

**RECORD OF APPROVAL
FORT LAUDERDALE EXECUTIVE AIRPORT
FORT LAUDERDALE, FLORIDA**

The approvals listed herein include approvals of actions that the airport recommends be taken by the Federal Aviation Administration (FAA). It should be noted that these approvals indicate only that the actions would, if implemented, be consistent with the purposes of Part 150. The FAA has provided technical advice and assistance to the airport to ensure that the operational elements are feasible, including determining whether they reduce the level of aviation safety or adversely affect the efficient use and management of the navigable airspace and air traffic control systems (see 14 CFR 150.23(c) and 150.35). These approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation of measures in this ROA will be subject to applicable environmental or other procedures or requirements.

The operational (13) and land use control (14) measures below (reference Chapter 9 of the NCP) summarize as closely as possible the airport operator's recommendations in the Noise Compatibility Program (NCP) and are cross-referenced to the program. The statements contained within the summarized operational and land use control measures and before the indicated FAA approval, disapproval, or other determination do not represent the opinions or decisions of the FAA.

OPERATIONAL MEASURES

1. Restriction of jet use of Runway 13/31

The City requests that the FAA amend the existing voluntary limitation of jet use of Runway 13/31 to implement it as a formal preferential runway program element. This program element is appropriate because there are residential areas closer to the ends of this runway than to the ends of Runway 08/26. Formalizing the procedure is expected to reduce jet use on Runways 13 and 31 by an additional 2 to 3 percent for both daytime and nighttime hours. (NCP, pages 63, 98, 123; 175, and Table 22)

FAA Action: Disapproved as to formalizing the procedure; continuation of the current procedure on a voluntary basis is approved. The recommendation to formalize the restriction is disapproved because Runway 13/31 would have to be available for operations should Runway 8/26 be closed. Also, it is not clear from the NCP just how much of the noise benefit, described in Table 22 for a combination of three proposed formal preferential procedures, is derived from formalizing this measure.

This procedure may continue on a voluntary basis as traffic, weather, and airspace safety and efficiency permit. The previous Part 150 study and Record of Approval summarized this measure's benefits, when implemented as voluntary, as follows: *"The elimination of this measure would dramatically increase direct jet overflights of the close-in residential areas under the extended centerlines of runways at the airport, in areas where jet operations currently are rare. Increased jet use would almost certainly result in a vigorous community reaction."*

2. Extension of upwind leg for Runway 31 departures out to the Turnpike.

The City will continue to request that pilots delay turns to crosswind or on course until crossing this visual reference. There is no change proposed to the measure approved by the FAA in 1997 (NCP, pages 64, 176)

FAA Action: Disapproved. The FAA objects to this measure because it may impact aircraft operational safety and efficiency. VFR aircraft in the traffic pattern for Runway 31 must be able to turn crosswind before reaching the Turnpike in order to run a safe and efficient traffic pattern. In addition, continuation of this existing measure is disapproved due to significant increase in air traffic in the area from many airports. The air traffic controllers need to be able to turn aircraft as soon as possible and cannot be required to place aircraft in a prescribed flight path with the significant increase in air traffic around FXE.

3. Voluntary use of turbojet noise abatement departure profiles

The City will continue to request that pilots use National Business Aviation Association (NBAA) and manufacturers' turbojet noise abatement departure profiles. This program element must be voluntary, because the pilot in command of the aircraft has the ultimate responsibility for safe aircraft operation. No third party (including the FAA or the City) can dictate cockpit procedures. (NCP, pages 64, 147-148, 176; Figure 50)

FAA Action: Approved as a continuing voluntary measure.

4. Runway 26 departure heading

Pilots currently are requested to initiate a turn to 310° after crossing NW 31st Avenue (visual conditions) or after passing the Runway 8 middle marker (instrument conditions). The City requests that FAA amend this procedure to implement it on a formal basis, so that it applies to all non-emergency operations (wind, weather, and traffic permitting). The FAA is decommissioning the middle marker. Therefore, the City also requests that the FAA continue the operation of the middle marker as an electronic reference or "turn marker". (NCP, pages 64, 103; Figure 38)

FAA Action: Disapproved as to formalizing the procedure; continuation of the current procedure on a voluntary basis is approved, for VFR traffic only, as traffic, weather, and airspace safety and efficiency permit.

