ENVIRONMENTAL ASSESSMENT FORM FOR AIRPORT DEVELOPMENT ACTIONS

FEDERAL AVIATION ADMINISTRATION ORLANDO AIRPORTS DISTRICT OFFICE SOUTHERN REGION AIRPORTS DIVISION

Airport Name: Fort Lauderdale Executive Airport (FXE)

Proposed Action: Lifting of Runway 9-27 Dual-Wheel Weight-Bearing Limit

This Environmental Assessment becomes a Federal document when evaluated and signed by the responsible FAA official.

Responsible FAA Official:

Date





This Environmental Assessment (EA) Form is intended for use in the Federal Aviation Administration (FAA) Orlando Airports District Office (ORL/ADO) only, and with the approval of an ORL/ADO Environmental Protection Specialist (EPS). The Airport Sponsor must discuss the use of this EA Form with an ORL/ADO EPS before beginning the EA scoping and environmental analysis process. An electronic version of this EA Form is available upon request from an ORL/ADO EPS.

APPLICABILITY

The purpose of an EA is to determine whether a proposed action has the potential to significantly affect the human environment (see FAA Order 1050.1F, Paragraph 4-3 for more information on determining significance). An EA is a concise public document that briefly provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significance (FONSI). An EA, at a minimum, must be prepared when the proposed action does not normally require an EIS (see Paragraph 3-13, Actions Normally Requiring an Environmental Impact Statement) and:

- 1) Does not fall within the scope of a Categorical Exclusion (CATEX) (see FAA Order 1050.1F, Paragraph 5-6 *The Federal Aviation Administration's Categorical Exclusions*);
- 2) Falls within the scope of a CATEX, but there are one or more Extraordinary Circumstances (see FAA Order 1050.1F, Paragraph 5-2 *Extraordinary Circumstances*).

See FAA Order 1050.1F, Paragraph 3-1.2. Actions Normally Requiring an Environmental Assessment.



INSTRUCTIONS

Introduction: This EA Form is based upon the guidance in FAA Order 1050.1F – *Environmental* Impacts: Policies and Procedures, and the related publication FAA Order 1050.1F Desk Reference (1050.1F Desk Reference). The Order provides the FAA policies and procedures to ensure agency compliance with the National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] §§ 4321-4335), the requirements set forth in the Council on Environmental Quality (CEQ), Title 40, Code of Federal Regulations (CFR), parts 1500-1508, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (CEQ Regulations), and Department of Transportation (DOT) Order 5610.1C, Procedures for Considering Environmental Impacts. The CEQ Regulations establish procedures for complying with NEPA. In accordance with 40 CFR § 1507.3 of the CEQ Regulations, the Order contains the FAA's implementing procedures, which supplement those regulations. The 1050.1F Desk Reference provides details on current guidance and updated technical information. This includes information about permits, licenses, consultations, and other forms of approval or review; up-to-date details on technical information such as FAAapproved tools for analyzing noise and air emissions; overviews of special purpose laws and requirements; and specific responsibilities and guidance for gathering data, assessing impacts, consulting other agencies, and involving the public.

Early Planning: Environmental issues should be identified and considered early in a proposed action's planning process to ensure efficient, timely, and effective environmental review. Preparation for any applicable permit application and other review process requirements should be part of the planning process to ensure that necessary information is collected and provided to the permitting or reviewing agencies in a timely manner. The Airport Sponsor should identify known environmental impact categories that the Action and alternatives (if any) could affect, including specially protected resources. These tasks should be completed at the earliest possible time during Action planning to ensure full consideration of all environmental impact categories and facilitate the FAA's NEPA process. Sufficient planning and Action justification must be available to support the environmental review.

****IMPORTANT****

The Airport Sponsor must contact their ORL/ADO Program Manager if the Proposed Action is not depicted on the Airport's conditionally-approved ALP. The ORL/ADO will determine if an update to the ALP is required. If an interim ALP update is required, coordination and approval can take up to 90 days and must be finalized prior to an environmental decision.

A Proposed Action's pre-application for federal funding (design or construction) <u>must</u> include an environmental finding in accordance with NEPA. Pre-applications are normally due in the ORL/ADO in January in order to receive a grant for the following fiscal year. The Airport Sponsor should allow 6-12 months prior to submitting a pre-application to the ORL/ADO for federal funding to complete the EA process.



1. PROPOSED ACTION LOCATION

Airport Name and Identifier:

Airport Address: 6000 NW 21st Ave

City: Fort Lauderdale County: Broward

State: Florida Zip Code: 33309

2. AIRPORT SPONSOR INFORMATION

 Point of Contact:
 Rufus James, Airport Manager City of Fort Lauderdale/Fort Lauderdale Executive Airport

 Address:
 6000 NW 21st Ave., Suite 200, Fort Lauderdale, FL 33309

 Business Phone:
 954-828-4968

 Cell:
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3. PREPARER INFORMATION

Point of Contact:Monty Gettys, President, Montgomery Consulting Group, Inc. (MCG)Address:501 S. New York Ave., Suite 210, Winter Park, FL 32789Business Phone:407-539-7030Cell:407-620-5787FAX:407-539-7035EMAIL:Monty.Gettys@mcgi-us.com

4. PROPOSED ACTION

Describe the Proposed Action with sufficient detail in terms that are understandable to individuals who are not familiar with aviation or commercial aerospace activities. List and describe all components of the Proposed Action including all connected actions. Summarize how the Proposed Action fits into the Airport's ALP. Attach an exhibit of the Airport's conditionally approved ALP depicting the Proposed Action, and an exhibit of the Proposed Action on a recent airport aerial. Summarize costs, including any mitigation costs, if applicable. Discuss how the Proposed Action will be funded. Provide a timeframe identifying when the Proposed Action is to be constructed and operational.

The Proposed Action includes removal of the 60,000 lb. dual-wheel weight-bearing limit on Runway 9-27 (previously named Runway 8-26) per the 1981 Settlement Agreement Final Judgment (**Appendix A**).

See attached:





Appendix A – 1981 Settlement Agreement Final Judgment

Appendix H - Fort Lauderdale Executive Airport 2009 Airport Layout Plan Data Sheet

5. PURPOSE AND NEED

(1) Describe the underlying purpose and need for the Proposed Action. Present the problem being addressed, describe what the Airport Sponsor is trying to achieve with the Proposed Action, and take into account the FAA's primary mission to provide the safest, most efficient aerospace system in the world. The purpose and need of the Proposed Action must be clearly explained and stated in terms that are understandable to individuals who are not familiar with aviation or commercial aerospace activities. The purpose and need must be supported by recent data. To keep this section brief, incorporate by reference any supporting data, inventories, assessments, analyses, or studies. This can include but is not limited to FAA compliance or standard changes, letters from users showing need per FAA design standards, letters of commitment from current or prospective tenants, based aircraft data, fuel data, scheduled service, critical aircraft needs, TAF and Master Plan forecasts, capacity issues (actual use/need of aircraft or airline, or scheduled commercial service. IMPORTANT: If the Airport Sponsor intends to request Federal funding, the purpose and need for the Proposed Action must be justified by recent airport planning analysis and concurred with by ADO management before initiating the EA.

In 1981, the City of Tamarac presented a lawsuit against the Secretary of Transportation of the United States and the City of Fort Lauderdale (Airport Sponsor). The City of Tamarac was opposed to the installation of an Instrument Landing System (ILS) and a 1,000-foot extension to Runway 9-27 at Fort Lauderdale Executive Airport (FXE). The City of Tamarac opposed the installation of the ILS based on the fact that Runway 9-27 would need to be extended and there were considerations related to noise impacts. The Settlement Agreement to this Lawsuit prohibited FXE to extend Runway 9-27 to the west or strengthen its surface to accommodate any aircraft over 60,000 lb. duel wheel load until an environmental assessment (EA) was performed compliant with FAA codes and standards (**Appendix A**).

The 1981 Settlement Agreement indicated the Airport Sponsor had the right to repair and resurface the Runway when necessary with the understanding such actions may strengthen the runway, but agreed that aircraft operations over the 60,000 lb. dual-wheel load would not be permitted at FXE (**Appendix A**).

One of the implicit purposes of the 60,000 lb. dual-wheel weight-bearing limit was to limit noise exposure in Tamarac, under the assumption that "heavier aircraft equaled louder aircraft." While that assumption was generally (but not always) true in 1981 when the two cities entered into the Settlement Agreement, advances in aircraft technology over the past 32 years have effectively rendered that assumption untrue, especially for the aircraft types operating at FXE. Now the weight-bearing limit is counterproductive from a noise perspective and increases aircraft noise in Tamarac and other communities by encouraging operations of older, louder aircraft.

In June-August 2013 a survey of FXE tenants was conducted to identify the economic-related impacts of lifting the 60,000 lb. dual-wheel weight-bearing limit on Runway 9-27. A white paper was developed on August 25, 2015 (**Appendix F**) to explore the initiative.

A presentation was made on January 11, 2016 by the City of Ft. Lauderdale to the City of Tamarac at a Workshop Meeting regarding the initiative to lift the 60,000 lb. dual-wheel weight-bearing limit – which received positive responses from the City of Tamarac.

A scoping teleconference was held on May 18, 2016 with the FAA-ADO to discuss the FAA environmental review needed for the initiative. The EA Form with noise contours developed using the Aviation Environmental Design Tool (AEDT) version 2b was determined appropriate





for noise impact analysis. AEDT noise modeling inputs and requirements are detailed in **Appendix G**.

To provide a Proposed Action forecast, FXE tenants were surveyed in April-May 2016 to provide estimates of aircraft operations anticipated to exceed 60,000 lb. dual-wheel load should the Proposed Action be implemented. Aircraft operations for the Proposed Action and No Action alternative were prepared for 2016 and 2021. The FXE Terminal Area Forecast (TAF) was updated for 2016 and 2021 for the Proposed Action and No Action alternatives (**Appendix G**) and submitted to FAA for approval, which was received in June 15, 2015 (**Appendix G**).

Noise contours using the AEDT 2b model for 2016 and 2021 No Action and Proposed Action were developed and are illustrated in **Appendix G** in Figure 1 and 2, respectively. These figures illustrate there are no incompatible land uses within the Proposed Action or No Action Alternative contours.

Runway pavement strength records are not available from 1981 to ascertain the actual pavement weight-bearing capacity when the limit was imposed. Runway 9-27 has had several pavement overlays/rehabilitations since the weight-bearing limit was imposed. The FXE 1986 Master Plan (**Appendix B**) and 1995 updated Master Plan (**Appendix C**) indicated Runway 9-27 had a pavement strength of 64,000 lb. dual-wheel load. In 2003, a pavement evaluation was performed for a rehabilitation project for Runway 9-27 to improve the existing conditions of the pavement due to water damage (**Appendix D**). The rehabilitation was not intended to strengthen the runway's pavement, but resulted in an increase in dual-wheel load pavement capacity for Runway 9-27. In 2015, a pavement evaluation was performed using the Aircraft Classification Number/Pavement Classification Number (ACN/PCN) methodology for Runway 9-27 which established a pavement strength of 81,000 lb. dual-wheel load (**Appendix E**).

Removal of the weight-bearing limit on Runway 9-27 imposed by the Settlement Agreement would allow for aircraft to operate on Runway 9-27 based on the runway's existing pavement capacity.

See attached:

Appendix A – 1981 Settlement Agreement Final Judgment

Appendix B – Excerpt from Fort Lauderdale Executive Airport (FXE) 1986 Master Plan

Appendix C - Excerpt from Fort Lauderdale Executive Airport (FXE) 1995 Master Plan Update

Appendix D – Excerpt from March 2003 Runway Pavement Evaluation

Appendix E – Excerpt from April 24, 2015 Runway Pavement Evaluation

Appendix F - White Paper on Runway 9-27 Weight-Bearing Limit

Appendix G – Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

(2) Identify the Airport Sponsor's requested FAA Federal action in the space below. For the FAA Office of Airports (ARP), a Federal action may include one or more actions (See FAA Order 5050.4B, Paragraph 9.g.). Note: The information provided in this EA Form allows the FAA to determine if a Finding of No Significant Impact (FONSI) can be issued because the proposed action's environmental impacts, with no additional mitigation, would not be significant, or a mitigated FONSI can be issued because the proposed action's environmental impacts, with additional mitigation, would not be significant (see FAA Order 1050.1F, Paragraph 6-2.3a). FAA environmental findings on an Action do not constitute FAA decisions or approvals regarding Federal funding of the Action.

