



Venice of America

CITY OF
FORT LAUDERDALE

**AVIATION ADVISORY BOARD
FORT LAUDERDALE EXECUTIVE AIRPORT
ADMINISTRATIVE OFFICE - MULTIPURPOSE ROOM
6000 NW 21 AVENUE, FORT LAUDERDALE, FL
THURSDAY, OCTOBER 28, 2010 1:30 P.M.**

Board Members	Attendance	Cumulative Attendance 7/10 through 6/11	
		Present	Absent
Bunney Brenneman, Chair	P	3	0
Bruce Larkin, Vice Chair	A	1	2
Lee Alexander	P	2	1
Gloria Brown	A	2	1
Linda Iversen	P	1	2
Jackie Kaht	P	3	0
Patrick Kerney	P	3	0
Stephen Stella	P	3	0
Pamela Bushnell, Commissioner, City of Tamarac [non-voting]	P	3	0
Jeff Helyer, City of Oakland Park [non-voting]	P	3	0

Airport/City Staff

Clara Bennett, Airport Manager
Mark J. Cervasio, Assistant Airport Manager
Florence Straugh, Noise Abatement Officer
Rufus A. James, Airport Operations Supervisor
Fernando Blanco, Airport Engineer
Sharon Dreesen, Administrative Aide
Victoria Minard, Assistant City Attorney
J. Opperlee, Recording Secretary, Prototype Services

Communications to the City Commission

None

Call to Order

Chair Brenneman called the meeting to order at 1:30 p.m.



1. Approve Minutes of September 2010 Meeting

Ms. Bennett noted a change to the September minutes.

Motion made by Dr. Alexander, seconded by Mr. Kerney, to approve the minutes of the Board's September 2010 meeting as amended. In a voice vote, motion passed unanimously.

2. Taxiway Bravo Pavement Rehabilitation & Improve Taxiway Connectors - P11134 - Final Adjusting Change Order - Weekley Asphalt, Paving, Inc

Mr. Blanco reported this project provided for the milling and resurfacing of Taxiway Bravo and widening of the taxiway connectors in order to conform to current FAA design standards. He stated construction had begun in October 2009 and was completed in July 2010, ahead of schedule and under the original contract amount of \$2,659,815.20. He drew the Board's attention to an aerial photo and indicated where the work had been done.

Mr. Blanco said a final adjusting change order to the contract with Weekley Asphalt Paving, Inc. was being executed to reflect the differences between the original contract quantities and final as-built quantities as documented and verified by City inspection personnel. This change order was a **credit** in the amount of \$172,649.46 for a final construction cost of \$2,487,165.74.

Staff Recommendation

The staff recommends the City approve and authorize this Final Adjusting Change Order No. 1 with Weekley Asphalt Paving, Inc. in the amount of \$172,649.46 (credit).

Motion made by Mr. Kerney, seconded by Dr. Alexander, to approve staff's recommendation. In a voice vote, motion passed unanimously.

3. Taxiways Charlie & Delta - P10882 - Supplemental Joint Participation Agreement No. 1 with Florida Department of Transportation

Mr. Cervasio reminded the Board that at their April 22, 2010 meeting, the Board had unanimously approved staff's recommendation to approve a Joint participation Agreement (JPA) with the Florida Department of Transportation (FDOT) in the amount of \$2,527,500 to assist with the rehabilitation of Taxiways Charlie & Delta.

Mr. Cervasio informed the Board that Florida Statute 215.971 now required that they provide FDOT with a detailed scope of the services to be provided, and also to

determine specific deliverables they were to receive. The method for effecting this change was to enter a Supplemental Joint Participation Agreement (SJPA). Mr. Cervasio said the State had initiated this SJPA to amend that language. This would allow them to received over \$2.5 million and would not change the required matching funds they were to provide.

Mr. Cervasio remarked this was not a significant change because they had always provided a scope of services. The most important thing was to provide quantifiable deliverables in order to draw down on the grant. Ms. Bennett said this was a trend they were noticing with Federal projects as well, and was part of their auditing process.

Staff Recommendation

The staff recommends the Supplemental Joint Participation Agreement be approved to amend the Joint Participation Agreement so that the Florida Department of Transportation will be able to provide the City with up to \$2,527,500 or 80% of the costs to design the relocation of Taxiways Charlie & Delta.

Motion made by Ms. Iversen, seconded by Ms. Kaht, to approve staff's recommendation. In a voice vote, motion passed unanimously.

4. Taxiway Golf - P11453 - Supplemental Joint Participation Agreement No. 1 with Florida Department of Transportation

Mr. Cervasio reminded the Board that at their April 22, 2010 meeting, the Board had unanimously endorsed staff's recommendation to approve a Joint participation Agreement (JPA) with the Florida Department of Transportation (FDOT) in the amount of \$3,750 to provide up to 2.5% of the funding to help with the design of Taxiway Golf. He pointed out the area on an aerial photo.

As with the previous item, Mr. Cervasio said they were required to provide the FDOT with a detailed scope of services, and also to determine specific deliverables they were to receive.

Staff Recommendation

The staff recommends the Supplemental Joint Participation Agreement be approved to amend the Joint Participation Agreement so that the Florida Department of Transportation will be able to provide the City with up to \$3,750 or 2.5% of the costs to design the relocation of Taxiway Golf.

Motion made by Ms. Iversen, seconded by Mr. Stella, to approve staff's recommendation. In a voice vote, motion passed unanimously.

5. Rehabilitate Airfield Pavement Markings - Project 11452 - Contract Award - Hi-Lite Markings, Inc.

Mr. Blanco explained this project was for painting new pavement markings along Runway 8/26 and the scope of work included removing obsolete pavement markings, adding a new taxiway marking, runway markings, and rubber removal. Mr. Blanco reported these improvements would significantly enhance the Airport's safety and operating capabilities and assure compliance with current Federal Aviation Administration standards.

Mr. Blanco informed the Board that the project was advertised for bids and bids were received on October 20, 2010. The bids in order of lowest bidder first were:

<u>COMPANY</u>	<u>BID</u>
1. Hi-Lite Markings, Inc.	\$74,470.20
2. Hasco Inc.	\$82,234.00
3. Roads & Runways Striping Service, Inc.	\$90,481.08
4. Transmark Inc.	\$135,576.80
5. Weekley Asphalt Paving, Inc.	\$228,195.80

Mr. Blanco said Hi-Lite Markings, Inc. of Adams Center, New York, had submitted the lowest responsible bid in the amount of \$74,470.20. Staff had compared this bid's "per unit" prices against the engineering estimates and found them to be reasonable and responsive. He remarked that Hi-Lite Markings, Inc. had previously performed several pavement striping projects at FXE to the staff's satisfaction.

Mr. Blanco stated funding for this project was available from the Airport's approved Capital Improvement Plan.

Staff Recommendation

Staff recommends approval of the contract to the low responsive bidder, Hi-Lite Markings, Inc. in the amount of \$74,470.20 to refurbish the pavement markings along Runway 8-26.

Mr. Helyer noted the large bid price differences for Weekley Asphalt. Mr. Blanco responded that this was not the paving company's specialty.

Dr. Alexander wondered why FDOT and the FAA were not involved in this project and asked how they decided which projects to contribute toward. Mr. Blanco explained that this project had originally been programmed with an FDOT grant but staff had decided to use the FDOT portion toward the Taxiway Charlie and Delta project. Ms. Bennett said the grant was programmed years in advanced and they might as well bundle it into a larger project with lower administrative costs for managing the grant.

Mr. Stella asked about the runway closings and Mr. Blanco explained the main runway would be closed from 10 P.M. until 6 A.M. for a 10-day period. Ms. Bennett remarked

that the neighbors to the east would be very happy with the closure of the main runway, but the crosswind runway would be reopened from 10 P.M. until 7 A.M.

Ms. Bushnell asked if the striping work was very specialized. Mr. Blanco explained that there were several companies that did this type of work and in the winter, there was less work in the New York area, so Hi-Lite traveled south at this time of year. Mr. Cervasio stated the big difference with this type of work was that it utilized FAA-approved paint.

Motion made by Mr. Kerney, seconded by Ms. Kaht, to approve staff's recommendation. In a voice vote, motion passed unanimously.

6. Master Drainage Study & Plan - P11583 - Consultant Contract RFQ 606-10451

Mr. Blanco stated on February 25, 2010, the City had issued a Request for Qualifications (RFQ) to select a professional engineering firm to prepare a Master Stormwater Drainage Study and Plan for the Airport and adjoining Airpark. The RFQ would require the selected engineering firm to:

- Assess the Airport's stormwater system performance and evaluate its long-term drainage needs,
- Develop recommendations and cost estimates to improve stormwater issues.
- Review current ordinances, policies, and procedures for Capital Improvements and prepare long-term improvement plan and funding methods,
- Review existing and proposed regulatory issues regarding the Airport and Airpark Stormwater Pollution Prevention Plan including review and analysis of current land development regulations, and
- Provide recommendations to increase use and quality of captured stormwater to enhance the municipal water supply system.

Mr. Blanco reported the City had received 11 responses to the RFQ and on May 4, 2010, the Selection and Negotiation Committee (SNC) had met to review the qualifications and prepare a short list of the interested firms for further evaluation. The short-listed firms had made presentations and the SNC reviewed the firms and recommended proceeding with contract negotiations with the top-ranked firm, Camp Dresser & McKee, Inc. (CDM).

Mr. Blanco reported CDM would be performing the following services for providing the Airport with a Master Drainage Study and Plan; data collection, hydraulic modeling, developing drainage alternatives, providing cost and funding recommendations, developing a Stormwater Pollution Prevention Plan (SWPPP) to identify methods to prevent pollutants from entering the stormwater runoff system, and preparing a technical report evaluating the criteria necessary for obtaining a Master Drainage Permit for the Airport. He stated the total costs for the above services were \$149,466. Mr. Blanco anticipated that the project would take approximately 9 months to complete.

Mr. Blanco said funding for this contract was available by a transfer from P11237 – the Airport Capital Projects Holding Account.

Mr. Blanco informed the Board that representatives from CDM were present to address any questions.

Mr. Blanco explained to Mr. Stella that CDM would study the entire Airport and determine what issues were involved regarding the drainage basin and stormwater runoff and they would determine the proper rehabilitation that was needed.

Staff recommendation:

Staff recommends entering into a contract with Camp Dresser & McKee, Inc. to provide a Master Drainage Study and Plan in the amount of \$149,466, and transferring funds from P11237 – Airport Capital Projects Holding Account.

Motion made by Ms. Kaht, seconded by Mr. Stella, to approve staff's recommendation. In a voice vote, motion passed unanimously.

7. U.S. Customs & Border Protection Facility – Project 11242 – Kimley-Horn and Associates, Inc. – Amendment No. 1 to Task Order No. 5

Mr. Blanco said design of the US Customs and border Protection Facility project had begun on May 20, 2010, based on the Airport Technical Design Standards provided to staff by U.S. Customs officials. A preliminary site plan was developed and approved by the Department of Homeland Security Program Administrator on July 6, 2010 and the City had developed 30% set of plans specifications that were submitted to US Customs on September 20, 2010 for review and comment.

