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#### Memorandum

Date: September 21, 1990

# US Department of Transportation Federal Aviation Administration

Subject: ACTION: FAR Part 150 Noise Compatibility Program for Burlington International Airport, Burlington, Vermont

From: Director, Office of Airport Planning Reply to and Programming, APP-1 Attn. of:

To: Assistant Administrator for Airports,

ARP-1

Attached for your action is the Noise compatibility Program (NCP) for Burlington International (BTV) 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 March 27, 1990, the FAA determined that the Noise Exposure Maps (NEM's) for BTV 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 BTV's proposed program under the provisions of section 104(a) of ASNA and FAR Part 150. The 180-day formal review period ends September 23, 1990. 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 BTV program describes the current and future noncompatible land uses within the 65 DNL. The NCP proposes measures to remedy existing identified incompatibilities and to prevent future noncompatible land uses. Chapter 2 of the NCP summarizes the airport operator's recommendations and quantifies the expected benefits derived from full implementation of the program. The table on page 2-13 indicates that the number of people impacted would be reduced by over 5,000 with full implementation.

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

## 2

### Memorandum

Date: July 27, 1990

# US Department of Transportation **Federal Aviation Administration**

Subject: ACTION: Recommendation for Approval of the Burlington International Airport, Burlington, Vermont Noise

Compatibility Program

From: Manager, Airports Division, ANE-600 Reply to Attn. of:

To: Assistant Administrator for Airports,

ARP-1

On March 27, 1990, a notice was published in the Federal Register announcing our determination of compliance for the noise exposure maps for Burlington International Airport, Burlington, Vermont,

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 Burlington's proposed noise compatibility program, under the provisions of Section 104(a) of the Act. The program must be approved or disapproved by FAA within 180 days or it shall be considered approved as provided

for in Section 104(b) of the Act. The last date for such approval or disapproval is September 23, 1990.

We have reviewed and 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 Regulations Part 150.

The documentation submitted by the City of Burlington was reviewed by the Airports, Air Traffic, Airway Facilities, and Flight Standards Divisions, and by the Assistant Chief Counsel. The public comment period closed June 25, 1990. No substantive comments have been received.

Each proposed action in Burlington International'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.

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: Noise Compatibility Program.

/s/

Vincent A. Scarano

Attachment

_X_ Concur Nonconcur
/s/ Assistant administrator for Policy 9/18/90 and International Aviation, API-I
X Concur Nonconcur
/s/ Chief Counsel,, AGC-1 9/21/90
_X_ Concur Nonconcur
/s/ Assistant Administrator for Airports, ARP-1 9/21/90

### RECORD OF APPROVAL BURLINGTON INTERNATIONAL AIRPORT BURLINGTON, VERMONT

### NOISE COMPATIBILITY PROGRAM

### I.INTRODUCTION

The City of Burlington, Vermont 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 January 30, 1990. The NEM was determined to be in compliance on March 27, 1990. The determination was announced in the Federal Register on May 1, 1990.

The Part 150 Study was closely monitored by a Technical Advisory Committee, which represented the City of Burlington (including airport administration), City of Winooski, City of South Burlington, town and regional planning agencies, state transportation and environmental agencies, fixed-base operators, airport users, and community residents. A series of Technical Advisory Committee meetings were held, with the 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, and 5. Section 2 summarizes the NCP, Section 3 analyzes operational alternatives, Section 4 analyzes land use alternatives, and Section 5 contains information on implementation and monitoring.

The program elements below summarize as close 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 that the City of Burlington 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.

#### II. PROGRAM ELEMENTS

A. Airport Operations Measures.

1.extension of Taxiway G. (Sections 2.1.1, 3.1.1, and 5.1; Figure 3-2.)

Taxiway G would be extended from the existing intersection with Taxiway A to Taxiway C, parallel to Runway 15-33 (Figure 3-2.) The Taxiway extension is offered as an alternative to a noise barrier along Airport Drive, from Patrick Street to Airport Road (Figure 3-1). Aircraft presently taxi adjacent to the terminal apron, which is a route significantly closer to residents across Airport Drive. Based on this taxi procedure, calculated maximum A-weighted noise levels from the Shorts SD-360 aircraft range between 66 and 70 dBA (Table 3-2).

Approved: This measure would increase the distance of taxiing aircraft from residents across Airport Drive. Noise reduction would be equal to or greater than that provided by an alternative noise barrier --7 to 17 decibels.

2. Terminal Power Installation and APU/GPU Use Restrictions. (Sections 2.1.2, 3.1.2, and 5.1.)

Installation of terminal power hookups (already underway) for aircraft would reduce significantly the need for aircraft to park at terminal gates and use internal auxiliary power units (APUS) or ground power units (GPUS). The installation would be followed by a rule prohibiting the use of APUs or GPUs between 10:00 p.m. and 7:00 a.m., except for emergency or extenuating circumstances.

Approved.

3. Nighttime Bi-directional Runway Use. (Sections 2.1.3, 3.2, and 5.1.)

In order to minimize late-night operations over the City of Winooski (north of the airport) the air traffic control tower would use Runway 15 for departures and Runway 33 for arrivals, traffic conditions permitting.