The current 2009 Fort Lauderdale Executive Airport (FXE) Airport Layout Plan (ALP) is not consistent with the Proposed Action. The runway data table on the 2009 ALP Airport Data Sheet (**Appendix H**) currently reflects pavement strength consistent with the Settlement



Agreement from the 1981 lawsuit of 60,000 lb. dual-wheel load. If the Proposed Action is approved, the pavement strength for Runway 9-27 will be updated to reflect current pavement strength of 81,000 lb. consistent with the Runway 9-27 Pavement Evaluation dated April 24, 2015 (**Appendix E**).

The Airport Sponsor is requesting FAA approval of the update to the ALP data sheet to reflect current runway strength of 81,000 lb. duel-wheel load of Runway 9-27.

See attached:

Appendix E – Excerpt from April 24, 2015 Runway Pavement Evaluation

Appendix H - Fort Lauderdale Executive Airport 2009 Airport Layout Plan Data Sheet

6. ALTERNATIVES (INCLUDING THE PROPOSED ACTION)

There is no requirement for a specific number of alternatives or a specific range of alternatives to be included in an EA. Alternatives are to be considered to the degree commensurate with the nature of the proposed Action and agency experience with the environmental issues involved. The Sponsor's preferred alternative, if one has been identified, should be indicated. For alternatives considered but eliminated from further study, the EA should briefly explain why these were eliminated. Note: An EA may limit the range of alternatives to the proposed action and no action when there are no unresolved conflicts concerning alternative uses of available resources. This means that you may limit the range of alternatives to the proposed action and no action if you can establish consensus based on input from interested parties that there are no unresolved conflicts, or if there are no reasonable alternatives that would be substantially different in design or effects. If you are able to do this, you must document the basis for concluding consensus and identify the parties that participated; and, you must discuss why there are no reasonable alternatives that would be substantially different in design or effects. This is why the Purpose and Need is important in helping define the range of alternatives.

(1) Discuss in comparable format to that listed below the Proposed Action and alternatives. Discuss how the Proposed Action and alternatives were developed e.g. recent planning study or Master Plan Update. Attach figures for the Proposed Action and alternatives to aid in understanding the physical layout and differences in the alternative configurations.

For each alternative:

- a. Discuss to what extent an alternative meets the Purpose and Need.
- b. Discuss if an alternative is technically and economically feasible e.g. operational considerations/regulations, safety considerations, constructability, infrastructure requirements, property acquisition requirements, and costs.
- c. Discuss potential social, socioeconomic, and/or environmental resource impacts for each alternative e.g. business or residential relocations, road relocations or closures, environmental resources protected under federal statutes (wetlands, floodplains, and listed species, and Section 4(f), or Section 106 resources).
- d. For each alternative considered but eliminated from further study, summarize why it is not considered reasonable. Note: To be reasonable, an alternative must respond to the purpose and need, be technically and economically feasible, and be reasonably consistent with the land use plan for management of the area.

Proposed Action:

Remove the 60,000 lb. dual-wheel weight-bearing limit on Runway 9-27 (previously named





Runway 8-26) per the 1981 Settlement Agreement Final Judgment. Removal of this requirement would allow for aircraft to operate on Runway 9-27 based on the Runway's existing pavement capacity.

The alternative is technically and economically feasible since:

- a) One of the implicit purposes of the 60,000 lb. dual-wheel weight-bearing limit was to limit noise exposure in Tamarac, under the assumption that "heavier aircraft equaled louder aircraft." While that assumption was generally (but not always) true in 1981 when the two cities entered into the Settlement Agreement, advances in aircraft technology over the past 32 years have effectively rendered that assumption untrue, especially for the aircraft types operating at FXE. Now the weight-bearing limit is counterproductive from a noise perspective. FXE tenants currently under the weight-bearing limit must market to operators of older, noisier aircraft less than 60,000 lb. dual-wheel load to make up for not being able to serve the newer, quieter aircraft. The weight-bearing limit is being counterproductive and increasing aircraft noise in Tamarac and other communities, by encouraging operations of older, louder aircraft.
- b) If there were no limits on Runway 9-27's weight limit, aircraft operators (pilots) would determine if they could use FXE based on their specific aircraft's operating requirements.
- c) There is a positive economic benefit to FXE and the surrounding community of lifting the 60,000 lb. dual-wheel weight-bearing limit on Runway 9-27 including increased fuel sales, aircraft sales and service, tenant facility improvements, and boarder economic benefits to the local economy.
- d) Monitoring of the existing 60,000 lb. dual-wheel weight-bearing limit is difficult.
- e) Based on the AEDT 2b model noise analysis, removing the weight-bearing limit would have no significant noise impacts.

Runway pavement strength records are not available from 1981 to ascertain the actual pavement weight-bearing capacity when the limit was imposed. Runway 9-27 has had several pavement overlays/rehabilitations since the weight-bearing limit was imposed. An excerpt from a March 2003 Runway Pavement Evaluation indicated a need for rehabilitation of Runway 9-27 as it could not support 60,000 lb. dual-wheel load operations. The 1995 Master Plan Update identifies a pavement strength of 64,000 lb. dual-wheel loading for Runway 9-27. The current pavement capacity based on an April 2015 PCN pavement evaluation is 57,500 lb. single-wheel load and 81,000 lb. dual-wheel load. PCN is an International Civil Aviation Organization (ICAO) standard that used in combination with the aircraft classification number indicates the strength of a runway, taxiway or apron. This is the first evaluation of weight-bearing capacity for Runway 9-27 using the PCN methodology, which differs from prior pavement strength evaluations.

See attached:

Appendix C - Excerpt from Fort Lauderdale Executive Airport (FXE) 1995 Master Plan Update

Appendix D – Excerpt from March 2003 Runway Pavement Evaluation

Appendix E – Excerpt from April 24, 2015 Runway Pavement Evaluation

Appendix F - White Paper on Runway 9-27 Weight-Bearing Limit

Appendix G – Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

(2) Although the No Action alternative does not meet the purpose and need, NEPA, and it's implementing regulations requires consideration of the No Action alternative. The No Action alternative, when compared with other alternatives, enables the identification of the potential environmental impacts of the Proposed Action and alternatives. Describe the consequences of the No Action alternative e.g. what are the operational, safety, efficiency, economic effects, and environmental effects of taking no action.



No Action Alternative:

The City of Tamarac lawsuit (Case Number 80-6471-CIV-NCR) dated January 15, 1981, was filed by the City of Tamarac against the Secretary of Transportation of the United States and the City of Fort Lauderdale. The City of Tamarac was opposed to the installation of an Instrument Landing System (ILS) and a 1,000-foot extension to Runway 9-27 (previously Runway 8-26) at Ft. Lauderdale Executive Airport (FXE). The City of Tamarac opposed the installation of the ILS based on the fact that the runway would need to be extended and that there were no considerations related to noise impacts. The court documents show that there were initially three counts involved the lawsuit; however, Count I and Count III were dismissed with prejudice.

The following are the counts listed in the court documents:

- Count I The installation and operation of an Instrumental Landing System;
- Count II This count alleged that a preliminary environmental assessment was made with respect to a 1,000-foot runway extension; and
- Count III The development and operation of the Skytel site, which alleged that the defendant has not taken into account the cumulative environmental impact due to the combination of proposed developments.

The Final Judgment for the City of Tamarac was agreed upon by the two parties (City of Tamarac and City of Fort Lauderdale). The settlement agreement is detailed below:

- 1. No air shows without approval from the City of Fort Lauderdale and the City of Tamarac with at least 7 days of notice.
- 2. Airport Runway 9-27 (previously Runway 8-26) will neither be extended to the west nor will the surface be strengthened to accommodate any aircraft over 60,000 lb. dual-wheel load, until a document with the environmental impact statement and compliance with FAA Code is presented. The City of Fort Lauderdale does have the right to repair and resurface the Runway when such actions are deemed necessary. The parties recognize that the actions may strengthen the runway, but agree that the actions will not permit aircraft above the maximum weight-bearing limit of 60,000 lb. dual-wheel load.
- 3. A revetted run-up apron will be constructed on the Airport infield and made operational no later than December 31, 1982.
- 4. The Intergovernmental Coordination Element of the Comprehensive Plan for the City of Fort Lauderdale will be written by the City of Fort Lauderdale to recognize that cooperation with the City of Tamarac in matters regarding to airport development.
- 5. One member of the Tamarac City Council will be designated by the Council to receive all airport related agendas, and minutes of all Fort Lauderdale Aviation Industrial Board meetings. The appointed member has all rights to attend such board meetings. Procedures are to be devised so that matters of concern to the City of Tamarac may be placed on the agenda of the Board.
- 6. The City of Tamarac agrees to dismiss with prejudice Count I (The installation and operation of an instrument landing system) and Count III (The development and operation of the Skytel site).
- 7. The intent of the parties hereto the agreement which the court will retain jurisdiction to enforce the terms, that Counts I and III and all issued raised to be dismissed with prejudice and that each party hereto will bear its own costs.

Based on the 1981 Court decision to control noise around FXE, a maximum weight-bearing limit of 60,000 lb. dual-wheel load was sanctioned for aircraft using Runway 9-27 (previously named Runway 8-26). The FAA publishes the weight-bearing limits of runways in the FAA Airport/Facility Directory (A/FD) and pilots are to review this information prior to operation. FXE's Facility Directory indicates Runway 9-27 is 30,000 lb. for single-wheel load, and 60,000 lb. for dual-wheel load. Prior permission is required for aircraft in excess of the





runway bearing capacity.

See attached:

Appendix A – 1981 Settlement Agreement Final Judgment

(3) You must provide a summary table depicting the alternatives analysis that compares the Proposed Action, alternatives considered, and the No Action alternative based on the screening criteria discussed in (1) a. through d.

Provide summary table of alternative analysis

The AEDT 2b model was used to analyze the No Action Alternative and the Proposed Action. See attached:

Appendix G - Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

7. AFFECTED ENVIRONMENT

Succinctly describe the existing conditions in the Proposed Action's direct impact area (construction footprint) and airport vicinity (land use and cover, terrain features, level and type of urbanization, biotic resources, noise sensitive sites (residential, churches, schools, parks, recreational facilities, etc.)). This indirect impact area should be large enough to include the area within the composite DNL 65 dB noise contour for the Proposed Action and retained alternatives (if any). The discussion of the affected environment should be no longer than is necessary to understand the impacts of the alternatives; data and analyses should be presented in detail commensurate with the importance of the impact. Discuss any actions taken or issues raised by the local community or citizen groups pertinent to the Proposed Action. If not already provided, attach a graphic and recent aerial of the area with the Proposed Action's and retained alternatives direct and indirect impact areas clearly identified.

Runway 9-27 at Fort Lauderdale Executive Airport (FXE) is 6,001 ft. in length by 100 ft. in width with an asphalt surface. No construction is proposed as a result on the proposed action.

The runway data table on the current 2009 ALP Airport Data Sheet (Appendix H) currently reflects pavement strength consistent with the Settlement Agreement from the 1981 lawsuit of 60,000 lb. dual-wheel load. The 1995 Master Plan Update identifies a pavement strength of 64,000 lb. dual-wheel loading for Runway 9-27. The current pavement capacity based on an April 2015 PCN pavement evaluation is 57,500 lb. single-wheel load and 81,000 lb. dual-wheel load. PCN is an International Civil Aviation Organization (ICAO) standard that used in combination with the aircraft classification number indicates the strength of a runway, taxiway or apron. This is the first evaluation of weight-bearing capacity for Runway 9-27 using the PCN methodology, which differs from prior pavement strength evaluations.

Commercial use, and manufacturing and production are the only land uses within the 65 dB DNL contour within the airport vicinity for No Action Alternative and Proposed Action for 2016 and 2021 illustrated in **Appendix G** in Figures 1 and 2, respectively. As indicated in the AEDT 2b model noise analysis, there are no direct or indirect impacts for the Proposed Action.

