

RECORD OF APPROVAL
FEDERAL AVIATION REGULATION PART 150
NOISE COMPATIBILITY PROGRAM
PORTLAND INTERNATIONAL AIRPORT
PORTLAND, OREGON

INTRODUCTION

The Noise Compatibility Program (NCP) for Portland International Airport (PDX) 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. Title 14 Code of Federal Regulations (CFR) Part 150 requires that the Noise Exposure Maps associated with the NCP apply to a period of no less than five years into the future, although the NCP may apply to a longer period if the sponsor so desires. The airport sponsor has requested that the program measures be applied to the 2005 NEM (Figure H-2), which represents existing conditions at the airport, because it covers a larger area for potential mitigation. At such time as the NEMs do not represent the airport's noise environment, title 14 CFR Part 150 requires the airport sponsor to update the NEMs when there is a significant increase or decrease in noise over incompatible land uses (§150.21(d)).

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, aeronautical study, or other 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 Airport sponsor has certified that the existing conditions shown in the 2001 NEM and the future 2008 NEM that were presented at the public hearing are representative of the 2005 and 2010 NEMs included in the submittal. The Airport sponsor has further certified that the conditions depicted for 2005 are representative of 2006, the year of this submittal.

It should be noted that some elements of the 1997 NCP, as identified in the pertinent Record of Approval, were amended as a result of a post-aircraft-incident review to more narrowly define the category of aircraft and the wind criteria to which the operational measures are applied. In addition, some limited flexibility was introduced to address issues of operational efficiency. These changes were all fully incorporated into the 2002 Letter of Agreement (LOA) between the Port of Portland and Portland Tower/Approach Control; subject Noise Compatibility Program Implementation, which was used as the baseline for the current study.

PROGRAM ELEMENTS A complete summary of the recommended program elements can be found in Section H of the Part 150 Update. Most of the program elements have been carried forth from the existing NCP, which was approved in 1997, or from the 2002 LOA. Where noted, the new recommendations are revisions or updates of existing measures. The complete 1997 Record of Approval (ROA) of the existing program, and the 2002 LOA referenced above are in Chapter J of the document.

NOISE ABATEMENT/AIRCRAFT OPERATIONAL RECOMMENDATIONS

Recommendation 1 – Jet Aircraft Departures to the West. This recommendation is a revision of existing procedures 3(a)(1)(2), from the 1997 ROA that have jet aircraft departing to the west, intercepting the 277 degree VOR radial, and flying that heading until reaching specific altitude or distance before turning. The existing procedure was established in the 1983 Noise Abatement Plan and utilizes the Columbia River as an unpopulated “noise corridor”. The Port installed a radio beacon in 1985 that is used by pilots to guide them over the river. The new procedure is based upon satellite technology that is now available. It is anticipated that by using advanced satellite technology and on-aircraft autopilot systems, jet aircraft will likely fly more precisely over the river and to tighten the dispersion of flight paths to a more narrow pattern. Departing jets with Maximum Gross Take-off Weight (MGTOW) greater than 75,000 lbs., as well as business jet models specifically listed in the current operational Letter of Agreement (LOA) between the Port and the FAA, will remain over the river until reaching an altitude of 6,000-feet or a distance of eight (8) miles from the PDX VOR (ground-based navigational aid); other business jets will remain over the river corridor until reaching an altitude of 3,000-feet. Upon reaching the recommended altitude or distance, the pilots will turn in the direction of their intended destination (i.e. south for destinations in California, north for Seattle, etc.). See Page H24 of the NCP for more detail on this recommendation.

As outlined on page H24 of the NCP, this recommendation is predicated on the development and successful implementation of satellite-based procedures. In the interim, conventional tracks have been identified in the body of the recommendation in an attempt to achieve the goals noted above. However, conventional tracks cannot be defined to represent the numerous course corrections that would be necessary to achieve the flight tracks shown in the graphic. Therefore, the conventional tracks would only be precise within about 5 miles of the airfield. Final definition of these tracks would need to be coordinated with the FMS-based tracks developed by FAA.

