Requests for Assessment of POS and FAA Part 150 Compliance

To the people living in communities surrounding Sea-Tac Airport, aircraft noise is a constant irritant because when they purchased their homes, there was either tolerable noise or none at all. However, unrestrained growth has shifted the so-called "balance" between livability to outright incompatibility with neighborhoods of families, retired folks living on fixed incomes, and economically-challenged populations that qualify as eligible for environmental justice.

Consequently, local cities are demanding to know how much, if any progress, POS has made on program elements contained in its latest 2013-2018 Part 150 Study by asking questions using FAA's Record of Approval released in June 2014 (that included only newly-opened third runway) as listed below and some program elements dating back to POS' first Part 150 Study in 1985:

Element #1 – "...voluntary rescheduling of aircraft flight times (earlier or later) of nighttime short-haul flights by jet aircraft.."

Request: How often and many, if any, nighttime flights have been granted "voluntary" status (short-haul or otherwise) since 1985 when it was first enacted?

Element #2 – "This measure uses very high frequency (VHF) omnidirectional range (VOR) radials to curb departing aircraft from drifting off the runway heading tracks as specified in the Tower Order. Aircraft noise and overflights are reduced for areas that are not beneath the existing departure corridors."

Request: While "voluntary" since 1985, is it still being implemented; and if so, how often? What are the statistics?

Element #3 – "This measure was included in the 2002-2007 NCP updated to address maintenance run-ups...This measure is recommended to be modified to reflect the currently implemented run-up restrictions as outlined below:

"All engine run-ups require approval of Airport Operations. No aircraft engine Run-ups shall be conducted during the nighttime quiet hours of 2200-0700. Engine run-ups necessary for maintenance checks above idle power not to exceed a total of two (2) minutes durations per aircraft."

Requests: How often is this modified measure actually approved by Airport Operations; and how many engine run-ups exceed the two minute duration limit? How many times have these operations been disclosed per this element and how many fees have been collected? Also, have engine run-ups occurred in locations not approved by the Director? What are the decibel levels of typical engine run-ups?

Element #4 – "This measure directs aircraft to follow the established noise abatement corridor during nighttime, thus reducing noise and overflights of areas outside the corridor."

Request: Since this is a "voluntary" measure, how many times a week/month/year is this measure utilized? Records of compliance and deviance should be provided.

Element #5 – Development and implementation of a Fly Quiet Program. Have all six elements of this measure been implemented; and if so, what are the statistics for compliance by all airlines? How does the POS respond to airlines/aircraft that do not participate, or are found in violation of Fly Quiet recommendations? By what means does the POS determine compliance with Fly Quiet recommendations since the "use of the monitoring equipment for enforcement purposes" is not permitted by the FAA?

Element #6 – **Use of FMS (Flight Management Systems) Procedures** (aka RNP—required navigational performance, NextGen, and Greener Skies Initiative). This measure was also approved in the POS' 2002-2007 Part 150 Study.

Requests: What are the performance statistics regarding reduced noise impacts and have they actually been realized as promised and has there actually been a reduction in fuel consumption as promised, especially in neighborhoods like Beacon Hill in Seattle and on Vashon Island, and elsewhere? Some recent studies deny the POS claims and are critical that any benefits from this type of FMS application have occurred at POS.*

Important Note contained in this measure #6: "The Port is responsible for initiating coordination with the FAA and airlines on evaluating potential new FMS procedures. The FAA will work with the Port and airlines to determine if any other FMS procedures are feasible and would provide noise mitigation. The NCP analysis and preliminary FAA evaluation determined that FMS procedures and corridors recommended in the NCP were not feasible and could severely impact on airspace capacity in the area. Approval of this measure does not commit the FAA to implementing new procedures." (Bolding of this note was not added; it was bolded in the document.)

