

Fort Lauderdale-Hollywood International Airport



Monthly Operations & RNAV Use Report

December 2023



BROWARD COUNTY AVIATION DEPARTMENT MONTHLY RNAV REPORT December 2023

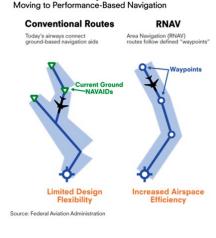
This *RNAV Report* provides a monthly overview of aircraft arriving and departing from Fort Lauderdale-Hollywood International Airport (FLL). The purpose of this report is to determine the number of aircraft that utilize Area Navigation (RNAV) procedures using the FLL Airport Noise and Operations Monitoring System (ANOMS).

OVERVIEW OF NEXTGEN 🐼

The Next Generation Air Transportation System (NextGen) is the FAA-led modernization of the United States National Airspace System (NAS). Goals include using new technologies and procedures to increase the safety, efficiency, and predictability of the NAS, as well as reducing the overall environmental impact of aviation. The FAA implemented the South-Central Florida Metroplex Project on August 12, 2021. This project is aimed at improving the safety and efficiency of airspace in South-Central Florida by optimizing arrival and departure procedures at 21 regional airports.

RNAV 🦽

RNAV is a method of navigation that consists of routes formed from a series of waypoints (geographical points on the ground) that may have required altitude or performance characteristics. Aircraft said to be navigating on RNAV procedures must fly over or near these waypoints (within a given tolerance), attaining the given altitude or performance settings set by the FAA and air traffic control (ATC). The potential advantages of RNAV routes include time and fuel savings, reduced dependency on radar vectoring, reduced ATC transmissions, and more efficient use of airspace.



NEXT GEN Components: RNAV/RNP

Operations and Runway Use 🛫

This section provides a tabular and graphical summary of monthly operations and runway use at FLL. Monthly operations are broken down by airframe type, arrivals,

and departures, time of day (night defined as 10:30 pm to 6:00 am) and runway use is separated graphically by east and west flow.

RNAV PROCEDURES FOR FLL 🛫

This report provides a tabular and graphical summary of overall RNAV procedures for FLL. For aircraft arriving to or departing from FLL, there are 14 published RNAV procedures in total. These procedures each consist of waypoints and have multiple routes. This report will allow residents near the airport to understand, at a glance, the usage of RNAV procedures that most affect them.

Standard Instrument Departures (SIDs)

• AGERS, BNICE, FEALX, GLADZ, FRSBE, HROCK, LIFRR, MAYNR, REGAE, SNAPR

Standard Arrival Routes (STARs)

• BHHIA, CUUDA, OLAHS, TEEKY

FLIGHT TRACK DENSITY PLOTS

Flight track density plots show the relative use of the airspace surrounding FLL. Color ranges are assigned based on the relative density of traffic (from low to high) for several categories:

- Jet Arrivals
- Jet Departures
- Jet Departures Close Up
- Non-Jet Operations

RESOURCES 🗳

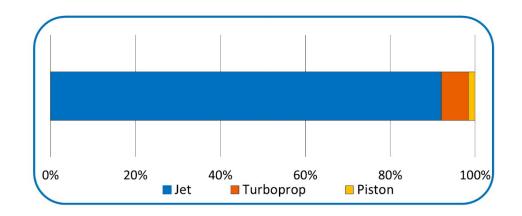
- <u>https://www.faa.gov/air_traffic/community_engagement/florida/</u>
- <u>http://metroplexenvironmental.com/fl_metroplex/fl_introduction.html</u>
- <u>http://www.metroplexenvironmental.com/fl_metroplex/fl_docs.html</u>
- https://www.faa.gov/nextgen/this-is-nextgen/

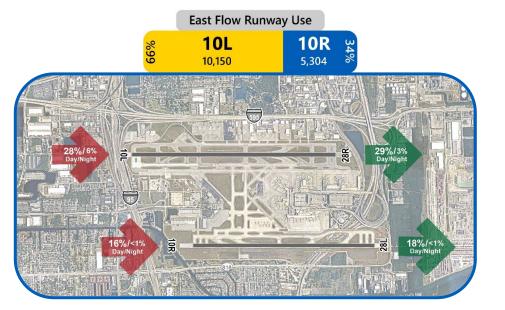


Monthly Operations and Runway Use

December 2023

Туре	Arrivals	Departures	Total
Jet	13,104	13,066	26,170
Turboprop	913	902	1,815
Piston	227	226	453
Total	14,244	14,194	28,438

