Operational Noise Mitigation Procedures
Final Environmental Assessment

MIAMI INTERNATIONAL AIRPORT

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Prepared for
Miami-Dade Aviation Department

MIAMI-DADE

Prepared by

ESA Airports

Harris Miller Miller & Hanson, Inc.

In association with:

CWI
Civil Works, Inc.

February, 2006

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

_____ _____

Mr. Steve Kelley
Acting Manager,
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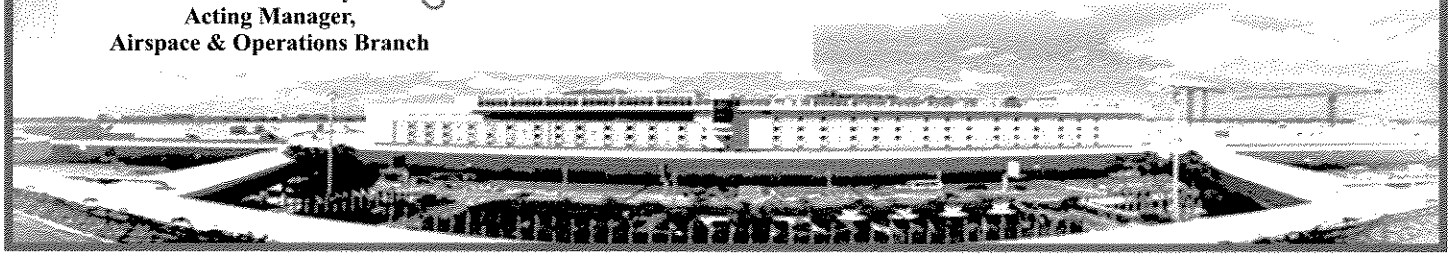

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT
RECORD OF DECISION

Location

Miami International Airport (MIA)
Miami, Florida

Introduction

This Finding of No Significant Impact/Record of Decision (FONSI/ROD) sets out the Federal Aviation Administration's (FAA) consideration of environmental and other factors for the revision of air traffic control procedures for the purpose of noise abatement at Miami International Airport (MIA). This FONSI/ROD is based on the *Operational Noise Mitigation Procedures – Final Environmental Assessment – Miami International Airport* dated February 2006. The document is attached to this finding. The noise mitigation measures intended to minimize potential environmental impacts are identified in the EA and would become part of this air traffic control procedural change. There are no environmental impacts associated with the preferred alternative that are above FAA established significance thresholds.

Project Description

The FAA does not initiate changes of air traffic control procedures solely for the purpose of noise abatement; noise abatement from aircraft noise is the responsibility of the airport operator. The Miami-Dade Aviation Department (MDAD), as the operator of MIA, has requested the FAA to implement noise abatement air traffic control procedures MIA with the intent to reduce aircraft noise impacts to communities located around MIA. The proposed noise abatement measures are the results of recommendations agreed upon by a workgroup consisting of a community-based committee, MDAD and consultants convened to address noise associated with aircraft operations at MIA.

The goals of the proposed alternative are:

- Reduce aircraft departures to east of the airport at night
- Reduce the dispersion of low altitude aircraft departure turns during west flow operations
- Reduce the dispersion of aircraft arrivals and departures east of the airport
- Redirect aircraft over non noise sensitive areas in the vicinity of the barrier islands for both west flow arrivals and east flow departures at MIA

The proposed alternative specifically involves the following:

1. Modification of West Flow Departure Procedures (Day and Night) for heavier turbojet aircraft including air carrier and air cargo type aircraft. Departing aircraft to gain altitude over predominantly industrial and commercial land uses prior to making subsequent turns.

2. Maximization of West Flow Operations during nighttime hours (11:00pm to 6:00am Eastern Standard Time) under calm wind conditions below 5 knots.

3. Modification of East Flow Departure Procedures during east flow conditions at night (11:00pm to 6:00am Eastern Standard Time) for heavier turbojet aircraft including air carrier and air cargo type aircraft. The proposed modifications include the establishment of alternative headings from Runway 8 Left, 8 Right, 9 and 12 to reduce noise exposure over Miami Beach, Key Biscayne, and other beachside communities.

4. Establishment of West Flow Charted Visual Approaches during daytime and nighttime conditions for Runways 26 Right, 26 Left, 27 and 30 to reduce turbojet arrival overflights of Miami Beach, Key Biscayne, and Biscayne Bay.

Proposed Agency Actions

The FAA actions involved in the implementation of the proposed project include the following:

a. Approval of the proposed action pursuant to determination of effects upon the safe and efficient utilization of navigable airspace pursuant to 14 CFR Part 77 .

b. Continued close coordination with Miami-Dade Aviation Department and appropriate FAA program offices regarding air traffic control procedures and FAA policy for air traffic services. The FAA will not monitor the compliance of aircraft operators who request another runway or procedure or chose not to adhere to the proposed federal action. It is the responsibility of the airport operator to monitor compliance to and the effectiveness of noise abatement procedures.

c. Approvals to provide air traffic controller training and updated position responsibilities for new and revised approach/departure procedures and all ATC procedures related to the proposed action (e.g. approval and development of arrival procedures and ATC procedures used in enroute and terminal airspace).

d. Decisions to modify and/or develop air traffic control and airspace management procedures to affect the safe and efficient movement of air traffic to and from the runway. This includes the development of a system for routing arriving and departing traffic and the design, establishment, and publication of standardized flight operations procedures, including instrument approach procedures, standard instrument departure procedures, and new flight procedures into and out of the airport and specifically for the proposed action (49 U.S.C. 40103(b) and 44721 and 14 CFR Part 95).

e. Determinations through the aeronautical study process (49 U.S.C. 44718 and 14 CFR Part 77), regarding any off-airport obstacles that might obstruct the navigable airspace under established standards and criteria (49 U.S.C. 40103(b) and 40113).

f. Approvals to develop new video maps for the proposed action and associated airspace.

g. Designations of controlled airspace and revised routing (14 CFR Parts 71 and 75).

Background

Miami International Airport airfield consists of four air carrier runways. Three of the runways (Runways 8L/26R, 8R/26L and 9/27) are in a parallel east-west configuration and are spaced approximately 800 and 5,100 feet apart. The fourth runway (Runway 12/30) is oriented in a southeast-northwest direction. MIA is located approximately seven miles west-northwest of Miami's central business district. The airport encompasses approximately 3,300 acres and is surrounded by dense urban development to the east, north and south. To the west, industrial commercial and undeveloped areas dominate the landscape. MIA is bordered by the following main highways: Route 836 along the south, Doral Boulevard along the north and I-95 bordering eastern boundary of the airport. Route 826 runs parallel to the west side of the airport. Lake Jeanne and Blue Lagoon Lake are immediately south of Route 836; the Melreese Golf Course is adjacent to the southeast corner of airport property and Miami Springs Golf Course is directly north of Doral Boulevard. The immediate vicinity west side of the airport is comprised of industrial areas. Because of prevailing east winds, the large majority of aircraft arrivals and departures currently take place in an east flow at the Airport, placing departing aircraft over the more densely populated areas east of the airport.

As the owners and operators of the airport, Miami-Dade Aviation Department (MDAD), in cooperation with the Noise Abatement Task Force (NATF) composed of MDAD staff, elected officials and citizens from affected communities commissioned a study and recommended the proposed action. The proposed procedures represent the consensus of recommendations by both the NATF and MDAD. FAA Miami Air Traffic Control Tower represented the Agency during the study to address aviation safety and operational and procedural questions raised by the NATF. The FAA did not select, develop or recommend procedures contained in the proposed alternative.

The public involvement process for the evaluation and recommendation of operational noise abatement actions has been an on-going process at MIA for the past five years, with communities voicing concerns with noise as related to the overall procedures for directing aircraft into and out of the existing four –runway system at the Airport. In 1998, citizens living within the approach and departure corridors and other areas in close proximity to the Airport raised a number of noise issues during the assessment process of the 1998 new Air Carrier Runway Environmental Impact Statement (EIS). Initial meetings of the NATF resulted in identification of the noise issues needing to be addressed and established the following goals for noise abatement:

- Reduce aircraft departures to east of the airport at night
- Reduce the dispersion of low altitude aircraft departure turns during west flow operations
- Reduce the dispersion of aircraft arrivals and departures east of the airport
- Redirect aircraft over non noise sensitive areas in the vicinity of the barrier islands for both west flow arrivals and east flow departures at MIA

Purpose and Need

The purpose of the proposed federal action is to achieve the objectives of the NATF by implementing a series of four flight procedures developed during the NATF process to meet the following goals:

- Reduce aircraft departures to east of the airport at night
- Reduce the dispersion of low altitude aircraft departure turns during west flow operations
- Reduce the dispersion of aircraft arrivals and departures east of the airport
- Redirect aircraft over non noise sensitive areas in the vicinity of the barrier islands for both west flow arrivals and east flow departures at MIA

There are approximately 38,654 people living within the existing 65 DNL contour.

Air traffic control procedures need to be changed to:

1. Reduce aircraft noise exposure in residential areas to the east of the Airport at night by decreasing departures to the east and redirecting them over compatible land areas to the west.
2. Reduce aircraft noise exposure in residential areas to the east of the Airport affected by low altitude aircraft activity by narrowing the flight tracks that currently disperse aircraft over residential areas and by relocating the other arrival and departure tracks over bodies of water to the extent practicable.
3. Reduce aircraft noise exposure to residential area to the west of the Airport affected by low altitude aircraft activity by reducing aircraft dispersion and directing aircraft over compatible land areas to the extent practicable.

Forecasting

In order to assess the impacts resulting from the implementation for the proposed action, a full calendar year of FAA air traffic control operational data from 2003 was established as the base year for the analysis. The fleet mix information for the same period was collected from MIA's airport monitoring system; 2005 and 2010 were selected as the future years of analysis. The 2004 FAA Terminal Area Forecast (TAF) was converted from a federal fiscal year to a calendar year basis to project the forecasted 2005 and 2010 activity levels and modified to reflect actual partial year 2004 activity levels. The growth rates for each category of aircraft were identified in the 2004 TAF were maintained in developing the modified TAF projections. The current and projected trends in the industry were analyzed as well as those specific to MIA and its associated carries to project the fleet mix. This analysis resulted in a detailed fleet mix for both 2005 and 2010.

Alternatives

No Action: Aircraft operations are conducted with current standard operating procedures; the proposed alternative would not be implemented.

Proposed Federal Action: Combination of Procedures 1 through 4 - A combination of four modified air traffic procedures with the intent to reduce aircraft noise impacts in communities

around MIA. All procedures are voluntary and will be implemented only when weather and local/National Airspace System operating conditions permit and upon FAA Air Traffic Control (ATC) discretion. As a voluntary measure, aircraft operators have authority to decline the use of these procedures and request another ATC procedure or runway:

Procedure 1: West Flow Departure Procedures (Day and Night)

Modification of west flow departure patterns during both daytime and nighttime hours for turbojet type aircraft only. Procedures will be implemented only when weather and local/National Airspace System operating conditions permit and upon FAA Air Traffic Control discretion. This alternative does not apply to propeller aircraft.

a. Daytime hours (6:00am to 11:00pm EST)
   i. Runways 27, 26 Left and 26 Right: Depart heading of 270 degrees until reaching either 5 nautical miles (nm) or 4,000 feet Mean Sea Level (MSL) for northbound aircraft or 4 nm or 3,000 feet MSL for southbound aircraft, prior to making initial turns to their destinations. If operational conditions do not permit aircraft to use the above headings, mileage and altitudes, aircraft would use a heading of 290 degrees until reaching either 5 miles or 4,000 feet for northbound aircraft prior to making turns.

   ii. Runway 30: Aircraft depart heading of 305 degrees until reaching either 5 nm or 4,000 feet MSL. If operational conditions do not permit aircraft to use the above headings, mileage and altitudes, aircraft will fly 270 degrees until reaching 5 nautical miles or 4,000 feet for both northbound and southbound aircraft, prior to making turns.

b. Nighttime Hours (11:00pm to 6:00am EST)
   i. Runway 27: departing aircraft use 270 degrees
   ii. Runways 26 Left, 26 Right and 30: departing aircraft use 265 degrees

Procedure 2: Increased use of West Flow Operations at Night (11:00pm to 6:00am EST)

Increase number of aircraft operations to the west during nighttime hours and under calm wind conditions (under 5 knots) and when weather and local/National Airspace System operating conditions permit. This includes all types of aircraft.

Procedure 3: East Flow Departure Procedures Nighttime Hours (11:00pm to 6:00am EST)

Apply to turbojet aircraft only.

a. Southbound Departures:
   iii. Runways 8 Left, 8 Right and 9: departing aircraft turn right and fly to the intersection of the DOLPHIN (DHP) 103 Degree Radial and VIRGINIA KEY (VKZ) 315 Degree Radial. Aircraft proceed along VKZ 315 Degree Radial to VKZ VOR until 2 nautical miles DME (Distance Measuring Equipment) before turning to their final heading.

iv. Runway 12: departing aircraft turn left and join the DOLPHIN (DHP) 103 Degree Radial. Aircraft proceed to the VKZ 315 Degree Radial to VKZ VOR until 2 nautical miles DME before turning to their final heading.

b. Northbound Departures:

v. Normally, approximately 25% of departure operations on Runways 8 Left, 8 Right, 9 and 12: departing aircraft turn left and fly to the intersection of DHP 091 Degree Radial and VKZ 347 Degree Radial. Proceed to the intersection of DHP 084 Degree Radial and VKZ 028 degree radial then turn to final headings.

vi. Likewise, approximately 75% of departure operations on Runways 8 Left, 8 Right, 9 and 12: departing aircraft turn left and fly to the intersection of DHP 076 Degree Radial and VKZ 002 Degree Radial. Proceed to the intersection of DHP 002 Degree Radial and VKZ 028 degree radial then turn to final headings.

Procedure 4: West Flow Chartered Visual Approaches (Daytime and Nighttime)

A separate Charted Visual Approach is proposed for each runway for all turbojet aircraft arrivals to Runways 26 Left, 26 Right, 27 and 30 under west flow conditions. This alternative does not apply to propeller aircraft. It can only be implemented during Visual Flight Rule (VFR) conditions, and may be limited based on local/National Airspace System operational conditions or time of day.

a. Runway 26 Left: Aircraft shall remain offshore until abeam the Julia Tuttle Causeway. Aircraft shall then intercept the Runway 26 Left final approach course, remaining between the Julia Tuttle Causeway and the Venetian Causeway and maintain 3,000 feet MSL until 10 nm from the approach end of the runway.

b. Runway 26 Right: Aircraft shall remain offshore until abeam the Julia Tuttle Causeway. Aircraft shall then intercept the Runway 26 Right final approach course, remaining between the Julia Tuttle Causeway and the Venetian Causeway and maintain 3,000 feet MSL until 10 nm from the approach end of the runway.

c. Runway 27: Aircraft shall remain over the ocean until Government Cut, then overfly the Cut until intercepting the final approach course for Runway 27. Maintain 3,000 feet MSL until 10 nm from the approach end of the runway.

d. Runway 30:

i. Aircraft approaching from the north or south shall remain over the ocean until the northern boundary of Key Biscayne, then turn northwest over Biscayne Bay to intercept the final approach course to Runway 30. Maintain 3,000 feet MSL until 10 nm from the approach end of the runway.

ii. Aircraft approaching from the west or southwest shall maintain 3,000 feet MSL until crossing the western shoreline of Biscayne Bay eastbound and remain over Biscayne Bay until Rickenbacker Causeway. Interept the final approach course for Runway 30. Maintain 3,000 feet MSL until 10 nautical miles from the approach end of the runway.

Alternatives one through four are proposed as a single federal action. All noise abatement procedures are implemented when weather and operational conditions permit (local and National Airspace System conditions).

Alternatives Considered but Rejected

- Restrict Operations at Night – This alternative was rejected because it does not meet the need to serve the demands of the aviation industry and federal legislation strongly discourages this measure. Also, under current federal legislation, this measure would require extensive further analysis in the form of FAR Part 161 studies.
- Restriction on Aircraft Types – This alternative was rejected because it does not meet the need to serve the demands of the aviation industry and federal legislation strongly discourages this measure. Also, under current federal legislation, this measure would require extensive further analysis in the form of FAR Part 161 studies.
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- Multiple Departure Headings Other than used in the Preferred Alternative: Many different departure headings were discussed and modeled before the NATF that did not meet the purpose and need of the study.
- Single Departure Headings to the West – Discussions and modeling determined that a single departure heading to the west was not operationally feasible.

The procedures considered but rejected do not meet the established purpose and need and would have an adverse impact on the safety and efficiency of the National Airspace System. Therefore, they were not considered to be viable or reasonable alternatives for achieving the purpose and need and were not carried forward for further evaluation in the EA. These proposed alternatives were limited due to nearby airspace limitations, air traffic congestion, prevailing east winds and dense residential development surrounding the airport. A number of other arrival and departure procedures designed to reduce aircraft noise in the communities around MIA have been evaluated over the years as part of the NATF process and during previous tests and studies dating back to 1996; these were determined to be operationally infeasible or did not result in any noise relief.

Study Area

The study area focused on those residential areas primarily to the east and west of the Airport affected by aircraft noise at an average day-night sound level (DNL) of 65 decibels (dB) or greater and on residential areas that are affected by aircraft noise but at levels less than 65 DNL. The 65 DNL is the level which the FAA considers incompatible with many land uses and the level at which funding is made available for noise abatement measures. Levels of less than 65 DNL are considered generally compatible with sensitive land uses, such as residential areas, by the Federal Interagency Committee on Aviation Noise (FICAN), a working group of federal agencies involved in protecting the public health and welfare with regard to noise. There are 17 noise sensitive sites within the study area consisting of 10 churches, one golf course, five parks and one school.

Noise

To meet the requirements FAA Order 1050.1E - *Environmental Impacts: Policies and Procedures,* a noise study for the proposed noise abatement procedures was completed. Additionally, a supplemental noise evaluation was conducted consistent with FAA's Air Traffic Noise Screening (ATNS) criteria as defined in FAA Order 1050.1E. The noise study reports are presented in Section 3 and Appendix C of the EA.

1. **Baseline 2003 Noise Contours**
   Portions of five local governments in the vicinity of MIA are within the projected 2003 65 DNL and greater noise contours:

   - Unincorporated Miami-Dade County (physical location of MIA)
   - The City of Miami Springs (borders MIA on the north)
   - The Village of Virginia Gardens (borders MIA on the north)
   - The City of Miami, (borders MIA on the east and southeast)
   - The City of Hialeah (northeast of MIA)

   The 65 DNL contour extends approximately 3 miles east and west of MIA; the total population within the 65 DNL and above contours is 38,654. The surface area of the contours are 12.61, 5.16 and 2.17 square miles respectively for the 65, 70 and 75 DNL contours.

   Other areas experiencing aircraft overflights that are outside the projected 2003 65 DNL contour include Miami Beach and Key Biscayne.

2. **Future 2005 and 2010 No Action Noise Contours – Contour Sizes**
   The 65 DNL is the level which the FAA considers incompatible with many land uses and the level at which funding is made available for noise abatement measures. Levels of less than 65 DNL are considered generally compatible with sensitive land uses, such as residential areas.

   The area under the noise contours for 2005 and 2010 no action scenarios compared to the 2003 baseline would increase due to the increase of forecast operations.

   The area (in square miles) for 2005 contours when compared to the 2003 baseline conditions are projected to change as follows: 65-70 DNL would increase from 7.448 to 7.501; 70-75 DNL would increase from 2.991 to 3.030 and contours greater than 75 DNL would increase from 2.167 to 2.214. The overall change of the DNL contours for 2005 would increase from 12.606 to 12.745 square miles (an 0.139 square mile increase).

   The area (in square miles) for 2010 contours are projected to change (compared to 2003) as follows: 65-70 DNL would increase from 7.448 to 7.696; 70-75 DNL would increase from 2.991 to 3.103 and contours greater than 75 DNL would increase from 2.167 to 2.248. The overall change of the DNL contours for 2010 would increase from 12.606 to 13.047 square miles (an 0.551 square mile increase).

3. **Future 2005 and 2010 No Action Noise Contours – Population**

The population under the future no-action noise contours for 2005 compared to the 2003 baseline contours is projected to change as follows: the population under the 65-70 DNL would increase from 34,801 to 35,161; 70-75 DNL would decrease from 3,853 to 3,811 and the population under contours greater than 75 DNL remain unchanged at 0. The overall change of the of the population under the DNL contours for 2005 would increase from 38,654 to 38,972 people (a 318 person increase).

The population under the noise contours for 2010 compared to the 2003 baseline contours is projected to change as follows: the population under the 65-70 DNL would increase from 34,801 to 36,748; 70-75 DNL would decrease from 3,853 to 3,762 and the population under contours greater than 75 DNL remain unchanged at 0. The overall net change of the population under the DNL contours for 2010 would increase from 38,654 to 40,510 people (a net increase of 1,856 people).

4. **Proposed Federal Action (Combination of Proposed Procedures 1,2,3,4) versus the 2005 No Action Alternative**

The area (in square miles) for the 2005 Proposed Action contours compared to the 2005 No Action contours are projected to change as follows: 65-70 DNL would increase from 7.501 to 7.917; 70-75 DNL would decrease from 3.030 to 3.004 and contours greater than 75 DNL would decrease from 2.214 to 2.197. The overall change of the DNL contours for 2005 would increase from 12.745 to 13.118 square miles (an 0.373 square mile increase).

The area (in square miles) for the 2010 Proposed Action contours compared to the 2010 No Action contours are projected to change as follows: 65-70 DNL would increase from 7.696 to 8.087; 70-75 DNL would decrease from 3.103 to 3.071 and contours greater than 75 DNL would decrease from 2.248 to 2.233. The overall change of the DNL contours for 2010 would increase from 13.047 to 13.401 square miles (an 0.354 square mile increase).

5. **Proposed Federal Action versus the 2005 and 2010 No Action Alternative-Population**

The population under the noise contours for proposed federal action in 2005 compared to the 2005 No Action Alternative contours is projected to change as follows: the population under the 65-70 DNL would decrease from 35,161 to 32,880; 70-75 DNL would decrease from 3,811 to 2,439 and the population under contours greater than 75 DNL remain unchanged at 0. The overall change of the population under the DNL contours for 2005 would decrease from 38,972 to 35,319 people (a decrease of 3,653 people).

The population under the noise contours for proposed federal action in 2010 compared to the 2010 No Action Alternative contours is projected to change as follows: the population under the 65-70 DNL would decrease from 36,748 to 34,343; 70-75 DNL

would decrease from 3,762 to 2,519 and the population under contours greater than 75 DNL remain unchanged at 0. The overall change of the population under the DNL contours for 2010 would decrease from 40,509 to 36,862 people (a decrease of 3,647 people).

In 2005, the DNL change with the proposed federal action compared to the No-Action Alternative occurs at 19 other noise sensitive sites (churches, golf courses, schools) with 18 being reductions and one site increasing in noise exposure. The changes range from +0.1 DNL to –1.5 DNL in 2005. For 2010 a DNL change occurs at 17 sites with 16 being reductions and one increasing in noise exposure. The changes range from +0.1 DNL to –1.5 DNL in 2010. The results are presented on Pages 4-4 and 4-6 of the EA.

The persons removed from the 70-75 DNL would experience levels from 65-70 DNL and those removed from the 65-70 DNL would experience noise levels below 65 DNL. No persons would be added to the 65 DNL who were not within the 65 DNL limits with the No Action Alternative. The population count reflects residents only and is a net amount.

The Air Traffic Noise Screening Model for the proposed federal action of aircraft operations at altitudes between 3,000 and 10,000 feet AGL determined that the areas under these altitudes would not experience a 5 dB or greater increase of noise exposure. No further noise analysis is required as a result of this determination under FAA Order 1050.1e.

6. Analysis of Procedures on an individual basis
   The analysis of each procedure on an individual basis in discussed on pages 4-7 through 4-15 of the EA.

Compatible Land Use

MIA is located 7 miles north east of central Miami with residences to the north, east and south. Industrial areas are located west of the airport. There is an overall reduction of residential land use within the DNL contours as a result of the proposed federal action.

For 2005, the proposed action reduces the total acreage of residential land impacted within the 65 DNL by 96 acres when compared to the 2005 No Action Alternative; in 2010 the total acreage reduces by 93 acres.

No noise sensitive sites experience an increase of 1.5 DNL within the 65 DNL with the proposed federal action.

Air Quality

The Miami/Fort Lauderdale/West Palm Beach area is designated attainment for the following National Ambient Air Quality Standards (NAAQS): carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM) and lead (Pb); the area is designated maintenance for ozone (O_3).

An emission inventory was prepared using the Emissions and Dispersion Modeling System (EDMS) Version 4.2. The following emissions were inventoried: CO, Volatile Organic Compounds (VOC), NOx and sulfur oxides (SOx); EDMS does not project emission rates for particulate matter (PM).

The aircraft operational level, fleet mix, and taxi/queue delay were assumed to be the same for alternatives (including the No Action Alternative). The evaluation focused on the change in air pollutant emission levels resulting in the change in taxi distance when compared to the No Action Alternative. Proposed Procedure 2 (maximization of west flow operations during nighttime hours) is the only alternative that would affect taxi distances. This analysis is discussed in Section 4.3 of the EA.

The results of the analysis for Procedure 2 indicate that the emissions of CO, VOC, NOx and SOx would decrease approximately one to six pounds per day in 2005 and one to seven pounds per day in 2010. This decrease in emissions is considered minor. Based on the current maintenance designation for O_3 within Dade County, the deminimis level is 100 tons/year of VOC or NOx. Procedure 2 is the only procedure that would change taxi distances and would result in a minor decrease in VOC and NOx emissions; thus, the project is presumed to conform to the Clean Air Act. The proposed action would result in a minor decrease in emissions, therefore there is no need to evaluate the regional significance of project related emissions. Mitigation for Air Quality is not required for the proposed action.

There are no motor vehicle related transportation plans, programs or project associated with the proposed federal action, therefore transportation conformity under Title 23 of the United States Code or the Federal Transit Act (49 U.S.C. 1601) does not apply to this project.

Section 303c Properties

The proposed federal action does not result in any actual or constructive use of any publicly owned land from a public park, recreation area or wildlife and waterfowl refuge of National, State or local significance. Five publicly owned parks and one golf course are located within the 65 DNL contour for the Proposed Action; there are no wildlife or waterfowl refuges within the 65 DNL or the vicinity of MIA that will be subject to a change in aircraft overflight activity. The closest refuge is located approximately 40 nautical miles north of MIA (Loxahatchee National Wildlife Refuge).

Two national parks – Biscayne Bay National Park and Everglades National Park are located well beyond the 65 DNL contour and experience aircraft overflights. Analysis of two sites at Biscayne Bay National Park indicated that there is a DNL of 32.8 at Blockpoint and 37.6 for Stiltsville for the No Action Alternative in 2005; these sites are projected to decrease to 31.1 and 37.4 with the implementation of the proposed federal action in 2005. In 2010 the DNL values decrease from 32.9 and 37.7 to 31.1 DNL and 37.4 DNL respectively with the implementation of the proposed federal action.

Analysis of two sites at Everglades National Park indicated that there is a DNL of 16.0 at Chekika Parking Lot and 26.5 for Shark River Slough for the No Action Alternative in 2005; the DNLvalues at these sites are projected to change to 16.7 and 23.5 with the implementation of the Proposed federal Action in 2005. In 2010 the DNL values are expected to change from 16.1 and 26.7 (No Action) to 16.8 DNL and 23.8 DNL respectively with the implementation of the proposed federal action.

Historic Sites

The noise exposure for the 2005 and 2010 conditions for the No Action and the proposed federal action are less extensive than those examined in a prior Environmental Impact Statement conducted in 1998 for the Air Carrier Runway at MIA that determined that there were no significant archaeological or historical sites recorded or likely to be present within the project areas, and that it was very unlikely that any such sites would be affected. Appendix D of the EA contains the correspondence pertaining to the 1998 EIS and historical site identification. In addition, there is no significant noise exposure would occur at any tribal lands.

Energy

Changes in fuel use were evaluated by assessing the change in taxi routes and the increase of flight track distances resulting from the proposed federal action; it was assumed that the aircraft operational level, fleet mix and aircraft taxi/queue delay would be the same with the proposed federal action and the No Action alternatives.

Procedure 1 would have an increase in fuel use by 103 gallons per day for 2005 and 230 gallons/day in 2010 when compared to the No Action Alternative; Procedure two would have a decrease of 130 and 235 gallons respectively. The decrease in energy use for Procedure 2 is a result of the decrease in taxi time. Section 4.6 of the EA discusses energy analysis.

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

Environmental Justice

In accordance with *Executive Order (EO) 12898, Federal Action to Address Environmental Justice in Minority Populations and Low-income Populations (1994),* information was obtained regarding the presence of minorities and/or low-income persons in the vicinity of the proposed airport development.

The analysis of the population within the 65 and above DNL contours consisted of the total population, minority population and low-income households for each procedure under consideration. The minority populations include all non-white race categories included in the 2000 Census. In addition to the race categories, persons of Hispanic or Latino origin were also considered. Census data indicates that 57.3% of Miami-Dade county residents are Hispanic or Latino origin.

Section 4.7 of the EA discusses the environmental justice impacts; all populations would experience a reduction in noise impact as a result of the implementation of the proposed federal action. The proposed federal action does not consist of any construction, property acquisition, or relocation of housing or businesses. Therefore no significant environmental justice impacts were identified.

Children's Environmental Health and Safety Risks

The proposed federal action does not consist of any construction activities and air and water quality analysis has determined that there are no significant impacts on these resources; therefore there are no significant impacts on children's environmental health and safety.

Construction Impacts

There are no construction activities associated with the proposed federal action.

Fish, Wildlife, and Plants

There are no construction activities associated with the proposed federal action that would affect fish wildlife and plants.

Secondary/Induced Impacts

The proposed federal action is for noise mitigation purposes and does not involve any construction or development proposals and does not increase the number of aircraft operations at the airport. Therefore there would be no secondary impacts on the surrounding communities.

Water Quality

The proposed federal action does not involve any construction and has no affect on water quality.

Wetlands

The proposed federal action does not affect surface resources nor result in the development of facilities, therefore no impacts would occur on wetlands.

Wild and Scenic Rivers

No stream or river area exposed to arrivals or departures of aircraft operations below 10,000 feet above ground level appear to qualify as a Wild or Scenic River. Therefore no analysis for this category for the proposed federal action was required.

Other Impact Categories

Coastal Resources

The proposed action would not affect surface resources nor result in the development of facilities. Therefore no impacts would occur under this category.

Light Emissions

No approach lighting, airport facility lighting, parking area lighting or other ground lighting is included in the proposed federal action, thus the proposed federal action would have no effect on Light Emissions or Visual Impacts.

The proposed federal action does not consist of any construction activities or acquisition or taking of any land. Therefore would have no impact to the following resource categories: farmlands; endangered and threatened species of flora and fauna; floodplains; architectural, archaeological and cultural resources; natural resources and hazardous materials and solid waste.

Cumulative Impacts

Cumulative effects on noise impacts were analyzed and discussed above under "Noise".

Summary of Impacts

The implementation of the proposed federal action will not change the number of aircraft operations at MIA when compared to the No-Action scenario for 2005 and 2010; the total noise generated by aircraft would remain the same but would be redistributed to reduce noise exposure on noise sensitive areas. The proposed federal action results in a decrease in the number of people impacted within the 65 and greater DNL contour, with the reductions located east of the airport. Flight track modifications are being recommended to minimize overflights of residential areas that are outside the 65 DNL; aircraft are being directed over land that is compatible with aircraft noise to the greatest extent possible west of MIA over industrial areas. The proposed federal action does not contain any construction activities nor the acquisition or constructive use of property; there will be no relocation of residences or businesses, nor will there be any affects on natural biological or water resources. Aircraft emissions and energy use (aircraft fuel) are projected to slightly decrease due to decreasing taxi distances associated with Procedure 2.

Mitigation

The purpose of the proposed federal action is to reduce noise impacts on the communities surrounding MIA; therefore there are no mitigating actions as part of or in addition to the proposed federal action.

Coordination with the General Public

The sponsor has closely coordinated this project with various jurisdictional agencies and established a Noise Abatement Task Force (NATF) composed of MDAD staff, elected officials and citizens from affected areas. The NATF citizen representation was not restricted to individuals within the 65 DNL noise contours. The NATF included representatives from MIA Air Traffic Control Tower (ATCT), MDAD and MDAD consultants. Participation of MIA ATCT was restricted to technical advisement pertaining to the safety and operation of the National Airspace System. MIA ATCT did not specifically recommend, develop or select any of the alternatives contained in the EA. Meetings were held on a monthly basis.

Initial meetings of the NATF resulted in the identification of the noise issues and established the goals for the noise abatement program and the purpose and need of the federal proposed action. The EA represents the consensus of recommendations by both the NATF and the MDAD.

A 30-day public comment period was held for the Draft EA; during the public comment period, copies of the Draft EA was made available for review at the MDAD Aircraft Noise & Environmental Planning Office and was posted on MIA's website (www.miami-airport.com).

Interested parties were given 30 days to provide comments on the Draft EA and public notifications were published in local newspapers written in English (*The Miami Herald* and *The Miami Times*) and in Spanish (*El Nuevo Herold* and *Diario Las Americas*). The notification dates were November 18th through the 22nd and the 25th 2005. Comments were accepted until the close of business on Monday, December 19, 2005. The public comments received and responses to these comments are included in the Final EA and were considered in the decision making process.

The Draft EA was also distributed to the applicable federal, state and local government offices. Responses to agency comments are contained in Appendix G of the EA.

Comments received included concerns about the population changes within each specific contour (65, 70, 75 DNL), impacts on persons of Hispanic origin, the possibility of noise abatement procedures during the daytime and an opposition to the proposed alternative Procedure 2 by the City of Doral. FAA ensured that the comments were appropriately addressed in the Final EA and determined that alterations to the proposed federal action were not required as a result of the comments.

The proposed federal action is a combination of four procedures that are intended to reduce noise levels over residential areas, including the City of Doral. The City of Doral currently experienced direct overflights of aircraft departing to the west day and night. These overflights are particularly disturbing to the residents at night. The proposed federal action has nighttime aircraft departures directed along the 265-degree heading away from the City of Doral. Under the No Action alternative, aircraft will continue to depart over the City of Doral at night.

No residential areas within the City of Doral are located within the 65 DNL noise contours with the proposed federal action. Procedure 2 does increase the overall flow of the airport to the west at night, but it does not increase the number of operations west of the airport. The change results

in more turbojet aircraft departures to the west at night with a corresponding reduction in arrivals from the west at night. There would be no change in the total number of operations west of the airport with or without the implementation of Procedure 2. However, there will be less aircraft flying over the City of Doral at night under the proposed federal action due to all departing aircraft being directed along the 265-degree heading and due to the reduction of arrival aircraft over the city brought about by the change in flow from east to west.

Agency Findings

Implementation of the proposed action will provide for the safe and efficient use of the airport.

FAA hereby makes the following determinations and approvals for this project, based on the appropriate information and data contained in the Final EA and having considered: the policies set forth at 49 U.S.C. 40104 and 47101; and the ability of the alternatives to meet the purpose and need:

1. The project is consistent with existing plans of public agencies for development of the area surrounding the airport (49 U.S.C. 47106(a)(1)).

2. The interest of the communities in or near where the project may be located was given fair consideration (49 U.S.C. 47106(b)(2)).

3. The FAA has given the proposal the independent, thorough, and objective evaluation required (CEQ Regulations 40 CFR 1506.5).

4. MDAD has provided the opportunity for a public hearing to consider economic, social, and environmental effects of the project and the project's consistency with the objectives of any planning that the community has carried out (49 U.S.C. 47106(1)(a)(I)).

Decision and Order

The FAA recognizes its responsibilities under the National Environmental Policy Act of 1969 (NEPA) and its implementing Council on Environmental Quality (CEQ) regulations, and its own directives. Recognizing these responsibilities, I have carefully considered the FAA's goals and objectives in relation to the various aeronautical aspects as discussed in the Final Environmental Assessment, and I have used the environmental process to make a more informed decision. This review included the purposes and needs to be served by this project, alternative means of achieving them, the environmental impacts of these alternatives, and any mitigation necessary to preserve and enhance the human environment.

The final environmental documents satisfy the policies and objectives as set forth in Section 101(a) of NEPA and demonstrate that the project will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA.

Having carefully considered aviation safety and the operational objectives of the proposed project, as well as being properly advised as to the anticipated environmental impacts of the proposed action, under the authority delegated to me by the Administrator of the FAA, I find that the project is reasonably supported. Approval of the proposed federal action is based on determinations through aeronautical studies regarding potential obstructions to navigable airspace, and that the airport development proposal is acceptable from an airspace perspective. I therefore direct that action be taken to carry out the agency actions noted above. Specifically:

a. Approvals to provide air traffic controller training and updated position responsibilities for new noise abatement approach/departure procedures and all ATC procedures related to the new noise abatement procedures (e.g. approval and development of arrival procedures and ATC procedures used in enroute and terminal airspace).

b. Decisions to modify and/or develop air traffic control and airspace management procedures to affect the safe and efficient movement of air traffic to and from the runway. This includes the development of a system for routing arriving and departing traffic and the design, establishment, and publication of standardized flight operations procedures, including instrument approach procedures, standard instrument departure procedures, and new flight procedures into and out of the airport (49 U.S.C. 40103(b) and 44721 and 14 CFR Part 95).

c. Determinations through the aeronautical study process (14 CFR Part 77), regarding any off-airport obstacles that might obstruct the navigable airspace under established standards and criteria (49 U.S.C. 40103(b) and 40113).

d. Approvals to develop new video maps and publications for the proposed federal action and associated airspace.

e. Designations of controlled airspace and revised routing (14 CFR Parts 71 and 75).

Approved: J G McCartney 5/24/06

John G. McCartney
Acting Area Director
FAA, Eastern Terminal Service Area

Date

This decision, including any potential subsequent actions approving a grant of federal funds to Miami International Airport is taken pursuant to the 49 U.S.C. § 40101 et seq. (Part A) and 49 U.S.C. § 47101 et seq. (Part B), and constitutes a final order of the Administrator which is subject to review by the courts of appeals of the United States in accordance with the provision of 49 U.S.C. § 46110.

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ACRONYMS

AGL	Above Ground Level
ANOMS	Aircraft Noise and Operations Monitoring System
APE	Area of Potential Effect
ATCT	Air Traffic Control Tower
ATNS	Air Traffic Noise Screening Model
CAA	Clean Air Act
CBRA	Coastal Barriers Resources Act
CEQ	Council on Environmental Quality
CVAP	Charted Visual Approach
CZMA	Coastal Zone Management Act
dB	Decibel
dBA	A-weighted Decibel
DNL	Day-Night Average Sound Level
EA	Environmental Assessment
EDMS	Emissions and Dispersion Modeling System
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulation
FICAN	Federal Interagency Committee on Aviation Noise
Leq	Equivalent Sound Level
MDAD	Miami-Dade Aviation Department
MIA	Miami International Airport
NAAQS	National Ambient Air Quality Standards
NATF	Noise Abatement Task For**ce**
NEPA	National Environmental Policy Act
OMB	Office of Management and Budget
ROD	Record of Decision
SHPO	State Historic Preservation Officer
TAF	Terminal Area Forecast
VMC	Visual Meteorological Conditions
VOR	Very High Frequency Omni-directional Range Beacon

INTRODUCTION AND BACKGROUND

The Miami-Dade Aviation Department (MDAD) has requested the Federal Aviation Administration (FAA) implement noise abatement air traffic measures at Miami International Airport (MIA) to reduce aircraft noise impacts to communities located around the Airport. The noise abatement measures are the results of recommendations of a community-based committee, MDAD, and consultants convened to address noise associated with operations at MIA.

Communities located around the Airport requested that MDAD develop a strategy to reduce overall aircraft noise associated with operations at MIA. In order to address these operationally related noise issues, the MDAD established a committee, the Noise Abatement Task Force (NATF), composed of MDAD staff, elected officials, and citizens from affected communities. The NATF citizen representation was not restricted to those that live within the 65 DNL noise contour, but included those living beyond the 65 DNL contour limits, as well. The NATF also included representatives of the FAA's Miami Air Traffic Control Tower (ATCT) and MDAD's noise consultant team as advisors. Miami ATCT personnel were included to address operational and procedural questions and safety, not to select, develop or recommend proposed noise procedures. MDAD commissioned this study, without the assistance of Federal funds, to demonstrate the reduction in noise levels that will occur at noise sensitive areas with the procedures recommended by the NATF and to comply with requirements set forth in the National Environmental Policy Act.

The public involvement process for the evaluation and recommendation of operational noise abatement actions has been an on-going process at MIA for the past five years. During the assessment process as part of the 1998 new Air Carrier Runway Environmental Impact Statement (EIS), a number of noise issues were raised by citizens living within the approach and departure corridors and other areas in close proximity to the Airport. Those issues that related directly to the new air carrier runway were addressed during the EIS process. However, other community noise issues (those included in this EA) are related to the overall procedures for directing aircraft into and out of the existing four-runway system at the Airport.

Initial meetings of the NATF resulted in the identification of the noise issues needing to be addressed and the establishment of goals for the noise abatement program. These goals included: (1) the reduction of departure activity to the east particularly at night; (2) the reduction of dispersion of low altitude aircraft departure turns during west flow; (3) the reduction of the dispersion of aircraft arrivals and departures east of the Airport; and (4) the redirection of aircraft over non noise sensitive areas in the vicinity of the barrier islands for both west flow arrivals and east flow departures at MIA.

With these goals established, coordination began with representatives of the FAA's ATCT at the Airport, and initial noise mitigation measures to address the goals were developed. Monthly or bi-monthly meetings were held with the NATF to gain input as the overall noise mitigation plan was developed. As input was received and initial

analyses reviewed, adjustments to the plan were made to reflect input from the NATF and the FAA's ATCT. The procedures associated with the plan were discussed with the NATF, revised and submitted to the FAA for review. Certain procedures were subjected to 180-day tests to determine if the procedures could be implemented in a safe and efficient manner by the ATCT at MIA.

The patterns of land use around an airport provide guidance for the design of arrival and departure routes and flight procedure for noise abatement purposes. By directing aircraft over more compatible and less populated areas such as commercial, industrial and vacant lands or over bodies of water, noise impacts on the community can be reduced. Turning or rerouting aircraft, when possible, to avoid residential and other noise sensitive areas is an accepted method for achieving noise abatement. In addition, modifications of runway use can also be made to reduce noise exposure.

MIA is surrounded by dense urban development to the east, north, and south. To the west, industrial commercial and undeveloped areas dominate the landscape. Because of prevailing east winds, the large majority of aircraft arrivals and departures currently take place in an east flow at the Airport. This places the noisier departing aircraft over the more densely populated areas east of the Airport. In addition, options for altering current procedures are limited by aircraft operations at nearby airports and en route air traffic activity. These land use and operational constraints limited the opportunities available for considering mitigation options.

Given these constraints, a number of noise abatement procedures were evaluated. Of those considered, the NATF process identified a series of four traffic procedural modifications designed to reduce overall community noise while not significantly increasing the noise in other residential areas by directing aircraft, to the extent practicable, away from sensitive land uses and over areas that are more compatible with aircraft noise. The proposed procedures represent the consensus of recommendations by both the NATF and MDAD and the approval of the Miami ATCT. MIA ATCT personnel reviewed the proposed procedures and determined that they were operationally viable and that they maintain safety and efficiency of the operations at MIA.

PROPOSED FEDERAL ACTION

A brief description of the proposed flight procedure changes is presented in the following.

1) Modification of West Flow Departure Procedures (Day and Night)

   This action involves the modification of west flow departure flight tracks during both daytime and nighttime hours at MIA for heavier turbojet aircraft including air carrier and air cargo type aircraft. The modification of flight tracks west of the Airport allows aircraft to avoid lower altitude flyovers of residentially developed areas to the southwest and northwest. This procedure would enable departing

aircraft to gain altitude over predominately industrial and commercial land uses prior to making subsequent turns.

2) Maximization of West Flow (Night)

This action involves increasing the flow condition to the west during nighttime hours (11:00 p.m. to 6:00 a.m.) under calm wind conditions (below 5 knots). With this action, flow to the west is proposed to increase from its current 22 percent of nighttime operations to 50 percent. This procedure would allow more of the noisier departure activity to occur over predominately compatible land located west of MIA and reduce noise exposure to residential areas east of the Airport while not increasing noise over the residential areas to the west.

3) Modification of East Flow Departure Procedures (Night)

This action involves modifications to existing departure headings during east flow conditions at night (11:00 p.m. to 6:00 a.m.). The proposed modifications include the establishment of alternative headings from Runways 8L, 8R, 9, and 12 to reduce noise exposure. The modifications of these headings are intended to reduce the noise exposure over noise sensitive areas of Miami Beach, Key Biscayne, and other beachside communities.

4) Establishment of West Flow Charted Visual Approaches (Day and Night)

This action increases west flow arrival altitudes through the establishment of Charted Visual Approaches for both daytime and nighttime conditions for Runways 26R, 26L, 27 and 30. These procedures would reduce overflights of turbojet arrivals on most of the areas of Miami Beach, Key Biscayne, and Biscayne Bay.

The purpose of the Proposed Federal Action described in this Environmental Assessment (EA) is to achieve the objectives of the NATF by implementing the requested flight procedure changes developed during the NATF process.

The FAA does not normally initiate air traffic noise abatement actions. These actions are requested by airport managers or sponsors in response to community concerns over aircraft noise. When the FAA receives a request to implement changes to air traffic procedures, it must initiate a process to consider the environmental impacts of the changes in accordance with the various environmental statutes, including the National Environmental Policy Act (NEPA) and FAA Order 1051.E, Environmental Impacts: Policies and Procedures.

In fulfilling its environmental responsibilities in this case, the FAA has determined that the preparation of an EA for the Proposed Action (the implementation of noise abatement procedures) is necessary. This EA has been prepared to disclose impacts to the human

and natural environments resulting from the Proposed Action and to determine if any potential impacts are significant. If it is demonstrated that no significant impacts will occur as a result of the Proposed Action, then a Finding of No Significant Impact (FONSI) is prepared. If significant impacts are found that can be mitigated below the threshold of significance, a mitigated FONSI can be prepared. If significant impacts are found that cannot be mitigated, and MDAD wishes to pursue these actions, then an Environmental Impact Statement (EIS) may be required.

This EA has been prepared in accordance with the directives and guidelines set forth by the Council on Environmental Quality (CEQ: 40 CFR Parts 1500 – 1508), the Department of Transportation (DOT Order 5610.1), and FAA Order 1050.1E, Environmental Impacts: Policies and Procedures (effective June 8, 2004). FAA Order 1050.1E states that an EA is normally required when new or revised air traffic control procedures, which routinely route air traffic over noise sensitive areas at less than 3,000 AGL, are proposed.

Previously, on September 18, 1998, the FAA's EIS Record of Decision (ROD) authorized the construction of a new 8,600-foot long runway at MIA (Final Environmental Impact Statement Proposed Runway at Miami International Airport Miami Dade County Florida September 1998). The new runway, Runway 8L/26R, is parallel to, and 800 feet north of, Runway 8R/26L. Runway 8L/26R provides additional capacity at MIA, which was near maximum capacity during peak periods, when the runway was constructed. This new runway is used predominately as an arrival runway per the parameters outlined in the 1998 EIS. This new runway has been constructed and became operational in August, 2003 and its use has been included in this EA.

SECTION 1: PURPOSE AND NEED OF THE PROPOSED FEDERAL ACTION

INTRODUCTION

This section of the EA presents the location of MIA, describes its runway layout and identifies the purpose and need for the proposed Federal Action. It also includes a description of the operational activity and fleet mix that occurred in the baseline year (2003) and is projected to occur in future years of analysis (2005 and 2010).

