

APPENDIX C

Stakeholder Suggested Measures

This Appendix includes a draft of Noise Compatibility Program (NCP) strategies and recommendations for the Fort Lauderdale-Hollywood International Airport (FLL) Title 14 Code of Federal Regulations (CFR) Part 150 Noise Study. Noise abatement, land use, and program management strategies and recommendations are included. Noise abatement recommendations have been received by key stakeholders involved throughout the Part 150 Study process. The NCP strategies are in draft form and do not represent the final strategies to be submitted for approval to the Federal Aviation Administration (FAA).

A number of draft abatement strategies suggested by stakeholders include operational modifications. The Broward County Aviation Department (BCAD) must also abide by its FAA grant assurances, which require that the BCAD provide access to its airports with no undue operational restrictions or burdens on interstate or foreign commerce. The Airport Noise and Capacity Act of 1990 limits the ability of airport authorities to implement new operational restrictions on aircraft in flight. An airport operator may impose a use restriction through agreement of all airport users affected by the proposed restriction, or by obtaining FAA approval for the proposed use restriction pursuant to the requirements of 14 CFR Part 161. A restriction must meet all of the following statutory and regulatory conditions:

- The restriction is reasonable, non-arbitrary, and nondiscriminatory.
- The restriction does not create an unreasonable burden on interstate or foreign commerce (i.e., the benefits of a restriction outweigh the costs and that all non-restrictive measures have been shown to be ineffective at eliminating the noise and land use incompatibilities addressed by the restriction).
- The restriction is not inconsistent with maintaining the safe and efficient use of the navigable airspace.
- The restriction does not conflict with a law or regulation of the United States.
- An adequate opportunity has been provided for public comment on the restriction.
- The restriction does not create an unreasonable burden on the national aviation system.

14 CFR Part 161 contains details of all requirements that an airport authority must meet to impose operational restrictions on aircraft in flight.

- Appendix C-1 Draft FLL NCP Strategies
- Appendix C-2 Airport Noise Abatement Committee (ANAC) Recommendations for FLL Part 150 – September 10, 2018
- Appendix C-3 City of Dania Beach Comments on the FLL Part 150 Study – April 01, 2019

Appendix C-1

Draft FLL NCP Strategies

This Appendix includes documentation of the draft NCP strategies received during the FLL Part 150 Study. Documentation of the draft FLL NCP strategies includes details on the proposed strategy, type of strategy, and stakeholder proposer. This list does not represent the final FLL NCP strategies.

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Noise Abatement Strategies					
Recommended in Part	Re-affirm and implement Voluntary Night Closure approved in Broward County / Dania Beach Interlocal Agreement (ILA) Sec. 2(a), Nov 19, 2013	Preferential Runway Use	Agency – Dania Beach letter to BCAD, April 1, 2019	<p>Paragraph 2(a)(iii)(c) of the November 19, 2013 Interlocal Agreement between Broward County and the City of Dania Beach states:</p> <p>“The County agrees that in the development of the New Part 150 Study . . . the County will include the Voluntary Night Closure as an abatement measure to be analyzed as part of such New Part 150 Study. The County further agrees that it will include continuation of the Voluntary Night Closure in its recommendations to the FAA in connection with such New Part 150 Study unless the City agrees in writing to the contrary.”</p> <p>Because the Interlocal Agreement requires Broward County to include continuation of the Voluntary User Program for Runway 10R-28L in the FLL Part 150 Study, BCAD is recommending this measure as a noise abatement measure to be included in the FLL Part 150 NCP. However, since the existing voluntary nighttime closure is part of existing operational conditions, it is recommended that this action be converted to a voluntary nighttime preferential runway program subject to the mitigation of the noncompatible land uses that were introduced as a result of the current program.</p>	Section 2.2
Not Recommended	Force extended final for aircraft operating between 10pm and 7am	Flight Paths	Public – Website comments	<p>The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour.</p> <p>BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included in a Fly Quiet program. However, since this measure would not reduce the noncompatible land uses within the 65 DNL contour, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.</p>	N/A
Not Recommended	Establish airport curfew	Use Restrictions	Public – Website comments	Airlines have the sole responsibility for scheduling the times for arrivals and departures of their aircraft. BCAD must abide by its FAA grant assurances, which require that BCAD provide access to FLL with no undue operational restrictions or burdens on interstate or foreign commerce. The Airport Noise and Capacity Act of 1990 (ANCA) limits the ability of airport authorities to implement new curfews without a thorough demonstration of the need for the restriction, a detailed analysis of the restriction and its consequences, a demonstration that the benefits of the restriction outweigh its costs, and evidence that all other nonrestrictive measures have been exhausted. Because of the requirements of ANCA and the requirements for AIP grants, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	Section 2.3
Not Recommended	Close the south runway at night	Use Restrictions	TC, ANAC – TC Meeting #5 Email, January 2019	The Part 150 Study Team performed an analysis of how noise exposure would change if the south runway were closed at night (10:00 P.M. to 6:59:59 A.M.). The analysis assumed that all fixed-wing aircraft would arrive to and depart from the north runway during those hours. DNL contours resulting from the analysis showed that a closure of the south runway at night would increase the number of noncompatible land uses to the west of FLL. Therefore, BCAD is not recommending this suggested measure in the FLL NCP.	Section 2.3
Not Recommended	Limit arrivals at night	Use Restrictions	Public – Website comments	Airlines have the sole responsibility for scheduling the times for arrivals and departures of their aircraft. BCAD must abide by its FAA grant assurances, which require that BCAD provide access to FLL with no undue operational restrictions or burdens on interstate or foreign commerce. The Airport Noise and Capacity Act of 1990 (ANCA) limits the ability of airport authorities to implement new curfews without a thorough demonstration of the need for the restriction, a detailed analysis of the restriction and its consequences, a demonstration that the benefits of the restriction outweigh its costs, and evidence that all other nonrestrictive measures have been exhausted. Because of the requirements of ANCA and the requirements for AIP grants, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	Section 2.3