Mr. Blanco said staff had been informed by US Customs that the site plan as designed and approved by them did not meet the security requirements set forth by the U.S. Department of Homeland Security Minimum Physical Security Requirements Document (MSD). He pointed out that this document had not been made available or mentioned to staff during the above design process.

Mr. Blanco stated the MSD required that this type of law-enforcement facility must meet one of three criteria: that it maintain a 100-foot setback between the exterior walls and any public areas accessible by a motorized vehicle; that it be designed to withstand a blast from an explosive device, or that it provide a blast wall between the road/public parking and building.

Mr. Blanco said staff had reviewed both the design and construction costs associated with all three options and had determined that it would be more cost effective to relocate the facility to meet the 100-foot separation criterion.

Mr. Blanco said staff had subsequently negotiated Amendment No. 1 to Task Order No. 5 with Kimley-Horn and Associates, Inc. to re-design the site to meet the security requirements, prepare new plans and specifications to submit to DHS for review and approval, and submit the site plans for DRC review and approval. Mr. Blanco stated staff had reviewed Amendment No. 1 and the associated fees to provide the above services in the amount of \$40,500. He noted funds for this Task Order were available within the project.

Mr. Blanco explained to Mr. Kerney that staff had not been made aware of the requirements from the Department of Homeland Security the several times they had met in the past year to review the site plan. Officials had approved the original site plan. Mr. Cervasio said Kimley-Horn had reviewed all of the requirements with DHS and received approval for the site plan design. It was not until they submitted the 30% plans that DHS circulated the plans through the rest of customs and the security reviewers had determined it did not meet the security requirements. This was the first time staff had been provided with these security requirements.

Staff Recommendation

Staff recommends approval of Amendment No. 1 to Task Order No. 5 with Kimley-Horn and Associates, Inc. for design services on U.S. Customs and Border Protection Facility in the amount of \$40,500.

Motion made by Mr. Kerney, seconded by Ms. Kaht, to approve staff's recommendation. In a voice vote, motion passed unanimously.

8. (Walk-on Item) Proprietary Purchase Order Over \$10,000 to Bruel & Kjaer Environment Management Solutions Inc.

Ms. Straugh informed the Board that Lochard Corporation owned and supported the Airport Noise & Operations Monitoring System (ANOMS).

Several years ago, Spectris PLC, a UK publicly listed company with investments in a number of instrumentation businesses, including Bruel & Kjaer, had acquired Lochard Corporation with the intention of merging the two corporations. The company's name had been changed to Bruel & Kjaer Environment Management Solutions Inc. Ms. Straugh stated the company's name change did not affect the terms of the contract, tax identification or financial information.

Ms. Straugh explained that the City had already paid three months of the year's annual fee to Lochard so the amount remaining for the last nine months of the year, \$28, 195, was to be paid to Bruel & Kjaer, under a new Purchase Order. Since this new purchase for the proprietary service was over \$10,000, the purchase required Commission approval.

Staff Recommendation

Staff recommends the approval of the proprietary purchase to Bruel & Kjaer Environment Management Services Inc. for the remaining nine months of the annual service in the amount of \$28,195.

Motion made by Ms. Iversen, seconded by Mr. Kerney, to approve staff's recommendation. In a voice vote, motion passed unanimously.

UPDATE ITEMS

A. Noise Compatibility Program and Noise Monitors Presentation

Noise Abatement Workshop for Jet Pilots

Ms. Straugh reported that on Thursday, October 14, 2010, a Noise Abatement Workshop was held for jet pilots and there had been an excellent response from the pilot community. The Air Traffic Controller supervisor had been available to answer questions and help the pilots communicate better with ATC. Ms. Straugh said the Airport Manager of Pompano Air Park and the Noise control Officer from FLL had been present as well.

Achievements in Community Excellence (ACE) and Special Recognitions Awards

Ms. Straugh informed the Board they planned to hold an award ceremony for the Achievements In Community Excellence, Special Recognition, and other awards in December 2010. Ms. Bennett explained that they did not know what would be approved in terms of the scale of the event because they were subject to spending limits that were affecting the entire City. They were hoping to host a scaled down event and were exploring different options. Ms. Bennett said this year's event would include several recognitions for outstanding efforts by groups and individuals.

Ms. Bennett said they were considering holding the event on the date of the AAB meeting as a luncheon. If they were allowed to hold an evening event, it would be December 15. She agreed to keep the Board apprised of the definite plans.

Noise Monitors Presentation

Ms. Straugh gave a Power Point presentation, a copy of which is attached to these minutes for the public record.

Ms. Bennett informed the Board that Ms. Straugh was the Chair of the Florida Airports Council Noise Abatement and Community Affairs Committee and had put together a fantastic program for their annual specialty conference to be held on November 3 through 5 in Lake Buena Vista. Ms. Bennett remarked that Ms. Straugh's interaction

with noise abatement representatives from all over the country was very important to keep in touch with new innovations and ideas.

Mr. Kerney said he had noticed lately that when helicopters made a western arrival, the tower was cracking down on pilots who did not make the proper landing. He wondered if this was the result of an increase in noise complaints. Ms. Straugh referred to a specific housing development that was very susceptible to noise and she advised all helicopters to avoid flying over that community. Mr. Kerney suggested a workshop directed at helicopter pilots.

Mr. Helyer remarked that he had significant noise issues at his home and asked Ms. Straugh for any help she could provide.

Mr. Helyer said the City of Oakland Park had written a letter requesting to be incorporated into the noise abatement program.

Mr. Helyer thought Ms. Straugh's presentation was wonderful and asked if he could get copies of some of the fact sheets for the Oakland Park City Commission. Ms. Straugh agreed to email a copy of the presentation to Board members.

Nighttime and I-95 Turn

For September 2010, there were no jets over 80 dB at night between at night between 10:00 p.m. and 7:00 a.m.

For September 2010, thirty-two (32) jets flew the I-95 Turn at night and two (2) of those jets were stage-two aircraft.

Noise Abatement Program Statistics

Noise abatement program statistics for September 2010 were included in the Board's packet.

B. Development and Construction

Airport Projects In Development

Aviation Equipment and Service Facility Project # 11181

Mr. James reported the project was well underway; to date, the contractor had completed the stabilized base and lime rock, and the asphalt should be in place in the next few weeks. There were currently preparing the interior of the building to seal it. Mr. James agreed to provide the Board with updates on the progress and completion date for this project.

Airport Operations

Operations statistics were included in the Board's packet.

Mr. James thanked Mr. Kerney for his input regarding helicopters.

Dr. Alexander asked about monitoring at the Helistop. Mr. James said there were cameras on the deck that were monitored from FXE. If they noted a situation that should be addressed, they tried to track down the pilot and/or owner. Mr. James said the FXE tower did not control helicopters, they were in communication with the Fort Lauderdale control tower once they entered that airspace. Ms. Bennett stated helicopters did communicate with FXE when they had a parking reservation and wanted to access the lobby.

Dr. Alexander pointed out that, unfortunately, this was a prime spot to perform a touch-and-go. Mr. James said most of their regular users did not engage in touch-and-go activity.

Ms. Straugh informed the Board that the FAA Flight Standards District Office phone number to report low flying planes had changed to 954-641-6000.

C. Arrearages

Ms. Bennett reported two tenants were arrears:
Performance Trading, Parcel 8D
KSR, LLC, Parcel 8G

There were no fuel flowage arrearages for the month of September 2010.

D. Communications to the City Commission

None

E. FLL Update

Ms. Straugh reminded the Board of the 60-day closure of the main runway coming up in early May.

F. Telephonic Participation for Advisory Boards

Ms. Dreesen described the procedure for a Board member to attend a meeting telephonically. She explained that this was permitted when a Board member could not be physically present for medical or emergency reasons, not for vacations. Notice must be given at least 24 hours in advance to the City Clerk, and the Board member would


be permitted to participate, but not to vote or to Chair the meeting. Board members participating by phone did not count toward a quorum.

Other Items and Information

Ms. Bennett distributed several handouts to Board members.

There being no further business before the Board, the meeting adjourned at 3:30 p.m.

- Next scheduled meeting date: Thursday – December 9, 2010 – 1:30 PM



Bunney Brenneeman, Chair

PLEASE NOTE:

If any persons decide to appeal any decision made with respect to any matter considered at this public meeting or hearing, he/she will need a record of the proceedings and, for such purpose, he/she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.



Aviation Advisory Board



October 28, 2010 Meeting

Florence Straugh
Noise Abatement
Officer



Noise Abatement Program

□ Background:

- Federal Aviation Regulations regarding Noise
- FXE Noise Compatibility Program (NCP) History

□ FXE NCP:

- Noise Exposure Maps (NEM)
- Noise Compatibility Program (NCP) APPROVED MEASURES
- Other elements and outreach programs implemented
- Airport Noise & Operations Monitoring System (ANOMS)

□ Wrap-up:

- Other Noise Abatement Efforts
- Current Initiatives

Pompano Beach

Bay Colony / Lake Estates
Imperial Point
Coral Ridge Isles
North Andrews Neighborhood Association

Fort Lauderdale

Oakland Park

Palm Aire
Village

Tamarac
Lakes North

FXE
Communities of
Interest

Tamarac

Federal Aviation Regulations - Noise

Year	FAR/Noise - Development	Highlights - Significance
1964	First Business Jet in US	Learjet 23 was delivered to first private owner
1968	Federal Aviation Act amendment	Congress required FAA to impose rules to control aircraft noise
1969	National Environmental Policy Act, NEPA	Established standards & methodology for review and evaluation of potentially significant environmental impact from aircraft noise
1972	Noise Control Act of 1972 FAR Part 36 – Certified Airplane Noise Levels	Congress mandating that the FAA reaffirm and strengthen noise controls which resulted in the FAA creating Part 36 with the FAA imposing noise standards
1973	Part 36 – FAA Amended	Requiring that all newly manufactured aircraft meet the new noise standards
1977	Part 36 – FAA Amended	Adopted new quieter noise standards and creating three separate levels or stages.
1985	Part 150 – Airport Noise & Land Use Compatibility Planning	Established standards and methodology governing the development, submission, and review of airport: -Noise Exposure Maps, NEM -Noise Compatibility Programs, NCP
1990	Airport Noise & Capacity Act, ANCA	Directed the FAA to set an national program to review standards for restrictions by airport owners, resulting in Part 161. Required phase-out of Stage 2 over 75,000 lbs by Dec 1999
1991	Part 161 – National Noise Policy, NNP	Codification & Procedures to support ANCA