FAA Determination: Approved as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. Existing procedures require that turbojet aircraft continue beyond the confines of Class C airspace, and into airspace which does not require that other users maintain two-way communication with Air Traffic Control. While this is not inherently unsafe, it should be noted that Air Traffic retains the authority to direct aircraft to turn prior to the designated point when traffic conflicts require resolution. It should also be noted that this procedure places aircraft in a single stream, which significantly limits capacity at the airport. While this recommendation may be noise beneficial, it also is inherently contrary to the core mission of the ATO, as it adversely affects the efficient use and management of the navigable airspace. As of this writing, the demand at PDX does not normally exceed current capacity; however, forecasts for future demand indicate that there will be a point at which these measures will no longer be sustainable. Accordingly, the Air Traffic Organization will determine when the use of this measure is no longer appropriate.

Recommendation 2

A. Jet Aircraft Departing to the East: This recommendation is a revision to current procedures 2(b)(1)(2)(3), from the 1997 ROA, for jet aircraft departing to the east. Aircraft will continue to fly over the Columbia River, but the revised procedure will shift the flight path approximately 2,000-feet to the south. The goal of shifting departures to the south is to have jets fly a path concentrated equidistant between the residential communities both north and south of the Columbia River. Another goal is to tighten up the dispersion of flight paths by using advanced satellite technology and on-aircraft autopilot systems. Departing jets with MGTOW greater than 75,000 lbs. will remain over the river until reaching an altitude of 7,000-feet or a distance of 11 miles from the PDX VOR; louder business jets will remain over the river corridor until reaching an altitude of 6,000-feet or a distance of 11 miles, all other business jets until reaching 3,000-feet. Upon reaching the recommended altitude or distance, the pilots will turn in the direction of their intended destination. Page H27 of the NCP provides more detail on this recommendation.

FAA Determination: Approved as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. Existing procedures require that turbojet aircraft continue beyond the confines of Class C airspace, and into airspace which does not require that other users maintain two-way communication with Air Traffic Control. While this is not inherently unsafe, it should be noted that Air Traffic retains the authority to direct aircraft to turn prior to the designated point when traffic conflicts require resolution. It should also be noted that this procedure places aircraft in a single stream, which significantly limits capacity at the airport. While this recommendation may be noise beneficial, it also is inherently contrary to the core mission of the ATO, as it adversely affects the efficient use and management of the navigable airspace. As of this writing, the demand at PDX does not normally exceed current capacity, however forecasts for future demand indicate that there will be a point at which these measures will no longer be sustainable. Accordingly, the Air Traffic Organization will determine when the use of this measure is no longer appropriate.

B. High-Performance Turboprops Departing to the East: This recommendation continues and refines current procedure 2(b)(1), from the 1997 ROA, for high performance turboprops departing to the east, flying over the Columbia River, or compatible land uses. This procedure will keep high-performance turboprops, with destinations northbound, along a path similar to the jet path described above. For destinations southbound, a path directed approximately 15° south of the jet path will be used. Using advanced satellite technology and on-board autopilot systems, a tighter dispersion of flight paths should result for aircraft, which have these systems. This recommendation calls for all high-performance turboprops to turn in the direction of their intended destination at 3,000-feet.

As outlined on page H27 of the NCP, this recommendation is predicated on the development and successful implementation of satellite-based procedures. Conventional tracks have been identified in an attempt to achieve the goals noted above and to serve aircraft not equipped with satellite based FMS type technology. However, conventional tracks cannot be defined to represent the numerous course corrections that would be necessary to achieve the flight tracks shown in the graphic. Therefore, the conventional tracks would only be precise within about 5 miles of the airfield. Final definition of these tracks would need to be coordinated with the FMS-based tracks developed by FAA.

FAA Determination: Approved as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. As outlined in the 2002 LOA, Air Traffic will assign these aircraft a heading or track that provides appropriate divergence from the jet departure corridor, when operationally necessary during periods of peak traffic. Accordingly, Air Traffic will determine the operational circumstances for the use of this measure.

Recommendation 3

A. High-Performance Turboprops Departing to the West: This recommendation continues and refines current procedure 3(b) from the 1997 ROA, for high-performance turboprops departing to the west, flying over the Columbia River, or compatible land uses. It is hoped that by using advanced satellite technology and on-board aircraft autopilot systems, it will be possible to tighten the dispersion of flight paths to a narrower pattern for aircraft that have this technology.

- This recommendation places the south turning high-performance turboprops immediately south of Hayden Island and further north than current procedures. This path is approximately 15° south of the jet path outlined in Recommendation 1. These aircraft will remain on this course until reaching 3,000-feet before turning over residential areas.
- With routes to the north, this recommendation uses the jet path to fly longer over the river than current procedures outline. These aircraft would remain on this course until reaching 3,000-feet or five (5) miles from the PDX VOR before turning over residential areas.

