

Fort Lauderdale-Hollywood International Airport



Monthly Operations & RNAV Use Report



BROWARD COUNTY AVIATION DEPARTMENT MONTHLY RNAV REPORT August 2023

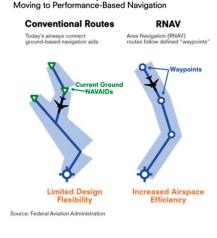
This *RNAV Report* provides a monthly overview of aircraft arriving and departing from Fort Lauderdale-Hollywood International Airport (FLL). The purpose of this report is to determine the number of aircraft that utilize Area Navigation (RNAV) procedures using the FLL Airport Noise and Operations Monitoring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

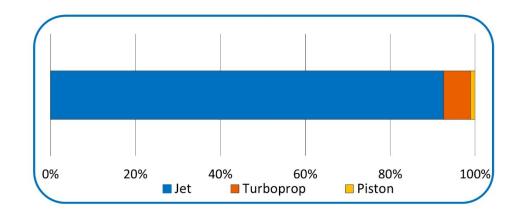
RESOURCES 🗳

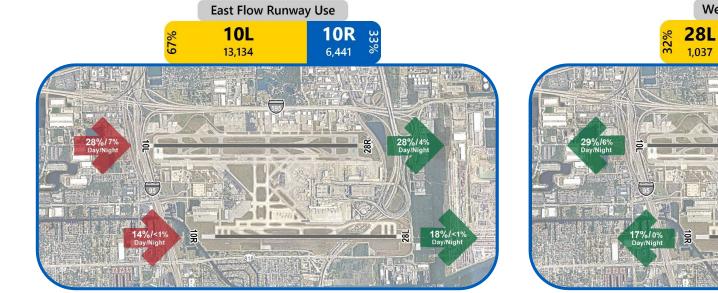
- https://www.faa.gov/air traffic/community engagement/florida/
- <u>http://metroplexenvironmental.com/fl_metroplex/fl_introduction.html</u>
- <u>http://www.metroplexenvironmental.com/fl_metroplex/fl_docs.html</u>
- https://www.faa.gov/nextgen/this-is-nextgen/

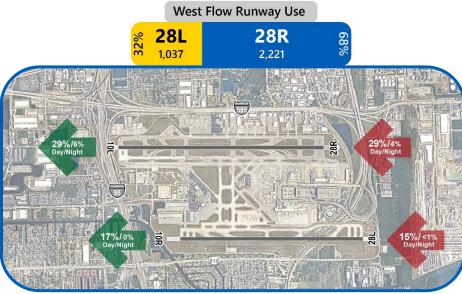


Monthly Operations and Runway Use

Туре	Arrivals	Departures	Total
Jet	10,557	10,582	21,139
Turboprop	732	716	1,448
Piston	126	120	246
Total	11,415	11,418	22,833