Additional Requests: Why does this measure reference FMS procedures, instead of more legitimately referenced RNP measures? Is it to mask the real and true purpose of these procedures that concentrate noise and emissions? Haven't complaints increased among neighborhoods affected by the Alaska Airlines Greener Skies initiative? What actual statistics can POS provide that substantiate the claims denied by researchers? What impact has the Greener Skies Initiative had on airspace capacity? Is that why no others have been recommended?

Element #7 - The POS withdrew this measure; therefore, the FAA was not required to act.

^{*} Reference http://aireform.com/faa-industrys-own-data-exposes-greener skies-a... published as Aviation Impact Reform: FAA/Industry's Own Data Exposes 'Greener Skies' as an Environmental Fraud, December 11, 2017.

Element #8 – Construct a Ground Run-Up Enclosure (GRE) on the airport to minimize run-up noise.

The POS recommended this measure in both its 2002-2007 Part 150 Study and also its 2013-2018 Part 150 Study. "This measure recommends the construction of a GRE based on the recommendation of the ongoing GRE Siting Study and a future GRE Design Study." However, the current SAMP (Sustainable Airport Master Plan) compiled in May 2018 (while the latest Part 150 Study was still in effect) does not include construction of a GRE, or a facility commonly known as a "hush-house." (Emphasis added.)

Requests: Why would this critical element and proven method of double-digit (15-20 dB) noise decibel reduction around three potential GRE sites that was included in its 2002-2007 and 2013-2018 Part 150 Studies be rejected in favor of increased passenger facility development on the POS airfield? Why did this POS priority slip to non-existent?

Element #9 — Expand the Fly Quiet Program that was recommended in the POS 2002-2007 and 2013-2018 Part 150 Studies. POS recommendations for expansion:

- "Use of Airport Traffic Control Tower (ATCT) reporting of operational modes for comparison to runway use goals.
- Include provisions for the use of the ground run-up enclosure recommended in Measure A-18.
- Adding different categories of airline operations."

Request: Have any of the "voluntary" elements listed above been implemented; and if so, what are the POS conclusions about their effectiveness? Provide statistics to support conclusions.

Element #10 – Standard Insulation. "This measure includes the sound insulation for eligible single-family residences within the revised Noise Remedy Boundary as depicted on Exhibit 6-1 in the NCP. The Port has an ongoing program to sound insulate eligible single-family residences within the currently (sic) Noise Remedy Boundary that was established in the 1985 NCP. Completion of the single family sound insulation program was also an element of the Judy 3, 1997 Record of Decision for the Master Plan Update for the inclusion of the new third runway. Since that time, noise exposure has decreased at Sea-Tac Airport due to ongoing noise abatement efforts and the phase-out of older, louder aircraft and the lower number of operations. As a result, the noise exposure contours development for this Part 150 Study are much smaller than the noise exposure contours developed for the 1985 Part 150 Study upon which the Noise Remedy Boundary was based. It is recommended that the Noise Remedy Boundary be modified to be more consistent with the Future (2018) NEM/NCP noise exposure contour developed for this 2013 Part 150 Update.

The description of this measure is inaccurate and inflammatory for the following reasons:

The statements highlighted in red are completely misleading: During the five-year period of this latest 2013-2018 Part 150 Study, flight operations at POS increased dramatically. One POS document declared an increase of 33% from 2014-2016 alone.

