

# ORLANDO INTERNATIONAL AIRPORT

## Airfield Modifications for New Large Aircraft

### ENVIRONMENTAL ASSESSMENT

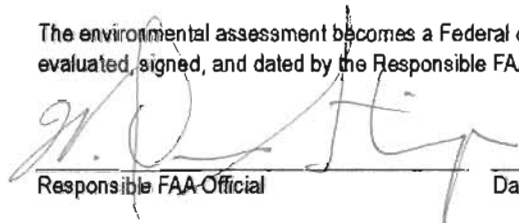
Prepared For:  
The Greater Orlando Aviation Authority

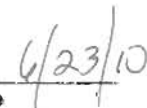
Prepared By:



The environmental assessment becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.

June 2010

  
Responsible FAA Official

  
Date 6/23/10

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# SECTION 1

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## Proposed Action

The Proposed Action for this Environmental Assessment (EA) is to obtain approval for the necessary changes to be made to the Orlando International Airport (OIA) Airport Layout Plan (ALP) to enable the introduction of Group VI aircraft (A-380 and 747-800 for example) to operate at the Airport.

### 1.1 Airport Location and Layout

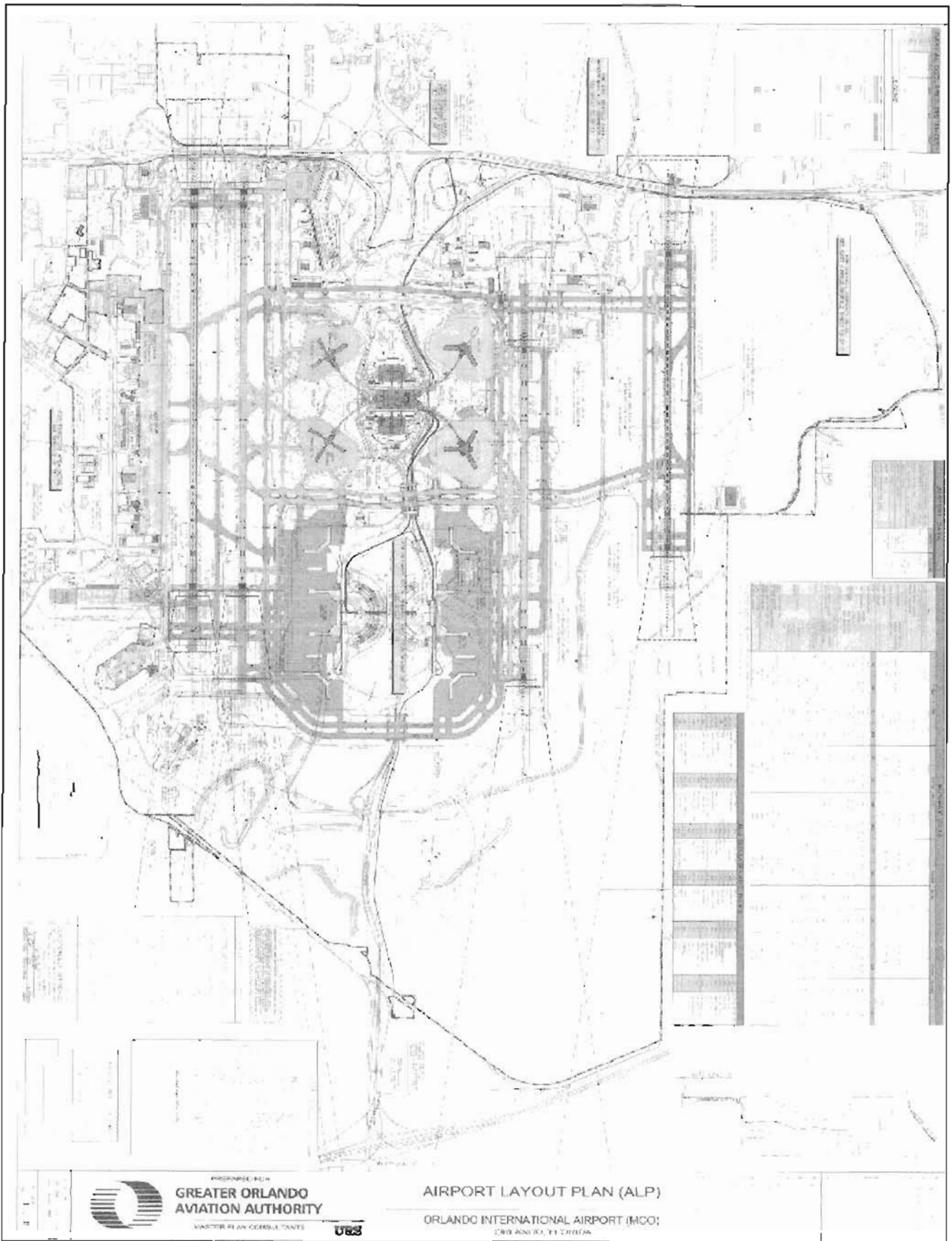
Orlando International Airport (OIA) is located in the City of Orlando, Florida, on approximately 13,430 acres of property. OIA is a commercial service – primary, large hub airport with approximately 34 million annual passengers. The airport has four north-south parallel runways including a 12,000 foot Runway 18R-36L, a 12,000 foot Runway 18L-36R, a 10,000 foot Runway 17R-35L and a 9,000 foot Runway 17L-35R. The airport also has a 99 gate terminal facility located east of the western two runways. See **Figure 1-1** for a general layout of the Airport.

### 1.2 Project Description

The projects, shown on **Figure 1-2** and listed below are those airfield improvement projects that will modify portions of the airfield to accommodate Group VI aircraft. Specifically the projects are described in the following.

#### **Taxiway B Shoulder Widening from TW F to TW B2**

The existing taxiway B is 75 Feet wide with 35-foot shoulders. The objective of this project is to widen the existing taxiway shoulder pavement by adding additional 17.5 feet of paved area on each side to obtain a total of 180 feet paved area for taxiway and shoulders combined (75-foot taxiway with 52.5-foot shoulder as required by FAA EB 63 dated August 2003 and by the FAA approved Modifications of Standards for the Orlando International Airport dated 10/11/2005. The additional paved shoulder is required for preventing jet blast from the New Large Aircraft outboard engines.