MIA is located approximately seven miles west-northwest of Miami's central business district. The Airport encompasses approximately 3,300 acres, is designated as a passenger transport facility, and serves as the primary commercial service airport and international hub in south Florida. The Airport is bounded on all sides by major roadways and dense urban development. See Exhibit 1-1 (Location Map).

As presented in Exhibit 1-2 (Airport Layout), the MIA airfield consists of four air carrier runways. Three of the runways (Runways 8L/26R, 8R/26L and 9/27, are in a parallel east-west configuration and are spaced approximately 800 and 5,100 feet apart respectively. The fourth runway (Runway 12/30) is oriented in a southeast-northwest direction. A system of parallel taxiways serves each of the air carrier runways.

DESCRIPTION OF THE PROPOSED FEDERAL ACTION

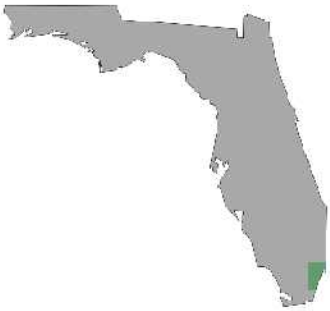
The Federal Action consists of a series of procedures proposed to be implemented to reduce noise impact on noise-sensitive communities surrounding MIA. Each of these procedures was summarized previously in the INTRODUCTION AND BACKGROUND section of this EA. Detailed descriptions of these actions, together with related exhibits and tables, are contained in Section 2: ALTERNATIVES.

PURPOSE AND NEED OF THE PROPOSED FEDERAL ACTION

There are approximately 38,654 people living within the existing 65 DNL (area the FAA considers to have significant noise exposure). In addition, substantial numbers of people live below flight corridors beyond the limits of the 65 DNL who can also be annoyed by aircraft noise.

The purpose of the proposed Federal Action is to achieve the objectives of the Noise Abatement Task Force (NATF) by implementing a series of four flight procedures developed during the NATF process. The goals established to achieve the objectives included: the reduction of departure activity to the east at night; the reduction of dispersion or splay of low altitude aircraft departure turns during west flow; the reduction of dispersion or splay of aircraft arrivals and departures east of the Airport; and the

Location Map



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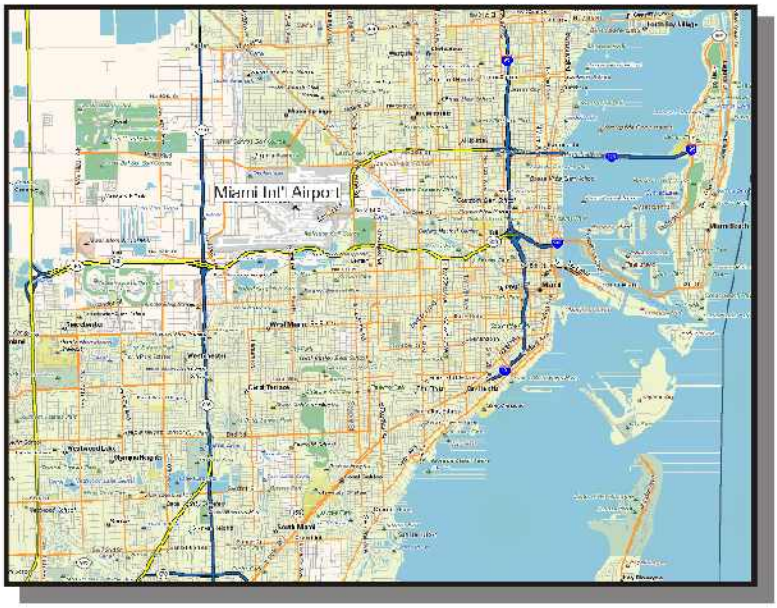
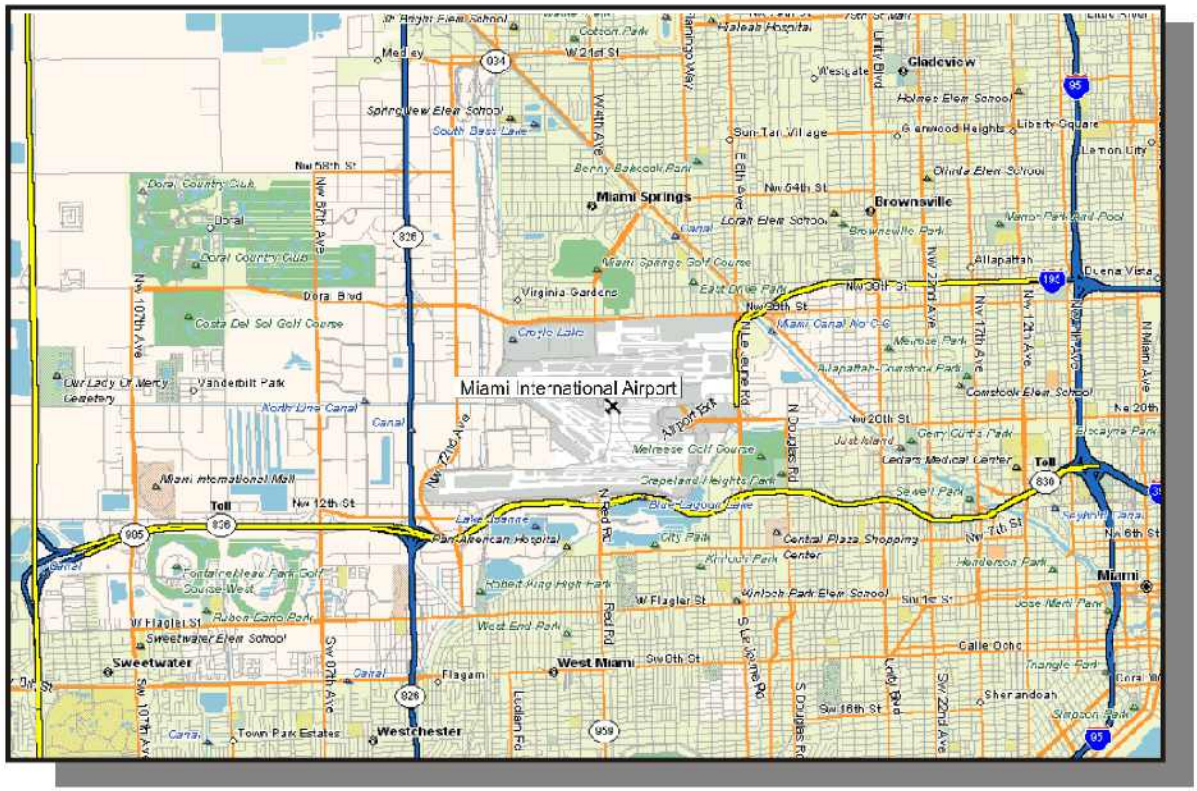
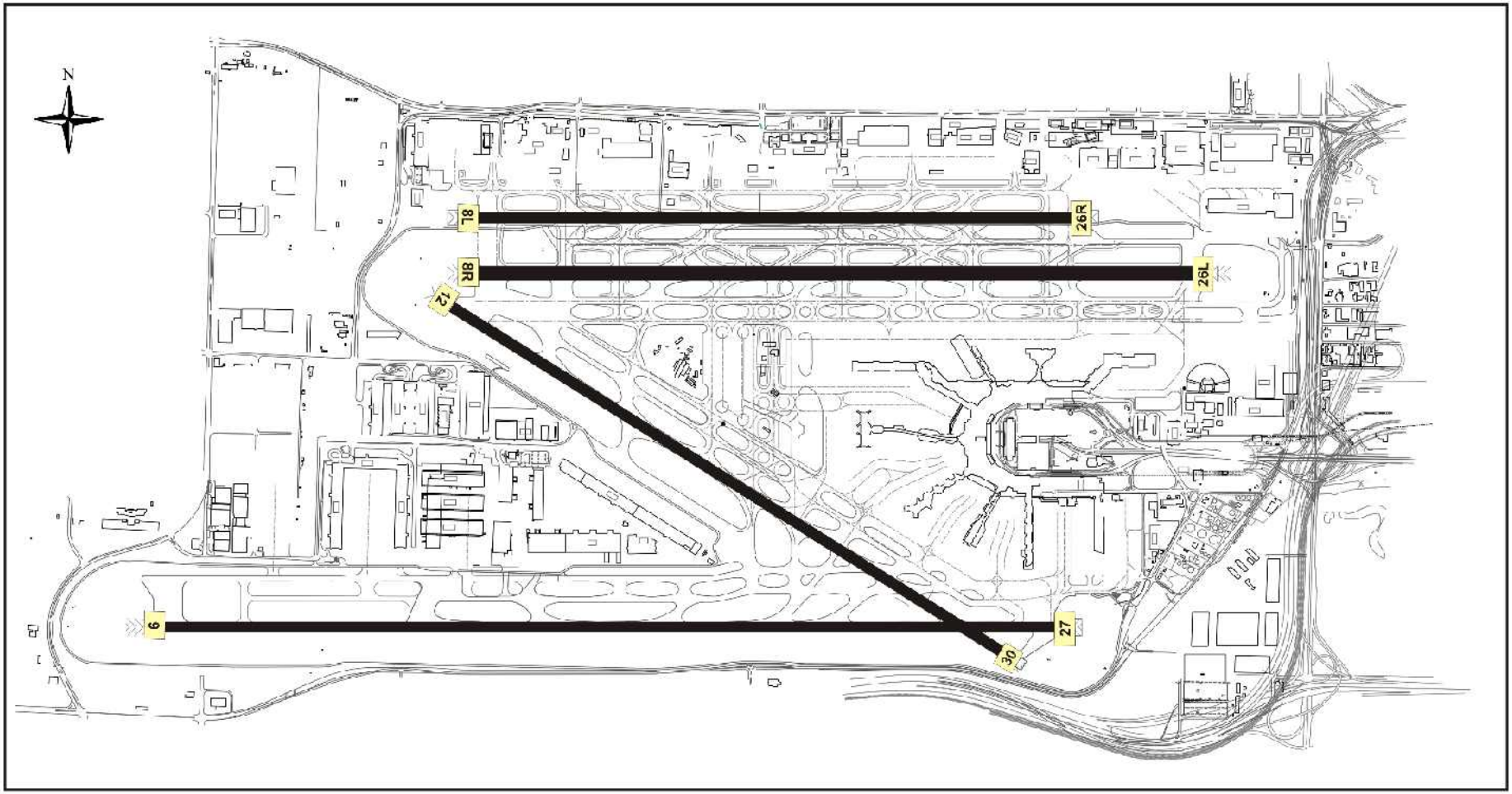




Airport Layout



Runways

Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

Exhibit 1-2

redirection of aircraft over non-noise sensitive areas in the vicinity of the barrier islands for both west flow arrivals and east flow departures at MIA.

The MDAD has requested the FAA to implement a series of measures developed during the NATF process which achieve an overall reduction in the noise from turbojet powered aircraft over residential communities around the Airport both within close-in approach and departure corridors (primarily affected by noise levels of 65 DNL or greater) and outside of the corridors (primarily affected by aircraft noise levels less than 65 DNL).

Flight procedure changes are needed that:

> Reduce aircraft noise exposure in residential areas to the east of the Airport at night, by decreasing departures to the east and redirecting them over compatible land areas to the west.
>
> Reduce aircraft noise exposure in residential areas to the east of the Airport affected by low altitude aircraft activity by reducing the number of flight tracks that currently disperse aircraft over residential areas and by relocating the remaining arrival and departure tracks over bodies of water to the extent practicable.
>
> Reduce aircraft noise exposure to residential areas to the west of the Airport affected by low altitude aircraft activity by reducing aircraft dispersion and directing aircraft over compatible land areas to the extent practicable.

EXISTING AND PROJECTED OPERATIONAL ACTIVITY

In order to assess the impacts resulting from the implementation of the proposed operational noise mitigation procedures, identification of the baseline operational activity level was required as well as a projection of activity throughout the planning period. As a result of guidance from the FAA, the year 2003, the last full calendar year of data, was established as the base year for the analysis. The baseline activity level for this year was taken from Federal Aviation Administration ATC records. Detailed fleet mix information for the same period was collected from MIA's airport noise monitoring system (ANOMS). The future years of analysis for evaluation of impacts associated with the noise mitigation procedures were identified by the FAA as 2005 and 2010. The basis for projecting the 2005 and 2010 activity levels was the 2004 FAA Terminal Area Forecast (TAF) converted from a federal fiscal year to a calendar year basis and modified to reflect actual partial year 2004 data. The growth rates for each category of aircraft that were identified in the 2004 TAF were maintained in developing the modified TAF projections. In developing the projected fleet mix, current and projected trends in the industry were analyzed as well as those specific to MIA and its associated carriers. Through this analysis, a detailed fleet mix was identified for both 2005 and 2010. The methodology used in the developing the forecast and fleet mix is presented in detail in Appendix A. The resulting operations for the years 2003, 2005 and 2010 are presented in Table 1-1. Aircraft fleet mix information is provided in Appendix F.

TABLE 1-1
2003, 2005 AND 2010 DAILY OPERATIONS

Aircraft Type	2003 Actual	2005	2010
Air Carrier/Cargo	840.65	861.47	932.60
Air Taxi/Commuter	151.74	160.85	164.91
General Aviation	71.74	71.74	71.74
Military	12.14	12.52	12.52
TOTAL	**1,076.27**	**1,106.58**	**1,181.77**

Source: ESA and HMMH

It should be noted that turbojet aircraft account for 82 percent of the operations at MIA in 2003 and 2005. It is forecast that in 2010, turbojet aircraft will account for 83 percent of the total operations.

SECTION 2: ALTERNATIVES

FAA Order 1050.1E, in accordance with the CEQ regulations, requires that the environmental review process objectively consider and evaluate all reasonably available alternatives that might accomplish the purpose and need of a proposed action or project. Additionally, the examination of the no-action alternative is required and also provides a baseline for the comparison of impacts that may be caused by the proposed alternatives. Alternative analysis ensures that an alternative which accomplishes the purpose and need for the action has not been prematurely dismissed from consideration when it might be found to either enhance environmental quality or have a less detrimental effect than other possible proposals.

After evaluating the NATF process of potential air traffic operational procedures designated to reduce noise levels from turbojet aircraft operating near the Airport, the MDAD has asked the FAA to approve a series of procedural modifications found to be most effective in attaining its objective of improving the overall noise environment near the Airport. During the development of the air traffic procedures, MIA air traffic control personnel participated to address operational and procedural questions and safety, not to select, develop or recommend proposed noise procedures. Any individual procedural change was found to provide noise reduction to only a portion of the affected communities (e.g., east side or west side) and, therefore, provided only partial community noise reduction. Thus, multiple changes are needed to achieve overall community noise relief.

The alternatives evaluated in detail in this EA include:

- No-Action: Aircraft would arrive and depart MIA along a number of flight tracks widely distributed to the east and to the west of the Airport in "fanning" patterns. None of the noise mitigation procedures evaluated in this EA for MIA would occur.

- Proposed Federal Action: A combination of four modified air traffic procedures (changes to existing arrival and departure procedures) designated to reduce aircraft noise in communities around MIA would be implemented. The four procedures are:

The four procedures are described below. Any predicted benefits to be obtained from these procedural changes have been modeled and are discussed in detail in Section 4: Environmental Consequences.

Procedure 1 - West Flow Departure Procedures (Day and Night)

Procedure 1 involves the modification of west flow departure flight patterns during both daytime and nighttime hours for turbojet type aircraft only. Currently, departures on Runways 27, 26L, 26R, and 30 fly various flight tracks that encompass the western side of the Airport (see Section 3 Exhibits 3-1 and 3-2). During the day, to reduce noise

levels on noise sensitive sites adjacent to the Airport, departures of turbojet type aircraft on Runways 27, 26L and 26R would, when conditions permit, be assigned the preferred heading of 270 degrees until reaching either 5 miles or 4,000 feet for northbound aircraft or 4 miles or 3,000 feet for southbound aircraft, prior to making initial turns to their destinations. Runways 27, 26L and 26R when necessary due to traffic considerations, controllers would use a heading of 290 degrees until reaching either 5 miles or 4,000 feet for northbound aircraft prior to making turns.

Departures on Runway 30 would, when conditions permit, fly a heading of 305 degrees until reaching either 5 miles or 4,000 feet. For southbound aircraft, a heading of 265 degrees will be flown until reaching 5 miles or 4,000 feet. When necessary due to traffic considerations, controllers would use a heading of 270 degrees until reaching 5 miles or 4,000 feet for both northbound and southbound aircraft, prior to making turns.

Exhibit 2-1 identifies the centerlines of these flight corridors.

At night (11:00 p.m. to 6:00 a.m.), the heading for Runway 27 departures would also be 270 degrees, however, the heading for Runways 26L and 30 at night would be 265 degrees in order to further reduce fly-overs of residential areas. Night departures on Runway 26R would utilize a 265-degree heading. However, since Runway 26R is predominately an arrival runway, air carrier departures would not routinely occur on this runway either during the day or at night.

Exhibit 2-2 identifies the centerlines of these flight corridors.

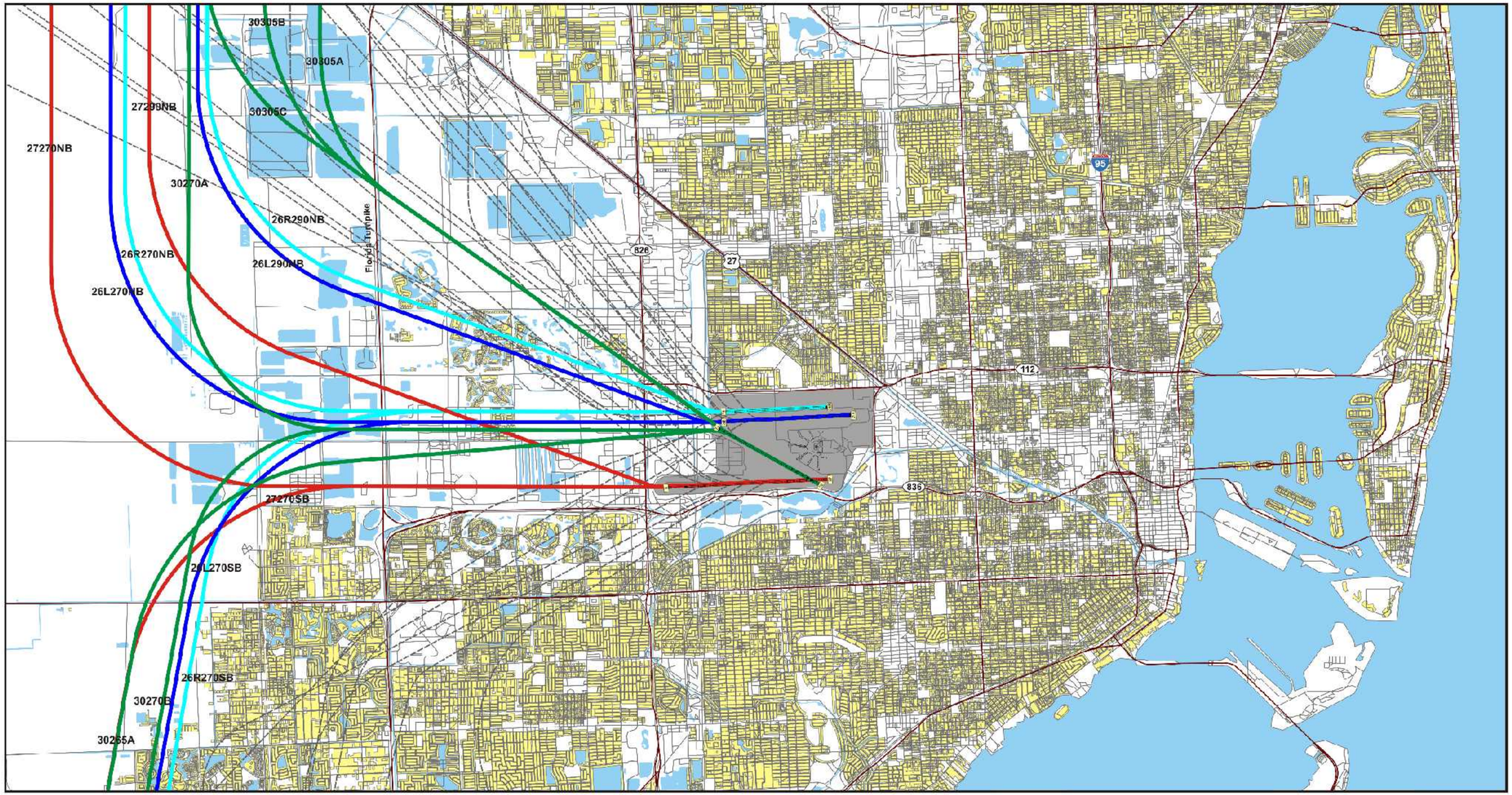
It should be noted that these procedures apply to turbojet aircraft only. No modifications to propeller aircraft are involved.

Implementation would occur by having FAA modify the existing MIA ATCT Standard Operating Procedures and any related publications. It should be noted that noise abatement procedures are implemented when weather and operational conditions permit (local and National Airspace System conditions).

Procedure 2 – Maximization of West Flow (Night)

Procedure 2 involves increasing flow of all aircraft to the west during nighttime hours (11:00 p.m. to 6:00 a.m.) and under calm wind conditions (under 5 knots). This would place more of the noisier aircraft departures over predominately industrial and commercial areas west of the Airport and the comparatively quieter arrivals over residential areas to the east. There is the potential for increasing aircraft operations to the west from an existing 22 percent of total nighttime operations to 50 percent during nighttime hours. This potential exists due to the greater amount of time that calm winds occur at night at MIA compared to those during the day. When these calm wind conditions occur at night, the Miami ATCT has the option of operating the Airport in either an easterly or westerly flow. Thus, Procedure 2 consists of increasing the nighttime westerly flow at MIA from the current 22 percent to 50 percent of the time.

Procedure 1 - West Flow Daytime Departure Tracks



Runway 30 Tracks
Runway 26R Tracks
Runway 26L Tracks
Runway 27 Tracks
Current Propeller Aircraft Tracks
Residential Land Use

N

Scale
0 4500 9000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

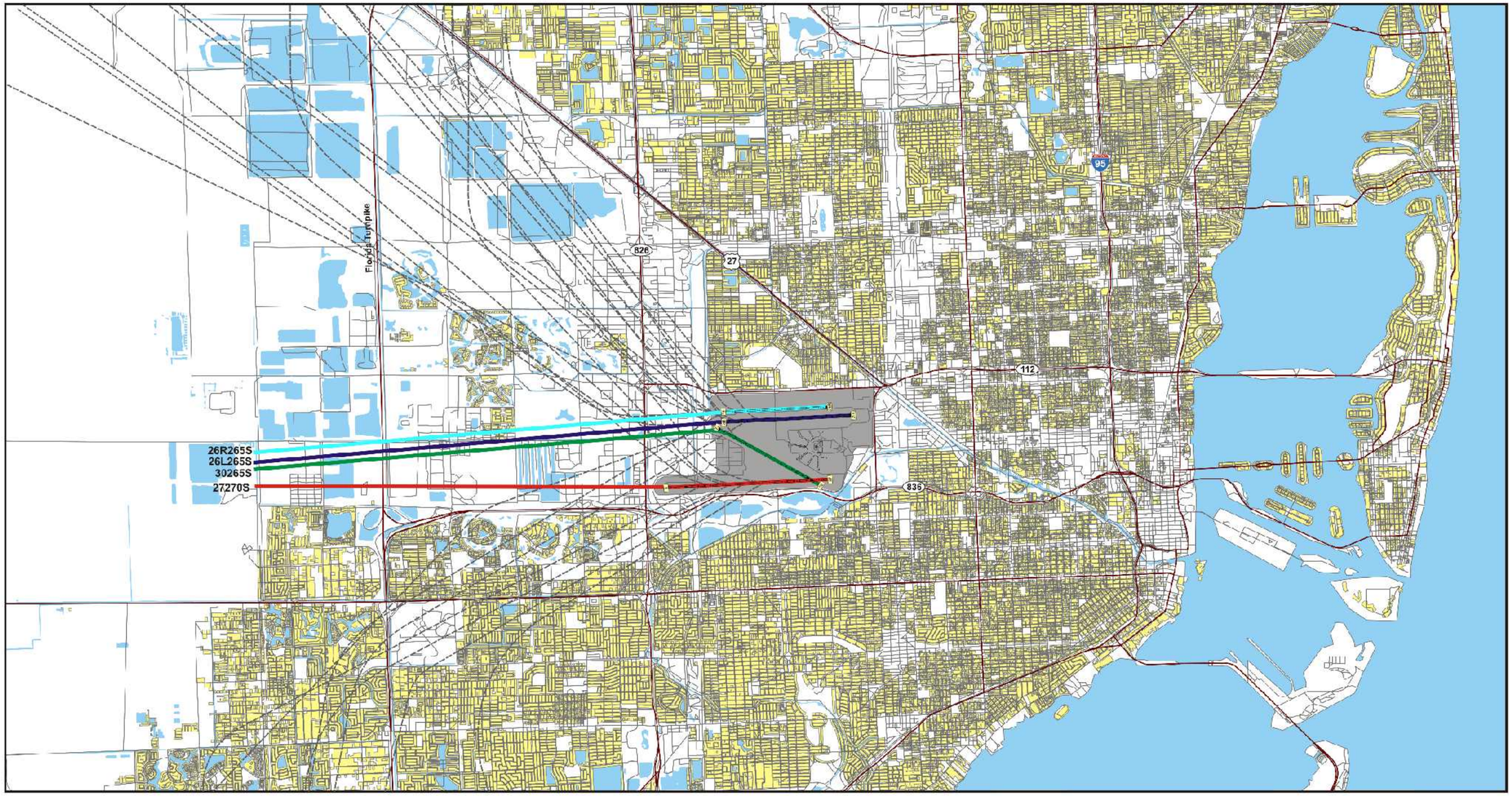
Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 2-1

Procedure 1 - West Flow Nighttime Departure Tracks



Runway 30 Tracks
Runway 26R Tracks
Runway 26L Tracks
Runway 27 Tracks
Current Propeller Aircraft Tracks
Residential Land Use

N

Scale
0 4500 9000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 2-2

While the intent of this procedure is to operate to the west at night, as often as possible, there can be times when the FAA determines that for safety or weather conditions east-flow will be used.

Implementation would occur by having FAA modify the existing MIA ATCT Standard Operating Procedures and any related publications. It should be noted that noise abatement procedures are implemented when weather and operational conditions permit (local and National Airspace System conditions).

Procedure 3 - East Flow Departure Procedures (Night)

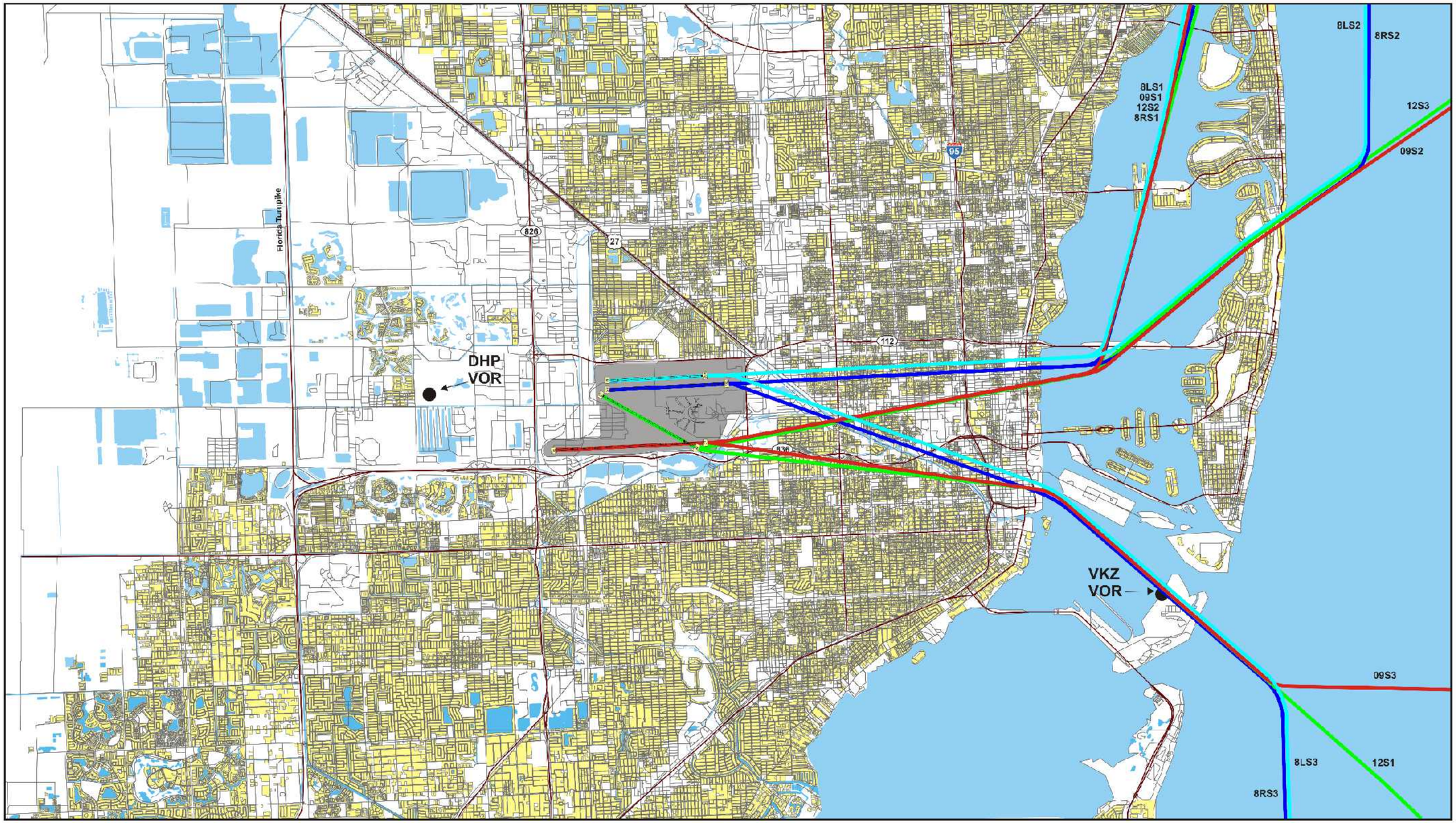
Current FAA ATCT operating procedures at night for east-flow turbojet aircraft are a major cause of concern in the residential areas to the east of MIA. Procedure 3 would require aircraft from Runways 8L, 8R, 9, and 12 to fly specific headings and tracks to further minimize overflights of noise-sensitive areas to the east of MIA. This procedure applies to nighttime (11:00 p.m. to 6:00 a.m.) turbojet aircraft operations only.

Southbound turbojet aircraft departing from Runways 8L, 8R, or 9 would be required to turn right and fly to the intersection of the 103 degree radial from the DOLPHIN (DHP) Very High Frequency Omnidirectional Range Beacon (VOR) and the 315 degree radial from the VIRGINIA KEY (VKZ) VOR. Southbound aircraft departing Runway 12 would be required to turn left to join the 103 degree radial. Aircraft would then fly the 315-degree radial inbound to the VKZ VOR, over-fly the VKZ VOR, and then fly a 133-degree radial from the VKZ VOR until 2 nautical miles DME before initiating a turn to their final heading. A depiction of these southbound procedures is presented on Exhibit 2-3.

Northbound turbojet aircraft departing from Runways 8L, 8R, 9, and 12 would be required to turn left and fly to the intersection of the 091 degree radial from the DHP VOR and the 347 degree radial from the VKZ VOR. At this point, it is assumed that 25% of all northbound aircraft at night would fly to the intersection of the 084 degree radial from the DHP VOR and the 015 degree radial from the VKZ VOR. Aircraft would continue to fly to the intersection of the 081 degree radial from the DHP VOR and the 028 degree radial from the VKZ VOR before initiating turns to their final heading. The remaining 75% of northbound aircraft would fly to the intersection of the 076 degree radial from the DHP VOR and the 002 degree radial from the VKZ VOR. Aircraft would fly the 002 degree radial from VKZ VOR before initiating turns to their final heading. These northbound flight corridors are presented on Exhibit 2-3.

These procedures would be formalized as a S.I.D. (Standard Instrument Departure procedure) for use by all turbojet aircraft at night. It should be noted that noise abatement procedures are implemented when weather and operational conditions permit (local and National Airspace System conditions).

Procedure 3 - East Flow Nighttime Departure Tracks



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

- Runway 12 Tracks
- Runway 8L Tracks
- Runway 8R Tracks
- Runway 9 Tracks
- Residential Land Use

N

Scale
0 4500 9000
Feet

Miami-Dade Aviation Department

Basemap Source: Miami-Dade County

MIAMI INTERNATIONAL AIRPORT

Exhibit 2-3

Procedure 4 - West Flow Charted Visual Approaches (Day and Night)

Procedure 4 consists of the collective implementation of Charted Visual Approach Procedures (CVAP) to the arrival runways 26L, 26R, 27, and 30 under west-flow conditions. A separate CVAP is proposed individually for each of the west-flow arrival runways.

Aircraft under west-flow arrivals are currently over-flying many noise sensitive areas east of MIA both during the daytime and nighttime hours. These operations have the potential to cause disturbing noise events as they over-fly the residential areas on approach east of MIA. This proposed procedure would require turbojet arrivals to Runways 26L, 26R, 27, and 30 to follow the CVAP's to the extent possible during both the daytime and nighttime hours. The degree to which the CVAP's can be adhered to depends upon meteorological conditions, operational levels, and time of day.

The CVAP's pertain only to turbojet aircraft and would only be used under west-flow operations. Under low visibility conditions, Instrument Flight Rules (IFR) procedures are in effect. Under IFR conditions, it is implied that the arrival approaches currently in place would be used. If Visual Metrological Conditions (VMC) are in effect, CVAP's would be used as appropriate. The estimated percentages for the use of the CVAP's are presented in Table 2-1. The tracks used to represent the CVAP's are presented on Exhibit 2-4. Note that while Runways 26R, 27, and 30 are normally closed at night, due to noise sensitivity in residential areas northwest and southeast of the Airport, certain conditions would occur which require their use during nighttime hours. Thus, they have also been included as part of Procedure 4. For comparison, Exhibit 3-2 (provided in Section 3 of this EA) presents the arrival flight tracks that would apply to non-CVAP conditions. Specific details on how Charted Visual Approach Procedures will be flown including, weather minimums and the use of ground references, existing or proposed will be coordinated between the FAA and MDAD after approval of the EA is obtained.

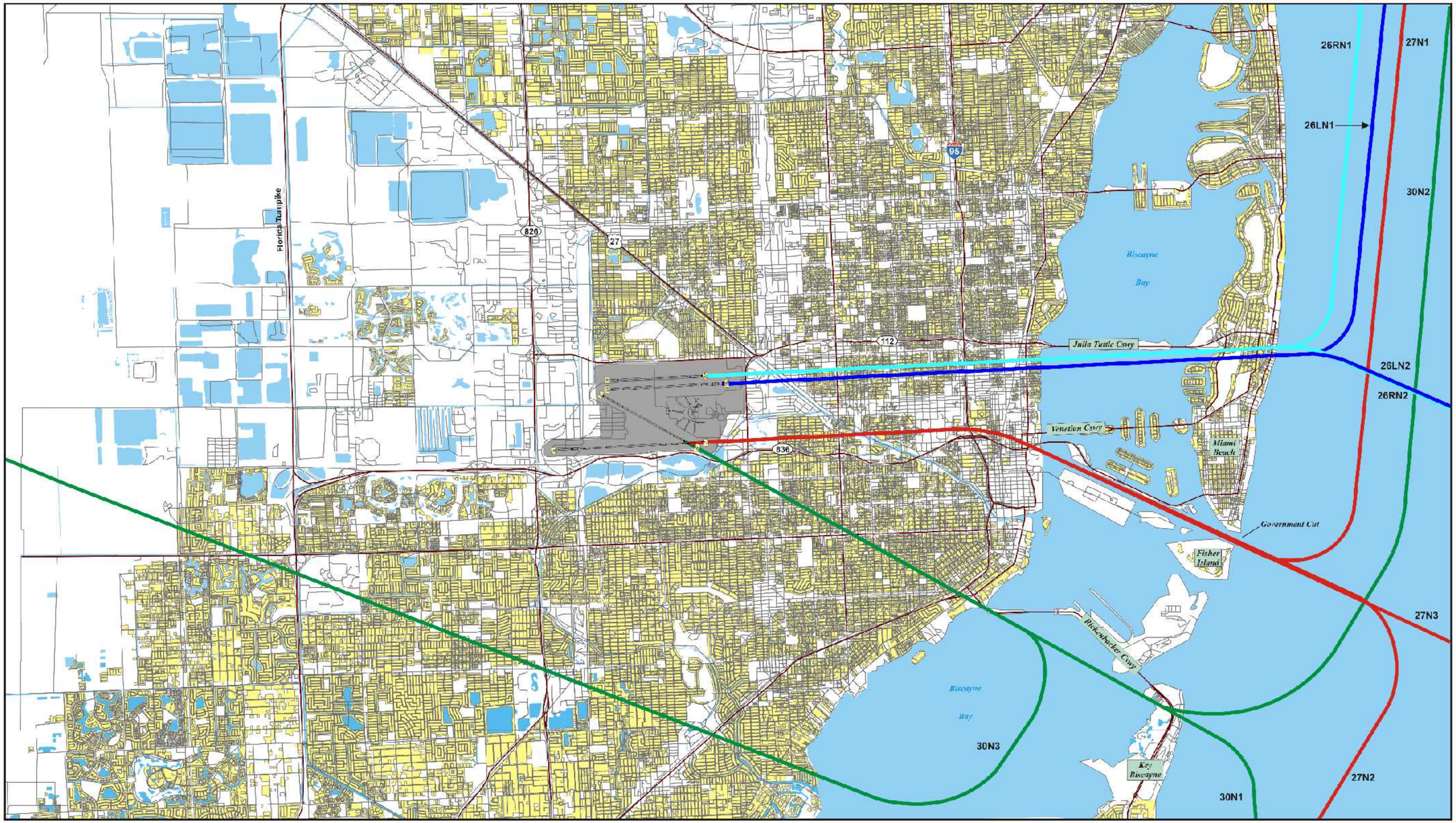
Implementation would occur by updating the published instrument approach procedures for MIA. It should be noted that noise abatement procedures are implemented when weather and operational conditions permit (local and National Airspace System conditions).

TABLE 2-1
USE OF CVAP'S FOR WEST-FLOW ARRIVALS

	Percent Runway Use for West-Flow Arrivals			
	With CVAP's VFR Conditions		**No CVAP's IFR Conditions**	
	Day	**Night**	**Day**	**Night**
Runway 26L	50%	50%	50%	50%
Runway 26R	50%	Closed	50%	Closed
Runway 27	50%	Closed	50%	Closed
Runway 30	50%	Closed	50%	Closed

Source FAA ATCT estimates.

Procedure 4 - West Flow Charted Visual Approach Day and Night Arrival Tracks



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

- Runway 30 Tracks
- Runway 26R Tracks
- Runway 27 Tracks
- Runway 26L Tracks
- Residential Land Use

N

Scale
0 4500 9000
Feet

Miami-Dade Aviation Department

Basemap Source: Miami-Dade County

MIAMI INTERNATIONAL AIRPORT

Exhibit 2-4

Descriptions of the CVAP's are as follows:

Runway 26L: Aircraft shall remain offshore until abeam the Julia Tuttle Causeway. Aircraft shall then intercept the Runway 26L final approach course, remaining between the Julia Tuttle Causeway and the Venetian Causeway. Aircraft shall maintain 3,000 feet until 10 miles from the approach end of Runway 26L. It is estimated that the procedure for Runway 26L could be used 50% of the time both day and night.

Runway 26R: Aircraft shall remain offshore until abeam the Julia Tuttle Causeway. Aircraft shall then intercept the Runway 26R final approach course, remaining between the Julia Tuttle Causeway and the Venetian Causeway. Aircraft shall maintain 3,000 feet until 10 miles from the approach end of Runway 26R. It is estimated that the procedure for Runway 26R could be used 50% of the time both day and night. Little activity, however, would occur on Runway 26R at night as it is normally closed during the nighttime hours (10:00 p.m. to 7:00 a.m.) to turbojet arrivals.

Runway 27: Aircraft shall remain over the ocean until Government Cut, then overfly the Cut (avoiding the southern tip of Miami Beach on the northside and Fisher Island on the south) until intercepting the final approach course for Runway 27. Aircraft shall maintain 3,000 feet until 10 miles from the approach end of Runway 27. It is estimated that this procedure for Runway 27 could be used 50% of the time during the daytime hours (7:00 a.m. to 10:00 p.m.). Runway 27 is normally closed during the nighttime hours (10:00 p.m. to 7:00 a.m.) to turbojet arrivals.

Runway 30: Aircraft approaching from the north or south shall remain over the ocean until the northern boundary of Key Biscayne (which is non-residential), then turn northwest over Biscayne Bay to intercept the final approach course to Runway 30. Aircraft shall maintain 3,000 feet until 10 miles from the approach end of Runway 30.
Aircraft approaching from the west or southwest shall maintain 3,000 feet until crossing the western shoreline of Biscayne Bay eastbound. Aircraft shall remain over Biscayne Bay (avoiding Key Biscayne) until Rickenbacker Causeway, then intercept the final approach course for Runway 30. Maintain 3,000 feet until 10 miles from the approach end of Runway 30.

It is estimated that this procedure for Runway 30 could be used 50% of the time during the daytime hours (7:00 a.m. to 10:00 p.m.). Runway 30 is normally closed to all aircraft during the nighttime hours (10:00 p.m. to 7:00 a.m.).

Proposed Federal Action (Combination of Procedures 1 through 4)

The Proposed Federal Action represents the combination of all elements of Procedures 1 through 4.

Other Alternatives Considered But Rejected

The MDAD has requested the implementation of four flight procedures that constitute the Proposed Federal Action. During the NATF process, other procedural changes off both ends of each of the MIA runways were considered but were eliminated because they were found not to be operationally safe or feasible, or did not appear to provide sufficient community noise reduction. The large number of aircraft operations at MIA, interactions with air traffic from nearby airports, prevailing east winds, and dense residential development surrounding much of MIA severely limit the opportunities to provide noise abatement through modifying air traffic operations. To the west, routing planes over commercial areas to the extent practical provides the only options to achieve meaningful noise abatement. To the east, routing planes over Biscayne Bay and the Atlantic Ocean provides the only opportunities for noise reduction.

The MDAD found no other alternative that would meet its stated purpose and need. Thus, this EA is limited to the evaluation under NEPA of the Proposed Federal Action (combination of Procedures 1 through 4) and the No-Action Alternative. Although flight procedures other than those contained in the Proposed Federal Action are not examined in depth in this EA, a number of other arrival and departure procedures designed to reduce aircraft noise in the communities around MIA have been evaluated over the years as part of the NATF process and during previous tests and studies dating back to 1996. If these procedures had been viable, reasonable and prudent, they would have become components for additional alternatives that would have been fully analyzed in this EA.

Procedures that were rejected from further evaluation in this EA include the following:

Operational Changes on a 24-Hour Basis

After discussions with the NATF it was decided that operational changes for MIA would be divided into two phases. The first phase, which is this EA, deals primarily with nighttime activity. Additional noise abatement procedures may be considered in the future that could include changes during daytime hours to provide mitigation procedures on a 24-hour basis.

Restrict Operations at Night

The advantages and disadvantages of restricting aircraft operations at night was discussed with the NATF but was rejected due to the need to serve the aviation industry and the Federal legislation that strongly discourages this measure.

Restriction on Types of Aircraft

The advantages and disadvantages of restricting the types of aircraft operating at MIA was discussed with the NATF but was rejected due to the need to serve the aviation industry and the Federal legislation that strongly discourages this measure.

Departure Headings

Many different departure headings were discussed and modeled before the NATF and MDAD agreed to propose the headings presented in the EA.

Single Departure Headings to the West

The advantages and disadvantages of a single departure heading to the west was discussed, modeled and determined by the FAA to not be feasible.

ALTERNATIVES SUMMARY

Each of the procedures studied during and prior to the NATF process, other than those included in the Proposed Federal Action, would not meet the established purpose and need without creating air traffic safety and efficiency problems. Therefore, they are considered not reasonable and viable alternatives for achieving the purpose and need and are not carried forward for further evaluation in this EA.

Subject to the completion of the EA process, the FAA concurs that the rejected procedures evaluated by MDAD in the NATF process would not be reasonable, feasible or prudent for developing alternatives for achieving the stated purpose and need.

The proposed air traffic modifications comprising the Proposed Federal Action have been evaluated as part of the FAA's preliminary internal evaluation which concluded that the alternatives appear to be safe, orderly and efficient. After the environmental evaluation process is completed, the FAA will decide whether to approve for implementation the requested noise abatement actions presented in this document. Any alternative that is approved would become effective upon completion of the implementation process and FAA's publication of the modified Airport procedures.

SECTION 3: AFFECTED ENVIRONMENT

OVERVIEW

This Section provides a description of the environmental resource or impact categories that may be affected by the proposed operational noise mitigation procedures. Included are methodologies and sources of data used in describing the existing (baseline) conditions in the vicinity of MIA. The affected environment for the baseline condition is provided for the following environmental categories: noise, land use, cultural and socioeconomic effects, and air quality. Other environmental categories such as wetlands, water quality, wildlife and others that relate to changes in surface conditions are not normally affected by changes in flight procedures and are not described in this section. A summary is provided in Section 4.8 that presents the reasons other input categories listed in FAA Order 1050.1E were not included in the EA.

STUDY AREA

The general study area for this EA includes the Airport and surrounding communities as shown on the base map for the noise contour and flight track Exhibits. More specifically, the study focuses on those residential areas primarily to the east and west of the Airport affected by aircraft noise at an average day-night sound level (DNL) of 65 decibels (dB) or greater and on residential areas that are affected by aircraft noise but at levels less than 65 DNL. The 65 DNL is the level which the FAA considers incompatible with many land uses and the level at which funding is made available for noise abatement measures. Levels of less than 65 DNL are considered generally compatible with sensitive land uses, such as residential areas, by the Federal Interagency Committee on Aviation Noise (FICAN), a working group of Federal agencies involved in protecting the public health and welfare with regard to noise. However, aircraft noise at these lower levels may still be considered a problem by some residents. Residents in areas near MIA that are experiencing levels of less than 65 DNL have requested that their communities be included in the noise abatement measures.

MIA has been in operation for nearly 75 years. Over time, considerable development has taken place adjacent to the facility. Densely developed residential areas have been established to the north, south and east of the Airport. Due west of the Airport, the land use is comprised of more industrial and undeveloped property. With the orientation of the runway system and the use of current air traffic control procedures, aircraft arrivals and departures pass over densely developed residential areas east, north, and south of the airport. Because of prevailing winds from the east, approximately 76 percent of the operations occur in an east flow condition.

BASELINE NOISE EXPOSURE

Noise Modeling

To compare noise impacts under current and future conditions, the FAA has developed a computer model that simulates aircraft activity operating under various airfield conditions

to determine areas of significant noise exposure for any airfield and operational condition. The model, called the Integrated Noise Model Version (INM) 6.1, can describe noise in a variety of ways, including the DNL noise descriptor required for use in the preparation of EA's.

The DNL is a logarithmic average of sound levels in A-weighted decibels (dBA). It is based on a 24-hour Equivalent Sound Level (Leq) and is weighted to account for increased noise sensitivity between night time hours of 10:00 p.m. and 7:00 a.m., by applying a 10 dBA penalty to noise events occurring during this period. Another, less technical, way of explaining the DNL relates to the three basic ways people are affected by aircraft noise.