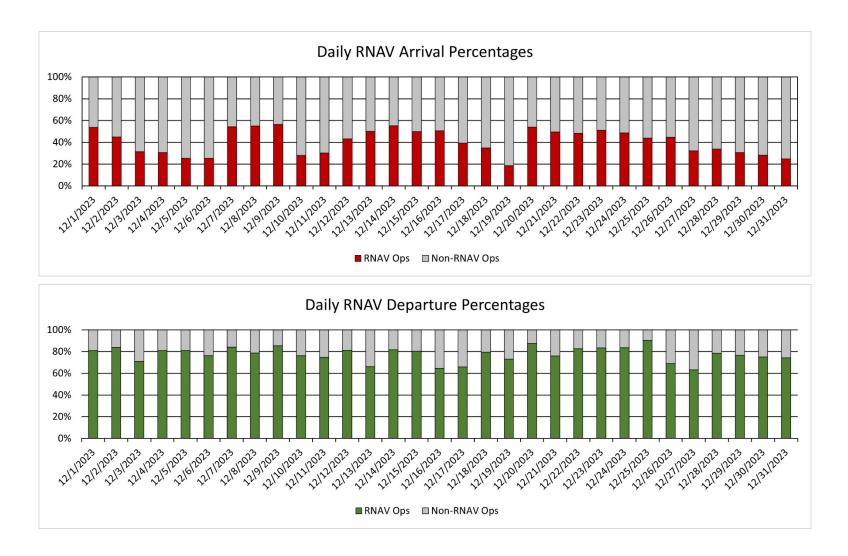








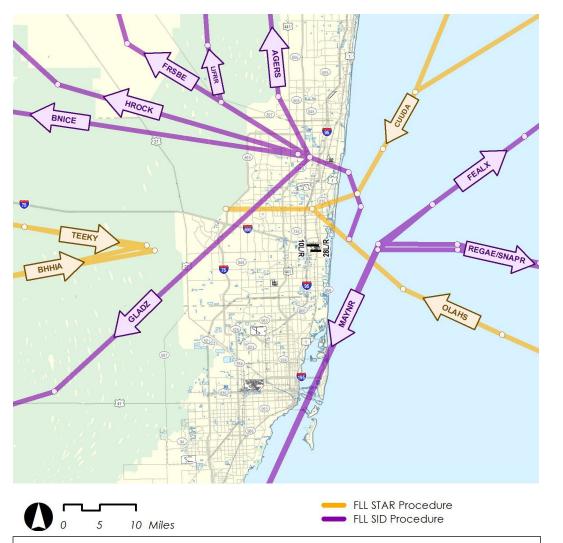
Arrival and Departure Daily RNAV Percentages





FLL RNAV East Flow Operations 놀

Monthly RNAV Use Summary



Note: The Arrivals and Departures tables on the right represent the total number of flights during the month flying the full procedure for each procedure listed. Percentages represent any jet flying on an RNAV within Broward County. Flights that are vectored early are not included in this list.

STARS		
<u>Procedure Name</u> BHHIA	<u># of Operati</u> 6	ons
CUUDA	6 794	
OLAHS	268	
ТЕЕКҮ	1728	51%
-		

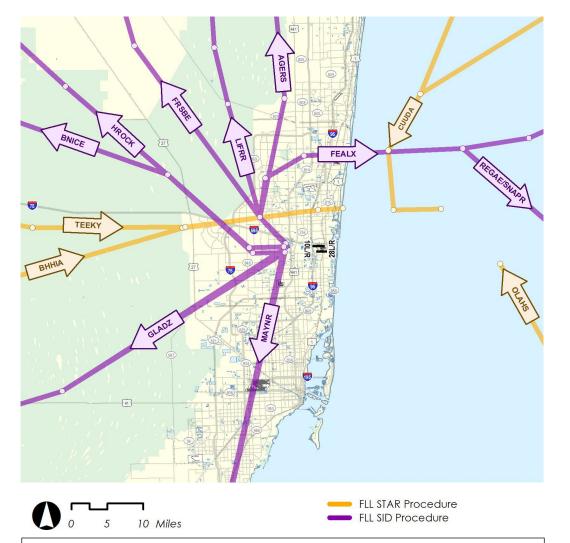
SIDS | Departures

Procedure Name	# of Operations	
AGERS	62	
BNICE	381	
FEALX	1472	
FRSBE	385	
GLADZ	89	
HROCK	444	
LIFRR	177	
MAYNR	36	
REGAE	3	00/
SNAPR	931	0%
		0/0