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Not Recommended	No arrivals over residences between 9pm and 8am	Use Restrictions	Public – NEM-phase comment letter	Airlines have the sole responsibility for scheduling the times for arrivals and departures of their aircraft. BCAD must abide by its FAA grant assurances, which require that BCAD provide access to FLL with no undue operational restrictions or burdens on interstate or foreign commerce. The Airport Noise and Capacity Act of 1990 (ANCA) limits the ability of airport authorities to implement new curfews without a thorough demonstration of the need for the restriction, a detailed analysis of the restriction and its consequences, a demonstration that the benefits of the restriction outweigh its costs, and evidence that all other nonrestrictive measures have been exhausted. Because of the requirements of ANCA and the requirements for AIP grants, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	Section 2.3
Not Recommended	Have all late evening and early morning arrivals arrive from the west over the ocean	Preferential Runway Use	Public – Website comments	The FAA has sole authority for runway selection. A variety of factors affect the FAA's selection of runways for use, such as runway availability, prevailing wind and weather patterns, and operational efficiency. As a result of the 2013 Dania Beach Interlocal Agreement, the airport currently operates with a Voluntary User Program for Runway 10R-28L. Current runway use statistics indicate that the north runway accommodates approximately two thirds of all activity at the airport.	N/A
Recommended	Have flights departing west stay due west, closer to 595, before turning north	Flight Paths	Public – Website comments; January 16, 2019 NEM Public Information Workshop	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft closer to I-595 using ELSO or ELSO-like procedures has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
Not Recommended	Bring arrivals over 595	Flight Paths	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour. BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included on a voluntary basis.	N/A
Recommended	Take off over the ocean; fly further south over Davie and 595	Flight Paths	Public – January 16, 2019 NEM Public Information Workshop	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft closer to I-595 using ELSO or ELSO-like procedures has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
Not Recommended	Implement penalties to "deter operational negligence"	Use Restrictions	Agency – Dania Beach letter to BCAD, April 1, 2019; website comments; email, January 2019	The FAA considers noise-based penalties to be a noise restriction subject to the regulations in 14 CFR Part 161, Sec. 161.5. In addition, as a condition of receiving Airport Improvement Program (AIP) grants from the FAA, BCAD must also abide by its FAA grant assurances, which require that BCAD must provide airport with no undue operational restrictions or burdens on interstate and foreign commerce - 49 USC §47107(d). Because of the regulations of 14 CFR Part 161 and the requirements for AIP grants, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	Section 2.3
Not Recommended	Address frequency of flights	Use Restrictions	Public – Website comments	Airlines have the sole responsibility for scheduling the times for arrivals and departures of their aircraft. BCAD must abide by its FAA grant assurances, which require that BCAD provide access to FLL with no undue operational restrictions or burdens on interstate or foreign commerce. The Airport Noise and Capacity Act of 1990 (ANCA) limits the ability of airport authorities to implement new curfews without a thorough demonstration of the need for the restriction, a detailed analysis of the restriction and its consequences, a demonstration that the benefits of the restriction outweigh its costs, and evidence that all other nonrestrictive measures have been exhausted. Because of the requirements of ANCA and the requirements for AIP grants, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	Section 2.3
Recommended	Use heading 275 for departures to the west	Flight Paths	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft on a 275-degree departure heading using ELSO or ELSO-like procedures has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Recommended	Have 28R departures fly heading 275 at nighttime; use 28L for arrivals	Preferential Runway Use	Public – January 16, 2019 NEM Public Information Workshop	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft on a 275-degree departure heading using ELSO or ELSO-like procedures has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
Not Recommended	Return Runway 28R departures back to heading 275 until completion of 14 CFR Part 150 Study	Flight Paths	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. Changes to existing operations are not implemented until completion of the Part 150 process. BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included on a voluntary basis.	Section 2.2
Recommended in Part	Go back to departure heading of 270 and stop allowing aircraft to turn northwest upon departure	Flight Paths	Public – Website comments; TC Meeting #5	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft using ELSO or ELSO-like procedures to route aircraft over compatible land use corridors has the potential to reduce annoyance cause by aircraft overflights.	Section 2.3
Recommended	Have flights departing west remain over commercial areas	Flight Paths	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft using ELSO or ELSO-like procedures to route aircraft over compatible land use corridors has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
	Do not use heading 290 for Runway 28R departures	Flight Paths	Public – Website comments through 3-7-19 row 268	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour. BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included on a voluntary basis.	
Recommended	No turn to 290-degree heading until runway end (TBD)	Flight Paths	TC – TC Meeting #5	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft on a 275- or 290- degree departure heading using ELSO or ELSO-like procedures has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
Not Recommended	Restructure arrival and departure routes for North Runway to replicate arrival and departure routes from pre-2014 (ANAC)	Flight Paths	ANAC – TC Meeting #5; website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour. This measure would also decrease airfield capacity and increase potential ground delays and sequencing issues. BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit.	N/A
Recommended in Part	Establish and use a waypoint on runway heading west of the Turnpike for departures	Flight Paths	Public – Website comments; January 16, 2019 NEM Public Information Workshop	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft using ELSO or ELSO-like procedures to route aircraft over compatible land use corridors has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Not Recommended	Have arrivals approach over the Everglades	Flight Paths	Public – Website comments	<p>The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour. This measure would also decrease airfield capacity and increase potential ground delays and sequencing issues.</p> <p>BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit.</p>	N/A
Recommended in Part	Use RNAV controlled descent approaches	Arrival and Departure Procedures	Public – Website comments; January 16, 2019 NEM Public Information Workshop	<p>The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, modifying aircraft profiles to keep aircraft higher has the potential to reduce annoyance caused by aircraft overflights.</p>	Section 2.2
Recommended for Further Analysis as Part of PM-7	Establish steep takeoff rules	Arrival and Departure Procedures	Public – Website comments; TC Meeting #5; Dania Beach letter to BCAD, April 1, 2019	<p>The pilot-in-command has sole authority for the safe operation of his or her aircraft. BCAD does not have the authority to mandate the use of specific flight procedures for aircraft arriving to and departing from FLL. However, BCAD and the Study Team performed an analysis of how noise exposure would change in the vicinity of FLL if the top five most frequently-occurring aircraft at FLL in the year 2023 (representing 73 percent of all departures) were to use the close-in noise abatement departure procedure (NADP), also known as NADP1. This noise abatement departure procedure is designed to reduce noise exposure for communities close to an airport. The analysis showed that implementation of NADP1 is unlikely to reduce the number of noncompatible land uses within the 65 DNL contours at FLL, even if all departures of the top five most frequently occurring aircraft at FLL were to use this procedure. However, due to comments received on the Draft NCP, BCAD proposes to further analyze the potential benefits of implementing NADP procedures as part of a Voluntary Fly Quiet Program (see PM-7 recommended in Chapter 4). Further coordination is required with the airlines to ensure that implementation is effective in reducing noise exposure.</p>	Section 4.2
Not Recommended	Use steeper descents close to the airport	Arrival and Departure Procedures	Public – Website comments	<p>A glide slope is an FAA-established gradual downward slope that determines how quickly aircraft reduce altitude as they approach a runway for landing. Flying along a specified glide slope ensures that aircraft reach the runway at the proper location while staying at a high enough altitude to avoid any tall land features (such as terrain and buildings) that may obstruct safe access to the runway. Glide slopes are generally set by the FAA at 3 degrees to ensure a stable and consistent aircraft approach. However, they are occasionally steeper or shallower depending on the airport, the type of aircraft that use the airport, and local geography and obstructions. Some aircraft are capable of flying a steep glide slope safely, while others cannot due to their physical characteristics. An aircraft using a steep glide slope will be at a higher altitude than an aircraft at the same distance from the airport using a shallower glide slope. In general, the higher the altitude of the aircraft, the lower the noise exposure on the ground. However, changing the glide slope by a few tenths of a degree will only produce an imperceptible change in noise within the vicinity of the 65 DNL contour. Changing the glide slope by greater amounts would limit the types of aircraft that could comply. Because it is infeasible to implement a steeper glide slope that would reduce noncompatible land uses within the 65 DNL contour, BCAD is not recommending this strategy for the FLL Part 150 NCP.</p>	N/A
Not Recommended	Have aircraft maintain runway heading until after 30,000 feet from the runway end before turning	Flight Paths	Public – January 16, 2019 NEM Public Information Workshop	<p>The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour.</p> <p>BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included on a voluntary basis.</p>	N/A
Not Recommended	Have arrivals and departures over the ocean	Preferential Runway Use	Public – Website comments; NEM-phase comment letter	<p>The FAA has sole authority for runway selection. A variety of factors affect the FAA's selection of runways for use, such as safety, runway availability, prevailing wind and weather patterns, and operational efficiency.</p>	N/A