- 1. Request: Was this simply a poor job by noise managers and consultants to understate projected increased flights and noise, or was it a method to reduce expenditures for sound insulation? For example, the latest Part 150 Study projected 366,000 operations (arrivals and departures) in 2018, yet the actual number was 438,391! More operations means more noise and more air emissions misjudged by nearly 20%! Additionally, POS does not intend to conduct another Part 150 noise compatibility study until 2021 except perhaps for the noise created as a result of SAMP construction!
- 2. Request: What happened to the NEMs/NCP for the time period between the 2002-2007 Part 150 Study and the 2013-2018 Part 150 Study that only modeled part-time use of the third runway and sound mitigation was based upon that runway alone? What about those residences; why haven't they been noise modeled and mitigated?
- 3. Request: How many times was the FAA standard of a 1.5 dB increase in flight operations to trigger a new Part 150 Study been exceeded since 2002-2007? Even the FAA's April 2018 CATEX report to the City of Burien in response to their litigation included noise analyses that indicated that areas of Burien that had previously been located in the 40-45 dB DNL, at least 5.2% of that area, had new noise levels of 65 dB DNL and greater, which is the decibel DNL that triggers eligibility for noise mitigation.
- 4. **Request:** Not only is current sound insulation efforts focused only on use of the third runway, it does not include any eligible or qualified residences requiring mitigation from the other two runways since 2002-2007! Why were they ignored?
- 5. **Request:** Why did it take POS almost four years from the time the 2013-2018 Part 150 Study was approved in June 2014 to the fall of 2018 to hire a sound insulation contractor and begin this phase of mitigation? Why should homeowners have to wait until the POS gets its act together; or wasn't it a sufficiently high priority?

Element #11 – Insulation of Schools – "This measure includes a sound insulation program for eligible schools. A pilot program was initiated according to the original measure from the 1993 NCP update to determine the feasibility, procedures requirements, and costs, for sound insulating four public buildings based on the Building Committee recommendations....This measure is ongoing. As of August 2012, sound insulation has been installed in seven schools within the Highline School District, (that fall within the DNL 65 dBA) with eight schools remaining. Fourteen of 22 eligible buildings at the Highline Community Collee have also been sound insulated."

"FAA Determination: Approved in part and disapproved in part. The 2002 ROA approved the measure stating that insulation of schools within the 65 dB DNL will be based upon

negotiated agreements between the Port, school districts/education facilities and FAA. The Port, FAA, and the State signed an MOA with the Highline School District on June 4, 2002 agreeing to fund eligible sound reduction elements of reconstruction of 15 schools. This agreement is still in place and allows the sound insulation of the schools outlined in the MOA using FAA AIP, Port and State funding; therefore, this measure remains approved. However, the FAA notified the Port on November 4, 2013 that the Highline Community College will no longer be eligible for AIP funding due to the campus location being outside the newly revised noise remedy boundary. Therefore, sound insulation of the Highline Community College is disapproved." (Bolding not added; it is contained in the original ROA signed by FAA in June 2014.)

Requests:

- Had the POS not just noise modeled the use of the third runway, but actually noise
 modeled all three runways, 24/7 in all weather conditions in its 2013-2018 Part 150
 Study (since there had not been any noise modeling since 2002-2007), wouldn't the
 Highline Community College funding been approved by FAA because the number of
 flight operations and concomitant decibel levels would have exceeded the 65 dB DNL?
- 2. Why was it such a low priority for the POS to postpone sound insulation in schools where children's and young adults' health and learning ability is at stake? Decades of research (Transportation Research Board (TRB), Airport Cooperative Research Program (ACRP), Federal Interagency Committee on Aviation Noise (FICAN), to name a few) reveal the deleterious effects of aircraft noise on a learning environment exist replete with case studies and results and are readily available to the POS managers and port commissioners.
- 3. Did the POS ever consult any scientific reports published by FICAN (or others mentioned above) and available on theirs and other websites?
- 4. Where is the environmental justice for these children and young adults? Not only as it relates to noise, but air pollution as well. What about the health and welfare of airfield workers?
- 5. Did anyone in the POS Noise Office or consultants, or POS Commissioners ever consult any of these research documents? Are they aware that the World Health Organization (WHO) recently released a report regarding lowering the noise standard to 45 dB DNL during daytime hours, and 40 dB DNL during nighttime hours?
- 6. Not only was there no noise modeling from 2002-2007 to 2019 of all three runways, there is now considerable evidence that aircraft emissions—particularly ultra-fine particles—enter the human body, even the brain. On May 17, 2019, *The Guardian* (theguardian.com) published an article by Damian Carrington, where he claims air pollution may be damaging "every organ in the body." Had there been sound insulation, mandated

ventilation systems—both in-home and in-school—would have been improved to help filter out some of the worst carcinogens. School employees and children have been unnecessarily exposed because the POS commissioners and managers decided that sound insulation is a low priority.