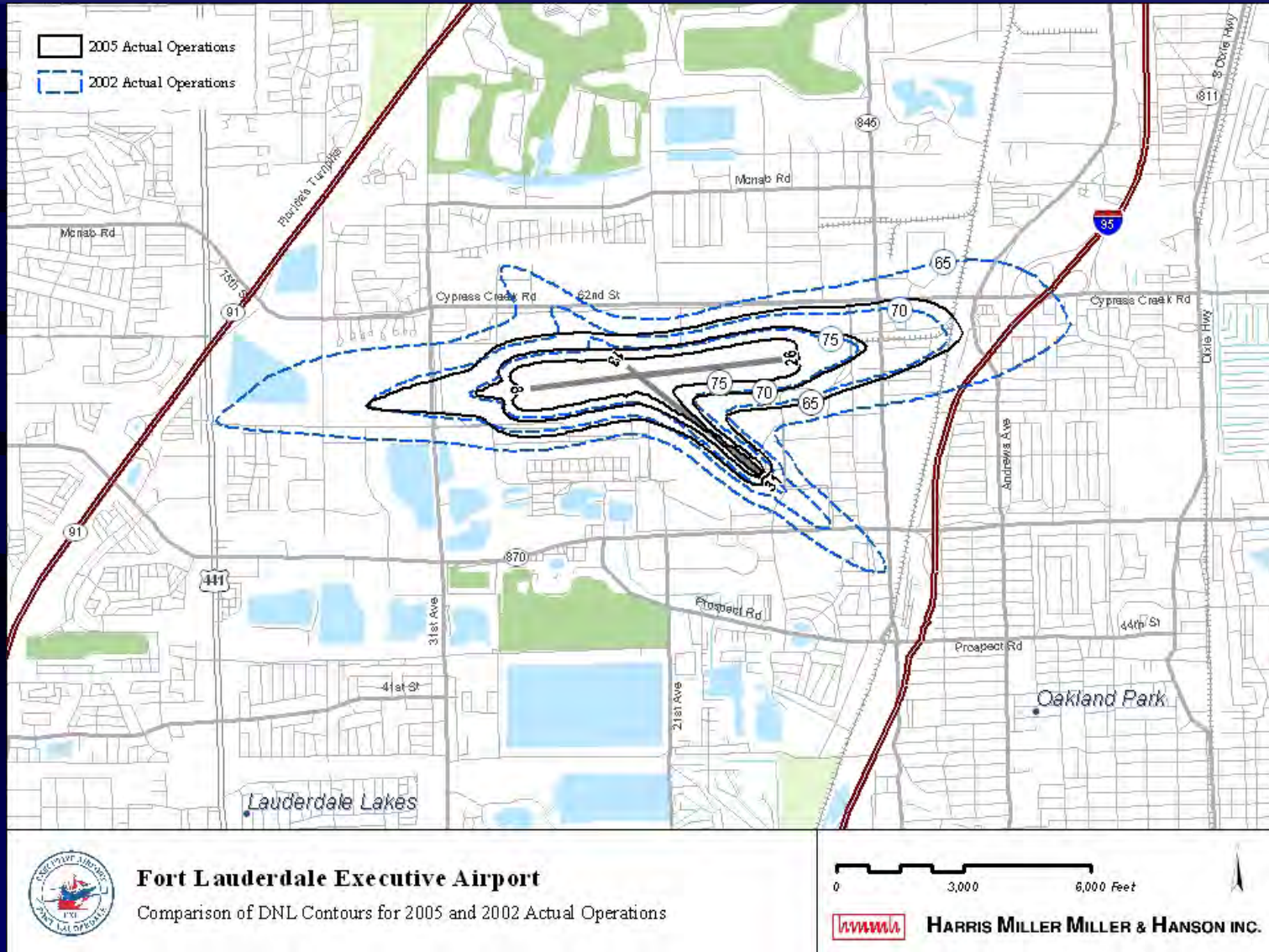
FXE NCP History

Yr	Project – Initiative	Highlights - Significance
1986	First Part 150 Noise Compatibility Study - completed	FAA Approves Voluntary I-95 Turn for Jets – resulting in minimal compliance since most were transient; One of the first to conduct Part 150
1988	Part 150 Noise Compatibility Study – Supplemental completed	FAA Review of the NEM found in compliance
1990	Development of ANOMS Technology	Beta Test Site for Integration Software; First Commercial Installation in the World; Installed 2 Remote Noise Monitors and Passive Radar
1991	FAA ROD for NCP - approved some measures FXE Noise Abatement Office Established	Began 24-hour ATCT; Preferential Runway-Use Program; Voluntary Jet Restriction on Rwy 13/31
1993	FAA approved 45-day test of I-95 Turn Environmental Assessment	At the City's request, the FAA conducted a test that proved to be successful at reducing noise and was compatible with ATC operations
1994	Second Part 150 Noise Compatibility Study & NEM Contours – completed – 1995 FAA found NEM in compliance	After the EA completion, February 1 st , 1994, I-95 Turn began for Jets with destinations to the north or west; Night Closure of Rwy 13/31; “Quiet One” Departure (at the suggestion of a pilot)
1996	Submitted a revised NEM-NCP to the FAA	FAA issued ROD in 1997
2002	Third Part 150 Noise Compatibility Study - completed	City requested that the FAA evaluate the feasibility of turning all jets along I-95.
2005	FAA ROD approved Extending the I-95 Turn Hours	East & South bound Jet Departures between 11:00 p.m. and 7:00 a.m. were instructed to turn left
2007	City Requested Extending Night Hours for I-95 Turn	FAA Required an Environmental Assessment
2008	Review of NCP - completed	Found in compliance and received further recommendations
2009	Environmental Assessment to Extend the Nighttime Hours of the I-95 Turn	Preliminary draft sent to FAA. FAA will not accept study. City responded and are waiting a response from FAA

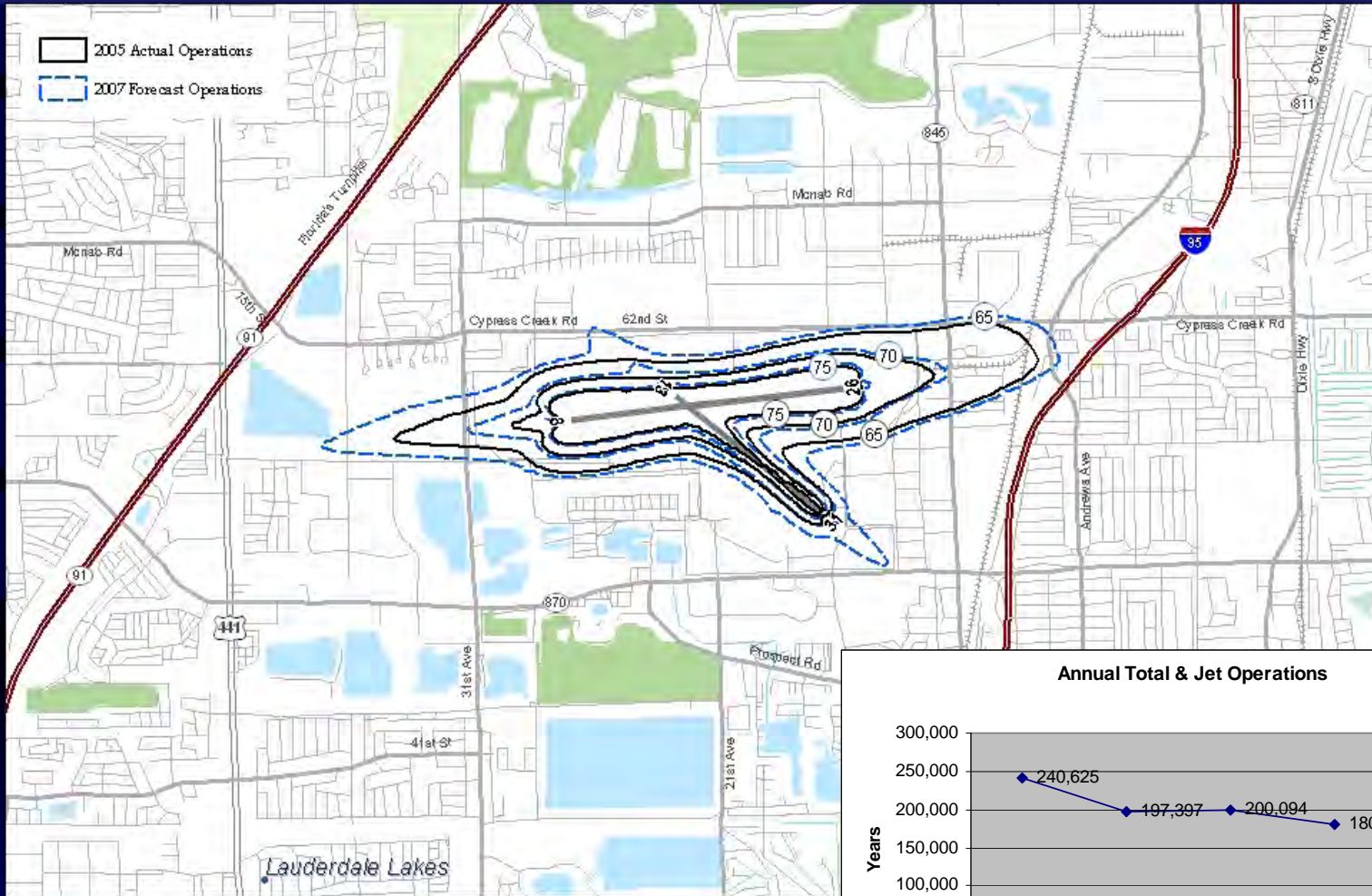
Noise Exposure Map (NEM)

- Noise Exposure Maps show noise contours.
- The significance of noise contours is that the 65 DNL contours envelopes areas for possible noise mitigation.
- **What is DNL? Day-Night Average Sound Level**, which reflects the steady rate of noise over a twenty-four hour period with 10 dB added to nighttime events to account for people's increased sensitivity at night.
- 65 DNL is identified on the FAA tables as the threshold of compatibility for most residential land uses.