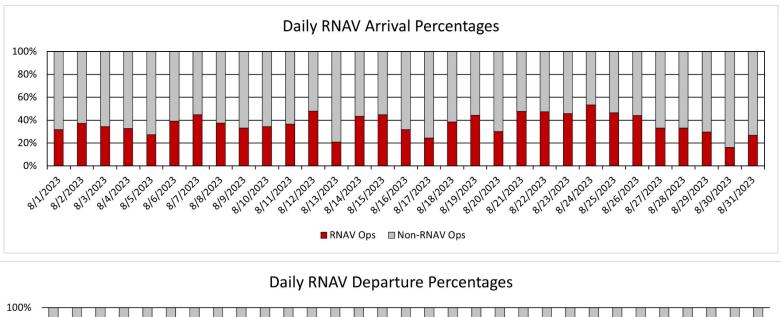


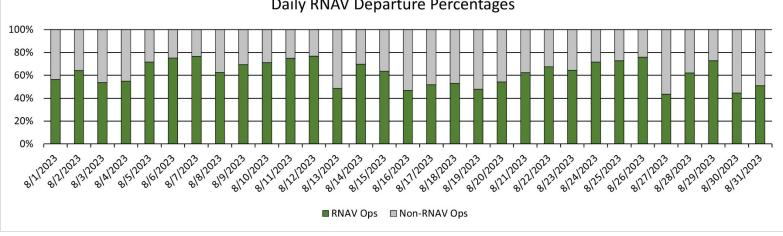






Arrival and Departure Daily RNAV Percentages

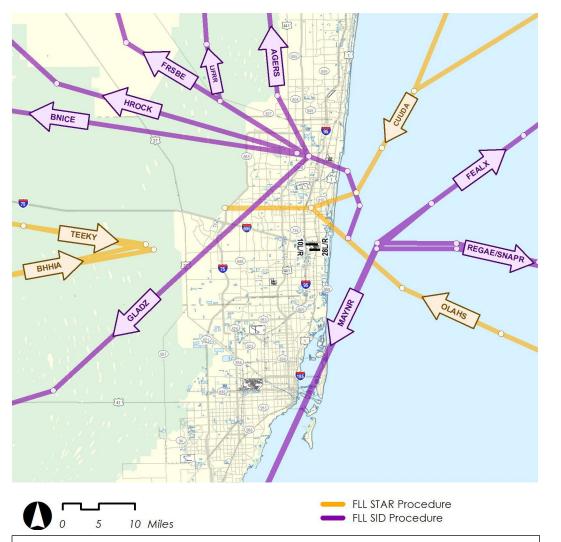






FLL RNAV East Flow Operations 📥

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		
<u>Procedure Name</u> BHHIA	<u># of Operati</u>	ions
CUUDA	637	
OLAHS	170	4000
ТЕЕКҮ	1769	40%

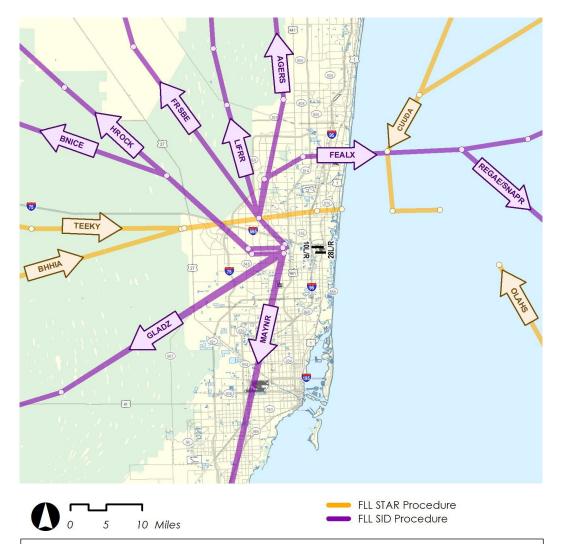
SIDS | Departures

Procedure Name		<u># of Operations</u>	
AGERS		140	
BNICE		356	
FEALX		1517	
FRSBE		347	
GLADZ		53	
HROCK		331	
LIFRR		214	
MAYNR		70	
REGAE		9	СГО
SNAPR		1247	05%
	\leq		



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.

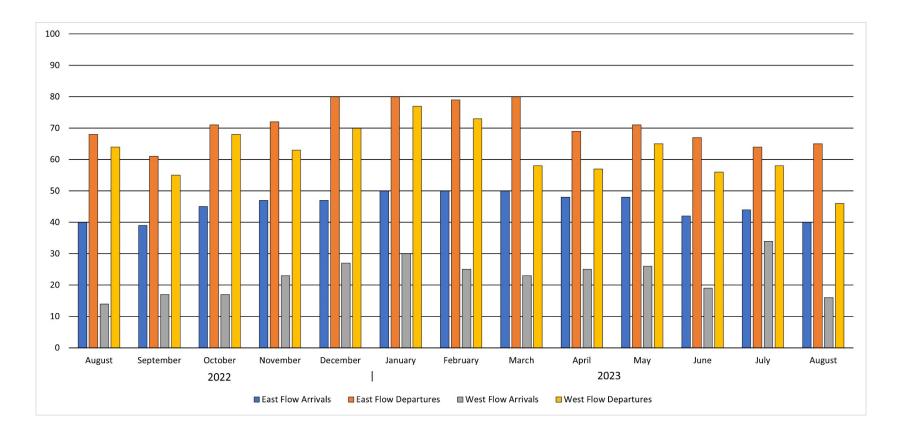
STARS Arrivals				
Procedure Name		# of Operati	ions	
BHHIA		5		
CUUDA		24		
OLAHS		32		
ТЕЕКҮ		120	1	5%
				J /0

SIDS | Departures

Procedure Name		<u># of Operations</u>	
AGERS		14	
BNICE		48	
FEALX		87	
FRSBE		82	
GLADZ		1	
HROCK		31	
LIFRR		8	
MAYNR		121	
			6%
	~	4	U /0