Element #12. Property Advisory Service — "This measure provides residents and property owners within the Airport Environs with access to timely and factual information concerning 1) what noise remedies they may be eligible for, 2) assistance with making decisions when they are eligible for multiple options, 3) information regarding rumors about the mitigation program (either good or bad), and 4) assurances that the various programs are indeed aimed at improving the living, working and leisure time environment. This two-way communication can also provide the Port with information about the concerns of the residents/property owners and can provide a means by which the success or failure of programs can be monitored."

Requests:

- 1. Given that the FAA has recently published a Report to Congress, entitled National Plan of Integrated Airport Systems (NPIAS) for 2019-2023, and on Page 1 writes:
 - "Airports should be safe and efficient, located where people will use them, and developed and maintained to appropriate standards;
 - Airports should be compatible with surrounding communities, maintaining a balance between the needs of aviation, the environment, and the requirements of residents;" Among six others. (Emphasis added.)
- 2. What is safe and efficient about an airport when an Alaska Airlines Q400 is stolen and flown off the airfield without detection until it's airborne?
- 3. Why did the POS avoid a conventional Part 150 Study for 2013-2018 and only conduct noise modeling for use of the third runway? This avoidance reduced the amount of sound insulation for both residences and schools; and what did they tell residents who called about insulating their properties? How many calls has the POS responded to since 2002?
- 4. Many residents have bitterly criticized the complaint system managed by the POS because they believe the information forthcoming from the Noise Office is not credible because it does not match the POS' online flight tracking software (WebTrack) or information from a homeowner's own AirNoise.os. Does anyone at the POS monitor this information sharing for its thoroughness and reliability; or are form letters used to respond to complainants regardless of the noise issues? Since this two-way communication maybe the only contact the public has with the POS, it's critical that this communication is without reproach. Is it?
- 5. Have sound insulation written materials been provided in multiple languages or have pubic notices been translated into multiple languages in order to reach the diverse populations that reside in Burien and other south King County cities? Are translated materials readily available to diverse populations online?

6. Has the POS conducted any environmental justice analyses on the effects of noise and air emissions on low income or ESL populations? It is a federal requirement to do so.

Element #13 – **Local Government Remedy Support** "By insulating homes and assisting with real estate transactions, the Port can participate in making the Airport and surrounding residents better neighbors. However, the Port alone cannot accomplish all program goals. Local governments, with land use jurisdiction must also participate if the program is to be a success, especially in the long term. Under this measure, the Port encourages local jurisdictions to undertake projects, provide services, and adopt laws that reinforce neighborhoods and make them compatible with the Airport."

Requests:

1. Given the self-serving nature of this noise remedy measure, it's important to examine the statutory authority of a local government compared to a "special purpose district" such as the POS because it has an entirely different mission under Title 53-25-100 RCW: unconstrained economic development! Whereas, municipal governments have a myriad of primary duties, including but not limited to, coordination of municipal services, law enforcement, collection of taxes and other revenues, land-use planning, maintenance of public facilities--including streets and roads--and has the responsibility to protect the health, welfare and safety of residents in their communities; whereas, the POS last year removed the requirement that it would "ensure a sustainable quality of life" for King County residents from its bylaws and mission statement.

How would the POS propose that local jurisdictions "adopt laws that reinforce neighborhoods and make them compatible with the Airport" when the POS is a 24/7 operation that has managed to avoid rigorous mitigation for its increasing operations by deliberately not catching up on its noise modeling obligations since 2002 to the present, and postponing any new noise modeling until 2021, after the SAMP construction is completed. (Please see requests associated with Element #21.)

