

**Federal Aviation Administration** 

#### Memorandum

Subject: ACTION: Noise Compatibility Program for

Worcester Municipal Airport, Worcester, MA

Date: Dec. 29, 1993

Reply to Attn. of:

From: Director, Office of Airport Planning and

Programming, APP-1

To: Assistant Administrator for Airports, ARP-1

Attached for your action is a supplement to the Noise Compatibility Program (NCP) submitted under Part 150 for Worcester Municipal Airport, Massachusetts. The New England Region, in conjunction with FAA headquarters, has evaluated the NCP and recommends action as set forth below.

On september 14, 1992, the FAA approved the NCP for the Worcester Municipal Airport. In FAA's overall approval of the NCP, no action was taken (pending submission of supplemental information) on two measures.

Following subsequent coordination of the New England Region Airports Division (ANE-600) with APP-600 and the Worcester Airport commission, on May 10, 1993, the Commission forwarded additional information for the two portions of the program relating to flight procedures that were not approved. These were (1) changes to runway 33 departure procedures and (2) a preferential runway use program for runways 11, 29, and 33.

The additional information submitted by the Commission has been reviewed. The change to runway 33 departure procedures does not satisfy the Part 150 approval standards; it is recommended for disapproval for purposes of Part 150. The measure for preferential use of Runways 11, 29, and 33 under various operational conditions is consistent with the intent of the Aviation Safety and Noise Abatement Act of 1979 and meets the standards set forth in Part 150 for measures within such programs.

Supplemental information was submitted to clarify the portions of the NCP relating to flight procedures that were not approved. The FAA properly extended the review period for a reasonable period of time for these elements of the NCP pursuant to 14 CFR 150.35. Since the supplemental information does not change the airport's proposals in the NCP, it was not necessary to make a formal announcement of a 180-day review. The existing Record of Approval (ROA) may be amended without a public review and comment period. The supplemental ROA will become part of FAA's ROA decision for the Worcester NCP.

The Assistant Administrator for Policy, Planning and International Aviation and the Chief Counsel have concurred with the recommendation of the New England Region. If you agree with the recommended FAA determination, you should sign the "approve" line on the attached signature page. I recommend your approval.

Attachments

# RECORD OF APPROVAL WORCESTER MUNICIPAL AIRPORT SUPPLEMENT TO NOISE COMPATIBILITY PROGRAM

(ADDITIONAL INFORMATION RELATED TO NOISE ABATEMENT ELEMENTS 2.1.1, FLIGHT TRACKS, AND 2.1.2, PREFERENTIAL RUNWAY USE)

In FAA's overall approval of the Noise Compatibility Program (NCP) for Worcester Municipal Airport, Worcester, Massachusetts, on September 14, 1992, noise abatement element 2.1.1, Flight Tracks, was approved with exception and no action was taken on noise abatement element 2.1.2, Preferential Runway Use, pending the submission of supplemental information.

After several months of coordination between FAA New England Region and FAA Headquarters and the Worcester Airport Commission (WAC), on May 10, 1993, the WAC submitted additional information on these two noise abatement elements.

FAA's deferral, and final determination based on the additional information provided on May 10, 1993, are presented below. This supplement to the Record of Approval and the WAC's new information will become part of FAA's Record of Approval.

The approvals listed herein include approvals of an action that the airport sponsor (WAC) recommends be taken by the FAA. It should be noted that these approvals indicate only that the actions would, if implemented, be consistent with the purpose of Federal Aviation Regulation, Part 150. These approvals do not constitute a decision to implement the action. Later decisions concerning possible implementation of this action may be subject to applicable environmental or other procedures or requirements.

The recommendations in the Record of Approval summarize as closely as possible the airport sponsor's recommendations in the NCP, as supplemented by the sponsor's letter of May I0, 1993 and attached letter from Harris, Miller, Miller and Hanson, the sponsor's consultant. The statements contained within the summarized recommendations and before FAA's statements of approval, disapproval, or other determination do not represent the opinions or decisions of the FAA.

FAA DETERMINATION OF SEPTEMBER 14, 1992

- 2.1 Noise Abatement Elements
- 2.1.1 Flight Tracks. (Sections 2.1.2, 4.1.1, and 6.1.)