1. Loudness and length of time — The louder each aircraft is and the longer it is heard, the more disturbing it is.
2. Number of aircraft operations — The greater the number of aircraft operations, the more disturbing they are.
3. Time of operation of the activity — Night time hours typically are more disturbing than daytime hours.

The noise model takes each of these factors into account and combines them to form DNL contours of equal noise exposure around the Airport. The contours describe the off-airport areas where noise exposure is high. The contours can be compared to land use compatibility guidelines established by the FAA (FAR Part 150) and the State of Florida. By comparing contours for each alternative evaluated, one can identify areas that would experience increases and decreases in noise exposure.

This EA provides equal noise exposure contours for the 65, 70, and 75 DNL. These contours identify the levels of noise exposure that are considered by FAA guidelines to be significant within the Airport's environs.

The DNL contours are developed within the INM by calculating noise exposure related to the following factors:

- Aircraft arrival and departure profiles,
- Engine thrust and power settings,
- Runway layout,
- Runway use,
- Flight corridors,
- Operational activity within each flight corridor,
- Fleet mix and associated number of operations (on the average 24-hour day),
- Stage length for departures (distance to the aircraft's next destination),
- Split of operations between the daytime (7:00 a.m. to 10:00 p.m.) and nighttime hours (10:00 p.m. to 7:00 a.m.).

The first two factors in the list are included in the INM database. Airport-specific information is needed for the remaining factors.

Baseline Runway Layout

The runway layout for the current baseline condition was previously shown on Exhibit 1-2. These runways include an 8,600-foot Runway 8L/26R, a 10,500-foot Runway 8R/26L located approximately 800 feet to the south, a 13,000-foot parallel Runway 9-27 located approximately 5,100 feet to the south, and a 9,355-foot Runway 12-30. This runway system was used in assessing the alternatives.

Baseline (2003) Runway Use and Flight Tracks

Runway use is a key element in the noise analysis since runways with the greatest use normally result in greater off-Airport noise exposure. The baseline runway use, shown in Table 3-1, is based on MDAD data and discussions with FAA tower representatives at MIA. During day time operating hours, the Airport operates approximately 76 percent of the time in an easterly flow and 24 percent of the time in a westerly flow due primarily to prevailing easterly winds. At night, the overall flow shifts slightly to about 78 percent easterly and 22 percent westerly. Aircraft arrival and departure activity occurs on all runways. Runway use depends primarily on the destination or origin of the aircraft and the gate location at the Airport terminal complex. Additional runway use tables are provided in Appendix E.

TABLE 3-1

BASELINE 2003 RUNWAY USE
ALL AIRCRAFT

	Arrivals		Departures	
Runway	**Day**	**Night**	**Day**	**Night**
09	34.04%	45.08%	3.72%	19.16%
12	8.05%	2.79%	13.63%	8.21%
27	1.69%	4.60%	11.68%	13.19%
30	11.83%	2.65%	1.22%	0.58%
08L	29.44%	2.80%	7.42%	0.00%
08R	4.47%	27.33%	51.24%	50.63%
26L	4.86%	13.11%	8.98%	8.23%
26R	5.62%	1.64%	2.11%	0.00%
Total	**100.00%**	**100.00%**	**100.00%**	**100.00%**

Source: MDAD and HMMH

During an easterly flow, arrivals on Runways 9 and 12 primarily are destined for gates on the south side of the terminal complex. Arrivals on Runway 8L and 8R are primarily headed for the north side gates. During a westerly flow, arrivals from the south primarily use Runway 30 for both northern and southern gates and Runway 27 for cargo area arrivals, while arrivals from the north primarily use Runway 26L.

Runway 12 is primarily used for departures to the south during an easterly flow with Runway 8R used primarily for northern destination departures. During a westerly flow, aircraft leaving gates on the north side of the terminal primarily use Runway 26L for departures, and aircraft leaving from southern gates use Runway 27 for departures.

Exhibit 3-1 shows the existing and future no action flight tracks associated with an east flow condition at MIA with aircraft arriving from the west and departing to the east. Exhibit 3-2 presents the existing and future no action west flow condition when aircraft arrive from the east and depart to the west.

Table1-1, provided previously in Section 1, identifies the operations for the 2003 baseline condition. Overall, approximately 12 percent of the total activity occurs between the hours of 10:00 p.m. and 7:00 a.m.

Baseline 2003 Noise Contours

Exhibit 3-3 presents the 65, 70 and 75 DNL noise contours for the baseline condition. As shown on the Exhibit, the 65 DNL contour extends approximately three miles east and west of the Airport. The wider contours to the east reflect the predominance of departure activity to the east (approximately 76 percent of the time during the daytime hours and about 78 percent of the time during nighttime hours). The total area within the 65, 70, and 75 DNL contours is 12.61, 5.16, and 2.17 square miles respectively. The total population within the 65 DNL is approximately 38,654 people. Refer to tables in Section 4: Environmental Consequences for a more detailed breakdown of population impacted in the 70 and 75 DNL contour

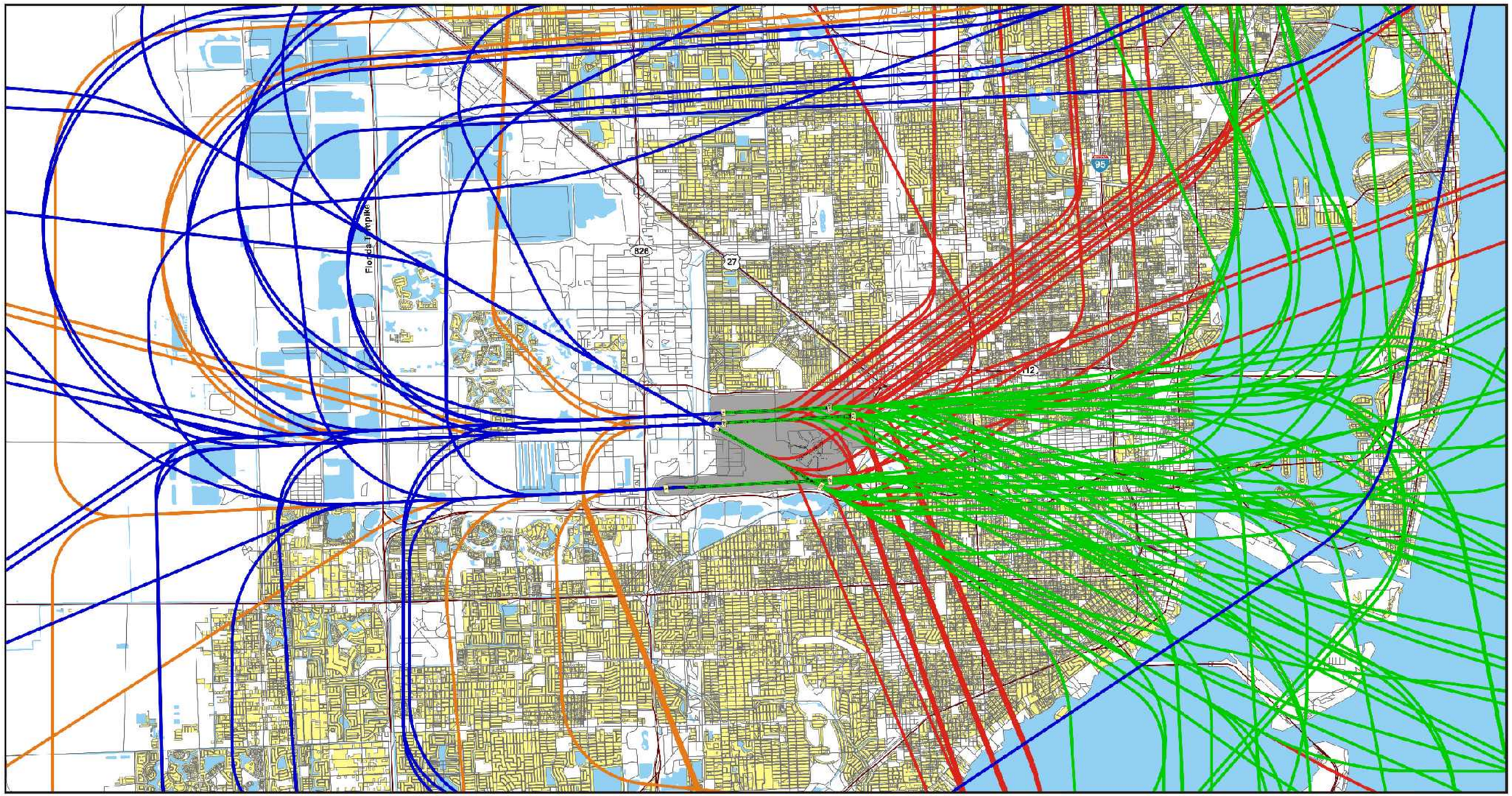
BASELINE LAND USE, CULTURAL AND SOCIO-ECONOMIC CONDITIONS

Portions of five local governments in the vicinity of MIA are affected by the 2003 65 DNL or greater noise contour including:

- Unincorporated Miami-Dade County, where the Airport is located
- The City of Miami Springs, which borders the Airport on the north
- The Village of Virginia Gardens, which borders the Airport on the north
- The City of Miami, which borders the Airport on the east and southeast
- The City of Hialeah, located to the northeast of the Airport

In addition, other political jurisdictions are affected by over flights of aircraft activity beyond the 65 DNL including Miami Beach and Key Biscayne.

Existing and Future No Action Flight Tracks - East Flow



Jet Arrival Tracks
Prop Arrival Tracks
Jet Departure Tracks
Prop Departure Tracks

Residential Land Use

N

Scale
0 4500 9000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

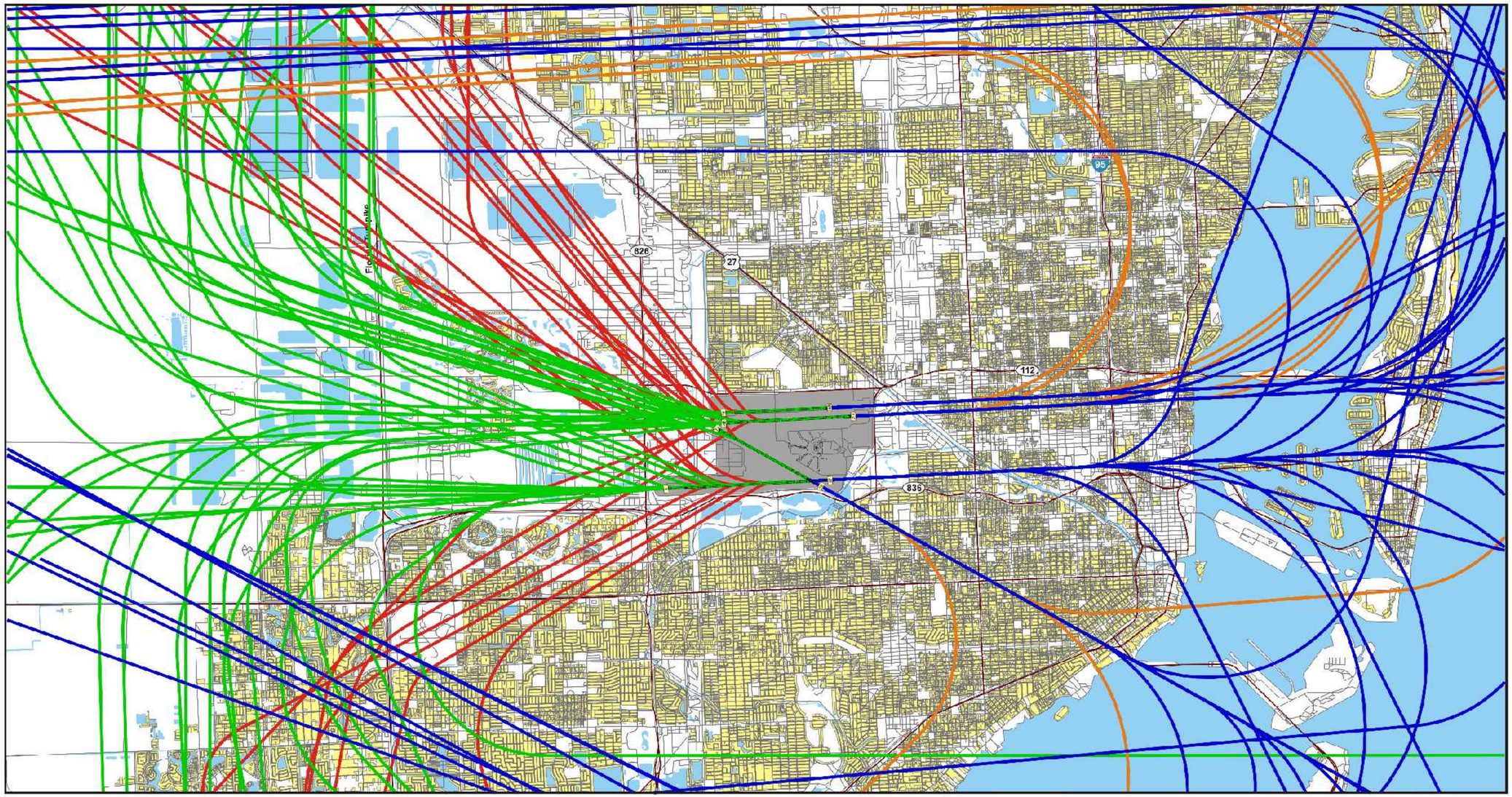
Miami-Dade Aviation Department

Basemap Source: Miami-Dade County

MIA MIAMI INTERNATIONAL AIRPORT

Exhibit 3-1

Existing and Future No Action Flight Tracks - West Flow



Jet Arrival Tracks
Prop Arrival Tracks
Jet Departure Tracks
Prop Departure Tracks

Residential Land Use

N

Scale
0 4500 9000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

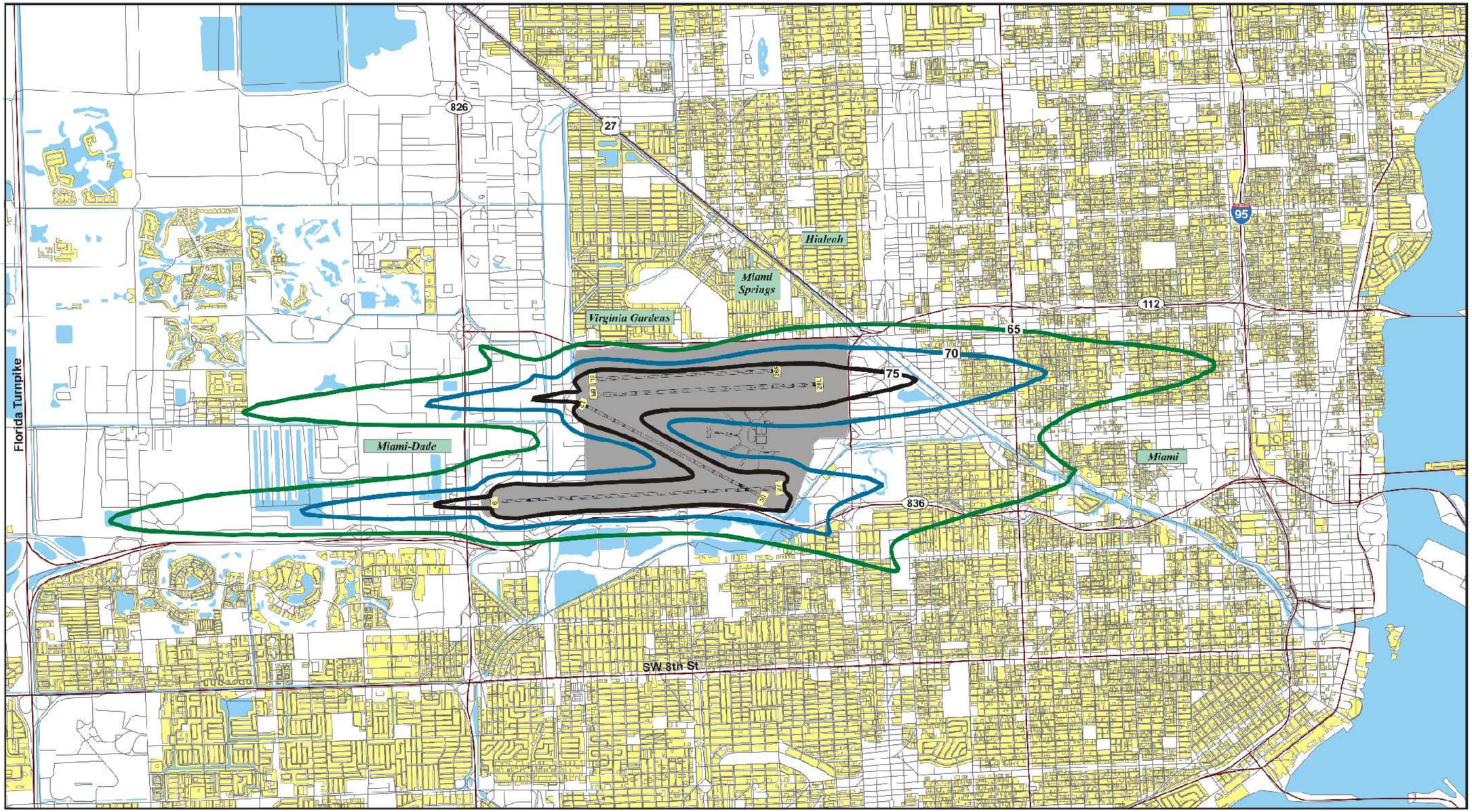
Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 3-2

Baseline 2003 DNL Contours



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

65 DNL
70 DNL
75 DNL

Residential Land Use

N

Scale
0 2500 5000
Feet

Miami-Dade Aviation Department

MIA MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 3-3

Baseline Cultural Resources and Land Use Compatibility

Located within areas surrounding MIA are a number of noise sensitive sites including such resources as churches, schools, parks, golf courses and other noise sensitive areas. A representative listing of these cultural resources is provided on Table 3-2 along with the DNL values associated with each of the sensitive sites for the baseline 2003 condition. The location of these sites is presented on Exhibit 3-4.

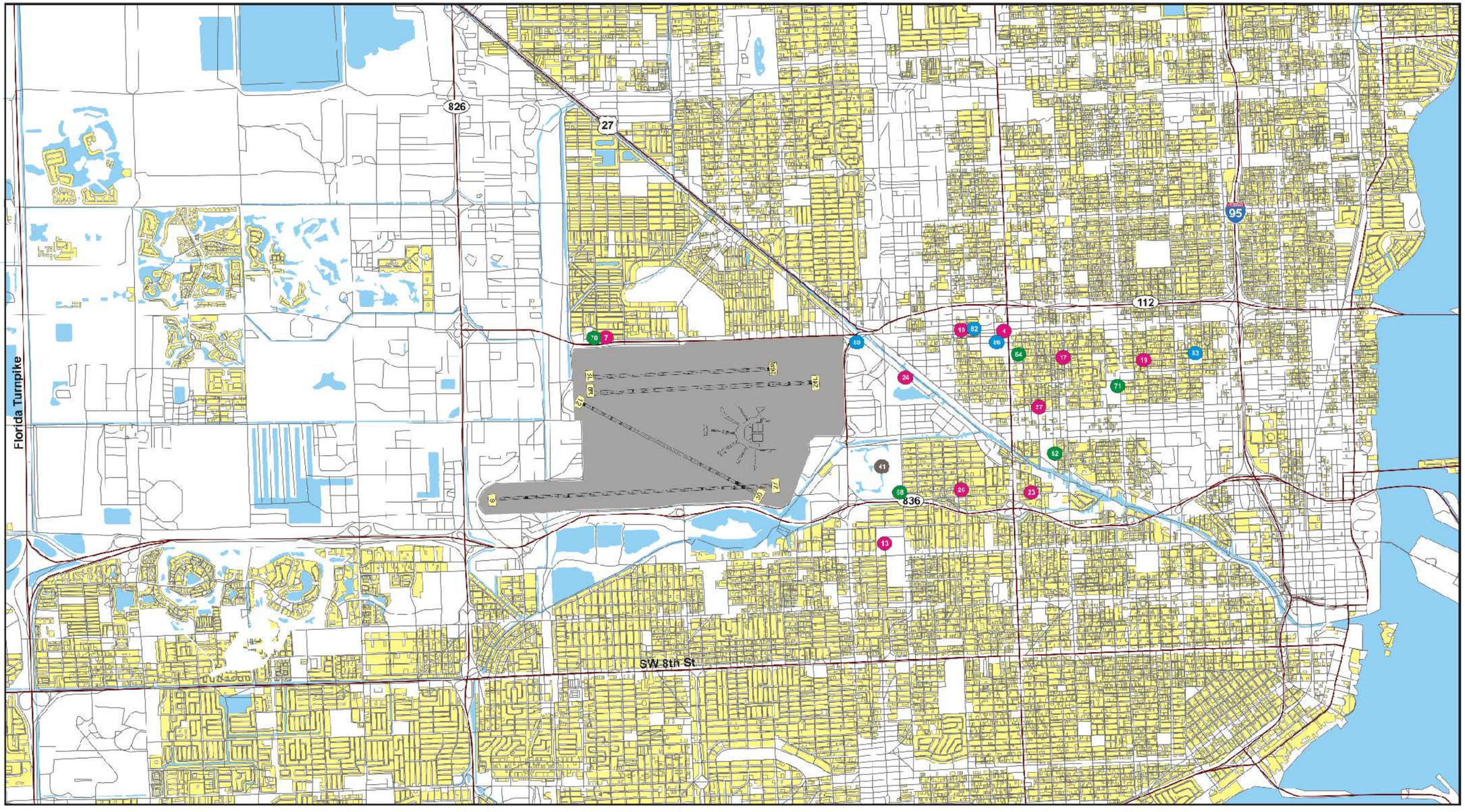
The majority of the land use located east of the Airport and below aircraft approach and departure corridors is residential. Other residential areas are located southeast of Runway 12-30, in areas immediately north of NW 36th Street, and in areas immediately south of the Airport's southern property boundary. Most of the existing land use west of the Airport is compatible with aircraft noise exposure, due to the preponderance of industrial development, however there is residential development to the west of MIA.

TABLE 3-2
2003 DNL NOISE LEVELS AT REPRESENTATIVE SENSITIVE SITES

Site	Description	Base Year 2003 - DNL
Churches		
C4	St Robert Bellarmine Church	66.2
C7	St John the Baptist Armenian Apostolic Church	65.7
C10	Melrose Free Methodist Church	66.4
C13	Ministerio Latino Americano	65.4
C17	Evangelistic Center	68.3
C19	Iglesia De Dios Rio De Agua Viva	66.5
C23	Lebanon Seventh Day Adventist Church	64.9
C24	Iglesia Sion Assemblies of God	75.2
C26	Iglesia Bautista Buenas Nuevas	67.0
C27	Iglesia Bautista de Jerusalem	66.0
Golf Course		
G41	Grapeland Heights Park Golf Course Club	67.4
Parks		
P62	Gerry Curtis Park	64.9
P68	Grapeland Heights Park	69.2
P70	Virginia Gardens Town Hall Park	65.4
P71	Allapattah Comstock Park	65.6
P64	Melrose Park (Stephen P. Clark Park)	69.5
Schools		
S82	Melrose	66.0
S83	Santa Clara	65.1
S86	Juvenile Justice Center	67.6
S88	Baker, George T. (Aviation School)	68.9

Source: ESA and HMMH

Representative Noise Sensitive Sites Within 65 DNL



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

84 School
13 Church
67 Park
41 Golf Course
Residential Land Use

N

Scale
0 2500 5000
Feet

Miami-Dade Aviation Department

MIA MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 3-4

Exhibit 3-5 depicts existing land use in the MIA general study area as developed by Miami-Dade County, Florida. Based on FAA guidelines, presented in FAA Order 1050.1E, and Federal Aviation Regulation (FAR) Part 150, land uses are considered to be compatible with aircraft noise exposure below the limits of the 65 DNL. These guidelines, in the form of tables, are provided in the Appendix. However, some residents in communities affected by noise levels below 65 DNL may consider noise to be problematic.

A comparison of the 2003 baseline 65, 70 and 75 DNL noise contours (previously shown on Exhibit 3-3) with the land uses presented on Exhibit 3-5 shows that some land uses within the noise contours are considered compatible and some are not. For example, residential land uses, schools, churches, and parks are considered noise-sensitive and are identified as incompatible when located in the 65 DNL or above noise contour. Commercial and industrial land uses are generally not sensitive to aircraft noise and are compatible at higher aircraft noise exposure ranges.

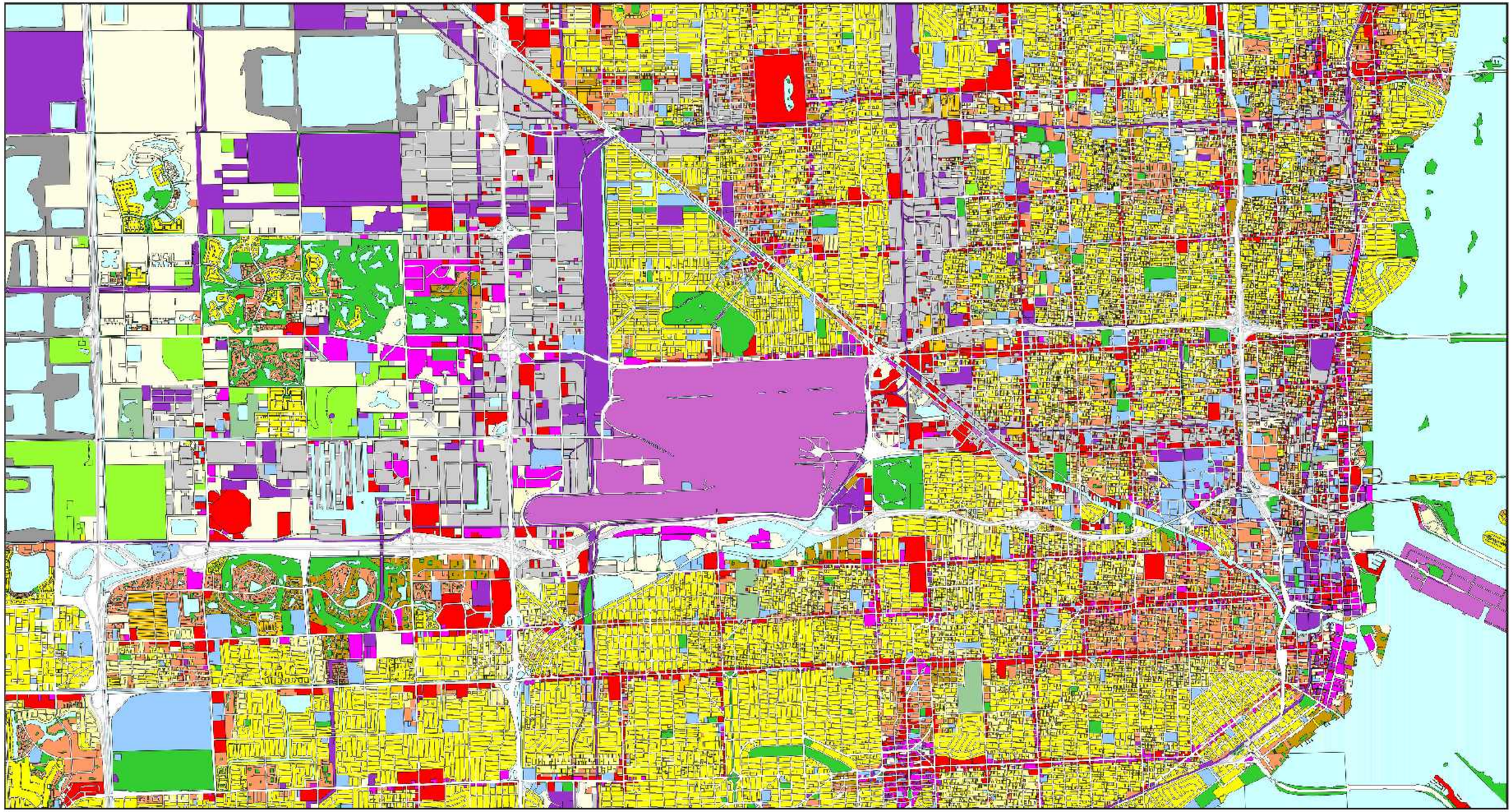
As shown on Exhibit 3-5, the majority of residential land uses within the 65 DNL occur to the east of the Airport, while most of the existing land use to the west is compatible due to the preponderance of industrially developed property. Under 2003 baseline conditions, approximately 994 acres of residential property occurred within the 65 DNL contour.

Although not within the limits of the 65 DNL or greater noise contour, two national parks are located beneath approach and departure paths of MIA. These include Biscayne Bay National Park and Everglades National Park. The 2003 DNL at representative sites within Biscayne Bay National Park range from 33 DNL (at Blockpoint) to 38 DNL (at Stiltsville). Representative sites within Everglades National Park range from 16 DNL (at Chekika Parking Lot) to 26 DNL (at Shark River Slough). These representative site locations were also used in the analysis of alternatives provided in Section 4 of this EA. The National Parks are shown on Exhibit 3-6.

Baseline Social and Socio-Economic Characteristics

Census 2000 adheres to the federal standards for collecting data on race and Hispanic origin as established by the Office of Management and Budget (OMB) in October 1997. Starting with Census 2000, the OMB requires federal agencies to use a minimum of five race categories: White; Black or African American; American Indian or Alaska Native; Asian; and Native Hawaiian or Other Pacific Islander. For respondents unable to identify with any of these five race categories, the OMB approved a sixth category – "Some other race" on the Census 2000 questionnaire. Census 2000 identified 2,253,362 persons resided in Miami-Dade County. The racial composition of the population within Miami-Dade County was 69.7 percent White, 20.3 percent Black or African American, 0.2 percent American Indian or Alaska Native, 1.4 percent Asian, 0.1 percent Native Hawaiian or Other Pacific Islander, and 4.6 percent some other race. The total minority (non-white) population within Miami-Dade County in 2000 was approximately 30.3

Existing Land Use Map



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

- Agriculture
- Airports/Ports
- Cemeteries
- Communications , Utilities, Terminals , Plants
- Industrial
- Industrial Extraction
- Institutional
- Low-Density Multi-Family
- Mobile Home Parks
- High-Density Multi-Family, Migrant Camps
- Office
- Parks (Including Preserves & Conservation)
- Shopping Centers, Commercial, Stadiums, Tracks
- Single-Family
- Streets/Roads, Expressways, Ramps
- Townhouses
- Transient-Residential (Hotels/Motels)
- Two-Family (Duplexes)
- Vacant: Unprotected
- Vacant:, Government Owned
- Vacant:, Protected, Privately Owned
- Water
- Water Conservation Areas

N

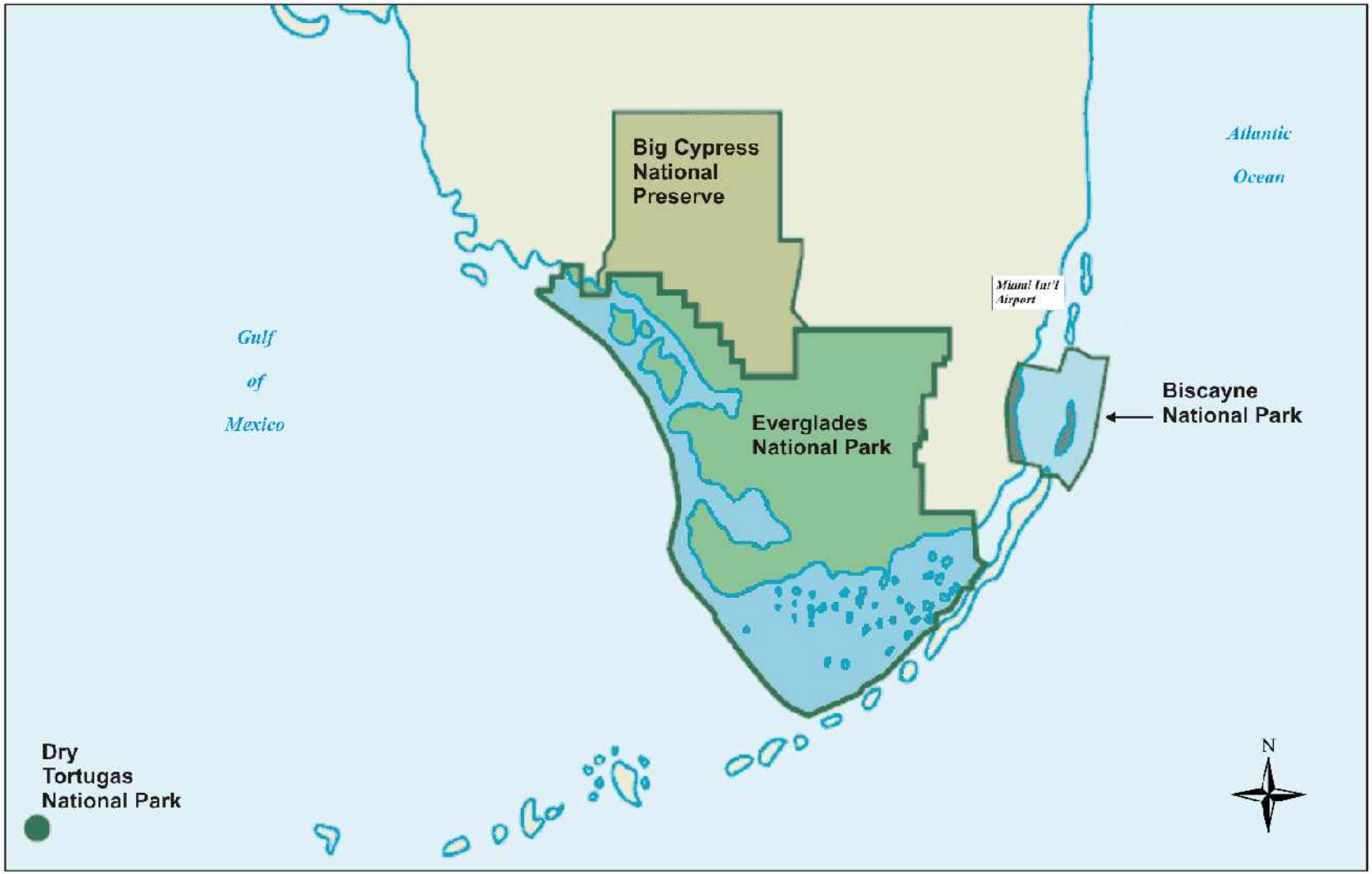
Miami-Dade Aviation Department

MIA MIAMI INTERNATIONAL AIRPORT

Exhibit 3-5

Basemap Source: Miami-Dade County

South Florida National Parks



percent of the total population. The population resided in a total of 852,278 housing units within Miami-Dade County.

AFFECTED ENVIRONMENT

Air traffic procedural actions are de minimus and therefore do not require air quality analysis; the air quality analysis provided in this document is for supplemental information only and is not used to determine whether or not there are significant impacts.

Air Quality

The U.S. Environmental Protection Agency (EPA) has National Ambient Air Quality Standards (NAAQS) for the following criteria air pollutants: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), particulate matter (PM), and lead (Pb). Following requirements of the Clean Air Act (CAA), air quality conditions within all areas of a state are designated with respect to the NAAQS as attainment, maintenance, non-attainment, or unclassifiable. Areas that meet the NAAQS are designated as attainment while areas that do not are designated as non-attainment.

Based on data collected in the Miami/Fort Lauderdale/West Palm Beach area prior to 1990, the EPA designated Broward, Miami-Dade, and Palm Beach counties as "moderate non-attainment" for the one-hour O_3 NAAQS. In 1993, the State of Florida requested that the area be re-designated from non-attainment to maintenance because no further violations of the O_3 NAAQS were recorded. The EPA approved the re-designation on April 25, 1995. Also, the one-hour O_3 NAAQS was revoked on June 15, 2005. The area is designated attainment for all of the other NAAQS.

The Miami-Dade County Department of Environmental Resources Management (DERM) prepared a base year (1990) regional emissions inventory of CO, VOCs and NO_x for Miami-Dade County. As shown in Table 3-3, the DERM estimated that, in 1990, aircraft operations at MIA contributed only 0.9, 1.4, and 3.2 percent of the area wide total of CO, VOC, and NO_x, respectively. This represents the most recent inventory provided by DERM.

Applicable Regulations

The CAA protects and enhances the Nation's air resources. In 1990, Congress revised the CAA to include more stringent and comprehensive measures to achieve and maintain the NAAQS. The 1990 Amendments to the CAA included: methods to achieve reductions in mobile source emissions (motor vehicles), regulations pertaining to hazardous air pollutants, acid rain controls, plans to phase out ozone-depleting chemicals, and revisions to enforcement sanctions for areas not meeting the NAAQS in a timely manner. An evaluation of the conformance of the proposed noise abatement plan to the CAA is provided in the Environmental Consequences Section of this EA.

TABLE 3-3
YEAR 1990 REGIONAL EMISSIONS INVENTORY

Source Type	Tons/Day		
	Carbon Monoxide	**Volatile Organic Compounds**	**Nitrogen Oxides**
Area	108.43	161.00	5.98
Point	6.42	11.46	41.30
On-Road	1,372.60	156.60	117.70
Non-Road	274.21	57.65	30.11
Biogenic	0.00	154.89	0.00
MIA	15.30	7.46	6.49
Total	1,776.96	548.06	201.58
% MIA of Total	**0.9%**	**1.4%**	**3.2%**

Source: Miami-Dade County Department of Environmental Resources Management.

SECTION 4: ENVIRONMENTAL CONSEQUENCES

The environmental impacts attributable to the Proposed Federal Action and No-Action Alternatives are discussed in the following sections of this document under impact categories identified in FAA Order 1050.1E. Order 1050.1E identifies nineteen environmental and socioeconomic impact categories to be evaluated during the preparation of an EA. Since the proposed actions evaluated in this EA are changes in air traffic operational procedures, a number of impact categories are not normally affected and have been determined not to require detailed analysis. These categories include: Water Quality; Fish, Wildlife and Plants; Wetlands; Floodplains; Coastal Resources, Hazardous Material, Pollution Prevention and Solid Waste; Wild and Scenic Rivers; Farmland, Light Emissions; and Visual Impacts; Natural Resources, Energy Supply and Sustainable Design; Socioeconomic Impacts and Children's Environmental Health and Safety Risks; and Construction Impacts. A brief summary of the reasons these impact categories do not apply to this EA are presented at the end of this section. Analyses for the remaining impact categories have been prepared for the Alternatives for the years 2005 and 2010.

4.1 NOISE

Noise is generally viewed as undesirable or unwanted sound or sound levels that can originate from a variety of sources including jet aircraft. This section of the document presents the projected 2005 and 2010 noise conditions with and without the proposed new noise abatement procedures.

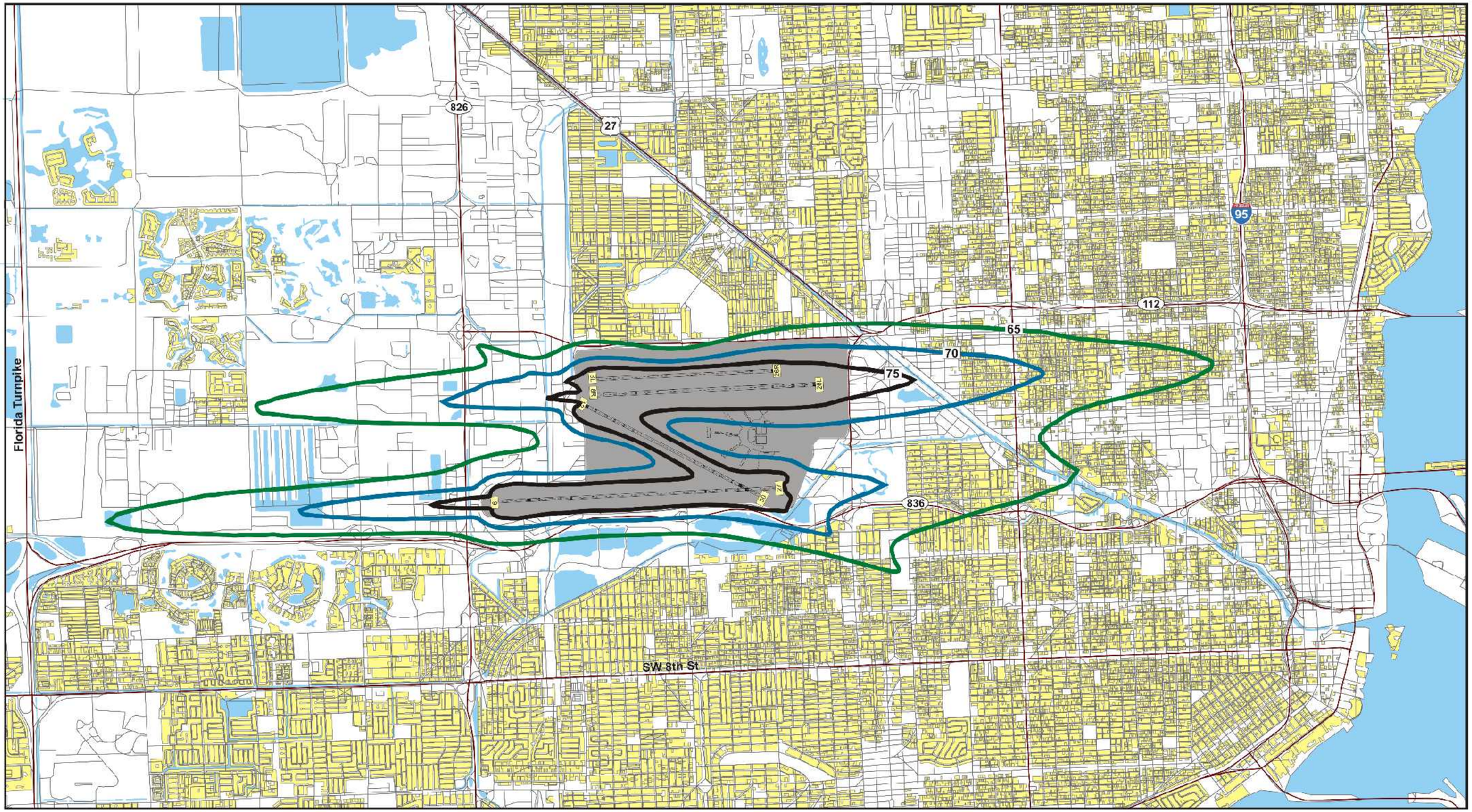
The FAA has determined that a significant noise impact would occur if a detailed noise analysis indicates that the proposed action results in an increase within the 65 DNL contour of 1.5 dB or greater on any noise sensitive area when compared to the No-Action Alternative. Noise sensitive areas as described in Order 1050.1E are areas in which aircraft noise may interfere with the normal activities associated with the particular uses of the land. Noise sensitive areas may include residential neighborhoods; educational, health, and religious facilities; and outdoor recreational, cultural and historic sites.

For the No-Action Alternative and Proposed Action Alternative the analyses includes the preparation of 65, 70 and 75 DNL contours; the determination of the square miles within each noise contour; DNL values at representative noise sensitive sites within the 65 DNL; and a grid analysis that identifies whether any noise sensitive areas (residential areas, for example) within the 65 DNL contours would have a 1.5 DNL increase when comparing the No-Action Alternative and Proposed Action Alternative.

Future No-Action Noise Contours

2005: The future no action condition flight tracks would be the same as those shown previously in Exhibits 3-1 and 3-2. Exhibit 4-1 presents the year 2005 No-Action noise contours. A comparison of these contours with the 2003 baseline condition provided previously in Exhibit 3-3 indicates that the year 2005 contours would slightly increase in size due to the increase in forecast operations. As shown on Table 4-1, approximately

2005 No-Action DNL Contours



65 DNL
70 DNL
75 DNL

Residential Land Use

N

Scale
0 2500 5000
Feet

Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

Basemap Source: Miami-Dade County

Exhibit 4-1

12.75 square miles of land is included in the 65 DNL No-Action noise contour for the year 2005. This is an increase of approximately 0.14 square miles over the 2003 baseline condition. As shown in Table 4-2, the No-Action 65 DNL contour contains 38,972 people

TABLE 4-1
AREA (SQUARE MILES) WITHIN THE 65, 70, AND 75 DNL CONTOURS
BASELINE 2003 AND FUTURE NO-ACTION 2005 AND 2010

Alternative	65-70 DNL	70-75 DNL	Greater Than 75 DNL	TOTAL
Baseline 2003	7.448	2.991	2.167	12.606
No-Action (2005)	7.501	3.030	2.214	12.745
No-Action (2010)	7.696	3.103	2.248	13.047

Source: HMMH

TABLE 4-2
POPULATION WITHIN THE 65, 70, AND 75 DNL CONTOURS
BASELINE 2003 AND FUTURE NO-ACTION 2005 AND 2010

Alternative	Total Population Within the 65 to 70 DNL	Total Population Within the 70 to 75 DNL	Total Population Within the 75 and Greater DNL	TOTALS
Baseline 2003	34,801	3,853	0	38,654
No-Action (2005)	35,161	3,811	0	38,972
No-Action (2010)	36,748	3,762	0	40,510

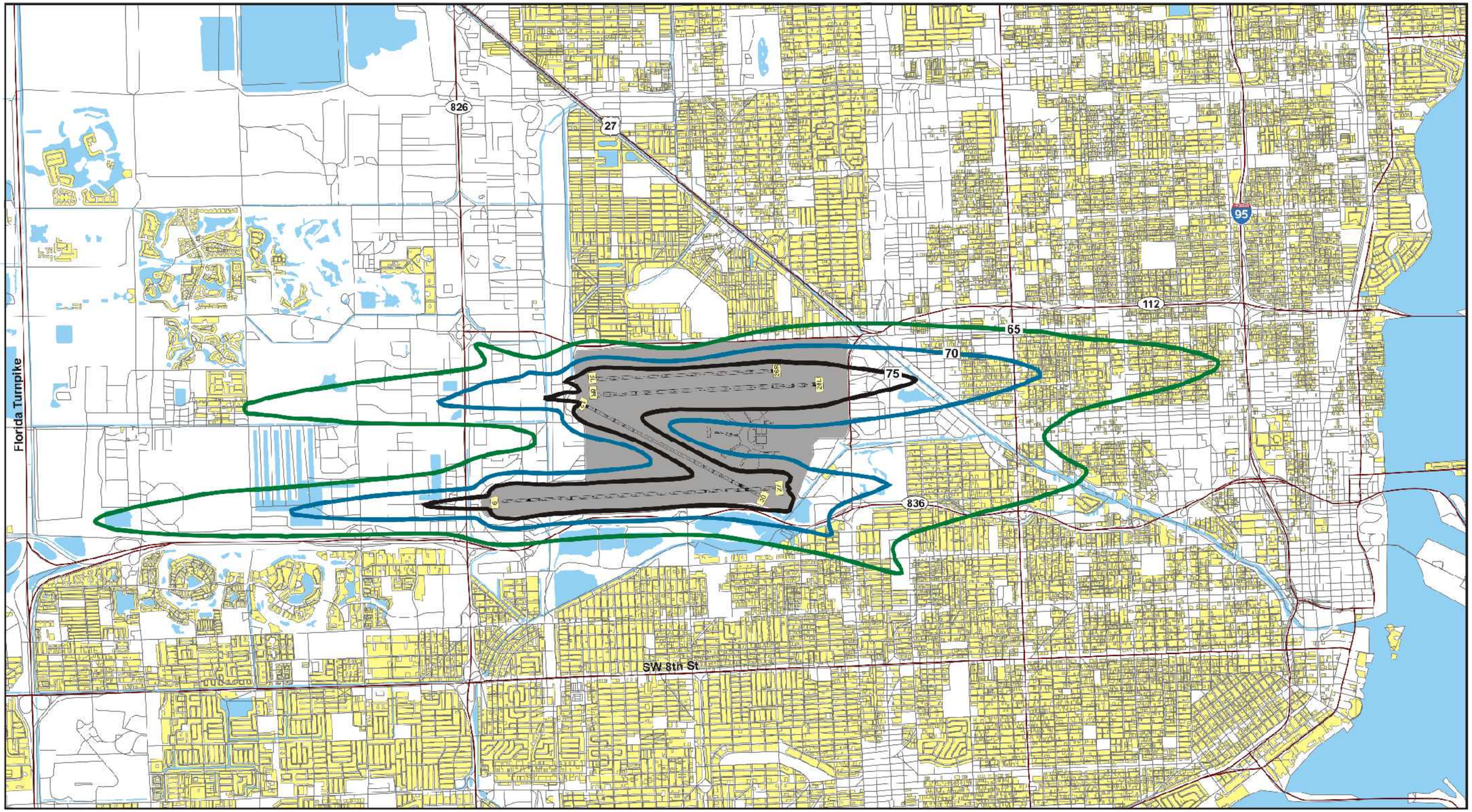
Source: ESA

2010: Exhibit 4-2 presents the No-Action Alternative noise contours for the year 2010. A comparison with the 2003 baseline contours shows that the area within the contours also increases as a result of the increase in forecast operations. Table 4-1 identifies the area within noise contours for the 2010 No-Action Alternative. Table 4-2 indicates that the total population within the 2010 No-Action would be 40,510 people or an increase of approximately 4 percent from the 2005 condition. This change is due to an increase in overall aircraft (increasing the noise exposure) projected to occur by 2010.

