Federal Aviation Administration

Finding of No Significant Impact (FONSI)
&
Record of Decision (ROD)

For the Implementation of RNAV/RNP Procedures at Seattle-Tacoma International Airport
(Greener Skies over Seattle)

1 November 2012

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I. INTRODUCTION

This document serves as the Federal Aviation Administration's (FAA) Finding of No Significant Impact and Record of Decision (FONSI/ROD) and provides final agency determinations and approvals for the proposed action, namely utilization of Performance-Based Navigation (PBN) by implementing new Area Navigation (RNAV) procedures, including Required Navigation Performance (RNP) and Optimized Profile Descent (OPD), at Seattle-Tacoma International Airport (SEA). The proposed routes and procedures are designed to improve the safety and efficiency of the SEA airspace, which includes the Terminal Radar Approach Control (TRACON) as well as high-altitude Air Route Traffic Control Center (ARTCC) airspace. This FONSI/ROD is based on the information and analysis contained in the Final Environmental Assessment (Final EA) dated October 2012 attached hereto.

Furthermore, this FONSI/ROD:

1) Completes the FAA's required environmental review and decision making process. It is prepared and issued to announce and document certain Federal Actions and decisions in compliance with the National Environmental Policy Act of 1969 (NEPA) [42 U.S.C Section 4321, et seq.], the implementing regulations of the Council on Environmental Quality (CEQ) [40 CFR Parts 1500-1508] and FAA Orders [Order 1050.1E, Change 1, Environmental Impacts: Policies and Procedures (March 20, 2006) and Order JO 7400.2J, Procedures for Handling Airspace Matters (February 09, 2012)]. This FONSI/ROD is also used by the FAA to demonstrate and document its compliance with the several procedural and substantive requirements of aeronautical, environmental, programmatic, and other statutes and regulations that apply to FAA decisions on proposed actions;
2) Provides the final Federal determinations and approvals based on environmental analysis and findings in the Final EA. The FAA's decisions are based on the information and analysis contained in the Final EA and all other applicable documents which were available and considered, and which constitute the administrative record; and
3) Approves certain Federal actions associated with the implementation of the proposed RNAV/RNP procedures for appropriately equipped aircraft and certified aircrews arriving at

SEA from the northwest and southwest. Implementation of the Proposed Action will result in no airport-related development.

In reaching its determination, FAA has given consideration to 49 U.S.C. § 40101(d)(4), which governs FAA's responsibility to carry out its mission while considering safety and the public interest when controlling the use of navigable airspace and regulating civil and military operations in that airspace in the interest of safety and efficiency of both of these operations. Additionally, consideration has been given to 49 U.S.C § 40103(b)(2) which authorizes and directs the FAA Administrator to prescribe air traffic rules and regulations governing the flight of aircraft, for the navigation, protection, and identification of aircraft, and the protection of persons and property on the ground, and for the efficient utilizations of the navigable airspace, including rules as to safe altitudes of flight and rules for the prevention of collision between aircraft, between aircraft and land or water vehicles, and between aircraft and airborne objects.

Furthermore, the FAA has given careful consideration to: the aviation safety and operational objectives of the project in light of the various aeronautical factors and judgments presented; the need to enhance efficiency of the national air transportation system; and the potential environmental impacts of the project.

II. BACKGROUND

The FAA is in the process of implementing NextGen, the FAA's plan to modernize the National Airspace System (NAS) through 2025. NextGen is a complex program intended to develop and implement new technologies and adapt the air traffic management system to a new way of operating. NextGen represents an evolution from an air traffic management system that is primarily ground-based to a system that is satellite-based and will allow the FAA to guide and track air traffic more precisely and efficiently. To achieve NextGen goals, the FAA is implementing new RNAV and Required Navigation Performance (RNP)-based air traffic routes and instrument procedures around the country that leverage emerging technologies and aircraft navigation capabilities. The implementation of RNAV and RNP enable the use of other PBN technology in the NAS, including Optimized Profile Descents (OPD).