FLL RNAV West Flow Operations 🛫

Monthly RNAV Use Summary



Note: The Arrivals and Departures tables on the right represent the total number of flights during the month flying the full procedure for each procedure listed. Percentages represent any jet flying on an RNAV within Broward County. Flights that are vectored early are not included in this list.

STARS Arrivals				
Procedure Name		<u># of Operati</u>	ons	
BHHIA		10		
CUUDA		269		
OLAHS		165		
ТЕЕКҮ		825	())()	3%
				リ / 0

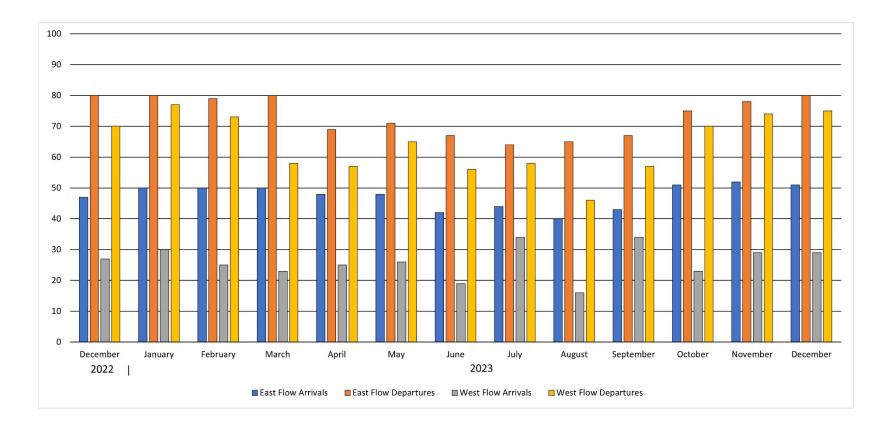
SIDS | Departures

Procedure Name	<u># of Operation</u>	ons
AGERS	23	
BNICE	312	
FEALX	1030	
FRSBE	395	
GLADZ	0	
HROCK	344	
LIFRR	4	
MAYNR	276	
REGAE	1	70/
SNAPR	3	I J 70