Table 4-3 presents the year 2005 and 2010 DNL noise levels at the noise sensitive sites for the No-Action Alternative. As can be seen by comparing the 2003 baseline condition DNL values with those for the future in both 2005 and 2010 No-Action, the DNL is increased typically from 0 to 0.4 DNL in 2005 and 0 to 0.5 DNL in 2010.

The DNL values provided in Tables 4-1 through 4-3 form the basis from which the benefits of the noise abatement alternatives will be measured.

2010 No-Action DNL Contours



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

65 DNL
70 DNL
75 DNL

Residential Land Use

N

Scale
0 2500 5000
Feet

Miami-Dade Aviation Department

MIA MIAMI INTERNATIONAL AIRPORT

Exhibit 4-2

Basemap Source: Miami-Dade County

TABLE 4-3
2005 AND 2010 NO-ACTION DNL VALUES AT NOISE SENSITIVE SITES
COMPARED TO 2003 DNL VALUES

Site	Description		No-Action	Change	No-Action	Change
		2003	2005		2010	
Churches						
C4	St Robert Bellarmine Church	66.2	66.3	+0.1	66.2	0.0
C7	St John the Baptist Armenian Apostolic Church	65.7	66.1	+0.4	66.2	+0.5
C10	Melrose Free Methodist Church	66.4	66.5	+0.1	66.5	+0.1
C13	Ministerio Latino Americano	65.4	65.5	+0.1	65.5	+0.1
C17	Evangelistic Center	68.3	68.3	0.0	68.3	0.0
C19	Iglesia De Dios Rio De Agua Viva	66.5	66.4	-0.1	66.5	0.0
C23	Lebanon Seventh Day Adventist Church	64.9	65.0	+0.1	65.2	+0.3
C24	Iglesia Sion Assemblies of God	75.2	75.1	-0.1	75.0	-0.2
C26	Iglesia Bautista Buenas Nuevas	67.0	67.0	0.0	67.2	+0.2
C27	Iglesia Bautista de Jerusalem	66.0	66.0	0.0	66.1	+0.1
Golf Course						
G41	Grapeland Heights Park Golf Course Club	67.4	67.5	+0.1	67.6	+0.2
Parks						
P62	Gerry Curtis Park	64.9	65.0	+0.1	65.1	+0.2
P68	Grapeland Heights Park	69.2	69.3	+0.1	69.4	+0.2
P70	Virginia Gardens Town Hall Park	65.4	65.7	+0.3	65.8	+0.4
P71	Allapattah Comstock Park	65.6	65.6	0.0	65.7	+0.1
P64	Melrose Park (Stephen P. Clark Park)	69.5	69.5	0.0	69.5	0.0
Schools						
S82	Melrose	66.0	66.1	+0.1	66.1	+0.1
S83	Santa Clara	65.1	65.0	-0.1	65.2	+0.1
S86	Juvenile Justice Center	67.6	67.7	+0.1	67.6	0.0
S88	Baker, George T. (Aviation School)	68.9	69.0	+0.1	69.1	+0.2

Source: ESA and HMMH

NOISE ANALYSIS OF PROCEDURES

As identified in Section 2, the Proposed Action Alternative involves the combination of four (4) procedures. The following presents the noise analysis that was evaluated for the Proposed Action (the combination of Procedures 1, 2, 3, and 4) and for each of the procedures independently.

Proposed Federal Action (Combination of Procedures 1, 2, 3, and 4)

The Proposed Federal Action is the combination of the four Procedures designed to provide an overall reduction in residential noise exposure in communities around MIA that are currently experiencing noise above 65 DNL. Redirecting aircraft departures to the west at night over industrial and vacant lands to the extent practical will reduce noise to residents on the east side of the Airport affected by the noise at 65 DNL or greater. The three remaining procedures are designed to reduce aircraft dispersion over residential areas, both below and above 65 DNL, and redirect them over more compatible land uses or bodies of water.

Exhibits 4-3 and 4-4 provide the noise contours associated with the Proposed Federal Action for the years 2005 and 2010, respectively. A comparison of the No-Action contours with the Proposed Federal Action contours indicates that the combination of procedures results in a narrowing of the DNL contours east of MIA and a widening of the DNL contours to the west, but does not impact the residential (or other noise sensitive) areas to the west. East of the airport, only a small area to the southeast of the Runway 30 threshold experiences an increase in the size of the 65 DNL contour. This increase occurs over a commercial area (pari-mutuel facility) parking lot adjacent to an active roadway, thus no mitigation is necessary.

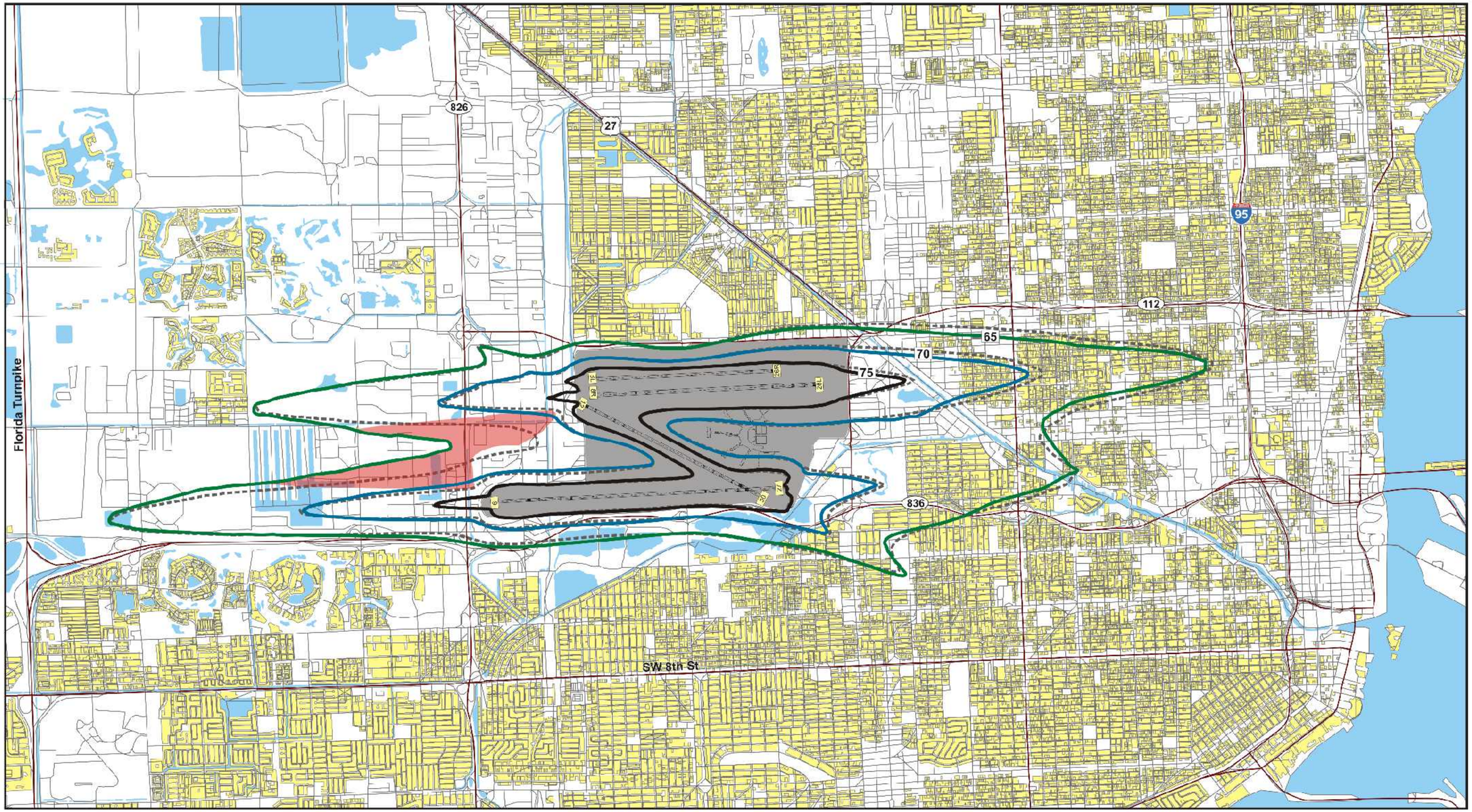
As presented in Table 4-4, with the Proposed Federal Action, the overall area within the 65 DNL noise contour increases from 12.7 to 13.1 square miles in 2005 and increases from 13.0 to 13.4 square miles in 2010 when compared to the No-Action Alternative. Table 4-5 shows that in 2005 with the Proposed Federal Action a population reduction of approximately 3,653 people would occur in the 65 DNL contour compared to the 2005 No-Action. In 2010, this reduction would be approximately 3,647 people. A substantial portion of the reduction would occur within the 70 DNL contour.

TABLE 4-4
AREA (SQUARE MILES) WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROPOSED ACTION (2005 AND 2010)

Alternative	65-70 DNL	70-75 DNL	Greater Than 75 DNL	Total in 65 DNL
No-Action (2005)	7.501	3.030	2.214	12.745
Proposed Action (2005)	7.917	3.004	2.197	13.118
No-Action (2010)	7.696	3.103	2.248	13.047
Proposed Action (2010)	8.097	3.071	2.233	13.401

Source: HMMH

2005 No-Action DNL Contours vs. Proposed Federal Action



65 DNL
70 DNL
75 DNL
No-Action Contour

Residential Land Use
Area of 1.5 DNL Increase Within 65 DNL

It should be noted that no residential area or other noise sensitive site will experience a 1.5 or greater DNL increase within the 65 DNL with the proposed action

N

Scale
0 2500 5000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures Environmental Assessment

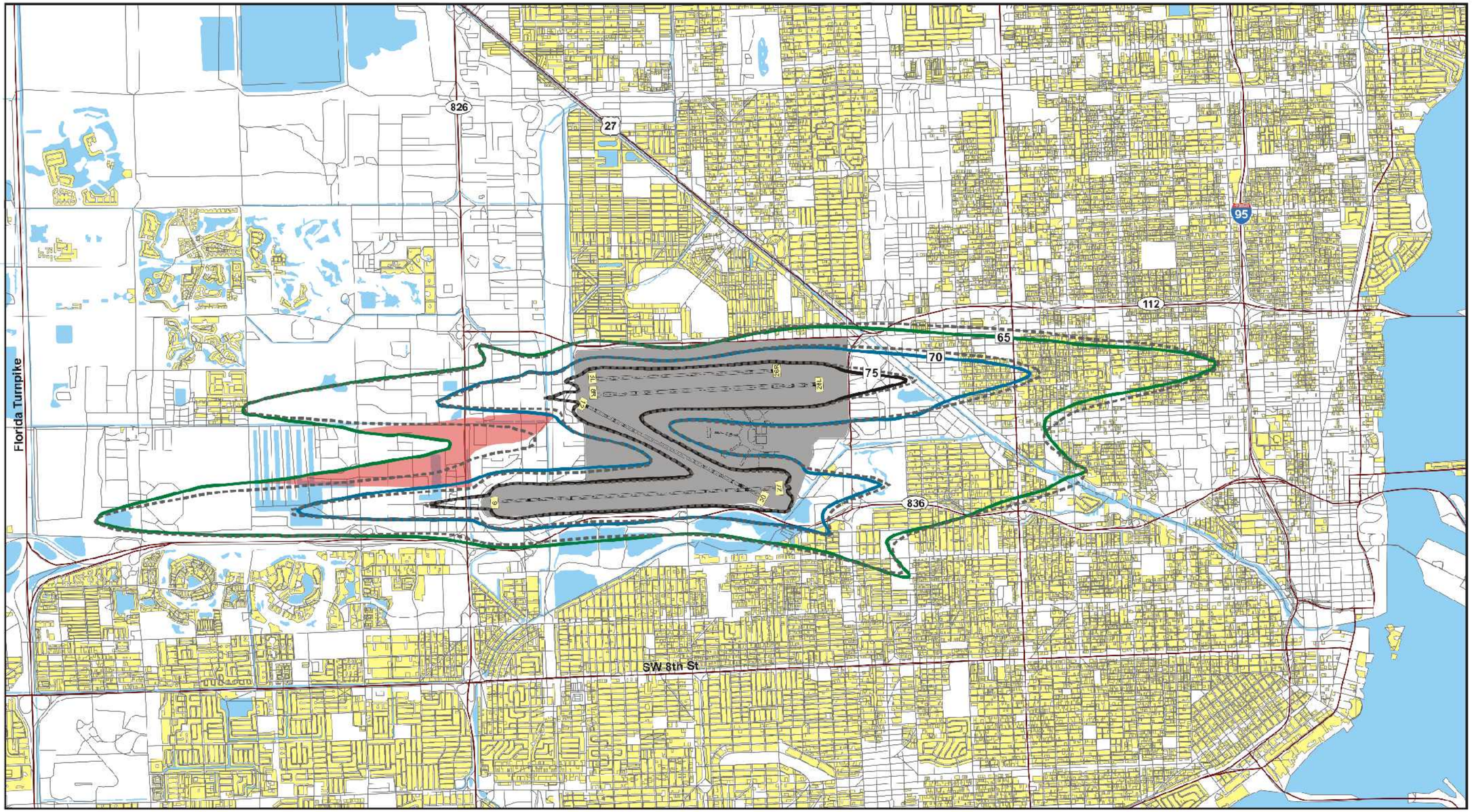
Miami-Dade Aviation Department

MIA MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 4-3

2010 No-Action DNL Contours vs. Proposed Federal Action



MIAMI-DADE

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65 DNL
70 DNL
75 DNL
No-Action Contour

Residential Land Use
Area of 1.5 DNL Increase Within 65 DNL

It should be noted that no residential area or other noise sensitive site will experience a 1.5 or greater DNL increase within the 65 DNL with the proposed action

N

Scale
0 2500 5000
Feet

Miami-Dade Aviation Department

MIA MIAMI INTERNATIONAL AIRPORT

Exhibit 4-4

Basemap Source: Miami-Dade County

TABLE 4-5
POPULATION WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROPOSED FEDERAL ACTION (2005 AND 2010)

Year	Alternative	Total Population in the 65-70 DNL	Total Population in the 70-75 DNL	Total Population in the 75 DNL and Greater	TOTALS
2005	2005 No-Action	35,161	3,811	0	38,972
	Proposed Federal Action	32,880	2,439	0	35,319
	Change Compared to No-Action	***-2,281***	***-1,372***	***0***	***-3,653***
2010	2010 No-Action	36,747	3,762	0	40,509
	Proposed Federal Action	34,343	2,519	0	36,862
	Change Compared to No-Action	***-2,404***	***-1,243***	***0***	***-3,647***

Source: ESA

Table 4-6 identifies the Proposed Federal Action DNL values at noise sensitive sites and the change from the No-Action conditions in 2005 and 2010. In 2005, the DNL change with the Proposed Federal Action compared to the No-Action condition occurs at 19 sites with 18 being reductions and 1 site increasing in noise exposure. The changes from the No-Action condition range from +0.1 DNL to –1.5 DNL in 2005. As shown in Table 4-6, in 2010, a DNL change occurs at 17 sites with 16 being reductions and 1 increasing in noise exposure. The changes compared to the No-Action condition in 2010 also range from + 0.1 DNL to – 1.5 DNL. As presented in Table 4-6, no sensitive site within the 65 DNL has a change of 1.5 DNL or greater from the No-Action condition and, as indicated, the large majority of sensitive sites reduce in DNL values.

In addition to noise sensitive site evaluations, an analysis was conducted to determine if any residential areas within the 65 DNL would result in a 1.5 DNL or greater increase. This was accomplished by developing a grid analysis and overlaying the grid on residential areas within the 65 DNL. The grid analysis, in effect, compares the 2010 DNL No-Action grid values with those generated by the Proposed Action for 2010 for each grid point. The analysis indicated that no residential area within the 65 DNL would have an increase of 1.5 DNL or greater.

The noise benefits to residents to the east of MIA currently experiencing aircraft noise at 65 DNL or greater are primarily the result of the noise reductions gained by maximizing nighttime flow to the west. Although the noise contours would increase to the west, the increase would occur over industrial and commercial property and not over residential areas. Benefits to residents currently exposed to noise levels less than 65 DNL would be derived from the reduction in aircraft dispersion associated with Procedures 3 and 4 to the east and Procedure 1 to the west. The Proposed Federal Action results in a noise reduction for people living outside the 65 DNL by directing aircraft to fly over water bodies and compatible lands to the greatest extent possible.

FAA regulations require that new flight procedures that routinely route air traffic over residential areas also be evaluated for noise exposure at altitudes between 3,000 feet and 10,000 feet AGL. A screening analysis, using the Air Traffic Noise Screening Model

TABLE 4-6
2005 AND 2010 PROPOSED FEDERAL ACTION DNL VALUES AT NOISE SENSITIVE SITES COMPARED TO THE NO-ACTION ALTERNATIVE

Site	Description	No-Action	Proposed Action	Change	No-Action	Proposed Action	Change
		2005	2005		2010	2010	
Churches							
C4	St Robert Bellarmine Church	66.3	64.9	-1.4	66.2	64.9	-1.3
C7	St John the Baptist Armenian Apostolic Church	66.1	66.0	-0.1	66.2	66.2	0.0
C10	Melrose Free Methodist Church	66.5	65.1	-1.4	66.5	65.1	-1.4
C13	Ministerio Latino Americano	65.5	65.1	-0.4	65.5	65.2	-0.3
C17	Evangelistic Center	68.3	67.8	-0.5	68.3	67.9	-0.4
C19	Iglesia De Dios Rio De Agua Viva	66.4	66.3	-0.1	66.5	66.5	0.0
C23	Lebanon Seventh Day Adventist Church	65.0	64.5	-0.5	65.2	64.7	-0.5
C24	Iglesia Sion Assemblies of God	75.1	74.7	-0.4	75.0	74.8	-0.2
C26	Iglesia Bautista Buenas Nuevas	67.0	66.3	-0.7	67.2	66.5	-0.7
C27	Iglesia Bautista de Jerusalem	66.0	65.3	-0.7	66.1	65.4	-0.7
Golf Course							
G41	Grapeland Heights Park Golf Course Club	67.5	67.0	-0.5	67.6	67.1	-0.5
Parks							
P62	Gerry Curtis Park	65.0	65.1	+0.1	65.1	65.2	+0.1
P68	Grapeland Heights Park	69.3	68.7	-0.6	69.4	68.9	-0.5
P70	Virginia Gardens Town Hall Park	65.7	65.7	0.0	65.8	65.8	0.0
P71	Allapattah Comstock Park	65.6	65.0	-0.6	65.7	65.1	-0.6
P64	Melrose Park (Stephen P. Clark Park)	69.5	68.6	-0.9	69.5	68.6	-0.9
Schools							
S82	Melrose	66.1	64.6	-1.5	66.1	64.6	-1.5
S83	Santa Clara	65.0	64.9	0.1	65.2	65.0	-0.2
S86	Juvenile Justice Center	67.7	66.3	-1.4	67.6	66.3	-1.3
S88	Baker, George T. (Aviation School)	69.0	68.0	-1.0	69.1	68.0	-1.1

Source: ESA and HMMH

(ATNS), was prepared to determine if any communities would receive a 5 dB increase in noise exposure as a result of the Proposed Action. The screening, accomplished by the FAA, indicated that no areas would receive an increase of 5 dB or greater. Thus, no further analysis of high altitude operations was required. The results of the screening model are provided in Appendix C.

The following presents the independent noise analysis of each of the four (4) procedures that compose the Proposed Action.

Procedure 1 - Modification of West Flow Departure Procedures (Day and Night)

Exhibits 4-5 and 4-6 provide the noise contours associated with Procedure 1 for the years 2005 and 2010 respectively. The modification of west flow departure procedures results in little change to the west compared to the No-Action Alternative (although there is a slight narrowing of the noise contours west of MIA). This is a result of most turbojet departures to the west maintaining runway heading and not turning until beyond the limits of the 65 DNL contour. The benefit of this Alternative is to areas immediately south and north of the westerly departure paths off the Runway 26 system beyond the 65 DNL limits as aircraft would gain altitude over predominately industrial land prior to turning north or south. In addition, departures at night are directed to pass further south of the Doral area, reducing flyovers of this community. These benefits would also occur beyond the limits of the 65 DNL. No areas to the east of the Airport would be affected by Procedure 1.

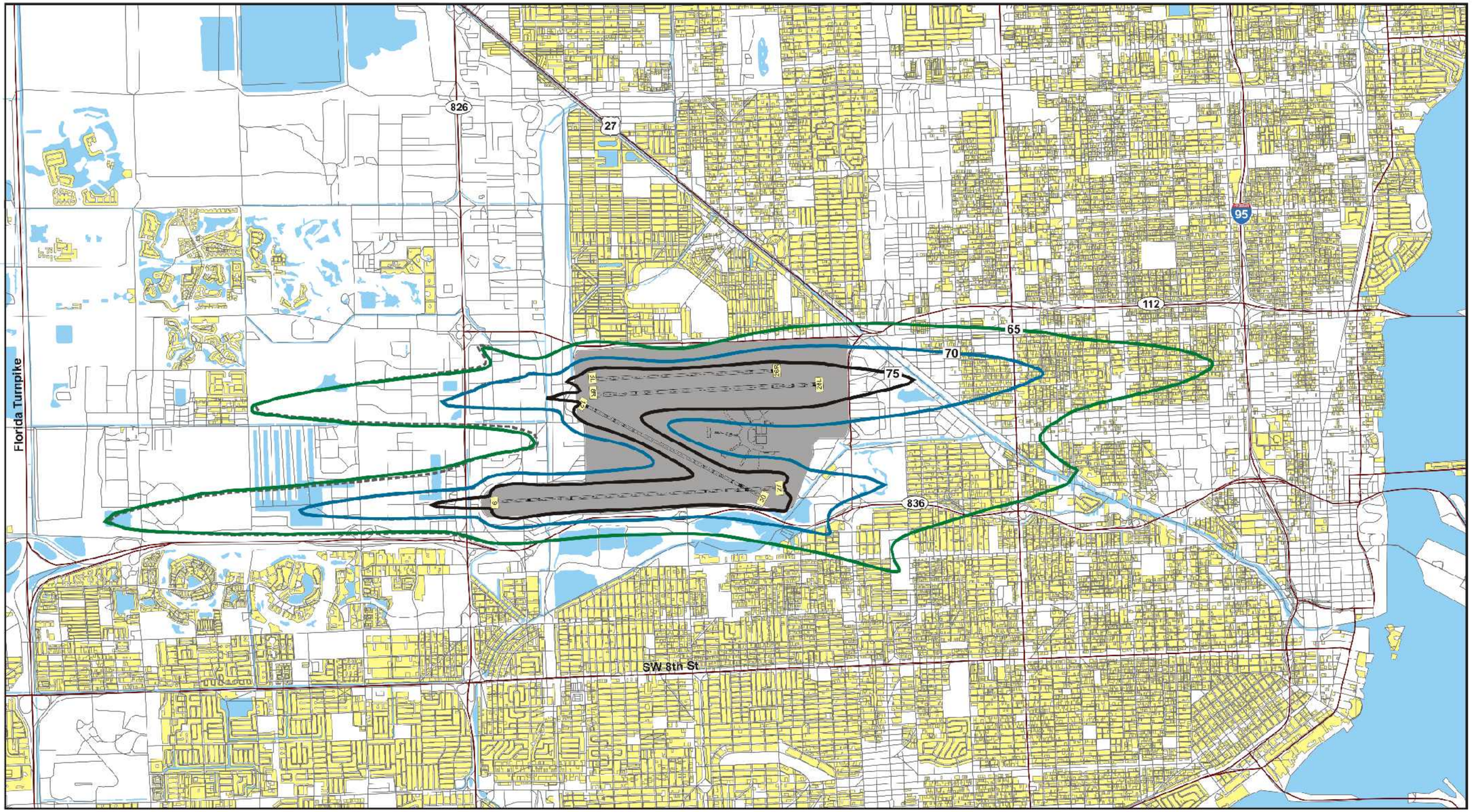
Tables 4-7 and 4-8 indicate the areas of exposure within the contour ranges with Procedure 1 and the population affected. With Procedure 1 the area within the contour and population are substantially the same as the No-Action alternatives in both 2005 and 2010. The benefits of this Procedure are primarily gained beyond the 65 DNL as close-in flyovers of residential areas are avoided.

TABLE 4-7
AREA (SQUARE MILES) WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROCEDURE 1 (2005 AND 2010)

Alternative	65-70 DNL	70-75 DNL	Greater Than 75 DNL	TOTAL
No-Action (2005)	7.501	3.030	2.214	12.745
Procedure 1 (2005)	7.573	3.032	2.214	12.819
No-Action (2010)	7.696	3.103	2.248	13.047
Procedure 1 (2010)	7.775	3.104	2.248	13.127

Source: HMMH

2005 No-Action DNL Contours vs. Procedure 1



DNL Contours

- 65 DNL
- 70 DNL
- 75 DNL
- No-Action Contour
- Residential Land Use

N

Scale
0 2500 5000
Feet

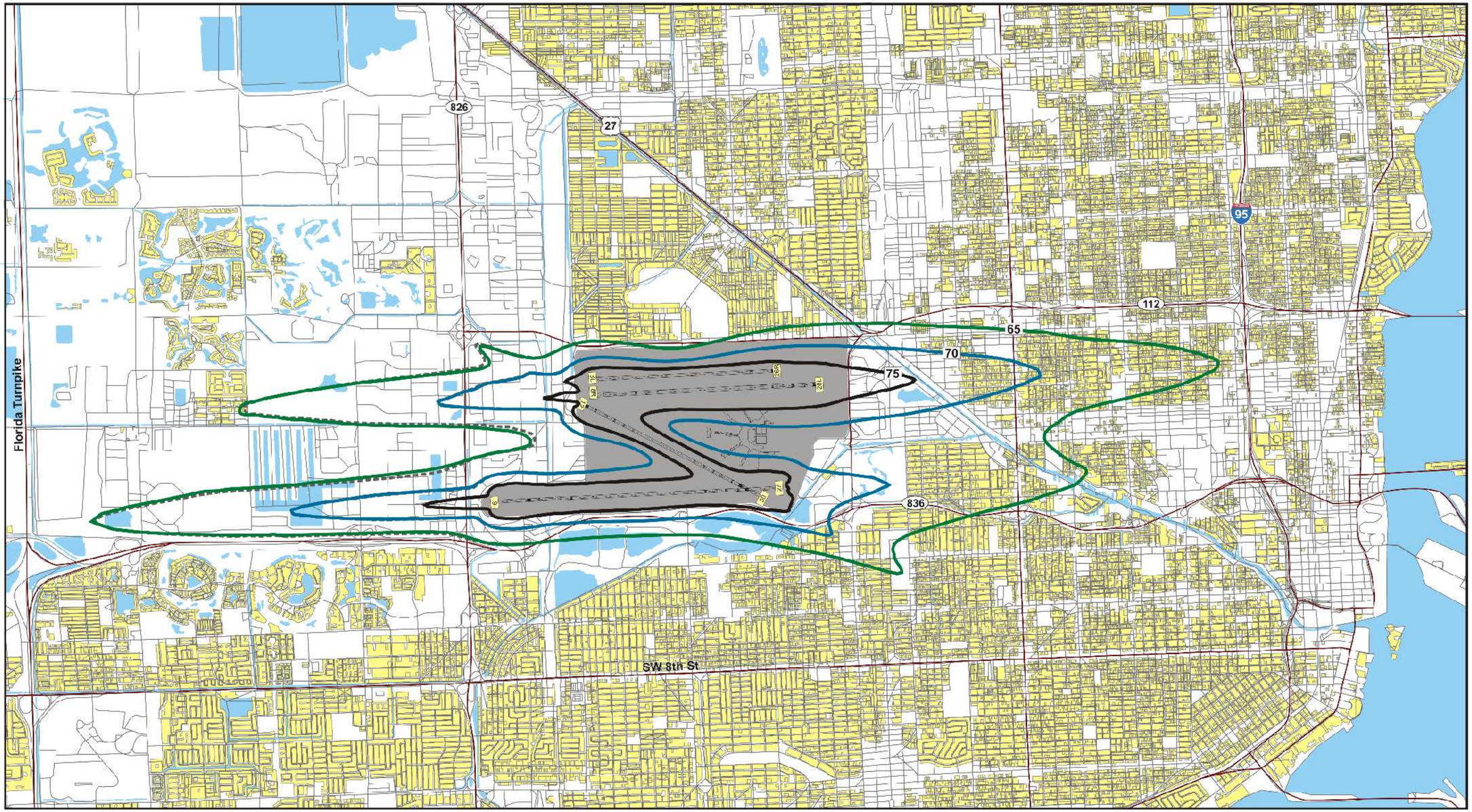
Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

Basemap Source: Miami-Dade County

Exhibit 4-5

2010 No-Action DNL Contours vs. Procedure 1



DNL Contours

65 DNL

70 DNL

75 DNL

No-Action Contour

Residential Land Use

N

Scale

0 2500 5000

Feet

Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

Basemap Source: Miami-Dade County

Exhibit 4-6

TABLE 4-8
POPULATION WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROCEDURE 1 (2005 AND 2010)

Year	Alternative	Total Population in the 65 -70 DNL	Total Population in the 70-75 DNL	Total Population in the 75 DNL and Greater	TOTALS
2005	2005 No-Action	35,161	3,811	0	38,972
	Procedure 1	35,145	3,811	0	38,956
	Change Compared to No-Action	***-16***	***0***	***0***	***-16***
2010	2010 No-Action	36,747	3,762	0	40,509
	Procedure 1	36,744	3,762	0	40,506
	Change Compared to No-Action	***-3***	***0***	***0***	***-3***

Source: ESA

Table 4-9 identifies the Procedure 1 DNL values at noise sensitive sites and compares the change from the No-Action conditions in both 2005 and 2010, respectively. The DNL values at all sensitive sites do not change as a result of Procedure 1. Thus, no sensitive site within the 65 DNL has an increase of 1.5 DNL or greater from the No-Action condition. As presented previously in this report, an increase of 1.5 DNL within the 65 DNL represents a significant change in noise exposure and thus, is a key consideration for all Alternative analyses.

Procedure 2 - Maximization of West Flow at Night

Exhibits 4-7 and 4-8 provide the noise contours associated with Procedure 2 for the years 2005 and 2010. A comparison of the Procedure 2 contours with the No-Action contours indicates that the maximization of west flow results in a narrowing and slight lengthening of the DNL contours east of MIA and a slight widening of the DNL contours to the west. This is a result of increasing the percentage of departures to the west during nighttime hours (11:00 p.m. to 6:00 a.m.) with the narrowing of the contours representing a benefit to those living east of the Airport. The slight increase in contour length east of the Airport is due to the increase in the number of arriving aircraft along the centerline of approach.

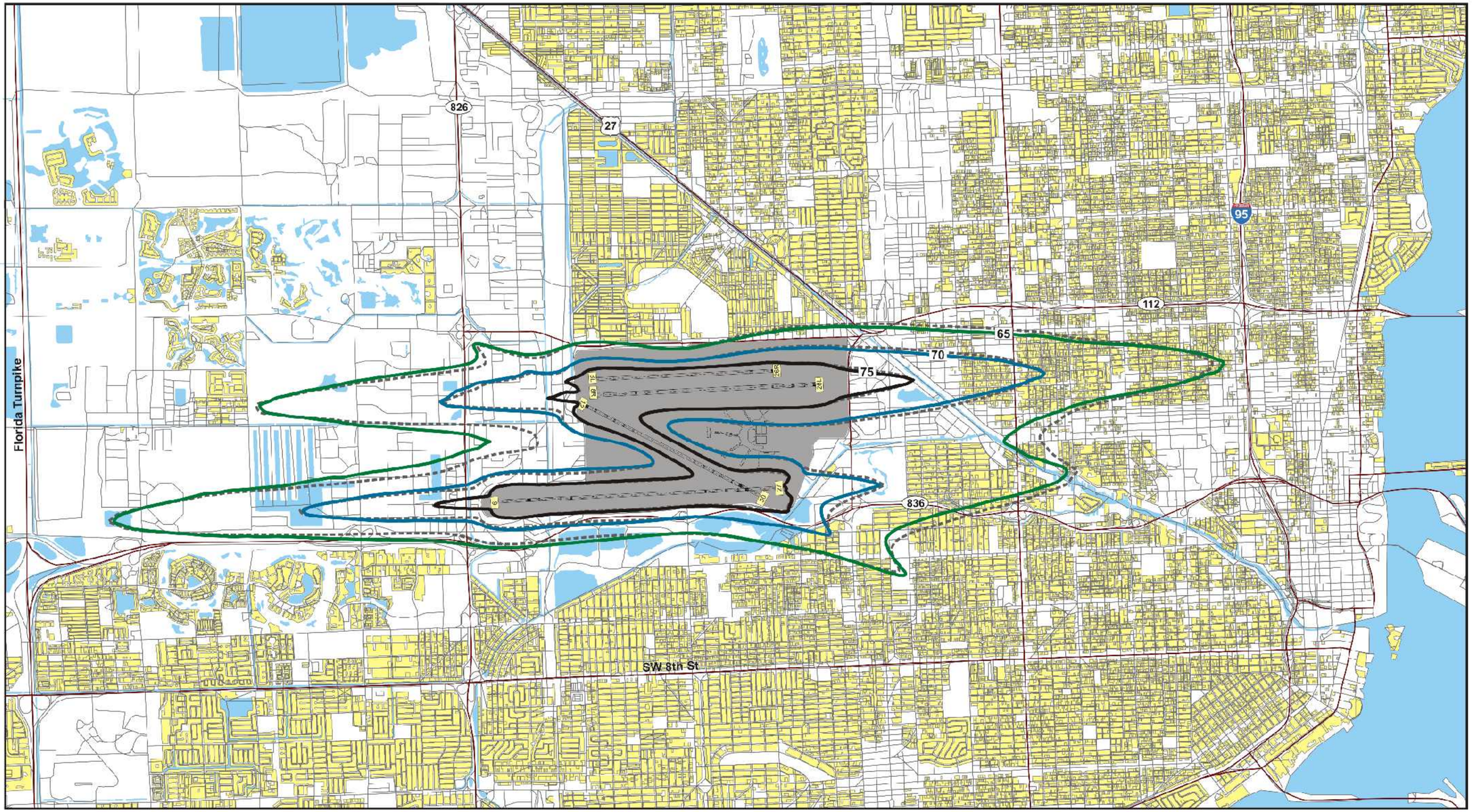
Tables 4-10 and 4-11 indicate the areas of exposure within the contour ranges with Procedure 2 and the population affected. With Procedure 2, the area within the contour is substantially the same as the No-Action alternatives in both 2005 and 2010. As shown in Table 4-11, a population reduction of approximately 1,881 people would occur in 2005 and 1,965 people in 2010 with Procedure 2 when compared with the No-Action Alternative in these years.

TABLE 4-9
2005 and 2010 PROCEDURE 1 DNL VALUES AT NOISE SENSITIVE SITES
COMPARED TO THE NO-ACTION ALTERNATIVE

Site	Description	No-Action	Procedure 1	Change	No-Action	Procedure 1	Change
		2005	2005		2010	2010	
Churches							
C4	St Robert Bellarmine Church	66.3	66.3	0.0	66.2	66.2	0.0
C7	St John the Baptist Armenian Apostolic Church	66.1	66.1	0.0	66.2	66.2	0.0
C10	Melrose Free Methodist Church	66.5	66.5	0.0	66.5	66.5	0.0
C13	Ministerio Latino Americano	65.5	65.5	0.0	65.5	65.5	0.0
C17	Evangelistic Center	68.3	68.3	0.0	68.3	68.3	0.0
C19	Iglesia De Dios Rio De Agua Viva	66.4	66.4	0.0	66.5	66.5	0.0
C23	Lebanon Seventh Day Adventist Church	65.0	65.0	0.0	65.2	65.2	0.0
C24	Iglesia Sion Assemblies of God	75.1	75.1	0.0	75.0	75.0	0.0
C26	Iglesia Bautista Buenas Nuevas	67.0	67.0	0.0	67.2	67.2	0.0
C27	Iglesia Bautista de Jerusalem	66.0	66.0	0.0	66.1	66.1	0.0
Golf Course							
G41	Grapeland Heights Park Golf Course Club	67.5	67.5	0.0	67.6	67.6	0.0
Parks							
P62	Gerry Curtis Park	65.0	65.0	0.0	65.1	65.1	0.0
P68	Grapeland Heights Park	69.3	69.3	0.0	69.4	69.4	0.0
P70	Virginia Gardens Town Hall Park	65.7	65.7	0.0	65.8	65.8	0.0
P71	Allapattah Comstock Park	65.6	65.6	0.0	65.7	65.7	0.0
P64	Melrose Park (Stephen P. Clark Park)	69.5	69.5	0.0	69.5	69.5	0.0
Schools							
S82	Melrose	66.1	66.1	0.0	66.1	66.1	0.0
S83	Santa Clara	65.0	65.0	0.0	65.2	65.2	0.0
S86	Juvenile Justice Center	67.7	67.7	0.0	67.6	67.6	0.0
S88	Baker, George T. (Aviation School)	69.0	69.0	0.0	69.1	69.1	0.0

Source: ESA and HMMH

2005 No-Action DNL Contours vs. Procedure 2



DNL Contours

- 65 DNL
- 70 DNL
- 75 DNL
- No-Action Contour
- Residential Land Use

N

Scale
0 2500 5000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

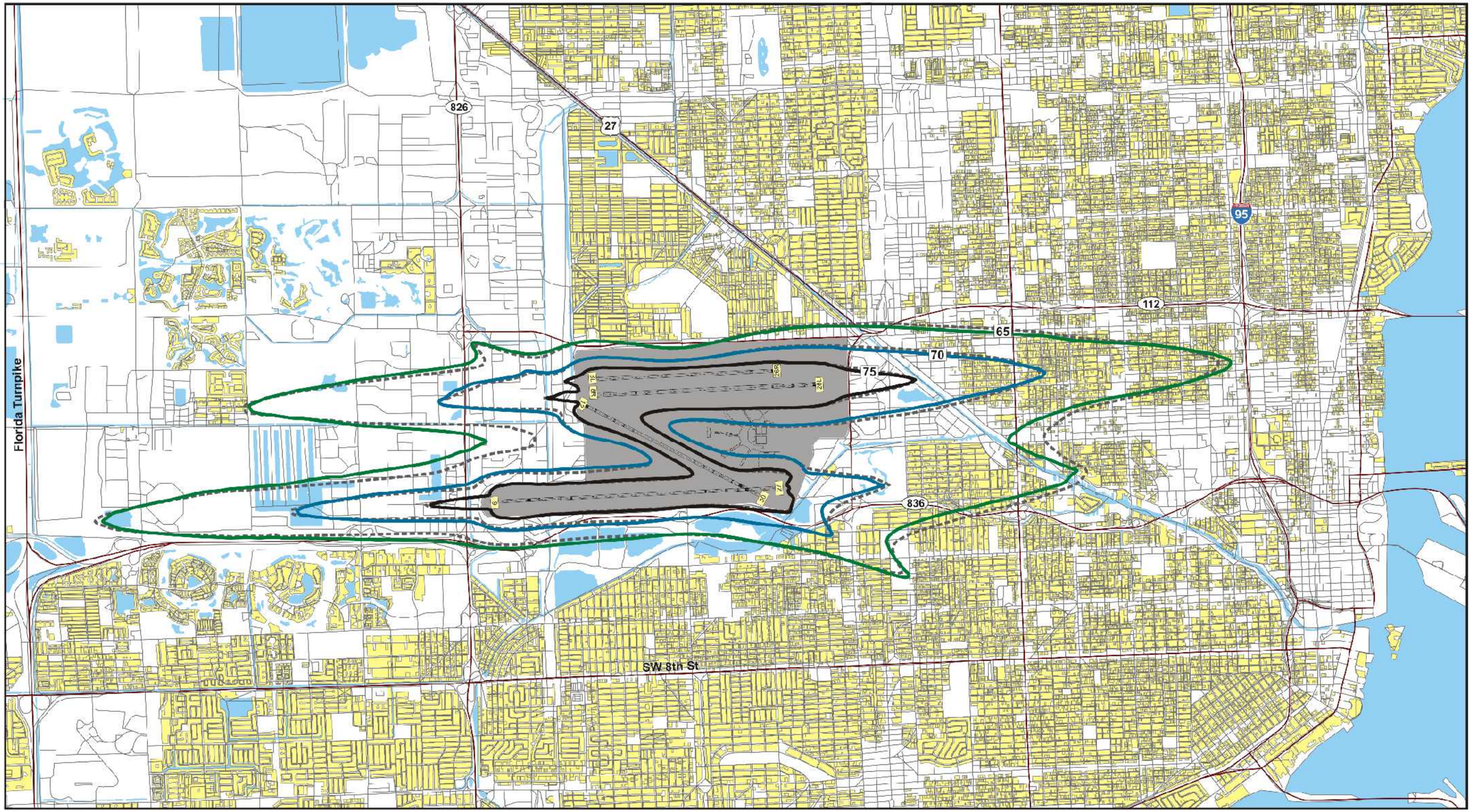
Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 4-7

2010 No-Action DNL Contours vs. Procedure 2



DNL Contours

- 65 DNL
- 70 DNL
- 75 DNL
- No-Action Contour
- Residential Land Use

N

Scale
0 2500 5000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 4-8

TABLE 4-10
AREA (SQUARE MILES) WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROCEDURE 2 (2005 AND 2010)

Alternative	65-70 DNL	70-75 DNL	Greater Than 75 DNL	TOTAL
No-Action (2005)	7.501	3.030	2.214	12.745
Procedure 2 (2005)	7.714	3.011	2.212	12.937
No-Action (2010)	7.696	3.103	2.248	13.047
Procedure 2 (2010)	7.886	3.081	2.246	13.213

Source: HMMH

TABLE 4-11
POPULATION WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROCEDURE 2 (2005 AND 2010)

Year	Alternative	Total Population in the 65-70 DNL	Total Population in the 70-75 DNL	Total Population in the 75 DNL and Greater	TOTALS
2005	2005 No-Action	35,161	3,811	0	38,972
	Procedure 2	33,842	3,249	0	37,091
	Change Compared to No-Action	***-1,319***	***-562***	***0***	***-1,881***
2010	2010 No-Action	36,747	3,762	0	40,509
	Procedure 2	35,227	3,317	0	38,544
	Change Compared to No-Action	***-1,520***	***-445***	***0***	***-1,965***

Source: ESA

Table 4 -12 identifies the Procedure 2 DNL values at noise sensitive sites and the change from the No-Action conditions in 2005 and 2010 respectively. In 2005 the DNL change with Procedure 2 compared to the No-Action Alternative occurs at 16 sites with 14 being reductions and 2 being increases in noise exposure. The changes for sites within the 65 DNL No-Action condition range from + 0.3 DNL to – 0.7 DNL. In 2010, a DNL change occurred at 18 sites with 14 being reductions and 4 being increases in noise exposure. The range of the changes within the 65 DNL No-Action condition in 2010 with Procedure 2 is from + 0.3 DNL to – 0.7 DNL. As presented in Table 4-12, no sensitive site within the 65 DNL has a change of 1.5 DNL or greater from the No-Action condition and, as indicated, the large majority of sensitive sites reduce in DNL values.

TABLE 4-12
2005 AND 2010 PROCEDURE 2 DNL VALUES AT NOISE SENSITIVE SITES
COMPARED TO THE NO-ACTION ALTERNATIVE

Site	Description	No-Action	Procedure 2	Change	No-Action	Procedure 2	Change
		2005	2005		2010	2010	
Churches							
C4	St Robert Bellarmine Church	66.3	65.6	-0.7	66.2	65.6	-0.6
C7	St John the Baptist Armenian Apostolic Church	66.1	66.1	0.0	66.2	66.2	0.0
C10	Melrose Free Methodist Church	66.5	65.8	-0.7	66.5	65.8	-0.7
C13	Ministerio Latino Americano	65.5	65.1	-0.4	65.5	65.2	-0.3
C17	Evangelistic Center	68.3	68.3	0.0	68.3	68.4	+0.1
C19	Iglesia De Dios Rio De Agua Viva	66.4	66.7	+0.3	66.5	66.8	+0.3
C23	Lebanon Seventh Day Adventist Church	65.0	64.4	-0.6	65.2	64.6	-0.6
C24	Iglesia Sion Assemblies of God	75.1	75.1	0.0	75.0	75.1	+0.1
C26	Iglesia Bautista Buenas Nuevas	67.0	66.5	-0.5	67.2	66.6	-0.6
C27	Iglesia Bautista de Jerusalem	66.0	65.3	-0.7	66.1	65.4	-0.7
Golf Course							
G41	Grapeland Heights Park Golf Course Club	67.5	66.7	-0.8	67.6	66.8	-0.8
Parks							
P62	Gerry Curtis Park	65.0	64.5	-0.5	65.1	64.7	-0.4
P68	Grapeland Heights Park	69.3	68.9	-0.4	69.4	69.0	-0.4
P70	Virginia Gardens Town Hall Park	65.7	65.7	0.0	65.8	65.8	0.0
P71	Allapattah Comstock Park	65.6	65.4	-0.2	65.7	65.5	-0.2
P64	Melrose Park (Stephen P. Clark Park)	69.5	69.2	-0.3	69.5	69.2	-0.3
Schools							
S82	Melrose	66.1	65.4	-0.7	66.1	65.4	-0.7
S83	Santa Clara	65.0	65.3	+0.3	65.2	65.4	+0.2
S86	Juvenile Justice Center	67.7	67.1	-0.6	67.6	67.0	-0.6
S88	Baker, George T. (Aviation School)	69.0	68.4	-0.6	69.1	68.4	-0.7

Source: ESA and HMMH

Procedure 3 - Modification of East Flow Departure Procedures at Night

Exhibits 4-9 and 4-10 provide the noise contours associated with Procedure 3 for the years 2005 and 2010, respectively. The modification of the east flow departure procedures at night (11:00 p.m. to 6:00 a.m.) results in a slight reduction in noise contour size east of Runway 27 and a slight increase in the noise contour limits along the southeast departure turn. This is a result of turbojet departures to the east following modified flight corridors. The benefits of Procedure 3 not only occur within the limits of the 65 DNL but beyond the 65 DNL as well. With Procedure 3, more departing aircraft are directed over water bodies further east of the Airport (in the barrier island areas) reducing the noise exposure in these areas, as well. Procedure 3 does not affect areas to the west of the Airport.

