual information useful to communities. There does not appear to be a noise increase in Normandy Park.
- Since studies have only been performed on the Boeing 737 aircraft, is that the only aircraft that would be included in possible changes to the departure profile?
 - *Response:* All aircraft would be included in the request, not just the 737. The noise reduction benefits are expected to be similar when the NADP 2 is applied to larger aircraft.
- Are there differences in emissions between the two procedures?
 - *Response:* Yes, the distant procedure results in less fuel burned and less greenhouse gases. Getting the aircraft up faster reduces criterion pollutants as well.
- Could a phased-in approach be used or do the departure profile changes need to occur all at once?
 - *Response:* Each airline could implement it at different speed based on changes to their operations specs. This could take place over a timespan of months to a year. If pilot training is required, it could be longer than a year.
- Has the airport decided that they are going to make this request and is there a timetable?
 - *Response:* The Port will continue to get input from the Working Group and will have preliminary conversations with the FAA before next steps.
- What would the numbers look like for Boeing 747 aircraft or large body aircraft? Could that be modeled so that there is a comprehensive understanding of the proposed change?
 - *Response:* Based on the study and other analysis, the trend is anticipated to be similar with larger aircraft.
- Since the benefits will be greater to communities that are further from the airport than the StART communities and given the close in communities won't notice a difference, why pursue this?
 - *Response:* The purpose is to find noise reduction benefits without negative impacts, wherever they can be found.
- Would this potentially make Seattle the second airport in the US to have a procedural policy of this nature?
 - *Response:* San Francisco International Airport and Chicago O'Hare International Airport may have similar procedure policies in place.

- If this were to set a precedent, does this create additional costs for the airlines to implement?
 - *Response:* This is not currently known. The distant procedure is probably already built into the aircraft flight management system.

Participants provided feedback suggesting what information would be needed to better educate communities about this effort as well as recommended formats. It was expressed that it would be helpful to have a map that shows city boundaries and which areas would benefit, which there would be no change in, and which areas might have an increase in noise. Port staff said that they would work with the noise consultants to develop those materials and review those draft materials with StART.

Late-Night Noise Limitation Program: Outreach Update

Tom Fagerstrom and Marco Milanese, Port of Seattle

Fagerstrom provided an update on the Late-Night Noise Limitation Program outreach.

- All of the airlines that had noise exceedances received letters that included data showing their exceedances. Letters also went out to airlines that had operations during late-night hours that did not exceed noise thresholds.
- A number of airlines who had noise exceedances expressed interest in the program and the third quarter results and asked for additional information about their operations that exceeded noise thresholds in the third quarter, 2019.
- The Port initiated conversations with the three noisiest carriers during the third quarter's late-night hours. Port staff shared information about these conversations including:
 - EVA Air- They currently fly the Boeing 777. Staff met with them about the possibility of utilizing quieter aircraft. EVA Air stated that they did not see that possibility in the near future. They shared that they are currently developing their 2020 summer schedule and that they were considering moving their flights to an earlier departure time, but these times may still fall after 12:00am. Conversations are expected to continue.
 - China Airlines Cargo -a meeting has been scheduled.
 - FedEx - They are planning on transitioning the MD11 and DC10 out of their fleet, which has been responsible for the majority of their late-night noise exceedances. A timeline was not provided at this time. They mentioned that, due to the holiday season, expect increased operations during the fourth quarter.

One community representative commented that it's great to hear that the Port and airlines are engaging in a dialogue about late-night operations.

Noise Conference Recap

Stan Shepherd, Port of Seattle

Shepherd shared that the annual AAAE/ACI-NA Noise Conference was held this year in Seattle and had record attendance (200 attendees). Participants mostly included airport employees, the FAA, and airport consultants due to the highly technical nature of the conference presentations. Shepherd shared information about some of the presentations that he attended.