Monthly East and West Flow RNAV Percentages

December 2023





100%

Percent RNAV Operations

50%

Departures

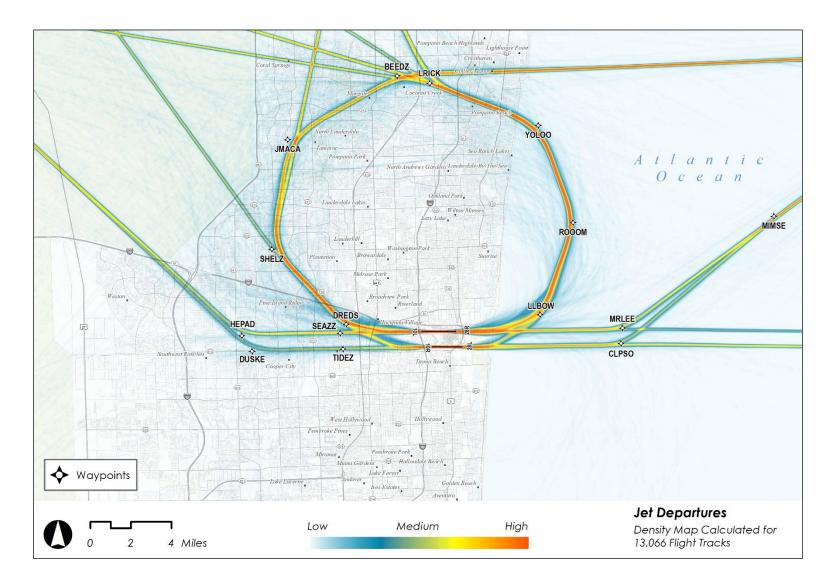
Monthly RNAV Use by Operator

	Number of	Operations	Percent RNAV Oper	ations		Number o	f Operatio
Air Carrier	Total	RNAV	50%	100%	GA / Charter	Total	RN
Air Canada	267	137			Aerolineas Ejecutivas	14	
Air Canada Rouge	292	152			AirSprint	29	
Air Transat	139	83			Corporate Flight Management	64	
Alaska Airlines	356	263			Executive Flight Services	13	
Allegiant Air	604	381	••••••••••••••••••••••••••••••••••••••		Executive Jet Management, Inc.	12	
American Airlines	1175	693	· · · · · ·		Flexjets	174	
Avelo Airlines	131	71			Hex Air	12	
Avianca	46	26			Hop-A-Jet	14	
Azul Linhas Aereas Brasileiras	156	83			Jet Linx Aviation	20	
Bahamas Air Holdings Ltd.	136	64			Mountain Aviation	35	
Copa Airlines	44	28			NetJets	329	
Delta Airlines	2245	1504			Red Wing Aeroplane Company	18	
Endeavor Air	64	37			Sun Country Airlines	38	
Flair Airlines	209	108			XOJet Inc.	27	
JetBlue Airways	4785	2747			Cargo		
Southwest Airlines	3273	2123	· · · · ·		Atlas Air	12	
Spirit Airlines	6095	3601			FedEx	229	
United Airlines	1662	1071			UPS Airlines	44	
WestJet	157	90			Arrivals 🗕	•	Dep



