

Part 150: Records of Approval

Seattle-Tacoma International Airport, Washington

Approved on 6/3/02

INTRODUCTION

The Noise Compatibility Plan (NCP) for Seattle-Tacoma International Airport (Sea-Tac) includes measures to abate aircraft noise, control land development, mitigate the impact of noise on non-compatible land uses, and implement and update the program. Federal Aviation Regulation (FAR) Part 150 requires that the plan apply to a period of no less than five years into the future, although it may apply to a longer period if the sponsor so desires. The airport sponsor has requested that the program measures be applied to the current conditions NEM (Figure C40) because it covers a larger area for potential mitigation. The NCP discusses the possibility of the third runway becoming operational but neither the current conditions nor the 2004 NEM (figure F1) shows this runway layout. However, there is a measure in the NCP to reevaluate the NCP measures once the runway becomes operational.

The objective of the noise compatibility planning process has been to improve the compatibility between aircraft operations and noise-sensitive land uses in the area, while allowing the airport to continue to serve its role in the community, state, and nation. The approval actions listed herein include all those that the airport sponsor recommends be taken by the Federal Aviation Administration (FAA). It should be noted that the approvals indicate only that the actions would, if implemented, be consistent with the purposes of Part 150. These approvals do not constitute decisions to implement the actions. Subsequent decisions concerning possible implementation of these actions may be subject to applicable environmental procedures or aeronautical study requirements.

The program elements below summarize as closely as possible the airport operator's recommendations in the noise compatibility program and are cross-referenced to the program. The statements contained within the summarized program elements and before the indicated FAA approval, disapproval, or other determination, do not represent the opinions or decisions of the FAA.

The FAA has evaluated the "current conditions" noise exposure map identified as "year 1998" and found it to be representative of the "year 2000", the date of submission.

PROGRAM ELEMENTS

1. Measure A-6: Establish Follow-up Public Committee The 1985 Part 150 established a public committee to address noise issues, which was transitioned into the SeaTac Noise Advisory Committee subsequent to the Mediation process that generated some of the original noise mitigations actions at the airport. This action is to convene a committee to monitor programs implemented as a result of the Part 150 Study after its completion. Page F.6

FAA Determination: Approved 2. Measure A-7: Establish Noise Barriers/Run-Up Enclosure The 1985 Part 150 recommended the use of airport facilities for noise buffering of ground noise. This measure supplements the 1985 recommendation, and recommends constructing a noise barrier

in the north cargo hardstand area. This action also calls for the completion of a siting/feasibility study for a Ground Run-up Enclosure by December 31, 2001. Pages E-37-E-57, page F-7.

FAA Determination: Approved in part; Disapproved pending submission of additional information to make an informed analysis. A siting/feasibility study for a ground run up enclosure is approved. Placement of any future GRE will be subject to additional FAA review determined by the results of the study. Construction of a noise barrier is disapproved pending submission of additional information regarding non-compatible land uses impacted and benefits to those non-compatible land uses from construction of the noise barrier.

3. Measure A-9: Encourage Voluntary Phase Out of Stage 2 Jet Aircraft Under 75,000 Lbs. The 1985 Part 150 recommended compliance with FAR Part 36 standards. This Action amends that through the voluntary phase out of Stage 2 jet aircraft operating at the Airport. Aircraft operating at Sea-Tac and meeting this criteria are currently older business jets and the F-28 commercial jet. Jet aircraft weighing less than 75,000 lbs. were exempt from the Stage 2 aircraft phase out mandated under the Airport Noise and Capacity Act of 1990. This Action involves working with the operators and airlines to voluntarily limit operations by aircraft weighing less than 75,000 lbs., noise certified under FAR Part 36 as Stage 2, especially between the hours of 10 p.m. and 7 a.m. Pages E-70, F.9

FAA Determination: Disapproved pending submission of additional information to make an informed analysis. It is not clear from the NCP documentation the contribution these aircraft have to the overall noise environment at Sea-Tac or the expected benefit from voluntary compliance. It is recognized that some aircraft operators are working with the airport to voluntarily limit operations by these aircraft types.