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Recommended	Restrict east departures to a heading of 090 until passing the shoreline	Flight Paths	Public – Website comments; January 16, 2019 NEM Public Information Workshop	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft using ELSO or ELSO-like procedures to route aircraft over compatible land use corridors has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
Not Recommended	The North Runway should be operated as the "preferred runway"	Preferential Runway Use	Agency – Dania Beach letter to BCAD, April 1, 2019; email, January 2019; TC Meeting #5	As a result of the 2013 Dania Beach Interlocal Agreement, the airport currently operates with a Voluntary User Program for Runway 10R-28L. Modeling indicates that the current voluntary nighttime closure has resulted in an increase in the number of noncompatible land uses within the 65 DNL contour along the Runway 10L approach extended centerline. The is reflected in both the 2018 and 2023 NEMs. Modeling indicates that any additional effort to shift activity to the north runway results in an increase in non compatible uses.	Section 2.3
Not Recommended	Preferred arrivals on north runway and departures on south runway	Preferential Runway Use	TC – TC Meeting #5; email, January 2019	Current runway use statistics indicate that the north runway accommodates approximately two thirds of all activity at the airport. Modeling indicates that any action that shifts additional arrival activity to the north runway would result in a further increase in the non-compatible land uses within the 65 DNL contour. However, since the Voluntary User Program for Runway 10R-28L is part of existing operational conditions, it is recommended that this program be continued subject to the mitigation of the noncompatible land uses that were introduced as a result of the current program.	Section 2.3
Not Recommended	In addition to preferential runway, simultaneous adoption of mandatory runway heading(s) (Ft. Lauderdale)	Flight Paths	TC – TC Meeting #5	BCAD and the Study Team held several conversations with the FAA to discuss the management of air traffic and airspace in the vicinity of FLL. Separating aircraft arrivals and departures on the north and south runways is required to take advantage of the operational benefits provided by the south runway in helping FLL operate efficiently and safely. As a result, BCAD is not recommending these suggestions as noise abatement measures to be included in the FLL Part 150 NCP.	N/A
Recommended	Change flight paths	Flight Paths	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft using ELSO or ELSO-like procedures to route aircraft over compatible land use corridors and routing aircraft arrival profiles higher has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
Recommended	Reduce the noise	Other Types of Recommendations	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, routing aircraft using ELSO or ELSO-like procedures to route aircraft over compatible land use corridors and routing aircraft arrival profiles higher has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2
Not Recommended	Eliminate departures and arrivals over residential areas	Flight Paths	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour. BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included on a voluntary basis.	N/A
Not Recommended	Adjust approach patterns for dispersion	Flight Paths	Public – Website comments	Arriving aircraft are already established on their final glide slope, typically 3 degrees, and are already aligned with the runway by the time they reach the vicinity of the 65 DNL contour. Aircraft are descending at a generally consistent rate, and changes in engine power levels at this time are intended to safely maintain this rate. Because the implementation of this measure would therefore not reduce noncompatible land uses within the 65 DNL contour, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	N/A
Recommended in Part	Minimize low approaches	Arrival and Departure Procedures	Public – Website comments	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that modifying these flight paths in the vicinity of FLL would not reduce noncompatible land uses in the 65 DNL contour; however, modifying aircraft profiles to keep aircraft higher has the potential to reduce annoyance cause by aircraft overflights.	Section 2.2