Relative Airspace Density \circlearrowleft

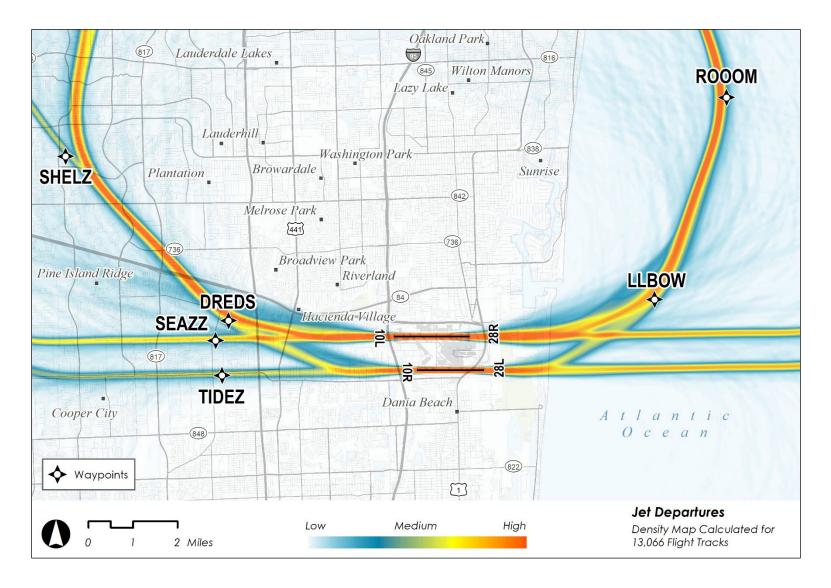
For All Jet Departures December 2023





Relative Airspace Density

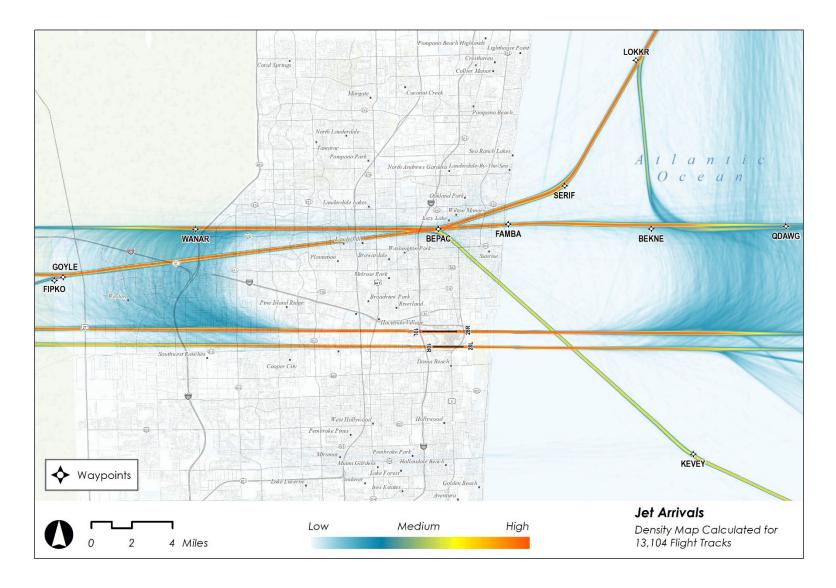
For All Jet Departures December 2023





Relative Airspace Density \circlearrowleft

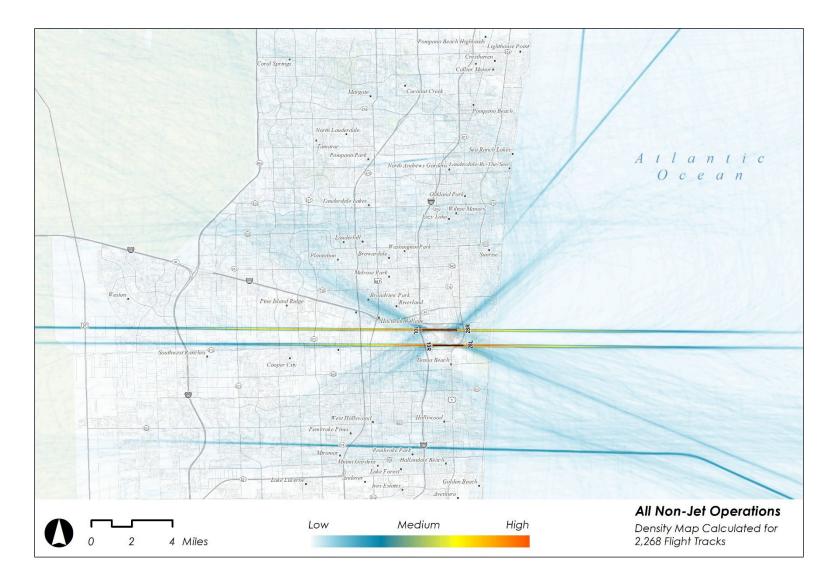
For All Jet Arrivals December 2023





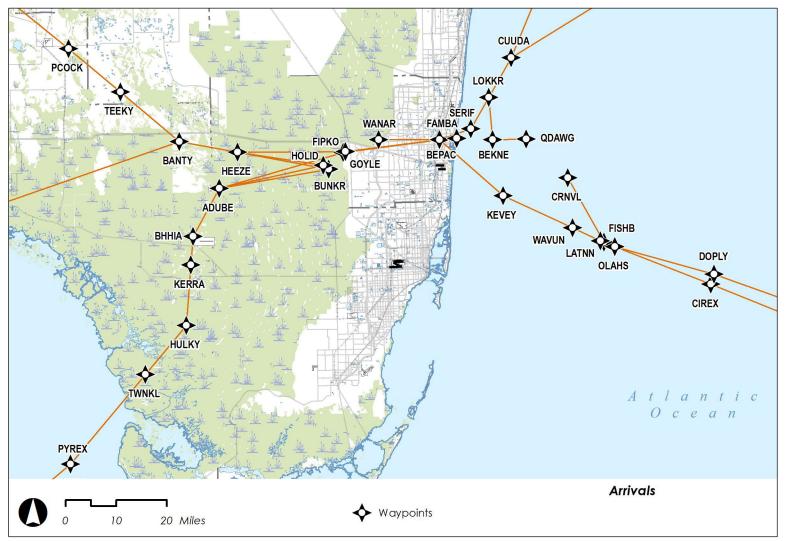
Relative Airspace Density

For All Non-Jet Arrival and Departures December 2023





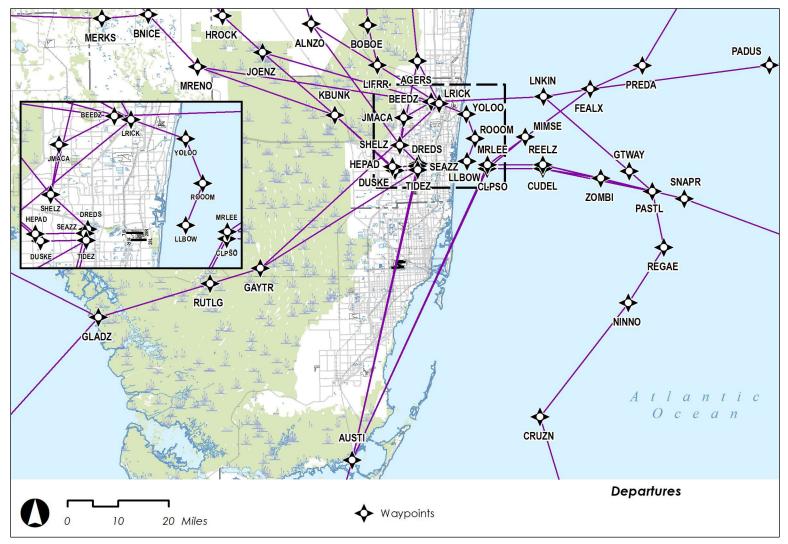
South-Central Florida Metroplex FLL Arrivals (STARS)



Source: http://www.metroplexenvironmental.com/fl_metroplex/fl_docs.html

Appendix

South-Central Florida Metroplex FLL Departures (SID)