In 2009, Alaska Air Group (AAG, the holding company for Alaska Airlines and Horizon Air) and Seattle-Tacoma International Airport staff, in cooperation with The Boeing Company and the FAA, initiated development of a plan to investigate new PBN flight procedures for SEA that would utilize these latest navigational technologies and allow aircraft operators to fly optimal descent paths, while reducing their environmental impact during approaches to land. The "Greener Skies over Seattle" initiative, as it was named, or just "Greener Skies", consists of procedural changes that begin in the Seattle ARTCC, continue into Seattle TRACON airspace, and eventually end in the airspace controlled by Seattle Tower as aircraft descend from cruising altitude all the way to landing on one of SEA's six runway ends.

In 2010, the FAA took over responsibility for completing the final design and implementation of the procedures, consistent with the Agency's functional role in controlling aircraft, and also to assure

broad availability of the new procedures to all appropriately equipped aircraft, advancing the use of the technology in SEA's complex airspace that includes step-down approaches, confliction points and frequent pilot/controller radio communications. Since 2010, the preliminary design has been finalized and the Final EA has been prepared to identify potential environmental effects associated with the proposed new procedures and their future usage.

III. PROPOSED ACTION

The Proposed Action, also referred to as the I-1 procedures of Greener Skies, considered in the Final EA is the design, publication and implementation by the FAA of optimized standard instrument arrival procedures serving air traffic flows from the northwest and southwest into SEA.

The Proposed Action consists of a set of proposed new PBN arrival procedures originating at current navigational "waypoints" – points in space identified by their latitude, longitude, and altitude – that will provide new guidance to appropriately equipped aircraft and certified aircrews so that they may fly shorter routes to the runways than they are able to at present, and to do so with less pilot-controller interaction and at lower throttle settings.

The starting points of the proposed procedures are approximately 40 miles away from SEA to the northwest and as much as 140 miles away to the southwest. Farther out from these existing waypoints no changes are being proposed, nor are there procedural changes planned or anticipated for any portions of any arrivals coming into SEA from the eastern side of the Airport. Those flights will continue to operate as they do today. In addition, no procedural changes are planned or anticipated for aircraft taking off from SEA. All of those flights also will continue to operate as they do today. Furthermore, the set of new procedures that are being proposed for the northwest and southwest arrivals serve to supplement (not replace) current procedures, so that unequipped aircraft arriving from those areas also will continue to operate on existing procedures as they do today.

The Proposed Action evaluated in the Final EA is the implementation of new RNAV procedures, including RNP and OPD procedures for SEA in order to improve the safety and efficiency of the SEA airspace. The Proposed Action includes:

- A new Standard Terminal Arrival Route (STAR) procedure for traffic arriving from the northwest to land on any of the six runway ends at SEA.
- A new STAR for aircraft arriving from the southwest that would reduce the number of flight miles flown when landing on any of the six runway ends.
- Implementation of 21 new RNP and RNP-to- Instrument Landing System (ILS) procedures northwest and southwest of SEA
- Optimized Profile Descents from both the northwest and southwest.

IV. PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to implement standard instrument arrival procedures to improve the predictability and repeatability of flight routes and more efficiently serve SEA's six runway ends, and to redesign the supporting airspace management structure to increase flight path predictability and flexibility, decrease communication requirements between controllers and pilots (thereby reducing radio frequency congestion and the likelihood of hear-back/read-back errors), and provide more direct routings that are not dependent on ground-based navigational aids.

The Proposed Action is needed to improve efficiency in a complex airspace while maintaining and enhancing safety in accommodating current and forecast air traffic demand.

V. ALTERNATIVES

Alternatives involving use of other modes of transportation, use of other airports, or changes in airport layout were not considered because such alternatives would not have met the purpose and need for the Proposed Action. The FAA's investigation of alternatives to enhance efficiency in the SEA Airspace began in 2010. Starting with a preliminary identification of measures aimed at reducing flight times, level-off segments, and confliction points in this complex airspace, the consideration of concepts to enhance airspace efficiency focused on measures that could be implemented with little potential for adverse environmental impacts, particularly noise. For this reason, the consideration of alternatives centered on areas west of SEA along the three- to five-mile wide band of Puget Sound. The FAA examined the feasibility of measures to enhance airspace efficiency in this area and eliminated those that created conflicts that could not have been resolved or did not prove to enhance efficiency.