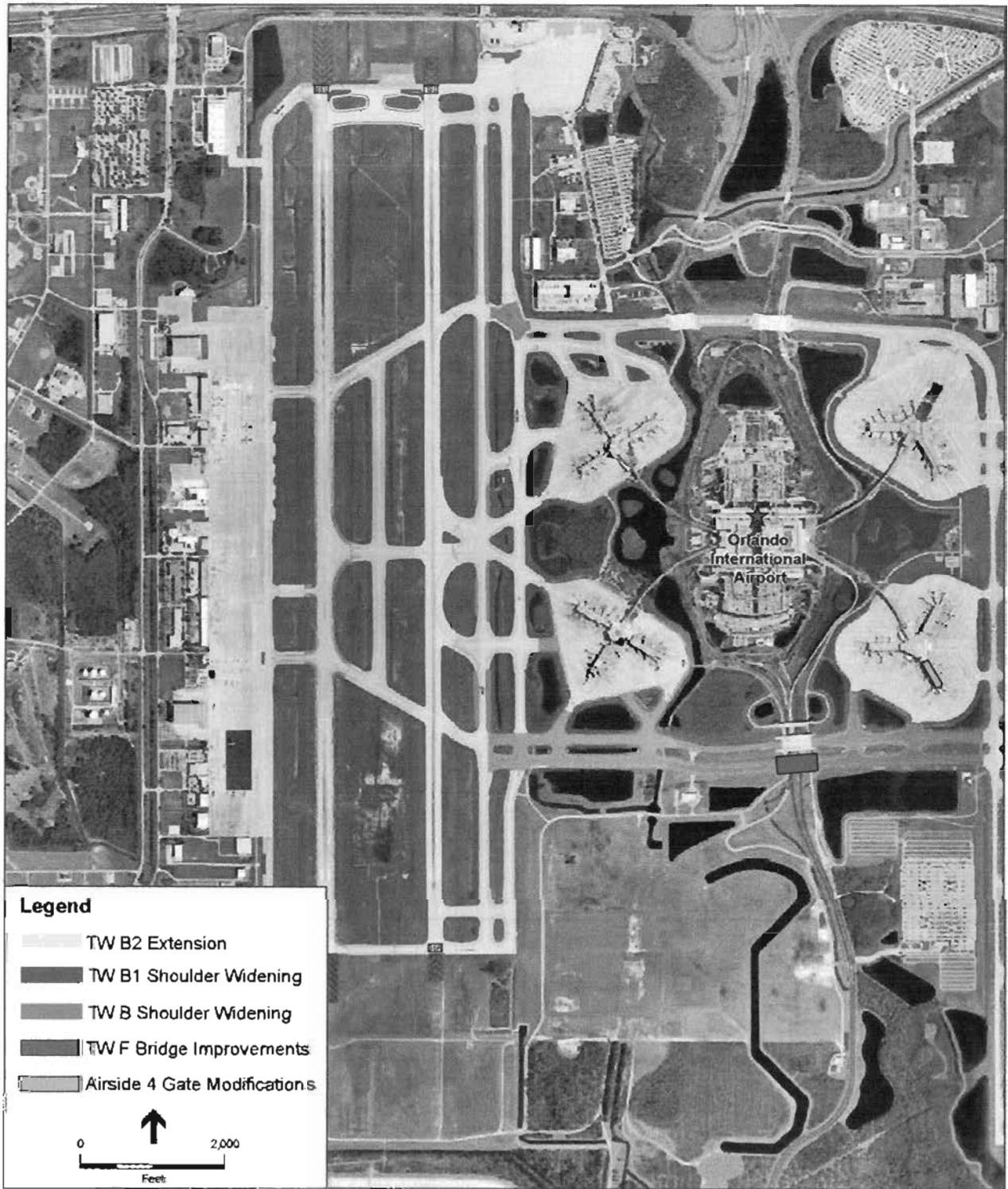


SOURCE: URS, 2005; ESA Airports, 2010

Orlando International Airport NLA Services EA . 210274

**Figure 1-1**

OIA Conditionally Approved ALP - October 26, 2005



SOURCE: GOAA, 2010; ESA Airports, 2010

Orlando International Airport NLA Service EA.210274

**Figure 1-2**  
Airside NLA Service Related Project Locations

The proposed pavement section for the shoulder widening consists of 3 inches of bituminous surface course, over 6 inches of lime-rock base course, over a stabilized sub-grade. Existing structures such as guidance signs, junction boxes and drainage structures will be adjusted to the new grading.

#### **Taxiway B-1 Shoulder Widening from TW B to TW A**

Existing Taxiway B-1 is 75 feet wide with 35-foot shoulders. The objective of this project is to widen the existing taxiway shoulder pavement by adding additional 17.5 feet of paved area on each side to obtain a total of 180 feet paved area for taxiway and shoulders combined (75-foot taxiway with 52.5-foot shoulder as required by FAA EB 63 dated August 2003 and by the FAA approved Modifications of Standards for the Orlando International Airport dated 10/11/2005. The additional paved shoulder is required for preventing jet blast from the New Large Aircraft outboard engines.

The proposed pavement section for the shoulder widening consists of 3 inches of bituminous surface course, over 6 inches of lime-rock base course, over a stabilized sub-grade. Existing structures such as guidance signs, junction boxes and drainage structures will be adjusted to the new grading.

#### **Taxiway F Bridge Improvements**

The objective of this project is to strengthen the existing taxiway bridge over the Airport South Access Road. The existing taxiway bridge was designed for a maximum aircraft gross weight of one million pounds. The proposed improvements will strengthen the existing taxiway bridge to accommodate Airplane Design Group VI Aircraft with a maximum gross weight of 1.24 million pounds

The proposed improvements include the installation of structural plates and bolts to the existing girder system for the superstructure of the existing taxiway bridge.

#### **Airside 4 Gate Modifications**

The objective of this project is to maximize the aircraft parking capacity at Airside 4, Wing 11 to accommodate the current aircraft mix and future various positions for New Large Aircraft. The scope includes the preparation of an Airport Parking Layout Plan and the modification to the aircraft parking gates and the passenger loading bridges at existing Gate 83 and existing Gate 85. The proposed improvements include the installation of new passenger loading bridges and the rearrangement of ground support equipment area, fuel pits and associated work.

