

Fort Lauderdale-Hollywood International Airport



Monthly Operations & RNAV Use Report

November 2021



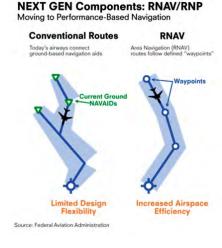
This *RNAV Report* provides a monthly overview of aircraft arriving and departing from Fort Lauderdale-Hollywood International Airport (FLL). The purpose of this report is to determine the number of aircraft that utilize Area Navigation (RNAV) procedures using the FLL Airport Noise and Operations Monitoring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



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)

• AARPS, BNGOS, FEELX, GLADZ, MHITO, REGAE, SNAPR, TWZTR/HURCN, VACAY

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

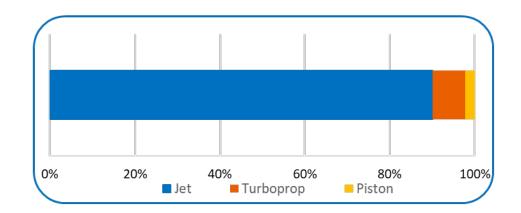
RESOURCES 🗳

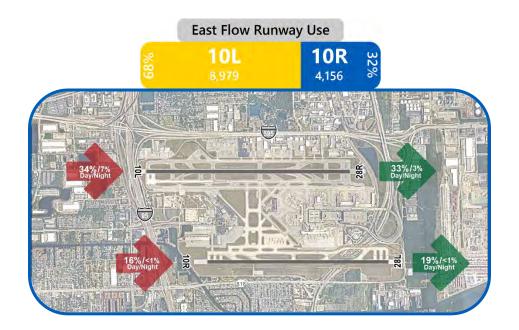
- <u>https://www.faa.gov/air_traffic/community_engagement/florida/</u>
- <u>http://metroplexenvironmental.com/fl_metroplex/fl_introduction.html</u>
- <u>http://www.metroplexenvironmental.com/fl_metroplex/fl_docs.html</u>
- https://www.faa.gov/nextgen/this is nextgen/

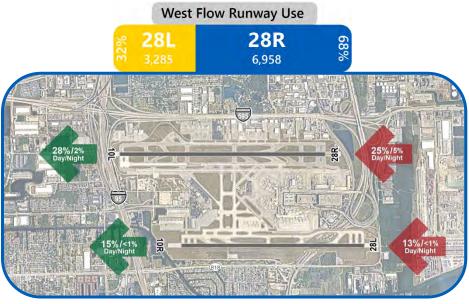


Monthly Operations and Runway Use November 2021

Туре	Arrivals	Departures	Total
Jet	10,550	10,552	21,072
Turboprop	908	900	536
Piston	279	257	1,808
Total	11,737	11,679	23,416