Noise Exposure Map (NEM) 2022

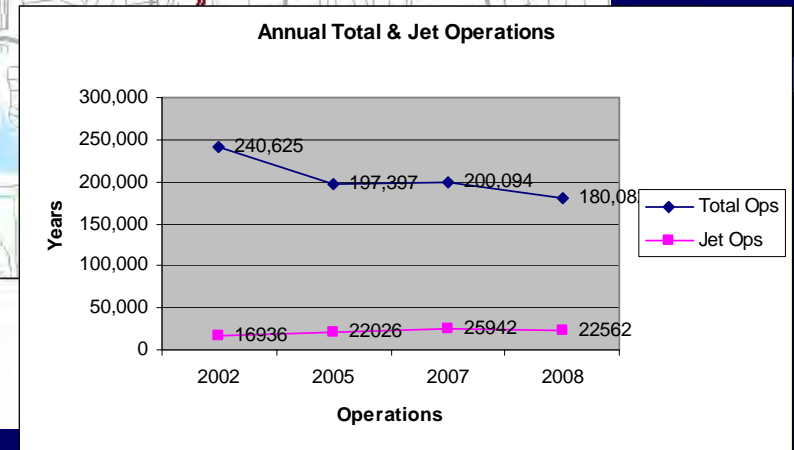


Noise Exposure Map (NEM) 2005



Fort Lauderdale Executive Airport

Comparison of DNL Contours for 2005 Actual Operations to 2007 Forecast Operations with Revised NCP



FAA Approved NCP Measures at FXE

Runway use

- Nightly closure of Runway 13/31, 10:00 p.m. – 7:00 a.m., when Runway 08/26 is operational
- Voluntary jet restriction on Runway 13/31
- Voluntary Night Preferential Runways for All airplanes using Runway 26 for departures
- Voluntary Night Preferential Runways for All airplanes using Runway 08 for arrivals

Flight tracks

- Runway 8, I-95 left turn for all jet departures, 11:00 p.m. – 7:00 a.m., except for air ambulance, emergencies, and during adverse weather
- All aircraft operators avoid overflights of residential area one-half mile southwest of ATCT
- All runways noise sensitive & monitored 24 hours
- Voluntary Runway 26 departure heading

Operating procedures

- Restriction of aircraft maintenance engine run-up, 7:00 p.m. – 7:00 a.m.
- Voluntary use of NBAA standard jet noise abatement profiles
- Voluntary restriction night, weekend, holiday, and repeat landing & approach operations

The Foundation of the NCP at FXE

Runway 8 Jet Departures: “I-95 Turn”

- Use minimum safe power settings
- North or West Bound

Turn left to follow over the top of I-95 then continue to assigned heading (330°)

- East Bound

Climb as quickly to initial altitude and then reduce power if possible until well east of the shoreline then resume normal climb

AVOID straight-out departures and request the I-95 Turn

U.S. Customs (CBP) – 12-hour Operations

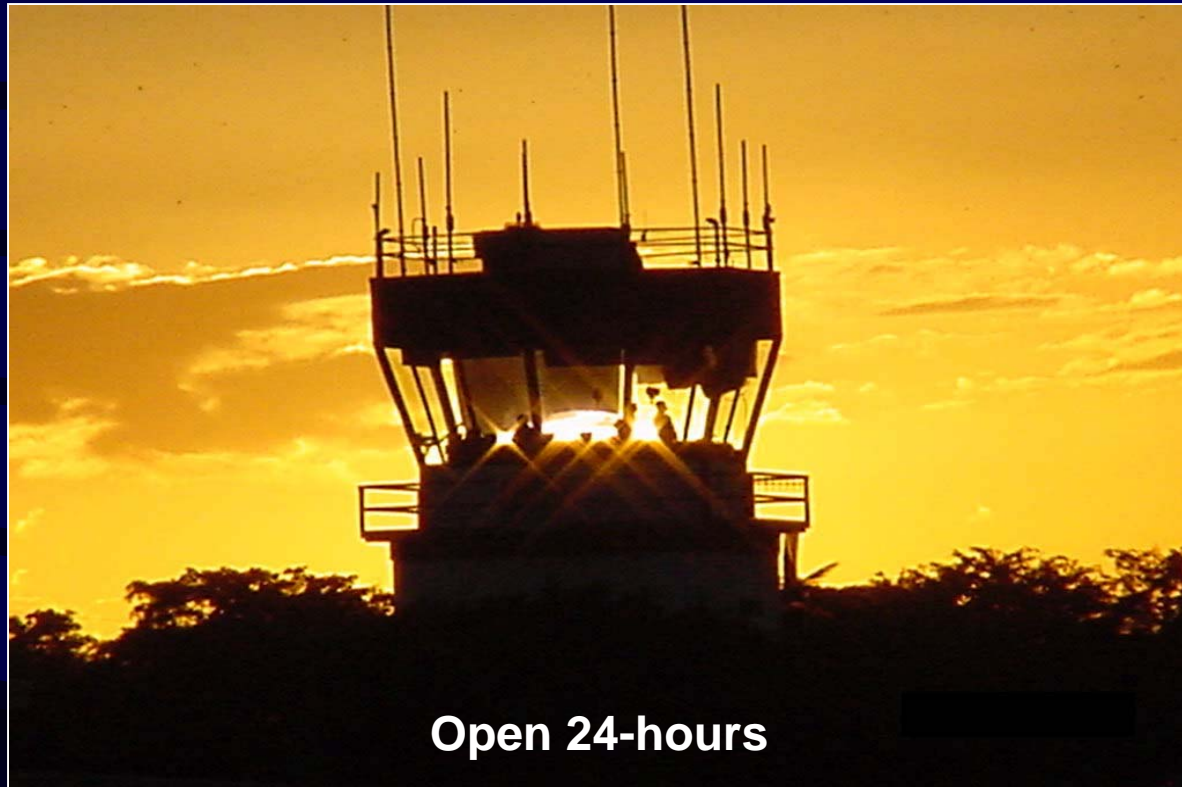


Since July 2005, the hours were increased at Customs to 9 am to 9 pm.

By increasing the number of hours that Customs at FXE was opened in the evening, flights flying over the community, which were going to FLL to clear Customs, then relocating back to FXE, were reduced.

Nine out of 10 flights clearing Customs during those times stayed at FXE.

Control Tower – Nighttime Hours



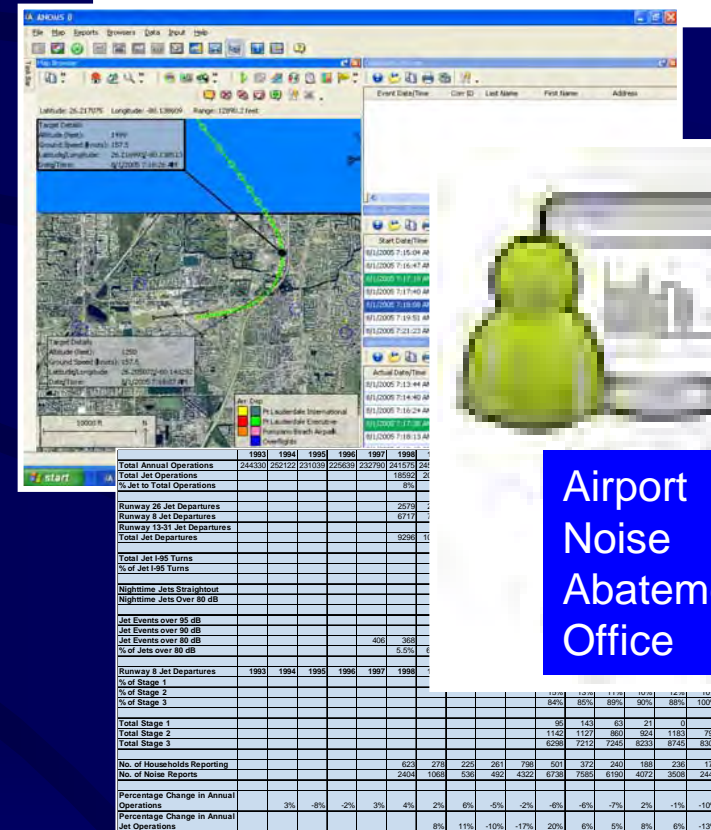
Since December 1989, the Tower has been open 24-hours a day.

Controllers assist with ensuring that the noise abatement procedures are followed by pilots at night, such as providing the left turn for the I-95 Turn, assigning the preferential runway, closing Runway 13-31, and preventing engine run-ups, etc. The Airport pays for a controller during the night hours.

24-Hour Noise Abatement Hotline

- Noise Abatement Hotline is where residents can report loud aircraft
- Noise Abatement Office staff enters noise calls into ANOMS computer and conduct follow-up with residents and research to contact pilots.
- Noise Abatement Office compiles monthly noise statistics including community reports, and aircraft operations

954-828-6666



Airport Noise Abatement Office

Community Outreach

- Aviation Advisory Board Meeting – Public Meetings & monthly noise statistical reports
- Homeowner Association Meetings – Presentations & Answering Questions
- Homeowner Association Newsletters – Update Articles about the Airport & Noise issues
- Projects – that may affect residential areas. We encourage the public to participate in Workshops & provide their written input to be included in the studies
- Notices of Runway Closures at FXE & FLL via City monthly packet, email, website, TV & radio station, that may affect the public
- Notices of Airport Projects that may affect the public

Community Contact Information

To report excessively loud aircraft from Executive Airport (FXE):

24-hour Noise Abatement Hotline Number

(954) 828-6666

To report low flying aircraft:

FAA Flight Standards District Office (FSDO-19)

(954) 641-6000

To report poor air quality or pollution:

