



SEA-TAC STAKEHOLDER ADVISORY ROUND TABLE

StART FACILITATOR'S MEETING SUMMARY

Wednesday, October 24, 2018

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

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	-	Steve Pilcher (Alt)	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	X	Brandon Miles	Tukwila	X
Sheila Brush	Des Moines	X	Lance Lyttle	Port of Seattle	X
Ken Rogers	Des Moines	X	Mike Ehl	Port of Seattle	X
Michael Matthias	Des Moines	X	Clare Gallagher (Alt)	Port of Seattle	X
Eric Zimmerman	Normandy Park	X	Marco Milanese	Port of Seattle	X
Earnest Thompson	Normandy Park	-	Tony Gonchar	Delta Airlines	X
Mark Hoppen	Normandy Park		Scott Ingham (Alt)	Delta Airlines	X
Jennifer-Ferrer-Santa Ines (Alt)	Normandy Park	-	Scott Kennedy	Alaska Airlines	X
Laura Sanders	Lynden (air cargo)	-	Matt Shelby (Alt)	Alaska Airlines	X
Non-Member			Non-Member		
Randy Fiertz	Federal Aviation Agency	-	Joelle Briggs	Federal Aviation Agency	X
Stan Shepherd	Port of Seattle	X			

Additional Participants:

Dr. Robert Stoker, Boeing Company

Facilitator: Phyllis Shulman, Civic Alchemy

Note Taker: Megan King, Floyd Snider

Meeting Objectives:

To review and discuss progress from the Aviation Noise Working Group. To develop understanding of forthcoming fleet changes and how those may impact aviation noise.

Welcome

Lance Lyttle, Sea-Tac Airport Managing Director

Lyttle commented that StART was started to work collaboratively to identify potential solutions to issues raised by surrounding communities. Lyttle emphasized that he is dedicated to working toward this goal, and this is why he has provided significant airport and consultant resources to this effort and enlisted the engagement of the FAA and the two major airlines. Lyttle reinforced his belief that the near-term actions identified and discussed by the working group will result in real change for the communities.

Lyttle noted that in order to make progress on the identified issues, he met twice since the last StART meeting with the City Managers for a mid-year check in. At these meetings, Lyttle and the City Managers discussed how to increase effectiveness of StART and agreed, by consensus, upon changes to the StART Operating Procedures. The revised StART Operating Procedures were distributed to all StART members prior to the meeting.

Lyttle acknowledged the frustration that the public may feel with the limited opportunity for public comment during the StART meetings. StART is intended to be a working group and given the time limitations is not set up to be the most appropriate forum for receipt of public comment. Lyttle is exploring other options for a forum where the public would have more opportunity to comment.

Facilitator's Update

Phyllis Shulman, Civic Alchemy

The facilitator noted one change to the agenda – adding Alaska, in addition to Delta, in the discussion regarding updates on fleet changes.

FAA Reauthorization and SAMP Update

Clare Gallagher, Port of Seattle

Gallagher provided a brief update regarding FAA Reauthorization. The 5-year FAA Reauthorization Bill (Bill) has been passed by Congress and signed into law. The Bill includes infrastructure and grant provisions, primarily for airport facility improvements. Many details of what is included in the Bill are still being analyzed and the FAA is in the process of reviewing the Bill to determine implementation steps. Funding has not yet been appropriated. A few of the items known to be included in the Bill are:

- Creation of a noise ombudsman in each region. This was in addition to the community outreach position funding included last year. The Bill also includes funding for noise impact studies on surrounding communities. Seattle was included as one of the cities to be included in the study.
- Several other noise provisions also included:
 - Study on the impact of takeoff/landing speeds on community noise levels
 - Study on dispersion of flight track paths
 - Study of noise exposure on surrounding neighborhoods (different than human health study)
 - Study on feasibility of phasing out Stage 3 aircraft
 - Environmental mitigation pilot program for air, noise, water studies on areas surrounding airports

A StART member commented that the FAA Reauthorization Act does not include Rep. Adam Smith's request for an ultrafine particulates impact study. She stated that the Highline School District's school funding fix was not included in this Bill, as it was already included in a prior bill.

The member also stated that she thinks that the language in the Bill is ambiguous, and that there were some very important other things included in the Bill. It was suggested that StART look into what the requirements are to become a metroplex, what the pros and cons of a classification change might be and what aspects of the Bill apply to Sea-Tac.

Sustainable Aviation Master Plan (SAMP) UPDATE

The 60-day scoping period closed 9/28. Over 300 public members participated in the comment process. The Port received 700+ comment submittals, with 300+ coming from the Quiet Skies group, as they were self-identified.