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Not Recommended	Establish a more even balance of east flow and west flow	Preferential Runway Use	Public – Website comments	The FAA has sole authority for runway selection. A variety of factors affect the FAA's selection of runways for use, such as runway availability, prevailing wind and weather patterns, and airspace and airfield operational efficiency. As a result of the 2013 Dania Beach Interlocal Agreement, the airport currently operates with a Voluntary User Program for Runway 10R-28L. Current runway use statistics indicate that the north runway accommodates approximately two thirds of all activity at the airport.	N/A
Not Recommended	Use the south runway more often for landings from the west	Preferential Runway Use	Public – NEM-phase comment letter	The FAA has sole authority for runway selection. A variety of factors affect the FAA's selection of runways for use, such as runway availability, prevailing wind and weather patterns, and airspace and airfield operational efficiency. As a result of the 2013 Dania Beach Interlocal Agreement, the airport currently operates with a Voluntary User Program for Runway 10R-28L which reduces use during nighttime hours. Current runway use statistics indicate that the north runway accommodates approximately two thirds of all activity at the airport.	N/A
Not Recommended	Limit arrivals from the west over Davie	Preferential Runway Use	Public – Website comments	This was interpreted as a desire to limit arrivals to the north runway when in east flow. The FAA has sole authority for runway selection. A variety of factors affect the FAA's selection of runways for use, such as runway availability, prevailing wind and weather patterns, and airspace and airfield operational efficiency. As a result of the 2013 Dania Beach Interlocal Agreement, the airport currently operates with a Voluntary User Program for Runway 10R-28L which reduces use during nighttime hours. Current runway use statistics indicate that the north runway accommodates approximately two thirds of all activity at the airport.	N/A
Not Recommended	Land from the east and take off to the east whenever possible	Preferential Runway Use	Public – Website comments; Email, January 2019	The FAA has sole authority for runway selection. A variety of factors affect the FAA's selection of runways for use, such as runway availability, prevailing wind and weather patterns, and airspace and airfield operational efficiency.	N/A
Not Recommended	Move flights at least one mile south for arrivals and departures	Flight Paths	Public – Website comments	This was interpreted as a desire to keep arrivals and departures south of I-595. The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour. BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included on a voluntary basis.	N/A
Not Recommended	Construct physical sound barriers for the Ocean Waterway mobile home park	Noise Barriers	Agency – Dania Beach letter to BCAD, April 1, 2019	Under certain conditions, building walls between noise sources and noise-sensitive land uses can reduce noise exposure. Walls generally only benefit properties immediately adjacent to aircraft ground movements at an airport. There are no residential areas adjacent to FLL that would benefit from a wall. Walls deliver no noise benefit to noise-sensitive land uses that are exposed to noise from aircraft in flight. Additionally, walls could also present an obstruction hazard to aircraft operations. Because the Ocean Waterway mobile home park is not immediately adjacent to FLL (it is separated from FLL by Griffin Road) and is also exposed to noise from aircraft overflights, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	Section 2.3
Not Recommended	FAA NOTAMs and/or airport bulletins should be binding to all operations	Use Restrictions	Agency – Dania Beach letter to BCAD, April 1, 2019	Not all NOTAMs contain binding information. Pilot obligations regarding NOTAMs are provided by the FAA in the Aeronautical Information Manual. The pilot-in-command has sole authority for the safe operation of his or her aircraft. BCAD does not have the authority to mandate the use of specific flight procedures for aircraft arriving to and departing from FLL. Because BCAD does not have authority to bind aircraft operators to specific flight operating procedures, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	N/A
Not Recommended	Prohibit aircraft that have been recorded as being too loud	Use Restrictions	Public – January 16, 2019 NEM Public Information Workshop	The FAA considers noise-based penalties to be a noise restriction subject to the regulations in 14 CFR Part 161, Sec. 161.5. In addition, as a condition of receiving Airport Improvement Program (AIP) grants from the FAA, BCAD must also abide by its FAA grant assurances, which require that BCAD must provide airport with no undue operational restrictions or burdens on interstate and foreign commerce - 49 USC §47107(d). Because of the regulations of 14 CFR Part 161 and the requirements for AIP grants, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	N/A
Not Recommended	Prohibit arrivals to 10R from the west except for maintenance or emergencies	Preferential Runway Use	Public – Email, January 2019	The FAA has sole authority for runway selection. A variety of factors affect the FAA's selection of runways for use, such as runway availability, prevailing wind and weather patterns, and operational efficiency. As a result of the 2013 Dania Beach Interlocal Agreement, the airport currently operates with a Voluntary User Program for Runway 10R-28L. Current runway use statistics indicate that the north runway accommodates approximately two thirds of all activity at the airport.	N/A