Runway 29: IFR departures would receive an initial departure clearance to 1800 feet MSL, then a left turn to 250 degrees for aircraft flight planned to the southwest. Aircraft flight planned to the west would continue the existing procedure direct to Chester (straight ahead). VFR departures to the south and west would be requested to turn left as soon as practical to a heading of 250 degrees, until past the Town of Spencer. VFR departures to the north and east would be requested to turn right to a heading of 360 degrees before reaching the abandoned Leicester airfield, until passing Asnebumskit Hill/radio tower. Touch-and-go pattern aircraft would be requested to turn left as soon as practical 90 degrees after takeoff, followed by a downwind leg over Lynde Brook Reservoir, and a turn to base leg well before Coes Pond.

Runway 11: IFR departures would receive an initial departure clearance to 160 degrees until two miles from the airport. VFR departures to the south and west would be requested to turn right as soon as practical to a heading of 160 degrees and overfly Coes Reservoir. VFR departures to the north and east would be requested to maintain runway heading until passing Lake Quinsigamond. Touch-and-go pattern aircraft would be requested to turn right as soon as practical to a heading of 200 degrees, overfly Lynde Brook Reservoir, and 3 turn from base to final when abeam the end of Runway 11 (traffic permitting).

Runway 33: VFR departures to the south and west would be requested to turn left as soon as practical to a heading of 250 degrees until past the Town of Spencer. VFR departures to the north and east would be requested to maintain runway heading until passing the abandoned Leicester Airfield, then a right turn to a heading of 360 degrees until east of Asnebumskit Hill/radio tower.

Approved with the exception of the departure procedure to the south and west from Runway 33. Although the FAA believes that overall noise benefits will accrue from this procedure, the airport operator's supporting Part 150 documentation needs to more clearly describe the effects of the procedure on noncompatible land uses within the contours of the noise exposure map. The FAA is not required to act on flight procedures within 180 days and invites the airport operator to submit supplemental information supporting this procedure. All approved flight procedures will serve to direct aircraft over less developed areas, minimizing overflights of residences in more densely populated areas.

#### FAA DETERMINATION - DEPARTURE PROCEDURE FOR RUNWAY 33

# 2.1 Noise Abatement Elements

2.1.1. Flight Tracks. (Sections 2.1.2., 4.1.1., and 6.1; Supplemental information from the airport operator submitted May 10, 1993)

Runway 33: VFR departures to the south and west would be requested to turn left as soon as practical to a heading of 250 degrees until past the Town of Spencer. VFR departures to the north and east would be requested to maintain runway heading until passing the abandoned Leicester Airfield, then a right turn to a heading of 360 degrees until east of Asnebumskit Hill radio tower.

Disapproved for Purposes of Part 150. This measure would provide relief on a single event basis to approximately 1,600 people which are located outside of the dB 60 DNL noise contour; there would be an increase in noise to a small number of people located within the dB 60 DNL contour. The airport operator designated the db 60 DNL contour as the area within which noncompatible uses were identified. Because there would be a decrease in noise in areas not designated as noncompatible at the expense of an increase in noise at locations identified as noncompatible on the Noise Exposure Maps, this measure does not meet FAA standards for reducing existing noncompatible land uses and/or preventing additional noncompatible land uses. Part 150 approval is not, however, a prerequisite to FAA approval of changes to flight procedures. The airport operator may, at any time, request that FAA implement flight procedure changes subject to review for air traffic safety and efficiency and subject to the completion of the appropriate environmental documentation under the requirements of the National Environmental Policy Act.

# FAA DETERMINATION OF SEPTEMBER 14, 1992

#### 2.1 Noise Abatement Elements

2.1.2 Preferential runway use. (Sections 2.2, 4.1.3, and 6.2.3). As wind conditions permit, this measure is comprised of preferential use of Runway 29 for departures and Runway 33 for arrivals, from 6 am to 7 pm; bidirectional use of Runway 29 for departures and Runway 11 for arrivals, from 7 pm to 10 pm; and preferential use of Runway 11 for night operations (10 pm to 6 am). Nighttime tower staffing, which would accommodate bidirectional runway use, was proposed during the study and considered infeasible by FAA. The airport is not now proposing this measure.