A presentation was made on January 11, 2016 to the City of Tamarac at a Workshop Meeting regarding the initiative to lift the 60,000 lb. dual-wheel weight-bearing limit for Runway 9-27 – which received positive responses from the City of Tamarac.

See attached:



Appendix C – Excerpt from Fort Lauderdale Executive Airport (FXE) 1995 Master Plan Update

Appendix D - Excerpt from March 2003 Runway Pavement Evaluation

Appendix E – Excerpt from April 24, 2015 Runway Pavement Evaluation

Appendix G – Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

8. ENVIRONMENTAL CONSEQUENCES -IMPACT CATEGORIES

Environmental impact categories that may be relevant to FAA actions are identified below in sections (1) through (14). Construction and secondary (induced) impacts should be addressed within the relevant environmental impact category.. FAA-specific requirements for assessing impacts are highlighted in FAA Order 1050.1F, Appendix B Federal Aviation Administration Requirements for Assessing Impacts Related to Noise and Noise-Compatible Land Use and Section 4(f) of the Department of Transportation Act (49 U.S.C. § 303). Methodologies for conducting the analyses are discussed in detail in the 1050.1F Desk Reference. The latest FAA-approved models must be used for both air quality and noise analysis. A list of approved models for each type of analysis is available in the 1050.1F Desk Reference.

Note: The Desk Reference may be cited only as a reference for the methodologies and processes it contains, and may not be cited as the source of requirements under laws, regulations, Executive Orders, DOT or FAA directives, or other authorities. It further notes that you should cite the original source when citing requirements from laws, regulations, or other authorities.

FAA Order 1050.1F, paragraph 4-3.3, Significance Thresholds and Exhibit 4-1, provide a significance determination table for the Proposed Action and retained alternatives (if any) based on the analysis in sections (1) through (14) below. Note: Quantitative significance thresholds do not exist for all impact categories; however, consistent with the CEQ Regulations, the FAA has identified factors that should be considered in evaluating the context and intensity of potential environmental impacts.

****IMPORTANT****

Environmental impacts for the following categories must be calculated for the year of project implementation and the planning horizon year in this EA Form. The implementation year represents the first year in which the Proposed Action would be fully operational. The planning horizon year typically represents the implementation year plus five years. Sometimes if appropriate due to project phasing or if requested by a reviewing agency, impact analysis may need to be conducted for intermediate years. Coordinate with an FAA ORL-ADO environmental specialist before conducting an intermediate year impact analysis.

Significance determination table

The AEDT 2b model noise analysis performed for annual operations forecast for No Action Alternative and the Proposed Action for 2016 and 2021, respectively, are consistent with FAA Order 1050.1F (**Appendix G**). See below FAA Order 1050.1F Exhibit 4-1 - Significance Determination for FAA Actions.

Exhibit 4-1 – Significance Determination			Environmental Impacts	
Environmental Impact Category	Significance Threshold	Factors to Consider	No Action Alternative	Proposed Action





				1
Air Quality	The action would cause pollutant concentrations to exceed one or more of the National Ambient Air Quality Standards (NAAQS), as established by the Environmental Protection Agency under the Clean Air Act, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.	None	No impact	No significant impact, below the de minimis threshold
Biological Resources	The U.S. Fish and Wildlife Service or the National Marine Fisheries Services determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species, or would result in the destruction or adverse modification of federally designated critical habitat. The FAA has not established a significance threshold for non-listed species.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Climate	The FAA has not established a significance threshold for Climate.	None	No impact	No impact
Coastal Resources	The FAA has not established a significance threshold for Coastal Resources.	None	No impact	No impact
Department of Transportation Act, Section 4(f)	The action involves more than a minimal physical use of a Section 4(f) resource or constitutes a "constructive use" based on an FAA determination that the aviation project	None	No impact	No impact



	would substantially impair the Section 4(f) resource. Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; and publicly or privately owned land from an historic site of national, state, or local significance. Substantial impairment occurs when the activities, features, or attributes of the resource that contribute to its significance or enjoyment are substantially diminished.			
Farmlands	The total combined score on Form AD-1006, "Farmland Conversion Impact Rating," ranges between 200 and 260 points.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Hazardous Materials, Solid Waste, and Pollution Prevention	The FAA has not established a significance threshold for Hazardous Materials, Solid Waste, and Pollution Prevention.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Historical, Architectural, Archeological, and Cultural Resources	The FAA has not established a significance threshold for Historical, Architectural, Archeological, and Cultural Resources.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Land Use	The FAA has not established a significance threshold for Land Use.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Natural Resources and	The FAA has not established a significance	See FAA Order	No impact	No impact



	I	1		
Energy Supply	threshold for Natural Resources and Energy Supply.	1050.1F Exhibit 4-1		
Noise and Noise- Compatible Land Use	The action would increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Socioeconomics	The FAA has not established a significance threshold for Socioeconomics.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Environmental Justice	The FAA has not established a significance threshold for Environmental Justice.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Children's Environmental Health and Safety Risks	The FAA has not established a significance threshold for Children's Environmental Health and Safety Risks.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Light Emissions	The FAA has not established a significance threshold for Light Emissions.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Visual Resources / Visual Character	The FAA has not established a significance threshold for Visual Resources / Visual Character.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Wetlands	The action would: 1. Adversely affect a wetland's function to protect the quality or	None	No impact	No impact



Elandalains	quantity of municipal water supplies, including surface waters and sole source and other aquifers; 2. Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected; 3. Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety, or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public); 4. Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands; 5. Promote development of secondary activities or services that would cause the circumstances listed above to occur; or 6. Be inconsistent with applicable state wetland strategies.	None	No impact	No impact
Floodplains	The action would cause notable adverse impacts on natural and beneficial floodplain values.	None	No impact	No impact
Surface Waters	The action would:	See FAA Order	No impact	No impact



	 Exceed water quality standards established by Federal state, local, and tribal regulatory agencies; or Contaminate public drinking water supply such that public health may be adversely affected. 	1050.1F Exhibit 4-1		
Groundwater	The Action would: 1. Exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies; or 2. Contaminate an aquifer used for public water supply such that public health may be adversely affected.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact
Wild and Scenic Rivers	The FAA has not established a significance threshold for Wild and Scenic Rivers.	See FAA Order 1050.1F Exhibit 4-1	No impact	No impact



(1) AIR QUALITY

The FAA has a responsibility under NEPA to include in its EA's sufficient analysis to disclose the extent of a project's impact on the attainment and maintenance of the National Ambient Air Quality Standards (NAAQS) and any applicable state air quality standards. Thus, a project's impact on air quality is assessed by evaluating whether it would cause a new violation of a NAAQS or contribute to a new violation in a manner that would increase the frequency or severity of the new violation. Very small projects sometimes can be evaluated qualitatively or by comparison to a previous project for which a quantitative air quality analysis is available. However, if a project requires the preparation of an EA, it is likely that a quantitative, project-specific air quality assessment would be needed. This can be accomplished by first identifying the emissions sources associated with a project, and then estimating the emissions for each retained alternative. Knowing the emissions may help to characterize a project's impact for the EA. The FAA's Air Quality Handbook provides information on how to conduct an air quality analysis.

https://www.faa.gov/regulations_policies/policy_guidance/envir_policy/airquality_handbook/

(a) Compared to the No Action alternative, will the Proposed Action or any of the retained alternatives cause or create a reasonably foreseeable increase in air emissions due to implementation? If the action will not cause a reasonably foreseeable emission increase, a qualitative air quality assessment is justifiable for disclosure purposes under NEPA. Provide an explanation of the conditions and rationale upon which this finding is based along with any supporting data, reasoning and/or justification. The assessment should explain how or why implementation of the Proposed Action or any of the retained alternatives will not cause or create a reasonably foreseeable increase in air emissions. Note: Examples of projects and actions that will likely cause or create a reasonably foreseeable increase in emissions include those that will cause or create an increase in aircraft operations and/or ground access vehicle trips. Other projects such as runway/taxiway improvements, roadway modifications, and/or parking facility expansions, may cause or create reasonably foreseeable increases in emissions by changing aircraft and vehicle travel patterns. By comparison, examples of projects and actions that will not likely cause or create increases in emissions include land acquisition programs or the upgrading of airfield lighting systems.

Discuss the potential for a reasonably foreseeable increase in air emissions:

Since FAA has not developed significance thresholds for GHG emissions generated from federal actions, the analysis of carbon dioxide equivalent (CO_2e) emissions was qualitatively analyzed using the FAA Aviation Environmental Design Tool (AEDT) 2c model to address climate change impacts for the Proposed Action and No Action Alternative. AEDT 2b was used for the noise modeling as AEDT 2c was not yet released when the noise modeling was conducted.

The Proposed Action would result in a slight increase in air emissions compared to the No Action Alternative due to the additional aircraft operations associated with the lifting the 60,000 lb. dual-wheel weight-bearing limit on Runway 9-27 at FXE.

The net changes in emissions resulting from the Proposed Action were calculated for comparison with General Conformity Rule (GCR) de minimis levels for all six (6) pollutants required in a GHG emission analysis. Although the Proposed Action would result in a slight increase in air emissions, the net change in emissions is significantly below the de minimis threshold for all pollutants (discussed in Section 1.2 of **Appendix I**).

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE





(b) Is the Proposed Action located in a nonattainment or maintenance area for any of the NAAQS established under the Clean Air Act? If the Proposed Project is in a nonattainment or maintenance area, identify for what pollutant(s), and do not complete this EA Form without first contacting an ORL-ADO EPS for further guidance. Note: To review the current list of areas designated nonattainment, see the U.S. Environmental Protection Agency reference book, The Green Book Nonattainment Areas for Criteria Pollutants at www.epa.gov/oagps001/greenbk/.

Document area status:

Air quality in the FXE area (i.e. Broward County) is designated by EPA as attainment for all criteria pollutants. Previously, the area was designated non-attainment for the 1979 one-hour ozone (revoked on June 15, 2005) and the 1997 eight-hour ozone (revoked on April 6, 2015) standards. Since the area is considered an attainment area with the current EPA air quality standards, but still subject to the standards which have since been revoked, a conservative approach was taken for the analysis of air quality for the Proposed Action (**Appendix I**).

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(c) If the action is located in an attainment area and will cause a reasonably foreseeable emission increase, you must prepare an emissions inventory for NAAQS priority pollutants and Green House Gases (GHG's) and disclose the results. You must contact an ORL-ADO EPS before conducting an air quality analysis. Note: As the Aviation Emissions and Air Quality Handbook explains, there are different types or components of an air quality analysis that can be undertaken depending on project/action type, the change(s) to the emission sources affected, and other relevant factors. There is no single, universal criterion for determining what type of analysis is appropriate for FAA-supported projects or actions. As an aid in selecting the appropriate air quality assessment methodology, see Figure 4-5 (Air Quality Assessment Examples) in the Aviation Emissions and Air Quality Handbook. Figure 4-5 identifies the types of air quality analyses (i.e., emissions inventory, dispersion modeling, etc.) that may be appropriate for FAA-supported projects and actions. Listed by project/action type, each assessment method is generally symbolized as High, Medium or Low in terms of the likely applicability of the analysis to the project/action type. Review the Aviation Emissions and Air Quality Handbook to understand how to prepare the analysis (including selecting the analysis years, identifying the emission types and emission sources of interest, obtaining and/or developing the necessary input data, and running the appropriate models and/or supplemental analyses.

****IMPORTANT***

As of May 29, 2015, the FAA accepted modeling tool for predicting air emissions is the Aviation Environmental Design Tool (AEDT). The most current version of this model, currently AEDT2b *must* be used for any new analysis started after that date. Please contact an ORL-ADO Environmental Specialist if you have any questions regarding the emissions analysis or the current version of the model to use in your analysis.

Provide the emissions inventory for the No Action Alternative, Proposed Action and Retained Alternatives for the EA Study Years including both direct and indirect emissions that are reasonably foreseeable which includes operational as well as construction emissions.