The Port is now reviewing comments, and preparing a list of all comments in coordination with the FAA. They expect to prepare a Response to Comments and to report to the Port Commission in early 2019.

Aviation Noise Working Group Briefing and Discussion

Joe Scorcio StART Member

The StART Aviation Noise Work Group (Work Group) reported on their meeting and solicited feedback and questions from StART participants. Scorcio provided the following summary of the September 24 Work Group meeting.

StART Aviation Noise Working Group Facilitator's Meeting Summary Monday, September 24, 2018

Meeting Objectives: *To review data on nighttime flight operations and to discuss examples of runway use letters of agreement from other airports. To discuss and consider constructive next steps.*

Meeting Summary: *The Working Group attendees included StART members, as well as resource representatives from the airlines, the FAA, and Port of Seattle.*

The meeting's main focus was to review data on nighttime flight operations. A few key findings are:

- Between midnight and 5 am activity decrease significantly*
- There are approximately 46 night takeoffs and landings between midnight and 5:00am (some seasonal variations)*
- The majority of night flights are domestic*
- The majority of cargo flights utilize wide body aircraft*

The discussion focused on identifying additional data that would help inform the crafting of a possible voluntary nighttime curfew.

The Working Group provided guidance to the airport staff and consultant to focus attention on exploring options for reducing aviation noise between the hours of 12:00am to 5:00am and to hone in on identifying what is creating the greatest noise impacts for communities north and south of the airport,

(for example, a specific flight, type of aircraft, a specific flight path or runway, etc.) and identifying actions related to flight operations that could reduce these impacts.

The Working Group reviewed and discussed examples of letters of agreement for runway use from a variety of airports. The noise consultant reviewed some lessons learned from other airports. The Working Group will consider whether a revised Letter of Agreement between the Port of Seattle and FAA would be worthwhile and what might be revisions to consider. Some possible revisions discussed included 3rd runway use at night and documenting procedures that are currently going well.

The Working Group briefly discussed the development of the work program. The Working Group suggested that it is important to clarify the overall goals of the work program. Suggestions for goals included: to make improvements to reduce the impact of nighttime noise, collect and share information about the who, what, where, and when related to noise impacts, and to identify specific noise reduction measures to explore.

The Working Group will refine their guidance on a voluntary curfew and letter of agreement for runway use after additional data is reviewed and after input from StART. The Working Group emphasized the importance of the cooperation of the FAA and airlines in these discussions and exploration of options.

Next Steps: *The Working Group decided to add an additional meeting in December. Members identified additional information to be brought to the next meeting including specific mapping of flight tracks between midnight and 5:00am, additional information about the rationale for specific flights to be at the times they are, any projections on possible increases in nighttime flights, and upcoming carrier fleet changes.*

Based on the information discussed in the meetings, the Working Group requested that the Port and the FAA discuss, among themselves, what improvements could be made to the previous Letter of Agreement to reduce nighttime noise.

The next meeting will include discussion of a draft work program for the Working Group that identifies potential actions, additional analysis or information needed to evaluate each strategy, and who will take the lead with each task. The Working Group will brief StART members and solicit comments at the October StART meeting and will consider their feedback at the next Working Group meeting.

Questions, feedback and guidance were solicited from StART members. Members' questions and comments included:

- What is the benefit of participating in a voluntary program for the airlines? Do we expect the airlines to participate? The airline representatives in attendance stated that they were engaging in the discussions, are sharing their feedback as part of the Work Group process, and until more details were presented, they weren't prepared to offer their official response to the curfew as of yet.
- What aircrafts are here for refuel only during nighttime hours? The Work Group should evaluate whether these flights could be changed to daytime hours. Port staff stated that

there are no current aircraft that land at Sea-Tac during nighttime hours that only land for refueling.

- Appreciation for the specific potential action items that the community members and Work Group are discussing. Gratitude was expressed to the airlines for considering the implementation of a voluntary late-night curfew.

Presentation and Discussion: Forthcoming Aircraft Fleet Changes

Dr. Robert Stoker, Senior Manager of Flight Sciences – Noise, Vibration and Emissions, Boeing Company

Dr. Stoker gave a presentation and fielded questions on forthcoming Boeing aircraft fleet changes and the impact of those changes on aviation noise. Dr. Stoker's presentation can be found [here](#). In addition to the presentation representatives of Alaska Airlines and Delta Air Lines discussed operations improvements to their fleets to reduce noise and improve fuel efficiency as well as current and future investments/fleet replacement with newer, quieter aircraft.