No Action Pending the Submission of Supplemental Information. Although the FAA believes that overall noise benefits would accrue from this measure, the airport operator's supporting Part 150 documentation needs to more clearly quantify the recommended preferential runway use program in terms of numbers of people and/or residences within the contours absent the preferential runway use program. Any disbenefits should be similarly documented. This information would be in addition to the DNL changes already indicated in the Part 150 program. The FAA is not required to act on flight procedures within 180 days and invites the airport operator to submit supplemental information supporting this recommendation.

Nighttime tower staffing, which would accommodate bidirectional runway use at night (i.e., after 10 p.m.), was proposed during the study and considered infeasible by FAA. The airport is not now proposing this measure.

#### FAA DETERMINATION - PREFERENTIAL RUNWAY USE

2.1.2 Preferential runway use. (Sections 2.2, 4.1.3, and 6.2.3). As wind conditions permit, this measure is comprised of preferential use of Runway 29 for departures and Runway 33 for arrivals, from 6 am to 7 pm; bidirectional use of Runway 29 for departures and Runway 11 for arrivals, from 7 pm to 10 pm; and preferential use of Runway 11 for night operations (10 pm to 6 am). Nighttime tower staffing, which would accommodate bidirectional runway use, was proposed during the study and considered infeasible by FAA. The airport is not now proposing this measure.

Approved. This measure is intended to be implemented along with the flight track proposals for Runways 11 and 29 that are described above in element 2.1.1, Flight Tracks. Both of these measures implemented together would decrease the population within DNL 60 from 574 residents to 485 residents (Figure 4.1). Of this net reduction of 89 residents, 39 live in Worcester, to the east of the airport, and 50 live in Leicester, to the west of the airport.

FEDERAL AVIATION ADMINISTMTION SUPPLEMENTAL RECORD OF APPROVAL FAR PART 150 NOISE COMPATIBILITY PROGRAM WORCESTER MUNICIPAL AIRPORT WORCESTER, MASSACHUSETTS

/S/

Assistant Administrator for Policy, Planning, and International Aviation, API-1

Date: 12/29/93

Concur X Nonconcur \_

/S/

Chief Counsel, AGC-1

Date: 12/29/98

Concur X Nonconcur

/S/

for Assistant Administrator For Airports, ARP-1

Date: 12/29/93

Approved X Disapproved \_



U.S. Department of Transportation Federal Aviation Administration

Memorandum

Subject: ACTION: FAR Part 150 Noise Compatibility Program for Worcester Municipal Airport, Worcester, Massachusetts Date:

Reply to Attn. of:

From: Director, Office of Airport Planning and

Programming, APP-1

To: Assistant Administrator for Airports, ARP-1

Attached for your action is the Noise Compatibility Program (NCP) for Worcester Municipal Airport (ORH) under FAR Part 150. The New England Region, in conjunction with FAA headquarters, has evaluated the program and recommends action as set forth below.

On April 1, 1992, the FAA determined that the Noise Exposure Maps (NEMs) for ORH are in Compliance with the requirements of section 103(a) of the Aviation Safety and Noise Abatement Act of 1979 (ASNA) and Title 14, CFR Part 150. At the same time, the FAA made notification in the Federal Register of the formal 180-day review period for ORH's proposed program under the provisions of section 104(a) of ASNA and FAR Part 150. The 180-day formal review period ends September 14,1992. If the program is not acted on by the FAA by that date, it will be automatically approved by law, with the exception of flight procedures.

The ORH program describes the current and future noncompatible land uses within the 60 dB DNL, which was selected for study as a local deviation from the Federal guidelines. The NCP proposes measures to remedy existing identified incompatibilities and to prevent future noncompatible land uses. These measures include flight procedures, a voluntary nighttime use restriction on stage 2 aircraft, noise mitigation for one residence remaining within the 65 dB DNL noise contour, and preventative zoning and administrative measures. Full NCP implementation will reduce the number of people within the future projected DNL 60 dB contour from approximately 574 to approximately 485.

The Assistant Administrator for Policy, Planning and International Aviation and the Chief Counsel have concurred with the recommendations of the New England Region. If you agree with the recommended FAA determinations, you should sign the "approve" line on the attached signature page. I recommend your approval.