Ultimately, this screening and evaluation of individual proposals resulted in the elimination of measures found to be ineffective, while those found to be viable and effective at reducing inefficiencies collectively became the Proposed Action. FAA Order 1050.1E, Chapter 4, Section 405(d) states that there "is no requirement for a specific number of alternatives or a specific range of alternatives to be included in an EA. An EA must consider the proposed action and a discussion of the consequences of taking no action and may limit the range of alternatives to action and no-action when there are no unresolved conflicts concerning alternative uses of available resources."[1] The No-Action and Proposed Action therefore were the only alternatives considered.

VI. AFFECTED ENVIRONMENT

FAA Order 1050.1E identifies the maximum altitude for environmental consideration of airspace actions as 10,000 feet above ground level (AGL). Additionally, FAA Order JO7400.2J, Chapter 32, recommends considering proposed changes up to 18,000 feet AGL when the proposed changes are over a National Park, Wilderness Area, or Tribal Lands where natural quiet may be an attribute of the land use. Because of the proximity of Olympic National Park to the northwest and Mount Rainier National Park to the southeast, and the presence of tribal lands in the region, the study area

[1] FAA Order 1050.1E, Chg. 1, Ch. 4, Sec. 405(d), pg. 4-10; 20 March 2006.

examined in this EA encompasses all areas over which the proposed changes to aircraft routes would occur below 18,000 feet AGL to assure that any areas of natural quiet were included. The resulting rectangle, depicted in Figure 5.1-1 of the Final EA, covers slightly less than 3,200 square miles, including part or all of 10 counties in the state of Washington.

VII. ENVIRONMENTAL CONSEQUENCES

Implementation of the Proposed Action involves aircraft route changes and does not entail any physical development. For this reason, many of the environmental resource categories described in FAA Order 1050.1E, Chapter 4, Paragraph 403, Impact Categories, would not be affected. These resources include Coastal Resources, Construction Impacts, Farmlands, Hazardous Materials, Pollution Prevention and Solid Waste, Water Quality, Wetlands, and Wild and Scenic Rivers. Chapter 5 of the Final EA provides a brief description of the rationale for dismissing these impact categories from consideration in the analysis of the Proposed Action's potential effects.

No significant impacts to the quality of the human or natural environment were identified for any of the remaining categories evaluated in the EA. Preparation of an Environmental Impact Statement is not required and one will not be prepared. Therefore, the potential environmental impacts from the Proposed Action were evaluated in the Final EA for each of the following impact categories.

Noise

Noise exposure was modeled for the Proposed Action and the No Action alternatives. The Proposed Action would not result in a significant noise impact, i.e., an increase of 1.5 decibels (dB) or more at a Day-Night Average Sound Level (DNL) of 65 dB or more, at any noise sensitive receptor. However, reduced dispersion of aircraft over areas directly beneath the proposed RNAV procedures would slightly increase noise at some population centroids, while slightly decreasing noise at others. The narrowing of flight corridors would not result in reportable changes of 3 dB or more between DNL values of 60 and 65 dB, nor would it result in changes of 5 dB or more between DNL values of 45 and 60 dB. In 2014, implementation of the Proposed Action would newly expose areas with a population of 396 to DNL 65 or above. In 2018, the population newly exposed to DNL 65 or above would be 43. In 2023, the population newly exposed to DNL 65 or above would be 214. All of these areas would experience an increase in DNL of less than 1 dB.

Compatible Land Use

Because the Proposed Action is not expected to have significant noise impacts (as measured by change in noise exposure in populated census block centroids), there will be no impacts to compatible land use. Additionally, existing non-compatible land uses currently exposed to DNL noise levels greater than or equal to 65 dB will not experience significant increases in noise levels as a result of the Proposed Action.

Air Quality

The U.S. EPA has established National Ambient Air Quality Standards (NAAQS) for ambient (i.e., outdoor) concentrations of a number of "criteria pollutants". On July 30, 2007, the FAA issued a list of actions "presumed to conform" under the General Conformity Regulations (40 CFR Parts 51 and 93) [72 Fed. Reg. 41565 (July 30, 2007)]. In this notice, the FAA summarized documentation and analysis which demonstrated that certain actions will not exceed the applicable de minimis emissions levels for nonattainment and maintenance areas as specified under 40 CFR 93.153(b). The FAA includes air traffic control activities and adopting approach, departure and enroute procedures for air operations in their list of "presumed to conform" actions thereby indicating that these types of actions will not exceed de minimis emissions levels.