The AEDT 2c model was used to evaluate the net change in emissions from additional aircraft operations under the Proposed Action scenario, which include associated operations of on-airport ground support equipment (GSE) and auxiliary power units (APU). The net changes in emissions resulting from the Proposed Action were calculated for comparison with General Conformity requirements of the Federal Clean Air Act (CAA). Table 6 of **Appendix I** (discussed in Section 1.2.3) provides the estimated net change in emissions for the Proposed



Action from the results of the AEDT 2c model associated with increased aircraft activity and associated APU and GSE operations.

See attached:

Appendix I – Air Quality Modeling and Analysis, and Climate Discussion at FXE

Discuss the results of the emissions inventory and make a determination if the impacts are considered significant.

Table 6 of **Appendix I** (discussed in Section 1.2.3) presents the applicable General Conformity Rule (GCR) *de minimis* levels for each pollutant. The net change in emissions associated with the Proposed Action are below the GCR *de minimis* levels for each pollutant, therefore no significant impact to air quality is expected and no further analysis or conformity demonstration is required.

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(2) BIOLOGICAL RESOURCES (INCLUDING FISH, WILDLIFE, AND PLANTS)

(a) Using the Florida Land Use and Cover Classification System (FLUCCS), provide an assessment of the Proposed Action's and retained alternatives (if any) direct impact area (construction footprint) and indirect impact area (area indirectly impacted through facility lighting, noise contours, air emissions, and changes to water quality or quantity caused by construction equipment or facility operations). Attach a figure and table (for direct and indirect impact areas) with acreages per land use cover type to assist in the explanation.

Quantitatively discuss potential direct and indirect impacts:

None.

(b) Describe the potential for the Proposed Action and retained alternatives (if any) to result in long-term or permanent loss of plant or wildlife species, to directly or indirectly affect plant communities, and/or involve the displacement of wildlife. Cross reference Category (14) Water Resources, if jurisdictional water bodies or wetlands are present.

Quantitatively discuss potential direct and indirect impacts:

None.

(c) Using U.S. Fish and Wildlife (FWS) and National Marine Fisheries Service (NMFS) flora and fauna species lists for the Action vicinity, describe the potential for the Proposed Action and retained alternatives (if any) to directly or indirectly affect any federally-listed or candidate species of flora or fauna or designated critical habitat protected under the Endangered Species Act (ESA), the Marine Mammal Protection Act (MMPA), or affect Essential Fish Habitat (EFH) identified under the Magnuson-Stevens Act. You must attach records of consultation with FWS and NMFS, as appropriate, in an appendix to the EA. **Note:** If the Proposed Action and retained alternatives (if any) would potentially affect federally protected or candidate species, or designated critical habitat, **do not complete this EA** and immediately contact an FAA ORL-ADO EPS.

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Quantitatively discuss the potential for the Proposed Action and retained alternatives to directly or indirectly impact federally-protected species and designated critical habitat:

None.

(d) Using Florida Fish and Wildlife Commission (FWC) flora and fauna species lists for the Action vicinity, describe the potential for the Proposed Action and retained alternatives (if any) to directly or indirectly affect any state-listed species protected in the State of Florida. You must attach records of consultation with state jurisdictional agencies such as the FWC and Florida Department of Environmental Protection (DEP), as appropriate, in an appendix to the EA.

Quantitatively discuss the potential for the Proposed Action and retained alternatives to directly or indirectly impact state-protected species and designated critical habitat:

None.

(e) Describe the potential for the Proposed Action and retained alternatives (if any) to directly or indirectly affect species protected under the Migratory Bird Act. You must attach a record of consultation with FWS in an appendix to the EA.

Quantitatively discuss the potential impacts:

None.

(f) Discuss any operational, avoidance, minimization or mitigation measures (including construction mitigation measures) that have been considered in the siting of the Proposed Action and retained alternatives (if any) to mitigate impacts to biological resources. Identify all required federal, state or local permits. *Note:* Analyses for undisturbed areas including water bodies must be conducted in consultation with FWS, other Federal agencies (NMFS, EPA, USACE), and state agencies (DEP, FWC, and water management districts), having expertise on potentially affected biotic resources and their habitats. Federal and state-listed species lists must be consulted and the potential for occurrence in the Proposed Action area must be documented. Include an analysis of construction impacts and measures to avoid and minimize impacts to ensure that this document properly addresses both permanent and temporary, constructed-related impacts on these resources.

Quantitatively discuss any operational, avoidance, minimization or mitigation measures:

None.

(3) CLIMATE

(a) Affected Environment - For airport actions, the study area is defined by the extent of the project changes (i.e., immediate vicinity of the airport) and should reflect the full extent of aircraft movements as part of the project changes. Consult the FAA's Air Quality Handbook for more information on defining the study area. As explained in the 1050.1F Desk Reference, analysis of GHG emissions should be quantitatively assessed in certain circumstances, but otherwise may be qualitatively assessed. Where the analysis is quantitative, the affected environment section for climate should provide the quantitative data for the existing condition, which provides the baseline of existing GHG emissions in the study area. The affected





environment section should also discuss the current level of preparedness in the study area with respect to the impacts of climate change. This involves describing current measures that are in place within the study area to adapt to the impacts of climate change (e.g., sea level rise, stronger or more frequent storms, etc.). This discussion should be concise and may be quantitative or qualitative, depending on the nature of the project area.

Describe the current Climate and level of preparedness conditions in the Study Area:

The State of Florida has acknowledged climate change as an important environmental and economic issue and has developed an initial plan to begin to address GHG emissions through the following initiatives:

- Executive Order 07-126 "Leadership by Example: Immediate Actions to Reduce Greenhouse Gas Emissions from Florida State Government"
- Executive Order 07-127 "Immediate Actions to Reduce Greenhouse Gas Emissions within Florida"
- Executive Order 07-128 "Florida Governor's Action Team on Energy and Climate Change"
- Two Partnership Agreements: In July 2007, Governor Christ signed the "Partnership on Global Climate Change, Action between the United Kingdom and the State of Florida," and "Partnership on Global Climate Change, Action with the Federal Republic of Germany and the State of Florida"
- October 2009, Broward, Miami-Dade, Monroe, and Palm Beach County established the Southeast Florida Regional Climate Change Compact.

The Southeast Florida Regional Climate Change Compact (the "Compact") was formalized in 2009 to address challenges and strategies for responding to the impacts of climate change. Broward County along with Miami-Dade, Monroe, and Palm Beach County agreed to the Compact to encourage sustainability and climate resiliency at the county level. As part of the commitment of the Compact, participating counties developed a regional greenhouse gas inventory to provide a baseline to compare future progress in reducing GHG emissions in southeast Florida.

On November 6, 2012, the City of Fort Lauderdale became the first city in the four-county area to adopt and sign the Mayors' Climate Action Pledge, supporting the Compact and the Regional Climate Action Plan. The analysis presented emissions for the years 2005 to 2009. Regional GHG emissions for 2009 were estimated at 64.9 million metric tons (MMT) of CO_2 equivalent (MMT CO_2 e) in 2009 down from a high of 70.1 MMT CO_2 e in 2006.

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(b) Environmental Consequences - If GHG's and climate are not relevant to the Proposed Action and alternative(s) (i.e., because there would be no GHG emissions), this should be briefly noted and no further analysis is required.

Qualitatively discuss the reasons that the Proposed Action and retained alternatives would not affect GHG's or Climate Change:

As contained in **Appendix I** (discussed in Section 2), the Council on Environmental Quality (CEQ) did not propose GHG emissions as an indicator of a threshold of significant effects, but rather as an indicator of a minimum level of GHG emissions that may warrant some description in the appropriate National Environmental Policy Act (NEPA) analysis for agency actions involving direct emissions of greenhouse gases (GHG). Consistent with the FAA guidance on considering GHG and climate under NEPA, the emissions associated with the additional fuel consumption from the Proposed Action at FXE were quantitatively evaluated and compared to



U.S., global and regional levels.

Although the Proposed Action would increase fuel consumption, and thus GHG emissions compared to the No-Action Alternative, the resulting increase in carbon dioxide equivalent (CO_2e) is negligible compared to both the regional and overall U.S. GHG emissions in 2016 and 2021. To put the Proposed Action in perspective, an increase of 4.9 tons of CO_2e annually is the equivalent of adding one passenger vehicle to the road.

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(c) Where the Proposed Action or alternative(s) would not result in a net increase in GHG emissions (as indicated by quantitative data or proxy measures such as reduction in fuel burn, delay, or flight operations), a brief statement describing the factual basis for this conclusion is sufficient and no further analysis is required.

Describe the basis for "no-effect" conclusion:

Although the Proposed Action would increase fuel consumption, and thus GHG emissions compared to the No-Action Alternative, the resulting increase in carbon dioxide equivalent (CO_2e) is negligible compared to both the regional and overall U.S. GHG emissions in 2016 and 2021. To put the Proposed Action in perspective, an increase of 4.9 tons of CO_2e annually is the equivalent of adding one passenger vehicle to the road – basically "no effect". (**Appendix I).**

The No Action Alternative assumes GHG emissions and climate change would remain in the existing condition, therefore there would be "no effect" on GHG or climate change within the study area.

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(d) Where the Proposed Action or alternative(s) *would* result in an increase in GHG emissions as *compared* to the No Action alternative for the same study year, the emissions should be assessed either qualitatively or quantitatively using the methodology described in FAA's 1050.1F Desk Reference, Section 3.3.2 (Data Analysis). **Note:** Contact an ORL-ADO EPS prior to undertaking a quantitative analysis.

Explain:

Consistent with the FAA guidance on considering GHG and climate under NEPA, the emissions associated with the additional fuel consumption for 2016 and 2021 from the Proposed Action at FXE were quantitatively evaluated and compared to U.S., global and regional levels (**Appendix I**).

Although the Proposed Action would increase fuel consumption, and thus GHG emissions compared to the No-Action Alternative, the resulting increase in carbon dioxide equivalent (CO_2e) is negligible compared to both the regional and overall U.S. GHG emissions in 2016 and 2021. To put the Proposed Action in perspective, an increase of 4.9 tons of CO_2e annually is the equivalent of adding one passenger vehicle to the road.

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(e) Documentation - When CO₂e is quantified, the metric tonnes (MT) CO₂e results should be provided in a table or similar format that compares the alternatives directly. When fuel burn is





computed, the MT CO_2 equal to that fuel content should be documented and discussed. See Section 3.3.3 of 1050.1F. **Note:** There are no significance thresholds for aviation or commercial space launch GHG emissions, nor has the FAA identified specific factors to consider in making a significance determination for GHG emissions. There are currently no accepted methods of determining significance applicable to aviation or commercial space launch projects given the small percentage of emissions they contribute. CEQ has noted that "it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand." Accordingly, it is not useful to attempt to determine the significance of such impacts. There is a considerable amount of ongoing scientific research to improve understanding of global climate change and FAA guidance will evolve as the science matures or if new Federal requirements are established.

Provide a discussion of the analysis including data tables comparing the No Action and retained alternatives for each study year:

In accordance with FAA guidance, estimated CO_2 emissions were calculated from the amount of additional fuel projected to be consumed for the Proposed Action in 2016 and 2021. The net change in fuel burned for the Proposed Action was estimated using AEDT; **Tables 4 and 5 in Appendix I** present the results, in tons per year. The resulting increases in CO_2 emissions were then calculated as a percentage of national, global, and local CO_2 e totals from all GHG sources.

Table 7 shown below and in **Appendix I** shows the projected net change in CO_2e emissions between the No Action and the Proposed Action for 2016 and 2021. CO_2 emissions under the Proposed Action would be 4.67 metric tons (MT) of CO_2e for 2016 and 4.90 MT of CO_2e for 2021. The projected GHG emissions increase associated with the Proposed Action would comprise a very small fraction (approximately .00000007 percent) of the U.S. based emissions of 6,673 million metric tons (MMT) of CO_2e and even less (approximately .00000001 percent) than the 49 gigatons (GT) of CO_2e of global GHG emissions. Similarly, the expected GHG emissions increase for 2016 and 2021 would comprise approximately .00000756 percent of the Regional GHG emissions of 64.9 MMT CO_2e . Therefore, it is reasonable to conclude that the Proposed Action will not have a significant effect on or contribution to climate change.