Formalizing this procedure is disapproved because there is no instrument approach to Runway 26, and aircraft are required to fly an ILS approach to Runway 8. This opposite direction operation requires that departing aircraft on Runway 26 turn as soon as possible for safety purposes. For clarification purposes, the Runway 26 departure heading was changed to 315° due to magnetic variation and the opposite-direction departure separation requirement of 45°. The FAA does not currently initiate a turn after crossing NW 31st Avenue/Runway 8 middle marker. Adherence to this procedure is voluntary on the part of the pilot. The Part 150 study approved in 1997 stated “This measure reduces the population within the 65 dB Ldn noise contour by 631 people.”

The FAA will not continue to use the middle marker as an electronic reference. As an alternative to using the MM, the airport sponsor may contact the FAA to determine whether the use of Distance Measuring Equipment (DME) may be an appropriate substitute for the electronic reference.

5. Evening and night (8 p.m. to 7 a.m.) implementation of “Quiet One” departure procedure on a formal basis

Pilots of eastbound and southbound aircraft currently are requested to use the “Quiet One” departure procedure (a climbing left 360° turn to a heading of 090°) on a voluntary basis at night (10 p.m. to 7 a.m.) in visual conditions. The City requests that the FAA amend this procedure to implement it on a formal basis, and to extend the effective hours to run from 8 p.m. to 7 a.m. This procedure is implemented at pilot request only, with ATCT approval. No change is proposed. (NCP, pages 64, 103, 176)

FAA Action: Disapproved as to formalizing the procedure and continuation of the current procedure on a voluntary basis, as it allows for uncontrolled turns in IFR airspace in a very congested area. This measure was previously approved as voluntary in 1997 for the nighttime timeframe. It is being disapproved at this time because of the significant increase in air traffic in the area. The concern is that the controllers need to be able to turn aircraft as soon as possible to get them out of the way. (See Measure 10, below, for a similar operational procedure, approved as voluntary.)

6. Night (10 p.m. to 7 a.m.) implementation of “Quiet One” departure procedure on a formal basis

If the FAA disapproves the preceding formal implementation of the “Quiet One” procedure with hours extended to run from 8 p.m. to 7 a.m., the City requests that the FAA approve the procedure on a formal basis effective from 10 p.m. to 7 a.m. in visual conditions. (NCP, pages 64, 103, 176)

FAA Action: Disapproved as to formalizing the procedure and continuation of the current procedure on a voluntary basis, as it allows for uncontrolled turns in IFR airspace in a very congested area. This measure was previously approved as voluntary in 1997 for the nighttime timeframe. It is being disapproved at this time because of the significant increase in air traffic in the area. The concern is that the controllers need to be able to turn aircraft as soon as possible to get them out of the way. (See Measure 10, below, for a similar operational procedure, approved as voluntary.) Formalizing the turn could place a large number of VFR flights into congested IFR airspace.

7. Support of airport perimeter development as a noise barrier

This measure is a continuation of a measure approved by the FAA in 1997. It calls for the City to continue to work with airport tenants to implement this measure as part of any proposed development on the airport perimeter. The structures would be placed in such a manner that they can act as noise barriers addressing aircraft taxi operations for neighboring residences. (NCP, pages 65, 148, 177)

FAA Action: Approved as a continuing measure. The airport sponsor has included this recommendation in past NCP studies. The intent of the measure is to promote good placement of facilities built on airport property in a manner that would use the building as a buffer to minimize airport ground-based noise on nearby residences. Any building construction on the airport would be required to comply with applicable Federal requirements.

8. Restriction of maintenance runups 7 p.m. through 7 a.m. at the runup pad

The existing NCP includes a restriction that is formally codified in the Aviation section of the Fort Lauderdale City Code. This ordinance restricts the time and location of maintenance runups. No maintenance runups are allowed between 7:00 p.m. and 7:00 a.m. All maintenance runups are limited to a location designated by the ATCT. The designated runup pad is at the decommissioned compass rose located near the southeast corner of the intersection of Runways 8/26 and 13/31. (NCP, pages 65, 151, 177)

FAA Action: Approved as a continuing measure. This measure has been approved by the FAA in past NCPs and has eliminated complaints from nearby residences about ground run-up noise. Figure 53 shows that placement of the run-up area is close to land uses designated as manufacturing and production.