The Proposed Action includes airspace and air traffic actions (e.g., changes in routes, flight patterns, and arrival and departure procedures) above the mixing height (generally 3,000 feet AGL) that are needed to enhance safety and increase the efficient use of airspace by reducing congestion, balancing controller workload and improving coordination between controllers handling existing air traffic. The FAA's "presumed to conform" list is therefore applicable to the Proposed Action. Since the Proposed Action is presumed to conform and would have no effect on vehicle traffic, no further analysis is required.

Climate

The CEQ has indicated that climate should be considered in NEPA analyses. While no criteria for determining significance exist, implementation of the Proposed Action would result in a net decrease in greenhouse gas (GHG) emissions and would not therefore contribute to climate change. A summary of the effects of implementing the Proposed Action on GHG emissions and fuel consumption follows:

- In 2014, the Proposed Action would decrease daily CO_2 emissions by 42.9 metric tons (47.3 US tons) compared to the No Action Alternative and would reduce daily aircraft fuel consumption by over 13,000 kg (nearly 30,000 pounds).
- In 2018, the Proposed Action would decrease daily CO_2 emissions by 43.2 metric tons (47.6 US tons) compared to the No Action Alternative and would reduce daily aircraft fuel consumption by 13,704 kg (30,212 pounds).
- In 2023, the Proposed Action would decrease daily CO_2 emissions by 48 metric tons (47.6 US tons) compared to the No Action Alternative and would reduce daily aircraft fuel consumption by 15,200 kg (33,510 pounds).

Natural Resources and Energy Supply

The CEQ has indicated that impacts to natural resources and energy supply should be considered in NEPA analyses. Although no criteria for determining significance exist, the changes in energy use are summarized above under Climate and indicate that implementation of the Proposed Action would not adversely affect natural resources or energy supply.

Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

The Proposed Action will not involve any construction of physical facilities or property acquisition that would entail relocation of residents or community businesses, disruption to local traffic patterns, loss of community tax base, or changes to the fabric of the community. Implementation of the proposed procedures would not significantly increase noise exposure levels at any location. Accordingly, there would be no significant socioeconomic impacts.

Because there are no significant impacts as a result of the Proposed Action, there are no adverse human health or environmental effects associated with the Proposed Action (including the noise, air quality, water quality, hazardous materials and cultural resources categories), which would exceed applicable thresholds of significance. No minority or low income populations would therefore be disproportionately impacted by implementation of the Proposed Action and there would be no significant environmental justice impacts. Also, implementation of the Proposed Action would not affect products or substances that a child is likely to come in contact with, ingest, use, or be exposed to, and would not result in environmental health and safety risks that could disproportionately increase children's environmental health and safety risks.

Secondary/Induced Impacts

The Proposed Action does not involve development, and would not be expected to result in shifts in population and growth, increase demand for public services, or changes in business and economic activity. Therefore, there would be no potential for significant secondary or induced impacts.

Historical, Architectural, Archaeological, and Cultural Resources

The Proposed Action involves Air Traffic Control (ATC) routing changes for airborne aircraft only and does not entail any ground-based development. Therefore, there would be no direct impacts on properties listed on or eligible to be listed on the National Register of Historic Places. The Proposed Action Area of Potential Effect (APE) was defined as the area exposed to a DNL of 65 dB or more at SEA, which covered approximately 4,986 acres. None of the sites listed on the National Register of Historic Places are located within the APE. However, there was one unevaluated archaeological site within the APE. As stated in Section 6.1 of the Final EA, the changes in the noise levels resulting from the Proposed Action are so small, that even if this archaeological site has quiet as one of its recognized attributes, this site would not be affected as a result of the Proposed Action.

FAA Order 1050.1E, Change 1, Appendix A, Paragraph 12.2b, states that the sight of aircraft, aircraft contrails, or aircraft lights at night, particularly at a distance that is not normally intrusive, should not be assumed to constitute an adverse impact. Changes in aircraft routes associated with the Proposed Action would generally occur at altitudes above 3,000 feet AGL; therefore the changes in the location of aircraft and aircraft lights would not be considered intrusive over historic resources. Consequently, the Proposed Action would not result in significant visual impacts.