- 2. Why shouldn't the POS' infrastructure improvements in the multi-million and billion dollar range be subject to voter approval similar to what is required of Sound Transit so that there would be more transparency in the infrastructure improvements included in the Sustainable Airport Master Plan?
- 3. Why shouldn't their governance include separately elected district commissioners, where the commissioners represent the geographical areas most impacted by POS facilities?
- 4. How does the POS assist with real estate transactions? Is it to provide decibel level and frequency of flights underneath POS flight paths? If so, how many real estate transactions do not occur because of this information? How many times per month is POS asked to provide this information? What type of follow-up occurs with real estate agents? Doesn't the POS know that property tax revenues are the life-blood of cities, so how could they possibly "undertake

projects, provide services, and adopt laws that reinforce neighborhoods and make them compatible with the Airport" when property values decline and new residents are discouraged by environmental claims of excessive noise and air pollution?

Element #14 – Funding for Land Use/Noise Compatibility Planning – This measure encourages public agencies to conduct land use/noise compatibility planning consistent with the principles and guidelines of 14 CFR Part 150 and the Port noise compatibility goals; however, the funding source is not identified.

Request: Is the funding provided by the POS, the FAA, or other entity since this measure is incomplete without that information?

Element #15 – Approach Transition Zone Acquisition. This measure recommended that the Port purchase residential properties experiencing noise levels of 65 dBA or greater, ad located within the Approach Transition Zones (ATZ) of Runway 16R/34L.

Request: How would a homeowner know whether or not their property was located within the ATZ of these runways since the Part 150 Study is outdated and contains inaccurate noise contours?

Element #16 – Prepare Cooperative Development Agreements. The POS and the surrounding jurisdictions should work towards development of cooperative development agreements concerning land use, redevelopment of infrastructure of the ATZ, as well as other redevelopment areas as necessary.

Request: Same as listed above for Element #15.

Element #17 – Sound insulate eligible tenant-occupied multi-family units (apartments) within the modified Noise Remedy Boundary as a Pilot Project.

Request: What is the disposition and status of this measure by the POS?

Element #18 – Offer avigation easements to owners of individual lots on which mobile homes are located within the modified Noise Remedy Boundary.

Request: The POS fails to offer any motivation to an individual lot owner for signing away their legal air rights for such properties, especially since their mobile home is not eligible for sound insulation; and any newly constructed residence is not eligible for sound insulation according to FAA regulations.

Element #19 – Initiate a formal study to evaluate the noise levels at churches/places of worship located within the Noise Remedy Boundary for eligibility for sound insulation.

Request: What is the status of this "formal study"?

Element #20 - Evaluate and Upgrade Noise Monitoring and Flight Tracking Systems.

Requests: What is the status of this evaluation and have any new system updates occurred and at what cost? If new system features have been added (i.e. new data or reports from each noise monitor, etc.), how are they being used to better communicate with the public and complainants?

Element #21 – Periodically review and, if necessary, update the Noise Exposure Maps (NEMs) and the Noise Compatibility Program (NCP). "The NEMS should be updated every five years or when there are significant changes in operating levels and patterns in accordance with the FAA's guidelines for determining what constitutes a potentially significant increase in operations (1.5 dB DNL increase in the area impacted by 65+ DNL).

The NCP should be updated every five years, or as necessary, to reflect any broader changes in the nature of aircraft noise surrounding the Airport. Should any on-airport development, such as runway extensions or significant modifications to ground facilities, enlarge the area of incompatible use exposed to aircraft noise above 65 Day-Night Average Sound Level (DNL), the NCP should be updated prior to the implementation of those improvements. A full update may not be required, but rather, a targeted assessment of the changes occasioned by specific development projects may suffice to bring the NCP to conformity and to qualify additional areas for NCP programs, if appropriate. (Color added for emphasis.)