Tables 4-13 and 4-14 indicate the areas of exposure within the contour ranges with Procedure 3 and the population affected. With Procedure 3 the area within the contour is substantially the same as the No-Action alternatives in both 2005 and 2010. As shown in Table 4-16, a reduction in population within the 65 DNL of approximately 438 people would occur in 2005 and 555 people in 2010 with Procedure 3 when compared with the No-Action. Population reductions also occur within the 70 DNL.

TABLE 4-13
AREA (SQUARE MILES) WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROCEDURE 3 (2005AND 2010)

Alternative	65-70 DNL	70-75 DNL	Greater Than 75 DNL	TOTAL
No-Action (2005)	7.501	3.030	2.214	12.745
Procedure 3 (2005)	7.469	3.020	2.198	12.687
No-Action (2010)	7.696	3.103	2.248	13.047
Procedure 3 (2010)	7.660	3.089	2.233	12.982

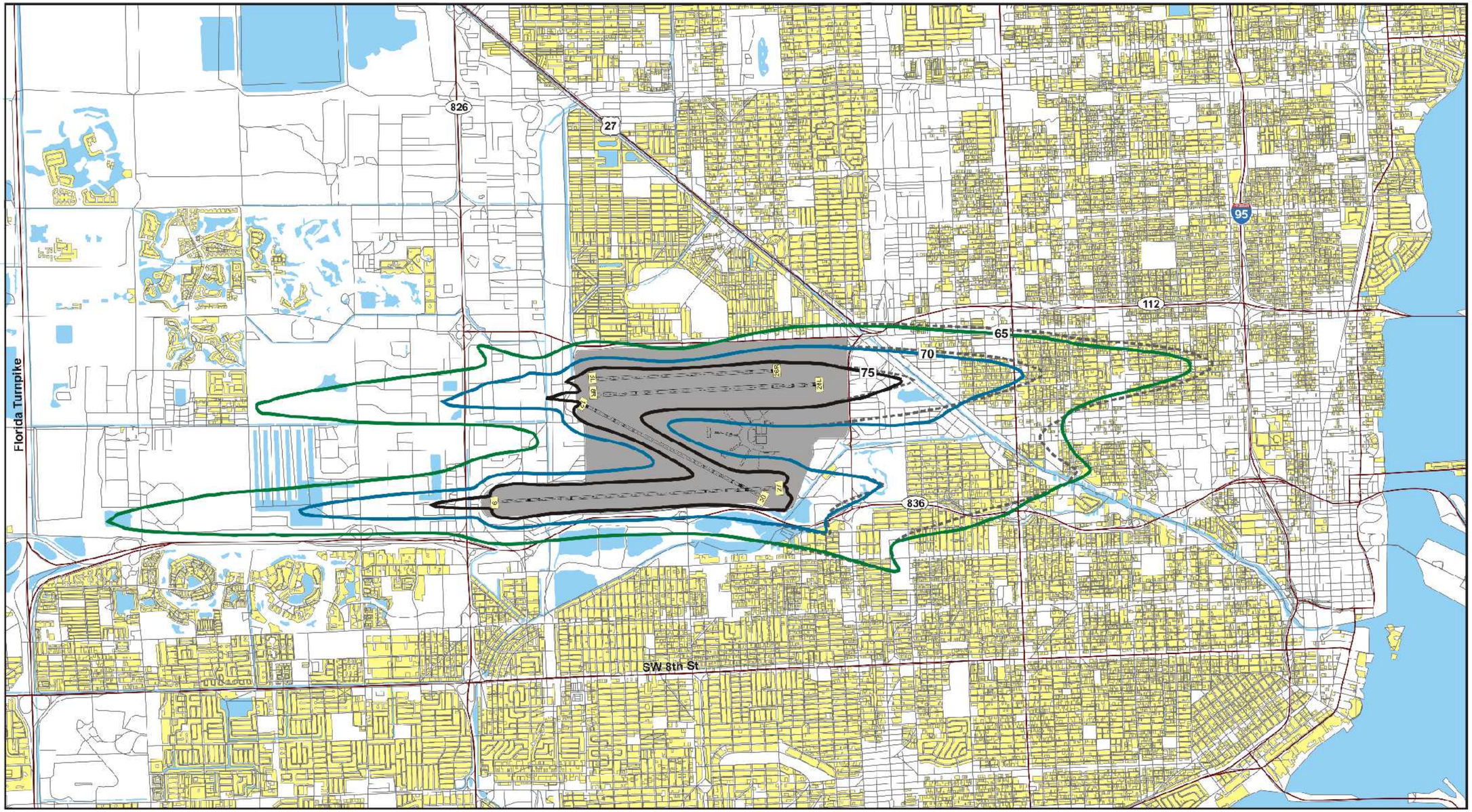
Source: ESA

TABLE 4-14
POPULATION WITHIN THE 65, 70, AND 75 DNL CONTOURS
PROCEDURE 3 (2005 AND 2010)

Year	Alternative	Total Population in the 65-70 DNL	Total Population in the 70-75 DNL	Total Population in the 75 DNL and Greater	TOTALS
2005	2005 No-Action	35,161	3,811	0	38,972
	Procedure 3	35,770	2,764	0	38,534
	Change Compared to No-Action	***+609***	***-1,047***	***-0***	***-438***
2010	2010 No-Action	36,747	3,762	0	40,509
	Procedure 3	37,209	2,745	0	39,954
	Change Compared to No-Action	***+462***	***-1,017***	***0***	***-555***

Source: ESA

2005 No-Action DNL Contours vs. Procedure 3



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

DNL Contours

- 65 DNL
- 70 DNL
- 75 DNL
- No-Action Contour
- Residential Land Use

N

Scale
0 2500 5000
Feet

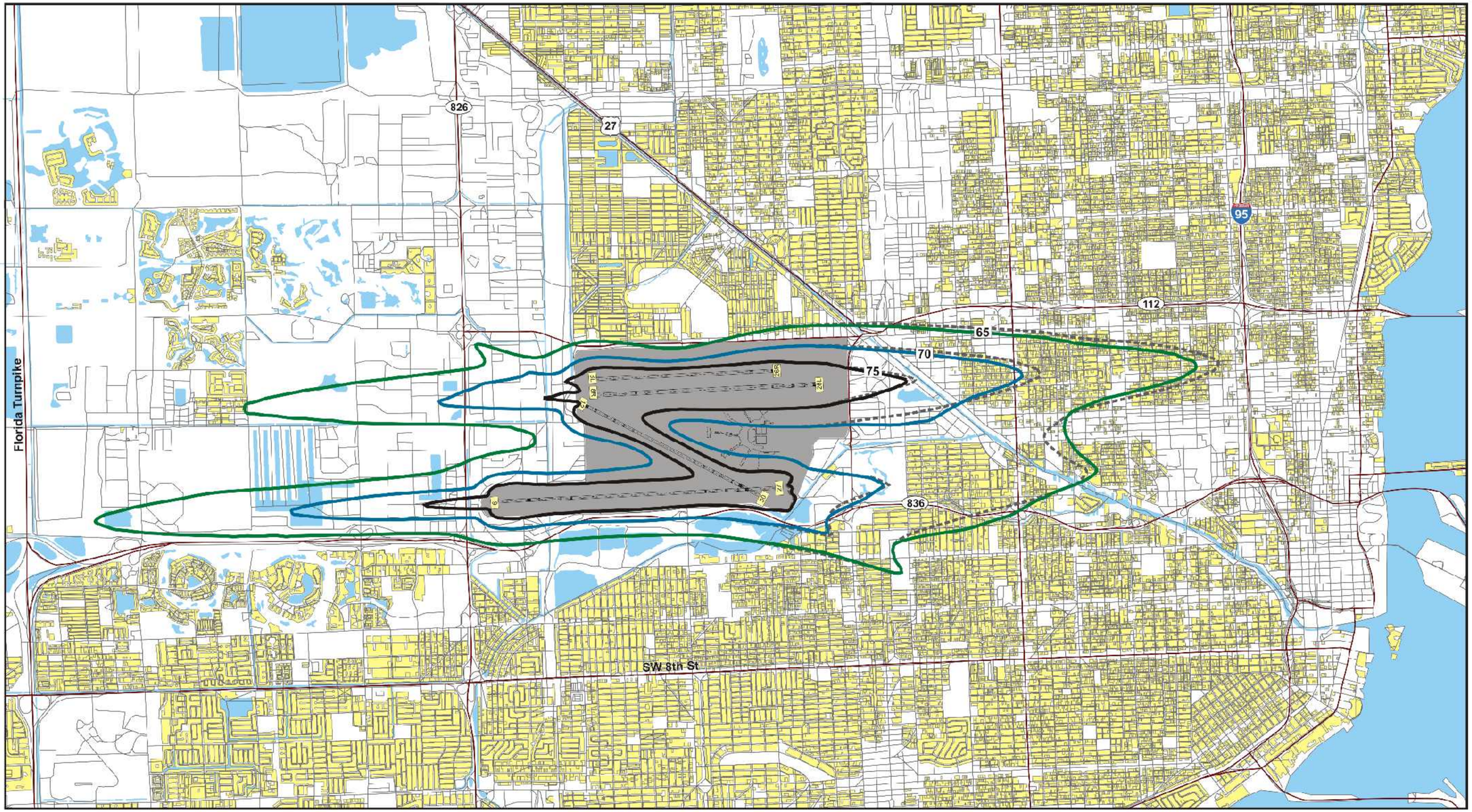
Miami-Dade Aviation Department

MIA MIAMI INTERNATIONAL AIRPORT

Basemap Source: Miami-Dade County

Exhibit 4-9

2010 No-Action DNL Contours vs. Procedure 3



DNL Contours

- 65 DNL
- 70 DNL
- 75 DNL
- No-Action Contour
- Residential Land Use

N

Scale
0 2500 5000
Feet

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Exhibit 4-10

Basemap Source: Miami-Dade County

Table 4-15 identifies the Procedure 3 DNL values at noise sensitive sites and the change from the No-Action conditions in 2005 and 2010 respectively. In 2005, the DNL change with Procedure 3 compared to the No-Action condition occurs at 17 sites with 14 being reductions or no change and 3 being increases in noise exposure. The changes from the No-Action condition range from + 0.6 DNL to – 0.9 DNL. As shown in Table 4-15, in 2010 a DNL change occurs at 17 sites with 14 being reductions and 3 being increases in noise exposure. The changes from the No-Action condition in 2010 range from + 0.6 DNL to – 0.9 DNL.

Procedure 4 - West Flow Charted Visual Approaches Day and Night

With Procedure 4, the approach procedures are focused on the barrier island areas and by the time aircraft reach the limits of the 65 DNL, they are on the same approaches that would occur under the No-Action condition. Thus, the primary benefit of Procedure 4 is beyond the limits of the 65 DNL that concentrates more arriving aircraft over bodies of water east of the Airport. This action does not increase noise levels at any national park site. This Procedure does not affect areas to the west of the Airport.

Since the modified approach procedures occur beyond the limits of the 65 DNL contour, there would be no change in 65, 70, and 75 DNL noise contours or at any sensitive site with Procedure 4 when compared to the No-Action conditions. Thus, no sensitive site with Procedure 4 has a change of 1.5 DNL or greater from the No-Action condition.

4.2 COMPATIBLE LAND USE

Existing land use within the study area was previously shown on Exhibit 3-5. Using this base information, the noise contours for each of the Procedures were overlaid on the land use map and the acres of residential land use within the 65, 70 sand 75 DNL were determined. These totals were compared to the No-Action Alternative and the increases/decreases in compatible land use for the Proposed Action was determined. The results of these analyses for 2005 and 2010 are provided in Tables 4-16 and 4-17.

As indicated in the tables, there is an overall reduction in residential land use within each of the DNL contour ranges as a result of the Proposed Federal Action. The reduction in residential land use amounts to approximately 96 acres within the 65 DNL when compared to the 2005 No-Action Alternative. In 2010, the acreage reduces by 93 acres within the 65 DNL with the Proposed Federal Action. It should also be noted that no noise sensitive site experiences an increase of 1.5 DNL within the 65 DNL with the Proposed Federal Action. Based on the information in Section 4.1, a total of 3,647 less people would occur within the 65 DNL in 2010 with the Proposed Action when compared to the No-Action alternative.

TABLE 4-15
2005 AND 2010 PROCEDURE 3 DNL VALUES AT NOISE SENSITIVE SITES
COMPARED TO THE NO-ACTION ALTERNATIVE

Site	Description	No-Action	Procedure 3	Change	No-Action	Procedure 3	Change
		2005	2005		2010	2010	
Churches							
C4	St Robert Bellarmine Church	66.3	65.4	-0.9	66.2	65.4	-0.8
C7	St John the Baptist Armenian Apostolic Church	66.1	66.1	0.0	66.2	66.2	0.0
C10	Melrose Free Methodist Church	66.5	65.7	-0.8	66.5	65.7	-0.8
C13	Ministerio Latino Americano	65.5	65.4	-0.1	65.5	65.5	0.0
C17	Evangelistic Center	68.3	67.6	-0.7	68.3	67.7	-0.6
C19	Iglesia De Dios Rio De Agua Viva	66.4	65.9	-0.5	66.5	66.0	-0.5
C23	Lebanon Seventh Day Adventist Church	65.0	65.1	+0.1	65.2	65.3	+0.1
C24	Iglesia Sion Assemblies of God	75.1	74.6	-0.5	75.0	74.6	-0.4
C26	Iglesia Bautista Buenas Nuevas	67.0	66.9	-0.1	67.2	67.0	-0.2
C27	Iglesia Bautista de Jerusalem	66.0	66.0	0.0	66.1	66.0	-0.1
Golf Course							
G41	Grapeland Heights Park Golf Course Club	67.5	67.8	+0.3	67.6	67.8	+0.2
Parks							
P62	Gerry Curtis Park	65.0	65.6	+0.6	65.1	65.7	+0.6
P68	Grapeland Heights Park	69.3	69.0	-0.3	69.4	69.1	-0.3
P70	Virginia Gardens Town Hall Park	65.7	65.7	0.0	65.8	65.8	0.0
P71	Allapattah Comstock Park	65.6	65.1	-0.5	65.7	65.2	-0.5
P64	Melrose Park (Stephen P. Clark Park)	69.5	68.8	-0.7	69.5	68.7	-0.8
Schools							
S82	Melrose	66.1	65.3	-0.8	66.1	65.2	-0.9
S83	Santa Clara	65.0	64.5	-0.5	65.2	64.6	-0.6
S86	Juvenile Justice Center	67.7	66.8	-0.9	67.6	66.8	-0.8
S88	Baker, George T. (Aviation School)	69.0	68.6	-0.4	69.1	68.6	-0.5

Source: ESA and HMMH

TABLE 4-16
2005 TOTAL RESIDENTIAL LAND USE WITHIN THE 65, 70, AND 75 DNL (ACRES)

Alternative	Total Residential Land Use in the 65-70 DNL	Total Residential Land Use in the 70-75 DNL	Total Residential Land Use in the 75 DNL and Greater	TOTALS
2005 No-Action	902	101	0	1003
Proposed Federal Action	844	63	0	907
Change Compared to No-Action	***-58***	***-38***	***0***	***-96***
Procedure 1	902	101	0	1003
Change Compared to No-Action	***0***	***0***	***0***	***0***
Procedure 2	835	85	0	920
Change Compared to No-Action	***-67***	***-16***	***0***	***-83***
Procedure 3	917	72	0	989
Change Compared to No-Action	***+15***	***-29***	***0***	***-14***
Procedure 4	902	101	0	1003
Change Compared to No-Action	***0***	***0***	***0***	***0***

Source: ESA

TABLE 4-17
2010 TOTAL RESIDENTIAL LAND USE WITHIN THE 65, 70, AND 75 DNL (ACRES)

Alternative	Total Residential Land Use in the 65-70 DNL	Total Residential Land Use in the 70-75 DNL	Total Residential Land Use in the 75 DNL and Greater	TOTALS
2010 No-Action	939	98	0	1037
Proposed Federal Action	879	65	0	944
Change Compared to No-Action	***-60***	***-33***	***0***	***-93***
Procedure 1	939	98	0	1037
Change Compared to No-Action	***0***	***0***	***0***	***0***
Procedure 2	872	86	0	958
Change Compared to No-Action	***-67***	***-12***	***0***	***-79***
Procedure 3	951	71	0	1022
Change Compared to No-Action	***+12***	***-27***	***0***	***-15***
Procedure 4	939	98	0	1037
Change Compared to No-Action	***0***	***0***	***0***	***0***

Source: ESA

4.3 AIR QUALITY

To assess the effect of the proposed noise abatement procedures on air quality, emission inventories were prepared using data from the FAA-required Emissions and Dispersion Modeling System (EDMS – Version 4.2). The pollutants and pollutant precursors inventoried were CO, VOC, NO_x, and sulfur oxides (SO_x). Emissions of PM were not inventoried because the EDMS does not currently contain emission rates for this pollutant.

The aircraft operational level, fleet mix, and taxi/queue delay were assumed to be the same for alternatives (including the No-Action alternative). Therefore, the evaluation of the proposed procedure focused on the change in air pollutant emission levels resulting from the change in taxi distance when compared to the No-Action alternative. The only procedure that would affect taxi distances is Procedure 2. With this procedure (maximization of west flow procedures at night), the taxi routes for aircraft under west flow versus east flow conditions would change.

As shown in Tables 4-18 and 4-19, the results of the analysis indicate that emissions of CO, VOC, NOx, and SOx would decrease slightly (from less than 1 to 6 pounds per day in the year 2005 and from less than 1 to 7 pounds per day in the year 2010). This decrease in emissions is considered minor.

TABLE 4-18
CHANGE IN EMISSIONS - 2005

Alternative[b]	Decrease in Emissions[a] (Pounds/Day)			
	CO	VOC	NOx	SOx
2	-6	-1	-1	0

[a] When compared to the No Action alternative.
[b] Procedures 1, 3, and 4 would not result in changes in taxi routes.
Source: Environmental Science Associates, 2004.

TABLE 4-19
CHANGE IN EMISSIONS - 2010

Alternative[b]	Decrease in Emissions[a] (Pounds/Day)			
	CO	VOC	NOx	SOx
2	-7	-1	-1	0

[a] When compared to the No Action alternative.
[b] Procedures 1, 3, and 4 would not result in changes in taxi routes.
Source: Environmental Science Associates, 2004.

CONFORMANCE WITH THE CLEAN AIR ACT

Transportation Conformity

Transportation conformity is the process used to ensure that states consider the air quality effects of motor vehicle-related transportation plans, programs, and projects. The conformity process is applicable to Federal actions related to these plans, programs and projects and to projects developed, funded or approved under title 23 of the United States Code (U.S.C.) or the Federal Transit Act (49 U.S.C. 1601). There are no motor vehicle-related transportation plans, programs, or project associated with the noise abatement Procedures. As such, transportation conformity does not apply to this project.

General Conformity

General conformity is the process used to ensure that the air quality effects caused by Federal actions but not related to motor vehicle transportation plans are also considered. The criteria for determining the conformity of such actions state that a conformity determination is required when the emissions caused by a Federal action (the "net" emissions when the Proposed Action Alternative emissions are compared to the No-Action Alternative emissions) equal or exceed what are known as de minimis levels. If emissions are below the de minimis levels, it can be presumed that the action conforms to the Clean Air Act. If emissions are above the de minimis levels, a conformity demonstration must be prepared.

In addition to a comparison of total project emissions to the de minimis levels, conformity determinations are also required when a project's emissions represent 10 percent or more of a non-attainment area's total regional emissions of the applicable pollutant or precursors. If the emissions represent 10 percent or more of the regional emissions, the action is determined to be regionally significant and a conformity determination must be performed.

De Minimis Criteria

Based on the current maintenance designation for O_3 within Dade County, the de minimis level is 100 tons/year of VOC or NOx. As shown in Tables 4-18 and 4-19, Procedure 2 would result in a minor decrease in VOC and NOx emissions. As such, based on the de minimis criteria, the project is presumed to conform to the Clean Air Act.

Regional Significance

The proposed action would result in a minor decrease in emissions. Therefore, there is no need to evaluate the regional significance of project-related emissions.

4.4 SECTION 303c PROPERTIES (FORMERLY SECTION 4(f))

Section 303c of Title 49 of the United States Code provides that the Secretary of Transportation shall not approve any program or project that requires the use of any publicly owned land from a public park, recreation area or wildlife and waterfowl refuge

of National, State, or local significance as determined by the officials having jurisdiction thereof, unless there is no feasible and prudent alternative to the uses of such land and such program, or the project includes all possible planning to minimize harm resulting from such use.

While changes in flight procedures do not result in any actual use of covered properties, it is recognized that noise impacts may constitute a "constructive" use. Noise is considered a constructive use when it is so severe that it substantially impairs or diminishes the activities, features, or enjoyment of a facility for its intended purposes.

In the 1998 Runway EIS, impacts to 13 publicly owned parks and two golf courses identified within the 65 DNL noise contour for the year 2005 were evaluated. Section 303c consultation with the National Park Service, the State Historic Preservation Officer, the Miami-Dade Preservation Board, the City of Miami Parks and Recreation Department found that the construction of the new runway would not involve any physical taking or constructive use of the sites.

Five of those parks and one golf course are located within the 65 DNL contours for the Proposed Action evaluated in this EA (Tables 4-3 and 4-4). There are no wildlife or waterfowl refuges within the 65 DNL or within the area that will be subject to a change in aircraft overflight activity. The closest refuge is the Loxahatchee National Wildlife Refuge located approximately 40 nautical miles north if MIA.

In terms of aviation noise impacts, an action that increases the noise level by 1.5 DNL within the 65 DNL or greater when compared to the No-Action condition is considered by the FAA to be a significant increase in noise at noise sensitive sites such as public parks.

Tables 4-2 and 4-3, provided previously in this section identified the changes in DNL level as a result of the Proposed Action for parks within the 65 DNL compared to the No-Action conditions. All parks would experience noise level changes ranging from +0.1 DNL to -1.4 DNL.

In addition to Section 303c properties located within the 65 DNL, a study was conducted to determine the change in DNL exposure to the two national parks near the Airport-Biscayne Bay National Park and Everglades National Park. Although these parks are located well beyond the limits of the 65 DNL, they do experience flyovers of aircraft either arriving or departing MIA.

Two locations were analyzed within each of these parks (Blockpoint and Stiltsville at Biscayne Bay National Park and at Chekika Parking Lot and Shark River Slough at Everglades National Park). The study indicates that the No-Action Alternative for the year 2005 results in DNL values of 32.8 and 37.6 at the sites in Biscayne Bay National Park. By comparison, the Proposed Federal Action in the year 2005, results in DNL values of 31.1 and 37.4 at the respective sites. In 2010, these values are 32.9 DNL and

37.7 DNL with the No-Action condition and 31.1 DNL and 37.4 DNL, respectively, with the Proposed Federal Action.

The study indicates that the No-Action Alternative for the year 2005 results in DNL values of 16.0 and 26.5 at the sites in Everglades National Park. By comparison, the Proposed Federal Action in the year 2005, results in DNL values of 16.7 and 23.5 at the respective sites. In 2010, these values are 16.1 DNL and 26.7 DNL with the No-Action condition and 16.8 DNL and 23.8 DNL, respectively, with the Proposed Federal Action. The site at the Chekika Parking Lot experiences a slight increase of 0.7 DNL when compared to the no action conditions. It should be noted that the Draft EA will be sent to the National Park Service for comment.

4.5 HISTORIC SITES

The National Historic preservation Act of 1966, as amended, and its implementing regulations (36 FCR Part 800) establish measures to coordinate Federal actions affecting properties included in or eligible for listing in the National Register of Historic Places. The archaeological and Historic Preservation Act of 1974 provides for the survey and preservation of significant cultural resources that may be lost due to a Federal project.

Section 106 of the Historic Preservation Act requires Federal agencies to consult with knowledgeable and concerned parties. Consultation normally takes place with the State Historic Preservation Officer (SHPO).

Consultation with the Florida SHPO and the Metro-Dade Historic Preservation Division during the 1998 Air Carrier Runway EIS process determined that no significant archaeological or historical sites were recorded or likely to be present within the project areas and that because the location/nature of the project, it was unlikely that any such sites would be affected. The 1998 EIS also indicated that the proposed new runway action would not significantly impact any properties in the year 2005 within the Area of Potential Effect (APE) listed in or eligible for listing in the National Register of Historic Places or designated as historic properties by the Metro-Dade Historic Preservation Board. (See Appendix D for relevant correspondence).

It should be noted that the areas of noise exposure for the 2005 and 2010 conditions both with and without the procedural alternatives are considerably less extensive than those examined in the 1998 EIS. Thus, noise exposure at historic sites, as identified in the 1998 EIS, was significantly greater than would be experienced in 2005 and 2010 with the Proposed Action.

In addition, no significant difference in noise exposure would occur at any tribal lands. The Draft EA will be sent to the State Historic Preservation Officer for review and comment.

4.6 ENERGY

Certain noise abatement procedures would involve a longer route of flight for aircraft following the procedure and others would result in a change in aircraft taxi distances. Changes in fuel use were evaluated by assessing the change in taxi routes and the increase in flight track distances resulting from the procedures when compared to the No-Action Alternative. The difference in the distance and time, respectively, caused by the procedures were multiplied by the appropriate taxi-idle and arrival/departure fuel rates to obtain an estimated level of fuel consumption. It was assumed that the aircraft operational level, fleet mix, and aircraft taxi/queue delay would be the same with the proposed noise abatement procedures as with the No-Action Alternative. Therefore, these factors do not contribute to the evaluation of the energy change.

Procedure 1 would result in an increase in departure distances for all turbojet aircraft departing to the west at night as these aircraft would be required to climb for approximately four or five nautical miles (at approximately 3,000 or 4,000 feet) before turning to their destination. For those aircraft on flight tracks not turning back to the east, the additional distance was assumed to result in no change in fuel consumption. As discussed in the Air Quality section, Procedure 2 would result in a minor decrease in overall taxi time when compared to the No-Action Alternative. The corresponding decrease in fuel consumption that would result from the decrease in taxi time is provided in Table 4-20. Procedures 3 and 4, which modify the east flow procedures and develop west flow charted visual approaches, modify the dispersion of aircraft but do not redirect aircraft in a way that would result in either an increase or a decrease in fuel usage.

Table 4-20 provides the change in fuel use for Procedures 1 and 2 when compared to the No-Action Alternative. As shown, Procedure 1 would result in a minor increase in aircraft fuel consumption in 2005 and 2010 (103 and 230 gallons, respectively), and Procedure 2 would reduce aircraft fuel consumption in these years (130 and 235 gallons, respectively).

TABLE 4-20
CHANGE IN AIRCRAFT FUEL USAGE

Alternative[b]	Change in Fuel Use (Gallons/Day)[a]	
	2005	2010
Procedure 1	+103	+230
Procedure 2	-130	-235

[a] When compared to the No Action alternative.
[b] Procedures 3 and 4 would not result in changes to taxi times or departure distances.
Source: Environmental Science Associates, 2004.

4.7 ENVIRONMENTAL JUSTICE

Consideration of Environmental Justice impacts is required by Executive Order 12898 (59 FR 7629, February 11, 1994) which directs Federal agencies to "identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations…"

The EPA's Office of Environment and Justice defines Environmental Justice as : " The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including any racial, ethnic, or socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal and commercial operations or the execution of Federal, State, local, or tribal programs or policies." (USEPA, EOA Draft Environmental Justice Guidance – Chapter 1, July 12, 1996). The EPA further states that the goal is not to shift risks among populations but to identify potential disproportionately high and adverse effects and then to identify alternatives to mitigate these impacts.

Of the U.S. Department of Transportation Proposed Order to Address Environmental Justice in Minority Populations and Low Income Populations, dated June 29, 1995, which identifies potential areas of adverse impacts, only aircraft noise levels may be affected by the Proposed Federal Action.

The purpose of the noise abatement operational Procedures is to reduce the impacted population and to have little or no adverse impacts on minority and low income populations. To determine whether this goal has been met, the EA has evaluated the population located within the 65 DNL noise contours for the No-Action condition and the Proposed Federal Action in both 2005 and 2010. The analyses include total population, minority population, and low-income households for each Procedure under consideration.

Tables 4-21 and 4-22 depict total population within the noise contour ranges for the No-Action, and each noise mitigation Procedure evaluated for 2005 and 2010. The changes related to minority population, total households and low-income households in the DNL contours for the years 2005 and 2010 compared to the No-Action noise contours are also shown in Tables 4-21 and 4-22. The minority populations identified in the table include all the non-white race categories included in the 2000 Census. In addition to the race categories, persons of Hispanic or Latino origin were also considered. Census data indicates that 57.3% of Miami-Dade county residents are Hispanic or Latino origin.

As presented in the Tables, all populations would experience a reduction in noise impacts if the Proposed Federal Action is implemented. Minority and low income persons will not be disproportionably affected by the Proposed Federal Action. Therefore, no significant impacts related to environmental justice have been identified with regard to the Proposed Federal Action.

TABLE 4-21
2005 POPULATION, MINORITY POPULATION AND LOW-INCOME HOUSEHOLDS WITHIN THE 65, 70 and 75 DNL

Alternative	Population in the 65 DNL	Minority Population in the 65 DNL	Households in the 65 DNL	Low- Income Households in the 65 DNL
2005 No-Action	38,972	10,087	12,955	2,924
Proposed Federal Action	35,319	8,697	11,849	2,640
Change Compared to No-Action	***-3,653***	***-1,390***	***-1,106***	***-101***
Procedure 1	38,956	10,087	12,949	2,924
Change Compared to No-Action	***-16***	***0***	***-6***	***0***
Procedure 2	37,091	9,551	12,427	2,786
Change Compared to No-Action	***-1,881***	***-536***	***-528***	***-138***
Procedure 3	38,534	9,256	12,935	2,871
Change Compared to No-Action	***-438***	***-831***	***-20***	***-53***
Procedure 4	38,972	10,087	12,955	2,924
Change Compared to No-Action	***0***	***0***	***0***	***0***

Source: ESA Analysis. The minority population information used in the table includes all non-white race categories as identified in the 2000 Census.

TABLE 4-22
2010 POPULATION, MINORITY POPULATION AND LOW-INCOME HOUSEHOLDS WITHIN THE 65, 70 and 75 DNL

Alternative	Population in the 65 DNL	Minority Population in the 65 DNL	Households in the 65 DNL	Low- Income Households in the 65 DNL
2010 No-Action	40,509	10,542	13,501	3,053
Proposed Federal Action	36,862	9,130	12,354	2,756
Change Compared to No-Action	***-3,647***	***-1,412***	***-1,147***	***-297***
Procedure 1	40,506	10,542	13,501	3,053
Change Compared to No-Action	***-3***	***0***	***0***	***0***
Procedure 2	38,544	10,040	12,897	2,897
Change Compared to No-Action	***-1,965***	***-502***	***-604***	***-156***
Procedure 3	39,954	9,694	13,421	2,984
Change Compared to No-Action	***-555***	***-848***	***-80***	***-69***
Procedure 4	40,509	10,534	13,501	3,053
Change Compared to No-Action	***0***	***0***	***0***	***0***

Source: ESA Analysis. The minority population information used in the table includes all non-white race categories as identified in the 2000 Census.

4.8 OTHER IMPACT CATEGORIES

Certain disciplines identified for evaluation in FAA Order 1050.1E are land related. Since the proposed operational noise mitigation plan does not involve construction at the Airport or other land disturbing activities, no environmental impacts would occur related to a number of environmental categories as follows: Water Quality; Fish, Wildlife and Plants; Wetlands; Floodplains; Coastal Resources; Wild and Scenic Rivers; Farmland; Light Emissions; Hazardous Material and Solid Waste Impact; and Construction Impacts. A brief explanation of why these impact categories do not apply is presented in the following.

Coastal Resources – Federal activities involving or affecting costal resources are governed by the Coastal Barriers Resources Act of 1982, as amended (CBRA), and the Coastal Zone management Act, as amended (CZMA). As described in FAA Order 1050.1E, the CBA prohibits, with some exceptions, Federal financial assistance for development within the Coastal Resource Barrier System….The CZMA and …. implementing regulations provide procedures for ensuring that a proposed action is consistent with the approved management programs." Because the Proposed Action would not affect surface resources nor result in development of facilities, no impacts would occur under this category.

Construction Impacts – Local, State, Tribal, or Federal ordinances and regulations address the impacts of construction activities, including construction noise, dust and noise from heavy equipment traffic, disposal of construction debris, and air and water pollution. No construction is proposed, thus, the Proposed Action has no affect on construction.

Farmlands – The Farmland Protection Policy Act regulates Federal actions with the potential to convert farmlands to non-agricultural uses. Neither the Proposed Action nor its Alternatives would require the taking of farmland. Thus no impacts to farmlands would result.

Fish, Wildlife and Plants – Section 7 of the Endangered Species Act, as amended, the Sikes Act, the Fish and Wildlife Coordination Act, the Migratory Bird Treaty Act, and other Executive Orders and Policies have been established to protect Fish, Wildlife and Plants. Since the Proposed Action does not involve construction it would not take (or modify the use of) any land and thus have no affect on fish, wildlife and plants.

Floodplains – Executive Order 11988 directs Federal Agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health and welfare and restore and preserve the natural and beneficial values served by floodplains. The Proposed Action does not take floodplains nor affect the use of any floodplains. Because the Proposed Action would not affect surface resources nor result in development of facilities, no impacts would occur under this category.

Hazardous Materials, Pollution Prevention and Solid Waste – Four primary laws have been passed governing the handling and disposal of hazardous materials, chemicals, substances and wastes. Because no construction is proposed with the Proposed Action, no use of hazardous materials would be involved and no potential for affecting any existing waste site would occur. Thus, the Proposed Action has no affect on these environmental categories.

Light Emissions and Visual Impacts – Where applicable, a description of potential impacts due to light emissions or visual impacts associated with a Federal action may be necessary. However, no approach lighting, airport facility lighting, parking area lighting or other ground lighting is included in the Proposed Action and thus, the Proposed Action would have no affect on Light Emissions or Visual Impacts.

Secondary (Induced) Impacts – Major development proposals often involve induced or secondary impacts on surrounding communities. Where the potential exists, such impacts as the shift in patterns of population movement and growth, public service demands and changes in business or economic activity to the extent influenced by development. The Proposed Action at MIA provides direct benefits to surrounding communities as a result of reduced noise exposure. However, the Proposed Action does not involve a development proposal and thus, there would be no secondary impacts on surrounding communities.

Socio-Economic Impacts and Children's Environmental Health and Safety Risks – Pursuant to Executive Order 13045, Protection of Children from Environmental Risks and Safety Risks, Federal agencies are directed to identify and assess environmental health risks and safety risks that may disproportionately affect children. In addition, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 must be met where acquisitions of property and relocation of people are involved. The Proposed Action would not disproportionately affect children nor involve property acquisition or relocation.

Water Quality – The Federal Water pollution Control Act, as amended (commonly referred to as the Clean Water Act), provides the authority to establish water quality standards, control discharges, develop waste treatment management plans and practices, prevent or minimize the loss of wetlands, location with regard to an aquifer or sensitive ecological area, such as a wetland area, and regulate other issues concerning water quality. The Proposed Action does not involve construction, thus, the Proposed Action has no affect on this category.

Wetlands – Executive Order 11990, DOT Order 5660.1A and the Rivers and Harbors Act of 1899, and the Clean Water Act address activities in wetlands. These Orders and Acts are intended to ensure that actions are taken to minimize the destruction, loss, or degradation of wetlands. Because the Proposed Action would not affect surface resources nor result in development of facilities, no impacts would occur under this category.

Wild and Scenic Rivers – The Wild and Scenic Rivers Act as amended describes those river areas eligible to be included in a system afforded protection as free flowing and possessing…outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values. The National Park Service maintains a national inventory of river segments which appear to qualify for inclusion in the National Wild and Scenic River System. No stream or river area exposed to arrivals or departures of aircraft associated with MIA below 10,000 feet that appear to qualify as a Wild or Scenic River. Thus, the analysis of the Proposed Action and its alternatives is not required.

4.9 SUMMARY OF IMPACTS

With the Proposed Federal Action, the number of aircraft operations would remain the same when compared to the No-Action scenarios in both years of analysis. Therefore the total noise generated by aircraft would remain the same but would be redistributed to reduce noise exposure on noise sensitive areas as part of the Proposed Federal Action.

The overall goal of the MDAD/NATF noise abatement process is the redistribution of noise exposure to less noise sensitive land uses and away from residential areas. The Proposed Federal Action results in a significant decrease in the number of people within the 65 DNL and greater contour. In 2005 and 2010, the number of people within the 65 DNL reduces by just over 9 percent when compared to the No-Action conditions. The Proposed Federal Action reduces the population within the 70 and greater DNL contour by 36 percent in 2005 and 33 percent by 2010 when compared to the No-Action conditions. The reductions occur east of the Airport. In addition, flight track modifications are being recommended to minimize overflights of residential areas that are outside the 65 DNL. To the west, aircraft are being directed over land that is compatible with aircraft noise to the greatest extend possible. The Proposed Federal Action provides a significant benefit for the communities surrounding MIA while maintaining the safe and efficient use of the airport.

4.10 CUMULATIVE IMPACTS

A cumulative impact is defined by the Council on Environmental Quality as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such action. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time." The only impact category that would require a cumulative analysis in this EA is noise. In this EA, both the individual and cumulative effects of the procedures were analyzed (see contours and tables in Section 4.1)

4.11 MITIGATION

The Proposed Action represents the combination of various procedures to reduce noise exposure on communities located in proximity to aircraft arrivals and departures out of MIA. Thus, the Proposed Action is a form of noise mitigation. In addition, the legislative requirements to eliminate the use of large Stage 2 aircraft (over 75,000

pounds) has appreciably reduced the noise exposure around MIA over recent years. Other measures considered for noise mitigation around airports include property acquisition and sound insulation of properties within the 65 DNL. At the present time the Miami Dade Aviation Department has no sound insulation or property acquisition program.

SECTION 5: COORDINATION AND PUBLIC INVOLVEMENT

In order to address these operationally related noise issues, the MDAD established a committee, the Noise Abatement Task Force (NATF), composed of MDAD staff, elected officials, and citizens from affected areas. The NATF citizen representation was not restricted to those who live within the 65 DNL noise contour, but included those living beyond the 65 DNL contour limits, as well. The NATF also included representatives of the Miami Tower, MDAD and MDAD consultants (all as technical advisors).

Initial meetings of the NATF resulted in the identification of the noise issues needing to be addressed and the establishment of the goals for the noise abatement program. These goals included the following:

- Reduce the departure activity to the east particularly at night,
- Reduce the dispersion of low-altitude aircraft departure turns during west flow,
- Reduce the dispersion of aircraft arrivals and departures east of the Airport and
- Direct aircraft over non noise-sensitive areas in the vicinity of the barrier islands for both west flow arrivals and east flow departures at MIA.

With these goals established, coordination efforts began with FAA's air traffic control representatives at the Airport (Miami Tower) and initial noise mitigation measures to address the goals were developed. A series of noise analyses were then prepared for each of the potential mitigation procedures, the procedures were discussed with the NATF, revised and submitted to the FAA for review.

Due to the number of procedures involved and the need to determine the environmental impacts of the combination of actions under consideration, the FAA requested the MDAD prepare an EA on the overall operational noise mitigation plan (the subject of this EA).

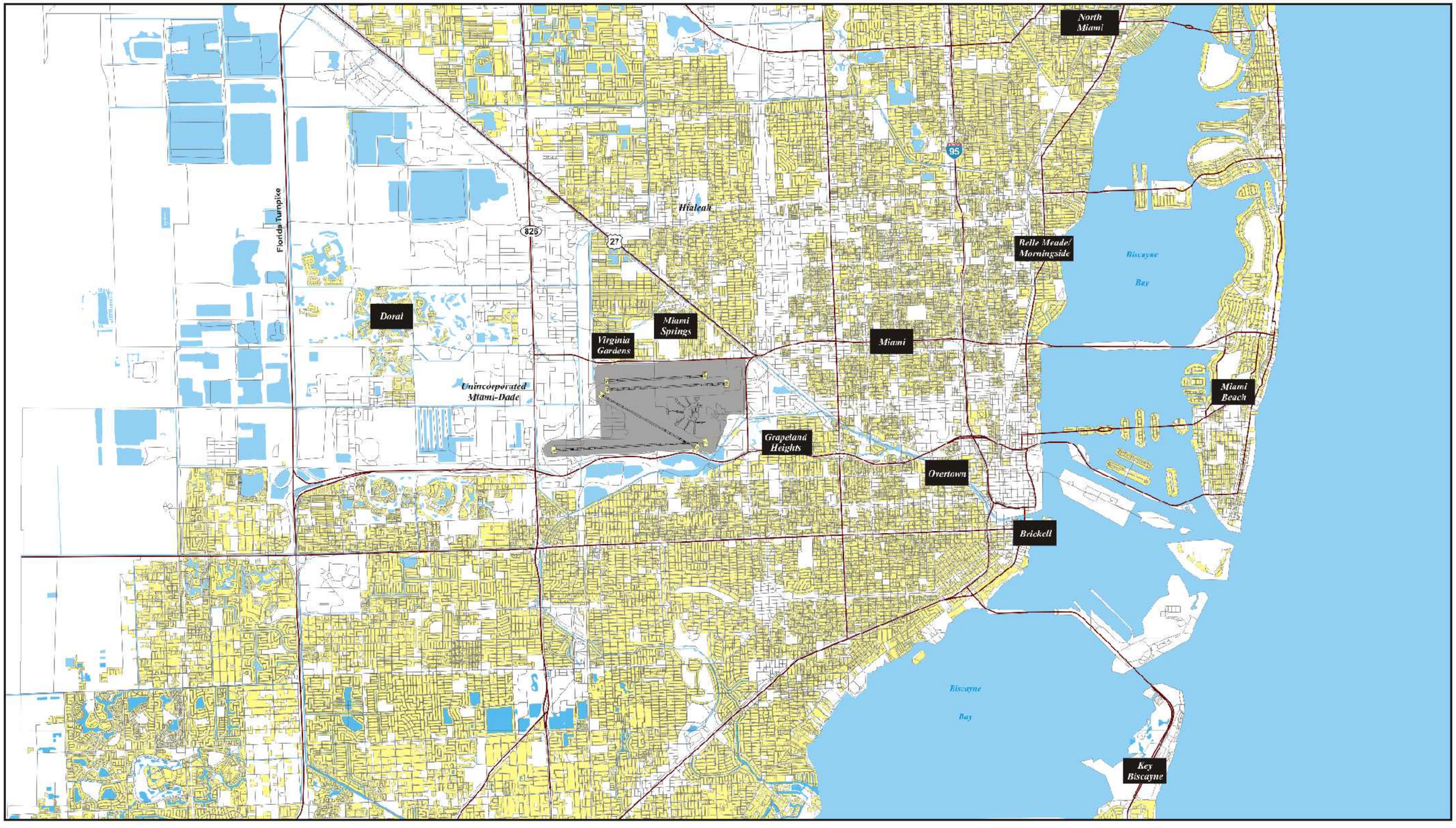
During the preparation of the EA, briefings were held during the monthly meetings of the NATF to gain input as the overall noise mitigation plan was developed. As input was received and initial analyses reviewed, adjustments to the plan were made to reflect input from the NATF. This EA represents the consensus of recommendations by both the NATF and the MDAD.

The current membership on the NATF and areas they represent are included on Table 5-1. In addition, Exhibit 5-1 depicts the general locations of these areas.

TABLE 5-1
MEMBERSHIP IN THE NOISE ABATEMENT TASK FORCE (NATF)

NATF Member	Organization/Area
Mr. Kevin Warwick	Fine Air (Airport)
Mr. William Kribble	FAA Miami Tower
Mr. Frank Rollason	City of Miami
Mr. Jim Caudle	City of Miami Springs
Mr. Paul Bithron	Village of Virginia Gardens
Mr. John Festa	Key Biscayne
Mr. Humberto Dominquez	Grapeland Heights
Mr. Ron Smith	Brickell
Mr. Patrick McCoy	Belle Meade/Morningside
Mr. Charles Flowers	Overtown
Ms. Bunny Patchen	Miami Beach
Mr. Chris Mazolla	Doral
Mr. Bruce Drum	MDAD
Mr. Ovidio DeLeon	North Miami
Mr. Ray Aguiar	American Airlines
Mr. Michael Larimore	
Mr. Roger Quinn	United Parcel Service
Mr. William Womick	IBC Airways
Mr. Pierre Christ	Doral

Noise Abatement Task Force Community Representation



Residential Land Use

N

Scale
0 4500 9000
Feet

Basemap Source: Miami-Dade County

MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Exhibit 5-1

Availability of the Draft Environmental Assessment

The Draft EA was made available for public review and comment. The document was available at the MDAD Aircraft Noise & Environmental Planning Office and was posted on the airport's website. Interested parties were given 30 days to provide comments on the Draft EA. The notice of availability was published in the following periodicals:

The Miami Herald, November 18, 2005 and November 25, 2005.
The Miami Times, November 19-22, 2005.
El Nuevo Herald, November 18, 2005.
Diario Las Américas, November 20, 2005.

The Draft EA was also distributed to a number of Federal, state and local entities for comment as well. The notices of the Draft EA's availability, agency comments, and responses to agency comments are included in **Appendix G**. The Draft EA was provided to the following:

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APPENDIX

APPENDIX A

MIAMI INTERNATIONAL AIRPORT
AVIATION FORECAST REVISIONS

Background

As part of the Environmental Assessment Update for the proposed Operational Noise Mitigation Procedures the airport activity levels needed to be reviewed to determine if modifications were warranted. In 2002, revised operational projections were developed for the airport as part of this draft revised Environmental Assessment based on the events of September 11, 2001. These revisions downward were largely based on the assumptions contained in the FAA Aerospace Forecasts Fiscal Year 2002-2013. Although the FAA Aerospace Forecasts do not provide projections for specific airports, such as MIA, the information was useful in providing guidance on how the terrorist events would impact future aviation activity. Subsequent to this analysis and in efforts to finalize the Environmental Assessment, it has now been requested by the FAA that the operational forecasts be updated along with the associated analysis to more accurately reflect existing trends at MIA. This forecast addresses that request.

Introduction

The purpose of this activity forecast is to provide an updated projection of the future operational demand to be used as a basis for evaluating the noise mitigation operational procedures being proposed in this environmental assessment. The resulting projections are primarily used in modeling the noise conditions associated with the proposed operational changes and assessing the resulting social impacts.

