



Memorandum

US Department of Transportation
Federal Aviation Administration

Subject: FAR Part 150 Noise Compatibility Program for Groton-New London Airport (GON) Connecticut Date: December 17, 1986

From: Associate Administrator for Airports, ARP-1 Reply to
Attn. of:

To: Administrator

Attached for your action is the Noise Compatibility Program for the Groton-New London Airport, Connecticut, under Federal Aviation Regulations (FAR) Part 150. The New England Regional Office, in coordination with the Federal Aviation Administration (FAA) headquarters, has evaluated the program and recommends action as set forth in the attached ANE-1 letter of November 26, 1986.

On July 11, 1986, FAA determined that the noise exposure maps for GON were in compliance with applicable requirements of FAR Part 150. The last date for action on the program per section 104(b) of the Aviation Safety and Noise Abatement Act of 1979 is December 28, 1986.

The 65 Ldn contour falls essentially within airport property with only five residential properties currently exposed to noise levels in excess of FAA compatibility guidelines. By 1990, the number is expected to be approximately ten residences. It should be noted that these homes are now locally determined non-conforming uses in areas zoned commercial or industrial. The program measures are designed primarily to reduce impact on the above mentioned homes within the 65 Ldn contour, and those uses locally determined to be non-compatible between the 60 and 65 Ldn contours. We believe the proposed program will accomplish the Connecticut Department of Transportation purpose while not significantly affecting air commerce.

Consultation with and participation by airport users, Federal agencies, including the FAA, local, regional and state planning agencies, local interest groups and individuals helped in developing a comprehensive program taking into consideration all concerns and interests. These activities were supported by a consultant team with expertise in the areas of airport noise control planning and public participation. The Bureau of Planning and Research Connecticut Department of Transportation had oversight of the project, and responded to all formal inquiries and comments on the FAR Part 150 program.

There are eighteen alternatives considered in Volume 2, Chapters 2 and 3 of the Noise Compatibility Program, of which ten are recommended by the Connecticut DOT in Chapter 4. An additional six measures are considered and recommended by the Connecticut Department of Transportation in Chapter 4. Fifteen of the sixteen measures are recommended for FAA approval.

Measure #2, Implementation of a Landing Surcharge Based on Aircraft Noise, is recommended for disapproval pending submission to FAA of additional analysis. This

measure is recommended for disapproval because it was not described in sufficient detail to allow an informed analysis by the FAA under section 104(b) Aviation Safety and Noise Abatement Act of 1979. This disapproval does not reflect an FAA determination with respect to the substance of the proposal. The measure may be reconsidered by the FAA if developed in greater detail and resubmitted to the FAA under FAR Part 150. Measures 6,7, and 8 will involve further FAA action to implement.

The Associate Administrator for Policy and International Aviation, the Chief Counsel, and I have concurred with the FAA determination as described in the attached Record of Approval and highlighted above. Also attached is a copy of the evaluation narrative.

If you agree with the recommended actions, you should sign the "approve" line on the attached ANE-1 letter. I recommend approval.


Robert L. Donohue

Attachments



Memorandum

US Department of Transportation
Federal Aviation Administration

Subject: **ACTION:** Recommendation for
Approval of the Groton-New London,
(GON) Connecticut Airport Noise
Compatibility Program

Date: November 26, 1986

From: Acting Director, ANE-1

Reply to
Attn. of:

To: Administrator

On July 11, 1986, a notice was published in the Federal Register announcing FAA's determination on the noise exposure maps for Groton-New London (GON) Airport, under Section 103 (a) of the Aviation Safety and Noise Abatement Act of 1979 (the Act). Coincident with that determination, we began the formal 180 day review period for GON's proposed noise compatibility program under the provisions of Section 104(a) of the Act. That program must be approved or disapproved by the FAA within 180 days or it shall be deemed to be approved as provided for in Section 104(b) of the Act. The last date for such approval or disapproval is December 28, 1986.

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 set forth in FAR Part 150 for such programs. The requirements of Part 150 were itemized in a checklist (Attachment 1), which was used to ensure that all required items were present in the proposed program. Our review of each item is shown in the evaluation narrative (Attachment 2).

The evaluation narrative, checklist and documentation submitted by GON were reviewed by Airports, Air Traffic, and Flight Standards Divisions, and by the Regional Counsel, and the Regional Noise Abatement Technical Committee. No substantive comments have been received from other participants in the study, nor from other interested parties. Each proposed action in GON's proposed noise compatibility program was then 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 recommendations on each of these proposed actions are described in the Record of Approval (Attachment 3). Each proposed action is described in detail in the Groton-New London Airport, Noise Compatibility Program, Volume 2.

Based on the evaluation procedure described above, we recommend the approval of all Program Elements (as listed in the Record of Approval) of the Groton-New London Noise Compatibility Program.