/S/ Paul L. Galis

Attachments



U.S. Department of Transportation **Federal Aviation** 

Memorandum

#### Administration

Subject: ACTION: Transmittal of the Approved Part Date:

150 Program for Worcester Municipal Airport,

Worcester, MA Reply to Attn. of:

From: Manager, Community and Environmental

Needs Division, APP-600

To: Manager, Airports Division, ANE-600

Attached is the approval package for the subject Noise Compatibility Program. Please send us a copy of your signed letter to the sponsor for our records.

/S/

Lynne S. Pickard

Attachment

cc: AEE-300 (info)



# U.S. Department of Transportation **Federal Aviation Administration**

Memorandum

Subject: ACTION: Recommendation for Approval of Date:

the Worcester, MA, Airport Noise Compatibility

Program Reply to Attn. of:

From: Manager, Airports Division, ANE-600

To: Assistant Administrator for Airports, ARP-1

On April 1, 1992, a notice was published in the Federal Register announcing our determination of compliance for the noise exposure maps for Worcester Municipal Airport, Worcester, Massachusetts, under Section 103 (a) of the Aviation Safety and Noise Abatement Act of 1979. Coincident with that determination, we began the formal 180-day review period for Worcester's proposed noise compatibility program, under provisions of Section 104 (b) of the Act. The last date for such approval or disapproval is September 14, 1992.

We have evaluated the proposed noise compatibility program and have concluded that it is consistent with the intent of the Act and that it meets the standards of Federal Aviation Regulation (FAR) Part 150.

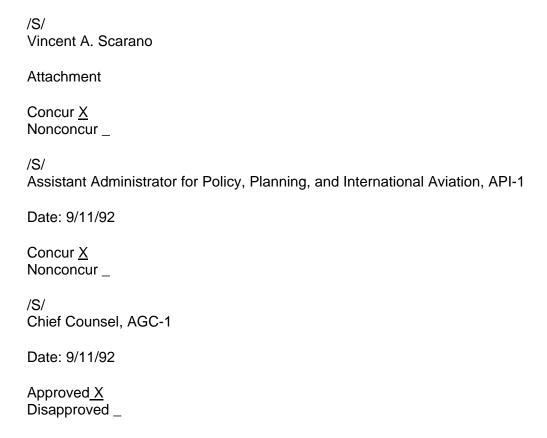
The documentation submitted by the City of Worcester was reviewed by the Airports, Air Traffic, Airway Facilities, and Flight Standards divisions and by the Assistant Chief Counsel.

Each proposed action in Worcester's noise compatibility program was also reviewed and evaluated on the basis of effectiveness and potential conflict with federal policies and prerogatives. These include safe and efficient use of the nation's airspace and undue burden on interstate commerce.

The Federal Register comment period closed May 15, 1992. Three letters of comment were received during the comment period. Additional letters were received between the time the study was completed and the Federal Register comment period opened. Most of the letters were from the Town of Leicester and all were concerned with proposed noise compatibility program measures which would route increased air traffic in a westerly direction over Leicester, rather than in an easterly direction over more populated areas of Worcester. The study indicates that the measures would reduce population impacts to both communities.

Letters received after the official Comment period opened will be addressed as part of our Federal Register notice of noise compatibility program approval. Responses to other letters have already been made.

Our approval or disapproval recommendations on each proposed action are described in the attached Record of Approval. Each proposed action is described in detail in Volume 2 of the study, "Noise Compatibility Program".



for Assistant Administrator for Airports, ARP-1

Date: 9/14/92

RECORD OF APPROVAL

WORCESTER MUNICIPAL AIRPORT WORCESTER, MASSACHUSETTS

NQISE COMPATIBILITY PROGRAM

# 1.0 INTRODUCTION

The City of Worcester, Massachusetts, through the Worcester Airport commission, sponsored an Airport Noise compatibility Planning Study under a Federal Aviation Administration (FAA) grant, in compliance with Federal Aviation Regulations (FAR), Part 150. The Noise Compatibility Program (NCP) and its associated Noise Exposure Maps (NEM) were developed concurrently and submitted to FAA for review and approval on February 24, 1992. The NEM was determined to be in compliance on March 18, 1992. The determination was announced in the Federal Register April I, 1992.