#### **Taxiway B-2 Extension**

Extension of the existing Taxiway B-2 is required to enhance the airfield capacity. The extension of Taxiway B2 between Runways 18L and 18R is included on the conditionally approved 2005 ALP. The exact configuration of this extension is subject to FAA review and could be different than depicted on the attached graphic. The purpose of the connector taxiway is to provide dual connector taxiway access to the runway end of Runway 18R, a primary runway at OIA and the designated runway meeting the FAA standards for Airplane Design Group VI Aircraft. All OIA runway ends provide dual taxiway connectors except for Runway 18R and 36L. This omission is largely due to the legacy of that runway's use in its days as an Air Force SAC base. Currently, there is a 1,500 ft. spacing between the two parallel runways and based on meteorological conditions, approximately 85% of takeoff and landing operations occur in south flow. For takeoff operations, the dual connector taxiway system is very important to allow FAA ATCT to manage airfield operations in the event flow control delays are imposed for certain aircraft in the departure queue. The parallel connector taxiway provides an alternate path to enter and exit the runway and to not interfere with the remaining aircraft in the takeoff queue.

### **1.3 Permit Requirements**

The areas described in the project description are included in the South Florida Water Management District (SFWMD) general permit No. 48-00063-S. This permit has been modified to include all of the work described for the Taxiway B shoulder widening. An application has been submitted to the SFWMD to modify the general permit for work associated with the Taxiway B-1 widening, Taxiway B-2 extension and Taxiway A realignment. No permit is required for the Taxiway F bridge improvements or the Airside 4 gate modifications.

## SECTION 2

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### Purpose and Need

#### 2.1 Purpose of the Proposed Action

The Purpose of the Proposed Action is to make the necessary airfield adjustments to meet the requirements of design group VI aircraft including the A-380 and 747-800 design and operational criteria. These adjustments are associated with access to Runway 18R and 18L, the south crossfield taxiway and to the terminal gate area.

These modifications will enable OIA to accommodate the new large aircraft, specifically the A-380 and B747-800. OIA has existing facilities with capability to accommodate the new large aircraft with some terminal and airfield facility modifications. To remain both a viable and preferable destination for these new aircraft, OIA must complete these modification before they can be brought into the Orlando market. These modifications will enable passenger carriers to have a wider range of aircraft that they can use to move passengers and cargo carriers to have additional flexibility in handling air freight.

#### 2.2 Need for the Proposed Action

Orlando International Airport is currently configured to accommodate operations by aircraft up to and including Airport Design Group V. Group V aircraft include aircraft such as the 747-400 with wingspans of between 171 and 214 feet and a tail height of between 60 and 66 feet. New large aircraft, designated as Design group VI, are entering the air carrier fleet and include the Airbus A-380 and 747-800. These larger aircraft have wingspans of between 214 and 262 feet and tail heights of between 66 and 80 feet. With greater freight and passenger capabilities than other aircraft currently in operation, these aircraft are also heavier and require wider pavement sections to support their operation and minimize potential for ingestion of debris. They also require gate modifications to accommodate passenger loading and unloading. While these aircraft are larger and heavier, they are equipped with high bypass engines which actually make them quieter than aircraft such as the 747-400. Additionally, from an emissions per passenger or per pound of freight standpoint, they are also said to have less impact than many of the larger aircraft currently in operation. Activities by these aircraft have the potential to replace multiple flights by smaller aircraft due to their higher load capability. The maximum gross takeoff weight is more than 30 percent greater than the 747-400. However, if efforts to be conservative from an environmental standpoint in this assessment, it was assumed that any operations by the new large

aircraft would be in addition to other operations and would not replace or offset operations already projected to occur at the airport.

The Need for the Proposed Action has been identified in a number of documents including the 2004 Master Plan Update for OIA; the 2005 report entitled Orlando International Airport Prepares for the A380 which identifies the needed construction projects; and, the recent National Plan of Integrated Airport Systems (NPIAS) document that includes OIA as one of the airports in the United States likely to be served by the A-380. The following summarizes the need as presented in these documents.

#### **2004 Master Plan Update for Orlando International Airport**

Excerpts from the OIA Master Plan Update indicated the following:

“ Trends of some significance that emerged from the projection of the passenger carrier fleet-mix included the following:

1. Wide-body aircraft are expected to grow as a percentage of all passenger operations at MCO, from about 8.5 percent in FY 2001 to about 11 percent by FY 2022;
2. It is anticipated that the New Large Aircraft (represented by the A380-800) will debut at MCO before the end of the decade, and will be operated 2-3 times daily in the latter part of the forecast period.”

Additionally the Master Plan Update indicated the following

“The forecasts developed for MCO in the Master Plan Update project the introduction of A380-800 service in 2008. The estimated operation at MCO in 2008 suggests a need for two New Large Aircraft (NLR) gate ramp positions. At 40 MAP in 2012, it appears two gates should still suffice.”

“With the delay of the South Terminal Complex project, MCO should plan for A380-800 parking positions in the North Terminal Complex for a minimum of two positions through 2012 in the North Terminal.”

#### **2005 Report - Orlando International Airport Prepares for the A-380**

A 150 page report was developed related to the anticipated future service of the A380 into OIA. The executive summary included an overall description of the preferred routes to accommodate the A380 and the size of expanded taxiways.

The report indicated that all 75-foot taxiways serving the west side will be expanded to 180-foot total pavement width by expanding shoulders 17.5-feet. It also indicated that where centerline lighting does not meet SMCGS spacing, centerline lighting will be added and Runway 18L-36R shall have the shoulders expanded to 40-feet each

The report contains extensive design details of construction requirements to provide for A-380 service

**The National Plan of Integrated Airport Systems (2009 – 2013)**

The National Plan of Integrated Airport Systems (2009-2013) indicated the anticipated airports likely to have A380 service in the future. The following excerpt taken from the report identifies Orlando as one of those facilities.