Requests:

- 1. How is it possible that the POS has not already begun a new, comprehensive Part 150 Study—or at a minimum new NEMs? There are possibly hundreds—maybe thousands—of people living in homes where the decibel level is 10-20 decibels higher than it would be if it had been sound insulated and properly ventilated! What illnesses could have been avoided because of sleep deprivation or carcinogens in the air that is breathed even in a home's interior spaces? The laundry list of illnesses is stunning, yet people suffering will have to wait until 2021 or later? Why, because the POS doesn't have the time or resources? This is an immoral travesty perpetrated on people for no other reason that the POS—for some reason—does not want to acknowledge that each and every aircraft operation means more deadly noise and more deadly air pollution.
- 2. Why is the POS ignoring that there have been twelve years since there was a comprehensive Part 150 Study completed for 2002-2007? Why did the POS skip over all those years until they published a Part 150 Study on operations of the third runway only? Why did they neglect the hundreds, if not thousands, of people who used to live in "quiet" areas—like Seahurst in Burien—where some* (5.2%) have experienced a 20 decibel increase in DNL, and all decibel

^{*} On page 35 of Section 5.2.7, fourth paragraph that begins "As FAA started preparing NEPA documentation for the Preferred Alternative, the first noise analysis results were compared to the noise contours from SEA Part 150 Study dated October 2013. FAA discovered that the noise

levels increased except that 60% remained in the below 45 dB DNL level? Remember: this CATEX (Categorical Exclusion for Letter of Agreement Update to Automate a 250 degree Westerly Turn for Southbound Turboprops When Seattle-Tacoma International Airport is Operating in North-Flow Between the Hours of 6 am and 10 pm) was published the same year (2018) that the existing Part 150 Study ended. This is a clear irrefutable indication that decibel levels have increased and more residences are now eligible for noise mitigation!

FAA's own noise analyses contained in its April 2018 CATEX includes a rationale* for completing its own noise analyses within the Study Area, which is roughly Seahurst neighborhood in Burien, downtown Burien, parts of White Center and West Seattle. In the CATEX, FAA acknowledges that the current POS 2013-2018 Part 150 Study is inconsistent with reality In 2018 and this fact compelled FAA to conduct its own noise analyses within the General Study Area.

This is critical because at the time the CATEX was written in 2018, the POS' Part 150 Study was in full force and no noise modeling updates had occurred, nor were they planned sooner than 2021! Therefore, FAA was declaring that they could not rely on this Study as a determination of decibel contour levels; and it's important to note that the NEMs demonstrated that the majority, if not all, of the General Study Area had previously been within the 40-45 dB DNL. It's apparent to the residents living within surrounding Sea-Tac communities that the FAA is an inadequate steward of the Airport's regulatory compliance; and it appears that FAA is unwilling to step up to the challenge contained in its own Record of Approval!

3. Why hasn't the POS offered a window replacement program for those residences sound insulated after the 1985 Part 150 Study when window vendors went bankrupt; no ventilation products were offered to filter out dangerous carcinogens, where there was inferior and inconsistent contractor workmanship, mold and mildew resulted; yet homeowners were required to sign an avigation easement forgoing their rights to litigate and they agreed they would only be eligible for sound insulation once!

Element #22 – Continue to operate the Noise Office. This measure was recommended to continue operation of the Noise Office; and FAA approved it.

Request: Given all the issues outlined in this Request for Assessment of Compliance with POS Part 150 Study, it is apparent that the Noise Office management has a cozy relationship with FAA and together they have denied hundreds, perhaps thousands, of local residents social justice equity in the form of "balance" for living within an area extensively polluted by the POS.

exposure levels in the Turboprop-Only Analysis were not consistent with the Part 150 noise contours. This resulted in FAA conducting a second noise analysis that used all arriving and departing aircraft to account for the noise from all aircraft operating within the General Study Area."