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Not Recommended	Direct FLL ATCT to follow existing FAA-approved SIDS without deviation for "runway heading / vectors" ("RNAV to the Ground")	Flight Paths	ANAC – Email, July 2019	The Part 150 Study Team reviewed the current operation of the airport and options to reduce noncompatible land use using the current operational state of the airport, including current arrival and departure routes. A noise analysis shows that straightening all flight paths in the vicinity of FLL, an extreme version of this recommendation, would not reduce noncompatible land uses in the 65 DNL contour. BCAD continues to work with the FAA to address community noise concerns when activity and weather conditions permit and related actions may be included in a Fly Quiet program. However, since this measure would not reduce the noncompatible land uses within the 65 DNL contour, BCAD is not recommending this suggestion as a noise abatement measure to be included in the FLL Part 150 NCP.	N/A
Not Recommended	After North Runway construction concludes, ensure that South Runway use is not greater than before construction	Preferential Runway Use	ANAC – Email, July 2019	As a result of the 2013 Dania Beach Interlocal Agreement, the airport currently operates with a Voluntary User Program for Runway 10R-28L. Modeling indicates that the Voluntary User Program for Runway 10R-28L has resulted in an increase in the number of noncompatible land uses within the 65 DNL contour along the Runway 10L approach extended centerline. The is reflected in both the 2018 and 2023 NEMs. The closure of the north runway is temporary. While it is expected that the use of the airfield will return to normal after construction, this recommendation is beyond the purview of the Part 150. Current runway use statistics indicate that the north runway accommodates approximately two thirds of all activity at the airport. Modeling indicates that any action that shifts additional arrival activity to the north runway would result in a further increase in the non-compatible land uses within the 65 DNL contour. However, since the existing voluntary nighttime closure is part of existing operational conditions, it is recommended that this action be converted to a voluntary nighttime preferential runway program subject to the mitigation of the noncompatible land uses that were introduced as a result of the current program.	N/A
Not Recommended	Continue the "Engine Run Up Restriction" Policy	Use Restrictions	Draft NCP	The Draft NCP Report initially included a measure to continue the "Engine Run Up Restriction" Policy at FLL. This noise abatement measure limits aircraft engine maintenance run-ups to specific times of day and locations at the Airport and dictates when run-up activity must be coordinated with Airport management staff. Because this measure would not result in reducing non compatible land uses with the DNL 65, it is unlikely to be approved for the purposes of Part 150. Additionally, this measure is already addressed in a local Ordinance (see Broward County Code of Ordinances, Section 2- 21(j)), and as a result, BCAD is not recommending this noise abatement measure in the Final NCP Report.	Section 2.3
Land Use Management Strategies					
Not Recommended	Provide Conveyance and Release (CAR) program participation opportunity to Dania Beach homes included in 2023 DNL 65 contour	Corrective - Avigation Easements	Agency – Dania Beach letter to BCAD, April 1, 2019	A sound insulation program is being recommended based on non compatible residential units located with in the Part 150 2023 DNL 65 contour. An avigation easement would be required in exchange for sound insulation.	Section 3.4
Not Recommended	Homes that are not mobile homes and are located in the Ocean Waterway MHP and also within the 2023 DNL 65 contour will be provided the opportunity to participate in a SIP and CAR.	Corrective - Sound Insulation	Agency – Dania Beach letter to BCAD, April 1, 2019	Research indicates that there are no homes that are not mobile homes located in the Ocean Waterway MHP and also within the 2023 DNL 65 contour	N/A
Not Recommended	Provide opportunity for new interior noise testing for Dania Beach homes located in the 2008 EIS DNL 65 contour and 2023 DNL 65 contour that were previously deemed compatible in the initial testing for the existing Sound Insulation Program (SIP)	Corrective - Sound Insulation	Agency – Dania Beach letter to BCAD, April 1, 2019; Website comments	Because the Part 150 2023 DNL 65 contour is smaller than the EIS 2020 contour used for the EIS Residential Sound Insulation Program, it is unlikely that homes that did not meet noise thresholds under the RSIP would be meet the eligibility requirements under a Part 150 sound insulation program.	N/A
Recommended	Dania Beach homes within the 2023 DNL 65 contour that were eligible for the existing SIP and did not receive testing for the SIP will be provided a new opportunity for noise testing	Corrective - Sound Insulation	Agency – Dania Beach letter to BCAD, April 1, 2019	A sound insulation program is being recommended based on non compatible residential units located within the Part 150 DNL 65 2023 contour. Homes that have not been previously been mitigated within that contour could be considered for inclusion assuming they meet all Part 150 eligibility criteria.	Section 3.3
Recommended	Give proper noise insulation to residents	Corrective - Sound Insulation	Public – Website comments	A sound insulation program is being recommended based on non compatible residential units located with in the Part 150 DNL 65 contour.	Section 3.3
Not Recommended	Relocate residents per the 1995 Interlocal Agreement	Corrective - Land Acquisition	Public – Website comments	Measures included within this NCP are based on current noise exposure and non compatible land uses.	N/A
Not Recommended	Purchase or compensate all homes west of Griffen and north of Ravenwood	Corrective - Land Acquisition	Public – January 16, 2019 NEM Public Information Workshop	Measures included within this NCP are based on current noise exposure and non compatible land uses.	Section 3.4
Program Management Strategies					