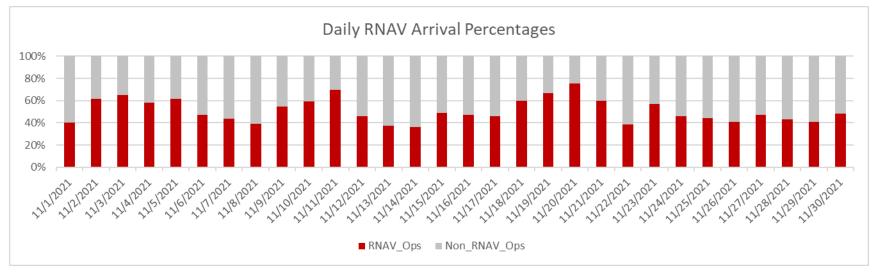


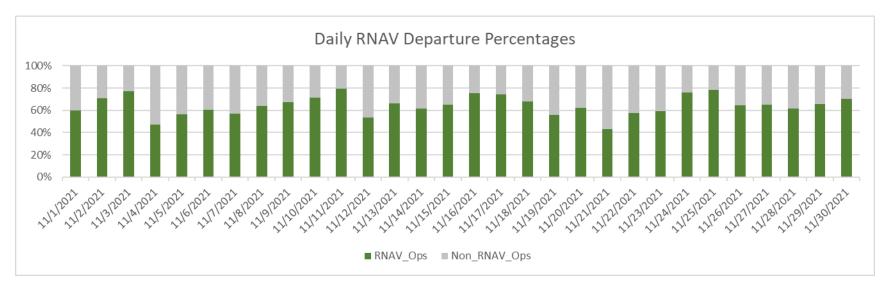






Arrival and Departure Daily RNAV Percentages



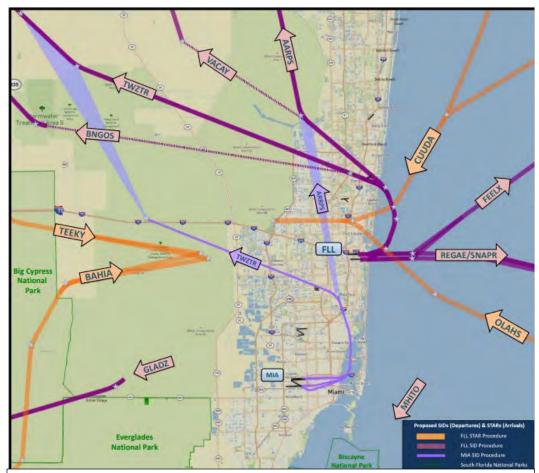




FLL RNAV East Flow Operations 놀

Monthly RNAV Use Summary

FAA South-Central Florida Public Workshop 2020 Community Engagement Board



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.