The Part 150 study was closely monitored by an Advisory Committee which represented the City of Worcester, area towns, airport users, and community residents. A series of Advisory Committee meetings was held, with the airport's consultant presenting material and findings. Three public information meetings were held. The consultant addressed comments at all of these meetings, and subsequent written comments as well.

The study focused on defining an optimum set of noise and land use mitigation measures to improve compatibility between airport operations and community land use, presently and in the future.

The resultant Program is described in detail in volume 2: Noise Compatibility Program, sections 2, 3, 4, 6, and 7. Sections 2 and 6 analyze promising noise abatement alternatives, Section 3 covers implementation, Section 4 discusses benefits, and Section 7 evaluates land use alternatives. The program elements below summarize as closely as possible the airport operator's recommendations in the noise compatibility program and are cross-referenced to the program. The statements contained within the summarized recommendations and before the indicated FAA approval, disapproval, or other determinations do not represent the opinions or decisions of the FAA.

The approvals which follow include actions which the Worcester Airport Commission recommends be taken by FAA. It should be noted that these approvals indicate only that the actions would, if implemented, be consistent with the purposes of Part 150. These approvals do not constitute decisions to implement the actions. Later decisions concerning possible implementation of these actions may be subject to applicable environmental or other procedures or requirements.

#### 2.0 PRQGRAM ELEMENTS

#### 2.1 Noise Abatement Elements

# 2.1.1 Flight tracks. (Sections 2.1.2, 4.1.1, and 6.1.)

Runway 29: IFR departures would receive an initial departure clearance to 1800 feet MSL, then a left turn to 250 degrees for aircraft flight planned to the southwest. Aircraft flight planned to the west would continue the existing procedure direct to Chester (straight ahead). VFR departures to the south and west would be requested to turn left as soon as practical to a heading of 250 degrees, until past the Town of Spencer. VFR departures to the north and east would be requested to turn right to a heading of 360 degrees before reaching the abandoned Leicester airfield, until passing Asnebumskit Hill/radio tower. Touch-and-go pattern aircraft would be requested to turn left as soon as practical 90 degrees after takeoff, followed by a downwind leg over Lynde Brook Reservoir, and a turn to base leg well before Coes Pond.

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Approved with the exception of the departure procedure to the south and west from Runway 33. Although the FAA believes that overall noise benefits will accrue from this procedure, the airport operator's supporting Part 150 documentation needs to more clearly describe the effects of the procedure on noncompatible land uses within the contours of the noise exposure map. The FAA is not required to act on flight procedures within 180 days and invites the airport operator to submit supplemental information supporting this procedure. All approved flight procedures will serve to direct aircraft over less developed areas, minimizing overflights of residences in more densely populated areas.

2.1.2 Preferential runway use. (Sections 2.2, 4.1.3, and 6.2.3). As wind conditions permit, this measure is comprised of preferential use of Runway 29 for departures and Runway 33 for arrivals, from 6 am to 7 pm; bidirectional use of Runway 29 for departures and Runway 11 for arrivals, from 7 pm to 10 pm; and preferential use of Runway 11 for night operations (10 pm to 6 am). Nighttime tower staffing, which would accommodate bidirectional runway use, was proposed during the study and considered infeasible by FAA. The airport is not now proposing this measure.

2.1.2 No Action Pending the Submission of Supplemental Information. Although the FAA believes that overall noise benefits would accrue from this measure, the airport operator's supporting Part 150 documentation needs to more clearly quantify the effects of the recommended preferential runway use program in terms of numbers of people and/or residences within the contours of the noise exposure map that would receive specific DNL benefits in comparison to the numbers of people/residences within the contours absent the preferential runway use program. Any disbenefits should be similarly documented. This information would be in addition to the DNL changes already indicated in the Part 150 program. The FAA is not required to act on flight procedures within 180 days and invites the airport operator to submit supplemental information supporting this recommendation.

Nighttime tower staffing, which would accommodate bidirectional runway use at night (i.e., after 10 p.m.), was proposed during the study and considered infeasible by FAA. The airport is not now proposing this measure.

2.1.3 Voluntary nighttime use restriction (Sections 2.3, 4.1.2, and 6.3.5). The airport would strongly encourage restriction of night operations by encouraging use by quieter Stage 3 aircraft between 10 pm and 7 am.