Proposed Action Net Change in Emissions Proposed Action Net Change in Fuel (Metric Tons CO2e)* Consumption (pounds)* **Pollutant 2016 Fuel** 2021 Fuel 2016 Net Change in 2021 Net Change in Consumption Consumption **Emissions Emissions** CO₂e (MT of CO₂e) 3,260 3,420 4.67 4.90

Table 7 Comparison of CO₂e Emissions for 2016 and 2021

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(f) Reducing Emissions - Reduction of GHG emissions resulting from FAA actions contributes towards the U.S. goal of reducing aviation's impacts on climate. For NEPA reviews of proposed FAA actions that would result in increased emissions of GHGs, consideration should be given to whether there are areas within the scope of a project where such emissions could be reduced. GHG emission reduction can come from measures such as changes to more fuel efficient equipment, delay reductions, use of renewable fuels, and operational changes (e.g., performance-based navigation procedures). However, GHG emission reduction is not mandated and will not be possible in all situations.

Discuss measures to reduce emissions associated with the Proposed Action:

^{*}When compared to the No Action Alternative for the same year



Although the Proposed Action would increase fuel consumption, and thus GHG emissions compared to the No-Action Alternative, the resulting increase in CO_2e is negligible compared to both the regional and overall U.S. GHG emissions in 2016 and 2021. To put the Proposed Action in perspective, an increase of 4.9 tons of CO_2e annually is the equivalent of adding one passenger vehicle to the road.

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(g) Climate Adaptation - The environmental consequences section should include a discussion of the extent to which the proposed action or alternatives(s) could be affected by future climate conditions, based on published sources applicable to the study area. For example, a project area's ability to sustain impacts caused by climate changes should be described (e.g., identify current robustness and height of seawalls for coastal airports). This discussion should include any considerations to adapt to forecasted climate change conditions.

Discuss potential climate conditions relevant to the Proposed Action:

Of growing concern to the federal government and the general public are both the impact of proposed projects on climate change, and the potential impacts of climate change on proposed projects. The Proposed Action would increase fuel consumption over the No Action Alternative, since the Proposed Action would change the aircraft type and number of operations relative to the No Action Alternative. Therefore, an increase in aircraft fuel consumption will result in additional GHG emissions from aircraft operations associated with the Proposed Action (discussed in Section 2.2 of **Appendix I**).

In accordance with FAA guidance, estimated CO_2 emissions were calculated from the amount of additional fuel projected to be consumed for the Proposed Action in 2016 and 2021. The net change in fuel burned for the Proposed Action was estimated using the AEDT 2c model. The resulting increases in CO_2 emissions were then calculated as a percentage of national, global, and local CO_2 e totals from all GHG sources.

Although the Proposed Action would increase fuel consumption, and thus GHG emissions compared to the No Action Alternative, the resulting increase in CO_2e , over a five-year period, is negligible compared to both regional and overall U.S. GHG emissions in 2016 and 2021. This increase of 4.9 tons of CO_2e annually by 2021 is the equivalent of adding one passenger vehicle to the road.

See attached:

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(4) COASTAL RESOURCES

(a) Is the Proposed Action located within the Coastal Barrier Resources System (CBRS), as delineated by the U.S. Fish and Wildlife Service (FWS) Official CBRS maps? If the Proposed Action is located within the CBRS, do not complete this EA and immediately contact an FAA ORL-ADO EPS.

Explain:

None.

(b) The Florida Department of Environmental Protection (DEP), Florida State Clearinghouse, Office of Intergovernmental Programs, will coordinate a consistency review of the Proposed

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Action under the following authorities: Presidential Executive Order 12372; § 403.061 (42), Florida Statutes; the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended; and the National Environmental Policy Act, 42 U.S.C. §§ 4321-4347, as amended. The ORL-ADO EPS must review the Draft EA prior to submittal to the Clearinghouse for consistency review. The Airport Sponsor then submits the Draft EA to the Clearinghouse. Contact the Clearinghouse (850-245-2161) for the required number of copies and format. The Clearinghouse will make a determination of the Proposed Action's consistency with Florida's Coastal Management Program (FCMP) based on information contained in the Draft EA. **Note:** The FCMP consistency review process normally takes 30 to 45 days and is conducted during the public and agency review of the Draft EA. The Clearinghouse will send a consistency determination letter with state comments to the Airport Sponsor. The Airport Sponsor must include a copy of the consistency letter and the Airport Sponsor's responses to any comments received from state agencies in an appendix to the Final EA submitted to the FAA ORL-ADO.

Ensure that the Proposed Action is consistent with the enforceable policies of the FCMP (http://www.dep.state.fl.us/cmp/federal/). Acknowledge submittal of the Draft EA to the Clearinghouse for review.

None.

(5) DOT SECTION 4(f)

(a) Describe and identify on an attached figure all DOT Section 4(f) resources both on-airport and within the airport's vicinity (or area encompassed by the composite DNL 65 dBA noise contour for the Proposed Action, reasonable alternatives (if any) and No Action alternative). Resources that are protected by Section 4(f) are publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance; and publicly or privately owned land from an historic site of national, state, or local significance. Cross-reference Category (11) Noise and Compatible Land Use, as applicable.

Describe 4(f) resources and attach a figure if applicable:

None.

(b) Compared to the No Action alternative, would the Proposed Action and retained alternatives (if any) have a direct impact (physical use or "taking") or indirect impact (constructive use) on any of any Section 4(f) sites or facilities? To assess constructive use refer to "FAR Part 150, Appendix "A", Table 1, Land Use Compatibility With Yearly Day-Night Average Sound Levels" If **YES**, **do not complete this EA** and contact the FAA ORL-ADO EPS.

Discuss the results of the analysis:

None.



(6) FARMLANDS--PRIME, UNIQUE OR STATE-SIGNIFICANT FARMLAND

(a) Compared to the No Action alternative does the Proposed Action and retained alternatives (if any) involve the acquisition of Prime, Unique or statewide and locally important farmland, or the conversion/use of these types of farmlands that are protected by the Federal Farmland Protection Policy Act (FPPA)? Contact the Florida Natural Resources Conservation Service (NRCS). For more information see: http://www.nrcs.usda.gov/wps/portal/nrcs/main/fl/soils/

If appropriate, attach record of coordination with the Florida NRCS, including a completed Form AD-1006. **Note:** Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not land used for water storage or urban built-up land. Also, the "Part 523-Farmland Protection Policy Manual" notes that lands identified as "urbanized area" (UA) on Census Bureau maps are not subject to the provisions of the FPPA. See https://www.census.gov/geo/maps-data/maps/2010ua.html for Census Bureau maps.

Discuss analysis and add tables and graphics as appropriate:

None.

(7) HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

(a) Compared to the No Action alternative, would the Proposed Action and reasonable alternatives (if any) violate applicable Federal, state, tribal or local laws or regulations regarding hazardous materials and/or solid waste management?

Explain:

None.

(b) Compared to the No Action alternative, would the Proposed Action and retained alternatives (if any) involve a contaminated site (including but not limited to a site listed on the National Priorities List)? Describe how the Proposed Action site was evaluated for hazardous substance contamination. Reference electronic database searches and attach in an appendix any record of consultation with appropriate expertise agencies (e.g., US Environmental Protection Agency (EPA), Florida DEP).

Explain:

None.

(c) Compared to the No Action alternative would the Proposed Action and retained alternatives (if any) produce an appreciably different quantity or type of hazardous waste?

Explain:

None.

(d) Compared to the No Action alternative, would the Proposed Action and retained alternatives (if any) generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity? If **YES**, are local disposal facilities capable of handling the additional volumes of solid waste resulting from the Action? A letter from the local waste management handling facility may be necessary.



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None.

(e) Compared to the No Action alternative, would the Proposed Action and retained alternatives (if any) adversely affect human health and the environment with regards to hazardous materials or solid waste?

Explain:

None.

(f) Is there a sanitary landfill containing municipal solid waste (MSW) located within 10,000 feet of a runway serving turbo-powered aircraft, or 5,000 feet of a runway serving piston-powered aircraft? **Note:** A sanitary landfill containing municipal solid waste (MSW) is incompatible with airport operations if the landfill is located within 10,000 feet of a runway serving turbo-powered aircraft, or 5,000 feet of a runway serving piston-powered aircraft. Refer to FAA Advisory Circular 150/5200.33 " Hazardous Wildlife Attractants on or Near Airports," and FAA Order 5200.5B, "Guidance Concerning Sanitary Landfills on or Near Airports."

Explain:

None.

(8) HISTORICAL, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES

(a) Describe and identify on an attached figure any known sites listed-in or eligible for listing on the National Register of Historic Places (NRHP) within the Proposed Action's and retained alternatives (if any) Area of Potential Effect (APE), which is defined as "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties". The APE includes the direct impact area (limits of ground disturbance) and as applicable the indirect impact area encompassed by the composite DNL 65 dBA noise contour of the Proposed Action, No Action, and retained alternatives (if any). Protected resources include historic sites, districts, objects, archaeological remains, historic structures, public parks, publicly-owned recreation areas, and wildlife or waterfowl refuges. Accomplish this review through searching the NRHP database, consultation with the Florida State Historic Preservation Officer (SHPO), local historic groups, local jurisdictions, federally recognized tribes in the State of Florida, and airport staff. Historic airport facilities (50 years or older) must be included. Note: If any known listed or eligible NRHP sites are identified within the Proposed Action's APE (direct or indirect), you must immediately contact the ORL/ADO Environmental Specialist for further instruction regarding Section 106 of the National Historic Preservation Act (NHPA).

Describe and identify on attached figure (as applicable) any known sites in the direct and indirect impacts APE:

None.

(b) Consultation with the SHPO and tribes should be conducted early in the process and prior to submittal of the preliminary Draft EA to the ORL/ADO EPS. Discuss Florida SHPO and tribal consultation responses below. Records of consultation with the Florida SHPO and federally recognized tribes and their responses must be included in an appendix to

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the EA. All public out-reach efforts should apply to these groups as well. **Note:** Letters to the Florida SHPO and federally recognized tribes must come from the FAA. Draft letters for FAA signature. Discuss the proposed action and attach a figure identifying the area of potential effect (APE) on a recent aerial. Include in the discussion whether a cultural resource assessment study (CRAS) has been done for the APE. Provide a written effects determination along with supporting documentation to the SHPO/THPO and the consulting parties (see 36 CFR § 800.5). Make one of the following conclusions: (1) no historic properties present in the APE; (2) no adverse effect on historic properties; or (3) adverse effect on historic properties. You must review http://www.dot.state.fl.us for a list of federally recognized tribes, contacts and addresses. If any known listed or eligible NRHP sites are identified within the Proposed Action's APE, you must immediately contact the ORL/ADO Environmental Specialist for further instruction regarding Section 106 of the National Historic Preservation Act (NHPA).

Discuss Florida SHPO and tribal consultation responses.

None.

(c) Compared to the No Action alternative, would the Proposed Action or retained alternatives (if any) result in *direct effects* (physical disturbance or destruction, damage, alteration, isolation of the property from its surroundings, or moving a property from its historic location), or *indirect effects* (introduction of visual, auditory, or atmospheric elements that are out of character with the property or that would diminish the integrity of the property's setting), on any NRHP property or NHRP-eligible property? Cross reference your response with other applicable impact categories such as noise and compatible land use, air quality and Section 4(f)/6(f) resources.

Discuss direct or indirect effects on NRHP or NHRP-eligible properties.

None.

(9) LAND USE

(a) Compared to the No Action Alternative, would the Proposed Action and retained alternatives (if any) result in any impacts to off-airport land uses and/or require a change to the local comprehensive plan and zoning map?

Discuss any impacts to off-airport land uses or changes to a local comprehensive plan or zoning.

None.

(b) Compared to the No Action alternative, would the Proposed Action and retained alternatives (if any) be located near or create a potential wildlife hazard as defined in FAA Advisory Circular 150/5200-33, "Wildlife Hazards on and Near Airports"?

Discuss potential wildlife hazards.

None.

AVIATION OF

FAA ORLANDO ADO | ENVIRONMENTAL ASSESSMENT

(c) If the Airport Sponsor is filing a federal Airport Improvement Program (AIP) grant application for construction of the Proposed Action, an <u>executed</u> letter from the Airport Sponsor to the FAA with the land use assurance language noted below must be attached as an appendix to this EA.