4. Measure A-10: Maintenance Run-Up Regulations This action addresses maintenance run-ups and recommends several changes to run-up related activities. Pages E-25 through E-33 and F.11.

These include:

- a. Prohibiting run-ups during the overnight hours of midnight to 6:00 a.m.
- b. Include language that allows run-ups in the shoulder hours of 10:00 p.m. to midnight and 6:00 a.m. to 7:00 a.m. only if necessary for a departure within two-and-a-half hours from scheduled run-up.
- c. Increase fines for violations to the run-up regulations to \$1,000 for the first violation. Doubling each time thereafter, within a 12-month timeframe, to a maximum of \$8,000 per occurrence.
- d. Implement new fine structure once new noise monitoring system has been fully installed and tested for reliability.
- e. Include run-up monitoring in Fly-quiet program.
- f. Work with airlines to restrict run-ups on weekend mornings before 9:00 a.m. unless needed for a departure within two-and-a-half hours of scheduled departure.

FAA Determination: Disapproved pending submission of additional information to make an informed analysis. Implementation of revised run up procedures (a. b., f. above) is disapproved pending submission of additional information regarding how the changes compare to the existing run-up procedures in their effect on aircraft operators. This measure differs from the one proposed and analyzed in the Part 150 documentation; there is no analysis of how this measure affects the non-compatible land uses impacted and benefits to those non-compatible land uses from changing the run up procedures.

The present nighttime restriction on run-ups is “grandfathered” from notice and analysis requirements of the Airport Noise and Capacity Act of 1990 and implementing regulations Part 161. Without additional information, the FAA cannot determine whether the proposed changes would reduce or limit the total number or hours of Stage 2 or Stage 3 aircraft operations (Part 161, section 161.7). Such an effect would make the changes to the run-up procedures subject to Part 161.

Monitoring equipment may not be used for enforcement purposes of aircraft in flight by in situ measurement of any present noise thresholds, for reasons of aviation safety.

5. Measure A-11: Preferential Runway Use This action implements a preferential runway system, during the nighttime hours, for those aircraft equipped with flight management system (FMS), to operate through the North Flow Nighttime Noise Abatement Corridor. This would be operational when traffic and other conditions permit as determined by the FAA. When conditions permit, during nighttime hours, departures can be shifted from south to the north, thus utilizing the established noise abatement corridor. This would be at the discretion of the FAA and would be premised on safe and efficient operating conditions. Pages E-52-E-59, E-89-E-92, F .15

FAA Determination: Approved as voluntary. Several sub-alternatives of a preferred nighttime north flow were evaluated in the NCP. Use of this procedure could impact on airspace capacity and therefore will be limited to those times when it can be done safely and efficiently. This measure will have no effect on the DNL noise contour, but would avoid West Seattle and Magnolia and would reduce over flights in the northern sections of Beacon Hill when it can be used. This measure is associated with the Fly Quiet Measure A-12, and includes “Nighttime Elliott Bay flight path compliance”, which is an over-the-water route.

6. Measure A-12: Development/Implementation of Fly Quiet Program Pages E.60-E.64, F.16

The Fly Quiet Program should be developed to:

- a. Monitor adherence to ideal noise abatement flight tracks
- b. Evaluate success of airlines, aircraft types and other variables
- c. Establish goals and track level of improvement over time
- d. Offer incentives for improvement

The Fly Quiet Program should include the following elements:

- a. Aircraft noise should be related to its effects on people including such factors as annoyance, speech interference and sleep disturbance
- b. Comparative fleet quality between airlines should also be included
- c. The program should utilize measured data from the Airport's noise monitoring system
- d. A method of normalizing data to account for airlines that most efficiently serve the region's air transportation needs should be developed
- e. Incentives of sufficient importance that airlines will take notice of the results
- f. Pilots and air traffic controllers should be included, if possible.

FAA Determination: Approved as voluntary. None of the measures in the NCP would affect the DNL noise contour because Sea-Tac has in place a mitigation program that has provided significant noise benefit over the last 10+years. The NCP proposes to analyze the effectiveness of a Fly Quiet Program using supplemental metrics to compare benefits of alternative corridors, altitudes, etc. It should be understood that compliance with this program can occur only to the extent that safe, efficient aircraft operation and airspace management is not jeopardized; the pilot in command has final authority regarding safe operation of his/her aircraft. For reasons of aviation

safety, this approval does not extend to use of the monitoring equipment for enforcement purposes of aircraft in flight by in situ measurement of any present noise thresholds.