SIDS | Departures

# of Opera	tions
405	
173	
1148	
35	
41	
183	1
306	
259	1
136	66%
	00/0
	405 173 1148 35 41 183 306 259



FLL RNAV West Flow Operations 🛫

Monthly RNAV Use Summary

FEELX **Big Cypress** National Park Everglades National Park

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 Operations

 BAHIA
 68

 CUUDA
 126

 OLAHS
 12

 TEEKY
 466

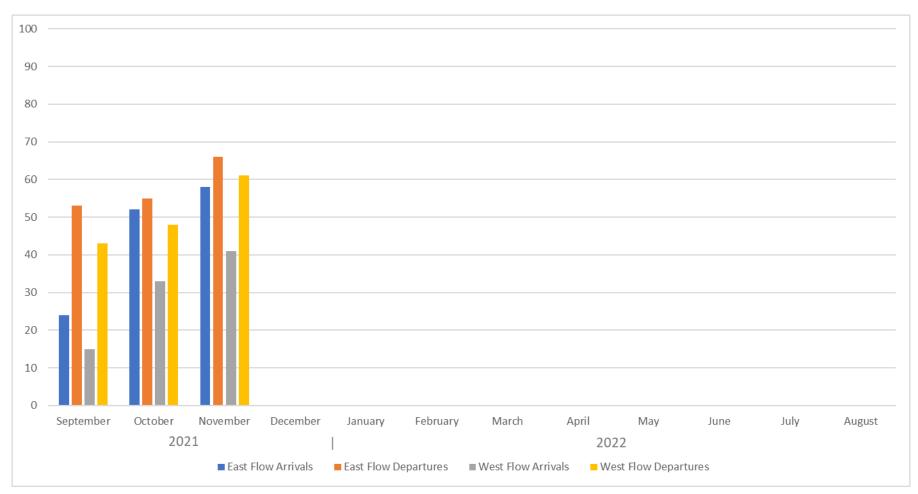
SIDS | Departures

# of Operations	
439	
108	
817	
0	
92	
53	A second second
0	
153	
247	61%
	439 108 817 0 92 53 0 153

FAA South-Central Florida Public Workshop 2020 Community Engagement Board



Monthly East and West Flow RNAV Percentages



November 2021



Monthly RNAV Use by Operator November 2021

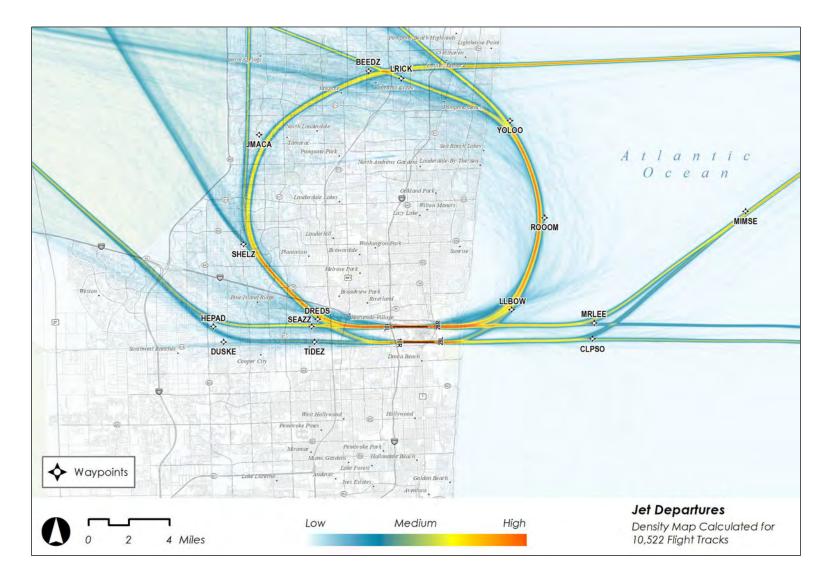
	Number of	f Operations	Percent RNAV Operati	ons
Air Carrier	Total	RNAV	50%	100%
Air Canada	134	80		
Air Canada Rouge	119	69		
Air Transat	70	42		
Alaska Airlines	129	92		
Allegiant Air	456	256		
American Airlines	1177	716		
Avelo Airlines	45	24		
Avianca	34	17		
Azul Linhas Aereas Brasileiras	50	25	-	
Bahamas Air Holdings Ltd.	129	49		
Copa Airlines	59	27		
Delta Airlines	1607	1034		
Flair Airlines	30	20		
JetBlue Airways	4203	2419		
Southwest Airlines	3078	1913		
Spirit Airlines	4493	2645		
Sun Country Airlines	18	7		
United Airlines	1467	937		
WestJet	44	23		

	Number o	f Operations	Percent RNAV Opera	tions
5A / Charter	Total	RNAV	50%	100%
Aerolineas Ejecutivas	16	5	•	
AirSprint	15	10		-
Corporate Flight Management	64	40		•
Delta Private Jets	39	19		
Executive Jet Management, Inc.	17	9		
Flexjets	101	47		
Gama Aviation	27	16		5
Hop-A-Jet	18	8		5
Mountain Aviation	12	4		
NetJets	287	128		
XOJet Inc.	27	15		
Cargo				
FedEx	260	175		
UPS Airlines	58	33		
Arrivals 💻		Departure		