Source: http://www.metroplexenvironmental.com/fl_metroplex/fl_docs.html



South-Central Florida Metroplex Waypoints by Procedure

STARS | Arrivals

BHHIA THREE: 10L: [PYREX+ TWNKL+]-HULKY-KERRA-BHHIA-ADUBE-HOLID BHHIA THREE: 10R: [PYREX+ TWNKL+]-HULKY-KERRA-BHHIA-ADUBE-BUNKR	OLAHS THREE: 10L/R: [DOPLY+ CIREX+]-OLAHS-LATNN-WAVUN-KEVEY-BEPAC-WANAR OLAHS THREE: 28L/R: [DOPLY+ CIREX+]-OLAHS-FISHB-CRNVL
BHHIA THREE: 28L/R: [PYREX+ TWNKL+]-HULKY-KERRA-BHHIA-ADUBE-FIPKO-BEPAC-FAMBA	
	TEEKY THREE: 10L: [PCOCK+ MARCI+]-TEEKY-BANTY-HEEZE-HOLID
CUUDA TWO: 10L/R: [MACKL+ PLAID+]-CUUDA-LOKKR-SERIF-BEPAC-WANAR	TEEKY THREE: 10R: [PCOCK+ MARCI+]-TEEKY-BANTY-HEEZE-BUNKR
CUUDA TWO: 28L/R: [MACKL+ PLAID+]-CUUDA-LOKKR-BEKNE-QDAWG	TEEKY THREE: 28L/R: [PCOCK+ MARCI+]-TEEKY-BANTY-HEEZE-GOYLE-BEPAC-FAMBA