Implementation of the Proposed Action would not result in significant direct or indirect adverse effects to historic properties. Appendix I of the Final EA provides the State Historic Preservation Office's (SHPO) written concurrence with both the definition of the APE and the finding of no adverse effect, in accordance with Section 106 of the National Historic Preservation Act.

Department of Transportation Section 4(f) and Land and Water Conservation Fund Act Section 6(f)

The Proposed Action involves ATC routing changes for airborne aircraft only and does not entail any ground-based development or direct impacts to Section 4(f) or 6(f) resources. Similarly, no Section 4(f) or 6(f) resource would be indirectly affected by the noise exposure, according to the criteria of significance listed in Section 6.1 of the Final EA.

Fish, Wildlife and Plants

In compliance with Section 7(c)of the Endangered Species Act of 1973 (ESA), as amended, (16 U.S.C §1531 et seq.), a list of threatened, endangered, candidate and proposed species by county was reviewed using the U.S. Fish and Wildlife Service website in January 2012. The Proposed Action involves only ATC routing of changes for airborne aircraft and does not entail any ground-based development that could destroy or modify critical habitat for any protected species. Therefore, there are no significant direct impacts to fish, non-avian wildlife, and plants which would exceed the threshold of significance defined in FAA Order 1050.1E, Appendix A, Section 8. Under the Proposed Action, aircraft noise levels at two of the three National Wildlife Refuges (NWR) in the study area (Dungeness NWR and Nisqually NWR) would decrease when compared to the No Action alternative. Aircraft noise levels at the third refuge (Protection Island NWR) would increase by less than 1.0 dB DNL, and aircraft noise levels at all three refuges would remain well below DNL 45 dB. Implementation of the Proposed Action would not alter maximum (L_{max}) noise levels at any of the three refuges.

Generally, any changes to flight paths/patterns due to the Proposed Action would occur above 3,500 feet AGL, at a higher altitude than where the majority of bird strikes occur. Therefore, the potential for bird strikes is expected to remain the same as current conditions.

Light Emissions and Visual Impacts

There is no defined threshold of significance for light emissions or visual impacts. Visually sensitive lands evaluated include National Parks, National Forest Wilderness Areas, and Tribal lands. No change to lighting is proposed at SEA as part of the project; therefore the only potential for visual change or light emissions would be related to the change in aircraft flight paths. The Proposed Action would not materially alter the final approach paths to the runways at SEA because aircraft on final descent are already concentrated on the centerlines of the runways and would not alter light emissions. The Proposed Action also would not introduce flight activity into any area that does not currently experience routine overflights and would concentrate those aircraft using the new procedures toward the center of existing routes.

Cumulative Impacts

Four projects were identified at SEA that could have the potential to contribute to cumulative impacts when combined with the Proposed Action. The first project, construction of Runway 16R/34L, occurred in the past. At the time of the Record of Decision for that project, the FAA required the Port of Seattle to expand its ongoing noise remedy program to include the areas newly exposed to significant (DNL 65 dB or greater) noise levels. The Proposed Action does not alter flight profiles or tracks within the area exposed to noise levels of the DNL 65 dB or above and would have a negligible effect on noise levels this close to the runway ends. The effects of the Proposed Action, when considered in combination with the effects of Runway 16R/34L, would not be significant.

The second project, rehabilitation of Runway 16C/34C (Runway Rehab), is expected to begin in 2016. Approximately 45% of current arrivals and 25% of current departures utilize Runway 16C/34C. Once this runway is closed for rehabilitation, these operations will be shifted in the short term to Runways 16 R/L and 34 R/L. While the distribution of operations for this short-term change would be unaffected by the implementation of the Proposed Action, since the Runway Rehab is still in the planning stages, it is unknown what the short- or long term-impact would be of the project. Given the minimal level of noise impacts from the Proposed Action, as described in Section 6.1 of the Final EA, it is expected that the cumulative impacts of the Proposed Action, combined with the operational shift from the Runway Rehab, would not result in permanent noise impacts. Therefore, the effects of the Proposed Action, when considered in combination with the effects of rehabilitating Runway 16C/34C, would not be significant.