Approved. Complete compliance with the measure could reduce DNL exposure by approximately 2 dB (Section 6.3.5). This approval is granted because of the voluntary nature of the restriction. A condition other than voluntary would require analysis under Federal Aviation Regulation, Part 161.

2.1.4 Departure procedures. (Sections 2.4 and 6.4). This measure would adopt and publicize the recommended use of the NBAA close-in departure profile for business turbojet aircraft and FAA Advisory Circular 91-53 climbout procedures for air carrier turbojet aircraft.

Approved. since almost all turbojet aircraft operating at Worcester already utilize these or equivalent procedures, this measure would have almost no affect in reducing noise. As an administrative measure, however, it serves to formalize Worcester's desire to have the procedures continue.

2.1.5 Recommended helicopter flight corridors. {Sections 2.5 and 4.1.5}. Helicopter flight corridors would be established for the airport in order to minimize residential overflight, particularly at night, and a helicopter pilot awareness program initiated.

Approved.

- 2.2 Land Use Elements
- 2.2.1 Residential sound insulation. (Sections 2.6 and 7.1.5). One residence is located within the future noise-abated 65 DNL contour.

Approved. Aircraft noise would be effectively abated for this one residence.

2.2.2 Avigation easement. (Sections 2.7 and 7.1.2). It is recommended that sound insulation of the one residence within the 65 DNL contour be exchanged for a voluntary avigation easement.

Approved. Since a voluntary easement is recommended, FAA's approval does not extend to a required exchange of an

2.2.3 Overlay zoning. (Sections 2.8 and 7.1.3). An overlay zone is recommended for the Town of Leicester. Residential development would not be a permitted use within the 60 DNL contour.

Approved. This measure would prevent future incompatible land use. 60 DNL was utilized in the study as a level of residential incompatibility.

2.2.4 Revise building codes. (Sections 2.9 and 7.2.5). The City of Worcester and the Town of Leicester would adopt revised building codes which would require sound insulation for new or significantly improved residences within the 60 DNL contour.

Approved. This measure would prevent the introduction of new incompatible residential structures. 60 DNL was utilized in the study as a measure of residential incompatibility.

2.2.5 Real estate disclosure. (Sections 2.10 and 7.2.3). Disclosure would be applicable to new construction or substantial reconstruction within the 60 DNL contour. The seller or seller's agent would be required to provide notification of potential noise impact in the form of a deed covenant.

Approved. This measure would assist in preventing future land use incompatibility.

2.2.6 Incorporation of land use measures into community comprehensive plans. (Sections 2.11 and 7.2.7). Study land use measures would be incorporated into the community comprehensive plans of Worcester and Leicester.

Approved. This measure would increase awareness of the need to address aircraft noise-related actions in community land use planning and provide policy oversight to do so.

2.2.7 Environmental Impact Review. (Sections 2.12 and 7.2.9). An environmental review program would be established with thresholds or other mechanisms to trigger an environmental review of existing or proposed development within the noise exposure area. The process would supplement subdivision or site plan review, or building permit issuance.

Approved. Noise impacts of new development would be addressed before development approval is given.

#### 2.3 Administrative Elements

Various implementation, monitoring and review measures are proposed. These include designation of a noise abatement officer, revision of noise complaint procedures to

incorporate 24-hour access, purchase of portable noise monitors, establishment of a permanent Noise Abatement Committee to oversee implementation of the noise compatibility program, issuance of a noise compatibility program, issuance of a noise abatement Letter to Airmen covering the above noise abatement elements, erection of airfield signs informing pilots of the above noise abatement elements, inclusion of information related to the above noise abatement elements on the Automatic Terminal Information Service, issuance of air traffic control tower advisories reminding pilots of the above noise abatement elements, publication of an informational brochure summarizing noise abatement procedures, evaluation of overall noise exposure annually, and reassessment and update of the noise exposure map and noise compatibility program with major changes in airport layout or operation or every five years. (Sections 2.13 through 2.24).

Approved. Although these measures do not by themselves have quantifiable benefits, they are important to the success of the noise compatibility program. Content and location of airfield signs are subject to specific approval by appropriate FAA officials and are not approved in advance by this action.