Notable presentations included:

- Ruud Ummels discussed an expert study on understanding community and noise – This study indicated that a communication disconnect exists between noise professionals and the communities their studies serve. The data needs to be clear, transparent, easy to

- understand, and should be inclusive of all of the communities surrounding and impacted by an airport, not just close-in neighbors.
- Study on noise annoyance stated that 20-30% of noise annoyance complaints are attributed to the noise level, the rest is non-acoustic. People additionally complain as a result of seeing aircraft, not just hearing aircraft.
 - Sound insulation program – San Francisco International Airport staff Gerardo Fries is working on a program that fixes and repairs older noise reduction insulation in homes where it has failed. They are using city funds (SFO is operated by the City), since FAA funds are not available.
 - Faculty from the William D. Ruckelshaus Center discussed considerations for designing constructive community stakeholder engagement for airports.
 - FAA talked about technical data for taxiway noise, modeling of supersonic jets that will be entering the market in the future, urban air mobility and unmanned aerial systems that are entering the U.S. market soon.
 - Vince Mestre was awarded the annual Randy Jones Award for his work in aviation noise mitigation and monitoring.

Working Group members requested access to the presentations and agenda. An email was sent to Working Group members after the meeting with this information. Presentations are available at:

<https://www.aaae.org/AAAE/AirportNoiseConference/Agenda/Presentations.aspx>

Discussion and questions included:

- Could community members attend conferences like these in the future?
 - *Response:* Yes, although this conference was more technical and geared towards industry professionals. The UC Davis Aviation Noise and Emission Symposium in March may be more interesting to community members as its focus is more oriented to community issues and concerns.
 - Would the Port be able to send StART community representatives to the UC Davis symposium in March?
 - *Response:* The Port currently has not budgeted for that, but Port staff stated that they would be willing to look into that possibility. Cities may additionally choose to send their representatives.

Ground Noise Study Scope Input Received

Tom Fagerstrom and Marco Milanese, Port of Seattle

Fagerstrom and Milanese provided the Working Group with a draft list of items suggested by StART participants to add to the scope for the Ground Noise Study. One Working Group participant had performed some preliminary analysis to identify locations with line of site to the Airport, that may correlate with noise complaints. It was suggested that maybe that analysis could be used to help determine where to locate noise monitors. The Working Group indicated that the scope looks good.

Fagerstrom reviewed the general timeline of the study. He stated that, after an on-the-ground assessment of noise sources, the noise consultants are planning to do the noise monitoring sometime in March or April. Analysis of the data and the development of potential mitigation approaches will take place over the Summer of 2020. There will be multiple opportunities for discussion and input from StART. The noise consultants aim to share findings and potential mitigation options by the Fall of 2020.

Future Meeting Date/Times:

Tentative Next Meeting: February 10, 2020, 5:30pm - 7:30pm, Seattle-Tacoma International Conference Center, Room 4A Conference Room

Appendix III

Near-Term Aviation Noise Action Agenda Summary (as of 11/20/19)



**Sea-Tac Stakeholder Advisory Round Table (StART)
Aviation Noise Working Group
Near-Term Aviation Noise Action Agenda Summary (as of 11/20/19)**