Broward County DPEP

(954) 519-1499

**To report aircraft noise from Ft Lauderdale-Hollywood
International Airport (FLL):**

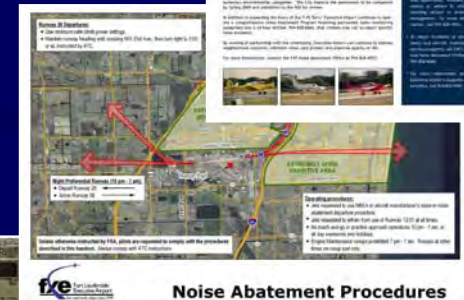
BCAD Noise Control

(954) 359-1200, press 7

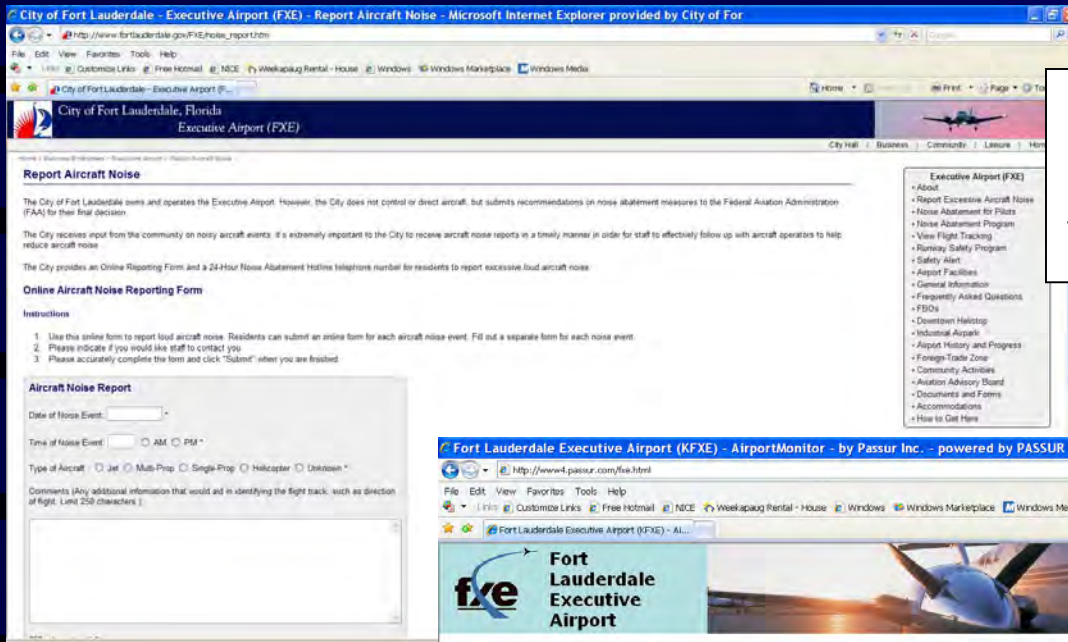
Website Information

www.fortlauderdale.gov/fxe

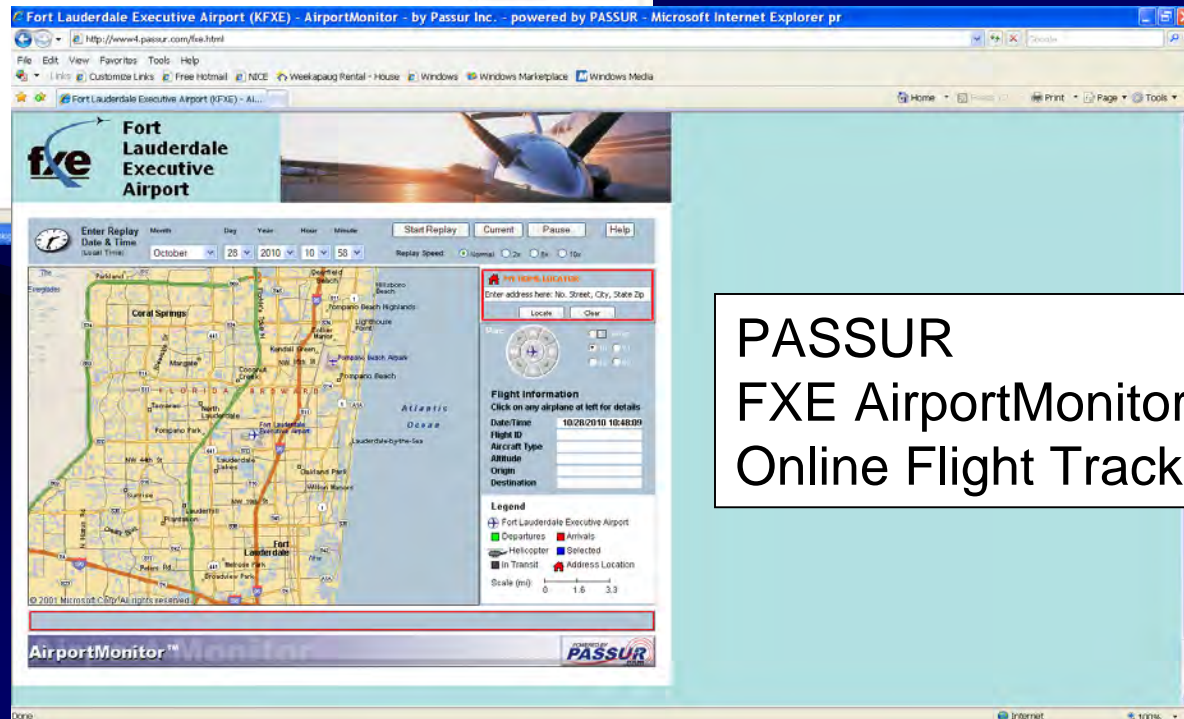
- Noise Abatement for Pilots
- Noise Abatement Program
- Frequently Asked Questions Jet Pilot Diagrams
- Helicopter Pilot Diagrams
- Approved Noise Exposure Maps (NEM)
- Listing of NCP elements
- Newsletter & Article of the Achievements in Community Excellence (ACE) Awards recipients



Website Information



Online Aircraft Noise Reporting Form – City Website



PASSUR FXE AirportMonitor – Online Flight Tracking

Pilot Outreach

Industry Tradeshows, Publication Advertisement, Pilot Workshops,
Fixed Base Operators distributing Flyers and Brochures



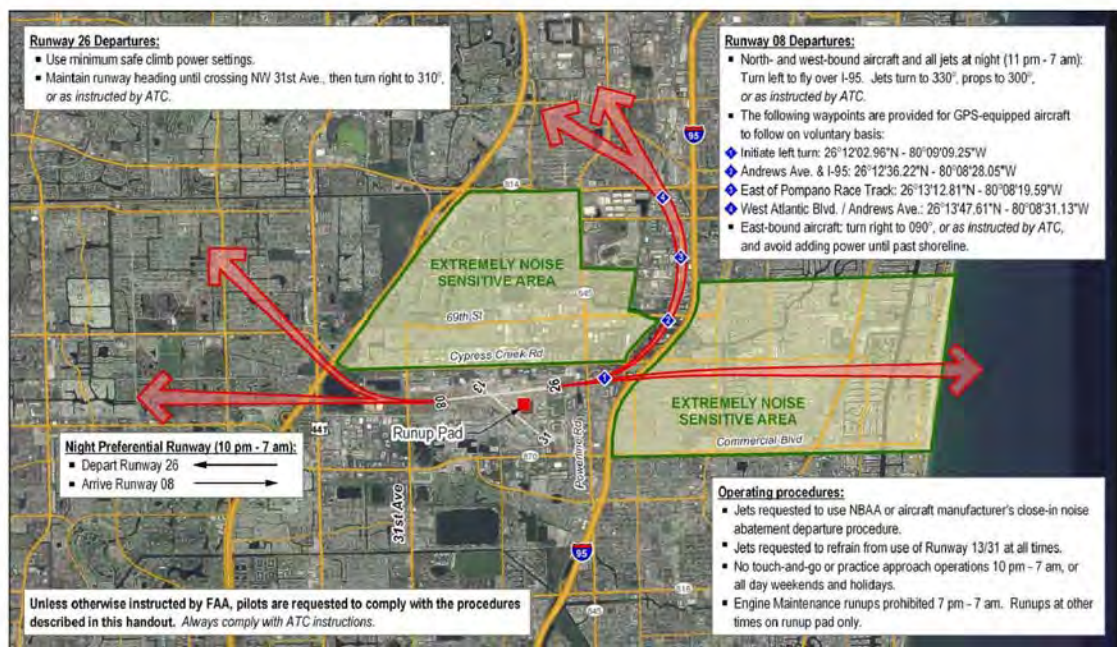
Noise Abatement Program ACE Award

- “ACE Award” (Achievements in Community Excellence Award) – Airport recognizes individuals or businesses for outstanding contribution to the community for improving the Noise Abatement Program
- Pilot Recognition – recognizing the pilots for their efforts to reduce noise
- Noise Abatement Pilot Workshops – informing pilots of FXE Noise Abatement Program. (Jet Pilots, Helicopter Pilots, and Prop/Turboprop Pilots)



Pilot Diagrams & Brochures

(Jet and Propeller Pilots)



Noise Abatement Procedures

evaluates adherence of individual flights with noise abatement procedures summarized in this handout.

Pilots are encouraged to contact FXE either before or after flights to request noise and track reports on their operations. Experienced pilots have found this feedback to be very useful in improving their noise abatement performance.

1. Preferential Runway Use

- Jet aircraft, 24-hours:** Pilots of jet aircraft are requested to voluntarily refrain from use of Runway 13/31 unless Runway 8/26 is unavailable.
- All aircraft, 10 pm - 7 am:** Preferential departure runway is 26; preferential arrival runway is 08.
- All aircraft, 10 pm - 7 am:** Runway 13/31 is closed at night, unless Runway 08/26 is closed for emergencies or maintenance.

2. Touch-and-go operations and practice approaches

Pilots are requested to voluntarily curtail touch-and-go operations and practice approaches from 10 pm to 7 am, and on weekends, and holidays.

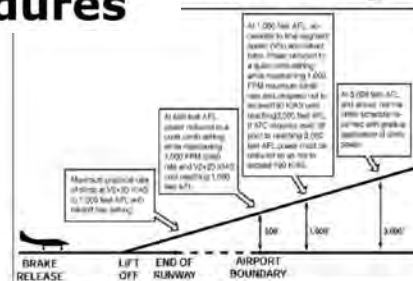
3. Runway 26 Departures

Unless otherwise instructed by FAA, pilots are requested to maintain runway heading until crossing NW 31st Ave. (approx. 0.4 NM west of airport), then turn right to a heading of 310°.

AA, pilots are requested to voluntarily execute north or west, 7 am - 11 pm, 11 pm - 7 am. 330° heading. Initiate turn about I-95 and turn to the east or west. North or west, 24-hours. 310° heading. Initiate turn about I-95 and turn to the east or west. Following I-95 turn waypoints are provided for jets: N - 80° 09' 09.25"W 26° 12' 36.22"N - 80° 08' 28.05"W 26° 13' 12.81"N - 80° 08' 19.59"W S Ave. 26° 13' 47.61"N - 80° 08' 31.13"W to 090° or as instructed by ATC.

4. Departure Procedures

follow the NBAA or aircraft manufacturer's procedure. The NBAA procedure information is available at www.nbaa.org.



Fort Lauderdale Executive Airport

Noise Abatement for Propeller Pilots

Turboprop & Piston aircraft



Phone: 954-828-4955
Email: airport@fortlauderdale.gov
Website: www.fortlauderdale.gov/fxe