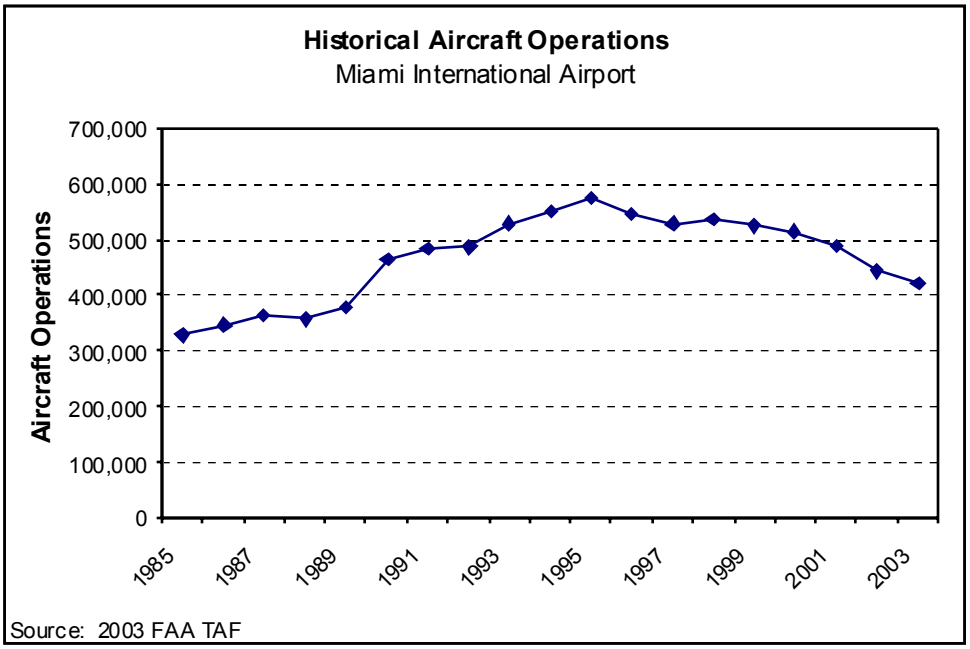
The following categories are the primary focus of these projections:

Annual Operations and Fleet Mix
- Air Carrier
- Air Taxi/Commuter
- General Aviation
- Military

Historic Operations

Historic operations totals includes both the departure and arrival of all aircraft operations based on the FAA air traffic controllers categories of operations (air carrier, air taxi, military and general aviation). Over the last eighteen years total operations have grown at an average annual growth rate of 1.38% at Miami International Airport. Total aircraft operations have ranged between a low of 329,458 operations a year in 1985 to a high of 576,609 operations a year in 1995 during that period (See **Exhibit A-1**). Since 1995, total operations have steadily declined to 422,048 total operations in 2003. While the average annual growth rate for the last eighteen years was positive, the average annual growth rate for total operations over the last eight years was negative (-3.82%). Based on current observations and conditions at MIA, this trend is anticipated to bottom out in the near term and begin a slow climb as the market continues to stabilize.

EXHIBIT A-1



Air Carrier Operations

Air carrier operations are defined as aircraft capable of carrying more than 60 passengers. This classification also applies to aircraft of this size that may be conducting freight operations. From 1985 through 2003, air carrier operations grew at an average of 2.3% a year. In 1985, air carrier operations totaled 205,025, and peaked at 328,209 operations in 1995. Since 1995, air carrier operations have fluctuated from a low of 302,534 operations in 1998 to a high of 325,100 operations in 2000. Air carrier operations totaled 306,838 operations in 2003. Over the past 5 years, air carrier operations have accounted for approximately 65% of the total operations at MIA. Additionally, 2003 represented the first year of air carrier operational growth since 2000 (**See Table 1-A**).

Table 1-A
Historic Air Carrier Operations

Year	Operations	Year	Operations
1985	205,025	1995	328,209
1986	240,310	1996	314,540
1987	250,418	1997	307,391
1988	254,597	1998	302,534
1989	247,328	1999	315,256
1990	278,754	2000	325,100
1991	281,295	2001	315,318
1992	274,964	2002	304,863
1993	309,503	2003	306,838
1994	317,127		

Source: 2004 FAA TAF

Air Taxi/Commuter Operations

Air Taxi/Commuter aircraft are defined as aircraft with a maximum seating capacity of 60 seats or less or a maximum payload capacity of 18,000 pounds or less carrying passengers or cargo for hire or compensation. From 1985 through 1989, air taxi/commuter operations fluctuated between 47,000 operations and 60,000operations. In 1999, MIA saw enormous growth in air taxi/commuter operations. Between 1990 and 2000, air taxi/commuter ranged from a low of 99,544 operations in 1990 to a high of 168,461 operations in 1995. Much of this growth was due to American Airlines increasing their ATR-42 and ATR-72 fleet in MIA to serve Florida cities and many of the islands of the Northern Caribbean. With the retiring of some of the turbo prop commuter aircraft by the airlines, air taxi/commuter aircraft at MIA began to decline in 2001 (**See Table 1-B**).

Table 1-B
Historic Air Taxi/Commuter Operations

Year	Operations	Year	Operations
1985	59,917	1995	168,461
1986	51,213	1996	161,235
1987	47,759	1997	153,179
1988	56,417	1998	157,498
1989	55,231	1999	128,039
1990	99,544	2000	107,437
1991	121,433	2001	99,676
1992	126,034	2002	71,358
1993	136,281	2003	55,385
1994	156,824		

Source: 2004 FAA TAF

General Aviation

General Aviation operations are defined by FAA air traffic control as civil operations not classified as air carrier, air taxi or military. General Aviation operations over the past eighteen years have remained fairly unchanged. In 2000, MIA saw a record high of 78,322 general aviation operations and in 1988, a record low of 45,718. In the early to mid 1990's general aviation operations were consistently in the 70,000 operations range.

In 2003, a significant decline in general aviation operations was experienced at MIA and prompted immediate review of the data and recording procedures. After reviewing the 2003 Air Traffic Activity Data (ATADS) for MIA, it was discovered that general aviation operations numbers dropped significantly in the second half of 2003 (**See Table 1-C**).

Table 1-C Historic General Aviation Operations			
Year	Operations	Year	Operations
1985	63,725	1995	72,810
1986	53,262	1996	64,441
1987	64,875	1997	64,727
1988	45,718	1998	68,691
1989	70,588	1999	74,509
1990	77,542	2000	78,322
1991	73,200	2001	68,631
1992	75,569	2002	61,577
1993	75,555	**2003	48,479
1994	70,637		

**2003 operations numbers skewed by procedure change in recording operations.
Source: 2004 FAA TAF

This decrease led to discussions with MIA Air Traffic Control (ATC). MIA ATC indicated that a change had occurred mid 2003 in the way tower personnel were counting general aviation operations. It was noted that this change in recording general aviation operations was linked to the implementation of the STARS system at MIA in June of 2003. **Table 1-D** shows the monthly operations data from the FAA's OPSNET database for 2003. In July of 2003, the first month the STARS system was operational, the general aviation operations numbers drop significantly while the overflight operations increased significantly. This trend has continued through 2004. The implementation of STARS has assisted ATC in more accurately identifying which general aviation aircraft landed or departed from MIA and which were overflights or handled by air traffic through the MIA airspace.

TABLE 1-D

		OPERATIONS	OVERFLIGHTS
FACILITY	DATE	GA	GA
MIA	Jan-03	6087	1247
MIA	Feb-03	5539	1302
MIA	Mar-03	6133	1353
MIA	Apr-03	5698	1269
MIA	May-03	5512	1126
MIA	Jun-03	4613	901
MIA	Jul-03	2315	2296
MIA	Aug-03	2161	1785
MIA	Sep-03	1983	1880
MIA	Oct-03	2761	3904
MIA	Nov-03	2950	4055
MIA	Dec-03	2727	4275
Total		**48479**	**25393**

Source: FAA OPSNET Data 2004

For the purposes of the Environmental Assessment and specifically aircraft noise, it was important to accurately identify the correct number of operations occurring at the airport (aircraft landings and takeoffs). Therefore, the proposed forecasts for the Environmental Assessment used 26,184 total general aviation operations for 2003 based on the ATADS . This approach was discussed, and agreed upon, by the FAA Tower Chief and staff, MDAD and consultants to this project.

Military

Military are defined as all classes of military operations and are aircraft movements conducted by any of the US Armed Forces or US Coast Guard aircraft operating at the airport. At MIA, the number of military operations are relatively small compared to the other categories of aircraft. A low of 511 operations military operations was recorded in 1986 and a high of 9,655 operations in 1992. Over the past five years, military operations have remained steady between 4,500 and 5,500 operations a year for MIA (**See Table 1-E**).

Table 1-E
Historic Military Operations

Year	Operations	Year	Operations
1985	791	1995	7,129
1986	511	1996	6,271
1987	641	1997	4,834
1988	1,684	1998	8,129
1989	5,155	1999	5,473
1990	7,226	2000	5,087
1991	5,781	2001	5,371
1992	9,655	2002	4,560
1993	6,206	2003	4,430
1994	5,606		

Source: 2004 FAA TAF

Methodology

According to a letter dated October 14, 2004 from the FAA, the year 2003 should represent the baseline year since it is the most recent full year of operational activity data. Additionally, 2005 was defined as the implementation year, the first full year the procedures could be utilized and 2010 would be the horizon year. Therefore, future activity projections were developed for the period 2004 through 2010.

A number of different approaches were considered in estimating the future operational activity levels at the Airport. Ultimately, it was determined that the FAA's 2004 Terminal Area Forecast (TAF) for MIA and its associated assumptions represented the best starting point. The TAF is used by the FAA for facility planning purposes and since the purpose of the associated EA is to analyze the impacts associated with a variety of operational modifications, the TAF appears a reasonable baseline for the analysis. The 2004 TAF projects activity base on the US Government's Fiscal Year. The first year of the projection is from October 1st 2003 though September 30, 2004. Since partial year

information is already available for 2004, this information was then used to create an adjusted or modified TAF for use in the Operational Environmental Assessment.

After consultation with MIA Air Traffic Control and MDAD, the approach taken in developing the modified TAF includes:

- Adjust the Fiscal Year information outlined in the TAF to a standard calendar year.
- Develop an adjusted 2004 estimated activity level from actual January through October activity levels.
- Use 2004 TAF growth rates for 2005 and beyond.
- Use ANOMS data to develop the baseline fleet mix.

The source for the adjustments made in developing the modified TAF is the activity information outlined in the Air Traffic Activity Data System (ATADS). This system maintains monthly operational information by activity type for a variety of airports with air traffic control towers.

Operational Projections

The following section outlines the FAA's existing 2004 TAF assumptions and growth rates. It then reviews the adjustments made to this projection to better reflect existing conditions as reflected in the modified TAF.

Existing 2004 TAF

The 2004 FAA TAF for MIA provided a snapshot of both historical and projected operations for the airport. A number of things may have caused a decline in operations at MIA over the last several years including September 11, higher operating fees at the airport, competition with Fort Lauderdale International Airport and the financial condition of the airlines. The 2004 TAF incorporates these considerations and projects total operations to slightly increase by the end of 2004 and grow by roughly 1.26% over the next six years. **Table 1-F** depicts the 2004 TAF operation levels broken down by operation type and by year.

TABLE 1-F 2004 Terminal Area Forecast (Operations) Miami International Airport						
Year	Air Carrier	Air Taxi	General Aviation	Military	Local Operations	Total
1999	315,256	128,039	74,509	5,473	0	523,277
2000	325,100	107,437	78,322	5,087	63	516,009
2001	315,318	99,676	68,631	5,371	62	489,058
2002	304,863	71,358	61,577	4,560	0	442,358
2003	308,713	54,655	55,187	3,493	0	422,048
2004	322,073	50,938	55,140	3,487	0	431,638
2005	327,225	51,192	55,140	3,487	0	437,044
2006	332,459	51,447	55,140	3,487	0	442,533
2007	337,776	51,704	55,140	3,487	0	448,107
2008	343,178	51,962	55,140	3,487	0	453,767
2009	348,667	52,221	55,140	3,487	0	459,515
2010	354,243	52,482	55,140	3,487	0	465,352

Source: 2004 FAA TAF

Beyond 2004, the two categories of aircraft operations anticipated to grow are the air carrier and air taxi/commuter operations. General aviation is projected to remain relatively flat based on the TAF but in reality GA operations will appear to decline due to the new counting procedures implemented by the air traffic control tower in the summer of 2004 (as discussed previously). Military operations are also anticipated to remain flat and only account for roughly 1% of the total operations at MIA.

Table 1-G depicts the TAF growth rates used for each year and aircraft operation category.

TABLE 1-G 2004 Terminal Area Forecast Growth Rates							
Aircraft Category	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Air Carrier	*4.33%*	*1.60%*	*1.60%*	*1.60%*	*1.60%*	*1.60%*	*1.60%*
Air Taxi/Commuter	*-6.80%*	*0.50%*	*0.50%*	*0.50%*	*0.50%*	*0.50%*	*0.50%*
General Aviation	*0.09%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Military	*0.17%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*	*0.00%*
Total	*2.27%*	*1.25%*	*1.26%*	*1.26%*	*1.26%*	*1.27%*	*1.27%*

Source: 2004 FAA TAF

The Modified TAF

The 2004 TAF was changed to a calendar year and then modified to more accurately reflect recent changes in aircraft activity. Most notably the modified TAF reflects the change in activity levels associated with GA aircraft that resulted from incorrect reporting techniques. It also includes actual 2004 partial year data to project revised year end activity levels for air carrier, air taxi/commuter and military aircraft. Combining the adjusted 2004 data with the 2004 TAF growth rates for each aircraft type, a modified

projection of operations were developed for 2005 through 2010 for each of the aircraft categories. **Table 1-H** shows the 2004 FAA TAF and the modified TAF.

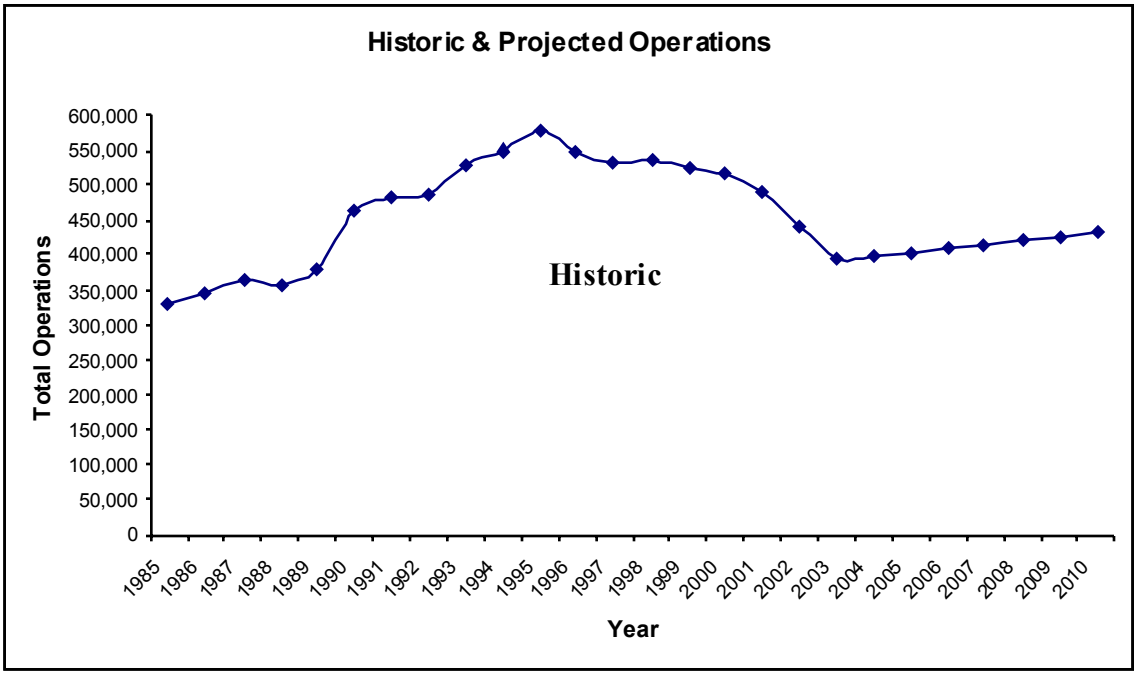
TABLE 1-H

	2003	2004	2005	2006	2007	2008	2009	2010
FAA TAF '04 (FY)								
TOTAL Ops	422,048	431,638	437,044	442,533	448,107	453,767	459,515	465,352
Air Carrier	308,713	322,073	327,225	332,459	337,776	343,178	348,667	354,243
Air Taxi	54,655	50,938	51,192	51,447	51,704	51,962	52,221	52,482
General Aviation	55,187	55,140	55,140	55,140	55,140	55,140	55,140	55,140
Military	3,493	3,487	3,487	3,487	3,487	3,487	3,487	3,487
Modified TAF (Revised to CY)								
TOTAL Ops	392,837	398,655	403,897	409,219	414,623	420,109	425,681	431,338
Air Carrier	306,838	309,484	314,435	319,464	324,573	329,764	335,039	340,397
Air Taxi	55,385	58,419	58,710	59,003	59,297	59,593	59,890	60,190
General Aviation	26,184	26,184	26,184	26,184	26,184	26,184	26,184	26,184
Military	4,430	4,568	4,568	4,568	4,568	4,568	4,568	4,568

Source: ESA Analysis

Based on the assumptions outlined in the 2004 TAF regarding growth at the airport, it is believed that the modified TAF represents a good short term projection of the activity anticipated to occur at MIA over the next six years. In the first quarter of 2005, the FAA will release the 2005 TAF. The modified 2004 TAF outlined above, which considers many of the variables the FAA will consider in reviewing and adjusting the TAF, is anticipated to be very similar to the revised projections outlined in the 2005 document. **Exhibit A-2** shows the historic and projected operations at MIA based on the modified TAF forecasts.

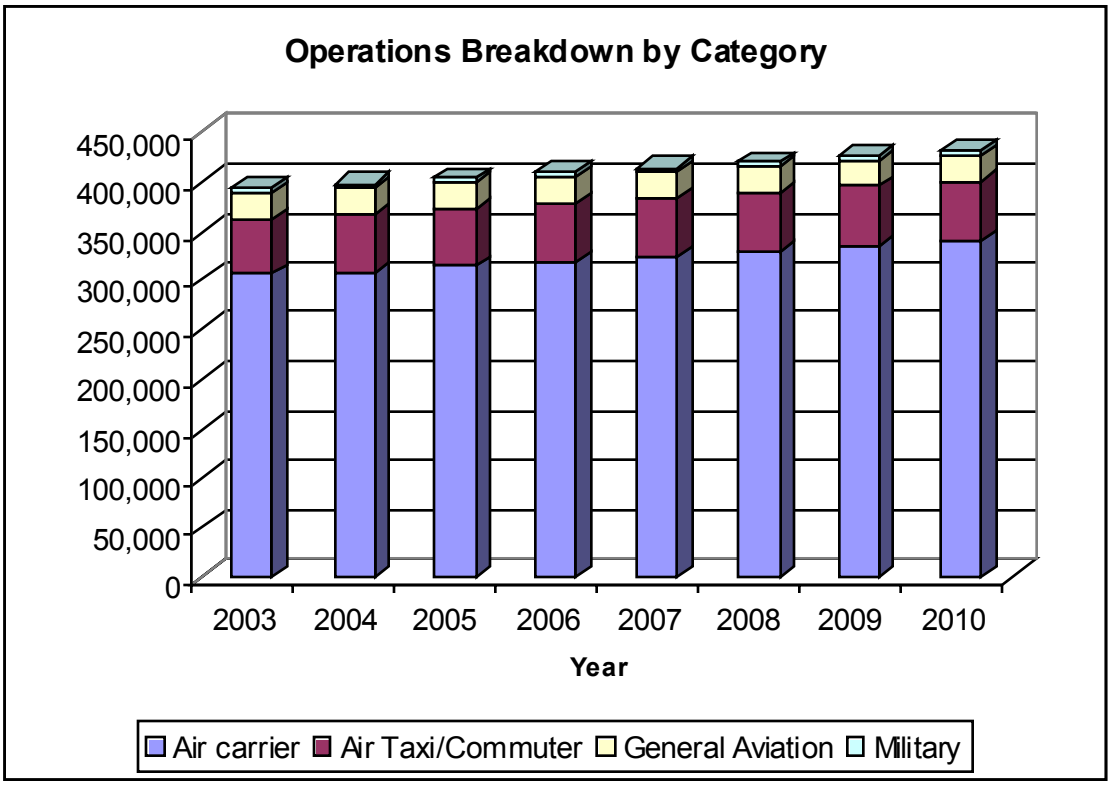
EXHIBIT A-2



Source: ESA Analysis
Note: Prior to 2003 the operations numbers are likely inflated due to incorrect reporting of GA activity.

It can be determined in reviewing Table 1-D that the primary difference between the two projections is the level of GA activity. It has already been noted elsewhere that the 2004 TAF reflects a GA activity level based on incorrect reporting of GA activity. The discrepancy was confirmed with the MIA air traffic control tower and through discussion with the FBO. Other differences in the projections relate to the proportion of air carrier and air taxi/commuter aircraft. The 2004 TAF projected a considerable increase in air carrier activity in the year 2004 and a reduction in air taxi/commuter activity in the year 2004. However, based on 2004 actual numbers, air carrier grew slightly while air taxi actually grew by more than 5 percent. A breakdown of projected operations by category for the modified TAF is shown in **Exhibit A-3**.

EXHIBIT A-3



Source: ESA Analysis

The FAA has provided guidance in preparing forecasts for large hub airports. In reviewing the forecasts the FAA looks for consistency with the proposed forecasts and the current FAA TAF. The FAA considers revised projections of aviation activity to be consistent with the TAF if they differ by less than 10% within the first 5 year. When discounting the difference resulting from the incorrect recording of GA activity, it can be determined that the projection outlined in the modified TAF differs from the 2004 TAF by far less than 10 percent. Additionally, it is anticipated that the upcoming release of the FAA's 2005 TAF will differ even less.

Fleet Mix Projections

The fleet mix is an important component for the Integrated Noise Model and developing the noise contours. MIA has a system implemented at the airport known as ANOMS (Airport Noise and Operations Management System). This system provides operational data for arriving and departing aircraft at MIA. The system is operated by MDAD and consists of a number of stations which monitor and collect data on aircraft noise, flight tracks, aircraft altitudes, and other pertinent aircraft information. The ANOMS data provided the basis in formulating the fleet mix for the baseline year, 2003.

The data collected from the ANOMS is electronically generated and can be easily sorted by aircraft type, airline, time, day, etc. It was also used in identifying the runway use and day night splits which are also important inputs into the Integrated Noise Model. Based on the 2003 ANOMS data, percentages were calculated for each aircraft type and broken out into air carrier operations, air taxi/commuter, general aviation and military operations to formulate the baseline fleet mix at MIA.

Once the baseline was established for the fleet mix, projections of the fleet mix were required based on the future projection of aviation activity. The planning years of 2005 and 2010 were reviewed and a number of sources for fleet mix information were analyzed. These sources included the following:

- Orders and Deliveries by airline from the Airbus Aircraft web site.
- Orders and Deliveries by Airline from the Boeing Aircraft web site.
- Both Boeing and Airbus's world wide fleet projections were reviewed for aircraft types.
- The 2004 Aviation Week and Space Technology Aerospace Source Book.
- J.P. Fleets

The above sources were reviewed to gain an understanding and project the future fleet mix for the airlines and cargo carriers operating at MIA in the near future. Since September 11, 2001, many of the airlines went through a major revamping of their fleets which included retiring some of the older aircraft and canceling delivery of newer aircraft. **Table 1-I** outlines the resulting air carrier fleet mix for the baseline (2003), 2005 and 2010.

TABLE 1-I
AIR CARRIER OPERATIONS

	BASELINE 2003		2005		2010	
Aircraft type	Aircraft Ops	Percentage	Percentage	Aircraft Ops	Percentage	Aircraft Ops
A300	16670.46	5.43%	5.35%	16,822.25	5.10%	17,360.22
A310	225.22	0.07%	0.07%	227.97	0.07%	231.47
A319	13266.78	4.32%	4.32%	13,595.23	4.32%	14,717.75
A320	15237.75	4.97%	4.98%	15,658.84	4.99%	16,985.79
A321	554.25	0.18%	0.18%	567.98	0.18%	614.87
A330	1405.81	0.46%	0.46%	1,446.08	0.46%	1,579.44
A340	816.58	0.27%	0.27%	836.80	0.27%	905.89
B-707	23.31	0.01%	0.01%	23.89	0.01%	27.23
B-717-200	3726.77	1.21%	1.26%	3,957.16	1.28%	4,363.88
B-727	13558.66	4.42%	4.20%	13,206.25	3.30%	11,233.09
B-737-200	3440.96	1.12%	1.10%	3,458.78	1.00%	3,403.97
B-737-300	6620.28	2.16%	2.16%	6,784.18	2.16%	7,344.33
B-737-400	4973.74	1.62%	1.62%	5,096.88	1.62%	5,517.83
B-737-500	1074.79	0.35%	0.36%	1,131.96	0.42%	1,436.47
B-737-700	4494.43	1.46%	1.66%	5,224.33	1.80%	6,127.14
B-737-800	46617.31	15.19%	15.29%	48,080.20	16.00%	54,463.45
B-747-100	27.51	0.01%	0.01%	28.19	0.01%	30.52
B-747-200	7649.61	2.49%	2.49%	7,839.00	2.49%	8,486.24
B-747-400	116.01	0.04%	0.04%	125.77	0.05%	166.79
B-757-200	54533.35	17.77%	17.74%	55,780.70	17.70%	60,250.19
B-757-300	56.16	0.02%	0.03%	78.61	0.05%	170.20
B-767-200	2908.90	0.95%	0.95%	2,980.92	0.95%	3,227.04
B-767-300	25936.49	8.45%	8.64%	27,167.15	8.85%	30,125.10
B-767-400	1517.81	0.49%	0.57%	1,792.28	1.39%	4,731.51
B-777-200	5421.07	1.77%	1.89%	5,942.81	2.24%	7,635.09
CVR580	102.31	0.03%	0.03%	104.85	0.03%	113.50
DC-10	5562.43	1.81%	1.77%	5,565.49	1.62%	5,514.42
DC-860	5820.25	1.90%	1.78%	5,596.94	1.70%	5,786.74
DC-870	3279.55	1.07%	1.00%	3,144.35	0.90%	3,063.57
DC-9	1784.29	0.58%	0.58%	1,828.47	0.58%	1,979.44
F-100	1163.19	0.38%	0.35%	1,100.52	0.31%	1,055.23
F-28	2.21	0.00%	0.00%	2.27	0.00%	2.46
ATR-72	23065.89	7.52%	7.40%	23,268.16	6.70%	22,806.57
L1011	681.98	0.22%	0.22%	698.87	0.22%	756.57
L188	2.19	0.00%	0.00%	2.24	0.00%	2.43
MD-11	3333.94	1.09%	1.09%	3,416.48	1.09%	3,698.57
MD-81	16841.91	5.49%	5.48%	17,231.02	5.48%	18,653.73
MD-82	10856.86	3.54%	3.53%	11,099.54	3.53%	12,016.00
MD-83	3466.93	1.13%	1.12%	3,521.67	1.12%	3,812.44
Air Carrier Totals	**306,838**	**100.00%**	**100.00%**	**314,435**	**100.00%**	**340,397**

Source: ESA Analysis

Air taxi/commuter, general aviation and military aircraft fleet mix projections were based on the historic trends analyzed at the airport. The ANOMS information was reviewed for the past two years to determine which aircraft categories changed and which were anticipated to change in the future. Information on the small jet manufacturers and turbo prop companies were also reviewed to determine if any changes would be occurring in these types of aircraft produced over the next six years. **Table 1-J** depicts the fleet mix for air taxi/commuter, **Table 1-K** outlines the fleet mix for general aviation and **Table 1-L** outlines the fleet mix for military for the baseline year as well as 2005 and 2010.

TABLE 1-J
Air Taxi/Commuter

	BASELINE 2003		2005		2010	
Aircraft type	Aircraft Ops	Percentage	Percentage	Aircraft Ops	Percentage	Aircraft Ops
BEC58P	479.13	0.87%	0.87%	507.90	0.87%	520.70
CIT3	207.83	0.38%	0.38%	220.31	0.38%	225.86
CL600	3,999.54	7.22%	7.35%	4,315.21	7.40%	4,454.04
CL601	4,938.05	8.92%	9.00%	5,283.93	9.10%	5,477.27
CNA172	9.73	0.02%	0.02%	10.32	0.02%	10.58
CNA206	39.99	0.07%	0.07%	42.40	0.07%	43.46
CNA20T	564.15	1.02%	1.02%	598.02	1.02%	613.09
CNA441	30.28	0.05%	0.05%	32.10	0.05%	32.91
CNA500	135.55	0.24%	0.24%	143.68	0.24%	147.30
CNA55B	157.37	0.28%	0.28%	166.82	0.28%	171.02
CNA750	733.25	1.32%	1.32%	777.28	1.32%	796.87
DC3	5.36	0.01%	0.01%	5.68	0.01%	5.82
DC6	3.94	0.01%	0.01%	4.18	0.01%	4.29
DHC6	28,109.13	50.75%	49.84%	29,261.80	48.80%	29,372.60
DHC7	3.64	0.01%	0.01%	3.86	0.01%	3.96
DHC8	2,893.66	5.22%	5.30%	3,111.65	5.60%	3,370.63
DHC830	1,571.27	2.84%	2.90%	1,702.60	3.05%	1,835.79
EMB120	8.50	0.02%	0.02%	9.01	0.02%	9.24
EMB145	2,344.08	4.23%	4.74%	2,780.81	5.18%	3,116.63
FAL20	91.38	0.16%	0.16%	96.86	0.16%	99.30
FAL50	120.19	0.22%	0.22%	127.41	0.22%	130.62
FAL900	18.67	0.03%	0.03%	19.80	0.03%	20.29
GASEPF	21.17	0.04%	0.04%	22.44	0.04%	23.01
GASEPV	4.93	0.01%	0.01%	5.22	0.01%	5.35
GII	62.64	0.11%	0.11%	66.40	0.11%	68.07
GIIB	45.84	0.08%	0.08%	48.59	0.08%	49.82
GIV	118.71	0.21%	0.26%	155.00	0.26%	159.20
GV	105.38	0.19%	0.20%	117.42	0.20%	120.38
HS748A	589.97	1.07%	1.07%	625.40	1.07%	641.16
IA1125	70.15	0.13%	0.13%	74.36	0.13%	76.23
LEAR25	380.14	0.69%	0.69%	402.97	0.69%	413.12
LEAR35	4,759.01	8.59%	8.59%	5,044.74	8.59%	5,171.86
MU3001	1,635.80	2.95%	2.95%	1,731.95	2.95%	1,775.60
SD330	1,126.55	2.03%	2.03%	1,194.19	2.03%	1,224.28
Air Taxi/Commuter Total	**55,385**	**100.00%**	**100.00%**	**58,710**	**100.00%**	**60,190**

Source: ESA Analysis

TABLE 1-K General Aviation						
	BASELINE 2003		2005		2010	
Aircraft type	Aircraft Ops	Percentage	Percentage	Aircraft Ops	Percentage	Aircraft Ops
BEC58P	1999.05	7.63%	7.63%	1,999.05	7.63%	1,999.05
CIT3	503.33	1.92%	2.00%	523.68	2.05%	536.77
CL600	1584.63	6.05%	6.10%	1,597.22	6.16%	1,612.93
CL601	346.14	1.32%	1.34%	350.87	1.34%	350.87
CNA172	184.19	0.70%	0.69%	180.67	0.64%	167.58
CNA206	222.29	0.85%	0.85%	222.29	0.82%	214.71
CNA20T	1503.65	5.74%	5.74%	1,503.65	5.74%	1,503.65
CNA441	1120.06	4.28%	4.28%	1,120.06	4.28%	1,120.06
CNA500	495.40	1.89%	1.89%	495.40	1.89%	495.40
CNA55B	643.72	2.46%	2.46%	643.72	2.46%	643.72
CNA750	335.03	1.28%	1.28%	335.03	1.28%	335.03
DC3	362.02	1.38%	1.30%	340.39	1.30%	340.39
DC6	20.64	0.08%	0.08%	20.64	0.08%	20.64
DHC6	1509.21	5.76%	5.76%	1,509.21	5.76%	1,509.21
DHC7	3.57	0.01%	0.01%	3.57	0.01%	3.57
DHC8	1.59	0.01%	0.01%	1.59	0.01%	1.59
DHC830	6.35	0.02%	0.02%	6.35	0.02%	6.35
EMB120	6.35	0.02%	0.02%	6.35	0.02%	6.35
EMB145	4.76	0.02%	0.02%	4.76	0.02%	4.76
FAL20	268.34	1.02%	1.02%	268.34	1.02%	268.34
FAL50	565.66	2.16%	2.16%	565.66	2.16%	565.66
FAL900	700.22	2.67%	2.70%	706.97	2.75%	720.06
GASEPF	600.09	2.29%	2.20%	576.05	2.05%	536.77
GASEPV	674.82	2.58%	2.50%	654.60	2.20%	576.05
GII	443.00	1.69%	1.69%	443.00	1.69%	442.51
GIIB	457.29	1.75%	1.75%	457.29	1.75%	457.29
GIV	1186.09	4.53%	4.58%	1,199.23	4.70%	1,230.65
GV	920.13	3.51%	3.56%	932.15	3.81%	997.61
HS748A	892.35	3.41%	3.41%	892.35	3.41%	892.35
IA1125	488.51	1.87%	1.87%	488.51	1.87%	488.51
LEAR25	1622.74	6.20%	6.20%	1,622.74	6.20%	1,622.74
LEAR35	4947.21	18.89%	18.89%	4,947.21	18.89%	4,947.21
MU3001	1489.36	5.69%	5.69%	1,489.36	5.69%	1,489.36
SD330	74.63	0.29%	0.29%	74.63	0.29%	74.63
SF340	1.59	0.01%	0.01%	1.59	0.01%	1.59
General Aviation Totals	**26,184**	**100.00%**	**100.00%**	**26,184**	**100.00%**	**26,184**

Source: ESA Analysis

TABLE 1-L Military						
	Baseline 2003		2005		2010	
Aircraft Type	Aircraft Ops	Percentage	Aircraft Ops	Percentage	Aircraft Ops	Percentage
707320	1,527.30	34.48%	34.48%	1,574.88	34.48%	1,574.88
C130	2,524.93	57.00%	57.00%	2,603.59	57.00%	2,603.59
S3A&B	40.93	0.92%	0.92%	42.21	0.92%	42.21
T-38A	336.83	7.60%	7.60%	347.32	7.60%	347.32
Military Totals	**4,430**	100.00%	100.00%	**4,568**	**100.00%**	**4,568**

Source: ESA Analysis

APPENDIX B

TABLE 1—LAND USE COMPATIBILITY WITH YEARLY DAY-NIGHT AVERAGE SOUND

Land Use	Yearly day-night average sound level (L_{dn}) in decibels					
	< 65	65-70	70-75	75-80	80-85	> 85
Residential						
Residential, other than mobile homes and transient lodgings	Y	N (1)	N (1)	N	N	N
Mobile home parks	Y	N	N	N	N	N
Transient lodgings	Y	N (1)	N (1)	N (1)	N	N
Public Use						
Schools	Y	N (1)	N (1)	N	N	N
Hospitals, nursing homes	Y	25	30	N	N	N
Churches, auditoriums, and concert halls	Y	25	30	N	N	N
Government services	Y	Y	25	30	N	N
Transportation	Y	Y	Y (2)	Y (3)	Y (4)	Y (4)
Parking	Y	Y	Y (2)	Y (3)	Y (4)	N
Commercial Use						
Offices, business and professional	Y	Y	25	30	N	N
Wholesale and retail- building materials, hardware and farm equipment	Y	Y	Y (2)	Y (3)	Y (4)	N
Retail trade-general	Y	Y	25	30	N	N
Utilities	Y	Y	Y (2)	Y (3)	Y (4)	N
Communication	Y	Y	25	30	N	N
Manufacturing and Production						
Manufacturing, general	Y	Y	Y (2)	Y (3)	Y (4)	N
Photographic and optical	Y	Y	25	30	N	N
Agriculture (except livestock) and forestry	Y	Y (6)	Y (7)	Y (8)	Y (8)	Y (8)
Livestock farming and breeding	Y	Y (6)	Y (7)	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Recreational						
Outdoor sports arenas and spectator sports	Y	Y (5)	Y (5)	N	N	N
Outdoor music shells, amphitheaters	Y	N	N	N	N	N
Nature exhibits and zoos	Y	Y	N	N	N	N
Amusements, parks, resorts, and camps	Y	Y	Y	N	N	N
Golf courses, riding stables and water recreation	Y	Y	25	30	N	N

Numbers in parenthesis refer to notes; see continuation of Table 1 for notes and key.

The designations contained in this table do not constitute a Federal determination that any use of land covered by the program is acceptable or unacceptable under Federal, State, or local law. The responsibility for determining the acceptable and permissible land uses and the relationship between specific properties and specific noise contours rests with the local authorities. FAA determinations under Part 150 are not intended to substitute Federally determined land uses for those determined to be appropriate by local authorities in response to locally determined needs and values in achieving noise compatible land uses.

(more)

TABLE 1—LAND USE COMPATIBILITY WITH YEARLY DAY-NIGHT AVERAGE SOUND LEVELS (CONTINUED)

Key to Table 1	
Y (YES)	Land Use and related structures compatible without restrictions.
N (NO)	Land Use and related structures are not compatible and should be prohibited.
NLR	Noise Level Reduction (outdoor to indoor) to be achieved through incorporation of noise attenuation into the design and construction of the structure.
25, 30, or 35	Land use and related structures generally compatible; measures to achieve NLR of 25, 30 or 35 dB must be incorporated into design and construction of structure.
Notes for Table 1	
(1)	Where the community determines that residential or school uses must be allowed, measures to achieve outdoor to indoor Noise Level Reduction (NLR) of at least 25 dB and 30 dB should be incorporated into building codes and be considered in individual approvals. Normal residential construction can be expected to provide a NLR of 20 dB, thus, the reduction requirements are often stated as 5, 10 or 15 dB over standard construction and normally assume mechanical ventilation and closed windows year round. However, the use of NLR criteria will not eliminate outdoor noise problems.
(2)	Measures to achieve NLR of 25 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(3)	Measures to achieve NLR of 30 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(4)	Measures to achieve NLR of 35 dB must be incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where the normal noise level is low.
(5)	Land use compatible provided special sound reinforcement systems are installed.
(6)	Residential buildings require an NLR of 25.
(7)	Residential buildings require an NLR of 30.
(8)	Residential buildings not permitted.
(end of Table 1)	

FAA FAR Part 150 Study Compatible Land Use Guidelines

Land Use	Yearly Day-Night Average in Decibels: Below 65	65-70	70-75	75-80	80-85	Over 85
RESIDENTIAL						
Residential, other than mobile homes and transient lodgings	Y	N_1	N_1	N	N	N
Household units, (11)						
Single units - detached (11.11)						
Single units - semidetached (11.12)						
Single units - attached row (11.13)						
Two units - side-by-side (11.21)						
Two units - one above the other (11.22)						
Apartments - walk up (11.31)						
Apartments - elevator (11.32)						
Group quarters (12)						
Residential hotels (13)						
Other residential (19)						
Mobile home parks (14)	Y	N	N	N	N	N
Transient lodgings (15)	Y	N_1	N_1	N_1	N	N
PUBLIC USE:						
Schools	Y	N_1	N_1	N	N	N
Educational services (68)						
Hospitals and nursing homes	Y	25	30	N	N	N
Hospitals, nursing homes (65.13, 65.16)						
Churches, auditoriums and concert halls	Y	25	30	N	N	N
Cultural activities (including churches) (71)						
Auditoriums, concert halls (72.1)						
Government services (67)	Y	Y	25	30	N	N
Transportation	Y	Y	Y_2	Y_3	Y_4	Y_4
Railroad, rapid rail transit/street railway (41)						
Motor vehicle (42)						
Aircraft (43)						
Marine craft (44)						
Highway and street right-of-way (45)						
Parking (46)	Y	Y	Y_2	Y_3	Y_4	N
COMMERCIAL USE						
Offices, business and professional	Y	Y	25	30	N	N
Finance, insurance and real estate services (61)						
Personal services (62)						
Business services (63)						
Professional services (65)						
Other medical facilities (65.1)						
Miscellaneous services (69)						
Wholesale and retail - building materials, hardware and farm equipment	Y	Y	Y_2	Y_3	Y_4	N
Wholesale trade (51)						
Retail trade - building materials, hardware and farm equipment (52)						
Repair services (64)						
Contract construction services (66)						
Retail trade - general	Y	Y	25	30	N	N
General merchandise (55)						
Food (54)						
Automotive, marine craft, aircraft and accessories (55)						
Apparel and accessories (56)						
Furniture, home furnishings and equipment (57)						
Eating and drinking establishments (58)						
Other retail trade (59)						
Utilities (48)	Y	Y	Y_2	Y_3	Y_4	N
Communication (47)	Y	Y	25	30	N^4	N

Land Use	Yearly Day-Night Average in Decibels: Below 65	65-70	70-75	75-80	80-85	Over 85
MANUFACTURING AND PRODUCTION						
Manufacturing, general	Y	Y	Y_2	Y_3	Y_4	N
Food and kindred products (21)						
Textile mill products (22)						
Apparel and other finished products - fabric leather and similar materials (23)						
Lumber and wood (except furniture) (24)						
Furniture and fixtures (25)						
Paper and allied products (26)						
Printing/publishing/allied industries (27)						
Chemicals and allied products (28)						
Petroleum refining/related industries (29)						
Rubber and misc. plastic products (31)						
Stone, clay and glass products (32)						
Primary metal industries (33)						
Fabricated metal products (34)						
Miscellaneous (39)						
Photographic and optical	Y	Y	25	30	N	N
Professional/scientific/controlling instruments photographic/optical goods; watches, clocks (35)						
Agriculture (except livestock) and forestry	Y	Y_6	Y_7	Y_8	Y_8	Y_8
Agriculture (except livestock) (81)						
Agricultural related activities (82)						
Forestry activities and related services (83)						
Livestock farming and breeding (81.5 to 81.7)	Y	Y_6	Y_7	N	N	N
Mining and fishing, resource production and extraction	Y	Y	Y	Y	Y	Y
Fishing activities and related services (84)						
Mining activities and related services (85)						
Other resource production and extraction (89)						
RECREATIONAL						
Outdoor sports arenas and spectator sports (72.2)	Y	Y^5	Y^5	N	N	N
Outdoor music shells, amphitheaters (72.11)	Y	N	N	N	N	N
Nature exhibits and zoos (71.2)	Y	Y	N	N	N	N
Amusements, parks, resorts and camps	Y	Y	Y	N	N	N
Amusements (73)						
Parks (76)						
Public assembly (72)						
Resorts and group camps (75)						
Other cultural, entertainment and recreation (79)						
Golf courses, riding stables and water recreation (74)	Y	Y	25	30	N	N

Source: FAA Advisory Circular 150/5020-12

Y (Yes) = Land use and related structures compatible without restrictions.

N (No) = Land use and related structures are not compatible and should be prohibited.

25, 30 or 35 = Land use and related structures generally compatible; measures to achieve Noise Level Reduction (NLR), outdoor to indoor, of 25, 30 or 35 must be incorporated into design and construction of structure.

Number in ( ) = Standard Land Use Coding Manual (SLUCM).

1 Where the community determines that residential uses must be allowed, measures to achieve outdoor to indoor NLR of at least 25 and 30 dB should be incorporated into building codes and be considered in individual approvals.
2 Compatible where measures to achieve NLR of 25 are incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
3 Compatible where measures to achieve NLR of 30 are incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
4 Compatible where measures to achieve NLR of 35 are incorporated into the design and construction of portions of these buildings where the public is received, office areas, noise sensitive areas or where normal noise level is low.
5 Land use compatible provided special sound reinforcement systems are installed.
6 Prime use only, any residential buildings require a NLR of 25 to be compatible.
7 Prime use only, any residential buildings require a NLR of 30 to be compatible.
8 Prime use only, NLR for residential buildings not normally feasible, and such uses should be prohibited.

APPENDIX C

High Altitude Air Traffic Noise Analysis

FAA regulations require that new flight procedures that routinely route air traffic over residential areas be evaluated for potential noise impacts. These regulations state that changes to departure routes where typical aircraft altitudes are between 3,000 feet and 10,000 feet above ground level (AGL) will be subject to a noise screening analysis. Similarly, changes in arrival routes that affect aircraft operating at altitudes between 3,000 feet and 7,000 feet AGL will also be subject to a noise screening analysis.

The Air Traffic Noise Screening Model (ATNS) Version 2.0 is currently used to project potential ground level noise increases from large jet aircraft (greater than 75,000 pounds) operating at high altitudes. If the model projects a five decibel (dB) or greater increase in the day-night average noise level (DNL) at residential or other noise sensitive sites not routinely exposed to noise from aircraft operating at altitudes between 3,000 and 10,000 feet, additional noise impact studies need to be conducted as part of the overall environmental analysis. Average noise level increases of five dB or greater in residential areas not already exposed to aircraft noise may generate adverse community reaction and, thus, may be considered highly controversial by persons affected by the additional noise even though the noise levels are below the standard criteria for significant impact. FAA is then required to conduct additional noise analysis of sensitive areas affected by a 5 dB increase in aircraft noise levels. This normally consists of projecting DNL values at locations within affected communities.

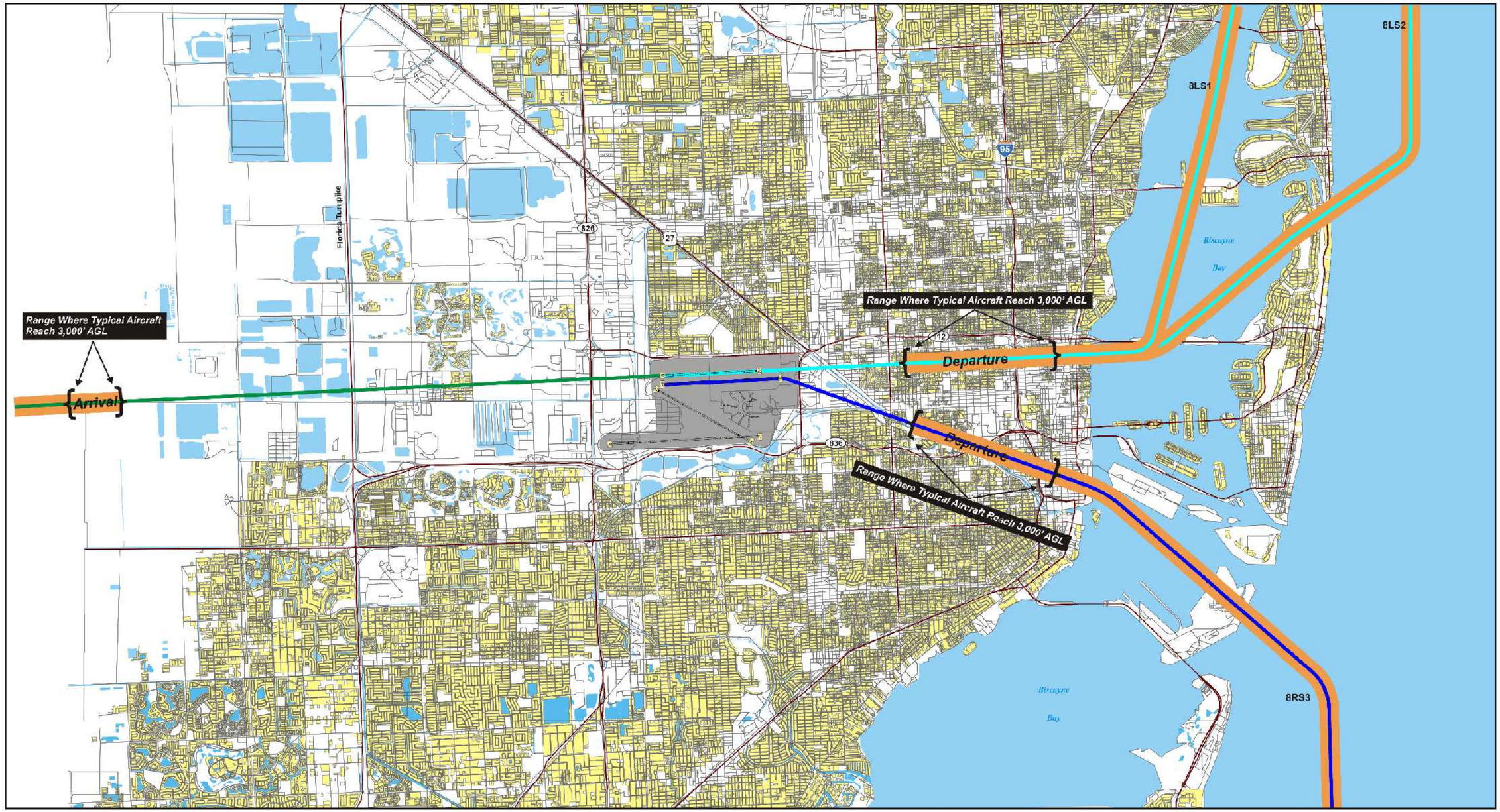
The applicable air traffic actions associated with this project are the establishment of arrival and departure flight tracks as part of the operational noise mitigation procedures. Additionally, all air traffic operations from the new runway were analyzed.