“Twelve airports are identified by A380 carriers to receive service. The A380 is anticipated to initially serve four U.S. airports, including JFK, Los Angeles, San Francisco and Miami. If cargo operators FedEx and UPS reconsider the A380F, then service by this aircraft can also be expected at Anchorage, Memphis, Louisville, and Ontario (CA). Later passenger service is contemplated for Orlando and Washington Dulles.”

## **SECTION 3**

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### **Alternatives**

#### **3.1 Introduction**

The NEPA process requires the identification of a reasonable range of alternatives that could meet the stated purpose and need. A no action alternative is also required to be evaluated through the NEPA process. This section refers to the Proposed Action as the preferred alternative and discusses other alternatives that were considered but rejected.

#### **3.2 Preferred Alternative**

The projects associated with the preferred alternative were described in Section 1.2 as the Proposed Action.

#### **3.3 Alternatives Considered But Rejected**

Because OIA has four air carrier sized runways and numerous taxiways, there were a variety of alternatives that could meet the purpose and need. The A-380 and 747-800 are very large aircraft that are expected to travel on long stage lengths (Orlando to and from Europe for example) and with heavy cargo or passenger loads. Runways 18L-36R and 18R-36L are the two longest runways at the Airport at 12,000 feet each. The other two runways at the Airport are 10,000 and 9,000 feet in length.

Aircraft on long haul flights typically use the Runway 18-36 dual system because of its length and particularly in the summer months when temperatures are high. Thus, from a runway length perspective, the dual Runway 18-36 system would be the best to make taxiway modifications as it would be the preferred runway by pilots operating New Large Aircraft.

In addition, as will be shown in Section 5, Environmental Consequences, the preferred alternative results in either no impact or minimal impact to the 23 environmental categories evaluated.

For these reasons, the Proposed Action was established as the preferred alternative and other options were rejected.

## **SECTION 4**

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### **Affected Environment**

#### **4.1 Introduction**

This section provides a brief overview of environmental conditions at OIA in the vicinity of the Proposed Action projects. Additional information on baseline conditions (noise for example) can be found in Section 5.

#### **4.2 Environmental Baseline Conditions**

The following is information that may be helpful in evaluating the environmental consequences of the Proposed Action.

Air Quality in the greater Orlando area is identified by the Federal Environmental Protection Agency as being in “attainment”.

The areas where the Proposed Action projects will be constructed are all either on existing impervious cover or maintained grass areas. Thus, impacts would not be anticipated for natural systems such as Biotic Resources, Federally-listed T&E species, Wetlands and Farmlands.

OIA has a permitted stormwater management plan in place. These stormwater facilities will hold and treat stormwater flows so that impacts to floodplains, water quality or off-site peak flow rates would not be anticipated.

Baseline and future noise exposure conditions with and without the Proposed Action, including noise contours, are found in Section 5.18.

OIA has had a number of historical and archaeological surveys conducted in the past including areas where the Proposed Action project construction would occur. No historic or archaeological sites of significance have been found on the Airport.

## **SECTION 5**

# **Environmental Consequences**

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### **5.1 Introduction**

The environmental consequences section of an EA document provides analysis of environmental categories that have the potential to be impacted by the Proposed Action. Due to the Proposed Action being very limited in scope, a majority of the environmental topics listed in FAA Order 1050.1E do not apply. The environmental categories that do not apply, but which are discussed below, include Biotic Resources, Coastal Barriers, Coastal Zone Management, DOT Section 4(f) resources, Federally-listed Threatened and Endangered Species, Energy Supplies/Natural Resources/Sustainable Design, Environmental Justice, Farmlands, Floodplains, Hazardous Materials, Historic and Archeological, Induced Socioeconomic impacts, Social Impacts, Wetlands, and Wild and Scenic Rivers. The remaining impact categories have very minor/temporary impacts or effects; and include Air Quality, Construction, Light Emissions, Noise, Solid Waste, and Water Quality. The No Action alternative does not affect any of the environmental consequence categories.

### **5.2 Air Quality**

There are primarily two federal statutes that apply to air quality. They are the Clean Air Act and the National Environmental Policy Act (NEPA).

The Clean Air Act governs the establishment of the National Ambient Air Quality Standards (NAAQS) for six "criteria" air pollutants which include carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter (PM10 and PM2.5) and sulfur dioxide. It also requires areas within each state to be designated as "attainment", "nonattainment" or "maintenance". An attainment designation indicates that the area meets the NAAQS for all six of the criteria pollutants while a nonattainment designation indicates that an area does not meet the standards for one or more. A maintenance designation indicates that the area was once nonattainment but air quality has improved to the point that the area would now be considered attainment. The Clean Air Act also requires individual states to develop a state implementation plan (SIP) to address each of the six criteria pollutants that are determined to be nonattainment in an area within the state. An action with the potential to impact a nonattainment area or maintenance area must demonstrate that it conforms with the SIP (general conformity). The City of Orlando and Orange County have been designated attainment areas by the EPA meaning that they meet the National Ambient Air Quality Standards (NAAQS) for all six of the criteria pollutants. As a result, the general conformity rule does not apply to the proposed action.

Under NEPA, a project may be determined to have a significant impact if it is determined that one of more of the NAAQS is impacted. An emissions inventory was conducted to determine whether the proposed action would likely result in a significant air quality impact. This inventory evaluated the net difference in emissions between the Proposed Action and the No Action Alternative. By 2017, it is forecast that 327,148 air carrier/cargo operations will occur at OIA with the proposed action. Of these, the New Large Aircraft will account for 1,400 or .4 percent of total the annual operations for this category of aircraft. The Emissions and Dispersion Modeling System (EDMS-Version 5.1.2) was used to evaluate the air pollutant and pollutant precursors of the 1,400 New Large Aircraft (A380) operations. It was determined that the additional 1,400 A380 aircraft operations and their associated ground service equipment (GSE) would increase the annual emissions of carbon monoxide, volatile organic compounds, nitrogen oxides, sulfur oxides, particulate matter less than 10 microns in diameter, and particulate matter less than 2.5 microns in diameter when compared to the No Action Alternative. The level of increase would be approximately 13 tons, 1 ton, 25 tons, 2 tons, less than 1 ton, and less than 1 ton, respectively. De minimis thresholds are established for each of the NAAQS criteria pollutants at 100 tons annually. Below this level, emissions are considered insignificant or negligible. Since emissions resulting from the proposed action are below the de minimis levels for all criteria pollutants, it is unlikely that a NAAQS threshold will be exceeded. Therefore, no significant impact to air quality is expected as a result of the proposed action.