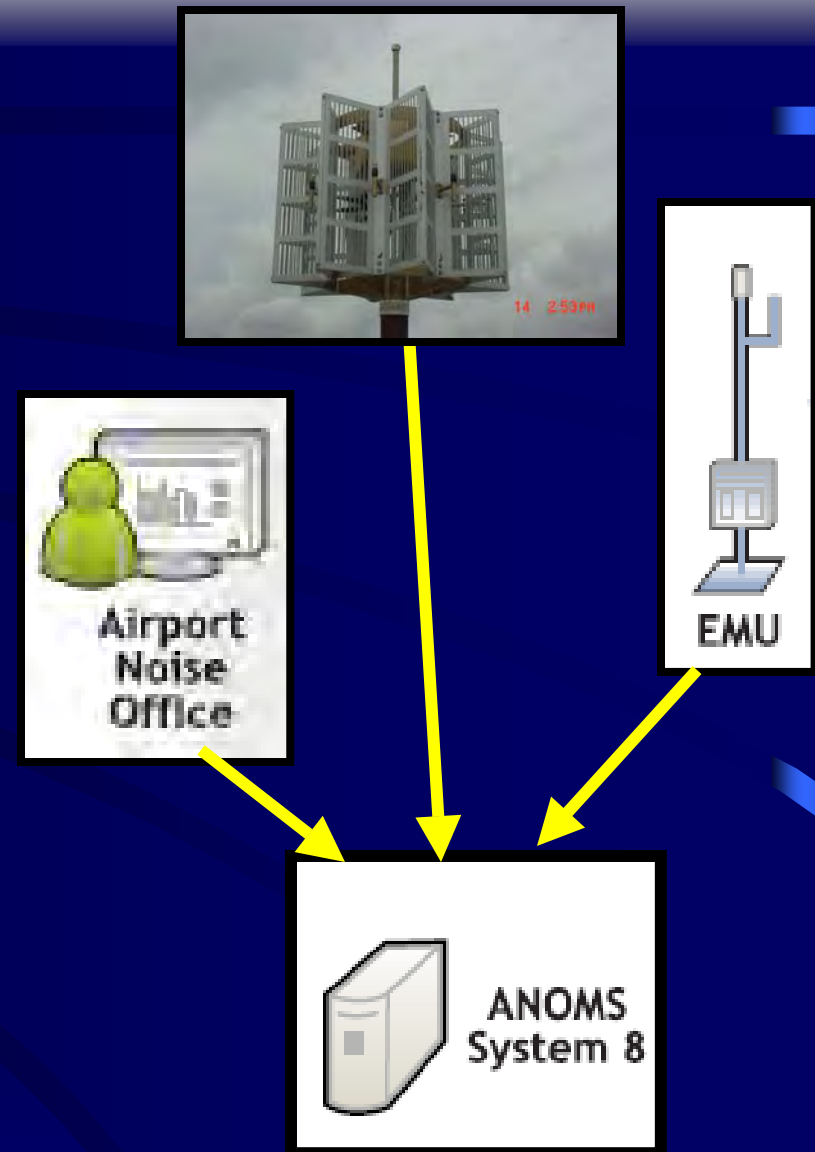
Identified User Defined GPS Waypoints



Noise Monitoring System

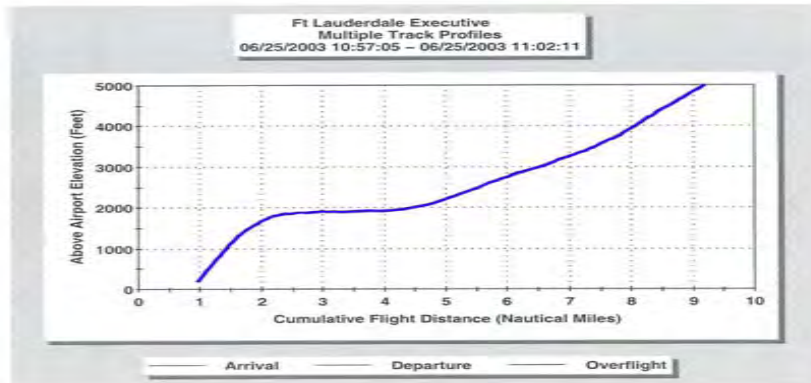
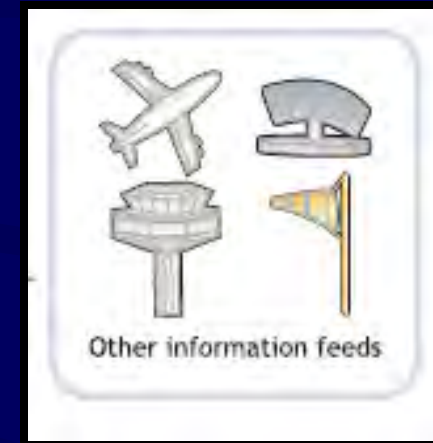
(Airport Noise & Operations Monitoring System)

- **Passive Radar (Mode S radar)** – captures aircraft information from aircraft transponders, which is downloaded into the system – aircraft tail number, flight number, aircraft type, transponder code, airspeed, and flight altitude
- **Noise Abatement Hotline** receives calls and noise reports. Staff inputs information into the system and performs follow-up
- **Noise Monitor Terminals (NMT)** – Six (6) permanent noise monitors - microphone capture noise events and analyzers collect times and calculates noise levels and modem to download data into the ANOMS.
- **ANOMS software** - creates flight tracks from information collected from PASSUR and matches to noise as well as matching to caller and noise event.



PASSUR Antenna Passive Radar (and Mode S)

PASSUR antenna captures the aircraft identification such as tail number, flight number, aircraft type and altitude from aircraft with transponders with Mode S



PASSUR data is downloaded nightly into ANOMS software which is used to generate flight tracks and performance profiles.

Noise Monitor

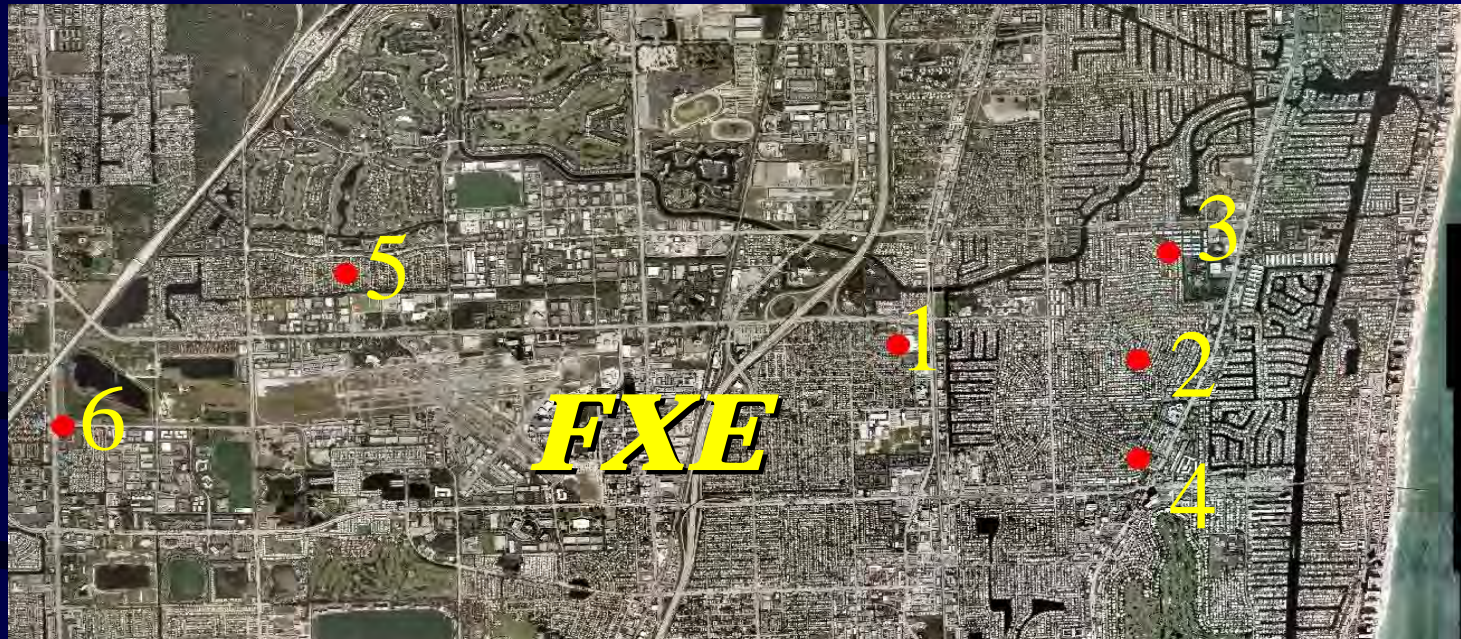
Remote Monitor Terminals (RMT)

- Microphone
- Analyzer – collects
 - Date
 - Time
 - Sound levels (dB Lmax)
 - Durations of sound
- Dial-up Modem
- Power Backup Battery

RMT data is downloaded nightly into the ANOMS database.



Noise Monitor Locations and Distances



Monitor Distance From Runway Departure End

- #1 1.7 SM from departure end of Runway 8 (NE 9th Ave - south of Rickards Middle School)
- #2 3.0 SM from departure end of Runway 8 (NE 21 Ln & NE 61 St, north of Imperial Drive)
- #3 3.0 SM from departure end of Runway 8 (NE 21 Rd & NE 67 St - west of Imperial Pt Hosp.)
- #4 3.0 SM from departure end of Runway 8 (NE 53 St & NE 22 Ave - south of CRPC)
- #5 0.7 SM from departure end of Runway 31 (NW 68 St & NW 29 Ln in Palm Aire Village)
- #6 1.4 SM from departure end of Runway 26 (SR7/US441 and Prospect Rd - northeast corner)

ANOMS

File Map Reports Browsers Data Input Help

Map Browser

Latitude: 26.217075 Longitude: -80.138609 Range: 12890.2 feet

Target Details
 Altitude (feet): 1499
 Ground Speed (knots): 157.5
 Latitude/Longitude: 26.216993/-80.138513
 Date/Time: 8/1/2005 7:18:26 AM

Target Details
 Altitude (feet): 1250
 Ground Speed (knots): 157.5
 Latitude/Longitude: 26.205072/-80.143292
 Date/Time: 8/1/2005 7:18:07 AM

Arr Dep

- Ft Lauderdale International
- Ft Lauderdale Executive
- Pompano Beach Airpark
- Overflights

Complaints Browser

Event Date/Time	Corr ID	Last Name	First Name	Address
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Noise Events Browser