7. Measure A-13: Evaluate increased use of the Duwamish/Elliott Bay Corridor with Flight Management Systems (FMS) This measure involves the Port of Seattle (Port) encouraging the FAA to pursue options for determining the feasibility of increased use of the Duwamish/Elliott Bay corridor. FAA conducted a feasibility study and provided a report and its findings to the Port on December 19, 2000. See attached Port letter of April 19, 2001, and Page F. 18.

FAA Determination: Disapproved. Implementing this action would greatly impact the efficiency of the air traffic system in the region and degrade safety, which would not be consistent with 14 C.F.R. part 150, section 150.35(b)(3)(iii).

8. Measure A-14: Nighttime Use of Commencement Bay Departure This action recommends further study and that FAA defer implementation until the Port coordinates with representatives of Pierce County. The Port has chosen to not include this item in the NCP and to pursue this separately from the remainder of the Part 150 process. Page F.20

FAA Determination: No FAA action required.

9. Measure A-15: Use of FMS Procedures This action involves the Port requesting that FAA evaluate potential FMS procedures for use over non-populated areas, and to discourage FAA development of new FMS procedures over populated areas. The Port would support the development of FMS procedures for all north flow departures turning west to improve compliance with the identified noise abatement corridor. Pages E.89-92, F.22

FAA Determination: Approved. 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.

10. Measure A-16: Use of Ground Equipment This action will be to install power and conditioned air in existing and newly constructed gates to minimize use of auxiliary power units/ground power units. Once power and conditioned air are installed at gates, airlines should be required to use these services. Page F.23. Also reference analysis used for barrier and ground run-up enclosure (pages E.36-E.45).

FAA Determination: Disapproved pending submission of additional information to make an informed analysis. Intuitively, to install units at newly constructed gates where aircraft can use alternative sources of power would minimize ground equipment noise. However, the NCP analysis is insufficient to determine present ground equipment impacts to the closest noise-sensitive sites, including duration, dB(A) levels at the receiver, and time of day.

11. Measure A-17: Raise Altitude Where Aircraft Intercept Glide Slope Through the Fly Quiet Program, the subsequent Follow-On Committee will work with the operators and the FAA toward a goal of having aircraft on the glide slope as far out as possible while not adversely impacting capacity. Pages E.136, F.25.

FAA Determination: Disapproved. Moving aircraft further out on the glide slope would negatively impact airspace capacity and efficiency. The current procedures are needed to maintain operational efficiency at the airport.

12. Measure M-2a: Noise Compatibility Program Boundary The 1985 Part 150 identified the existing Noise Remedy Boundary. In this action, the Port will focus efforts on more highly impacted residential uses located within the revised "current conditions" (1998) 70 DNL with this revised program. This will allow the Port to accurately mitigate the noise impacts based on the current noise environment for the next 5-7 years. These will be reevaluated when the next Part 150 Study Update occurs. As a separate effort outside of the Part 150 process, the Port will continue to work with King County International Airport on addressing combined noise impacts of both airports. Page F .27

FAA Determination: Approved. The revised program boundary is limited to airport layout and operations for the current conditions and forecast 5-year NEM conditions. Neither the 1998 nor forecast 2004 NEMs show the proposed third runway configuration. At such time as the noise environment changes significantly, this measure should be reevaluated to determine its currency. (Program Guidance Letter 01-1, 3/29/01, and Part 150, section 150.21.) Also see Measure M-10 of this NCP.

13. Measure M-2b: Insulation of Schools The action is to sound attenuate schools within the 1998 (current conditions) DNL 65 dB(A) noise contour. The Port and the FAA are working with the Highline School District on developing a sound attenuation program for that District. Once an agreement is reached, the program elements should apply for all schools within the 65 DNL. The Port has already insulated several private schools within the contours where agreements were reached on criteria and continues to insulate classrooms at Highline Community College. Page F.28

FAA Determination: Approved. Insulation of schools within 65 DNL will be based upon negotiated agreements between the Port, school districts/education facilities, and FAA.