Recommended / Not Recommended for Inclusion in the FLL 14 CFR Part 150 NCP	Proposed Strategy	Type of Strategy	Stakeholder Proposer(s)	Basis for Determination	Location in Document
Not Recommended	Document how many simultaneous departures occur on 28L and 28R per day as an annual average, for years 2015, 2016, 2017 and 2018	Reporting	Public – Website comments	This information is not currently collected by the FAA or available in any readily accessible format.	N/A
Not Recommended	Document for Runway 28L/28R simultaneous departures, how many times there was 0 degrees of separation (i.e. both planes on runways 28L and 28R depart with a 290 heading) and how many times there were 15 degrees of separation (one plane departs with a 275 heading and the other plane in the other runway departs with a 290 heading)	Reporting	Public – Website comments	This information is not currently collected by the FAA or available in any readily accessible format.	N/A
Recommended in Part	Install noise monitor in neighborhood	Monitoring	Public – Website comments	It is recommended that the existing noise monitor network be evaluated to determine if there is sufficient coverage of noise exposure in the vicinity of FLL. This network includes monitors in residential and non-residential land uses on all sides of the Airport.	Section 4.2
Recommended in Part	Update monitoring system (ANAC)	Monitoring	ANAC – TC Meeting #5	It is recommended that the existing noise monitor network be evaluated to determine if there is sufficient coverage of noise exposure in the vicinity of FLL. This network includes monitors in residential and non-residential land uses on all sides of the Airport.	Section 4.2
Recommended in Part	Establish sufficient off-site noise sensors to monitor effectiveness and compliance of arrival and departure management	Monitoring	Agency – Dania Beach letter to BCAD, April 1, 2019	It is recommended that the existing noise monitor network be evaluated to determine if there is sufficient coverage of noise exposure in the vicinity of FLL. This network includes monitors in residential and non-residential land uses on all sides of the Airport.	Section 4.2
Recommended in Part	Continued voluntary night closure (Dania Beach Interlocal Agreement)	Other Types of Strategies	Agency – TC Meeting #5	Paragraph 2(a)(iii)(c) of the November 19, 2013 Interlocal Agreement between Broward County and the City of Dania Beach states: “The County agrees that in the development of the New Part 150 Study . . . the County will include the Voluntary Night Closure as an abatement measure to be analyzed as part of such New Part 150 Study. The County further agrees that it will include continuation of the Voluntary Night Closure in its recommendations to the FAA in connection with such New Part 150 Study unless the City agrees in writing to the contrary.” Because the Interlocal Agreement requires Broward County to include continuation of the Voluntary User Program for Runway 10R-28L in the FLL Part 150 Study, BCAD is recommending this measure as a noise abatement measure to be included in the FLL Part 150 NCP.	Section 2.2
Not Recommended	Evaluate flight tracks of smaller turboprop and prop aircraft (Ft. Lauderdale)	Reporting	TC – TC Meeting #5	These aircraft tracks were modeled as part of the noise contour development and determined to have limited effect on overall noise exposure.	N/A
Recommended	Improve website reporting (ANAC)	Reporting	ANAC – TC Meeting #5	A number of the program management measures being recommended could improve access to information and allow for enhanced reporting.	Section 4.2

Appendix C-2
ANAC Recommendations for FLL Part 150
September 10, 2018

TO: 1. Mr. Mark Gale, Aviation Director FLL Airport
2. FLL Part 150 Technical Committee c/o Mr. Michael R. Arnold,
Project Consultant and Mr. Gary Luedtke, ANAC Representative to FLL
Part 150 Technical Committee
3. Broward County Commissioners c/o Commissioner Tim Ryan
(whose District includes FLL Airport and virtually all of the noise
sensitive communities around the airport)

FR: FLL Airport Noise Abatement Committee (ANAC)

DA: September 10, 2018

RE: ANAC Recommendations for FLL Part 150 Study and Related Studies
and Procedures

ANAC

1. In 1992, the BCAD established the Airport Noise Abatement Committee (ANAC) to serve as the primary mechanism for noise-related communications with and among all potentially affected and interested parties.
2. Among other responsibilities, ANAC is charged with making recommendations to the Broward County Director of Aviation regarding steps to take to enhance the effectiveness of FLL Noise Compatibility Program and otherwise minimize noise-related impacts.

Background

1. In September 2014, FLL opened the new South Runway and commenced aviation operations on this runway.
2. Since immediately after this runway opening and continuing to today, FLL's airport noise problems have increased exponentially. For example, in January 2013 (a typical Winter month prior to South Runway opening), Airport Noise Complaints totaled 29 per month. By January 2017 (the same month during a period after the South Runway had been opened), Airport Noise Complaints totaled 13,701 per month.

3. It is apparent that FLL noise was relatively much less problematic during the time when there was no South Runway and the North Runway was being operated using sensible arrival and departure routes and procedures.
4. In this connection, the most noise-sensitive residential communities have requested curtailment of operations on the South Runway, ie, takeoffs and landings, to the greatest possible extent.
5. The principal purpose of this document is to spur development by BCAD of ways and means so that FLL can return as much as possible to the Noise profiles present prior to the opening of the South Runway, and so FLL can regain its status as a relatively Good Neighbor and relatively Noise-Friendly airport.
6. This will involve a serious commitment by BCAD to develop much better and stricter Noise Abatement Procedures for FLL, in conjunction with the community. Equally importantly, to strenuously advocate for these revised and stricter Procedures with FAA, through the Part 150 study and otherwise. This will entail forceful advocacy, lobbying and negotiations with FAA, and even perhaps eventual litigation, as other neighbor-friendly airports have had to do.
7. This FAA advocacy is in addition to, and not instead of, BCAD forceful advocacy with airlines at FLL to persuade them to cooperate in voluntarily reducing their noise profiles through revising their individual Flight Procedures as much as possible through throttle cutbacks, etc., thereby balancing safety with a significantly enhanced good-neighbor noise policy. This could be implemented quickly and in advance of mandatory procedures developed through the FAA process.