Near-term Action Item	Late-Night Noise Limitation Program	Runway Use Program	Glide Slope Adjustment	Ground Noise Analysis	Noise Abatement Departure Profiles Study	A320 Aircraft Noise
Description	Voluntary measure to reduce late-night (12:00 AM to 5:00 AM) noise by incentivizing air carriers to fly at less noise sensitive hours or transition to quieter aircraft	Revise the current informal Runway Use Program to minimize use of the 3 rd Runway during the late-night (12:00 AM to 5:00 AM)	Raise Runway 34R's glideslope to lessen aircraft approach noise	Analyze airfield ground noise sources and identify potential mitigation measures	Implement a Noise Abatement Departure Profile to lessen aircraft departure noise for farther out airport communities	Encourage air carriers to install a vortex generator on pre-2014 A320 series aircraft to lessen descent noise
Components	<ul style="list-style-type: none"> Ongoing outreach with air carriers about possible late-night schedule and aircraft fleet changes Recognizing there are reasons why many air carriers fly during the late-night hours, established noise thresholds that identify louder aircraft exceeding noise thresholds during the late-night hours Late-night noise threshold observance tracked and reported out on a quarterly basis and beginning in 2020, publicized as part of the Fly Quiet Program (new 4th category) 	Updated language for: <ul style="list-style-type: none"> 3rd Runway daytime/evening runway usage 3rd Runway late-night runway usage 	Considered various strategies and timelines for raising Runway 34R's 2.75 degrees glideslope and settled on plan to permanently relocate 34R's navigational aids and pursue a 3.1 degrees glideslope with the FAA Once confirmed, consider options for raising the glide slope on all runways to higher than 3 degrees	Analysis is expected to include (but not limited to): <ul style="list-style-type: none"> Aircraft taxiing Reverse thrust Aircraft breaking Auxiliary Power Units Aircraft powering up to cross runways Aircraft queuing prior to takeoff Engine maintenance Ground Support Equipment 	Analyze the tradeoffs and feasibility of implementing the "distant" versus the "close-in" departure profile and the noise impact it would have on communities south and north of the airport	Ongoing outreach with air carriers with pre-2014 A320s to inquire about their vortex generator installation timelines
Change	Reduction of aircraft noise during the late-night hours	Reduction of aircraft noise for 3 rd Runway adjacent communities and communities underneath the 3 rd Runway's flightpath	Reduction of aircraft noise for communities south of airport	Reduction of aviation noise for close-in communities surrounding the airport	Reduction of aircraft noise for farther out communities directly south and north of airport	Reduction of aircraft noise for communities underneath the flight path
Key Responsible Parties	Port of Seattle, airlines and cargo operators	Port of Seattle and FAA	Port of Seattle and FAA	Port of Seattle, FAA, airlines and cargo operators	Port of Seattle, FAA, airlines and cargo operators	Port of Seattle, airlines and cargo operators
Status Update	UNDERWAY - Program commenced 7/1. First report out (quarter 3) occurred in October 2019. Encouraging communication has begun with late-night operators. Next report out (quarter 4) in January 2020.	UNDERWAY - Implemented on 9/4 and 3 rd Runway late-night usage monitored daily. Encouraging results since implementation.	To expedite the project, preliminary design money was approved by the Port Commission on July 23. The 34R glide slope adjustment is incorporated into a larger taxiway reconfiguration project estimated to be complete in 2023.	A consultant has been hired and the study's expected finalization is in the fall 2020	Consultant has studied both departure profiles and confirmed the "distant" profile lessens noise for farther out communities and provides the most noise benefit. Port will begin conversations with the FAA and air carriers on requesting use of "distant" profile at airport.	Continued outreach until all pertinent air carriers respond

Appendix IV
Federal Policy Working Group
Federal Advocacy Plan (as of 12/31/19)



StART Federal Advocacy Plan (as of 12/31/2019)