Approved. The total number of residences in the Winooski area exposed to 65 DNL would decrease from 988 to 285. DNL noise would decrease approximately 3 dBA am increase over less populated areas to the south of the airport.

4. Noise Abatement Flight Paths for Runways 15 and 33 Departures, and Runway 15 Arrivals. (Sections 2.1.4, 3.3, and 5.1.)

New procedures would have civil aircraft fly over less populated areas. Runway 33 departures would turn to a heading of 310 degrees. Runway 15 departures would turn to a heading of 180 degrees. Successive turns of Runway 33 departures and Runway 15 arrivals would avoid downtown Burlington to a greater extent.

Approved. Single-event-level contour analysis indicates a reduction in direct overflight noise of approximately 5 dBA in the most seriously impacted areas of Winooski (north of the airport) and Williston (south of the airport) .

5. Voluntary Limits on Military C-5A Training. (Sections 2.1.5, 3.5.1, and 5.1.)

An informal agreement with the military (already implemented) limits C-5A operations to only necessary takeoffs and landings. No training operations will be conducted.

Approved. Elimination of C-5A training activity would not show up in analysis, but the elimination of probably the noisiest and annoying single event at the airport would be noticed.

6. Voluntary Minimization of F-16 Multiple Aircraft Flights. (Sections 2.1.6, 3.5.2, and 5.1.)

Military personnel have been scheduling as many single aircraft, as opposed to multiple-aircraft, flights as possible.

Approved. A flight of two aircraft is perceived as three dBA louder than a single aircraft.

7. Voluntary Guard Helicopter Training Controls. (Sections 2.1.7 and 3.5.3.)

The majority of National Guard helicopter training operations is conducted away fran the Burlington area. Landings and takeoffs at the airport are significant on Guard training days. The Guard will continue to conduct training away from the airport when conditions permit. In terms of long-range

planning, the Guard should consider consolidating operations at Camp Johnson, a rural location distant from the airport.

Approved. This measure gives support to an already implemented policy and offers a recommendation for longerterm noise abatement.

- B. Monitoring and Review Elements.
- 8. Ongoing Monitoring and Review of Noise Exposure Map (NEM) and Noise Compatibility Program (NCP) Status. (Section 5.3.1 and 5.3.2.)

This measure provides for revision of the NEM and NCP, citing three examples: changes in airport layout, unforecast changes in the level or mix of airport activity, and noncompliance with the NCP. Continuation of the Technical Advisory Committee as a Noise Abatement Committee is also

recommended as well as use of a computer program (EXP) to indicate when revision of the NEM/NCP is appropriate. Finally, purchase of a permanent noise monitoring system is recommended.

Approved. These measures would ensure the continuation of noise abatement efforts and provide analytic tools to accomplish it.

9. Flight Track Monitoring. (Section 5.3.3.)

The airport would utilize an outside firm to perform flight track analysis of FAA radar tapes on a temporal sampling basis.

Approved. This measure would provide follow-up data on airport operations measures 3 and 4 above.

- C. Land Use Measures.
- 10. Land Acquisition and Relocation. (Sections 2.2.1, 4.1.1, and 5.2.1.)

Incompatible land use includes six mobile homes within the 65 DNL contour and 54 other residences within the 70 DNL contour. A purchase and relocation program would be voluntary and comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act.

Approved. In combination with airport operational measures this remedial measure would provide for compatible land use.

11. Soundproofing. (Sections 2.2.2, 4.1.3, and 5.2.2.)

Qualified compatible residential and noise sensitive land uses within the 65 and 70 DNL contours, and qualified compatible non-residential land uses in the 75 DNL contour, would be included in a soundproofing program. Three hundred twenty-seven residential and two non-residential land uses

would be involved. The program would be conducted in conjunction with the above acquisition and relocation program.

Approved. Where effective, soundproofing would provide for compatible land use.

12. Easement Acquisition Related to Soundproofing. (Sections 2.2.3, 4.1.2, and 5.2.3.)

The airport would attempt to negotiate avigation easements within the 65 DNL contour, in return for sound attenuation assistance. Easements would provide for the right of flight, right to cause noise, control over structures, and other use of the land.

Approved. This measure would ensure compatible land use.

13. Airport Zoning Overlay District. (Sections 2.2.4, 4.2.2, and 5.2.4.)

This land use measure would restrict uses which are highly sensitive to noise and could also feature construction standards for sound insulation.

Approved. The measure would have a significant effect on ensuring future compatible land use.

14. Easement Acquisition for New Development. (Sections 2.2.5, 4.2.1, and 5.2.5.)

Easements as described in measure 12 above would be obtained for new development within the 65, 70 and 75 DNL contours.

Approved. This measure would also help ensure future compatible land use.

15. Real Estate Disclosure. (Sections 2.2.6, 4.2.3, and 5.2.6.)

A real estate disclosure policy would be developed for land uses within the 65 DNL contour, and implemented through revisions to zoning ordinances.

Approved. The identification of airport noise impacts on real estate will foster awareness of the relationship between the airport and the community, and serve as notice to potential buyers or lessors of airport noise considerations.