"Per 49 USC Section 47107(a)(10), that appropriate action, including adopting zoning laws, has been or will be taken to the extent reasonable, to restrict the use of land adjacent to or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft."

Note: The Sponsor's assurance letter must be related to existing and future planned land uses in the airport vicinity.

Identify Draft EA Appendix that contains the Airport Sponsor's land use assurance letter or explain why one is not required.

None.

(10) NATURAL RESOURCES AND ENERGY SUPPLY

(a) Identify suppliers of energy resources found in the area such as power plants, water utilities, sewage disposal utilities, and suppliers of natural gas and petroleum, as applicable. Identify the approximate amount of other resources such as water, asphalt, aggregate, and wood a project would use in the construction, operation, and maintenance of a project and identify where the suppliers are located.

Discuss:

None.

(b) Compared to the No Action alternative, what effect would the Proposed Action and retained alternatives (if any) have on energy supplies or other natural resource consumption? Would demand exceed supply?

Explain:

None.

(c) Identify whether the Proposed Action and retained alternatives (if any) would incorporate sustainable design features such as conservation of resources, use of pollution prevention measures, minimization of aesthetic effects, and address public (both local and traveling) sensitivity to these concerns.

Explain:

None.

(11) NOISE AND COMPATIBLE LAND USE

(a) Determine if a noise analysis should be conducted per FAA Order 1050.1F, Appendix B . Airport operations must not exceed the threshold for both existing and forecast years (with and without the Proposed Action). If operations exceed the threshold, coordinate with the ORL/ADO EPS prior to conducting a noise analysis. **Note:** *No noise analysis is needed for*





projects involving Design Group I and II airplanes (wingspan less than 79 feet) in Approach Categories A through D (landing speed less than 166 knots) operating at airports whose forecast operations in the period covered by the NEPA document do not exceed 90,000 annual propeller operations (247 average daily operations) or 700 annual jet operations (2 average daily operations). These numbers of propeller and jet operations result in DNL 60 dB contours of less than 1.1 square miles that extend no more than 12,500 feet from start of takeoff roll. The DNL 65 dB contour areas would be 0.5 square mile or less and extend no more than 10,000 feet from start of takeoff roll. Also, no noise analysis is needed for projects involving existing heliports or airports whose forecast helicopter operations in the period covered by the NEPA document do not exceed 10 annual daily average operations with hover times not exceeding 2 minutes. These numbers of helicopter operations result in DNL 60 dB contours of less than 0.1 square mile that extend no more than 1,000 feet from the pad. Note that this rule applies to the Sikorsky S-70 with a maximum gross takeoff weight of 20,224 pounds and any other helicopter weighing less or producing equal or less noise levels. Airport forecasts must be consistent with the most recent FAA Terminal Area Forecast (TAF).

Document the most recent TAF for the airport, the <u>existing</u> and <u>forecast</u> annual operations in the EA study years for the No Action alternative, the Proposed Action and any retained alternatives. Discuss whether the thresholds described above would be exceeded or not and whether a quantitative or qualitative noise analysis is appropriate for the Proposed Action.

FAA approval of 2016 and 2021 Proposed Action and No Action Alternative forecasts was obtained based on a four-step process detailed in **Appendix G** (discussed in Item 2). FAA approval of the forecasts is also contained in **Appendix G**.

In EA Form scoping, FAA determined a noise analysis would be required using the AEDT 2b model. AEDT 2b noise modeling inputs and requirements are detailed in **Appendix G** (discussed in Item 4).

See attached:

Appendix G - Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

(b) Aircraft noise screening may rule out the need for more detailed noise analysis if screening shows no potential for significant noise impacts. The Area Equivalent Method (AEM) can be used in evaluating proposed actions and alternative(s) at an airport which result in a general overall increase in daily aircraft operations or the use of larger/noisier aircraft, as long as there are no changes in ground tracks or flight profiles. If the AEM calculations indicate that the action would result in less than a 17 percent (approximately a DNL 1 dB) increase in the DNL 65 dB contour area, there would be no significant impact over noise sensitive areas and no further noise analysis would be required. If the AEM calculations indicate an increase of 17 percent or more, or if the action is such that use of the AEM is not appropriate, then the noise analysis must be performed using the Aviation Environmental Design Tool (AEDT) to determine if significant noise impacts would result. See the Area Equivalent Method (AEM) Version 7.0c User's Guide, October 2012 for further information on conducting an AEM screening procedure. **Note:** If more detailed noise analysis is required, the model must be used to determine if significant noise impacts would result from implementation of the Proposed Action. Information regarding the FAA's AEDT 2b can be found in the 1050.1F Desk Reference and at https://aedt.faa.gov/.

Explain the results of the AEM analysis if used.

N/A.



- (c) Describe the affected environment for noise and noise compatible land use. Refer to the 1050.1F Desk Reference section 11.2, Affected Environment, for necessary information. The steps generally required to describe the affected environment for noise and noise compatible land are as follows:
- Determine the study area for noise analysis. An airport environs study area must be large enough to include the area within the DNL 65 dB contour, and may be larger.
- Identify noise sensitive areas in the study area and pertinent land use information; A noise sensitive area is defined in Paragraph 11-5.b (8) of FAA Order 1050.1F.
- Describe **current** noise conditions in the study area. Noise exposure contours must include DNL 65, 70, and 75 dB levels. Identify the number of residences or people residing within each noise contour where aircraft noise exposure is at or above DNL 65 dB. Identify the location and number of noise sensitive uses in addition to residences (e.g., schools, hospitals, nursing homes, parks, recreation areas, historic structures) that could be significantly impacted by noise. Use recent aerial photographs, GIS mapping and other resources to depict land uses within the noise study area.

Noise contours from the AEDT 2b model noise analysis for 2016 and 2021 No Action Alternative and Proposed Action are illustrated in **Appendix G** in Figures 1 and 2, respectively. These figures illustrate there are no incompatible land uses within the Proposed Action or No Action Alternative contours for either 2016 or 2021, including no residential land uses (and therefore no residents), or other noise sensitive receptors. Therefore, the Proposed Action would not result in any noise-related environmental impacts.

See attached:

Appendix G - Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

- (d) Describe the potential noise impacts of the proposed action and alternative(s), if any, for each timeframe evaluated. Use the AEDT to provide noise exposure contours for DNL 5 dB increments for the DNL 65, 70, and 75 dB levels. For all comparisons analyzed, the analysis needs to identify noise increases of DNL 1.5 dB or more over noise sensitive areas that are exposed to noise at or above the DNL 65 dB noise exposure level, *or* that would be exposed at or above the DNL 65 dB level due to a 1.5 dB or greater increase, when compared to the No Action alternative for the same timeframe. For each modeling scenario analyzed, disclose, quantify and discuss:
 - number of residences or people residing within each noise contour interval where aircraft noise exposure is at or above DNL 65 dB,
 - the net increase or decrease in the number of people or residences exposed to each increment of noise
 - location and number of noise sensitive land uses in addition to residences (e.g., schools, hospitals, nursing homes, parks, recreation areas, historic structures) exposed to DNL 65 dB or greater
 - when DNL 1.5 dB increases to noise sensitive land uses are documented within the DNL 65 dB contour, also identify the location and number of noise sensitive land uses within the DNL 60 dB contour that are exposed to aircraft noise levels at or above DNL 60 dB but below DNL 65 dB and are projected to experience a noise increase of DNL 3 dB or more
 - noise impact on noise sensitive areas within the DNL 65 dB contour.



Use multiple graphics to depict the noise contours and land uses and noise sensitive resources within the noise contours for all alternatives. Include arrival, departure and touch and go flight tracks. Graphics should be scaled and sufficiently large and clear to be readily understood.

As illustrated in the AEDT 2b model noise analysis, the Proposed Action would not result in significant aircraft-related noise impacts for either 2016 or 2021(**Appendix G**).

See attached:

Appendix G – Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

(e) Discuss whether there is a significant noise impact for the Proposed Action and retained alternatives (if any) compared to the No Action alternative. FAA Order 1050.1F Exhibit 4-1 provides the FAA's significance threshold for noise i.e. The action would increase noise by DNL6 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65dB level due to a DNL 1.5dB or greater increase, when compared to the no action alternative for the same timeframe. For example, an increase from DNL 65.5 dB to 67 dB is considered a significant impact, as is an increase from DNL 63.5 dB to 65 dB. The determination of significance must be obtained through the use of noise contours and/or grid point analysis along with local land use information and general guidance contained in Appendix "A", Table 1 of 14 CFR part 150. If there is a potential significant noise impact for the Proposed Action, do not complete this EA and contact the ORL ADO/EPS for further guidance.

Explain:

As illustrated in the AEDT 2b model noise analysis, the Proposed Action would not result in significant aircraft-related noise impacts for either 2016 or 2021(**Appendix G**).

See attached:

Appendix G - Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

(e) For some noise analyses, it may be necessary to include noise sources other than aircraft departures and arrivals in the noise analysis. This can be determined by examining the action and determining the potential impacts caused by noise other than aircraft departures and arrivals. Some examples are engine run-ups, aircraft taxiing, construction noise, and noise from related roadway work and roadway noise. The inclusion of these sources should be considered on a case-by-case basis, as appropriate. Discuss whether the Proposed Action and retained alternatives (if any) have the potential to cause noise other than aircraft related noise. See 1050.1F Desk Reference, Section 11.5 for additional information.

Discuss if analysis of other noise sources is warranted. If it is, conduct the analysis and describe the results here.

FAA does not require noise modeling of Auxiliary Power Units (APUs) or Ground Power Units (GPUs) unless an airport has specialized ground noise issues, which are not relevant at FXE. APU/GPU noise analysis is not a requirement for NEPA or noise analyses that deal with the level and mix of flight operations. As such, no other noise sources were included in the noise analysis.

See attached:

Appendix G - Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment



(f) Discuss any mitigation measures that are in effect at the time of the proposal or are proposed to be taken to mitigate significant impacts resulting from the Proposed Action and/or the retained alternatives. See 1050.1F Desk Reference, Section 11.6 for common operational measures to mitigate noise, common mitigation measures related to noise and noise-compatible land use, and common construction mitigation measures. Local land use actions are within the purview of local governments. The FAA encourages local governments to take actions to reduce and prevent land uses around airports that are not compatible with airport operations and aircraft noise. Airports receiving federal grant funding have a compatible land use obligation, as described in 1050.1F Desk Reference, Section 11.5.3 Airport Actions. Discuss what is being done regarding compatible land use by the local jurisdiction(s) with land use control authority.

No noise mitigation is required for the Proposed Action. As illustrated in the AEDT 2b model noise analysis, there are no anticipated aircraft related noise impacts associated with the Proposed Action for either 2016 or 2021(**Appendix G**).

See attached:

Appendix G – Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

(12) SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

(a) When compared to the No Action alternative, would the Proposed Project and retained alternatives (if any) change business and economic activity in the community; impact public service demands; induce shifts in population movement and growth, or other factors identified by the public, etc.? If **YES**, describe how these impacts would be minimized or mitigated.

Explain:

In June-August 2013 a survey of FXE tenants was conducted to identify the economic-related impacts of lifting the 60,000 lb. dual-wheel weight-bearing limit on Runway 9-27. A white paper was developed on August 25, 2015 (**Appendix F**) to explore the initiative and concluded the Proposed Action would provide a positive economic benefit to FXE and the surrounding communities including:

- 1. Additional fuel sales at FXE (full-fueling of existing aircraft currently operating and fuel sales to new aircraft operations anticipated if the 60,000 lb. duel-wheel weight-bearing limit is removed);
- 2. Potential increase in sales and services for FXE tenants;
- 3. Airport tenant improvements and redevelopment of facilities at the airport (i.e., hangars to accommodate newer-model aircraft); and
- 4. Broader economic benefits to the local economy such as an increase of corporate aircraft and clients that will bring additional revenue to the local economy.

See attached:

Appendix F – White Paper on Runway 9-27 Weight-Bearing Limit

(b) When compared to the No Action alternative, would the Proposed Project and retained alternatives (if any) result in the need to relocate any homes or businesses? If **YES**, **do not** complete this EA and contact the ORL/ADO EPS for further guidance.