### **5.3 Biotic Resources**

The projects related to the Proposed Action will be placed over impervious cover or maintained grass areas. No state or listed species are located within these areas. Additionally, no species have been noted in previous field surveys. Thus, no impacts are anticipated.

### **5.4 Coastal Barriers**

OIA is not located within the Coastal Barrier Resource System as defined by the Department of the Interior (DOI) under The Coastal Barrier Resources Act of 1982. Thus, no impacts are anticipated.

### **5.5 Coastal Zone Management**

The Proposed Action is in accordance with the goals and policies of the airport and local governments; it would occur entirely on airport property, and all permits for construction would be obtained in accordance with local, state, and federal regulations; therefore, it would be consistent with the goals and policies of the Florida Coastal Zone Management Program (CZMP).

### **5.6 Compatible Land Use**

No residential or other noise sensitive use within the 65 DNL will experience a 1.5 DNL increase and, as such, no significant compatible land use impact is anticipated to result from the Proposed Action. See also Section 5.18 Noise.

## 5.7 Construction

All on-site construction activities will be conducted in accordance with FAA AC 150/5370-10, Standards for Specifying Construction of Airports, and by using best management practices (BMPs). Therefore, no significant impacts due to construction activities is anticipated.

## 5.8 DOT Section 4(f) Resources

No property would be required from Section 4(f) resources (parks, recreation areas, wildlife refuges) and no indirect effects (such as noise exposure) would occur at such properties. Thus, no direct or indirect impacts to potential Section 4(f) properties are anticipated as a result of the Proposed Action.

## 5.9 Federally Listed T&E Species

The projects related to the Proposed Action will be placed over impervious cover or maintained grass areas. These areas do not support listed species. Additionally, no species have been noted in previous field surveys. Thus, no impacts are anticipated to Federally listed T&E Species.

## 5.10 Energy Supply, Natural Resources and Sustainable Design

The Proposed Action would not cause a substantial demand on available energy or natural resource supplies because the resources required to implement the proposed action are readily available. Therefore, no significant impacts are anticipated.

## 5.11 Environmental Justice

Where no property acquisition is involved, Environmental Justice is typically noise related. No disproportionately high and adverse impacts on minority and low-income populations will occur as a result of the Proposed Action as DNL noise contours are virtually unchanged with the Proposed Action. Thus, no impact on Environmental Justice is anticipated. See also Section 5.18 Noise.

## 5.12 Farmlands

The National Resource Conservation Service (NRCS) mapping of farmland designations indicates that no "Important farmlands" are found within the Proposed Action area.

## 5.13 Floodplains

The construction activities will not occur within the 100 Year floodplain as designated by Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM). In addition, the Stormwater Management program at OIA will detain stormwater flows. Thus, no impact to floodplains is anticipated to occur as a result of the Proposed Action.

## 5.14 Hazardous Materials

No sites containing hazardous materials are known to be within the construction areas of the Proposed Projects. GOAA will require the contractor to provide a spill prevention, control, and countermeasure plan in the event contaminants are released during construction. Thus, no impact is anticipated during construction.

## 5.15 Historic and Archaeological

As a result of a series of past studies and field reviews, no historic or archeological sites are located in the vicinity of the proposed construction areas<sup>1</sup>. Additionally, all areas have been previously impacted and either excavated and/or filled. Thus, no impact to these sites are anticipated.

## 5.16 Induced Socioeconomic

The Proposed Action will not induce a shift or growth in population and will not cause secondary socioeconomic impacts. There would be no significant changes in business or economic activities. All impacts are due to construction and occur on airport.

## 5.17 Light Emissions and Visual Effects

Taxiway lighting will be installed as part of the proposed projects. The Proposed Action would not result in a substantial increase in light emissions. No visual effects will result from the construction of the Proposed Action.

## 5.18 Noise

The methodology for assessing potential noise impacts included preparing DNL contours for the baseline year 2008 and for the No Action and Proposed Action Alternatives for future years 2012 and 2017. The contours have been prepared to assess if any noise sensitive land uses would experience a significant increase in aircraft noise exposure as a result of the Proposed Action.

## Baseline Operations and Fleet Mix

The Baseline (2008) operational activity is based on the Air Traffic Activity Data System (ATADS) from the period of 12/1/2007 to 11/30/2008. The ATADS includes the official Federal Aviation Administration's National Airspace System operational data which is recorded daily by air traffic control personnel. Twelve months of the daily counts were obtained and summed to determine the total operations that occurred over a year as required for input into the INM. The 2008 annual operations data by major aircraft categories are listed in **Table 5.1**. This annual data

<sup>1</sup> EA and DRI related to transfer of Military base in early 1970's, 1977 EA and DRI for air carrier terminal complex, 1983 DRI for Tradeport Development, 1984 EA and DRI for third runway, 1990 DRI and EA for fourth runway, 1992 EA for South Access Road, 1993 for north crossfield taxiway, 1998 EA and DRI for South Terminal Complex.

is then divided by 365 to obtain the number of operations for an average annual day. In 2008, a total of 348,177 operations occurred, which is an average of 954 per day.

**TABLE 5.1  
BASELINE AIRCRAFT OPERATIONS**

Year	Air Carrier / Cargo	General Aviation / Air Taxi	Military	Total
2008	294,900	52,774	503	348,177

SOURCE: Air Traffic Activity Data System (ATADS), 12/1/2007 To 11/30/2008

For the purposes of preparing noise contours, the data must be further refined into operations by specific aircraft types within each major category. GOAA currently has a Noise and Operations Monitoring System (NOMS) that includes 13 permanent monitor stations surrounding both OIA and Orlando Executive Airport (ORL). For each aircraft operation, the system records the aircraft type, location of the flight track, departure profile, time that the aircraft arrived or departed, the origin or destination and the runway from which each operation occurred. This detailed information was used as INM inputs related to aircraft operations, fleet mix, flight tracks, stage lengths, and time of day.