There were several questions following these presentations regarding aircraft noise abatement mitigation, percentage of engine noise vs. other aircraft noise sources, potential improvements to aircraft generated ground noise, engine silencers, whether topography of an airport impacts noise, improving thrust reversers, anticipated phase out of older airplanes, and status of retrofitting A-320s to stop the the fuel vent noise. Questions included:

- Is Boeing still building 747s?
 - Yes – building 747-8s.
- What percentage of noise is generated from sources other than the engine?
 - During takeoff, the majority is engine noise
 - During approach, “airframe” (everything that is not engine) can be equivalent in magnitude to the engine noise.
- Does continued fuel efficiency also reduce noise?
 - It can. Noise is a loss of energy (a small amount of energy), but we want to find those win-win situations that improve fuel efficiency and reduce noise.
- Is Boeing working on anything for reduction of noise while planes are on the airfield?
 - Yes, looking at auxiliary power units, linings, what the engine cycle is while taxiing
- Has the aircraft industry looked at engine silencers, similar to gun silencers?
 - Yes. Boeing has looked at mixer-ejector type nozzles. They tend to not work well on modern high-efficiency engines and add weight and reduce fuel efficiency.
- Does the topography of an airport impact the noise?
 - Not so much the topography, but air density. Different elevations (air density) can change the measured noise, but the effect is very small.
 - Topography could result in echoing, but would not change the source level of sound
- Is there a perceived distance/noise factor?
 - Yes. It is governed by the Inverse Square Law, which indicates that a doubling of the distance from a noise source will reduce the SPL by 6dB.
- Is Boeing looking at thrust reversers as a noise source?

- There are liners in the engines that help to reduce noise. Boeing will continue to look at opportunities to improve.
- Has Boeing done any research on infrastructure for noise reduction opportunities?
 - Boeing is primarily concentrating on the reducing the source noise.
- Is fuel reduction due to other improvements in infrastructure or actual fuel reduction? Fuel usage is going way up, so how is there efficiency?
 - Each generation of planes is more fuel-efficient than past generations of airplanes. Total fuel usage may be going up due to the increase in total number of flights.
- What percentage of older planes have been phased out in the last 10-years or so?
 - Boeing estimates that over the next 20 years 18,000 airplanes out of the existing fleet will be replaced by new quieter, more fuel efficient airplanes.

The following question was not a question asked of the Boeing representative:

- How many A-320 “whistler” planes are coming in/out of SeaTac?
 - The Aviation Noise Work Group is looking into how to address this. Port staff reported that about half of the A-320s on the airfield had the noise retrofit, while the other half did not.

Public Comment

Compiled public comment are included here as Appendix A.

Meeting Wrap Up

Lance Lyttle

Lyttle thanked the community members and StART participants for their time and contribution.

Next Meeting:
December 19, 2018, 6:00 pm – 8:00 pm
Location: SeaTac City Hall, 4800 S 188th Street, SeaTac 98188 –Note
change in location

Appendix A

Summary of Public Comments

1. Dave Berger (Federal Way) (oral comments):
 - Lives in the Marine Hills neighborhood of ~1000 residents outside the 150 parabola. Stated that he was very encouraged to hear the Airport Director state that he wants to see progress. All 4 of the issues being looked into by the Aviation Noise Working Group are things that have been brought up by his neighbors.
 - Recommended that the Working Group create a timetable for their work plan. The timetable could be adjustable, but without one, given the complex issues there can be analysis paralysis.
2. Ray Miryekta (oral comments):
 - He is a retired aerospace engineer, and is appreciative of all the challenges this group is tackling.
 - REM sleep deprivation is significant for those living under the flight path. He is suffering from amnesia and takes sleeping pills to sleep. He stated that even with sleeping pills he still wakes up at 1:30 am and 3:30 am due to aircraft noise.
 - Asked if it is possible to put night flight operations at Moses Lake.
 - Commented that it is very difficult to deal with the aviation noise if you are living under the flight path.
3. Gigi Sather (Federal Way) (oral comments):
 - Stated that life has changed drastically in the last few years. There is no outside living any more and that earplugs are required to do gardening, or speak with neighbors.
 - Sees planes with wheels down, so much more frequently.
 - Is grateful for the efforts to reduce noise by Alaska Airlines and Boeing, but mentioned that it is also depressing.
 - Does not understand why planes cannot be routed over the water, instead of over houses. Requested to please prioritize quality of life for people, and have planes approach/depart over greenbelts and waterways.
4. Bernadine Lund (Federal Way) (oral comments):
 - Urged all to act now, be proactive, to mitigate aviation noise, and not wait until someone tells you to do it.
 - The problems caused by the new flight paths are happening over a narrower corridor, and people have been complaining across the country. Inquired as to why new studies are required considering many studies have already been done.
 - One of the emissions, thorium, a toxic chemical, is concentrated under the flight path.
 - Both the FAA and Port have inaccurate/incorrect information on their websites that should be corrected.
 - Requested that agencies be a proponent for the communities that are impacted by the airport and not wait until legislation passes to do the right thing.
5. Debbie Wagner (Burien) (oral comments):
 - Stated that it is important to know the history of noise abatement mitigations. She mentioned that in the 1980s, there was a group that originated the noise abatement program through a mediated agreement. She commented that these communities that were part of the mediated agreement now have 85dB penetrating through their homes