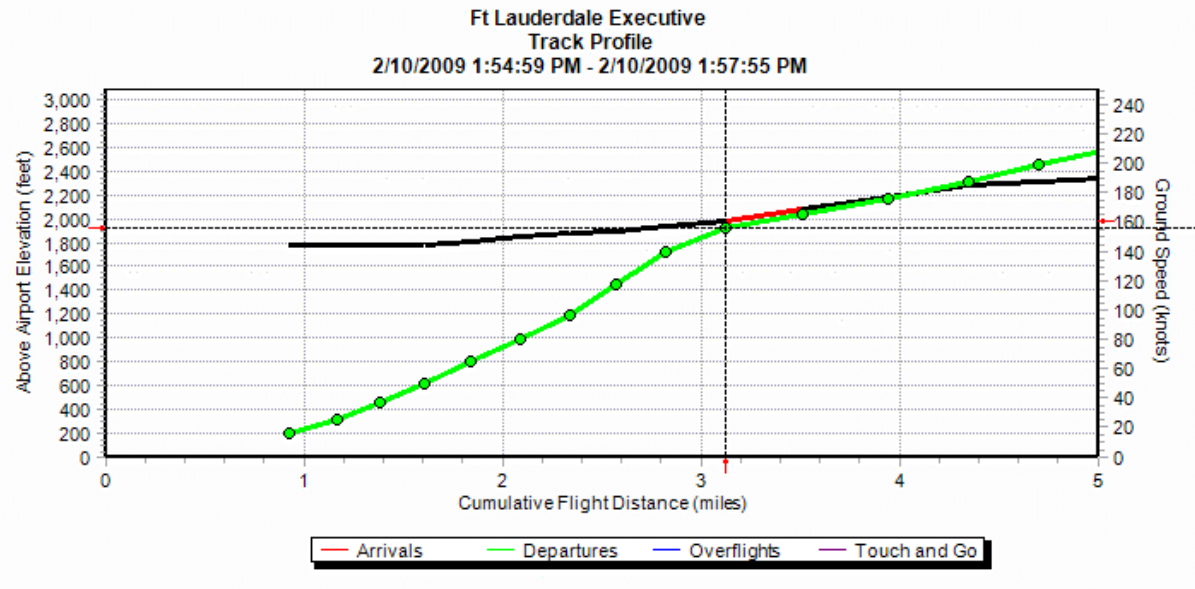
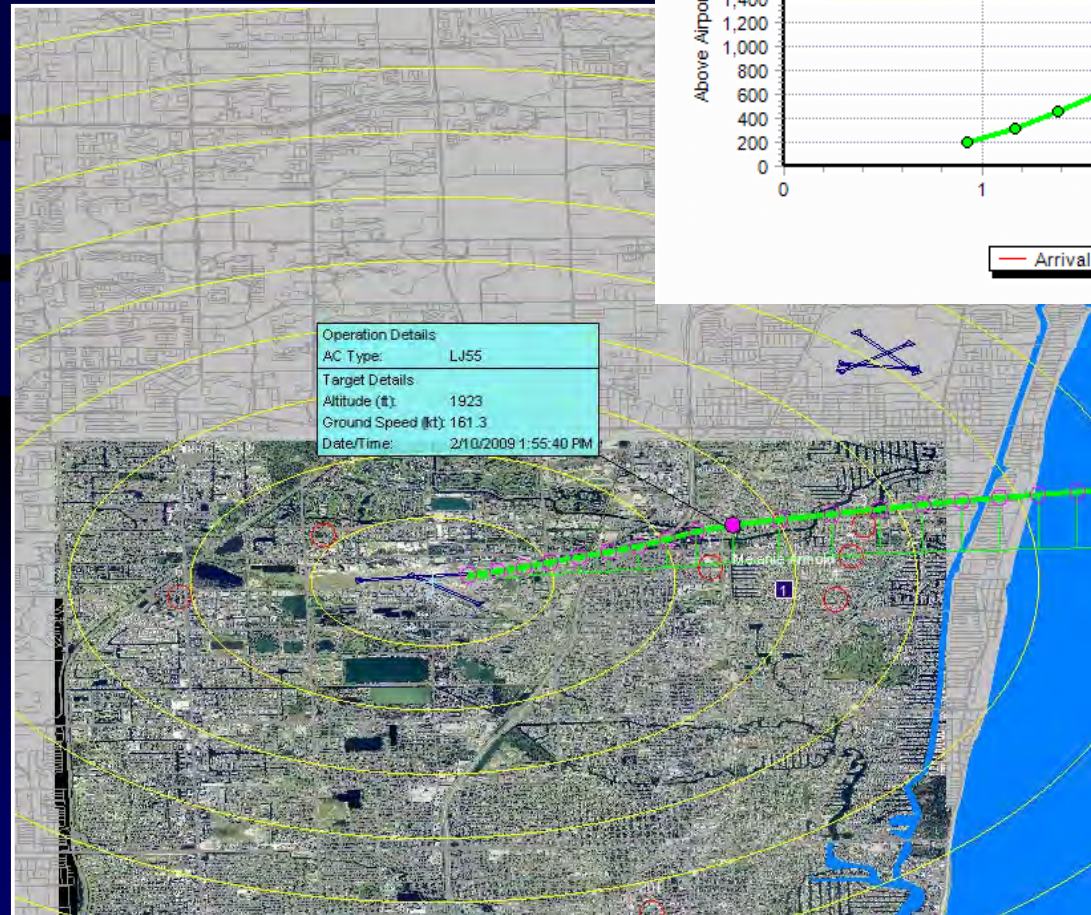
Start Date/Time	Corr ID	Loc ID	Sel	LMax	Duration
8/1/2005 7:15:04 AM	1227383	3	83.7	73.1	24
8/1/2005 7:16:47 AM	0	6	81.6	72.5	19
8/1/2005 7:17:18 AM	1227083	5	90.2	80.6	39
8/1/2005 7:17:40 AM	0	6	82.6	73.8	20
8/1/2005 7:18:08 AM	1227083	1	80.9	72.5	13
8/1/2005 7:19:51 AM	0	6	89.5	79.8	47
8/1/2005 7:21:23 AM	0	3	84.4	72.6	26

Operations Browser

Actual Date/Time	Corr ID	Tail No	Aircraf	Flight	O	Runway	Beacon	Airport
8/1/2005 7:13:44 AM	0	N451ST	L345	-	D	08	2117	FXE
8/1/2005 7:14:40 AM	0	-	B733	COA40	D	NONE	2320	-
8/1/2005 7:16:24 AM	0	-	-	-	O	NONE	2321	-
8/1/2005 7:17:35 AM	1227083	N300SC	25D	-	D	08	3757	FXE
8/1/2005 7:18:13 AM	0	-	E120	GFT92	D	NONE	4727	-
8/1/2005 7:18:49 AM	0	-	B738	DAL12	D	NONE	2355	-
8/1/2005 7:19:40 AM	0	N451ST	L345	-	D	08	2117	FXE

start ANOMS 8 Document1 - Microsof... 10:38 AM

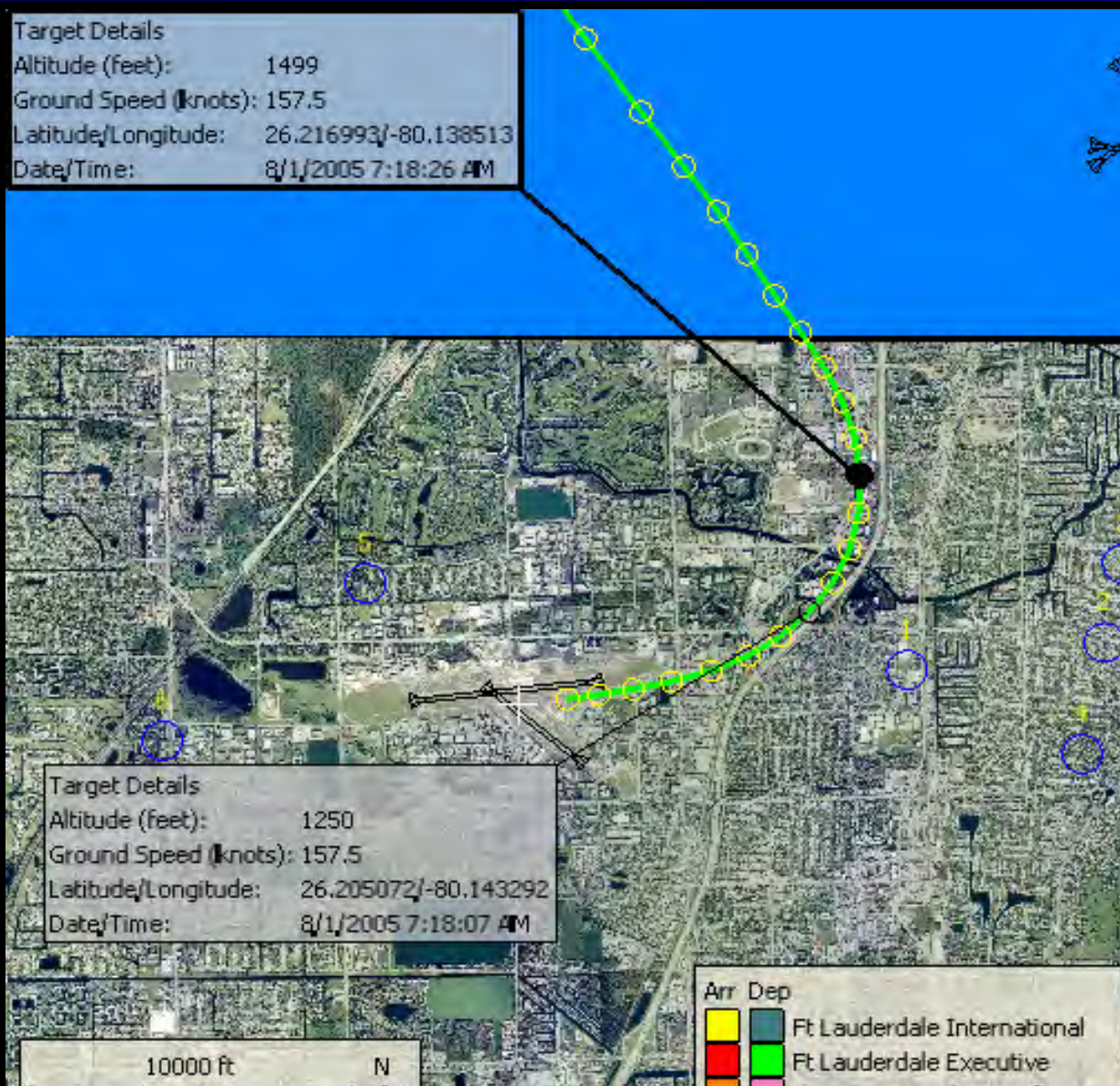
Flight Track and Profile Graph



Flight Track Information

- Flight Path/Direction
- Speed
- Altitude

I-95 Turn – Good Example



Runway 26 Departures – Perfect Turnpike Turn



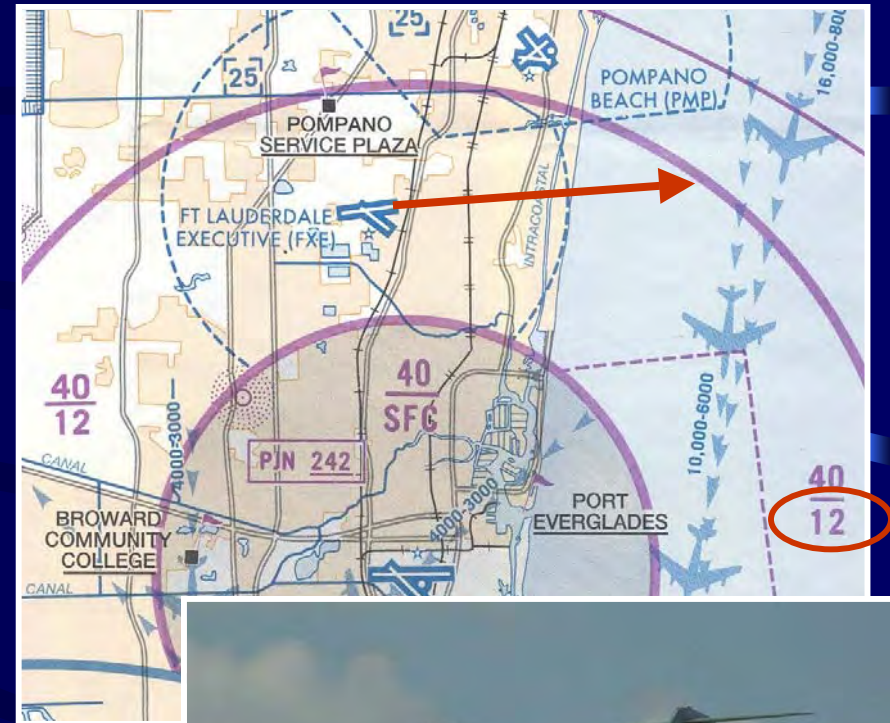
Seasonal Noise Reporting – Winter & Spring

1. With cooler temperatures, windows are open
2. With cooler temperatures, air conditioners are turned off
3. More people and aircraft come to south Florida during the mild-Florida winter and spring climate
4. Cold fronts shift winds out of the north and west, causing more aircraft to arrive from the east and departures to the west using Runway 26.
5. More Noise Abatement Hotline calls during the winter and spring months



Low Flying Aircraft

- Many residents report that the aircraft are flying “TOO LOW” over their homes.
- Approaching aircraft are usually lower than departing aircraft.
- The appearance of the low altitude may be relative to the noise and size of the aircraft.
- If an aircraft is low, the perception is that the aircraft is unsafe.