As outlined on page H30 of the NCP, this recommendation is predicated on the development and successful implementation of satellite-based procedures. Conventional tracks have been identified in an attempt to achieve the goals noted above and to serve aircraft not equipped with satellite based FMS type technology. However, conventional tracks cannot be defined to represent the numerous course corrections that would be necessary to achieve the flight tracks shown in the graphic. Therefore, the conventional tracks would only be precise within about 5 miles of the airfield. Final definition of these tracks would need to be coordinated with the FMS-based tracks developed by FAA.

FAA Determination: Approved as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. As outlined in the 2002 LOA, Air Traffic will assign these aircraft a heading or track that provides appropriate divergence from the jet departure corridor, when operationally necessary during periods of peak traffic. Accordingly, Air Traffic will determine the operational circumstances for the use of this measure.

B. Low-Performance Propeller Aircraft: This recommendation is a new procedure for low-performance propeller aircraft departing to the west; aircraft fly further within the Columbia River corridor before turning on course. The high-performance turboprop procedures outlined in this recommendation provide room for low-performance propeller aircraft to follow the river corridor further than current higher-performance aircraft paths during normal operations. This measure also includes a proposed nighttime procedure (10pm to 7am, when activity is low) that calls for these aircraft to fly the river corridor on the same path as the higher performance aircraft. Low-performance propeller aircraft will still have a much broader dispersion of flight paths than the other aircraft categories. See page H31 of the NCP for more detail on this recommendation.

FAA Determination: Approved as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. For the nighttime portion of this recommendation, it should be noted that placing low performance aircraft in the same departure path as higher performance aircraft requires that Air Traffic provide for additional spacing for subsequent departures. Thus, when demand is present, there is a measurable impact on the airport capacity with this proposal. Because the timeframe noted in this recommendation does not equate to low activity, Air Traffic will determine the times and traffic demand periods during which this procedure could be used. Specific flight tracks for this category of aircraft will be subject to further review for compatibility with previously recommended procedures.

Recommendation 4: Jet Aircraft Arriving From the East – Updated Mill Visual Approach: This recommendation continues to use existing procedure 4(a)(2), from the 1997 ROA, for aircraft arriving from the east (currently published as the Mill Visual Approach). Under current procedures, aircraft use the Camas Paper Mill as a visual marker in order to remain over the Columbia River corridor while on approach to PDX. Use of advanced satellite technology and on-board autopilot systems will help create navigation paths to narrow the dispersion of aircraft following this approach. The goal is for this improved procedure to be used more often, and during more varied weather conditions, than the current approach allows. Pages F157-F168 and H33 of the NCP provides more detail on this recommendation.

As outlined on page H33 of the NCP, this recommendation is predicated on the development and successful implementation of satellite-based procedures. In the interim, conventional tracks have been identified in the body of the recommendation in an attempt to achieve the goal noted above. This description is based on “old technology” that would be update once satellite-based procedures are in place and are functioning properly. Preliminary definition of the recommended tracks is defined in the NCP, and would be refined in coordination with the FAA to achieve the objectives noted earlier. Aircraft would follow a path similar to the one they follow today. However, the path would follow the Columbia River corridor more precisely, and the turn to final approach would be more centered over the river corridor than it is today. The flight path would be more concentrated within the Columbia River corridor on the approach to PDX.

FAA Determination: Approved as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. To minimize the potential capacity constraints that would be introduced

by designing a procedure with a single stream of arrivals to the airport, the implementation of this procedure is expected to require the identification of two distinct paths and may look slightly different than that shown in the Part 150 document. In addition, it should be emphasized that Air Traffic will determine the operational circumstances for the use of this measure.

Recommendation 5 – Jet Aircraft Arriving From the West – Runway 10L Sidestep: This recommendation is a modification of existing procedure 4(a)(1), from the 1997 ROA, for aircraft arriving from the west. When conditions allow its use, this procedure will align all aircraft in the middle of the Columbia River, more aligned with the south runway, then split-off/transition aircraft landing on the north runway at a point further east of downtown Vancouver than they do today (this is known as the “side-step” approach). Pages F169-175 and H36 of the NCP provides more detail on this recommendation.