Monthly East and West Flow RNAV Percentages





Monthly RNAV Use by Operator August 2023

	Number o	of Operations	Percent RNAV Operations
Air Carrier	Total	RNAV	50% 100%
Air Canada Rouge	248	103	
Air Transat	80	35	
Alaska Airlines	62	31	
Allegiant Air	412	191	
American Airlines	904	464	
Avelo Airlines	115	52	
Avianca	24	11	
Azul Linhas Aereas Brasileiras	153	75	
Bahamas Air Holdings Ltd.	184	80	
Copa Airlines	44	13	
Delta Airlines	1857	1040	
Flair Airlines	18	5	
JetBlue Airways	4554	2160	
Southwest Airlines	3079	1666	
Spirit Airlines	5314	2673	
United Airlines	1097	588	
WestJet	34	14	

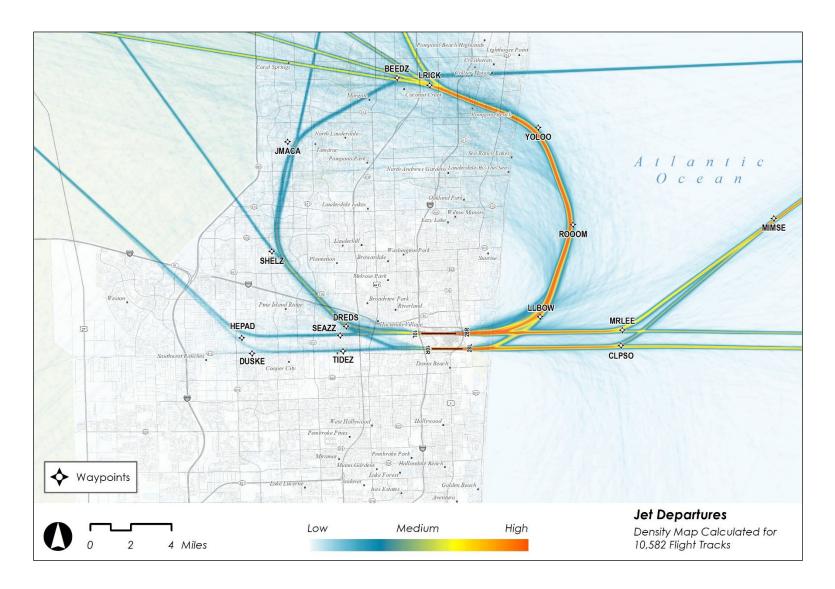
	Number o	f Operations	Percent RNAV Operat	ions
GA / Charter	Total	RNAV	50%	100%
Aerolineas Ejecutivas	14	3		
Aerosiyusa	15	6		
Delta Private Jets	39	19		
Flexjets	54	24		
Hop-A-Jet	17	5		
Mountain Aviation	24	13		
NetJets	157	63		
Sun Country Airlines	24	12		
Western Air Charter	22	8		
XOJet Inc.	13	6		
Cargo				
FedEx	259	153		
UPS Airlines	46	27		•
Arrivals -	•	Departure	es	