As presented in Section 4 of the document, the new flight tracks associated with the proposed procedures at the Airport will be in close proximity to and, in some cases parallel to existing flight tracks. Because the distances between the new flight tracks and the existing flight tracks will not exceed the lateral minima of one-to-two nautical miles, residential areas under the tracks are considered to be routinely exposed to aircraft noise under the current operating procedures. No new noise impacts will be created once flight operations are initiated using the proposed noise abatement procedures. However, reassigning aircraft to the tracks may result in an increase in the number of operations on a given track and may increase noise levels to sensitive areas under the tracks.

The ATNS model was run for new flight tracks that are projected to have the largest number of operations of large jet aircraft and for existing flight tracks that are projected to have the largest increase in large jet operations. Average daily operations on the new tracks would range from one flight to 13 flights per day. Output from the model indicated that communities under the flight tracks would not experience noise level increases of 5 dB from aircraft operating at altitudes above 3,000 feet. This information is provided in this Appendix.

Arrival and departure operations for the new runway were also evaluated. However, only one arrival and one departure flight track was modeled for all arrival and all departure operations – worst-case scenarios. Normally, aircraft would be distributed over a number of flight tracks diffusing noise over a larger area. Model output indicated that communities under any of the new runway flight tracks would not experience noise level increases of 5 dB from aircraft operating at altitudes above 3,000 feet. This output is included in this Appendix. No additional noise analysis is required for high altitude air traffic operations.

Air Traffic Noise Screening Model (ATNS) Evaluation Area - East Flow



MIAMI-DADE

Operational Noise Mitigation Procedures
Environmental Assessment

- Runway 8L Departure Track
- Runway 8R Departure Track
- Runway 8L Arriva Track
- Residential Land Use
- ATNS Model Evaluation Area

N

Scale
0 4500 9000
Feet

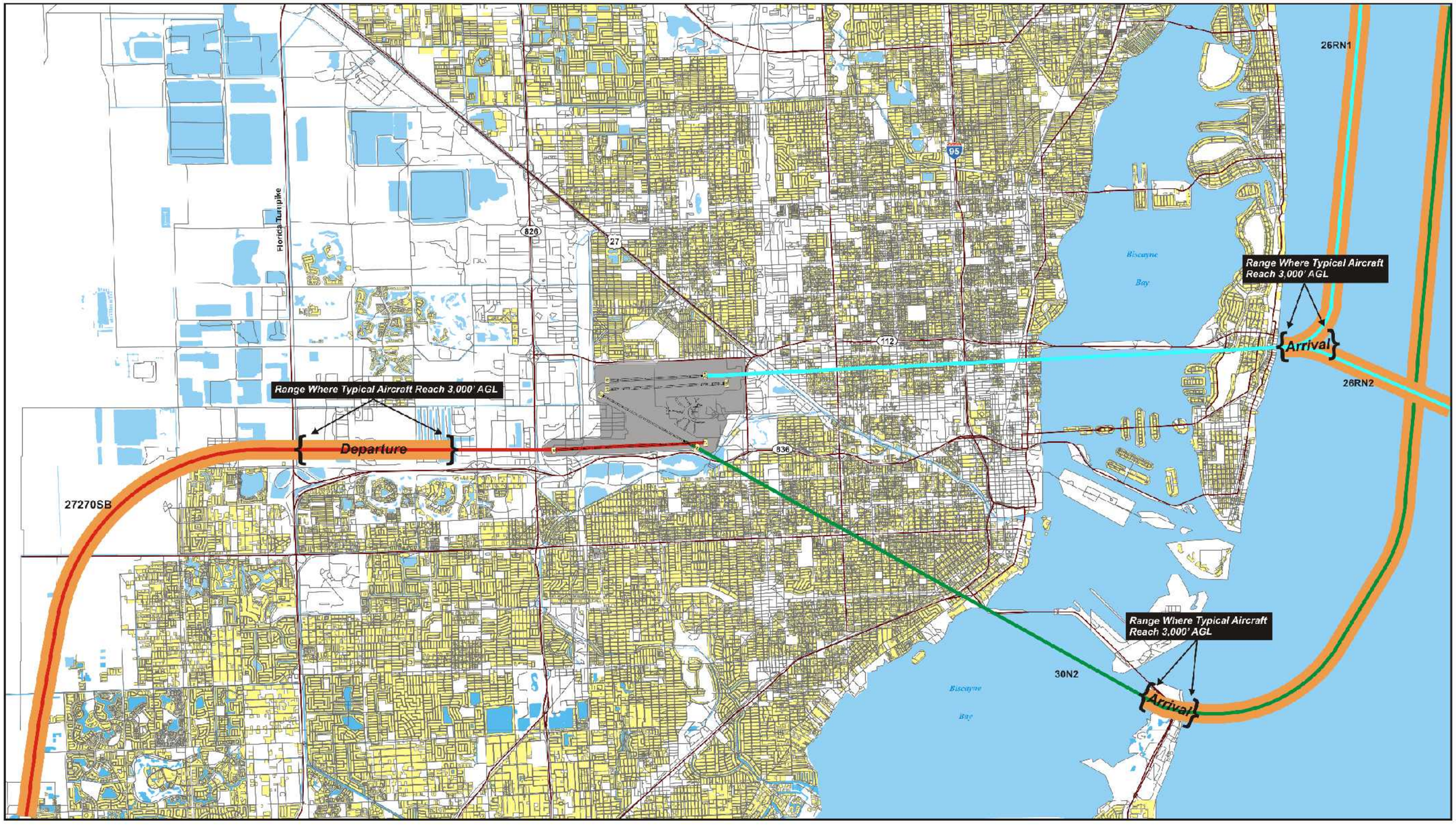
Miami-Dade Aviation Department

Baseman Source. Miami-Dade County

MIA MIAMI INTERNATIONAL AIRPORT

Exhibit C-1

Air Traffic Noise Screening Model (ATNS) Evaluation Area - West Flow



MIAMI-DADE

Operational Noise Mitigation Procedures Environmental Assessment

Runway 27 Departure Track

Runway 30 Arrival Track

Runway 26R Arrival Track

Residential Land Use

ATNS Model Evaluation Area

N

Scale

0 4500 9000

Feet

Miami-Dade Aviation Department

MIAMI INTERNATIONAL AIRPORT

Exhibit C-2

Basemap Source: Miami-Dade County

NOISE SCREENING PROCEDURE FOR CERTAIN AIR TRAFFIC ACTIONS ABOVE 3,000 FEET AGL

DATE: Fri Jul 22 13:06:30 2005

Airport Name: Miami International
Assessment Description: Runway 8 (8L) -2010 Arrivals - all operations on one track
Facility Conducting Review: HMMH Inc.
Name/Title of Reviewer: Robert Mentzer Jr., Senior Scientist

ASSESSMENT RESULTS
Assessment terminated because number of flights is fewer than minimum allowed in Table 1. ATNS assessment indicates NO NEW NOISE impact from the proposed action.

ASSESSMENT DATA
TYPE OF OPERATION: Arrival

ANNUAL LJA OPERATIONS:
CURRENT: 285187 PROJECTED: 319049

INTENT OF PROPOSED ROUTE CHANGE: Proposed Change

COMMUNITIES WITHIN 3nm OF PROPOSED CHANGE:

Name	State	Type		
Miami Communities	FL	NS	UC	NUC

CLOSEST COMMUNITY: Miami Communities EXISTING ALTITUDE: 0 PROPOSED ALTITUDE: 3001

CLOSEST NORMAL SUBURB: PROPOSED ALTITUDE: 0

CLOSEST URBAN COMMUNITY: PROPOSED ALTITUDE: 0

CLOSEST NOISY URBAN COMMUNITY: PROPOSED ALTITUDE: 0

NUMBER OF DAILY OPERATIONS:

PROPOSED Route	STAGE 2 Day: 0	STAGE 3 Day: 93
	STAGE 2 Night:0	STAGE 3 Night:1
EXISTING Route	STAGE 2 Day: 0	STAGE 3 Day: 0
	STAGE 2 Night:0	STAGE 3 Night:0

DISTANCE BETWEEN PROPOSED AND EXISTING ROUTES:
ALONG CONTINUUM: 3 OVER CLOSEST COMMUNITY: 3

Assessment performed using the Air Traffic Noise Screening (ATNS) Model Version 2. Please refer to FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOISE SCREENING PROCEDURE FOR CERTAIN AIR TRAFFIC ACTIONS ABOVE 3,000 FEET AGL

DATE: Fri Jul 22 13:17:05 2005

Airport Name: Miami International
Assessment Description: Runway 8 (8L) -2010 Departures - all operations on one track
Facility Conducting Review: HMMH Inc.
Name/Title of Reviewer: Robert Mentzer Jr., Senior Scientist

ASSESSMENT RESULTS
Assessment terminated because number of flights is fewer than minimum allowed in Table 1. ATNS assessment indicates NO NEW NOISE impact from the proposed action.

ASSESSMENT DATA
TYPE OF OPERATION: Departure

ANNUAL LJA OPERATIONS:
CURRENT: 285187 PROJECTED: 319049

INTENT OF PROPOSED ROUTE CHANGE: Proposed Change

COMMUNITIES WITHIN 3nm OF PROPOSED CHANGE:

Name	State	Type		
Miami Communities	FL	NS	UC	NUC

CLOSEST COMMUNITY: Miami Communities EXISTING ALTITUDE: 0 PROPOSED ALTITUDE: 3001

CLOSEST NORMAL SUBURB: PROPOSED ALTITUDE: 0

CLOSEST URBAN COMMUNITY: PROPOSED ALTITUDE: 0

CLOSEST NOISY URBAN COMMUNITY: PROPOSED ALTITUDE: 0

NUMBER OF DAILY OPERATIONS:

PROPOSED Route	STAGE 2 Day: 0	STAGE 3 Day: 12
	STAGE 2 Night:0	STAGE 3 Night:0
EXISTING Route	STAGE 2 Day: 0	STAGE 3 Day: 0
	STAGE 2 Night:0	STAGE 3 Night:0

DISTANCE BETWEEN PROPOSED AND EXISTING ROUTES:
ALONG CONTINUUM: 3 OVER CLOSEST COMMUNITY: 3

Assessment performed using the Air Traffic Noise Screening (ATNS) Model Version 2. Please refer to FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOISE SCREENING PROCEDURE FOR CERTAIN AIR TRAFFIC ACTIONS ABOVE 3,000 FEET AGL

DATE: Fri Jul 22 11:10:46 2005

Airport Name: Miami International
Assessment Description: Track 9IS3 (8R) Maximum Nighttime Operations
Facility Conducting Review: HMMH Inc.
Name/Title of Reviewer: Robert Mentzer Jr., Senior Scientist

ASSESSMENT RESULTS
Assessment terminated because number of flights is fewer than minimum allowed in Table 1. ATNS assessment indicates NO NEW NOISE impact from the proposed action.

ASSESSMENT DATA
TYPE OF OPERATION: Departure

ANNUAL LJA OPERATIONS:
CURRENT: 285187 PROJECTED: 319049

INTENT OF PROPOSED ROUTE CHANGE: Proposed Change

COMMUNITIES WITHIN 3nm OF PROPOSED CHANGE:

Name	State	Type		
Miami Communities	FL	NS	UC	NUC

CLOSEST COMMUNITY: Miami Communities EXISTING ALTITUDE: 0 PROPOSED ALTITUDE: 3001

CLOSEST NORMAL SUBURB: PROPOSED ALTITUDE: 0

CLOSEST URBAN COMMUNITY: PROPOSED ALTITUDE: 0

CLOSEST NOISY URBAN COMMUNITY: PROPOSED ALTITUDE: 0

NUMBER OF DAILY OPERATIONS:

PROPOSED Route	STAGE 2 Day: 0	STAGE 3 Day: 0
	STAGE 2 Night:0	STAGE 3 Night:8
EXISTING Route	STAGE 2 Day: 0	STAGE 3 Day: 0
	STAGE 2 Night:0	STAGE 3 Night:0

DISTANCE BETWEEN PROPOSED AND EXISTING ROUTES:
ALONG CONTINUUM: 3 OVER CLOSEST COMMUNITY: 3

Assessment performed using the Air Traffic Noise Screening (ATNS) Model Version 2. Please refer to FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOISE SCREENING PROCEDURE FOR CERTAIN AIR TRAFFIC ACTIONS ABOVE 3,000 FEET AGL

DATE: Fri Jul 22 13:19:00 2005

Airport Name: Miami International
Assessment Description: Runway 26 (26R) -2010 Arrivals - all operations on one track
Facility Conducting Review: HMMH Inc.
Name/Title of Reviewer: Robert Mentzer Jr., Senior Scientist

ASSESSMENT RESULTS
Assessment terminated because number of flights is fewer than minimum allowed in Table 1. ATNS assessment indicates NO NEW NOISE impact from the proposed action.

ASSESSMENT DATA
TYPE OF OPERATION: Arrival

ANNUAL LJA OPERATIONS:
CURRENT: 285187 PROJECTED: 319049

INTENT OF PROPOSED ROUTE CHANGE: Proposed Change

COMMUNITIES WITHIN 3nm OF PROPOSED CHANGE:

Name	State	Type		
Miami Communities	FL	NS	UC	NUC

CLOSEST COMMUNITY: Miami Communities EXISTING ALTITUDE: 0 PROPOSED ALTITUDE: 3001

CLOSEST NORMAL SUBURB: PROPOSED ALTITUDE: 0

CLOSEST URBAN COMMUNITY: PROPOSED ALTITUDE: 0

CLOSEST NOISY URBAN COMMUNITY: PROPOSED ALTITUDE: 0

NUMBER OF DAILY OPERATIONS:

PROPOSED Route	STAGE 2 Day: 0	STAGE 3 Day: 12
	STAGE 2 Night:0	STAGE 3 Night:2
EXISTING Route	STAGE 2 Day: 0	STAGE 3 Day: 0
	STAGE 2 Night:0	STAGE 3 Night:0

DISTANCE BETWEEN PROPOSED AND EXISTING ROUTES:
ALONG CONTINUUM: 3 OVER CLOSEST COMMUNITY: 3

Assessment performed using the Air Traffic Noise Screening (ATNS) Model Version 2. Please refer to FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOISE SCREENING PROCEDURE FOR CERTAIN AIR TRAFFIC ACTIONS ABOVE 3,000 FEET AGL

DATE: Fri Jul 22 13:41:31 2005

Airport Name: Miami International
Assessment Description: Track 30N2 (30) Maximum Day-Night Operations
Facility Conducting Review: HMMH Inc.
Name/Title of Reviewer: Robert Mentzer Jr., Senior Scientist

ASSESSMENT RESULTS
Assessment terminated because number of flights is fewer than minimum allowed in Table 1. ATNS assessment indicates NO NEW NOISE impact from the proposed action.

ASSESSMENT DATA
TYPE OF OPERATION: Arrival

ANNUAL LJA OPERATIONS:
CURRENT: 285187 PROJECTED: 319049

INTENT OF PROPOSED ROUTE CHANGE: Proposed Change

COMMUNITIES WITHIN 3nm OF PROPOSED CHANGE:

Name	State	Type		
Miami Communities	FL	NS	UC	NUC

CLOSEST COMMUNITY: Miami Communities EXISTING ALTITUDE: 0 PROPOSED ALTITUDE: 3001

CLOSEST NORMAL SUBURB: PROPOSED ALTITUDE: 0

CLOSEST URBAN COMMUNITY: PROPOSED ALTITUDE: 0

CLOSEST NOISY URBAN COMMUNITY: PROPOSED ALTITUDE: 0

NUMBER OF DAILY OPERATIONS:

PROPOSED Route	STAGE 2 Day: 0	STAGE 3 Day: 6
	STAGE 2 Night:0	STAGE 3 Night:1
EXISTING Route	STAGE 2 Day: 0	STAGE 3 Day: 0
	STAGE 2 Night:0	STAGE 3 Night:0

DISTANCE BETWEEN PROPOSED AND EXISTING ROUTES:
ALONG CONTINUUM: 3 OVER CLOSEST COMMUNITY: 3

Assessment performed using the Air Traffic Noise Screening (ATNS) Model Version 2. Please refer to FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

NOISE SCREENING PROCEDURE FOR CERTAIN AIR TRAFFIC ACTIONS ABOVE 3,000 FEET AGL

DATE: Fri Jul 22 11:08:35 2005

Airport Name: Miami International
Assessment Description: Track 27L270SB (27) Maximum Daytime Operations
Facility Conducting Review: HMMH Inc.
Name/Title of Reviewer: Robert Mentzer Jr., Senior Scientist

ASSESSMENT RESULTS
Assessment terminated because number of flights is fewer than minimum allowed in Table 1. ATNS assessment indicates NO NEW NOISE impact from the proposed action.

ASSESSMENT DATA
TYPE OF OPERATION: Departure

ANNUAL LJA OPERATIONS:
CURRENT: 285187 PROJECTED: 319049

INTENT OF PROPOSED ROUTE CHANGE: Proposed Change

COMMUNITIES WITHIN 3nm OF PROPOSED CHANGE:

Name	State	Type		
Miami Communities	FL	NS	UC	NUC

CLOSEST COMMUNITY: Miami Communities EXISTING ALTITUDE: 0 PROPOSED ALTITUDE: 3001

CLOSEST NORMAL SUBURB: PROPOSED ALTITUDE: 0

CLOSEST URBAN COMMUNITY: PROPOSED ALTITUDE: 0

CLOSEST NOISY URBAN COMMUNITY: PROPOSED ALTITUDE: 0

NUMBER OF DAILY OPERATIONS:

PROPOSED Route	STAGE 2 Day:	0	STAGE 3 Day:	16
	STAGE 2 Night:	0	STAGE 3 Night:	0
EXISTING Route	STAGE 2 Day:	0	STAGE 3 Day:	0
	STAGE 2 Night:	0	STAGE 3 Night:	0

DISTANCE BETWEEN PROPOSED AND EXISTING ROUTES:
ALONG CONTINUUM: 3 OVER CLOSEST COMMUNITY: 3

Assessment performed using the Air Traffic Noise Screening (ATNS) Model Version 2. Please refer to FAA Order 1050.1, Policies and Procedures for Considering Environmental Impacts.

APPENDIX D

FLORIDA DEPARTMENT OF STATE
Office of the Secretary
Office of International Relations
Division of Administrative Services
Division of Corporations
Division of Cultural Affairs

MEMBER OF THE FLORIDA CABINET
Division of Library & Information Services
Division of Historical Resources
Ringling Museum of Art
Division of Licensing
Division of Elections

FLORIDA DEPARTMENT OF STATE
Sandra B. Mortham
Secretary of State
DIVISION OF HISTORICAL RESOURCES

December 3, 1997

Mr. Bart Vernace
Orlando Airports District Office
3950 Hazeltine National Drive, Suite 400
Orlando, Florida 32822-5024

In Reply Refer To:
Scott B. Edwards
Historic Sites Specialist
Project File No. 976267

RE: Cultural Resource Assessment Request
Federal Aviation Administration
Proposed New Runway (8-26) at Miami International Airport
Miami, Dade County, Florida

Dear Mr. Vernace:

In accordance with the procedures contained in 36 C.F.R., Part 800 ("Protection of Historic Properties"), we have reviewed the referenced project for possible impact to historic properties listed, or eligible for listing, in the *National Register of Historic Places*. The authority for this procedure is the National Historic Preservation Act of 1966 (Public Law 89-665), as amended.

A review of the Florida Master Site File indicates that no significant archaeological or historical sites are recorded for or likely to be present within the either of the two project areas. Furthermore, because of the project locations and/or nature it is unlikely that any such sites will be affected. Therefore, it is the opinion of this office that the proposed project will have no effect on historic properties listed, or eligible for listing, in the *National Register of Historic Places*.

If you have any questions concerning our comments, please do not hesitate to contact us. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Laura A. Kammerer

for George W. Percy, Director
Division of Historical Resources
and
State Historic Preservation Officer

GWP/Ese

DIRECTOR'S OFFICE
R.A. Gray Building • 500 South Bronough Street • Tallahassee, Florida 32399-0250 • (850) 488-1480
FAX: (850) 488-3353 • WWW Address http://www.dos.state.fl.us

☐ ARCHAEOLOGICAL RESEARCH
(850) 487-2299 • FAX: 414-2207

☑ HISTORIC PRESERVATION
(850) 487-2333 • FAX: 922-0496

☐ HISTORICAL MUSEUMS

U.S. Department
of Transportation
**Federal Aviation
Administration**

ORLANDO AIRPORTS DISTRICT OFFICE
5950 Hazeltine National Dr., Suite 400
Orlando, Florida 32822-5024
Phone: (407) 812-6331 Fax: (407) 812-6978

October 30, 1997

Mr. George W. Percy, Director
Division of Historic Resources and
State Historic Preservation Officer (SHPO)
R.A. Gray Building
500 South Bronough Street
Tallahassee, FL 32399-0250

Dear Mr. Percy:

Subject: Environmental Impact Statement (EIS) for Proposed New Runway
at Miami International Airport

The purpose of this letter is to request the Division of Historic Resources' concurrence with the Federal Aviation Administration's assessment that the construction and operation of the proposed new runway at MIA would not directly or indirectly impact any parks, recreation facilities, wildlife or waterfowl refuges, or land of an historic site or archeological resource within the Area of Potential Effect (APE). *See Exhibit 1.*

The FAA has reached this conclusion based on the following: (1) all construction will occur within the existing airport property, and (2) noise analysis indicates that operation of the proposed new runway will not significantly increase noise within APE. Information used to reach this conclusion is provided below.

The FAA is currently preparing an Environmental Impact Statement (EIS) for a proposed new runway and associated development for the Miami International Airport (MIA), located in Dade County, Florida. The proposed runway is to be located 800 feet north of and parallel to existing Runway 9L-27R. All proposed construction and improvements will occur within the existing airport boundary shown on Exhibit 1.

The Florida Department of State, Division of Historic Resources and State Historic Preservation Officer (SHPO) has made a determination that there are no significant historical or archaeological sites "recorded for or likely to be present within the project area" (*Exhibit 2, letter from SHPO*). Therefore, no direct impacts are anticipated to occur to these types of resources as a result of construction of the proposed runway.

The APE represents those areas encompassed by the 1995 65 DNL baseline noise contour. The 1995 65 DNL baseline noise contour encompasses the largest area impacted by airport noise. Specific noise analysis was conducted for identified noise sensitive sites within this contour. DNL noise levels for the 1995 baseline condition at identified noise sensitive sites

are listed on the attached Table 1. Shaded sites shown on Table 1 are within the current 65 DNL noise contour but will not be within any future 65 DNL noise contour.

Attached Tables 2 and 3 for the years 2000 and 2005 show that most sites experience a reduction in noise exposure for all alternatives evaluated. Shaded sites on Tables 2 and 3 indicate sites that experience minor increases in noise levels for the 2000 and 2005 condition. No site experiences a significant increase in noise exposure for any future condition (with or without project). FAA's threshold of significance for noise is determined to be a 1.5 DNL increase in noise over any noise sensitive area located within the 65 DNL contour [FAA Order 5050.4(a)].

Additionally, a review of all publicly owned parks, golf courses, and recreation areas located in the 65, 70, and 75 DNL noise contours was performed and compared to federal Land Use Compatibility Guidelines to determine if these facilities are impacted by existing and/or future aircraft operations at MIA. The results show that for the existing 1995 baseline condition, only Melrose Park, owned by the City of Miami, is incompatible (noise levels greater than 75 DNL). However, noise levels are reduced to less then 75 DNL at Melrose Park for all future noise conditions, except for the 2005 No-Action condition which remains greater than 75 DNL. Overall, for all future noise conditions, no park site or recreational facility experiences an increase of 1.5 DNL or greater.

Please contact me at (407) 812-6331, extension 27, if you need any additional information about the project. Your prompt response is greatly appreciated.

Sincerely,

Bart Vernace

Bart Vernace, P.E.
Project Manager

Attachments

Distribution List:

Mr. Jerry Belson, Director
Southeast Regional Office
National Park Service

Mr. Rick Ferrar, Historic Preservation Specialist
Office of Community Development
Dade County Historic Preservation Division

Mr. Albert Ruder, Director
City of Miami - Department of Parks and Recreation

Mr. G.A. Cutie, Director
Metropolitan-Dade County
Dade County Parks Department

APPENDIX E

TABLE E-1

AIRCRAFT TYPES BY CATEGORY

Air Cargo Air Carrier	Air Cargo Air Carrier	Regional Corp Jet	TurboProp	General Aviation	Military
Heavy Turbojet	*Turbojet*	*Small Turbojet*	*Commuter*	*GA*	*Mil*
A330	A300/30062	CIT3	CVR580	BEC58P	C130
A340	A310	CL600	DHC6	CNA172	DC86HK
707320	A319	CL601	DHC7	CNA206	KC135R
74710Q	A320/32023	CNA500	DHC8	CNA20T	S3A&B
74720B	A32123	CNA55B	DHC830	CNA441	T-38A
747200	717200	CNA750	EMB120	DC3	
747400	727EM1	EMB145	HS748A	DC6	
767CF6	727EM2	FAL20	L188	GASEPF	
767JT9	737300/3B2	FAL50	SD330	GASEPV	
767300	737400/500	FAL900	SF340		
767400	737700/800	GII			
777200	737N9 / 737N17	GIIB			
DC1010	757300	GIV			
DC1030	757PW / 757RR	GV			
DC1040	DC93LW	IA1125			
DC86HK	DC95HW	LEAR25			
DC870	F10065	LEAR35			
MD11GE	F28MK2	MU3001			
MD11PW	L1011				
	MD81/MD82/MD83				

Tables E-2 and E-3 contain aircraft belonging to the Air Carrier/Air Cargo group but the larger heavier jets typically favor the longer southern runway for arrivals and departures so a separate group for those aircraft allows for more accurate modeling. Also there are fewer heavy jet operations and their use of the runways would be skewed toward the regular jet runway use if they were not in a separate group. Table E-4 reflects the small jet category, with the increasing numbers of operations of regional and corporate jet operations; this category reflects their use of the runways at Miami. The small jet category has similar departure use to the Air Carrier (AC) jet use but has different arrival usage of the airport. The small jets favor the northern parallels for arrivals while the AC jets favor the southern runway.

Table E-5 contains most of the turboprop operations. Only the small Cessna 441 turboprop is included in the General Aviation group.

FUTURE RUNWAY USE

TABLE E-2

FUTURE 2005 AND 2010 RUNWAY USE
HEAVY AIR CARRIER AND CARGO TURBOJET AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	19.53%	32.61%	47.08%	53.84%
12	10.70%	8.77%	7.32%	1.64%
27	15.42%	15.89%	7.71%	6.77%
30	0.72%	0.33%	8.58%	2.24%
8L	3.45%	0.00%	18.08%	1.20%
8R	42.32%	36.63%	3.52%	21.32%
26L	6.89%	5.77%	3.89%	12.36%
26R	0.97%	0.00%	3.82%	0.63%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-3

FUTURE 2005 AND 2010 RUNWAY USE
AIR CARRIER AND CARGO TURBOJET AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	1.57%	9.06%	35.44%	44.65%
12	15.22%	8.08%	8.48%	3.49%
27	11.69%	12.41%	1.01%	3.44%
30	1.16%	0.65%	13.50%	2.95%
8L	3.12%	0.00%	26.90%	2.84%
8R	56.10%	60.86%	5.18%	27.02%
26L	10.22%	8.94%	6.45%	13.73%
26R	0.92%	0.00%	3.04%	1.88%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-4
FUTURE 2005 AND 2010 RUNWAY USE
SMALL TURBOJET AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	0.53%	3.34%	10.76%	3.10%
12	1.87%	6.01%	5.01%	4.38%
27	4.21%	4.88%	0.14%	0.91%
30	1.49%	1.04%	3.72%	2.42%
8L	25.48%	0.00%	56.70%	10.56%
8R	48.11%	68.65%	3.53%	59.96%
26L	9.78%	16.08%	1.74%	13.47%
26R	8.53%	0.00%	18.40%	5.20%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-5
FUTURE 2005 AND 2010 RUNWAY USE
COMMUTER AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	0.95%	1.13%	35.58%	27.71%
12	17.90%	8.00%	8.86%	1.98%
27	13.66%	8.64%	0.49%	2.75%
30	1.31%	0.70%	14.39%	3.82%
8L	12.31%	0.00%	28.39%	1.56%
8R	44.84%	68.87%	3.17%	46.75%
26L	6.34%	12.66%	2.31%	14.81%
26R	2.69%	0.00%	6.81%	0.62%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-6
FUTURE 2005 AND 2010 RUNWAY USE
GENERAL AVIATION AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	2.79%	8.27%	12.44%	21.70%
12	8.31%	5.13%	7.78%	5.65%
27	7.92%	4.57%	0.36%	3.78%
30	3.33%	4.37%	3.35%	2.24%
8L	27.46%	0.00%	50.68%	10.85%
8R	37.44%	64.60%	5.10%	39.80%
26L	5.05%	13.06%	1.92%	9.54%
26R	7.70%	0.00%	18.37%	6.44%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-7
FUTURE 2005 AND 2010 RUNWAY USE
MILITARY AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	5.18%	0.00%	9.54%	0.00%
12	15.53%	0.00%	0.00%	0.00%
27	6.47%	0.00%	0.00%	0.00%
30	0.00%	0.00%	4.77%	0.00%
8L	24.17%	0.00%	58.25%	0.00%
8R	31.11%	78.00%	8.22%	78.00%
26L	6.47%	22.00%	4.77%	22.00%
26R	11.07%	0.00%	14.45%	0.00%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

PRUCEDURE 2 – MAXIMAZATION OF WEST FLOW AT NIGHT RUNWAY USE

TABLE E-8
FUTURE 2005 AND 2010 PROCEDURE 2 RUNWAY USE
HEAVY AIR CARRIER AND CARGO TURBOJET AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	19.53%	20.91%	47.08%	34.51%
12	10.70%	5.62%	7.32%	1.05%
27	15.42%	36.12%	7.71%	15.39%
30	0.72%	0.75%	8.58%	5.09%
8L	3.45%	0.00%	18.08%	0.77%
8R	42.32%	23.49%	3.52%	13.67%
26L	6.89%	13.11%	3.89%	28.09%
26R	0.97%	0.00%	3.82%	1.43%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-9
FUTURE 2005 AND 2010 PROCEDURE 2 RUNWAY USE
AIR CARRIER AND CARGO TURBOJET AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	1.57%	5.81%	35.44%	28.62%
12	15.22%	5.18%	8.48%	2.24%
27	11.69%	28.20%	1.01%	7.82%
30	1.16%	1.48%	13.50%	6.70%
8L	3.12%	0.00%	26.90%	1.82%
8R	56.10%	39.01%	5.18%	17.32%
26L	10.22%	20.32%	6.45%	31.21%
26R	0.92%	0.00%	3.04%	4.27%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-10
FUTURE 2005 AND 2010 PROCEDURE 2 RUNWAY USE
SMALL TURBOJET AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	0.53%	2.14%	10.76%	1.99%
12	1.87%	3.85%	5.01%	2.81%
27	4.21%	11.09%	0.14%	2.07%
30	1.49%	2.36%	3.72%	5.50%
8L	25.48%	0.00%	56.70%	6.77%
8R	48.11%	44.01%	3.53%	38.43%
26L	9.78%	36.55%	1.74%	30.61%
26R	8.53%	0.00%	18.40%	11.82%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-11
FUTURE 2005 AND 2010 PROCEDURE 2 RUNWAY USE
COMMUTER AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	0.95%	0.72%	35.58%	17.76%
12	17.90%	5.13%	8.86%	1.27%
27	13.66%	19.64%	0.49%	6.25%
30	1.31%	1.59%	14.39%	8.68%
8L	12.31%	0.00%	28.39%	2.99%
8R	44.84%	44.15%	3.17%	27.97%
26L	6.34%	28.77%	2.31%	30.83%
26R	2.69%	0.00%	6.81%	4.25%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-12
FUTURE 2005 AND 2010 PROCEDURE 2 RUNWAY USE
GENERAL AVIATION AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	2.79%	5.30%	12.44%	13.91%
12	8.31%	3.29%	7.78%	3.62%
27	7.92%	10.39%	0.36%	8.59%
30	3.33%	9.93%	3.35%	5.09%
8L	27.46%	0.00%	50.68%	6.96%
8R	37.44%	41.41%	5.10%	25.51%
26L	5.05%	29.68%	1.92%	21.68%
26R	7.70%	0.00%	18.37%	14.64%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

TABLE E-13
FUTURE 2005 AND 2010 PROCEDURE 2 RUNWAY USE
MILITARY AIRCRAFT

Runway	Departure Day	Departure Night	Arrival Day	Arrival Night
9	5.18%	0.00%	9.54%	0.00%
12	15.53%	0.00%	0.00%	0.00%
27	6.47%	0.00%	0.00%	0.00%
30	0.00%	0.00%	4.77%	0.00%
8L	24.17%	0.00%	58.25%	0.00%
8R	31.11%	50.00%	8.22%	50.00%
26L	6.47%	50.00%	4.77%	50.00%
26R	11.07%	0.00%	14.45%	0.00%
Total	**100%**	**100%**	**100%**	**100%**

Source: MDAD and HMMH

APPENDIX F

APPENDIX TABLE F-1
2003, 2005 AND 2010 DAILY OPERATIONS AND FLEET MIX
AIR CARRIER AND CARGO AIRCRAFT

Aircraft Type	2003 Actual	2005	2010
707320	0.06	0.07	0.07
717200	10.21	10.84	11.96
737300	9.39	9.62	10.41
737400	13.63	13.96	15.12
737500	2.94	3.10	3.94
737700	12.31	14.31	16.79
737800	127.72	131.73	149.21
747200	7.50	7.69	8.32
747400	0.32	0.34	0.46
757300	0.15	0.22	0.47
767300	71.06	74.43	82.53
767400	4.16	4.91	12.96
777200	14.85	16.28	20.92
727EM1	1.77	1.73	1.47
727EM2	35.37	34.45	29.31
7373B2	8.75	8.97	9.71
737N17	5.24	5.27	5.18
737N9	4.19	4.21	4.14
74710Q	0.08	0.08	0.08
74720B	13.45	13.79	14.93
757PW	40.48	41.41	44.73
757RR	108.92	111.41	120.34
767CF6	5.39	5.53	5.98
767JT9	2.58	2.64	2.86
A300	1.87	1.88	1.94
A30062	43.81	44.21	45.62
A310	0.62	0.62	0.63
A319	36.35	37.25	40.32
A320	15.34	15.77	17.11
A32023	26.40	27.13	29.43
A32123	1.52	1.56	1.68
A330	3.85	3.96	4.33
A340	2.24	2.29	2.48
CVR580	0.28	0.29	0.31
DC1010	2.45	2.45	2.43
DC1030	8.64	8.65	8.57
DC1040	4.14	4.15	4.11
DC86HK	15.95	15.33	15.85
DC870	8.99	8.61	8.39
DC93LW	4.42	4.53	4.90
DC95HW	0.47	0.48	0.52
F10065	3.19	3.02	2.89
F28MK2	0.01	0.01	0.01
HS748A	63.19	63.75	62.48
L1011	1.87	1.91	2.07
L188	0.01	0.01	0.01
MD11GE	3.31	3.39	3.67
MD11PW	5.82	5.97	6.46
MD81	46.14	47.21	51.11
MD82	29.74	30.41	32.92
MD83	9.50	9.65	10.45
TOTAL	**840.65**	**861.47**	**932.60**

APPENDIX TABLE F-2
2003, 2005 AND 2010 DAILY OPERATIONS AND FLEET MIX
AIR TAXI / COMMUTER AIRCRAFT

Aircraft Type	2003 Actual	2005	2010
BEC58P	1.31	1.39	1.43
CIT3	0.57	0.60	0.62
CL600	10.96	11.82	12.20
CL601	13.53	14.48	15.01
CNA172	0.03	0.03	0.03
CNA206	0.11	0.12	0.12
CNA20T	1.55	1.64	1.68
CNA441	0.08	0.09	0.09
CNA500	0.37	0.39	0.40
CNA55B	0.43	0.46	0.47
CNA750	2.01	2.13	2.18
DC3	0.01	0.02	0.02
DC6	0.01	0.01	0.01
DHC6	77.01	80.17	80.47
DHC7	0.01	0.01	0.01
DHC8	7.93	8.53	9.23
DHC830	4.30	4.66	5.03
EMB120	0.02	0.02	0.03
EMB145	6.42	7.62	8.54
FAL20	0.25	0.27	0.27
FAL50	0.33	0.35	0.36
FAL900	0.05	0.05	0.06
GASEPF	0.06	0.06	0.06
GASEPV	0.01	0.01	0.01
GII	0.17	0.18	0.19
GIIB	0.13	0.13	0.14
GIV	0.33	0.42	0.44
GV	0.29	0.32	0.33
HS748A	1.62	1.71	1.76
IA1125	0.19	0.20	0.21
LEAR25	1.04	1.10	1.13
LEAR35	13.04	13.82	14.17
MU3001	4.48	4.75	4.86
SD330	3.09	3.27	3.35
TOTAL	**151.74**	**160.85**	**164.91**

Source: ESA and HMMH

APPENDIX TABLE F-3
2003, 2005 AND 2010 DAILY OPERATIONS AND FLEET MIX
GENERAL AVIATION AIRCRAFT

Aircraft Type	2003 Actual	2005	2010
BEC58P	5.48	5.48	5.48
CIT3	1.38	1.43	1.47
CL600	4.34	4.38	4.42
CL601	0.95	0.96	0.96
CNA172	0.50	0.49	0.46
CNA206	0.61	0.61	0.59
CNA20T	4.12	4.12	4.12
CNA441	3.07	3.07	3.07
CNA500	1.36	1.36	1.36
CNA55B	1.76	1.76	1.76
CNA750	0.92	0.92	0.92
DC3	0.99	0.93	0.93
DC6	0.06	0.06	0.06
DHC6	4.13	4.13	4.13
DHC7	0.01	0.01	0.01
DHC8	0.00	0.00	0.00
DHC830	0.02	0.02	0.02
EMB120	0.02	0.02	0.02
EMB145	0.01	0.01	0.01
FAL20	0.74	0.74	0.74
FAL50	1.55	1.55	1.55
FAL900	1.92	1.94	1.97
GASEPF	1.64	1.58	1.47
GASEPV	1.85	1.79	1.58
GII	1.21	1.21	1.21
GIIB	1.25	1.25	1.25
GIV	3.25	3.29	3.37
GV	2.52	2.55	2.73
HS748A	2.44	2.44	2.44
IA1125	1.34	1.34	1.34
LEAR25	4.45	4.45	4.45
LEAR35	13.55	13.55	13.55
MU3001	4.08	4.08	4.08
SD330	0.20	0.20	0.20
SF340	0.01	0.01	0.01
TOTAL	**71.74**	**71.74**	**71.74**

Source: ESA and HMMH

APPENDIX TABLE F-4
2003, 2005 AND 2010 DAILY OPERATIONS AND FLEET MIX
MILITARY AIRCRAFT

Aircraft Type	2003 Actual	2005	2010
DC86HK	2.09	2.16	2.16
KC135R	2.09	2.16	2.16
C130	6.92	7.13	7.13
S3A&B	0.11	0.12	0.12
T-38A	0.92	0.95	0.95
TOTAL	**12.14**	**12.52**	**12.52**

Source: ESA and HMMH

APPENDIX G

DISTRIBUTED IN MIAMI-DADE AND BROWARD COUNTIES FOR OVER 80 YEARS

The Miami Times

Tempora Mutantur Et Nos Mutamur In Illis

Volume 83 Number 11 Miami, Florida, Wednesday, November 16-22, 2005

Public Notice Availability

A Draft Environmental Assessment (EA) for Operational Changes at Miami International Airport (MIA) has been prepared. This EA evaluates the environmental consequences of modifying arrival and departure procedures at MIA.

Copies of the draft EA are available at the following locations:

1) Miami-Dade Aviation Department Aircraft
Noise & Environmental Planning Office
5600 NW 36th Street, Suite 533
Miami, Florida 33166

2) Miami-Dade Aviation Department Website
www.miami-airport.com

Comments on the draft EA will be accepted until close of business on Monday, December 19, 2005, and should be addressed to:

Miami-Dade Aviation Department
Aircraft Noise &
Environmental Planning Office
P.O. Box 592075
Miami, Florida 33159

MIA

MIAMI-DADE COUNTY

Public Notice Availability

A Draft Environmental Assessment (EA) for Operational Changes at Miami International Airport (MIA) has been prepared. This EA evaluates the environmental consequences of modifying arrival and departure procedures at MIA.

Copies of the draft EA are available at the following locations:

1) Miami-Dade Aviation Department Aircraft Noise & Environmental Planning Office
   5600 NW 36th Street, Suite 533
   Miami, Florida 33166

2) Miami-Dade Aviation Department Website
   www.miami-airport.com

Comments on the draft EA will be accepted until close of business on Monday, December 19, 2005, and should be addressed to:

Miami-Dade Aviation Department
Aircraft Noise &
Environmental Planning Office
P.O. Box 592075
Miami, Florida 33159

MIA

MIAMI-DADE COUNTY

AVISO PÚBLICO SOBRE DISPONIBILIDAD

Se ha preparado el borrador de una evaluación ambiental (EA, su sigla en inglés) para realizar cambios en el funcionamiento del Aeropuerto internacional de Miami (MIA, su sigla en inglés). Este EA evalúa las consecuencias ambientales de la modificación de los procedimientos de las llegadas y las partidas del MIA.

Hay ejemplares del borrador del EA en las ubicaciones siguientes:

1) Miami-Dade Aviation Department
Aircraft Noise & Environmental Planning Office
5600 NW 36th Street, Suite 533
Miami, Florida 33166

2) Miami-Dade Aviation Department Website
www.miami-airport.com

Las observaciones acerca del EA, que se aceptarán hasta el fin del horario hábil del lunes 19 de diciembre del 2005, se deben dirigir a:

Miami-Dade Aviation Department
Aircraft Noise & Environmental Planning
P.O. Box 592075
Miami, Florida 33159

MIA MIAMI-DADE AVIATION DEPARTMENT

MIAMI-DADE COUNTY

Public Notice Availability

A Draft Environmental Assessment (EA) for Operational Changes at Miami International Airport (MIA) has been prepared. This EA evaluates the environmental consequences of modifying arrival and departure procedures at MIA.

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P.O. Box 592075
Miami, Florida 33159

MIA

MIAMI-DADE COUNTY

Draft Environmental Assessment - Microsoft Internet Explorer

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Address http://www.miami-airport.com/html/draft_environmental_assessment.html Go

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OPERATIONAL NOISE MITIGATION Procedures

DRAFT ENVIRONMENTAL ASSESSMENT

PUBLIC NOTICE AVAILABILITY

A Draft Environmental Assessment (EA) for Operational Changes at Miami International Airport (MIA) has been prepared. This EA evaluates the environment consequences of modifying arrival and departure procedures at MIA.

Copies of the draft EA are available for review at the following locations:

- Miami-Dade Aviation Department
  Aircraft Noise & Environmental Planning Office
  5600 NW 36th Street, Suite 533
  Miami, Florida 33166
  Monday through Friday 8:00 A.M to 5 P.M

- Miami-Dade Aviation Department Website
  Downloads for fast and slow connection speeds.

Comments on the draft EA will be accepted until close of business on December 19th, 2005, and should be addressed to:

Miami-Dade Aviation Department
Aircraft Noise & Environmental Planning
P.O. Box 592075
Miami, Florida 33159

Done

Florida Department of Transportation

JEB BUSH
GOVERNOR

AVIATION OFFICE
605 Suwannee Street, M.S. 46
Tallahassee, FL 32399-0450

DENVER J. STUTLER, JR.
SECRETARY

December 8, 2005

Mr. Jeffery R. Bunting
Manager, Aircraft Noise & Environmental Planning
Miami-Dade Aviation Department
P.O. Box 592075
Miami, FL 33159

Re: FDOT Comment Response
Operational Noise Mitigation Procedures Draft Environmental Assessment (EA)

Dear Mr. Bunting:

This letter is in response to your notification and request for comments from the Florida Department of Transportation (FDOT) regarding the Miami-Dade Aviation Department (MDAD) Operational Noise Mitigation Procedures Draft Environmental Assessment (EA). FDOT has reviewed the Draft EA and has no comments.

We appreciate the opportunity to review this thoroughly prepared and informative study. Please forward a copy of the Final Draft to this office. We will retain a copy on file for future reference and perhaps as a sample noise mitigation procedural assessment to be incorporated in the next version of Airport Compatible Land Use Guidance for Florida Communities.

Please feel free to contact me at 850-414-4514, if there are any questions or additional information is needed.

Sincerely,

Aaron N. Smith
Airspace and Land Use Manager

cc: Mr. William J. Ashbaker, P.E., State Aviation Manager, FDOT
Ms. Andrea Chao, Aviation Office, FDOT District 6

FLORIDA DEPARTMENT OF STATE
David E. Mann
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Mr. Jeffrey R. Bunting
Miami International Airport
Miami-Dade Aviation Department
P.O. Box 592075
Miami, Florida 33159

December 16, 2005

RE: DHR Project File Number: 2005-11897
Received by DHR November 15, 2005
Federal Aviation Administration
Operational Noise Mitigation Procedures Draft Environmental Assessment
Miami International Airport, Miami, Miami-Dade County

Dear Mr. Bunting:

Our office received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966*, as amended and *36 CFR Part 800: Protection of Historic Properties* and the *National Environmental Policy Act of 1969*, as amended. The State Historic Preservation Officer (SHPO) is to advise Federal agencies as they identify historic properties (listed or eligible for listing in the *National Register of Historic Places*), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

Based on the information provided, it is the opinion of this office that the proposed undertaking will have no effect on historic properties.

If you have any questions concerning our comments, please contact Scott Edwards, Historic Preservationist, by electronic mail *sedwards@dos.state.fl.us*, or at 850-245-6333 or 800-847-7278.

Sincerely,

Frederick P. Gaske, Director, and
State Historic Preservation Officer

500 S. Bronough Street • Tallahassee, FL 32399-0250 • http://www.flheritage.com

☐ Director's Office (850) 245-6300 • FAX: 245-6436
☐ Archaeological Research (850) 245-6444 • FAX: 245-6436
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437
☐ Historical Museums (850) 245-6400 • FAX: 245-6433
☐ Southeast Regional Office (954) 467-4990 • FAX: 467-4991
☐ Northeast Regional Office (904) 825-5045 • FAX: 825-5044
☐ Central Florida Regional Office (813) 272-3843 • FAX: 272-2340

MIAMI-DADE COUNTY

Park and Recreation
275 NW 2nd Street
Miami, Florida 33128
T 305-755-7800

miamidade.gov

December 9, 2005

Jeff Bunting, Manager
Aircraft Noise & Environmental Planning
Miami-Dade Aviation Department
PO Box 592075
Miami, FL 33159

RE: Operational Noise Mitigation Procedures
Draft Environmental Assessment

Dear Mr. Bunting:

Recently your office requested comments on the Draft Environmental Assessment for Operational Noise Mitigation Procedures at Miami International Airport. My staff has reviewed the draft and found only one environmental impact affecting this Department.