Pilots Helping to Reduce Noise

- As you fly safely, remember to follow Noise Abatement Procedures
- During preflight preparation, review Noise Abatement Procedures
- Follow aircraft manufacturer's Noise Abatement Performance Procedures
- Continue to help inform other pilots about the importance of following Noise Abatement procedures to and from FXE
- Maintain the highest and safest altitudes possible over residential areas
- Avoid training/ repetitive flight activity over residential areas
- Avoid flight between 10:00 p.m. and 7:00 a.m.
- Perform the I-95 Turn when departing Runway 8 when possible
- Fly to the Turnpike before turning when departing Runway 26
- Share Comments with FXE Staff about Our Noise Abatement Program and Procedures fstraugh@fortlauderdale.gov

Helicopter Pilot Diagram & Educations

*Use and promote Industry-established programs



“FLY NEIGHBORLY” – HAI

Established in the late 1970's

Noise Abatement Chapter 1: Introduction to Noise Abatement

Failure to be Proactive can lead to:

- Community Unrest
- Community Action Groups
- Local Ordinances
- Fines
- Civil Litigation
- Airport/Heliport Closures
- Increased Federal Regulation
- Legislation
- Severe Operating Restrictions
- ???

Topic 1 of 3: Introduction Page 4 of 5

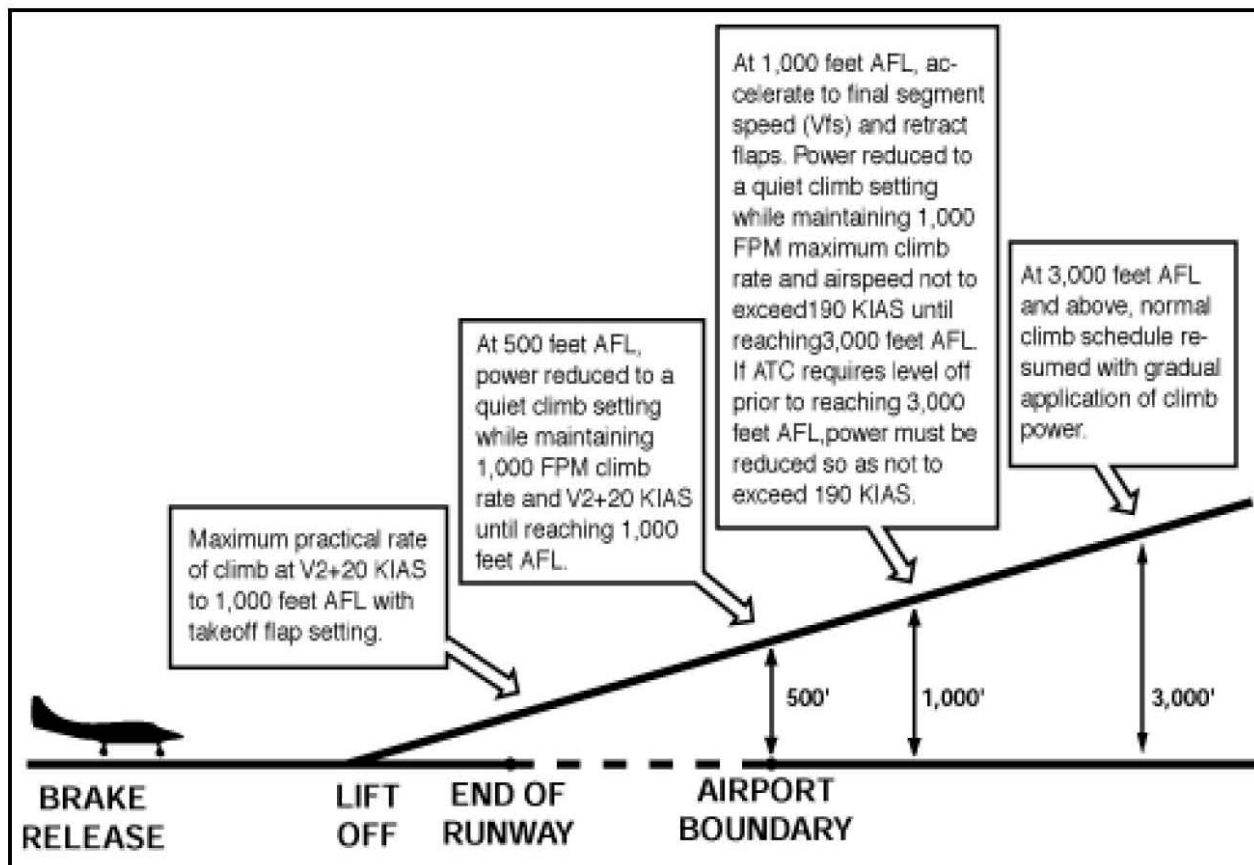
The complex block is a screenshot of a software interface. At the top, it says "FLY NEIGHBORLY" – HAI, established in the late 1970's. Below that is a navigation bar with "Noise Abatement" and "Chapter 1: Introduction to Noise Abatement". There are buttons for "TOPIC MENU", "GLOSSARY", "HELP", and "EXIT". The main content area features a helicopter icon and a list of consequences of not being proactive: Community Unrest, Community Action Groups, Local Ordinances, Fines, Civil Litigation, Airport/Heliport Closures, Increased Federal Regulation, Legislation, Severe Operating Restrictions, and ????. At the bottom, it says "Topic 1 of 3: Introduction" and "Page 4 of 5".

HAI's Fly Neighborly Program has been in existence since the late 1970s.

“Quiet Flying is Good Business” - NBAA

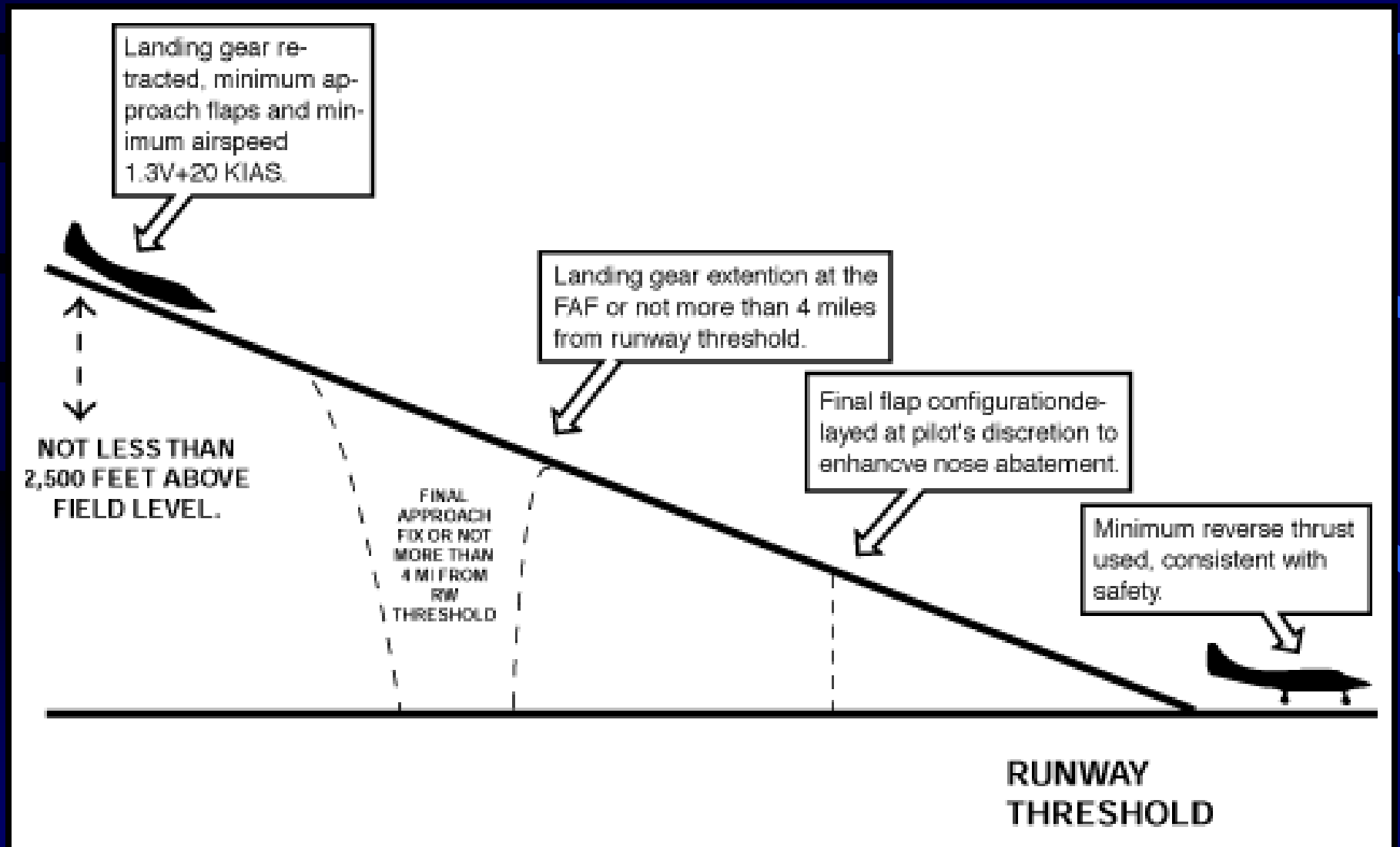
5. Jet Noise Abatement Departure Procedures

Jets are requested to voluntarily follow the NBAA or aircraft manufacturers' close-in noise abatement departure procedure. The NBAA procedure is summarized below (Further information is available at www.nbaa.org.)



NBAA's Noise Abatement Program has been in existence since 1967.

NBAA Approach and Landing Procedure VFR & IFR



Runway Safety

- Know the new ICAO Runway Incursion definition adopted by FAA
- Use a airport diagram
- Avoid distractions
- Read back hold short instructions
- Ask for progressive instructions when in doubt
- Scan in all directions before entering an intersection
- <http://flash.aopa.org/asf/runwaySafety/>
- AOPA Air Safety Foundation Seminar – February 7th, 2010 at War Memorial 7pm-9pm



Current Initiatives

1. Airport Noise Abatement Consultant
 - Quarterly Presentations to Board
 - Replacement of Aging Noise Monitors
 - Helicopter Noise Analysis
2. Online Monitoring of Flight Tracks (Completed)
3. Online Aircraft Noise Reporting Form (Completed)
4. Outreach to Pilots & Citizens (on going)

The City is committed to taking all reasonable steps to maximize the effectiveness of noise abatement measures, including re-evaluation, education, publicity, reporting, and outreach, etc.