FAA Determination: Approved as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. As noted in the language in the NCP, this procedure has limited applicability, as sequencing arrival traffic into a single stream significantly limits the arrival rate at the airport. When demand is present, this would result in a negative impact on airport capacity. Thus, Air Traffic will determine the times and traffic demand periods during which this procedure could be utilized.

Recommendation 6 – Jet Aircraft Arriving between 10pm and 7am – Contra-Flow: This procedure would incorporate existing procedures 2(b)(1)(2) and (3) and elements from existing procedure 4(a)(2) from the 1997 ROA. Between the hours of 10pm and 7am or as otherwise defined by traffic conditions, and during conditions where aircraft would normally be landing and departing to the east, aircraft would be allowed to land in the opposite direction to the west (a.k.a. contra-flow). This would minimize noise exposure to surrounding populations by significantly reducing long approaches over the community during this time period. Pages F195-F207 and H38 of the NCP provides more detail on the recommendation.

FAA Determination: Approved in part as voluntary for purposes of Part 150, between the hours of 11p.m. and 5 a.m., subject to weather, air traffic safety, and air traffic efficiency. Due to local air traffic and airspace considerations, this measure may only be implemented between the hours of 11pm and 5am, and when traffic conditions permit, as determined by Air Traffic.

Recommendation 7 – Aircraft Operating between 10pm and 7am – Night Time Preferential Runway Use: This recommendation calls for development of a nighttime preferential runway use program, incorporating existing procedures 2(a), 2(b)(1)(2)(3) and 4(a)(1) in east flow; existing procedures 3(a)(1)(2) and 4(a)(2) in west flow. The reference procedures are found in the 1997 ROA. Hours of operation would be between 10pm and 7am. This will place arrivals landing to the east on the south runway, reducing flights over downtown Vancouver, and arrivals landing to the west on the north runway, reducing flights over east Portland. Departing aircraft would continue to use both runways but the south runway would be preferred when conditions allow. Although encouraged, this program would be voluntary, and its application will be at the discretion of the FAA Air Traffic Control Tower and the pilot. Pages F-208-F-216 and H41 of the NCP provides more detail on this recommendation.

FAA Determination: Approved in part as voluntary for purposes of Part 150, subject to weather, air traffic safety, and air traffic efficiency. Sequencing arrival traffic into a single stream limits the arrival rate at the airport. When demand is present, this would result in a negative impact on airport capacity. Thus, Air Traffic will determine the times and traffic demand periods during which this procedure could be utilized, expected to be more closely aligned with actual nighttime periods of low activity. This measure is approved only when determined operationally feasible by Air Traffic.

Recommendation 8 – Reduced Use of Reverse Thrust on Landing: This recommendation establishes an awareness program for pilots, encouraging them to use minimal or no reverse thrust upon landing, in accordance with aircraft operating standards and safety. Reducing jet engine reverse thrust is at the sole

discretion of the pilot. Pages F217-219 and Page H43 of the NCP provides more detail on this recommendation.

FAA Determination: No action required at this time pursuant to 49 USC 47504(b). The use of this measure has the potential to lengthen the runway occupancy time, which would affect Air Traffic separation requirements and airport arrival rates. As a result, this measure will require further evaluation by Air Traffic.

NOISE MITIGATION/LAND USE COMPATIBILITY RECOMMENDATIONS

Recommendation 9 - Home Sound Proofing: This recommendation would provide soundproofing for owner occupied single-family residences and develop a pilot program for multifamily residential structures at or above the 65 DNL contour, using the 2005 Noise Exposure Map. Sound proofing measure may include items such as new windows, solid core doors, and heating and cooling systems to allow windows to be kept closed. In exchange for receiving sound insulation, a homeowner would grant a noise easement to the Port, to be attached to the property and “run with the land”. Pages G11-G18 and Page H46-47 of the NCP provides more detail on this recommendation.

FAA Determination: Approved. The FAA’s policy published in the Federal Register April 3, 1998 (Volume 63, Number 64), states that the FAA will not approve Federal funding to mitigate noise-sensitive land uses constructed after October 1, 1998. Beginning October 1, 1998, the FAA will approve under part 150 only remedial noise mitigation measures for existing noncompatible development and only preventive noise mitigation measures in areas of potential new noncompatible development. As of the same date, the ability to use AIP grants to carry out such measures will be affected to the extent that such remedial measures may not be approved under part 150.