Relative Airspace Density J For All Jet Departures

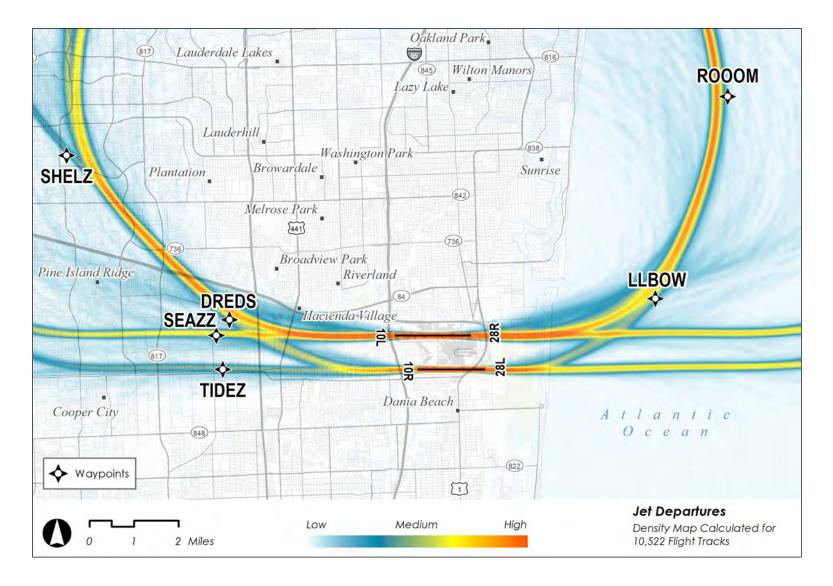






Relative Airspace Density

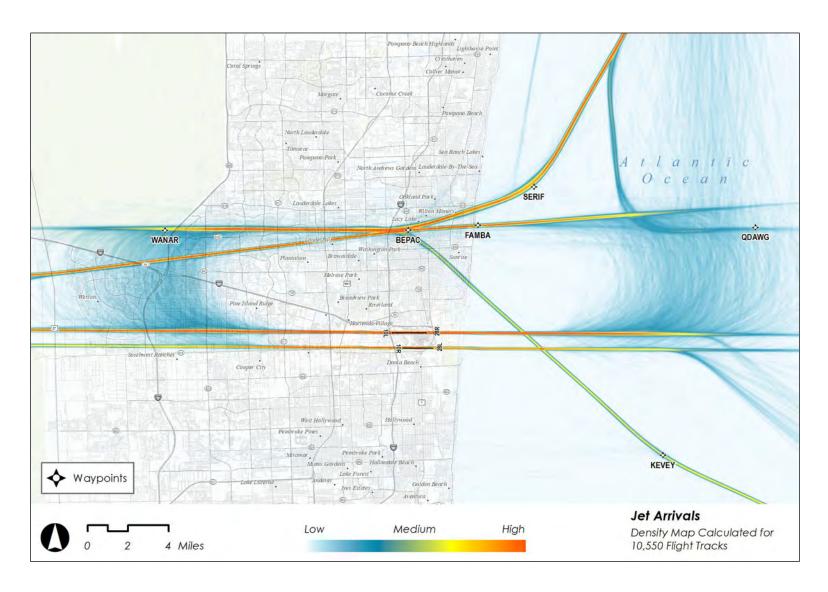
For All Jet Departures November 2021





Relative Airspace Density 🝼

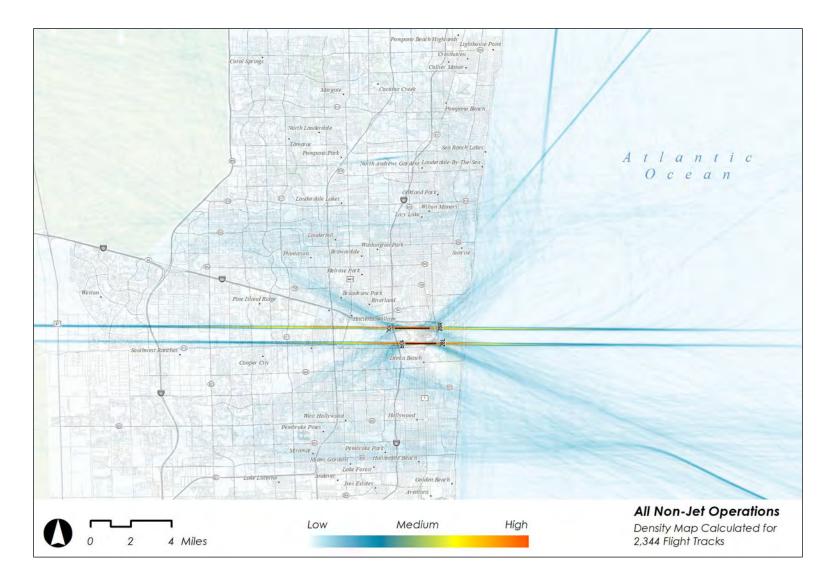
For All Jet Arrivals November 2021





Relative Airspace Density

For All Non-Jet Arrival and Departures November 2021





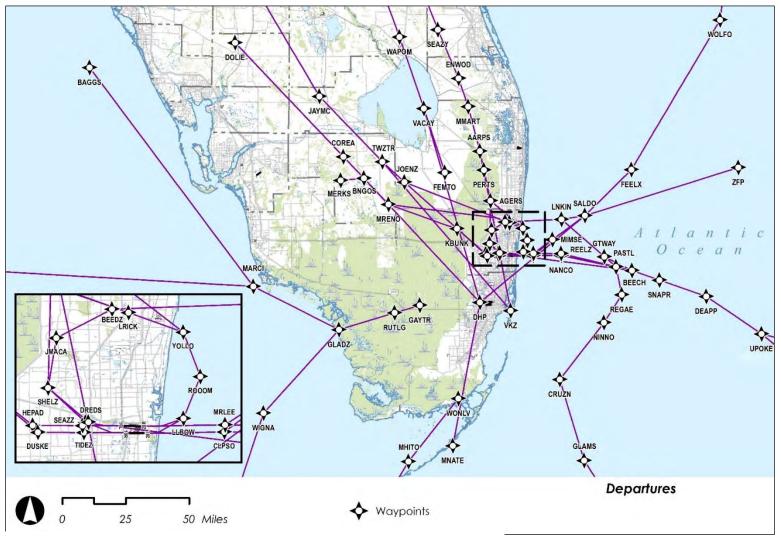
South-Central Florida Metroplex FLL Arrivals (STARS)