14. Measures M-2c: Multi-Family Developments The 1993 Part 150 recommended a pilot project to sound attenuate a multi-family (greater than four units) structure. That pilot project was completed and this action is to sound attenuate all owner-occupied multi-family structures within the 1998 (current conditions) 70 DNL noise contour. Amend subdivision regulations to require dedication of avigation easements and recording of fair disclosure agreements for new subdivisions. Page F.29

FAA Determination: Approved. This measure will result in the treatment of approximately 300 owner-occupied multi-family units.

15. Measure M-2d: Manufactured (Mobile) Homes The 1993 Part 150 recommended that the Port offer financial assistance for the removal of mobile homes for those residents that are living in a mobile home park (park) where the owner has decided to close the park. In exchange for this assistance, the park owner would sign an avigation easement to ensure that a noise compatible use would replace the park.

This action will amend that measure in two ways: first, the Port will purchase manufactured/mobile home parks within the 1998 (current conditions) 70 DNL noise contour and provide relocation assistance to the residents of those parks in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act, as amended; and second, the Port will continue to offer financial assistance for the removal of mobile homes to those residents residing in parks, where the park owner has decided to close the park, located in the 1998 65 to 70 DNL noise contour. Page F.31

FAA Determination: Approved. This measure has the potential to remove approximately 425 mobile home units from within the 70 DNL noise contour. The FAA requires that the land use must be changed to, and remain compatible, once it is purchased for airport compatibility

purposes. When using Federal financial assistance, the assistance provided the property owner would be a “displacing activity” defined at 49 CFR 24.2(g)(42 USC 4601(6)(A)) and the mobile home tenants are displaced persons entitled to the relocation benefits prescribed under 49 CFR 24.

16. Measure M-10: Operations Review and Noise Exposure Map Updates The FAR Part 150 Study is a five-year program recommended to be reevaluated prior to the end of the five-year time period. In addition, if the airport operator determines there is a significant change in either aircraft types or numbers of operations, or significant new facilities, the Study may be reevaluated prior to the end of the five-year time frame. The proposed third runway may be operational shortly beyond the timeframe of this Part 150 Study. As soon as that runway is operational, an update of this Part 150 should be initiated. Page F.33

FAA Determination: Approved.

17. Measure M-11 : Approach Transition Zone Acquisition Residential properties experiencing noise levels of 65 DNL or greater, and located within the Approach Transition Zones (ATZ) of the proposed third runway should be purchased. The ATZ's are within the DNL 65 contour shown in Figure C39. The Port will work with the cities of Burien and SeaTac on the purchase of these properties and to prepare compatible land use plans for the areas consistent with both community and Port goals. Page F.35

FAA Determination: Approved for part 150 purposes with respect to those areas located within the most recent official Part 150 NEMs. The FAA requires that the land use must be changed to, and remain compatible, once it is purchased for airport compatibility purposes. When using Federal financial assistance, the requirements of the 49 CFR Part 24 must be met.

18. Measure M-12: Prepare Cooperative Development Agreements The Port and the surrounding jurisdictions should work towards development of cooperative development agreements concerning land use, redevelopment, and infrastructure of the ATZ's, as well as other redevelopment areas as necessary. Page F.37

FAA Determination: Approved. This is consistent with the purpose of Part 150.

19. Measure M-13: Amend Community Plans and Zoning Ordinances The Port will work with the jurisdictions to amend zoning Maps, as necessary to reflect ATZ and mobile/manufactured home park recommendations that may not be consistent with existing zoning maps and to take into consideration FAR Part 77 height requirements. Such changes shall work towards discouraging the location of additional mobile/manufactured homes that cannot be insulated, within the 1998 (current conditions) NEM 65 DNL contour. It is also recommended that jurisdictions that do not have code requirements adopt them. Pages F.39 and 40.

FAA Determination: Approved. This measure, for the Port to work with surrounding land use jurisdictions to promote airport-compatible land uses, is consistent with the intent of Part 150.