THEREFORE, the FLL Aviation Director, Mr. Mark Gale, is hereby requested promptly to undertake studies, communications, and implementations to achieve the following as soon as possible:

Since the North Runway was MUCH less problematic prior to opening the South Runway, and arrival and departure routes in use at the time were also MUCH less problematic:

1. The FLL Aviation Director is requested promptly to meet, discuss, negotiate and advocate with FAA (including Miami TRACON) to:
 - a. Restructure arrival and departure routes for the North Runway in order to replicate pre-2014 arrival and departure routes as closely as possible. Also, harmonize these restructured arrival and departure routes with similarly restructured noise abatement routes for the South Runway.
 - b. This involves, primarily, Aircraft being required to fly Runway Heading on Takeoffs and Landings, with a Maximum of Five (5) degrees variation by Tower from Runway Heading except in emergencies. Aircraft are not to be permitted by Tower or otherwise to deviate from Runway Heading until beyond the Industrial Area on West Side of Airport (approximately at Florida Turnpike), and beyond 5000+ feet east of Ocean Shoreline on East Side of Airport.
 - c. It is believed that FAA has so-called RNAV route procedures which can facilitate these restructured routes, or FAA has other mechanisms for achieving this, which do not require going through the Part 150 Study and can be implemented relatively quickly.
 - d. Regarding the West side of the South Runway, the Aviation Director is requested to advocate with FAA an RNAV or similar route which will vary from Runway Heading to the West so as to curve aircraft a bit Northerly so as to be approaching and departing away from the residential areas West of the South Runway and into the Industrial Areas to the North of these Residential Areas. Obviously, separation from North Runway traffic will have to be maintained.
 - e. Aviation Director is requested to "dig in" with FAA to verify if these Runway Heading procedures really conflict with so-called harmonization of FLL traffic with MIA traffic, or if this is really just overkill by FAA. Or alternatively, if there Really would be conflict with MIA traffic by using FLL Runway Heading procedures, then a workaround could be developed by FAA so MIA traffic is moved slightly so as to accommodate these FLL Runway Heading procedures, which are vital to the Noise Health of FLL.

- f. Aviation Director is requested promptly to meet with FLL FAA Tower with an agenda to go over in detail the items in this document. Perhaps some or most of these noise improvements documented herein can be implemented by changes in Local Tower Procedures, and more strict compliance by individual FAA Controllers with these revised Procedures with respect to each and every flight, in advance of more detailed procedures implemented through the FAA process.
- 2. Dedicate the North Runway as the PREFERRED runway, used exclusively or primarily until it reaches capacity. The FLL Aviation Director is requested promptly to meet, discuss, negotiate and advocate with FAA (including Miami TRACON), or petition through the Part 150 Study or otherwise, to achieve this status for the North Runway.
- 3. As part of Preferred Runway status for the North Runway, the FLL Aviation Director is requested promptly to meet, discuss, negotiate and advocate with FAA (including Miami TRACON), or petition through the Part 150 Study or otherwise, to:
 - a. Achieve a MANDATORY, not voluntary, closure of the South Runway from 9 pm to 9 am. For example, Appendix B to FAA Part 150, Section B150.7(3) authorizes the Part 150 Study to propose "implementation of a preferential runway system", and Section B150.7(5)(v) authorizes the Part 150 Study to propose "Partial or complete curfews".
 - b. During the overnight closure of the South Runway, the arrival and departure procedure for the North Runway is to specify that Aircraft are not permitted by Tower or otherwise to deviate from Runway Heading until beyond the Industrial Area on West Side of Airport, and beyond 5000+ feet east of Ocean Shoreline on East Side of Airport.
- 4. In addition to the RNAV route procedures described in Item 1 above, which can be achieved in advance of any Part 150 Study or other FAA study or petition, the FLL Aviation Director is requested promptly to meet, discuss, negotiate and advocate with FAA (including Miami TRACON), or petition through the Part 150 Study or otherwise, to:

- a. Achieve "the use of flight procedures (including modification of flight tracks) to reduce exposure of individuals (or specific noise sensitive areas) to noise in the area around the airport". Ie, adoption of MANDATORY "Noise Abatement Departure and Arrival Procedures". Appendix B to FAA Part 150, Section B150.7(4) authorizes the Part 150 Study to propose this. This includes, among other items, Mandatory Throttle Cutbacks on Takeoffs and Landings for Noise Abatement, equal to maximum throttle cutback permitted by FAA procedures for each Aircraft Type. Applies to the North and South Runways.
 - b. The FLL Aviation Director is requested promptly to meet, discuss, negotiate and advocate with FLL airlines to invite them to enhance their "good neighbor" image by voluntarily implementing Flight Operational Procedures at their airline for, among other noise abatement procedures, throttle cutbacks on takeoffs and "even throttle usage (less throttle jockeying) on landings". This voluntary implementation by airlines could be implemented quite soon, ie, well in advance of mandatory restrictions imposed through the FAA process, and will enhance the image of the airlines voluntarily adopting the same. Compliance by the airlines with their voluntary actions would be monitored by the enhanced RMT system described in Item 7 below.
5. The FLL Aviation Director is requested promptly to meet, discuss, negotiate and advocate with FAA (including Miami TRACON) to:
 - a. Ensure that the forthcoming reconstruction closure of the North Runway in mid-2019 is not used by FAA or FLL Airport as a pretext, upon re-opening of the North Runway, for increasing operations on the South Runway in excess of the ratio of North Runway to South Runway as was in existence during 2018 prior to closure of North Runway. And in fact, South Runway operations should be reduced from 2018 levels as per Item 2 above regarding dedicating the North Runway as the Preferred Runway.
6. Since some 82% of takeoffs from FLL are to the East, then it is fair to communities east of FLL, and to users of parks and beaches east of FLL, that FLL takeoffs to the East occur only when absolutely necessary due to strong prevailing easterly surface winds at FLL. It is believed that Miami TRACON, in setting runway direction for FLL, does not "flip" the