### Baseline 2008 DNL Contours

The Baseline 2008 DNL contours were run using the latest version of the INM (7.0b) and are shown on **Figure 5.1**. The contours extend farthest off airport property north of the Runway 18 and 36 thresholds which are the most used runways. The contours are smallest off Runway 17L-35R as it is the least used runway at the airport. The total land area included within the 65 DNL is 3,767 acres. There are no people or noise sensitive sites located within the 2008 65 DNL and greater contours.

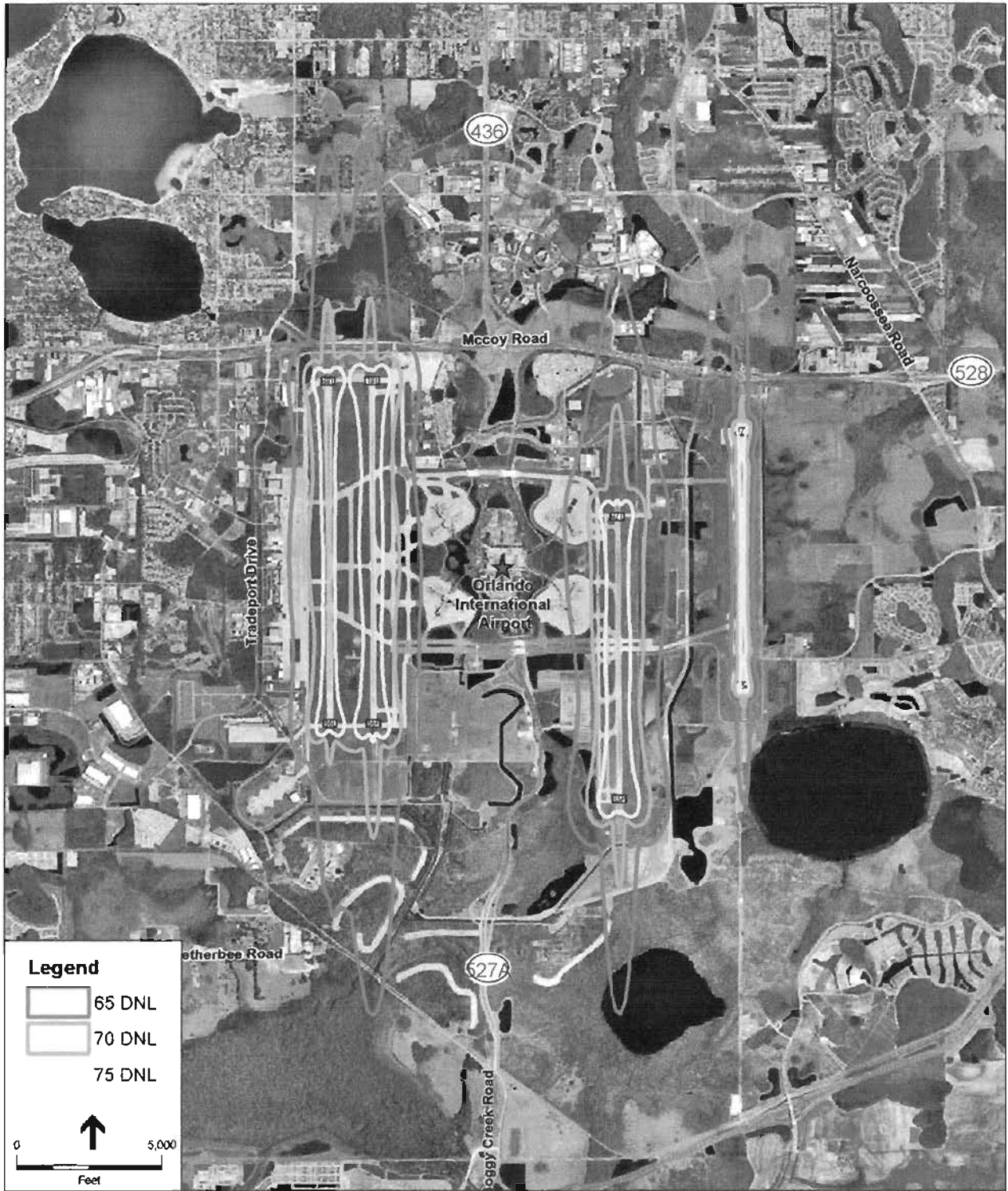
### Future No-Action Alternative 2012 and 2017 Operations and Fleet Mix

The 2009 FAA Terminal Area Forecast (TAF) was used to project aviation operations at the Airport for the No Action Alternative for the years 2012 and 2017. **Table 5.2** includes the forecast of operations by aircraft category used in the analysis. It should be noted that in 2012, the TAF projects a slight reduction in total aircraft activity when compared to the 2008 condition.

**TABLE 5.2  
NO ACTION ALTERNATIVE FORECAST OF AIRPORT OPERATIONS**

Year	Air Carrier / Cargo	General Aviation / Air Taxi	Military	Total
2012	291,853	44,080	544	336,477
2017	325,688	75,728	544	401,960

SOURCE: FAA 2009 TAF



SOURCE INM 7 0b; ESA Airports, 2010

Orlando International Airport NLA Service EA.210274

**Figure 5-1**  
Baseline 2008 DNL Contours

## Future No-Action Alternative Noise Contours

The runway use, flight tracks and day-night percentages used to model the noise for the 2012 and 2017 No Action Alternative were assumed to be the same as for the Baseline 2008 condition. The 2012 and 2017 No Action Alternative contours were run using the latest version of the INM (7.0b).

The 2012 DNL contours for the No Action Alternative are shown on **Figure 5.2** and the 2017 DNL contours for the No Action Alternative are presented on **Figure 5.3**. The total land area within the 65 DNL for the No Action Alternative in 2012 and 2017 is 3,715 acres and 4,141 acres respectively. There are no people or noise sensitive uses located within the 2012 and 2017 No Action Alternatives 65 DNL and greater contours.

## Future Proposed Action 2012 and 2017 Operations and Fleet Mix

The same operational activity used for the No Action Alternative was used for the future Proposed Action condition with the exception that one (1) A-380 daily arrival and departure was added for the year 2012 and two (2) arrivals and departures were added for the year 2017. **Table 5.3** includes the forecast of operations by aircraft category used in the analysis for the Proposed Action.