The third project is the I-2 measures. These measures are hoped to improve air traffic control efficiency and increase the use of the Proposed Action approach procedures by allowing ATC to apply reduced separation standards to curved RNP and RNP-to-ILS approaches. The FAA is currently undergoing modeling and simulation analysis of the potential reduced separation standards, with a report due by the end of the calendar year. By the end of 2013, a safety analysis of these reduced separations is intended to be completed, at which point the safety management system process will be initiated. All of this needs to be completed prior to the initiation of the process to change the policy that would then implement the reduced separation standards. There is no timeline for the completion of the implementation of the I-2 measures. At this point in time, it is not certain that the I-2 measures will be approved, and in what form it will ultimately take. Even though the I-2 measures may enhance the I-1 procedures, it is not reasonably foreseeable that the implementation of the I-2 measures would increase operations over those already analyzed for the I-1 procedures at SEA.

A fourth project is the Port of Seattle's Noise Study under 14 CFR, part 150, Noise Compatibility Planning. A draft report is due for public comment by the end of 2012. The Part 150 Study is designed to identify noise incompatibilities due to current and forecast operations, and to recommend measures to both correct existing incompatibilities and to prevent future incompatibilities. To this end, noise incompatibilities are defined as residences or public use noise-

sensitive facilities (libraries, churches, schools, nursing homes, and hospitals) within the DNL 65 dB noise contour. Given that the Proposed Action does not change the DNL 65 dB contour at SEA and that a Part 150 Study does not increase the DNL 65 dB contour, and may even mitigate the impact of the existing DNL 65 dB contour, there would be no cumulative impact resulting from the Proposed Action and the Part 150 Study.

Other Considerations

The Proposed Action involves ATC routing changes for airborne aircraft only. The United States Government has exclusive sovereignty of airspace in the United States [49 U.S.C § 40103(a)]. Congress has provided extensive and plenary authority to the FAA concerning the efficient use and management of the navigable airspace, air traffic control, air navigation facilities, and the safety of aircraft and person and property on the ground [49 U.S.C. § 40103(b)(1) & (2)]. Therefore, any applicable community planning initiatives may be preempted by Federal law. To the extent applicable, and as there are no significant impacts under noise or compatible land use, the Proposed Action is consistent with the plans, goals and policies for the area and with the applicable regulations and policies of Federal, state, and local agencies.

Mitigation

Thresholds of significance for any environmental impact category will not be exceeded due to the Proposed Action, therefore, no mitigation is being proposed as part of the project.

VIII. PUBLIC INVOLVEMENT

Public participation occurred throughout the duration of the project. Federal, state and local agencies, and 15 Native American Tribes received scoping letters describing the project and requesting comments in January 2012. An Agency Scoping Meeting and a Tribal Consultancy Meeting was held on January 26, 2012, at FAA offices in Renton, Washington. Public Scoping Meetings were held at two different locations on January 25 and 26, 2012. One meeting was held in Shoreline, central to the area where procedures would be changing north of the airport. The other was held in Federal Way, central to the area where procedures would be changing south of the airport. A total of 13 written comments were received during the scoping period.

One Agency Meeting, one Tribal Consultancy Meeting, and two public meetings were held during the comment review period for the Draft EA. The Draft EA was made available 30 days prior to the first public meeting, and was available for a total of 39 days prior to the conclusion of the comment period. A total of 208 written comments were received from the public, local agencies, businesses, state and local elected officials, and community organizations. None of the 15 Native American Tribes provided comments. All agency and public correspondence, including comments received on the draft EA, and responses to those comments are included in Appendices K and L of the Final EA. Correspondence related to the Section 106 consultation is also included. Comments pertaining to the Proposed Action were addressed as applicable in the Final EA.

IX. THE AGENCY'S FINDINGS

This section describes the FAA's findings with respect to compliance with applicable environmental laws and regulation, and with respect to consistency of the Proposed Action with the FAA's mandate to consider the public interest in carrying out its responsibilities for the safe and efficient use of the National Airspace System.

A. ENVIRONMENTAL FINDINGS:

The environmental findings are based upon a careful review of the Final EA, comments on the Draft EA, the supporting administrative record, and appropriate supporting information.