BROWARD COUNTY AVIATION DEPARTMENT MONTHLY RNAV REPORT August 2023

Relative Airspace Density \circlearrowleft

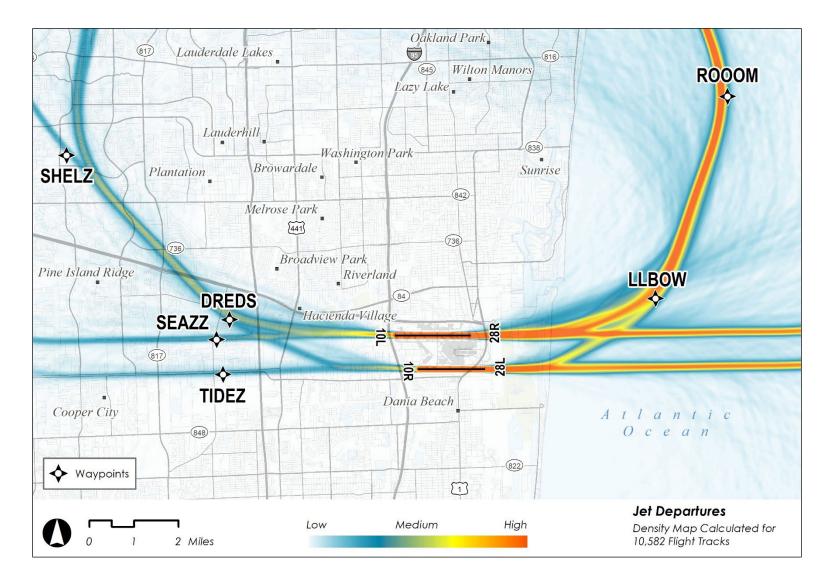
For All Jet Departures August 2023





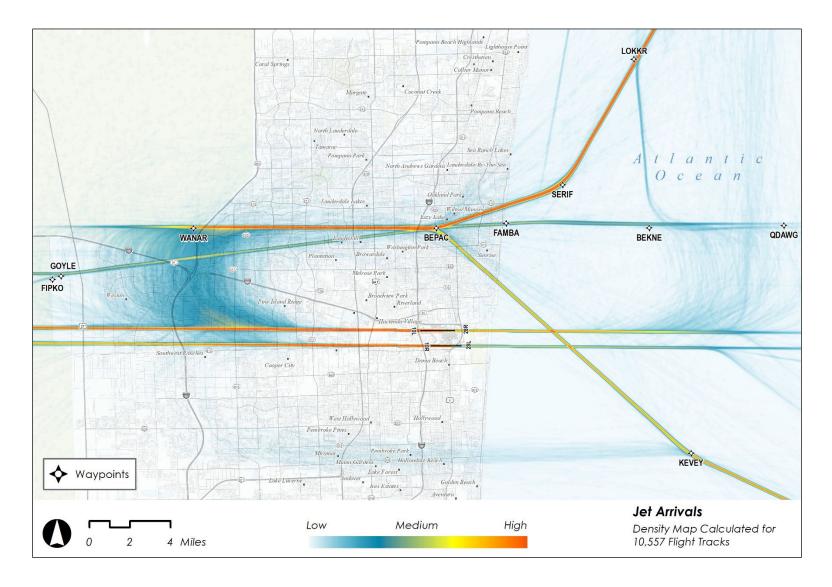
Relative Airspace Density

For All Jet Departures August 2023





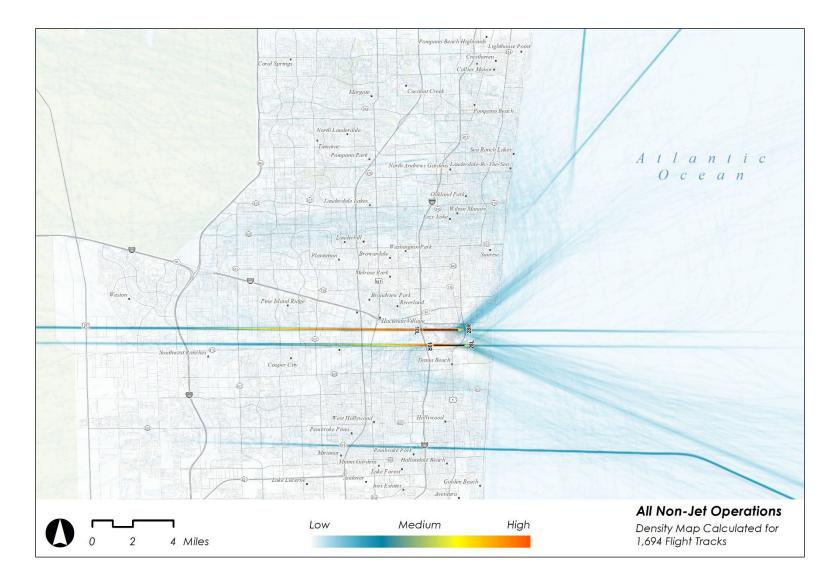
Relative Airspace Density J





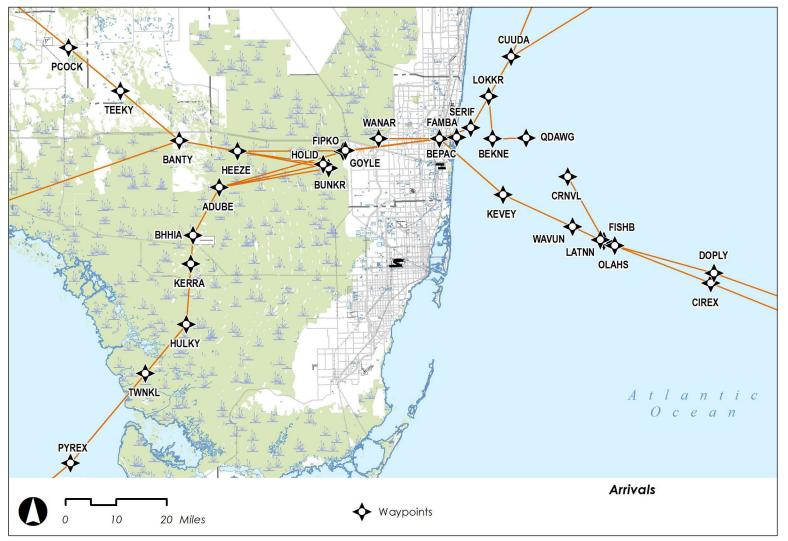
Relative Airspace Density

For All Non-Jet Arrival and Departures July 2023





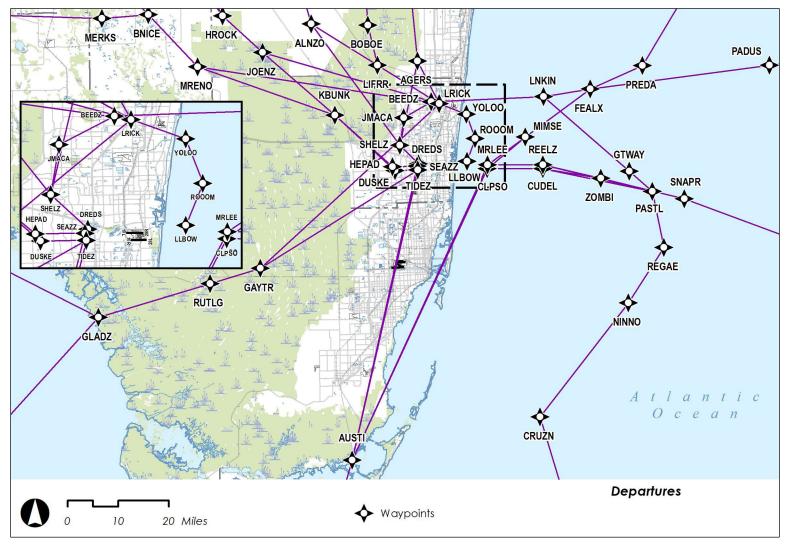
South-Central Florida Metroplex FLL Arrivals (STARS)



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 TWO: 10L: [PYREX+ TWNKL+]-HULKY-KERRA-BHHIA-ADUBE-HOLID BHHIA TWO: 10R: [PYREX+ TWNKL+]-HULKY-KERRA-BHHIA-ADUBE-BUNKR BHHIA TWO: 28L/R: [PYREX+ TWNKL+]-HULKY-KERRA-BHHIA-ADUBE-FIPKO-BEPAC-FAMBA	OLAHS TWO: 10L/R: [DOPLY+ CIREX+]-OLAHS-LATNN-WAVUN-KEVEY-BEPAC-WANAR OLAHS TWO: 28L/R: [DOPLY+ CIREX+]-OLAHS-FISHB-CRNVL
CUUDA TWO: 10L/R: [MACKL+ PLAID+]-CUUDA-LOKKR-SERIF-BEPAC-WANAR CUUDA TWO: 28L/R: [MACKL+ PLAID+]-CUUDA-LOKKR-BEKNE-QDAWG	TEEKY TWO: 10L: [PCOCK+ MARCI+]-TEEKY-BANTY-HEEZE-HOLID TEEKY TWO: 10R: [PCOCK+ MARCI+]-TEEKY-BANTY-HEEZE-BUNKR TEEKY TWO: 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 ONE: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-JOENZ-HROCK-[KPASA+ SMELZ+] HROCK ONE: 28L: TIDEZ-DUSKE-KBUNK-JOENZ-HROCK-[KPASA+ SMELZ+] HROCK ONE: 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+] FRSBE ONE: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-ALNZO-FRSBE-[WAPOM+ STYMY+]	REGAE TWO: 10L: MRLEE-REELZ-PASTL-REGAE-NINNO-CRUZN-GLAMS-LRODD-[URSUS+] REGAE TWO: 10R: CLPSO-CUDEL-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 ONE: 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.