9. Nighttime preference for Runway 26 departures and Runway 08 arrivals, for all aircraft

This measure maximizes operations over the less developed areas west of the airport. This bi-directional runway use is feasible at night because winds are calmer, operations levels are lower at night, and the ATCT is open all night, ensuring the safe and optimal use of the procedure. The city makes an annual payment out of airport funds to staff the ATCT at night to permit implementation of this measure and to maximize the effectiveness of other nighttime measures. The City requests that the FAA amend this measure to implement it as a formal preferential runway program element. (NCP, pages 63, 98, 122, 178; and Table 22)

FAA Action: Disapproved as a mandatory formalized procedure; continuing this measure on a voluntary basis, when wind weather, and airspace safety and efficiency permit is approved. Formal implementation of this procedure is disapproved. The noise abatement flight path is infrequently used, and initiated only upon pilot request. This opposite direction operation requires that departing aircraft on Runway 26 turn as soon as possible for safety purposes. Opposite direction operations on the same runway lower the margin of safety.

The current NCP shows that Runway 26 nighttime departures are carried out about 55 percent of the time by jet aircraft, and 35 percent of the time for propeller aircraft. Runway 8 nighttime arrivals by jets occur approximately 70 percent of the time and approximately 60 percent of the time by propeller aircraft. The present nighttime departure rate is an improvement over the base case runway use reported when the measure was originally recommended in the mid-1980's (20 percent for all operations). The 1997 NCP stated: "This measure results in a reduction of 31 people within the 65 dB Ldn noise contour and operates in conjunction with the noise abatement flight path for Runway 26 departures (turn to a heading of 310 degrees)." (*See Measure 4 in this Record of Approval.*)

10. Runway 08 departure heading

Presently turbojets with destinations other than eastbound are assigned heading 330 degrees, and non-eastbound propeller aircraft are assigned 300 degrees, with instructions to initiate turns abeam of I-95. All eastbound departures are assigned heading 090. The City requests that the FAA amend the existing I-95 turn as a mandatory, formal instrument procedure under FAA radar control, applicable to all aircraft, wind, weather, and traffic permitting. A 90 degree heading would be assigned when required to avoid potentially unsafe traffic conflicts. (NCP, pages 64,103, 111, 117-118, 178; Figure 43; and Tables 18, and 33)

FAA Action: Disapproved as a mandatory, formal instrument procedure; approved as a continuation of an existing voluntary measure when traffic,

weather, and airspace safety and efficiency permit between the hours of 11 p.m. and 7 a.m. This measure is disapproved as a mandatory, formal instrument procedure. Air traffic has significantly increased in this corridor since the 1997 approval of the voluntary procedure. Formalizing this departure procedure by turning all turbojet aircraft on this heading creates a safety issue due to the air traffic congestion in the south Florida area when traffic is other than light.

The Letter of Agreement between the Miami ATCT and FXE ATCT was revised August 1, 2004, to require that ATCT assign a heading of 330° to all turbojet aircraft departing Runway 8 between the hours of 11:00 pm and 7 am (this excludes emergency Lifeguard flights). The measure may be extended at the discretion of ATCT to 8:00 a.m. if traffic, weather, and airspace safety and efficiency permit. The 1997 NCP stated: "The elimination of this procedure would approximately double the population within the 65 dB Ldn contour." The FAA approved the measure in 1997 as voluntary. This NCP states that without the existing measure in place, "the population within the contours more than doubles from 730 to 1801, clearly indicating the effectiveness of this existing measure." The VFR turn abeam I-95 is voluntary on the part of the pilot and ATCT does not issue turns abeam I-95.

11. Restriction of night, weekend, and holiday touch-and-go operations and practice approaches on a voluntary basis

Expand the existing voluntary night (10 p.m. to 7 a.m.) touch-and-go restriction to encompass touch-and-go and practice-approach training operations at night, and on a 24-hour basis on weekends and City holidays. This measure is predicted to reduce the number of people within the 65 DNL noise contour from 730 to 700. (NCP, pages 65, 127-131, 178; Figure 46; Tables 25, 26, and Table 33)

FAA Action: Approved as a voluntary measure.