/S/

Clyde DeHart, Jr.

Attachments (3)

/s/ Associate Administrator for Airports, ARP- 1	12/12/86	Concur
/s/ Associate Administrator for Policy and International Aviation, API-1	12/15/86	Concur
/S/ Chief Counsel, AGC-1	12/17/86	Concur
/S/ Administrator, AOA-1	12/19/86	Concur

Attachment 3

**Record of Approval
Groton-New London Airport
Groton, Connecticut
Noise Compatibility Program**

Introduction

The State of Connecticut Department of Transportation (CT DOT) sponsored an Airport Noise Compatibility Planning Study for Groton-New London Airport, in compliance with the Federal Aviation Regulations (FAR) Part 150. The Noise Compatibility Program and its associated Noise Exposure Maps were developed concurrently and submitted to Federal Aviation Administration (FAA) for review and approval on February 11, 1986.

The Noise Exposure Map has identified five residential properties, in 1985, exposed to noise levels in excess of the FAA's compatibility guidelines (Ldn 65), defined in Part 150. That number is expected to grow to 10 by 1990. In consideration of relatively lower ambient noise levels and local interest in preserving a quieter environment beyond the limits of the suggested FAA guidelines, the zone of analysis was expanded to Ldn 60 contours. Therefore, the goal of the Noise Compatibility Program for the Groton-New London Airport has been to eliminate the incompatibilities inside the Ldn 65 contours, as well as enhance overall compatibility in the airport environs.

Initially, noise abatement alternatives were assessed in two categories: a. alternatives for which CT DOT would be responsible, and b. alternatives for which the Town of Groton would be responsible. The FAA's role was also identified under those alternatives, where FAA's approval and action is necessary for implementation. Based on the technical evaluation and comments received through the review process, a 16 point Noise Compatibility Program has been recommended by CT DOT for the airport. The items listed in this Record of Approval constitute the Groton-New London Airport (GON) Noise Compatibility Program (NCP) and are found on the referenced pages of the report titled, Groton-New London Airport Noise Compatibility Program, Volume 2. This document recommends approval of 15 alternative actions.

Program Elements

1. Initiate a Preferential Runway Use Program (Page 4.1)

APPROVED. This will be an Informal Runway Use Program that will be initiated by the CT DOT. The focus of the program is to shift emphasis from the use of Runway 5 for departure to the use of 23 for departures under as many calm or very light wind conditions as possible to minimize fly over noise sensitive areas to the north of the airport. An additional essential element of the program is the need to alter the departure procedure for aircraft taking off Runway 23, as discussed under program element no. 6. The analysis indicates that for the 1985 base case, the residential acreage above Ldn 60 will be reduced from 73.2 to 28.5 acres, and the population exposed to Ldn 60 and above will be reduced from 445 to 125 persons as a combined result of the preferential runway use and noise abatement flight paths.

Implementation cost of the program was identified as \$15,000 to \$20,000 annually, to be borne by the CT DOT. However that cost need not be a prerequisite to implementation. The measure could be adopted at minimal cost to the state, as soon as the NCP is approved by FAA and the required documentation is completed.

2. Adopt a Noise Eased Surcharge (Page 4.6)

DISAPPROVED. The CT DOT intends to impose a noise based surcharge on operations, as a compromise to formal adoption of noise limit at GCN (which is considered costly to enforce, and with negligible benefit in terms of total noise environment). The proposed surcharge schedule is given on page 4.7 of the NCP.

Implementation of a Landing Surcharge Based on Aircraft Noise is recommended for disapproval pending submission to FAA of additional analysis. This measure is recommended for disapproval because it was not described in sufficient detail to allow an informed analysis by the FAA under section 104(b) Aviation Safety and Noise Abatement Act of 1979. This disapproval does not reflect an FAA determination with respect to the substance of the proposal. The measure may be reconsidered by the FAA if developed in greater detail and resubmitted to the FAA under FAR Part 150.

3. Restrict Touch-and-Go Operations (Page 4.8)

APPROVED. This program element is aimed at reducing noise of single events during evening and nighttime. Based on the wide interest in reducing such noise, the analysis of options, and the comments from all parties, the following compromise is recommended in the NCP: Aircraft operators are encouraged to refrain from touch-and-go operations between the hours of sunset and 8:00 AM. However, in no case are touch-and-gos permitted by any aircraft operators between the hours of 10:00 PM and 6:00 AM. Upon the approval of the NCP, the CT DOT will initiate an amendment to Section 15 of the Connecticut Laws and Regulations Governing Aeronautics to include the new restrictions. Implementation cost will be minimal.