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No

(c) Cause an alteration in surface traffic patterns, or cause a noticeable increase in surface traffic congestion or a decrease in Level of Service (LOS) on local roadways?

Explain:

No.

(d) Would the Proposed Action and retained alternatives (if any) have the potential to lead to a disproportionately high and adverse impact to an environmental justice population, i.e., a low-income or minority population? Consider impacts in other environmental impact categories (noise, air); or impacts on the physical or natural environment that affect an environmental justice population in a way that the FAA would determine are unique to the environmental justice population and significant to that population. See 1050.1F Desk Reference, Chapter 12 for guidance. If YES, do not complete this EA and contact the ORL/ADO EPS for further guidance.

Explain:

No.

(e) Would the Proposed Action and retained alternatives (if any) result in any environmental health risks and/or safety risks that may disproportionately affect children? Environmental health risks and safety risks include risks to health or to safety that are attributable to products or substances that a child is likely to come in contact with or ingest, such as air, food, drinking water, recreational waters, soil, or products they might use or be exposed to. It may be beneficial to determine the number of schools, daycares, parks, and children's health clinics in the study area. Consider impacts to children's health and safety in the context of other impact categories (air, noise, water quality).

Explain:

No.

(13) VISUAL EFFECTS INCLUDING LIGHT EMISSIONS

(a) Compared to the No Action alternative, describe any new lighting systems associated with the Proposed Action and retained alternatives (if any). Describe the new types of lighting, their intensity, height and direction of emissions that would be constructed and operational.

Explain:

None.

(b) Would the Proposed Action and retained alternatives (if any) have the potential to create annoyance or interfere with normal activities for nearby residential areas or other light-sensitive resources or affect the visual character of the area due to the light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources? If



appropriate, provide a graphic depicting the location of residential areas or other light-sensitive resources in the airport vicinity in relation to the Proposed Action's and retained alternatives (if any) new lighting system.

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None.

(c) Identify whether a local community, government or jurisdictional agency would consider visual effects from the Proposed Action's (and retained alternatives) lighting objectionable to people's properties and people's use of resources covered by DOT Section 4(f), LWCF Section 6(f), and the National Historic Preservation Act (NHPA) Section 106. Consider the potential extent the proposed action would have to: affect the nature of the visual character of the area, including the importance, uniqueness, and aesthetic value of the affected visual resources; contrast with the visual resources and/or visual character in the study area; and block or obstruct the views of visual resources, including whether these resources would still be viewable from other locations.

Explain:

None.

(14) WATER RESOURCES - WETLANDS, FLOODPLAINS SURFACE WATERS, GROUNDWATER, AND WILD AND SCENIC RIVERS

WETLANDS

(a) Compared to the No Action alternative, would the Proposed Action and retained alternatives (if any) impact federal or state jurisdictional and non-jurisdictional wetlands? If YES, provide an assessment of the Proposed Action and retained alternatives (if any) wetland impacts. Quantify both acreage and Functional Loss in accordance with U.S. Army Corps of Engineers (USACE) and state agency (water management district (WMD)) or Florida Department of Environmental Protection (FDEP) requirements. If protected species or habitat resources are affected, USFWS and FWC must be consulted and consultation must be attached as an appendix to this EA. Cross-reference with Category (2) Biotic Resources, as applicable.

Provide assessment of wetland impacts:

No.

(b) If the Proposed Action would unavoidably impact a wetland, explain why the wetland is the only practicable location for the Proposed Action. Consider the purpose and need, FAA design standards, engineering, environmental, economic, technical feasibility or any other applicable factor. FAA will consider this information in its independent evaluation of alternatives (see 40 CFR 1506.5.) **Note:** Federal regulations require "that no discharge shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact to the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences" (per Memorandum of Agreement between The Department of the Army and Environmental Protection Agency, The Determination of Mitigation under the Clean Water Act Section 404 (b)(1) Guidelines, February 1990.





Discuss:

N/A

(c) If the Proposed Action would affect federal and/or state jurisdictional wetlands, discuss all practicable means to avoid and minimize wetland impacts through modifications or permit conditions. FAA will consider this information in its independent evaluation of measures that will be used to minimize harm to wetlands (see 40 CFR 1506.5).

Discuss avoidance and minimization measures evaluated and unavoidable wetland impacts:

N/A

(d) Discuss appropriate and practicable compensatory mitigation for unavoidable adverse impacts which remain after all appropriate and practicable minimization has been provided. Identify the location of proposed compensatory mitigation, including acreage, Functional Gain, and estimated cost. USACE and WMD or FDEP consultation must be attached in an appendix to this EA that includes acknowledgement of required permits and proposed mitigation.

Discuss compensatory mitigation and attach record of jurisdictional agency consultation:

N/A

(e) List all required permits that will be obtained for wetland impacts (USACE Section 404, WMD, FDEP or local). *USACE Standard Individual Permits require public notice*. For NEPA purposes, this is conducted during public and agency review of the Draft EA. *Note: Nationwide General Permits* authorize a category of activities throughout the U.S., Puerto Rico, and U.S. Virgin Islands that are similar in nature and cause only minimal individual and cumulative environmental impacts. Nationwide General Permits may authorize minor filling, roads, utility lines, maintenance of existing structures and other minor activities; they may require mitigation. Standard Individual Permits are required for activities which may cause more than minimal adverse effects to the aquatic environment and exceed the terms and conditions of a general permit; they require public notice and review by state and federal resource agencies; most require mitigation.

List all wetland permits:

N/A

(f) Attach a statement from the Airport Sponsor committing to the implementation of a mitigation plan developed to the satisfaction of the USACE in consultation with state and local agencies having an interest in the affected wetland.

N/A

FLOODPLAINS

(a) Compared to the No Action alternative, would the Proposed Action and retained alternatives (if any) be located in, or encroach upon, any base/100-year floodplains, as designated by the Federal Emergency Management Agency (FEMA)? If **YES**, you must quantify the encroachment and attach the corresponding FEMA Flood Insurance Rate Map (FIRM) and





proceed to (b) and (c).

Explain and quantify the floodplain encroachment and attach FEMA FIRM Map, if applicable:

No.

(b) In accordance with Executive Order 11988, explain why the Proposed Action and retained alternatives (if any) must be located in or affect the base/100-year floodplain. Include (1) a description of significant facts considered in making the decision to locate the Proposed Action in or to affect the floodplain, including alternative sites and actions; (2) a statement indicating whether the Proposed Action (and retained alternatives if any) conforms to applicable state or local floodplain protection standards; (3) a description of the design steps taken to modify the Proposed Action to minimize potential harm to or within the floodplain; and (4) a statement indicating how the Proposed Action affects the natural or beneficial values of the floodplain.

Explain:

N/A

(c) If the Proposed Action or retained alternative would cause an encroachment of a base/100-year floodplain, the Airport Sponsor must provide an opportunity for early public review during the EA process, in accordance with Section 2(a)(4) of Executive Order 11988 and Paragraph 7 of DOT Order 5650.2. For NEPA purposes, this is conducted during public and agency review of the Draft EA.

Discuss what actions were taken to make the Draft EA available for early public review and what notification of floodplain impacts was made.

N/A

SURFACE WATERS AND GROUND WATERS

(a) When compared to the No Action alternative, will the Proposed Action and retained alternatives (if any) require a Section 401 water quality certificate (WQC) for construction activities or impacts to navigable waters, including jurisdictional wetlands? Explain the status of and/or any issues associated with obtaining this certificate. Attach any correspondence from the issuing agency. Cross reference your response with Wetlands, as applicable.

Explain:

None.

(b) Is a National Pollutant Discharge Elimination System (NPDES) permit required for the Proposed Action and retained alternatives (if any)? If **YES**, explain the status and attach any comments received from the issuing agency or a copy of the permit.

Explain:

No.



(c) Would the Proposed Action and retained alternatives (if any) affect a public drinking water supply, a sole source aquifer, or a Comprehensive State Groundwater Protection Program (CSGWPP)? If **YES**, attach records of consultation with EPA and state, local or tribal water quality agencies responsible for protection programs.

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No.

(d) Provide sufficient description of the mitigation measures the Airport Sponsor will carry out for the Proposed Action to: meet WQC terms or the conditions of any applicable NPDES permits; protect public drinking water supplies or comply with applicable CSGWPPs; develop response plans to contain any potential spills of oil or oil-based products associated with the Proposed Action; meet any other substantial water quality concerns that water quality agencies identify; or, use best management practices (BMPs) or best available technologies (BATs).

N/A

WILD AND SCENIC RIVERS

(a) Is the Proposed Action's project study area within any Wild and Scenic Rivers System (WSRS), study rivers, National Rivers Inventory (NRI), or otherwise eligible rivers or river segments under Section 5(d)? If no Wild and Scenic Rivers, study rivers, NRI, or Section 5(d) rivers are found within the study area, no further analysis is needed. If YES, contact an FAA ORL/ADO EPS for further guidance. Note: The study area should be defined as the entire geographic area with the potential to be either directly or indirectly impacted by the proposed action and alternative(s). For example, if construction of a new facility is part of the proposed action or alternative(s), the study area should include any areas directly impacted through any visual, audible, or other type of intrusion that is out of character with the river or alters the outstanding features of the river's setting. The study area should also include any area indirectly impacted by the proposed action and alternative(s), such as rivers or river segments many miles downstream from the construction footprint of a project which may experience changes in water quality or quantity due to the proposed action and alternative(s). In addition, the default boundaries of Wild and Scenic Rivers as defined in the Wild and Scenic Rivers Act extend to a maximum of one-quarter mile from the ordinary high water mark on each side of the river (an average of not more than 320 acres per mile). As a result, be sure to consider any area within this boundary as part of the study area. Florida has two rivers designated as wild and scenic in accordance with the Wild and Scenic Rivers Act; the Loxahatchee River in southeast Florida, and the Wekiva River in central Florida. The NPS's NRI website at: http://www.nps.gov/ncrc/programs/rtca/nri/ provides a map which can assist in determining if any rivers in the study area are included on the NRI; and the National Wild and Scenic River's Designated Wild and Scenic Rivers website at:

http://www.rivers.gov/map.php provides a list of all designated Wild and Scenic Rivers in the National System as well as all study rivers.

Explain:

No.



9. <u>CUMULATIVE IMPACTS</u>

Cumulative impacts are impacts that a proposed action and retained alternatives (if any) would have on a particular resource when added to impacts on that resource from past, present, and reasonably foreseeable future actions undertaken or proposed by the Airport Sponsor, the FAA, other Federal, state or local agencies, or a private entity. **Note:** List all sources of information including projects shown on an airport's ALP or identified in an airport's master plan, on airport projects approved by the FAA, the airport's 5 year CIP, the local jurisdiction's approved land use map and long range transportation plan, and substantial locally approved development projects. Identify off-airport projects that are within the same political jurisdiction or within approximately 5 miles of the airport, and the existing and future 65 DNL noise contour. For wetland and biotic resource impacts consider water management district basin boundaries.

(a) In order to determine whether the Proposed Action and retained alternatives (if any) would have a cumulative effect on any of the environmental impact categories discussed above, identify any on-airport projects that may have common timing and/or location; and any off-airport projects in the airport's vicinity outside of the Airport Sponsor or FAA's jurisdiction. Generally use 3 years for past projects and 5 years for future foreseeable projects. For each past, present, and future project, you must discuss environmental impacts and any required permits.

Explain:

Based on the June-August 2013 a survey of FXE tenants (referenced in **Appendix F**), future foreseeable projects within the next 5 years likely to occur from the approval of the Proposed Action are airport tenant improvements and redevelopment of facilities at the airport (such as hangars). These projects would be required to meet airport standards and address local permitting considerations (i.e., for stormwater).

The tenant projects are anticipated to have positive benefits to the local economy by producing jobs and investments in infrastructure. Additional local economic benefits include an increase in fuel sales and potential services for FXE tenants as FXE would potentially attract more corporate clients. In attracting more corporate clients, the Proposed Action would more broadly benefit FXE and its neighboring communities as individuals would spend money at hotels, restaurants, rental cars and shops during visits into Fort Lauderdale.