12. Raise the approach slope on all runway ends to 3.5°

This measure calls for raising the Runway 8 approach slope to 3.5°. It also requires the City to raise the PAPI angles to 3.5 degrees on all runway ends, with FAA approval. The city would publicize these changes. It should be noted that a glide slope angle above 3 degrees on a runway with an ILS such as Runway 8, is considered exceptional and requires special FAA approval. Figure 48 presents the resulting contours, which show contour shrinkage immediately under the extended runway centerlines. The population within the contours falls by an estimated 74 residents. (NCP, pages 139, 179; Figure 48, and Tables 28, 29, and 33)

FAA Action: Disapproved for purposes of FAR Part 150. FAA has not raised the approach slope for other than safety reasons, to maintain cockpit proficiency. Further,

at FXE, if the approach minimums were raised it would prohibit access to the airport by Category D aircraft due to the airport's runway length.

13. Future use restriction if implementation of operational measures does not meet objectives

The City will monitor the jet fleet mix, and implementation and effectiveness of noise abatement measures, to determine whether the projected retirement of non-Stage 3 jets, combined with operational measures, accomplishes two objectives: (1) eliminating residential and other potentially non-compatible land uses within the 65 DNL contour, and (2) eliminating all Runway 08 straight-out (090° heading) jet departures, with the exception of those required by emergency or safety conditions. If these objectives are not met, the City will initiate the analysis of use restriction options that might provide similar noise benefit. The scope of the study will include, but not be limited to: (1) restriction of Stage 1, or Stage 1 and 2 operations; (2) single event noise level limits; (3) night operating restrictions; and (4) feasible enforcement mechanisms and penalties for violations. (NCP, pages 143-147; Figure 49; and Tables 30, 31, and 33)

FAA Action: Approved for further study. Recommendations in this NCP for formalizing measures have not been approved due to potential impacts on efficient use and management of the navigable airspace and potential reduction in the level of aviation safety presently provided. Predicted reductions of impacts on the noise contour by formalizing these measures will, therefore, not be fully realized. There is no forecast year NEM without these formalized measures in place, so the population within the 2007 noise contour is not known (the forecast case 2007 noise contours include the noise abatement elements of the "operational composite case"). Implementing the approved measures within this ROA appears to provide a benefit by removing the DNL 65 dB noise contour from about 30 to 70 people (see Table 33, page 157). The 2002 base case shows that a total of 730 people reside within the DNL 65 dB noise contour. It should be noted that FAA will not accept as justification for an airport noise or access restriction new noncompatible development that occurs within the airport's published NEM contours.

LAND USE MEASURES

Based on the projection that there will be no noncompatible land uses within the DNL 65 dB noise contour in 2007, with implementation of the noise abatement elements of this revised NCP, no new land use measures are recommended. It is recommended that the revised NCP continue to include the existing compatible land use measures to prevent development of new noncompatible uses to the extent feasible. (NCP, page 167)

1. Rezoning noncompatible property as opportunity arises

City staff members continue to monitor areas within existing and forecast NEM to identify opportunities for rezoning. The very limited noncompatible areas of land within the contours and the highly developed nature of those areas limit opportunities. (NCP, pages 65, 167)

FAA Action: Approved as a continuing measure.

2. Local jurisdictions to incorporate noise requirements into development control

The City has requested that local jurisdictions adopt the noise requirements on a case-by-case basis. (NCP, pages 65, 167, 180)

FAA Action: Approved as a continuing measure.

3. Voluntary fair disclosure by real estate agents

This measure is an informal educational effort. Information is disseminated through newsletters and presentations to all the local governments in the area as well as realtors, other businessmen and residents. The community Advisory Committee also serves as an ongoing conduit of revised noise-related information. (NCP, pages 65, 167, 180)

FAA Action: Approved as a continuing measure.

4. Monitor noise to determine exact extent of contour into residential area

The City installed permanent noise monitor number 6 in Village Park Mobile Home Park (NCP, pages 66, 167, 180; Figure 54)

FAA Action: No action required. This measure was approved by the FAA in the 1997 NCP, and the City has implemented the action.

5. Noise Abatement Advisory Committee

The City will continue to implement this program element through the monthly meetings of the Aviation Advisory Board (AAB). The AAB receives a report on the NCP

implementation and status and statistics on compliance with noise abatement measures. (NCP, pages 66, 169, 180)

FAA Action: Approved as a continuing measure.

6. Noise Abatement Officer

Supplement part-time responsibilities of the FXE Airports Program Manager and Airports Programs Aide with addition of a dedicated “Noise Abatement Technician”, to focus on day-to-day and month-to-month responsibilities, and assist the more senior staff on specialized program requirements. This is a dedicated staff position for which the city will be responsible for the cost. (NCP pages 66, 171, 181)

FAA Action: Approved.