**TABLE 5.3**  
**PROPOSED ACTION FORECAST OF AIRPORT OPERATIONS**

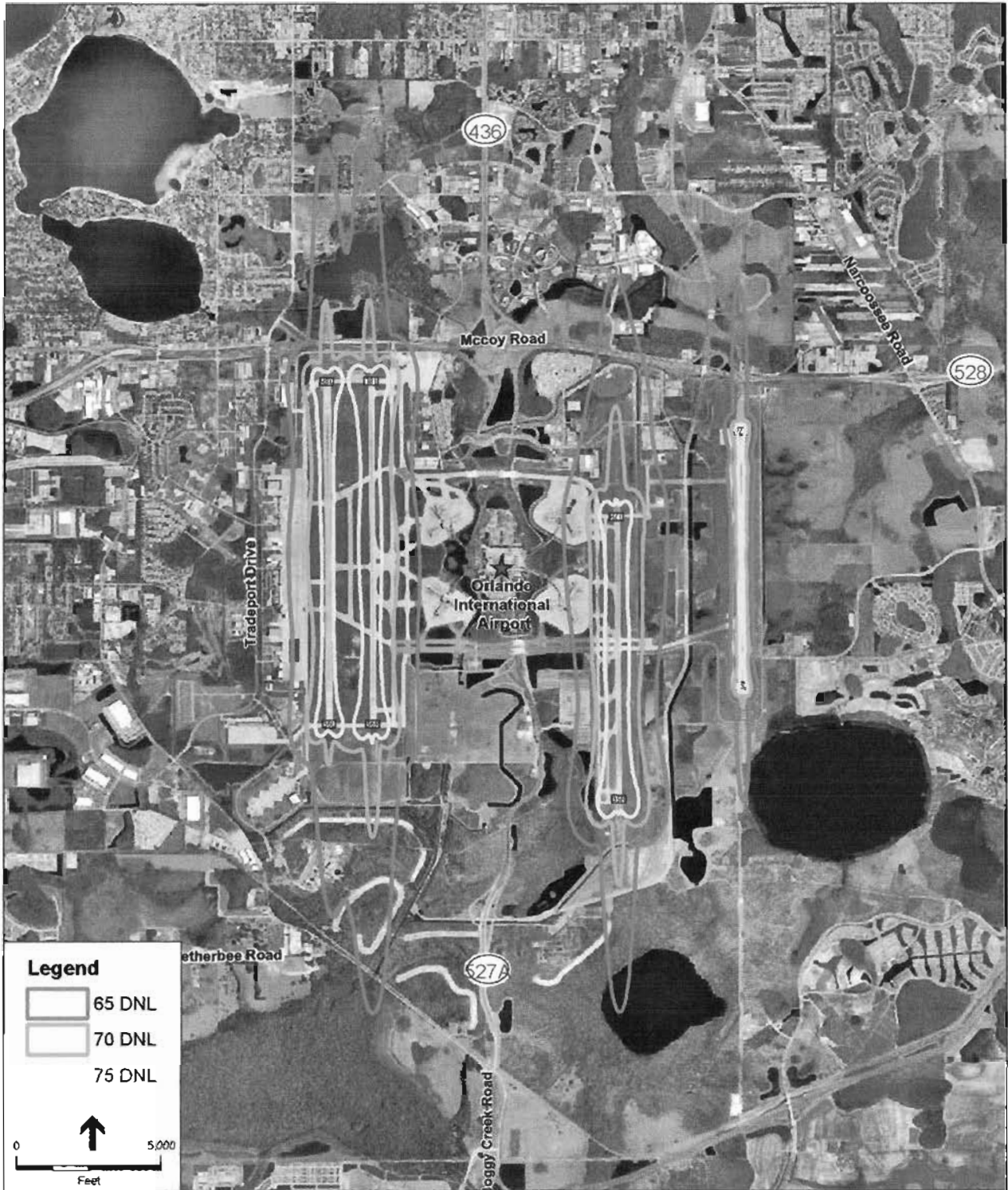
Year	Air Carrier / Cargo	General Aviation / Air Taxi	Military	Total
2012	292,583	44,080	544	337,207
2017	327,148	75,728	544	403,420

SOURCE: FAA 2009 TAF and added A-380 activity

## Future Proposed Action Alternative Contours

The flight tracks and day-night percentages used to model the noise for the 2012 and 2017 No Action Alternative were assumed to be the same for the Proposed Action Alternative. The runway use was changed slightly from the No-Action condition by adding one (1) daily arrival and departure of the A-380 to Runway 18L-36R in 2012 and two (2) daily arrivals and departures to Runway 18L-36R in 2017. The 2012 and 2017 Proposed Action Alternative contours were run using the latest version of the INM (7.0b).

The 2012 DNL contours for the Proposed Action Alternative are shown on **Figure 5.2** and the 2017 DNL contours for the Proposed Action Alternative are presented on **Figure 5.3**. These are the same contours as the No-Action alternative as there is no perceptual change between the No Action and Proposed Action contours in either future year. The total land area within the 65 DNL for the Proposed Action in 2012 and 2017 is 3,728 acres 4,166 acres respectively.