FLL airport during the many times when the prevailing FLL surface winds favor or permit takeoffs to the West. It is further believed that MIA airport operations would not be adversely affected by “flipping” the FLL airport more strictly in accordance with prevailing surface winds at FLL. Therefore:

- a. The FLL Aviation Director is requested promptly to meet, discuss, negotiate and advocate with FAA (including Miami TRACON), to achieve a flipping of the FLL airport so that, when winds are calm, or when there is a direct crosswind or any velocity of tailwind with respect to takeoffs to the East, that the FLL airport be flipped to West takeoffs. This operational procedure does not require going through the Part 150 Study and can be implemented relatively quickly. The Aviation Director is requested to “dig in” with FAA to see if flipping FLL more in line with prevailing winds really does interfere with MIA operations or if this is just overkill or bureaucratic sluggishness by FAA.
7. Regarding FLL RMTs, in addition to installation of the 2 new South Runway RMTs prior to end of 2018 as indicated by BCAD staff, the FLL Aviation Director is requested promptly to finalize negotiations with EMS, Inc. so that detailed RMT information is made available to the public on BCAD website.
- a. Also so that FLL SID (FAA Standard Instrument Departure Procedures for FLL) and related FLL Arrival and Departure Procedures are overlaid onto the RMT information and available to the public to view.
 - b. In addition, that all deviations by aircraft from FLL SIDs, other FLL Procedures and Noise Criteria are documented in detail to the public on BCAD website, ie, in more detail than at present.
 - c. Finally, that a procedure is set up so that ALL deviations are investigated by BCAD with FAA Tower and an explanation of each deviation is posted on BCAD website with complete information about the offending aircraft, including among other information, flight number, time, date, aircraft type, location, altitude, noise levels, and name of airline operator.

ANAC intends to continue to monitor the progress of improvement of the FLL Noise Compatibility Program as well as progress on reducing other FLL noise-related impacts, and as such, might have further comments related to the Part 150 Study and other initiatives of BCAD, including those related to the concerns described in this document.

Thank you in advance for your prompt attention to these important items, which have tremendous impacts on Broward County residents, literally including their health and welfare. Also, having a direct bearing on the public's perception of FLL, and airlines at FLL, as good neighbors to the surrounding communities and to the County as a whole.

Appendix C-3

**City of Dania Beach Comments on the FLL Part 150 Study
April 01, 2019**



April 1, 2019

Mr. Michael P. Pacitto, P.G.
Director Planning and Environmental
Broward County Aviation Department
Fort Lauderdale-Hollywood International Airport
2200 SW 45th Street, Suite 101
Fort Lauderdale, FL 33312

Re: FLL Part 150 Comments from the City of Dania Beach

Dear Mike:

The following comments are in response to the FLL Part 150 Study Draft Non-Compatible Land Use Analysis:

Abatement:

- Re-affirm and implement the Voluntary Night Closure restrictions approved in the Broward County / Dania Beach Interlocal Agreement (ILA) (executed November 19, 2013) Section 2 (a).
- The North Runway should be operated as the "Preferred Runway."
- An adequate amount of off-site noise sensors should be appropriately located to determine the effectiveness and compliance of the Control Tower's management of both arrivals and departures. Penalties to deter operational negligence should be established and implemented. FAA NOTAMS and/or airport bulletins should be binding to all operations.
- Noise Abatement Departure Procedure – 1 (NAPD-1) should be implemented as conditions to after take-off and the landing gear is raised, climb to an altitude of a minimum of 800 feet AGL, in a normal departure the aircraft would maintain a speed of V2+ 15 to 20 knots and reduce thrust climbing 3000 feet AGL as fast as possible then retracting flaps and accelerating to 250 knots airspeed along the assigned departure route.

Mr. Michael P. Pacitto, P.G.
April 1, 2019
Page 2

Mitigation:

- Dania Beach homes now located in the reconfigured 2023 +65 DNL will be provided an opportunity to participate in a Conveyance and Release (CAR) program.
- Dania Beach homes located in the 2008 EIS +65 DNL and reconfigured 2023 +65 DNL that were deemed compatible in the initial testing for the existing Sound Insulation Program (SIP) will be provided a new opportunity for the proper re-test and determination for the SIP and CAR.
- Dania Beach homeowners that are located within the 2023 +65 DNL that were eligible for the existing SIP and did not receive testing for the SIP will be provided a new opportunity for testing and determination for the SIP and CAR.
- Homes (that are not mobile homes) located in the Ocean Waterway MHP and within the 2023 +65 DNL will be provided the opportunity to participate in a SIP and CAR.
- Consider the construction of physical sound barriers as noise mitigation for the Ocean Waterway mobile home park.

Thank you for the opportunity to comment on the Draft FLL Part 150 Study at this time. Should you have any questions or comments regarding the foregoing, please feel free to contact me.

Sincerely,



Marc C. LaFerrier, AICP
Director of Community Development
City of Dania Beach, Florida

MCL/des

cc: Ana M. Garcia, City Manager
Thomas J. Ansbrosio, City Attorney
Marc Gambrill, Assistant Director of Aviation
Michael R. Arnold, ESA