1) **The FAA has given the Proposed Action the independent and objective evaluation required by the Council on Environmental Quality (40 CFR Section 1506.5).** The FAA's environmental process included the rigorous exploration and objective evaluation of reasonable alternatives and probable environmental consequences, and regulatory agency and Native American consultations, and public involvement. FAA furnished guidance and participated in the preparation of the EA by providing input, advice, and expertise throughout the planning and technical analysis, along with administrative direction and legal review of the EA. FAA has independently evaluated the EA and takes responsibility for its scope and content.
2) **The Proposed Action does not result in a significant noise impact over noise sensitive areas.** There are no noise sensitive areas exposed to DNL 65 dB or higher that experience a 1.5 dB or greater increase in exposure.
3) **The Proposed Action does not include a direct or constructive use of any resources protected under Sections 4(f) of the DOT Act or Section 6(f) of the Land and Water Conservation Fund Act.** No physical development or land acquisition is associated with the Proposed Action, thus there is no potential for direct use of any Section 4(f) or 6(f) resource. In addition, there would be no significant noise increases over parks, cultural, historic, archeological site or other potential 4(f) or 6(f) properties under the Proposed Action. Therefore, the FAA determined that the Proposed Action would not cause any constructive use of any 4(f) or 6(f) resource.
4) **The Proposed Action does not affect Historical, Architectural, Archaeological, or Cultural Resources.** Following consultation pursuant to Section 106 of the Historic Preservation Act, the SHPO has concurred with the FAA's finding that implementation of the Proposed Action would not adversely affect any historical, architectural, archaeological, or cultural resources.
5) **The Proposed Action does not have a significant impact on Air Quality**. The Proposed Action is listed as presumed to conform, under General Conformity Regulaitons [72 FR 41565]. Therefore, the Proposed Action has already been demonstrated to have de minimis emission levels under 40 CRF 93.153(b). The GHG emissions associated with the Proposed Action at SEA in 2023 would represent a decrease of 1 percent, when compared to the No Action Alternative.

6) **All practicable means to avoid or minimize environmental harm from the Proposed Action have been adopted.** The PBN design process took place over several years, and the proposed final RNAV procedures, inclusive of RNP and OPD procedures, were ultimately finalized for SEA in September of 2012. As part of the NEPA process, the FAA solicited comments from agencies and the community to ensure noise sensitive resources were considered.

B. Findings Pursuant to the Purpose and Need:

The Purpose and Need for the Proposed Action is consistent with the Agency's responsibility to consider the public interest in controlling the use of navigable airspace for the safe and efficient operation of the National Airspace System (NAS). In establishing the Proposed Action, the FAA is acting to enhance the safety and efficiency of SEA airspace to accommodate today's level of air traffic and to position the SEA airspace to better accommodate future levels of air traffic.

Based on the Final EA prepared for the Proposed Action, this FONSI/ROD is issued. Both the Final EA and this FONSI/ROD are hereby incorporated into this decision.

X. DECISIONS AND ORDERS

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal Action is consistent with existing national environmental policies and objectives as set forth in Section 101 of NEPA and other applicable environmental requirements and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(c) of NEPA.

I, the undersigned, have reviewed the Final EA including the evaluation of the purpose and need that this Proposed Action would serve, the alternative means of achieving the purpose and need, and the environmental impacts associated with these alternatives. I find that the Proposed Action described in the Final EA is reasonably supported and issuance of a finding of no significance is appropriate. Therefore, an environmental impact statement will not be prepared.

I have carefully considered the FAA's statutory mandate under 49 U.S.C. §40103 to ensure the safe and efficient use of the national airspace system as well as the other aeronautical goals and objectives discussed in the Final EA. Accordingly, under the authority delegated to me by the Administrator of the FAA, I approve and direct that actions be taken which will enable implementation of the Proposed Action. This consists of the development of RNAV and RNP procedures, including OPD procedures, to establish and maintain safe and efficient handling and movement of traffic into and out of the Seattle complex airspace.

Approve: _____ Date: November 1, 2012

Elizabeth L. Ray
Vice President, Mission Support Services

RIGHT OF APPEAL

This FONSI/ROD constitutes a final order of the FAA Administrator and is subject to exclusive judicial review under 49 U.S.C. §46110 by the U.S. Circuit Court of Appeals for the District of Columbia or the U.S. Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate U.S. Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 U. S.C. §46110. Any party seeking to stay implementation of the ROD must file an application with the FAA prior to seeking judicial relief as provided in Rule 18(a) of the Federal Rules of Appellate Procedure.