and bodies because the Port was too cheap to buy out the properties and instead insulated homes.

- Believes that in the 1990 noise abatement program, there were voluntary agreements that aircraft would use no reverse thrust, no engine run-ups, and that there would be curfews between 11 AM and 6AM.
 - The only option now, to reduce community impacts, is to buy out the 10 billion dollars worth of property around the airport, or to move the airport.
 - Commented that the airport is a major source of documented hazardous substance exposure to the surrounding communities.
 - Emissions abatement should also be considered and required along with noise abatement.
6. Marianne Markkanen (SeaTac) (oral comments):
- Requested that the noise ombudsman attend the meetings.
 - Disappointed that ultrafine particulates were not included in the Federal FAA Reauthorization Bill.
 - As a member of the flying public, is thankful to see Alaska and Delta here, and is disappointed that these are the only airlines represented.
 - Appreciates some airlines are updating their fleets, hopes the rest will follow suit.
7. Steve Edmiston (Des Moines) (oral comments):
- Attended this meeting on the recommendation of Port Commissioner Felleman to hear what work has been happening to address nighttime noise.
 - Disappointed that the airlines were not able to state their commitment to a voluntary late night curfew during the meeting.
8. Roger Kadeg (SeaTac) (oral comments):
- Inquired as to what would a fuel change do to jet engines? Is there a possibility that a change to biofuels would have an impact on emissions and noise?
 - Dr. Stoker responded that there have been studies done on biofuels. Boeing has done test flights on 100% biofuels. The change to biofuels is likely coming. Some airports are already using biofuels. There are issues around the world with production, and consistency with types. The biofuel producers are still working through the challenges of a stable supply to the airline industry.
9. Susan Pedersen (Federal Way) (written comments):

After reading the “Operating Procedures” of the StART, I find very little about the residents negatively impacted by SEATAC noise and emissions, whether to implement any suggestions or even express any concern.

I attended a number of these meetings and the noise issue must be of very low importance to the start. This committee hears about the issue from city representatives and the limited time for public comment but ends with **no outcomes, resolutions or implementations by StART.**

Why have these meetings if only to give the **appearance** that you care about what’s going on in South King County? This does not represent either real engagement with the residents or concern by those in charge of these meetings.

SPECIFIC ISSUES: Quoting from the Operating Procedures:

- **Reporting Structure:** “ StART shall have an informal relationship structure to the Highline Forum...and work in partnership on initiatives that benefit the residents of Southwest King County.”
 - *Why have two committees, StART and Highline Forum, IF neither committee appears to actually “partner, act or propose any initiatives,” on behalf of the residents of Southwest King County?*
 - *Listening and ignoring doesn’t count.*
- **“Representatives from the FAA** are expected to participate at StART meetings.”
 - *They only participate when asked to clarify something very specific, but their participation is usually to give their names and position. Are they afraid to make comments? Why?*
- **Facilitator:** Merriam Webster’s definition of a facilitator is: “Someone who helps to bring about an outcome (such as learning, productivity, or communication) by providing indirect or unobtrusive assistance, guidance, or supervision.”
 - *We’d like to see a more “timely administration” and “inconspicuous moderation” of the agenda and ANY outcome!*
 - *This meeting is not to listen to the ineffective facilitator, but to hear the speakers and the public.*
- **Public Comment:** “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.”
 - *The time allotment for public comment has been pre-determined without concern for those who wish to speak. Public should be able to speak for as long as needed.*
- **Commitment from Stakeholders:** item #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.**”
 - *When will you do this?*
 - *Listen to the CITY REPS and the PUBLIC!*

TIP: Get microphones that work. Or did you really intend not to be heard?