Recommendation 10 – Floating Home Sound Proofing: The recommendation would investigate sound attenuation solutions to mitigate noise for owner occupied floating homes, used as a primary residence, where moorage and/or land rights have been purchased, at or above the 65 DNL noise contour using the 2005 Noise Exposure Map. Pages G30 and H48-49 of the NCP provides more detail on this recommendation.

FAA Determination: Disapproved for purposes of Part 150. The FAA is not aware of any published studies on the feasibility of sound attenuating floating homes. The Part 150 program is not intended as a means to undertake new research.

Recommendation 11 – Noise Easement Option for Homeowners: This recommendation calls for the purchase noise easement from homeowners within the 65 DNL noise contour or above, using the 2005 Noise Exposure Map. This recommendation would apply to homeowners who do not wish to have soundproofing. Experience at other airports has shown that up to 10% of the eligible population may decline soundproofing. This recommendation provides another voluntary option for homeowners to receive some compensation in return for providing the Port of Portland a noise easement. Pages G17-G18 and H50-51 of the NCP provides more detail on this recommendation.

FAA Determination: Approved. The FAA’s policy published in the Federal Register April 3, 1998 (Volume 63, Number 64), states that the FAA will not approve Federal funding to mitigate noise-sensitive land uses constructed after October 1, 1998. Beginning October 1, 1998, the FAA will approve under part 150 only remedial noise mitigation measures for existing noncompatible development and only preventive noise mitigation measures in areas of potential new noncompatible development. As of the same date, the ability to use AIP grants to carry out such measures will be affected to the extent that such remedial measures may not be approved under part 150.

Recommendation 12 – Investigate Possible Solutions to Reduce Noise Exposure For Residents of Mobile Homes: REMOVED FROM CONSIDERATION BY THE PORT OF PORTLAND

This recommendation originally called for investigating options to reduce noise exposure for residents of mobile homes living at or above the 65 DNL contour using the 2005 Noise Exposure Map. Most mobile homes are very difficult to sound proof due to their construction. By their very nature, a mobile home could be moved out of the noise-impacted area. As a result of these factors and the fact that the residents of the only identified mobile home park (West Hayden Island) have requested the Port take no action with regard to their development, this recommendation was dropped from further consideration.

FAA Determination: No FAA action required.

Recommendation 13 – Enhance Local Government Noise Overlay Ordinances: The NCP recommends, where applicable, enhancing the City of Portland PDX Airport Noise Impact Zone and the City of Vancouver Noise Impact Overlay District by implementing the land use recommendations listed below. These cities have existing adopted ordinances that define requirements for properties that lie within the Noise Impact Zone and the Noise Impact Overlay District. The noise overlays require developers building within these areas to disclose noise and meet certain building code requirements for sound insulation. The City of Portland has a more stringent PDX Airport Noise Impact Zone, which also requires a noise easement. Pages G27-G-29 and H53 of the NCP provides more detail on this recommendation.

FAA Determination: Approved. Outside the 65 DNL, FAA as a matter of policy encourages local effort to prevent new non-compatible development immediately abutting the 65 DNL and to provide a buffer for possible growth in noise contours beyond the forecast period. The Federal government has no authority to control local land use; the local government has the authority to implement this measure.

Recommendation 14 – Mobile Homes and Mobile Home Parks: The NCP recommends prohibiting new residential trailers in mobile home parks, as well as residential trailers and manufactured homes outside of the existing mobile home parks, unless they can be certified by the manufacturer that they meet appropriate sound attenuation requirements consistent with the City of Vancouver Noise Impact Overlay District and the City of Portland PDX Airport Noise Impact Zone. This is a continuation of existing requirements within the City of Portland. Page H55 of the NCP provides more detail on this recommendation.

FAA Determination: Approved. The FAA's policy published in the Federal Register April 3, 1998 (Volume 63, Number 64), states that the FAA will not approve Federal funding to mitigate noise-sensitive land uses constructed after October 1, 1998. Beginning October 1, 1998, the FAA will approve under part 150 only remedial noise mitigation measures for existing noncompatible development and only preventive noise mitigation measures in areas of potential new noncompatible development. As of the same date, the ability to use AIP grants to carry out such measures will be affected to the extent that such remedial measures may not be approved under part 150.