In order to provide recreational opportunities to a neighborhood without traditional parks, this Department has made certain improvements to Melrose Elementary School, located at 3050 NW 35 Street. The school measured DNL Noise Level of 66, which slightly exceeds your base level of 65 DB. The existence of noise hazards has in fact limited the investment of additional federal funding on the site, and thereby limited the range of additional facilities and programs offered.

We are interested in reducing ambient noise and fully support any action that your Department may ultimately take to reduce noise hazards such that residents can better enjoy recreational facilities. Please contact my office at 305-755-7903, if we can be of further assistance.

Sincerely,

Vivian Donnell Rodriguez
Director

cc: W. Howard Gregg, Asst. Director, Planning and Development
Jack Kardys, Assistant Director, Operations

-----Original Message-----
From: John_Wrublik@fws.gov [mailto:John_Wrublik@fws.gov]
Sent: Friday, January 20, 2006 9:22 AM
To: Jeffrey R. Bunting
Subject: draft Environmental Assessment (EA) for the Operational Noise Mitigation Procedures at the Miami International Airport

January 20, 2006

Mr. Jeffrey Bunting
Miami-Dade Aviation Department
Post Office Box 592075
Miami, Florida 33159

Service Log No.: 4-1-06-TA-13593
Date Received: November 10, 2005
Project: Operational Noise Mitigation Procedures
County: Miami-Dade

Dear Mr.Bunting:

Thank you for your letter dated November 8, 2005, and the draft Environmental Assessment (EA) for the *Operational Noise Mitigation Procedures at the Miami International Airport.* We have reviewed the EA and determined that the project, as proposed, is not likely to significantly impact fish and wildlife resources. Thank you for the opportunity to comment.

Sincerely yours,

John M. Wrublik
U.S. Fish and Wildlife Service
Vero Beach Ecological Services Office
1339 20th Street
Vero Beach, Florida 32960
Phone: 772-562-3909, x-282
Fax: 772-562-4288

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

December 9, 2005

Mr. Jeffery Bunting
Manager, Aircraft Noise
& Environmental Planning
Miami-Dade Aviation Department
P.O. Box 592075
Miami, FL 33159

SUBJ: EPA NEPA Comments on DEA for Operational Noise Mitigation Procedures at the Miami International Airport (MIA)

Dear Mr. Bunting:

Consistent with Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the referenced Draft Environmental Assessment (DEA) prepared by the Miami-Dade Aviation Department (MDAD) for the Federal Aviation Administration (FAA). We appreciate your early coordination with EPA regarding aircraft flight operational noise abatement procedures proposed for MIA.

The current DEA would be refined into a Final EA (FEA) and become an FAA NEPA document. The FAA is developing this document in response to an MDAD request for operational noise abatement measures at MIA and the attendant NEPA requirements with such a proposed federal action. The future years of operation were defined in the DEA as 2005 and 2010, with a 2003 base year.

MIA is a four-runway international airport with three E-W parallel runways and one SE-NW crosswind runway. Runway lengths are 8,600 ft; 9,355 ft; 10,500 ft and 13,000 ft. The most recent runway addition is Runway 8L/26R (8,600 ft), which became operational in 2003. Most of MIA's current operations are turbojets (82%), which are expected to increase slightly in 2010. Due to prevailing winds from the ocean, 76% of the MIA operations are currently in an east flow (pg. 3-1). The airport surroundings are densely populated, with some 38,654 people (994 residential acres) currently living within the 65 DNL contours (including in the 70-75 DNL), mostly east of the airport.

A Noise Abatement Task Force (NATF) was assembled by MDAD to agree on proposed procedural flight modifications. The NAFT consisted of affected citizens, MDAD staff, and elected officials. The modifications proposed by this committee involved changes in runway use and aircraft altitude, turns, headings and flight track dispersion (splay). The proposed procedures emphasized nighttime implementation of reduced flight tracks over residences east of MIA, with accordingly more flight tracks

over compatible land use west of the airport. Four specific procedures (alternatives) were collectively proposed as the DEA Proposed Federal Action (pg. ii):

- *Procedure 1* – Modification of west flow departure procedures (day and night);
- *Procedure 2* – Maximization of west flow (night);
- *Procedure 3* – Modification of east flow departure procedures (night);
- *Procedure 4* – Establishment of west flow charted visual approaches (day and night).

Procedure 2 would redirect night departures to the west over compatible industrial and vacant land use. Specifically, it would result in increasing the west flow of nighttime departures from the current 22% to 50% of the time. The other three procedures would reduce the dispersion of aircraft over residential areas -- both inside and outside of the 65 DNL -- by redirecting aircraft over compatible land use or waterbodies.

We offer the following primary comments, as well as the enclosed *Other EPA Comments,* for FAA's consideration in the development of the FAA FEA. Although we have some comments and suggestions, we believe that the proposed operational noise mitigation would overall be useful in reducing aircraft noise in the residential communities surrounding MIA.

o Alternatives

Although noise information exists within the document, we suggest that the descriptions of the four procedures (pg. 2-1) include a dedicated, short paragraph in the FEA for each procedure. This paragraph should summarize what noise abatement advantages are predicted as a result of implementing that procedure.

Page 2-6 indicates that the four proposed procedures are mainly concerned with nighttime aircraft activity but that "[a]dditional noise abatement procedures may be considered in the future that could include changes during daytime hours to provide mitigation procedures on a 24-hour basis." Given that thousands of people would remain affected by aircraft noise (despite the proposed four beneficial procedural changes) and that MIA currently has no land use noise abatement program to reduce aircraft noise (e.g., residential buyout or soundproofing program), it is unclear why such daytime procedures were not already included in this DEA to maximize the noise abatement. The FEA should discuss this, including when such daytime procedures would be addressed.

o Noise Exposure Data

Tables 4-4 and 4-5 present predicted area and population changes in the noise contours due to the proposed four procedural changes. For 2005, we note that 2,281 people would

be removed from the 65-70 DNL and 1,372 people would be removed from the 70-75 DNL (total of 3,653 people). For 2010, 2,404 people would be removed from the 65-70 DNL and 1,243 from the 70-75 DNL (3,647 total). Although many people would still remain exposed to aircraft noise in the 65 DNL contours, the Proposed Action marks a substantial reduction in noise exposure to the population currently affected by aircraft noise at MIA.

Despite the expected noise abatement, the predicted results should be more specific in the FEA. That is, are these data *net* gains and losses or *absolute* values? Would any of the people to be removed from the 70-75 DNL be moved to the 65-70 DNL, or were they entirely removed from the 65 DNL contours? Would any people currently outside of the 65 DNL contours be incorporated into the 65-70 DNL or even the 70-75 DNL (based on Exhibits 4-9 and 4-10, shifts in the noise contours resulting from the procedural changes would remove some areas from the 65 DNL while encompassing others currently outside the 65 DNL). Also, were all of the people enumerated in Tables 4-4 and 4-5 residents or were people working at affected commercial establishments also considered? In essence, the FEA should further dissect the DEA data and discuss these results in the text. For clarity, tabular data should also be labeled as *net* or *absolute* data.

The benefits for Procedures 1-3 are quantified through analysis of shifts in the noise contours (even though further dissection of results is requested above). However, the noise abatement of Procedure 4, which benefits areas outside the 65 DNL by redirecting aircraft over compatible land use or waterbodies, is more generic. The FEA should better define noise abatement benefits from Procedure 4 to the extent feasible.

o Environmental Justice (EJ)

Page 3-6 states that "[s]tarting with the Census 2000, the OMB [Office of Management and Budget] requires federal agencies to use a minimum of five race categories: White; Black or African American; American Indian or Alaska Native; Asian; and Native Hawaiian or Other Pacific Islander." Given the large Hispanic community in Miami, we believe the demographics should be further dissected in the FEA to represent people of Hispanic origin.

In regard to these demographics, we note that Tables 4-21 and 4-22 address minorities within the 65 DNL. However, since the DEA definition of *minority* apparently does not include Hispanics, these tables should be revised to include people of Hispanic origin.

As suggested previously under *Noise Exposure Data*, the results in Table 2-4 should be further dissected. If it is determined that the Proposed Action would encompass any new people in the 65 DNL contours (i.e., increase their noise exposure), any disproportional impact to minorities (e.g., Hispanics) or low-income populations should be determined. While we assume a fairly even distribution of minorities within the 65 DNL such that some of these populations will benefit while others will be impacted (i.e., a

disproportionate EJ impact would not be expected), this should be verified since some "pockets" of EJ populations may exist and could be negatively impacted along the new contours. The FEA should discuss this.

o Air Quality

Page 3-7 states that "...recent regulations state that the one-hour O_3 NAAQS [ozone National Ambient Air Quality Standards] will be revoked (no longer apply) in the year 2005." This statement should be updated in the FEA to state that the one-hour O_3 NAAQS *was* revoked on June 15, 2005.

We appreciate the air quality NAAQS and conformity discussions in the DEA in Chapters 3 and 4. However, the FEA should acknowledge that airports also contribute to Hazardous Air Pollutants (HAPs) from aircraft emissions as well as various other mobile and stationary sources located on the airport. HAPs are of particular concern given the dense human population surrounding the airport, which can be expected to be exposed to such air toxics. The FEA should provide a generic inventory of on-site sources of MIA HAPs and list some of the priority HAPs that are associated with major airports such as MIA.

o Future Noise Abatement

Although the Proposed Action should reduce the noise impacts within the 65 DNL contours, thousands of people currently exposed to aircraft noise would still be impacted. As suggested above, prospective daytime procedural changes for MIA should already be incorporated into the present EA emphasizing nighttime procedures, or be addressed in the near future. In regard to land use noise mitigation, we note (pg. 4-25) that "[a]t the present time the Miami Dade Aviation Department has no sound insulation or property acquisition program." Accordingly, in addition to procedural mitigation, we recommend that MDAD implement land use mitigation such as the acquisition and soundproofing of the homes of willing residents, as well as participate in the FAA's Part 150 Program to further address noise impacts at MIA.

o Other Impacts Categories

Section 4.8 discusses other impact areas that were not evaluated in the DEA since they were not considered significant due to a lack of project construction. These disciplines included impacts to coastal resources, wetlands and water quality. In general, modifying flight procedures would not necessarily affect these areas. However, some of the descriptions to this effect in the DEA are somewhat over-simplified. It should be noted that redirecting aircraft over waterbodies such as wetlands could have, over time, some water quality effects due to potential air deposition of aircraft emissions. In addition, rerouting flights over undeveloped areas could affect some wildlife from a noise

perspective (e.g., startle effect or behavior modification). In regard to the safety of such procedural measures, EPA will defer to the FAA.

In summary, EPA believes that the proposed flight procedural operations could substantively reduce the noise exposure to people living within the 65 DNL contours at MIA. However, the predicted results of reduced noise exposure should be further dissected to show if these data are net losses and gains or absolute values. Of specific interest is the determination of any people that may have increased noise exposure due to the Proposed Action and how such contour shifts may relate to EJ populations such as Hispanics. Because thousands of people currently exposed to aircraft noise would still be impacted despite the Proposed Action, we also recommend that prospective daytime flight procedural changes at MIA either be incorporated into the present EA emphasizing nighttime procedures, or be addressed in the near future. We also encourage MDAD to implement land use mitigation such as the acquisition and soundproofing of the homes of willing residents, as well participate as in the FAA's Part 150 Program to further address noise impacts at MIA.

We appreciate the opportunity to early review the DEA. Should you have questions regarding our comments, you may wish to contact Chris Hoberg of my staff at 404/562-9619 or hoberg.chris@epa.gov.

Sincerely,

Heinz J. Mueller, Chief
NEPA Program Office
Office of Policy and Management

Enclosure: *Other EPA Comments*
cc: Virginia Lane – FAA: Orlando, FL

OTHER EPA COMMENTS

* *65 DNL Contours* – EPA appreciates that NATF members included residents living both inside and outside of the 65 DNL. Similarly, while providing noise relief for residents within the higher contours should be primary for noise abatement programs, we appreciate that one of the proposed procedures (4) would provide benefits to areas outside the 65 DNL (e.g., Key Biscayne, Miami Beach and other beaches), since aircraft noise impacts are not limited to areas within the 65 DNL.

* *Future Years* – The future years for the Proposed Action were defined for this DEA as 2005 and 2010. Given that the NEPA process is still continuing at the end of 2005, the future years would more realistically be 2006, 2011 and beyond.

* *No Action Comparison* – For a better comparison between the existing conditions and the proposed procedural changes in the FEA, FAA may wish to move (or duplicate) the No Action Exhibits 3-1 (east flow) and 3-2 (west flow) to the front of the document, i.e., before the DEA presentation of Procedures 1-4 in Exhibits 2-1 through 2-4.

* *Intrusive Noise Levels* – Referring to noise impacts outside the 65 DNL, we appreciate that the DEA stated that "[h]owever, aircraft noise at these lower levels may still be considered a problem by some residents," since the DNL metric is only an average noise level. This concept could also be extended to the +1.5 DNL increment being considered a significant increase by FICAN, but that a number of residents within the 65 DNL probably also consider increments less than +1.5 DNL a "problem" in terms of being intrusive.

* *Nighttime Hours* – The DEA defines nighttime differently throughout the document (e.g., pp. iii, 2-3, 2-5, 3-4, 4-8, 4-12). Nighttime was considered either from 11PM to 6AM or from 10 PM to 7AM. From a noise abatement perspective, EPA prefers nighttime defined from 10 PM to 7AM, consistent with the definition of DNL.

* *Predictions* – Page iii suggests that calm wind conditions are needed to maximize west flow departures. Are such meteorological conditions predictable enough to determine the configuration of the 65 DNL contours and quantify the changes in the exposure area and population associated with the contour shifts as shown on Tables 4-4 and 4-5?

* *Fleet Mix* – Page 2-2 states that "[i]t should be noted that these procedures [Procedure 1] apply to turbojets only" and "[n]o modifications to propeller aircraft are involved." The FEA should discuss why only turbojets (i.e., air carrier and air cargo type of aircraft: pg. ii) were considered for Procedure 1 and if this limitation also applied to the other proposed procedures.

* *Military Aircraft* – Military aircraft (e.g., U.S. Armed Forces or U.S. Coast Guard) makeup only 12-13 operations per day at MIA. Because military aircraft can be noisy

and are not subject to FAA noise controls, it should be clarified if these aircraft were considered in the proposed noise abatement procedural changes.

* *List of Acronyms* – We recommend that a List of Acronyms be included in the FEA for the benefit of the public. The list could include terms such as MIA, CVAP, ATCT, VOR VKZ. Although these acronyms are defined in the text, a List of Acronyms in the front of the document would provide easy public reference.

* *Typos* – The following typographical errors were noticed:

+ Page 2-6 - The last sentence on this page refers to an appendix without specifying which appendix.

+ Page 3-7 – The reference to the "Environmental Protection Agency" should preferably be the "U.S. Environmental Protection Agency."

City of Doral

Juan Carlos Bermudez
Mayor

November 28, 2005

VIA U.S. MAIL & HAND DELIVERY

Bruce Drum, Asst. Aviation Dir. of Operations
Jeff Bunting, Mgr. of Aircraft Noise/Environmental Planning
Miami-Dade Aviation Department
Post Office Box 592075
Miami, Florida 33159

Re: Draft Environmental Assessment/Comments

Gentlemen:

On behalf of the City of Doral, this letter shall serve to provide written comments to the Draft Environmental Assessment for Operational Changes at Miami International Airport (MIA). As the city located immediately west of MIA, the City of Doral, through its residents and businesses, are directly impacted by the operations at MIA, particularly take-offs and landings. The City of Doral was incorporated in 2003 and currently has an extended residential population of 33,000. Please note that the maps used in the Environmental Assessment grossly understate the actual residential development that already exists in the City of Doral. It is projected that the City of Doral will, over the next five years, increase its population to between 60,000 to 70,000. In addition, the City of Doral has a vibrant and large business presence, with many businesses directly or indirectly supporting the operations at MIA.

The community known as Doral has been registering their objections for over two years to the proposed Environmental Assessment which has now entered the comment period. For your convenience, I have attached the various written objections that the City of Doral and, prior to being incorporated, the Doral community, have filed with MIA.

While the City of Doral has general objections to many of the proposed operational changes in the Environmental Assessment, the City is particularly and vehemently opposed to the proposed operational change designated as Procedure 2 to maximize west-flow nighttime operations, by "increasing flow of all aircraft to the west during nighttime hours (11:00 p.m. and 6:00 a.m.) and under calm wind conditions (under 5 knots)."

The Environmental Assessment acknowledges that "Procedure 2 consists of increasing the nighttime westerly flow at MIA from the current 22 percent to 50 percent of the time."

Furthermore, the Environmental Assessment rationalizes the deliberate shifting of noise to the west by commenting that the Procedure 2 "would place more of the noisier aircraft departures over predominately industrial and commercial areas west of the Airport and the comparatively quieter arrivals over the residential areas to the east." The proposed shifting of noise from one community to another, in addition to being contrary to federal regulations, will more than double aircraft operations over the growing residential community of Doral during the most sensitive nighttime hours.

Lastly, the proposed maximization of west flow (night) as contained in Procedure 2 has only been modeled using computer simulation. There has been no field testing of potential impacts, unlike many of the other proposed procedures contained in the Environmental Assessment. If the map error that grossly understates the City's existing development (population) is also reflected in the computer model, then the fundamental basis for the Environmental Assessment is flawed. While the City of Doral does support a new heading of two hundred sixty five degrees to mitigate the impact of increased flight activity, it is completely unknown whether such a heading will insulate the residents of the City of Doral from a more than doubling of flight operations during the most sensitive night-time hours. To propose the implementation of such a radical change without a test period and concomitant collection of pertinent noise data is irresponsible.

By copy of this letter of objection to Director Abreu, the City of Doral is formally requesting that the Miami-Dade Aviation Department abandon its plan known as Procedure 2 to increase flow of all aircraft to the west of MIA during nighttime hours under calm wind conditions. We sincerely hope that MDAD will respond positively to the City of Doral's request for relief. Unfortunately, if MDAD fails to make appropriate changes that address the City of Doral's concerns, the City will be forced to seek all alternative remedies as allowed by law.

Very truly yours,

JCB

Juan Carlos Bermudez, Mayor

cc: John J. Hearn, City Attorney
Jose Abreu, Director, Miami International Airport

Barbara Herrera-Hill

City Clerk
City of Doral

December 15, 2005

Bruce Drum, Asst. Aviation Dir. Of Operations
Jeff Bunting, Mgr. of Aircraft Noise/Environmental Planning
Miami-Dade Aviation Department
Post Office Box 592075
Miami, FL 33159

Re: Draft Environmental Assessment

Gentlemen:

Enclosed, please find for your records and convenience supporting documents that address the above referenced issue:

- Community Council 9 Resolution No. CC 09-01-03
- Letter from Congressman Diaz-Balart to FAA Manager Quentin Burgess
- City of Doral Resolution No. 04-12 dated 2/11/2004
- Letter from Mayor Juan Carlos Bermudez to FAA Regional Administrator Carolyn Blum dated 10/18/2004
- Letter from Congressman Diaz-Balart to FAA Regional Administrator Carolyn Blum dated 2/23/2004

Also enclosed, please find a City of Doral Resolution objecting to a proposed operational change at Miami International Airport passed and adopted during the December 14, 2005 Council Meeting. Upon execution of this Resolution, I will transmit same to your attention.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Barbara Herrera-Hill

Barbara Herrera-Hill
City Clerk, City of Doral

RESOLUTION NO.CC 09-01-03

RESOLUTION OPPOSING THE ADOPTION AND IMPLEMENTATION OF THE ENVIRONMENTAL ASSESSMENT PREPARED BY MIAMI-DADE AVIATION DEPARTMENT RELATING TO WESTFLOW OPERATIONS FROM MIAMI INTERNATIONAL AIRPORT.

WHEREAS, Miami-Dade Aviation Department (MDAD) submitted in 2000 to the Regional FAA office in Atlanta an Environmental Assessment (EA) that recommended revised flight procedures to the West (westflow procedures) of Miami International Airport (MIA); and

WHEREAS, the regional FAA office in Atlanta returned referenced EA to MDAD unapproved in October 2002; and

WHEREAS, in February 2003 MDAD submitted to the Regional FAA office in Atlanta a new EA containing revised flight procedures for westflow operations from MIA,

NOW, THEREFORE, BE IT RESOLVED THAT DORAL COMMUNITY COUNCIL (9):

1. Believes that the westflow operational proposals contained in the February 2003 EA and submitted to the regional FAA office in Atlanta pose a significant and material detriment to the residents and businesses of Doral, specifically from aircraft noise and pollution; and

2. Objects to the new westflow flight tracks proposed in the February 2003 EA and the resultant unequal treatment of the residential population south of SR 836 and the residential population north of NW 36/41st Street.

3. Opposes the approval, adoption and implementation of the February 2003 EA and specifically the westflow procedures contained therein, by the regional FAA office in Atlanta; and

4. Support revisions, only if taken in the aggregate, to the February 2003 EA that will:
   a. Eliminate preferential nighttime westbound departures under calm wind conditions
   b. Eliminate all traffic from using 290° headings from any runway
   c. Quantify runway 8/26 usage to be consistent with a 'predominately landing runway' as stipulated by the EIS of 1998 that originally authorized the construction of said runway, with departures not to exceed 1% of runway 8/26 actual operations.

5. Recommends the MDAD form a sub-committee of the Noise Abatement Task Force with the purpose of developing revised westflow procedures acceptable to the parties and comprised of William Kribble, MIA ATC tower chief, Bruce Drum, Assistant Director of MDAD, an independent professional consultant skilled in the field of air traffic control/noise abatement and Christian Mazzola representing the interests of the Doral area.

The foregoing resolution was co-sponsored by Councilmen Max E. Salvador and Juan Carlos Bermudez, and offered by Councilman Puig-Corve who moved its adoption. The motion was seconded by Vice Chair Ruiz and upon being put to a vote, the vote was unanimous, as follows:

Juan Carlos Bermudez, Chair	aye
Sandra Ruiz, Vice Chair	aye
Pedro E. Cabrera Jr.	aye
Oscar Puig-Corve	aye
Michael DiPietro	aye
Max E. Salvador	aye
Mary A. Swofford	aye

The Chair thereupon declared the resolution duly passed and adopted this 27th day of March 2003.

I hereby certify that the above information reflects the action of the Council.

Amy-Terese Smith

Amy-Terese Smith, Executive Secretary

LINCOLN DIAZ-BALART
21ST DISTRICT, FLORIDA
COMMITTEE ON
RULES
VICE CHAIRMAN,
SUBCOMMITTEE ON
RULES AND ORGANIZATION
OF THE HOUSE
COMMITTEE ON
INTERNATIONAL RELATIONS
(SENIORITY RETAINED)

PLEASE REPLY TO:
WASHINGTON OFFICE:
☐ 404 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-0921
(202) 225-4211
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☑ 8525 N.W. 53RD TERRACE
SUITE 102
MIAMI, FL 33166
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Congress of the United States
House of Representatives
Washington, DC 20515–0921

May 9, 2003

Mr. Quentin Burgess
Manager
Federal Aviation Administration
800 Indepdence Avenue S.W.
Room 1022
Washington, D.C. 20591-0001

Dear Mr. Burgess:

I am writing to you on behalf of the Doral Community Council.

Enclosed please find a copy of the Resolution approved unanimously by the Doral Community Council opposing the aoption and implementation of the environmental assessment prepapred by the Miami-Dade Aviation Department concerning the wetflowing operations from Miami International Airport and currently being considered by the Federal Aviation Administration.

Your attention to this matter is greatly appreciated. If you have any questions, please do not hesitate to contact my aide, Yanik Fenton-Espinosa, at (305) 470-8555. I look forward to hearing from you in the near future.

Thank you for your attention.

Cordially,

Lincoln Diaz-Balart

LDB:yf

RESOLUTION NO. 04-12

A RESOLUTION OPPOSING THE ADOPTION AND IMPLEMENTATION OF THE ENVIRONMENTAL ASSESSMENT PREPARED BY MIAMI-DADE AVIATION DEPARTMENT RELATING TO WESTFLOW OPERATIONS FROM MIAMI INTERNATIONAL AIRPORT; AND IDENTIFYING CITY OF DORAL REPRESENTATION TO THE NOISE ABATEMENT TASKFORCE; AUTHORIZING TRANSMITTAL; AND PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, Miami-Dade Aviation Department ("MDAD") submitted in 2000 to the Regional Federal Aviation Administration (the "FAA") office in Atlanta an Environmental Assessment ("EA") that recommended revised flight procedures to the west ("Westflow Procedures") of Miami International Airport ("MIA"); and

WHEREAS, the regional FAA office in Atlanta returned the referenced EA to MDAD unapproved in October 2002; and

WHEREAS, in February 2003 MDAD submitted to the Regional FAA office in Atlanta a new Environmental Assessment containing revised flight procedures for westflow procedures from MIA.

NOW THEREFORE, BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF DORAL, FLORIDA, AS FOLLOWS:

Section 1. The above recitals are true and correct and are incorporated herein by this reference.

Section 2. Findings. The City Council finds that the westflow operational proposals contained in the February 2003 EA and submitted to the regional FAA office in

Atlanta pose a significant and material detriment to the residents and businesses of Doral, specifically from aircraft noise and pollution.

Section 3. Objection. The City Council objects to the new westflow flight tracks proposed in the February 2003 EA and the resultant unequal treatment of the residential population south of State Road 836 and the residential population north of NW 36/41st Street.

Section 4. Opposition. The City Council opposes the approval, adoption and implementation of the February 2003 EA and specifically the Westflow Procedures contained therein by the regional FAA office in Atlanta.

Section 5. Support of Revisions. The City Council supports revisions, only if taken in the aggregate, to the February 2003 EA that will:

a. Eliminate preferential nighttime westbound departures under calm wind conditions

b. Eliminate all traffic from using 290° headings from any runway

c. Quantify runway 8/26 usage to be consistent with a 'predominately landing runway' as stipulated by the EIS of 1998 that originally authorized the construction of said runway, with departures not to exceed 1% of runway 8/26 actual operations.

Section 6. Recommendation. The City Council recommends the MDAD form a sub-committee of the Noise Abatement Task Force with the purpose of developing revised Westflow Procedures acceptable to the parties and comprised of William Kribble, MIA ATC tower chief, Bruce Drum, Assistant Director of MDAD, an independent professional consultant skilled in the field of air traffic

control/noise abatement and a designated representative or a representative committee of no more than three (3) people named by the Mayor of the City of Doral.

Section 7. Authorizing Tranmittal. The City Clerk is hereby authorized to transmit a certified copy of this resolution to Angela Gittons, Director of Miami-Dade County Aviation Department, the Honorable Lincoln Diaz-Balart, and the United States Senators for the State of Florida.

Section 8. Effective Date. This Resolution shall become effective upon its adoption.

The foregoing Resolution was offered by Councilmember Ruiz, who moved its adoption. The motion was seconded by Vice Mayor Cabrera and upon being put to a vote, the vote was as follows:

Mayor Juan Carlos Bermudez	Yes
Vice Mayor Peter Cabrera	Yes
Councilmember Michael DiPietro	Yes
Councilmember Sandra Ruiz	Yes
Councilmember Robert Van Name	Yes

PASSED and ADOPTED this 11th day of February, 2004.

JUAN CARLOS BERMUDEZ, MAYOR

ATTEST:

CITY CLERK

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY FOR THE
SOLE USE OF THE CITY OF DORAL:

CITY ATTORNEY

October 18, 2004

City of Doral

Juan Carlos Bermudez
Mayor

Ms. Carolyn Blum
Regional Administrator
Federal Aviation Administration
P.O. Box 20638
Atlanta, GA 30320

Dear Ms. Blum:

We acknowledge the decision of the Federal Aviation Administration (FAA) Southern Region dated May 17, 2004 rejecting the Environmental Assessment (EA) proposed by Miami-Dade Aviation Department (MDAD).
Additionally, we note the request for review by MDAD dated June 15, 2004 and the FAA's subsequent refusal dated August 25, 2004 to override the original rejection.
We believe that the FAA has acted prudently to protect the community from a flawed proposal and support the FAA's actions.

The community of Doral has long opposed the proposed EA, believing that it was flawed. Specifically:

1. To shift night time flight from East to West during calm wind conditions is, in our view, shifting noise from one community to another. If the proposed EA were implemented, the annual number of night time flights to the west would virtually double (from 27% to 50% [reference: EA Introduction and Background]). We are confident that this would constitute noise shifting by any standard and will continue to vigorously oppose its implementation.

2. The headings for west flow departures discriminate against the areas west-north-west of MIA (e.g. Doral) in favor of communities west-south-west of MIA. We believe that there are alternative departure headings that are fair and equitable to all communities west of MIA. In fact, MDAD has studied a proposed alternative and preliminary data indicates that it meets the established criteria. Furthermore, we understand that MIA tower has indicated that this alternative is operationally feasible.

3. The City of Doral and it predecessor Community Council have both passed resolutions (dated February 11, 2004 and April – 2003) opposing the EA. The FAA has twice refused to approve the EA. We believe that it is time for the leadership of MDAD to: (i) be responsive to community feedback, (ii) accept the FAA rejections; (iii) terminate any further 'updates' of the proposed EA and (iv) begin in earnest to develop a new, viable plan that meets the needs of all the constituents.

We respectfully request that additional manipulation as suggested by MDAD's letter dated September 13, 2004 be rejected.

The residents of greater Miami Dade County deserve new flight tracks and procedures to minimize the effects of aircraft noise. That can be accomplished best by starting with a fresh look at achieving this important goal. One alternate appears to be worthy of immediate consideration.

Respectfully,

Juan Carlos Bermudez
Mayor

cc: Honorable Lincoln Diaz Balart, Florida State Representative
Honorable Alex Penelas, Miami-Dade County Mayor
Quentin Burgess, Manager FAA, Washington DC
Angela Gittens, Miami Dade Aviation Department
Christian Mazzola, Noise Abatement Task Force

LINCOLN DIAZ-BALART
21ST DISTRICT, FLORIDA
COMMITTEE ON
RULES
VICE CHAIRMAN,
SUBCOMMITTEE ON
LEGISLATIVE AND BUDGET PROCESS
SELECT COMMITTEE ON
HOMELAND SECURITY
CHAIRMAN,
SUBCOMMITTEE ON RULES
HOUSE POLICY COMMITTEE
CHAIRMAN
SUBCOMMITTEE ON FREEDOM, CIVIL LIBERTIES,
AND HUMAN RIGHTS
COMMITTEE ON
INTERNATIONAL RELATIONS
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ASSISTANT MAJORITY WHIP

Congress of the United States
House of Representatives
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February 23, 2004

Ms. Carolyn Blum
Regional Administrator
Federal Aviation Administration
P.O. Box 20636
Atlanta, Georgia 30320

Dear Ms. Blum:

Thank you for your response of September 3, 2003 to my letter of July 29, 2003 regarding the environmental assessment (EA) submitted by the Miami-Dade Aviation Department (MDAD) and the Doral Community Council's Resolution opposing adoption of referenced EA.

Since your letter, the Doral area has incorporated as a municipality with all the legal rights and responsibilities attendant thereto. Attached you will find a new Resolution adopted unanimously by the Doral City Council opposing again the adoption and implementation of the same Environmental Assessment referenced above.

Additionally, I wish to draw your attention to the process by which the subject EA was adopted by MDAD's Noise Abatement Task Force (NATF). Miami-Dade's NATF is comprised of 14 members: 13 of these members represent various communities to the north, east and south of Miami International Airport (MIA) .Only one member of the task force is from west of MIA; and he is from Doral. The task force adopted the draft EA over the objections of the sole representative from the west. That representative's objection was based exclusively on the EA's WESTFLOW procedures. Therefore, what we have is the majority of the NATF members who are not affected whatsoever by west flow operations adopting procedures that in their wisdom were best for the population west of MIA. The flaws of this process are glaring and require immediate remedy.

Furthermore, please note that the representative from Doral has developed an alternative for west flow operations that may resolve the impasse. It is my understanding that this alternative is operationally feasible, based on correspondence from MIA Tower. I am further informed that

minor differences are expected in the 65dB DNL noise contour and virtually no difference is expected in the 70 and 75dB DNL noise contours' based on an analysis of this west flow alternative completed for MDAD.

Finally, before the draft EA is made public for review and comment, I respectfully request a meting with all interested parties in order to try to resolve this matter promptly.

Cordially,

Lincoln Diaz-Balart

cc: Ana Sotorrio
Associate Aviation Director for Government Affairs
Miami International Airport
P.O. Box 592075
Miami, FL 33159

LDB:yf

RESOLUTION NO. 2005-

A RESOLUTION OF THE MAYOR AND CITY COUNCIL OF THE CITY OF DORAL, FLORIDA OBJECTING TO A PROPOSED OPERATIONAL CHANGE AT MIAMI INTERNATIONAL AIRPORT WHICH WOULD RESULT IN INCREASING THE FLOW OF AIRCRAFT TO THE WEST DURING NIGHTTIME HOURS; ENCOURAGING THE MIAMI-DADE AVIATION DEPARTMENT TO ABANDON ITS PLAN TO INCREASE THE FLOW OF AIRCRAFT TO THE WEST AT MIAMI INTERNATIONAL AIRPORT DURING NIGHTTIME HOURS; PROVIDING FOR AN EFFECTIVE DATE

WHEREAS, the City of Doral is located directly to the west of Miami International Airport (hereinafter "MIA") and, on a daily basis, is directly impacted by the operations of the MIA; and

WHEREAS, the proposed Environmental Assessment for operational changes at MIA includes a proposed operational change termed "Procedure 2" which would maximize west flow of nighttime operations during the nighttime hours and under calm wind conditions; and

WHEREAS, this proposed operational change would increase the nighttime westerly flow at MIA from the current twenty two percent to fifty percent of all flights during calm wind conditions; and

WHEREAS, the Assessment rationalizes the deliberate shifting of noise to the west by commenting that it would place more of the noisier aircraft departures over predominantly industrial and commercial areas west of the airport; and

WHEREAS, the proposed shifting of noise from one community to another is contrary to federal regulations and does not correctly characterize the current and growing residential population of the City of Doral; and

WHEREAS, the proposed maximization of west flow aircraft during calm night conditions has not been field tested as to potential impacts as many of the other proposed procedures contained in the Environmental Assessment have undergone; and

WHEREAS, consistent with the above facts and findings, the City Council of the City of Doral hereby formally objects to any implementation of Procedure 2 and would request that the Miami-Dade Aviation Department abandon its plan to increase the flow of all aircraft to the west of MIA during nighttime hours and under calm wind conditions;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF DORAL, FLORIDA THAT:

Section 1. The foregoing "WHEREAS" clauses are hereby ratified and confirmed as being true and correct and are hereby made a part of this Resolution upon adoption hereof.

Section 2. The City Council of the City of Doral hereby formally objects to the proposed implementation of Procedure 2 which would increase the flow of all aircraft to the west of MIA during nighttime hours under calm wind conditions and requests that Procedure 2 be abandoned or, at a minimum, be properly field tested prior to implementing this recommendation.

Section 3. The City of Doral would request that Director, Jose Abreu, formally look into this matter and respond to the City of Doral directly in writing concerning same.

Section 4. That this Resolution shall be transmitted to all appropriate parties.

Section 5. This resolution shall become effective upon its passage and adoption by the City Council.

A motion to approve the application was offered by _____, who moved its adoption. The motion was seconded by _____ and upon being put to a vote, the vote was as follows:

Mayor Juan Carlos Bermudez _____
Vice Mayor Peter Cabrera _____
Councilmember Michael DiPietro _____
Councilwoman Sandra Ruiz _____
Councilmember Robert Van Name _____

PASSED AND ADOPTED this _____day of _____, 2005.

_____
JUAN CARLOS BERMUDEZ, MAYOR

ATTEST:

_____
BARBARA HERRERA-HILL, CITY CLERK

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY FOR THE
SOLE USE OF THE CITY OF DORAL:

_____
JOHN J. HEARN, CITY ATTORNEY

RESPONSE TO COMMENTS ON THE OCTOBER 2005 MIA OPERATIONAL NOISE MITIGATION PROCEDURES DRAFT EA.

Agency Comments

Agency: Florida Department of Transportation

Comment: Reviewed the document and has no comments.

Agency: Florida Department of State – Division of Historical Resources

Comment: Reviewed the document and identified that the proposed federal action will have no effect on historic properties.

Agency: Miami-Dade Parks and Recreation

Comment: Enhancements to the park facilities at Melrose Elementary School have occurred that are intended to provide recreational opportunities to a neighborhood without traditional parks. Additional Federal funding assistance has been limited due to the fact that the school is within the 65 DNL.

Response: With the proposed action, the DNL value at the school is expected to reduce by 1.5DNL (from 66.1 to 64.6 as identified in Table 4-6).

Agency: U.S. Fish and Wildlife Service

Comment: Reviewed the document and determined that the proposed federal action is not likely to significantly impact fish and wildlife resources.

Agency: United States Environmental Protection Agency

Alternatives

Comment: The Final EA should include a short paragraph for each procedure describing what noise abatement advantages are predicted as a result of implementing that procedure.

Response: In response to EPA's comment, the short paragraph descriptions of the procedures and their intended benefit have been added to Pages ii and iii of the EA. Any predicted benefits to be obtained from these procedural changes have been modeled and are discussed in detail in Section 4: Environmental Consequences.

Comment: It is not clear why additional daytime noise mitigation procedures are not included in this EA and that the Final EA should identify when such procedures can be addressed.

Response: Noise mitigation is an on-going process. The alternatives presented in this EA have been developed and refined over a number of years through coordination with the Noise Abatement Task Force members. The Miami-Dade Aviation Department is committed to continue to investigate additional ways to minimize noise on communities surrounding the airport. An additional EA may be required for any additional work.

Noise Exposure Data

Comment: Are the predicted reductions in numbers of persons within the 65 DNL net gains or absolute values. Would any of the people to be removed from the 70-75 be moved to the 65-70? Would any people currently outside the 65 be incorporated into the 65 DNL? Were the people enumerated in Tables 4-4 and 4-5 residents or were people working at affected commercial establishments also considered.

Response: The persons removed from the 70-75 DNL would experience levels from 65-70 DNL and those removed from the 65-70 DNL would experience noise levels below 65DNL. In addition, with the proposed action, no persons would be added to the 65DNL who were not within the 65 DNL limits with the No Action Alternative. All of the people enumerated in the Tables are residents.

Comment: The Final EA should better define noise abatement benefits from Procedure 4 to the extent feasible.

Response: The Draft EA identifies that the Procedure 4 would reduce overflights of turbojet arrivals on most of the areas of Miami Beach and Key Biscayne. In addition, Exhibit 2-4 shows how the proposed procedure would place aircraft arrivals over water avoiding, to a large extent, overflights of developed residential areas on the barrier islands in Biscayne Bay. Although this procedure occurs beyond the limits of the 65 DNL (area of significant noise exposure), the implementation of this procedure takes advantage of the opportunity to place aircraft over water in areas experiencing moderate noise exposure.

Environmental Justice

Comment: The FEA should include persons of Hispanic origin in the environmental justice section.

Response: Text will be added to the Final EA specifically stating that there will be no adverse impacts to persons of Hispanic or Latino origin because , no new populations would be exposed to DNL levels of 65 or greater with the Proposed Action when compared to the No-Action Alternative The text will also be revised to identify that Census 2000 data indicates that 57.3% of Miami-Dade County residents are Hispanic or Latino origin. A footnote will be added to Tables 4-21 and 4-22 noting that the information used in the table included all non-white race categories as identified in the 2000 census.

Air Quality

Comment: The text should be updated to identify that the one-hour O_3 NAAQS was revoked on June 15, 2005.

Response: The text will be revised in the Final EA.

Comment: The Final EA should include a generic inventory of on-site sources of hazardous air pollutants.

Response: We acknowledge that airports also contribute to Hazardous Air Pollutants (HAPs) from aircraft emissions as well as from various other mobile and stationary sources located on the airport. At this time, no analysis of HAPs emissions from aircraft and other airport related sources are required because the analysis of HAPs fall under FAA environmental policy related to the evaluation of air pollutants. The proposed action examined in this EA is exempt from air quality analysis under the General Conformity Rule and is considered a de minimus action. The generic inventory and emission of HAPs also fall under this category as it relates to the Proposed Action.

The purpose and need of the Proposed Action is solely for noise abatement and is not designed to change the frequency or scheduling of flights, fleet mix, volume or the overall capacity at MIA. There will be no difference in the number of aircraft operations nor the fleet mix between the Proposed Action and the No Action Alternative; aircraft operations and vehicular traffic would grow with or without the proposed air traffic procedural change.

Future Noise Abatement

Comment: The Miami-Dade Aviation Department should consider evaluating the additional daytime procedural changes in this EA or addressed in the near future. In addition, mitigation measures such as acquisition or sound insulation of homes within the 65 DNL and the participation in a FAR Part 150 study should be done to further address noise impacts at MIA

Response: Noise mitigation is an ongoing process at the airport. It is the intent of MDAD to evaluate additional daytime procedure options following the completion of this EA. Since there are no significant adverse impacts associated with the Proposed Action, sound insulation or acquisition is not necessary as a result of the Proposed Action. However, the merits of additional mitigation through acquisition, sound insulation and of conducting a FAR Part 150 study are under consideration by MDAD.

Other Impact Categories

Comment: Placing aircraft over water bodies and wetlands could, over time, result in water quality effects due to potential air disposition of aircraft emissions.

Response: Air emissions described in the comment are typically evaluated on a regional basis. That is, aircraft emissions drift from the flight path (due to winds) and are not necessarily associated with land uses directly below the flight path but are included in regional emission inventories. As long as there is no change in the source of the emissions (no change in the number of operations and fleet mix as is the case in this EA), emissions of aircraft in flight would generally be the same with or without the Proposed Action. Thus, any effects on water bodies or wetlands would be the same as the No Action Alternative.

Comment: EPA believes the proposed flight procedures could substantially reduce noise exposure on people living within the 65 DNL.

Response: MDAD concurs with this statement.

Other EPA Comments

Comment: 65 DNL Contours

Response: Comment noted.

Comment: Future Years -Use of 2006 and 2011 instead of 2005 and 2010

Response: The years 2005 and 2010 will remain in the FEA since any change would require significant additional analysis and would significantly delay the implementation of the procedures and their associated noise benefits.

Comment: No Action Comparison

Response: The exhibits could be relocated to Section 2 but it was felt that reviewers typically expect the existing flight tracks to be included in the Affected Environment Section and thus, no change in location will be made.

Comment: Intrusive Noise Levels

Response: The guidelines used for the Draft EA and Final EA are those included in FAA Order 1050.1E with the 65 DNL and the 1.5 DNL change as being thresholds of significance. Since noise "annoyance varies greatly between individuals, we concur that it is possible that some people experiencing less than a 1.5 DNL change might perceive a change.

Comment: The Draft EA defines nighttime differently throughout the document.

Response: The document does define nighttime differently throughout the document. The 11:00 p.m. to 6:00 a.m. refers to the times when the FAA tower representatives at MIA indicated that the nighttime procedures can be implemented. The 10:00 p.m. to 7:00 a.m. has been identified because this is how

the INM models nighttime activity and when the model applies a 10 dB penalty to night operations.

Comment: Calm wind predictions

Response: Meteorological conditions (primarily winds) are typically lower at night than during daytime hours. The best estimates on the percentage of time any individual procedure could be implemented were based on input from the FAA Tower at MIA.

Comment: The Final EA should discuss why only turbojets were considered for Procedure 1 and if this limitation also applied to the other proposed procedures.

Response: The text in the Draft EA indicates that Procedures 1, 3 and 4 (Page 2-2, 2-3, and 2-4) apply to turbojet aircraft only and Procedure 2 applies to all aircraft (Page 2-2). The noise concerns identified by the communities around MIA have primarily dealt with turbojet aircraft. Propeller aircraft provide an insignificant contribution to noise contours at an airport like MIA that has a fleet mix of turbojet aircraft.

Comment: It should be clarified if military aircraft were included in the procedures.

Response: The noise abatement procedures included both military and civil aircraft.

Comment: Recommend adding a list of acronyms

Response: A list of acronyms will be included in the Final EA.

Comment: Typos.

Response: The two typos will be corrected.

Municipality Comments

City of Doral - Juan Carlos Bermudez, Mayor

Comments: The maps used grossly underestimate the actual residential development that currently exists in the City of Doral. The City is vehemently opposed to the proposed operational change designated as Procedure 2. The proposed shifting of noise from one community to another, in addition to being contrary to federal regulations, will more than double aircraft operations over the growing residential community of Doral during the most sensitive nighttime hours. The proposed Procedure 2 has only been modeled using a computer simulation – there has been no field-testing of potential impacts.

Response: Development has occurred in Doral since the initial generation of the base mapping. Single and multi-family residences are now located in the area north of Doral Blvd, and west of NW 107 Ave. (This is the area between the Florida Turnpike and the City of Doral shown on Exhibit 5-1 of the Draft EA.) Land uses immediately west of the airport (south of Doral Blvd) remain compatible with aircraft operations. No residential areas within Doral are located within the 65 DNL noise contours with the Proposed Action.

The proposed Federal action is a combination of four procedures that are intended to reduce noise levels over residential areas, including the City of Doral. The City of Doral currently experiences direct overflights of aircraft departing to the west day and night. These overflights are particularly disturbing to residents at night. With the Proposed Federal action, nighttime aircraft departures will be directed along the 265-degree heading, away from and not over the City of Doral. Without the change, aircraft will continue to depart over the City of Doral at night.

Procedure 2 does increase the overall flow of the airport to the west at night, but it does not increase the number of operations west of the airport. The change results in more turbojet aircraft departures to the west at night with a corresponding reduction in arrivals from the west at night. Thus there would be no change in the total number of operations west of the airport with or without Procedure 2. However, there will be less aircraft flying over the City of Doral at night, under the proposed action, due to all departing aircraft being directed along the 265 degree heading, and due to the reduction of arrival aircraft over Doral, brought about by the change in flow from east to west.

The purpose of the proposed operational changes is to reduce noise impacts. MDAD believes, as the noise modeling indicates, that residential areas of the City of Doral will benefit from these changes. The airport will continue to work with the Noise Abatement Task Force and the City of Doral to investigate additional air traffic control procedure changes that might further reduce noise levels in the residential areas surrounding MIA, including the City of Doral. Upon the implementation of the proposed action included in this EA, MDAD, with input from the City of Doral, will monitor the effectiveness of these procedures for a period of six months. During this timeframe, MDAD may coordinate with MIA ATC to request information pertaining to air traffic control operations and the proposed action. At the end of the six months, MDAD and the Noise Abatement Task Force (NATF) for MIA will evaluate and determine whether or not the changes have increased aircraft noise in residential areas surrounding MIA, including the City of Doral. Should the noise levels increase, the procedures will be re-evaluated by MDAD, NATF and the City of Doral. As part of the implementation of the proposed action, MDAD will continue to monitor, promote and enforce these procedures as part of MIA's noise abatement program.

It should be noted that the airport sponsor, MDAD, has the option of either proposing additional new changes in the future (including modification of the

procedures identified in this EA) or continue implementing the proposed action without any modification. If it is determined that additional changes are desired, MDAD would initiate the approval process as these changes might require a separate or supplemental environmental analysis.