Using FAA approved forecasts, DNL noise contours from the AEDT 2b model noise analysis for 2016 and 2021 No Action Alternative and Proposed Action were generated and are illustrated in **Appendix G** in Figures 1 and 2, respectively. The DNL noise contours capture a five (5) year segment of foreseeable noise and compatible land use impacts. The Proposed Action would not affect noise sensitive areas, nor would it increase noise throughout the Airport vicinity more than DNL 1.5 dB from the DNL 65 dB contour. Therefore, the Proposed Action would not result in a significant noise impact, based on the Significance Threshold contained in FAA Order 1050.1F, Exhibit 4-1.

In addition to a noise analysis, an air quality analysis and climate discussion was developed. GHG emissions associated with the Proposed Action's additional fuel consumption for 2016 and 2021 at FXE were quantitatively evaluated and compared to U.S., global and regional levels (**Appendix I**). The net changes in emissions resulting from the Proposed Action when compared to the No Action Alternative were calculated for comparison with General Conformity Rule (GCR) de minimis levels for all six (6) pollutants required in a GHG emission analysis. Although the Proposed Action would result in a slight increase in air emissions, the net change in emissions is significantly below the de minimis threshold for all pollutants (discussed in Section 1.2 of **Appendix I**). The resulting increase in carbon dioxide equivalent (CO_2e) is negligible compared to both the regional and overall U.S. GHG emissions in 2016 and 2021. (**Appendix I**).





Foreseeable projects likely to occur from the approval of the Proposed Action are not anticipated to change the environmental impacts from this analysis.

See attached:

Appendix A - 1981 Settlement Agreement Final Judgement

Appendix F – White Paper on Runway 9-27 Weight-Bearing Limit

Appendix G - Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

Appendix I - Air Quality Modeling and Analysis, and Climate Discussion at FXE

(b) Considering the impacts of the Proposed Action (and retained alternatives if any) together with the environmental impacts of past, present, and future projects discussed in 12(a) above, discuss whether cumulative impacts would exceed a significant impact threshold where one is provided. If no threshold is provided, discuss whether potential cumulative impacts would be considered substantial by any Federal, state, or local agency, or the public. Significant impact thresholds are provided in Exhibit 4-1 of FAA Order 1050.1F and in 5050.4B Table 7-1 for each resource category.

Explain:

N/A

10. MITIGATION MEASURES

(a) As defined in the CEQ Regulations at 40 CFR § 1508.20, mitigation includes avoiding the impact; minimizing the impact; rectifying the impact by repairing, rehabilitating, or restoring the environment; reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and compensating for the impact by replacing or providing substitute resources.

Summarize all mitigation measures discussed in the Environmental Impact Categories of this EA that will be taken to avoid creation of significant impacts to a particular resource as a result of the Proposed Action. Discuss any impacts that cannot be mitigated, or that cannot be mitigated below the threshold of significance. Significant impact thresholds are provided in Exhibit 4-1 of FAA Order 1050.1F for each resource impact category and in 5050.4B Table 7-1.

As demonstrated by the results of the AEDT model noise and air quality analyses, the Proposed Action would not result in significant impacts; therefore, mitigation measures are not warranted.

See attached:

Appendix G - Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment

11. PERMITS

List all required permits for the Proposed Action, including the lead agency, status, and responsible entity. Discuss coordination with appropriate agencies and the expected time frame for receiving identified permits. Indicate whether any difficulties are anticipated in obtaining required permits. **Note:** Even though the Airport Sponsor has/shall obtain one or more permits from the appropriate Federal, state, and local agencies for the Proposed Action, initiation of any construction activities shall **NOT** begin until the FAA has issued its environmental determination based on the information in this EA.

The Proposed Action does not require any specific permits, and no construction is proposed



from the Proposed Action.

12. CONSISTENCY WITH APPROVED PLANS OR LAWS

(a) Is the Proposed Action consistent with existing environmental plans, laws, and administrative determinations of Federal, state, regional, or local agencies?

Explain:

The Proposed Action is consistent with existing environmental plans, laws and administrative determinations of Federal, state, regional and local agencies. The 1981 Settlement Agreement between the City of Tamarac and the City of Fort Lauderdale stated "Airport Runway 8-26 (Now 9-27) will neither be extended to the west {of} the City of Fort Lauderdale, nor will the Runway surface be strengthened by the City of Fort Lauderdale to accommodate any aircraft in excess of a sixty thousand (60,000 lb.) dual-wheel load category, until a document comparable in format and contents to an environmental impact statement, complying with the present existing FAA Orders 1050.1 and 5050.4, has been prepared by the City."

The City of Fort Lauderdale is proposing to remove the 60,000 lb. dual-wheel weight-bearing limit that was enacted on aircraft operations as a result of the Settlement Agreement. This would allow aircraft to operate at FXE based on Runway 9-27's actual existing pavement strength of 81,000 lb. Completion of this Environmental Assessment Form satisfies the Settlement Agreement requirement for FAA environmental review of the Proposed Action.

See attached:

Appendix A – 1981 Settlement Agreement Final Judgment

(b) Are there any other Federal approvals or permits required?

Explain:

The current 2009 Fort Lauderdale Executive Airport (FXE) Airport Layout Plan (ALP) data sheet will need to be updated if and when the Proposed Action is approved by the FAA.

(c) Is the Proposed Action consistent with plans, goals, policies, or controls that have been adopted for the area in which the airport is located?

Explain:

The current 2009 Fort Lauderdale Executive Airport (FXE) Airport Layout Plan (ALP) is not consistent with the Proposed Action. The runway data table on the 2009 ALP Airport Data Sheet (**Appendix H**) currently reflects pavement strength consistent with the Settlement Agreement from the 1981 lawsuit of 60,000 lb. dual-wheel load. If the Proposed Action is taken, the pavement strength for Runway 9-27 will be updated to reflect its actual existing pavement strength of 81,000 lb., consistent with the Runway 9-27 Pavement Evaluation dated April 24, 2015 (**Appendix E**). The ALP will be updated by the Airport Sponsor if and when the FAA makes a Finding of No Significant Impact (FONSI) for the Proposed Action.

See attached:

Appendix E – Excerpt from April 24, 2015 Runway Pavement Evaluation

Appendix H - Fort Lauderdale Executive Airport 2009 Airport Layout Plan Data Sheet

13. PUBLIC AVAILABILITY



(a) Discuss whether any public meetings were held during development of the Draft EA. Provide a list of all agencies and persons consulted in the preparation of this EA. Discuss any input from local officials or public groups regarding the Proposed Action. Discuss whether a public hearing is warranted i.e. there is substantial environmental controversy concerning the Proposed Action or there is substantial interest in holding a hearing or another agency with jurisdiction over the action requests a public hearing.

A public presentation was made on January 11, 2016 by the City of Fort Lauderdale to the City of Tamarac Workshop Meeting regarding the FXE initiative to lift the 60,000 lb. dual-wheel weight-bearing limit. The environmental assessment process was explained. Positive responses from the City of Tamarac Commissioners were provided and there was support for the City of Fort Lauderdale to move forward with conducting the required analysis that would satisfy FAA's NEPA requirements and the terms of the Settlement Agreement. The City of Tamarac Commissioners were interested in the economic impacts that lifting the weight bearing limit would have within the community.

During the 30-day public notice period, the Draft EA Form was discussed at the April 27, 2017 Aviation Advisory Board Meeting (a noticed, public meeting) held at Fort Lauderdale Executive Airport. FXE staff advised about the public notice for this document, discussed that notice was given in local papers, and advised where copies of the Draft EA Form could be reviewed. Public comment was accepted at this meeting; however, no comments were made by the general public regarding the Draft EA Form. A copy of the agenda for that meeting is included in **Appendix J.**

The Airport Sponsor (City of Fort Lauderdale) will offer to make a public presentation to the City of Tamarac regarding the EA Form. The date of the City of Tamarac meeting is to be determined.

See attached:

Appendix J – Public Availability Documentation

(b) After review by the FAA ORL/ADO EPS, the EA must be issued by the Airport Sponsor as a Draft EA for a 30-day public and agency review period. Concurrent with the 30-day public review period, the Airport Sponsor must submit the Draft EA to the Florida State Clearinghouse and to Federal, state and local agencies (as determined by the ORL/ADO EPS). The Airport Sponsor must publish a notice of availability of the Draft EA for public review in the local newspaper and airport sponsor's website, if available. **Note:** Certain special purpose environmental laws, regulations, or executive orders require public notice, and must be included as part of the Draft EA notice of availability. These include but are not limited to section 2(1)(4) of E.O. 11988, Floodplain Management, section 2(b) of E.O. 11990, Protection of Wetlands, Section 7 of the Endangered Species Act, Section 106 of the National Historic Preservation Act, and Order DOT 5610.2, Environmental Justice.

Discuss and acknowledge submittal of a Draft EA for public and agency review.

The City of Fort Lauderdale (Airport Sponsor) provided a notice of availability of the Draft EA Form in a local paper and on the Airport Sponsor's website with an email address for comments for a 30-day public review period. The Notice of Availability ran in the *Sun Sentinel* for three (3) days, Wednesday, April 26, 2017, Thursday, April 27, 2017, and Friday, April 28, 2017. The notice indicated the Draft EA Form could be reviewed for 30 days beginning April 26, 2017 through May 26, 2017 during normal business hours at the City Clerk's Office and the FXE Administration Office. An email and phone number were provided for comment. A copy of the Sun Sentinel receipt and copy of the notice that appeared in the paper is included in **Appendix J.** A screenshot of the Notice of Availability that was posted on the FXE website is included in **Appendix J.**



See attached:

Appendix J – Public Availability Documentation

(c) Comments on the Draft EA received from the Florida State Clearinghouse, Federal and state agencies, and the public must be attached to the Final EA. The Airport Sponsor must provide draft responses for FAA review by the ORL/ADO EPS.

Summarize comments received and identify an appendix to the EA within which the comments and responses are found.

No public comments were received during the notice period on the Draft EA Form. No public comments were made at the April 27, 2017 Aviation Advisory Board Meeting.

See attached:

Appendix J – Public Availability Documentation

14. LIST ALL ATTACHMENTS TO THIS EA

The following supporting documents are attached to this form:

- .APPENDIX A 1981 Settlement Agreement Final Judgment
- .APPENDIX B Excerpt from Fort Lauderdale Executive Airport (FXE) 1986 Master Plan
- .APPENDIX C Excerpt from Fort Lauderdale Executive Airport (FXE) 1995 Master Plan Update
- .APPENDIX D Excerpt from March 2003 Runway Pavement Evaluation
- .APPENDIX E Excerpt from April 24, 2015 Runway Pavement Evaluation
- .APPENDIX F White Paper on Runway 9-27 Weight-Bearing Limit
- .APPENDIX G Forecast Methodology, AEDT Modeling Input, and Noise Impact Assessment
- APPENDIX H Fort Lauderdale Executive Airport 2009 Airport Layout Plan Data Sheet
- APPENDIX I Air Quality Modeling and Analysis, and Climate Discussion at FXE
- APPENDIX J Public Availability Documentation



15. PREPARER CERTIFICATION

I certify that the information I have provided above is, to the best of my knowledge, true and correct.

Signature: Tel Bulan

Name, Title: Ted Baldwin, Senior Vice President

Affiliation: HMMH, Inc.

Date: 4/12/2017

Phone Number: 781-229-0707

Email: ebaldwin@hmmh.com

16. AIRPORT SPONSOR CERTIFICATION

I certify that the information I have provided above is, to the best of my knowledge, true and correct. I also recognize and agree that no construction activity, including but not limited to site preparation, demolition, or land disturbance, shall proceed for the above proposed action(s) until FAA issues a final environmental decision for the proposed action(s), and until compliance with all other applicable FAA approval actions (e.g., ALP approval, airspace approval, grant approval) has occurred and all appropriate Federal, state and local permits and certifications have been obtained.

Signature:

Name, Title: Rufus James, Airport Manager

Affiliation: The City of Fort Lauderdale/Fort Lauderdale Executive Airport

Date: 4/12/2017

Phone Number: 954-828-4968

Email: rjames@fortlauderdale.gov

END NOTES: None.