7. Permanent noise and operations monitoring system

The City proposes to implement enhancements to the existing ANOMS installation to ensure the system continues to provide appropriate monitoring coverage in a state-of-the-art fashion. The enhancements will include five additional permanent noise monitors, upgraded central computer hardware and software, and enhancements to the flight tracking and identification system to provide more specific aircraft identification through monitoring of Mode C transponder transmissions. The expanded geographic coverage and age of the system installation also justify an upgrade to the central ANOMS hardware and software. The current system is based on UNIX operating platform; modern systems are Windows-based. (NCP, pages 66, 171, 181)

FAA Action: Disapproved pending submission of additional information. Other than the location of one of the five proposed new monitors (under the Runway 13/31 extended centerline and identified as “B” in the 2002 NEM Figure 53), the documentation does not show where these new monitors will be located within the official NEM noise contours. Measures submitted in a NCP for approval must be located within the sponsor’s NEM contour (14 C.F.R. Part 150, section 150.23(e), and 49 U.S.C. section 47504(a)(2)) and must otherwise be shown to satisfy Part 150 approval requirements.

8. Public information program

The FXE staff and other City staff provide regular reports to the AAB, and ad hoc reports to other interested groups as requested. (NCP, pages 66, 172, 181)

FAA Action: Approved as a continuing measure.

9. Airfield noise abatement advisory signs

The City has installed noise abatement signage at key locations on the airfield, notifying pilots of major noise abatement concerns. No additional or modified signage is required at this time. However, any such new or modified signage would be eligible for up to 90 percent FAA and 5 percent FDOT grants. (NCP, pages 67, 172, 182)

FAA Action: Disapproved. The NCP states that no additional or modified signs are required at this time, so this measure is not a necessary element of this NCP. Signs must not be construed as mandatory air traffic procedures. The content and location of airfield signs are subject to specific approval by appropriate FAA officials outside of the FAR Part 150 process and are not approved in advance by this determination.

10. Pilot manual noise abatement insert

The City prepares and distributes a revised pilot noise abatement handout in a format that is compatible with a Jeppesen-sanderson manual. Following the FAA's review and approval of this NCP, the City should revise the existing insert to reflect program changes and redistribute it to pilots, FBOs, and other operators. (NCP, pages 67, 172, 182)

FAA Action: Approved as a continuing measure. Language in revised inserts should accurately reflect FAA actions on this revised NCP. Inserts must not be construed as mandatory air traffic procedures. The content of the inserts are subject to specific approval by appropriate FAA officials outside of the FAR Part 150 process and are not approved in advance by this determination.

11. NEM/NCP review and revision

The City will continue existing NEM and NCP review and revision practices, as necessary. The City will also update the NCP, if made necessary by NEM revision. The city utilizes information from a variety of sources to monitor the accuracy of the NEMs and the effectiveness of the NCP, including: ANOMS monitoring, citizen reports, FAA ATCT traffic counts. The city uses these sources to determine if operations have changed sufficiently to require an NEM update (e.g., difference of more than 15 percent in operations, or if new noncompatible uses due to changes in operations, or if the NCP requires a revision). (NCP, pages 67, 172, 182)

FAA Action: Approved.

12. ATIS noise abatement advisory

The City will continue to request incorporation of noise abatement advisory information on the ATIS recording. (NCP, pages 67, 173, 182)

FAA Action: Disapproved. Revised Order 7110.65, Air Traffic Control, no longer provides for noise abatement advisories. Noise abatement advisories may be published in the Airport Facilities Directory and pilot handouts.

13. Achievements in Community Excellence (ACE) awards

The City will continue to provide Achievements in Community Excellence (ACE) awards program to encourage aircraft operators, through a program of positive recognition, to comply with the NCP noise abatement elements to the maximum feasible extent. The city has provided ACE awards to ten different companies since 1998. (NCP, pages 67, 173, 183)

FAA Action: Approved as a continuing measure.

14. Pilot Noise Abatement Workshops

The City will continue to hold these sessions, as another mechanism for publicizing noise abatement measures, goals, and implementation status, and for educating pilots. The city has organized and conducted several workshops, two or three times a year. (NCP, pages 67, 173, 183)

FAA Action: Approved as a continuing measure.