The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

Recommendation 15 – New Noise Sensitive Uses: The NCP recommends limiting, or requiring soundproofing, new noise sensitive uses within both the City of Vancouver Noise Impact Overlay District and City of Portland PDX Airport Noise Impact Zone boundaries. Noise sensitive uses are set forth in Table 7, the FAA Part 150 Land Use Compatibility Guidelines and accepted at the state and local levels. To ensure consistency, the most restrictive adopted measures should be used. For example, if state or local codes are more restrictive than federal guidelines, they should be used. Pages G23-G24 and H56 of the NCP provides more detail on this recommendation.

It is also recommended these same noise sensitive uses be limited or mitigated within a 1,000-wide corridor for one mile beyond the extended centerline of the PDX crosswind runway ends.

FAA Determination: Approved. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

Recommendation 16 – New Floating Homes and Moorages: The NCP recommends prohibiting new floating homes or moorages, or requiring the floating homes meet sound attenuation criteria within the City of Portland’s PDX Noise Impact Zone and City of Vancouver Noise Impact Overlay District boundary. Page G34 and H58 of the NCP provide more detail on this recommendation.

FAA Determination: Approved. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

Recommendation 17 – Noise (Avigation) Easements: The NCP recommends requiring noise easements for new residential construction and other defined noise sensitive land uses at or above the 65 DNL contours consistent with the local city code adopted noise contours. See Page H59 of the NCP for more detail on this recommendation.

FAA Determination: Approved. The FAA’s policy published in the Federal Register April 3, 1998 (Volume 63, Number 64), states that the FAA will not approve Federal funding to mitigate noise-sensitive land uses constructed after October 1, 1998. Beginning October 1, 1998, the FAA will approve under part 150 only remedial noise mitigation measures for existing noncompatible development and only preventive noise mitigation measures in areas of potential new noncompatible development. As of the same date, the ability to use AIP grants to carry out such measures will be affected to the extent that such remedial measures may not be approved under part 150.

The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

Recommendation 18 – Noise Disclosures For Prospective Purchasers at or above the 55 DNL Noise Contour: REMOVED FOR CONSIDERATION BY THE PORT OF PORTLAND

The NCP originally recommended requiring a noise notice/disclosure to prospective purchasers for new construction between the 55 and 65 DNL noise contours based on the 2005 Noise Exposure Map. Disclosures help inform home buyers before they purchase a home that aircraft will be flying overhead and the noise may be bothersome to some individuals. This notification was recommended, in part, because of the seasonal traffic flows at PDX. The recommendation was removed because federal and state land use compatibility guidelines say residential use is compatible between the 55 and 65 DNL noise contours.

FAA Determination: No FAA action required.

Recommendation 19 – Public Policy Consideration of Aircraft Noise and Land Use Changes: The NCP recommends that cities consider aircraft noise when developing public policy or reviewing development actions or plans, at or above the 55 DNL contour. For example, while residential land use and outdoor amphitheatres are defined as compatible below the 65 DNL contours, the Port and local government officials continue to receive calls from residents living or recreating in these areas who are impacted by aircraft noise. Local jurisdictions should consider their actions in light of aircraft noise when considering land use reviews, long-term plans, rezoning, redevelopment, higher densities, understanding

that while construction techniques can mitigate interior noise levels, outdoor noise levels will remain bothersome to some people. Page G35 and H61 of the NCP provide more detail on this recommendation.

FAA Determination: Approved. Since the airport sponsor adopted the Federal guidelines designating 65 DNL as the level at which aircraft noise is non-compatible with residential land uses, FAA's Part 150 approval is limited to potential non-compatible uses within the 65 DNL. Outside the 65 DNL, FAA as a matter of policy encourages local effort to prevent new non-compatible development immediately abutting the 65 DNL and to provide a buffer for possible growth in noise contours beyond the forecast period. The Federal government has no authority to control local land use; the local government has the authority to implement this measure. Approval of this measure does not commit the FAA to future Federal funding assistance.

ADMINISTRATIVE/NOISE PROGRAM RECOMMENDATIONS

Recommendation 20 – Propeller Retrofits: The NCP recommends that options to retrofit propeller aircraft with quiet technology propellers be explored. Changing from three (3) bladed to four (4) bladed propellers could reduce noise levels on some regional cargo aircraft. The cost to replace aircraft propellers is estimated to be approximately \$20,000 - \$25,000 or more per aircraft, depending on the aircraft type. This recommendation will explore methods to encourage propeller conversions along with financial options. In addition to the financial issues, aircraft are transitory and can be readily relocated, adding to the challenges of implementing this measure. Pages F228-F230 and H65 of the NCP provides more detail on this recommendation.