Issue	Topic	Goal	Step One	Step Two	Step Three	Step Four	Step Five
65 DNL Evaluation and Alternative Metrics	FAA Reauthorization Implementation	Encourage timely release of the "noise annoyance survey" and relevant accompanying policy guidance	Letter to FAA & Congressional delegation laying out our priorities for FAA Bill implementation (target date: 11/30)	Reach out to other airports around the country to identify shared and/or parallel tactics on this effort (target date: 2/1)	Call with Congressional Quiet Skies Caucus staff on next steps (target date: 2/1)	Inclusion of additional mandates for delivery of this report and policy guidance in FY2020 appropriations bill (target date: 4/30)	Release of study and policy guidance (target date: 10/18/20 - the Congressionally mandated requirement)
Overflight Noise/ Human Health Study	FAA Reauthorization Implementation	Help shape the scope and implementation of the study	Letter to FAA & Congressional delegation laying out our priorities for FAA Bill implementation (target date: 11/30)	Reach out to the other airports identified in the legislation to identify shared and/or parallel tactics on this effort (target date: 2/1)	Call with FAA Office of Environment & Energy staff, including request for study scope of work (target date: 2/15)	Meeting with designated research university implementing study (target date: 3/31)	Update on study progress from FAA & research university (target date: 6/1)
Environmental Pilot Program	FAA Reauthorization Implementation	Help shape the scope of the grant program, and secure funding for an innovative local pilot for mitigation	Letter to FAA & Congressional delegation laying out our priorities for FAA Bill implementation (target date: 11/30)	Advocacy trip to DC with Port Commissioners, City Councilmembers & State Legislators to meet with Congress on funding for this grant program (target date: 3/31)	Inclusion of funding for this grant program in FY2020 appropriations bill (target date: 4/30)	Build a local coalition of partners who might collaborate on a application for these funds (target date: 6/1/20)	Application for grant funds (target date: 9/1/20)
Air Traffic Noise and Pollution Expert Consensus Act	Legislation	Advocate for passage	Letter to Congressional delegation laying out our priorities for legislation (target date: 11/30)	Reach out to other airports around the country to identify shared and/or parallel tactics on this effort (target date: 2/1)	Advocacy trip to DC with Port Commissioners, City Councilmembers & State Legislators to meet with Congress on these bills (target date: 3/31)	Co-sponsorship by all Puget Sound Congressional members (target date: 3/31)	Congressional passage (target date: 7/31/20)
Protecting Airport Communities from Particle Emissions Act	Legislation	Advocate for passage	Letter to Congressional delegation laying out our priorities for legislation (target date: 11/30)	Reach out to other airports around the country to identify shared and/or parallel tactics on this effort (target date: 2/1)	Advocacy trip to DC with Port Commissioners, City Councilmembers & State Legislators to meet with Congress on these bills (target date: 3/31)	Co-sponsorship by all Puget Sound Congressional members (target date: 3/31)	Congressional passage (target date: 7/31/20)
Secondary Insulation for "Failed" Packages	Legislation	Advocate for passage	Letter to Congressional delegation laying out our priorities for legislation (target date: 11/30)	Work with Washington Congressional delegation to introduce legislation (target date: 3/1)	Advocacy trip to DC with Port Commissioners, City Councilmembers & State Legislators to meet with Congress on these bills (target date: 3/31)	Co-sponsorship by all Puget Sound Congressional members (target date: 3/31)	Congressional passage (target date: 7/31/20)
WHO Europe Study	Other	Request FAA formal explanation of interpretation of the study, and how they are including it in their policymaking	Letter to FAA ccing Congressional delegation from Port & cities with this request (target date: 12/15)	Reach out to other airports around the country to identify shared and/or parallel tactics on this effort (target date: 2/1)			
GAO Study of Community Noise Impacts	Other	Request Congressional letter asking GAO for inclusion of "single site" airports in their analysis, along with metroplexes	Outreach to key Congressional members from appropriate airport regions asking them to sign on to such a letter (target date: 12/15)	Letter from Congress to GAO with this request (12/15)	Reach out to other single site major airport communities around the country to identify shared and/or parallel tactics on this effort (target date: 2/1)		
High Speed Surface Transportation Investments	Other	Support federal funding for innovative high speed surface transportation options	Letter to Congressional delegation laying out our funding priorities (target date: 11/30)	Reach out to other airports around the country to identify shared and/or parallel tactics on this effort (target date: 2/1)	Inclusion of funding for this kind of investment in FY2020 appropriations bill (target date: 4/30)	Support WSDOT efforts to apply for these funds (target date: 9/1/20)	
Late Night Noise Limitation Program	StART Noise Working Group Initiatives	Build awareness of, and support for, this effort from the Washington Congressional delegation	Letter to Congressional delegation laying out our operational initiatives (target date: 11/30)	Work with Congressional delegation to have them share their support publicly for compliance with this effort (target date: 3/31)			
Runway Use Plan Agreement	StART Noise Working Group Initiatives	Build awareness of, and support for, this effort from the Washington Congressional delegation	Letter to Congressional delegation laying out our operational initiatives (target date: 11/30)				
34R Glide Slope	StART Noise Working Group Initiatives	Build awareness of, and support for, this effort from the Washington Congressional delegation; get their help in identifying federal funding for implementation	Letter to Congressional delegation laying out our operational initiatives (target date: 11/30)	Work with Congressional delegation and FAA to identify federal funding for necessary investments (target date: 9/30/20)	Successfully apply for identified funding (target date: 12/31/20)		
Ground Noise Analysis	StART Noise Working Group Initiatives	Build awareness of, and support for, this effort from the Washington Congressional delegation	Letter to Congressional delegation laying out our operational initiatives (target date: 11/30)	Meeting with Congressional staff to share study results and discuss next steps (target date: 3/1)			
Noise Abatement Departure Profiles	StART Noise Working Group Initiatives	Build awareness of, and support for, this effort from the Washington Congressional delegation	Letter to Congressional delegation laying out our operational initiatives (target date: 11/30)	Meeting with Congressional staff to share study results and discuss next steps (target date: 3/1)			