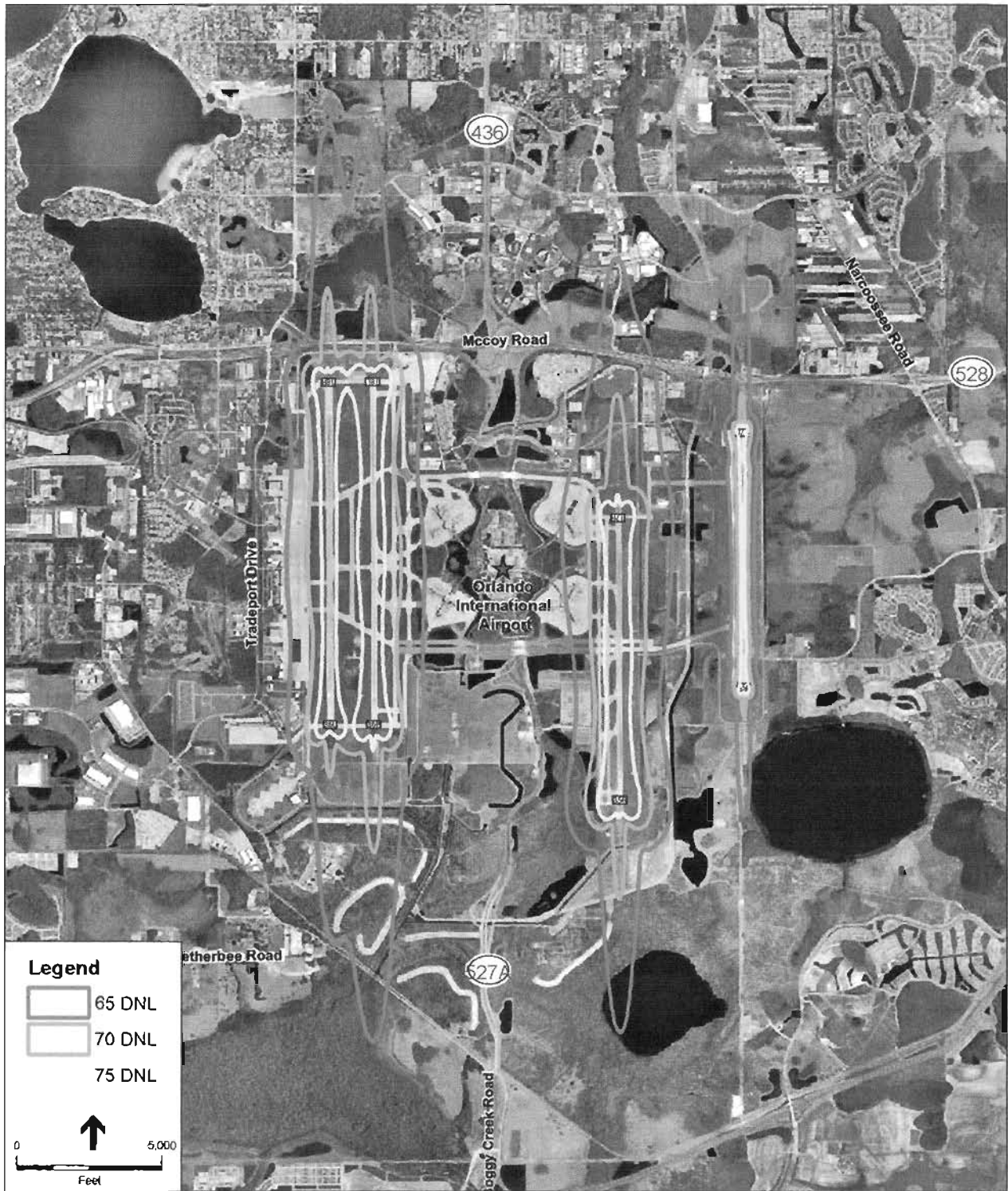


SOURCE: INM 7.0a: ESA Airports, 2010

Orlando International Airport NLA Service EA.210274

**Figure 5-2**

Future 2012 No Action and Proposed Action DNL Contours



SOURCE: INM 7.0a; ESA Airports, 2010

Orlando International Airport NLA Service EA.210274

**Figure 5-3**

Future 2017 No Action and Proposed Action DNL Contours

This represents an increase of approximately 13 acres and 25 acres respectively when compared to the No-Action Alternative. This is a minimal 0.5 of one percent change. There are no people or noise sensitive uses located within the 2012 and 2017 Proposed Action Alternatives 65 DNL and greater contours

## **Noise Impact Determination**

No noise sensitive area will experience a significant noise impact of 1.5 DNL or greater when comparing the No-Action Alternative with the Proposed Action; thus no significant impact would result.

## **5.19 Social Impacts**

The Proposed Action Alternative does not require any relocation or significant impact on housing or business and there will be no loss in community tax base associated with the implementation of the Proposed Action. In addition, no surface traffic impacts would result. There would be no project related impacts anticipated to have a disproportionate effect on children's environmental health or safety. There are no significant environmental effects as a result of the implementation of the Proposed Action. Thus, no impacts are anticipated.

## **5.20 Solid Waste**

Minor amounts of solid waste would result from construction of the Proposed Action. All construction waste would be disposed of at the Orange County Landfill. No impact associated with solid waste is anticipated.

## **5.21 Water Quality**

The Stormwater Management program at OIA will detain stormwater flows and provide water quality treatment. As noted in previously, the areas described in the project description are included in the South Florida Water Management District (SFWMD) general permit No. 48-00063-S. This permit has been modified to include all of the work described for the Taxiway B shoulder widening. An application has been submitted to the SFWMD to modify the general permit for work associated with the Taxiway B-1 widening, Taxiway B-2 extension and Taxiway A realignment. No permit is required for the Taxiway F bridge improvements, nor the Airside 4 gate modifications. In addition, all on-site construction activities will be conducted in accordance with FAA AC 150/5370-10, Standards for Specifying Construction of Airports, and by using best management practices (BMPs). Therefore, no significant impacts to water quality are anticipated.

## **5.22 Wetlands**

The projects included in the Proposed Action will be placed over impervious cover or maintained grass areas. No wetlands would be taken by the proposed construction.

## 5.23 Wild and Scenic Rivers

The nearest designated water body under the Wild and Scenic Rivers System (WSRS) is over 18 miles north of the Proposed Action site and no impacts to WSRS or National Rivers Inventory are anticipated.

## 5.24 Cumulative Impacts

The cumulative impact of the Proposed Action is the addition of one or two aircraft per day at OIA to the hundreds that currently operate there. While there are other airfield projects planned at OIA, they are minor in nature and are not expected to result in a cumulative impact.

This project when considered with other ongoing or future actions at OIA, for example the proposed development of the East Airfield Development Area for which the GOAA has prepared and submitted an EA to the FAA for review and consideration, would not result in any significant cumulative impacts. This Proposed Action would not result in any permanent impacts to environmental or natural resources. All impacts are minor and/or temporary in nature. There would be no impacts to wetlands. The East Airfield Development Area EA would impact wetlands; however, the GOAA is currently in the process of developing and dedicating mitigation for these wetland impacts in accordance with Federal and state permit requirements. This mitigation will fully compensate for these wetland impacts.