FAA Determination: Disapproved for purposes of Part 150. This recommendation is outside the scope of 14 CFR Part 150. The Part 150 program is not intended as a means to undertake new research. Part 150 is applied on an individual airport basis, to mitigate local incompatible land uses.

Recommendation 21 – Fly Quiet Program: This recommendation calls for the development and implementation of a Fly Quiet Program at PDX. This recommendation will provide a regular report card to the public explaining how the FAA and the airlines are doing in following noise procedures. It can also act as a positive incentive to reward the airlines for good performance. The specific parameters to be included in the reports will be defined by a follow-up noise advisory committee. Implementation of this program is dependent on Recommendation 23 below. Pages F232-233 and H67 of the NCP provides more detail on this recommendation.

FAA Determination: Approved. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any preset noise thresholds and shall not be used for mandatory enforcement of any voluntary measure. The FAA would need to approve the language in this report prior to making it available to the public.

Recommendation 22 – Follow-up Noise Advisory Committee: This recommendation calls for the establishment of a follow-up noise advisory committee, with a balanced representation of airlines, local government, Port of Portland, FAA, and citizen stakeholders to assist and provide continuing guidance in implementing the study recommendations. This committee will utilize knowledge developed through the Part 150 Study and help build the partnerships needed to implement these measures. Page G37 and H69 of the NCP provide more detail on this recommendation.

FAA Determination: Approved.

Recommendation 23 – Upgraded Aircraft Flight Track/Noise Monitoring System: This recommendation would install an upgraded Aircraft Flight Track/Noise Monitoring System to improve the ability to monitor flights, respond to the public in a timely manner, and develop a Fly Quiet Program (see

Recommendation 21). The current system uses very dated technology and does not provide the necessary automation to develop regular reports or monitor aircraft compliance with noise abatement procedures. A key component of the upgrade will be the ability for the public to view flight tracks via the Internet. Page G37 and H71 of the NCP provide more detail on this recommendation.

FAA Determination: Approved. For purposes of aviation safety, this approval does not extend to the use of monitoring equipment for enforcement purposes by in-situ measurement of any preset noise thresholds and shall not be used for mandatory enforcement of any voluntary measure.

Recommendation 24 – Subsequent Part 150 Updates: This recommendation calls for the review and update the Part 150 Study as needed to reflect changes in the noise environment. A Part 150 study is a “snapshot” in time to look at the noise conditions generated by the current fleet mix and level of operations and the five-year forecasted levels. Federal regulations require a new study be completed if there is a significant increase or decrease in noise levels resulting from changes at the airport. Page G37 and H72 of the NCP provide more detail on this recommendation.

FAA Determination: Approved. If made necessary by NEM changes, an update to the NCP would address requirements of 150.23(e)(9). Section 150.21(d), as amended, states that the NEM should be updated if there is either a substantial new noncompatible use within the DNL 65 dB contour, or if there is a significant reduction in noise over existing noncompatible land uses [69 FR 57622, dated 9/24/04].

Recommendation 25 – Develop a Noise Brochure: This recommendation would develop a noise brochure for prospective homebuyers and other audiences ranging from the general public to elected officials. The goal is to increase the awareness of aircraft noise and the possibility of noise intrusion that some people may experience and find annoying. Given the seasonal direction of aircraft flights, it is important that prospective homebuyers make informed decisions before purchasing a home in the vicinity of the airport and the flight paths. The information will be based on federal, state, and local standards used to define noise levels and compatible uses. Page G37 and H74 of the NCP provide more detail on this recommendation.

FAA Determination: Approved.

Recommendation 26 – Develop a Noise Abatement Procedures Brochure for Pilots: This brochure would be made available for transient (visiting) pilots as well as PDX based pilots, to inform them of PDX noise abatement procedures and noise sensitive areas around the airport. Page G38 and H75 provide more detail on this recommendation.

FAA Determination: Approved. The FAA would need to approve the language in this brochure prior to providing to the pilots.

Recommendation 27 – Develop Sound Proofing Brochures for Homeowners and Homebuilders: This brochure would outline home soundproofing construction techniques and products as well as other useful information for builders constructing new homes as well as those homeowners interested in doing remodeling doing remodeling projects. See Page G38 and H76 for further information on this recommendation.

FAA Determination: Approved.

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