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



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

BAHIA: 10L: [FLICH+]-PYREX-HULKY-BAHIA-ADUBE-HOLID BAHIA: 10R: PYREX-HULKY-BAHIA-ADUBE-BUNKR	OLAHS: 10L/R: [MAYKO+ DOPLY+ CIREX+]-OLAHS-WAVUN-KEVEY-BEPAC-WANAR OLAHS: 28L/R: [MAYKO+ DOPLY+ CIREX+]-OLAHS-WAVUN-CRNVL
BAHIA: 28L/R: PYREX-HULKY-BAHIA-ADUBE-FIPKO-BEPAC-FAMBA	
	TEEKY: 10L: [DANNA+ INKES+]-YANCI-TEEKY-BANTY-HEEZE-HOLID
CUUDA: 10L/R: [MACKL+ PLAID+]-CUUDA-LOKKR-SERIF-BEPAC-WANAR	TEEKY: 10R: [DANNA+ INKES+]-YANCI-TEEKY-BANTY-HEEZE-BUNKR
CUUDA: 28L/R: [MACKL+ PLAID+]-CUUDA-LOKKR-BEKNE-QDAWG	TEEKY: 28L/R: [DANNA+ INKES+]-YANCI-TEEKY-BANTY-HEEZE-GOYLE-BEPAC-FAMBA

SIDS | Departures

AARPS: 10L/R: LLBOW-ROOOM-YOLOO-AGERS-PERTS-AARPS-MMART-ENWOD-SEAZY	REGAE: 10L: MRLEE-REELZ-PASTL-REGAE-NINNO-CRUZN-GLAMS
AARPS: 28L/R: DREDS-SHELZ-AGERS-PERTS-AARPS-MMART-ENWOD-SEAZY	REGAE: 10R: CLPSO-CUDEL-PASTL-REGAE-NINNO-CRUZN-GLAMS
	REGAE: 28L/R: DREDS-SHELZ-JMACA-BEEDZ-LNKIN-GTWAY-PASTL-REGAE-NINNO-CRUZN-GLAMS
BNGOS: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-MRENO-BNGOS-COREA-DOLIE	
BNGOS: 28L: TIDEZ-DUSKE-KBUNK-MRENO-BNGOS-COREA-DOLIE	SNAPR: 10L: MRLEE-REELZ-BEECH-SNAPR-DEAPP-UPOKE
BNGOS: 28R: SEAZZ-HEPAD-KBUNK-MRENO-BNGOS-COREA-DOLIE	SNAPR: 10R: CLPSO-CUDEL-BEECH-SNAPR-DEAPP-UPOKE
	SNAPR: 28L/R: DREDS-SHELZ-JMACA-BEEDZ-LNKIN-GTWAY-BEECH-SNAPR-DEAPP-UPOKE
FEELX: 10L: MRLEE-MIMSE-MIDNT-FEELX-WOLFO	
FEELX: 10R: CLPSO-MIMSE-MIDNT-FEELX-WOLFO	TWZTR/HURCN: 10L/R: LLBOW-ROOOM-YOLOO-JONEZ-HURCN-JAYMC
FEELX: 28L/R: DREDS-SHELZ-JMACA-BEEDZ-LNKIN-MIDNT-FEELX-WOLFO	TWZTR/HURCN: 28L: TIDEZ-DUSKE-KBUNK-JONEZ-HURCN-JAYMC
	TWZTR/HURCN: 28R: SEAZZ-HEPAD-KBUNK-JONEZ-HURCN-JAYMC
GLADZ: 10L/R: LLBOW-ROOOM-YOLOO-LRICK-GAYTR-RUTLG-GLADZ-[WIGMA+ MARCI+]	
GLADZ: 28L: TIDEZ-GAYTR-RUTLG-GLADZ-[WIGMA+ MARCI+]	VACAY: 10L/R: LLBOW-ROOOM-YOLOO-AGERS-FEMTO-VACAY-WAPOM
GLADZ: 28R: SEAZZ-GAYTR-RUTLG-GLADZ-[WIGMA+ MARCI+]	VACAY: 28L/R: DREDS-SHELZ-FEMTO-VACAY-WAPOM
MHITO: 10L: MRLEE-WONLV-MHITO	
MHITO: 10R: CLPSO-WONLV-MHITO	
MHITO: 28L: TIDEZ-WONLV-MHITO	
MHITO: 28R: SEAZZ-WONLV-MHITO	

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.