SIDS | Departures

AGERS ONE: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-AGERS-[HURGI+]-PERTS-AARPS-MMART-ENWOD SEAZY-[DUCEN+] AGERS ONE: 28L/R: DREDS-SHELZ-AGERS-[HURGI+]-PERTS-AARPS-MMART-ENWOD-SEAZY-[DUCEN+]	HROCK TWO: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-JOENZ-HROCK-[KPASA+ SMELZ+] HROCK TWO: 28L: TIDEZ-DUSKE-KBUNK-JOENZ-HROCK-[KPASA+ SMELZ+] HROCK TWO: 28R: SEAZZ-HEPAD-KBUNK-JOENZ-HROCK-[KPASA+ SMELZ+]
BNICE ONE: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-MRENO-BNICE-[COREA+ DOLIE+ MERKS+] BNICE ONE: 28L: TIDEZ-DUSKE-KBUNK-MRENO-BNICE-[COREA+ DOLIE+ MERKS+] BNICE ONE: 28R: SEAZZ-HEPAD-KBUNK-MRENO-BNICE-[COREA+ DOLIE+ MERKS+]	LIFRR ONE: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-LIFRR-BOBOE-DURRY-CLEFF-[WIXED+ BAIRN+] LIFRR ONE: 28L/R: DREDS-SHELZ-LIFRR-BOBOE-DURRY-CLEFF-[WIXED+ BAIRN+]
FEALX TWO: 10L: MRLEE-MIMSE- FEALX-[PADUS+ PREDA+ WOLFO+] FEALX TWO: 10R: CLPSO-MIMSE-FEALX-[PADUS+ PREDA+ WOLFO+] FEALX TWO: 28L/R: DREDS-SHELZ-JMACA-BEEDZ-LNKIN-FEALX-[PADUS+ PREDA+ WOLFO+]	MAYNR ONE: 10L: MRLEE-AUSTI-MAYNR-MCLAW-[FUNDI+ JABOX+] MAYNR ONE: 10R: CLPSO-AUSTI-MAYNR-MCLAW-[FUNDI+ JABOX+] MAYNR ONE: 28L: TIDEZ-AUSTI-MAYNR-MCLAW-[FUNDI+ JABOX+] MAYNR ONE: 28R: SEAZZ-AUSTI-MAYNR-MCLAW-[FUNDI+ JABOX+]
GLADZ TWO: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-GAYTR-RUTLG-GLADZ-[WIGNA+ MARCI+] GLADZ TWO: 28L: TIDEZ-GAYTR-RUTLG-GLADZ-[WIGNA+ MARCI+] GLADZ TWO: 28R: SEAZZ-GAYTR-RUTLG-GLADZ-[WIGNA+ MARCI+]	REGAE TWO: 10L: MRLEE-REELZ-ZOMBI-PASTL-REGAE-NINNO-CRUZN-GLAMS-LRODD-[URSUS+] REGAE TWO: 10R: CLPSO-CUDEL-ZOMBI-PASTL-REGAE-NINNO-CRUZN-GLAMS-LRODD-[URSUS+] REGAE TWO: 28L/R: DREDS-SHELZ-JMACA-BEEDZ-LNKIN-GTWAY-PASTL-REGAE-NINNO-CRUZN- GLAMS-LRODD-[URSUS+]
FRSBE TWO: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-ALNZO-FRSBE-[WAPOM+ STYMY+] FRSBE TWO: 28L/R: DREDS-SHELZ-ALNZO-FRSBE-[WAPOM+ STYMY+]	SNAPR TWO: 10L: MRLEE-REELZ-ZOMBI-SNAPR-KRAFT-HEYDR-[RAJAY+ SUMAC+] SNAPR TWO: 10R: CLPSO-CUDEL-ZOMBI-SNAPR-KRAFT-HEYDR-[RAJAY+ SUMAC+] SNAPR TWO: 28L/R: DREDS-SHELZ-JMACA-BEEDZ-LNKIN-GTWAY-SNAPR-KRAFT-HEYDR- [RAJAY+ SUMAC+]

To view the active published FAA full procedure plates, please follow the link here:

https://www.faa.gov/air_traffic/flight_info/aeronav/procedures/application/?event=procedure.results&tab=charts&nasrId=FLL#searchResultsTop

Appendix

Noise Information

Ways to File an Aircraft Noise Comment

To file a formal aircraft noise comment, choose one of the following options:

Online: Complete the <u>Noise Comment Form</u> then select the Submit button.

By Phone: Call the Noise Comment Hotline at 954-359-2366

Download the new Noise Comment Web App and use this platform to file a complaint.

Using the New Noise Comment Web App to file a noise complaint.

From a mobile phone, click this link <u>Noise Comment Web App</u> and download to an iPhone or Android phone.

The link is only accessible from a mobile phone. It is not available in the iOS or Google Play App stores. It is only available from the webpage.

Noise Comment Web App Instructions:

Save the app to your home screen using the link above.

From an iPhone: Tap the box with the vertical arrow and select add to the home screen.

From an Android phone: Tap the 3 Menu dots and select add to the homepage.

Go to your home screen and open the new noise comment web app.

Enter your comment information following Steps 1-5 and click Submit.

Note: After using the noise comment web app the first time, user information is saved and does not need to be re-entered. You can submit additional comments by tapping "Submit Comment."

If you have questions or comments about the app, please contact the Aviation Department at 954-359-6181

Prepared by Harris Miller Miller & Hanson Inc. on behalf of Broward County Aviation Department.