4. Construct a noise Barrier for Maintenance Runups (Page 4.8)

APPROVED. There is a uniform consensus on constructing a noise barrier for controlling noise from maintenance runups in the northeast quadrant of the airport. A maximum single event noise benefit of 13 dB is estimated for Jupiter point residents and Coastal Reserve, with a 30 foot high barrier. The total cost is estimated between \$130,000 to \$200,000, and the CT DOT has already budgeted the State's share of the cost for the Airport Improvement Program (AIP) funding request in 1987.

5. Adopt a Voluntary Use Restriction on Times for Maintenance Runups (Page 4.9)

APPROVED. According to this measure, no maintenance runups shall be conducted between the hours of 10:00 PM and 7:00 AM, except when required to meet an early morning published flight schedule. Furthermore, if maintenance runups are required between 10:00 PM and 7:00 AM, they must be conducted within the maintenance runups area with a proposed noise barrier recommended under program element 4. Also, maintenance runups conducted during other hours of day that will require use of greater than 75 percent power shall be conducted within the designated area. Moreover, all aircraft operators conducting maintenance runups on the airport will submit a monthly report to the Airport Manager, summarizing all runup activity on a form approved by the CT DOT.

A 13 db reduction in single event noise is estimated in conjunction with the implementation of program element 4. The implementation cost of this measure will be minimal.

6. Implement Noise Abatement Flight Tracks (Page 4.10)

APPROVED. Four specific changes to flight procedures are recommended under this program element. These include: turn to 210 degrees after takeoff from Runway 23; turn 020 degrees after takeoff from Runway 5; maintain runway heading after takeoff from Runway 33; and extend downwind for approaches to Runway 5.

The first two changes are proposed for all VFR and IFR traffic while the last two changes are recommended for VFR traffic only. Recomputed Ldn contours for 1985 (Figure 2.4) show that the noise exposure is drawn away from both the Jupiter Point and Poquonnock Bridge residential areas, with improvements in the order of 2 to 3 dB. Minimal cost is associated with implementation of this measure. After the approval of the NCP, the fulfillment of environmental requirement is accordance with the FAA Order 1050.1D will be required. An environmental Finding of No Significant (FONSI) is expected.

7. Lower Traffic Pattern Altitude (Page 4.12)

APPROVED. This measure involves lowering of traffic pattern altitude to 1,000 feet AGL for light aircraft, and 1,500 feet AGL for turbojet and turbine powered aircraft. This measure is expected to provide a slight reduction in the size of typical touch-and-go patterns and slightly reduce the single event noise levels (2 dB) to which outlying homes are now exposed. After the approval of the NCP, the CT DOT will request the addition of the procedure to FAA Tower Standard Operating Procedures (SOP) Manual, and notify all based pilots.

8. Establish Helicopter Flight Corridors (Page 4.12)

APPROVED. CT DOT intends to propose two helicopter flight corridors for VFR traffic, as depicted in Figure 2.8. Majority of the helicopter operation At GOn are conducted by the Connecticut National Guard. CT DOT also intends to propose minimum airfield boundary crossing altitude of 700 feet for helicopters using the northwest corridor, and 1,000 feet for helicopters using the northeast: corridor. The higher altitude to the northeast is designed to afford greater relief to homes along the Poquonnock River. Approximately 10 dB reductions in the single event noise levels are estimated. Upon the approval of the NCP, the CT DOT will request the addition of procedure to the FAA Tower SOP manual, and notify all based helicopter pilots.

9. Promote "Quiet Flying" Procedures (Page 4.12)

APPROVED. Through this measure CT DOT, in consultation with the FAA, will take an active lead in working with FBO's flight schools, and the National Business Aircraft Association to identify and publicize noise abatement flight procedures available for based aircraft and frequent users of GON. To promote quiet flying, CT DOT also intends to hold at least two meetings a year with airport users to review elements of the NCP and report formally on compliance, progress, and problem areas.

10. Publish Noise Abatement Procedures Manual (Page 4.13)

APPROVED. Upon the approval of the NCP, the CT DOT will publish an informational booklet on noise abatement procedures for GON, which will be distributed to all based users, student pilots and instructors, to itinerent pilots, and to the Army National Guard. The goal is to reach and inform all users of the GON to promote noise abatement.

11. Review Noise Exposure Annually (Page 4.13)

APPROVED. Through this measure, CT DOT will undertake an annual review of changes in noise exposure at the airport and publish the results in a report to the Airport Advisory Committee within three months of the end of each calendar year. The report will focus on progress made in implementing each element of the NCP. For evaluating changes in the number of operations and in the mix of aircraft, the CT DOT will maintain a suitable noise metric. The details of calculation and reporting are described on pages 4.13 to 4.14.

12. Close Runway 10-28 (Page 4.14)

APPROVED. CT DOT intends to close Runway 10-28, to prevent low altitude flights over homes immediately west of the airport along Shennencossett Road and Thomas Road. Although this runway is used by approximately five percent of the light aircraft operations at GON, when in use, these operations cause single event maximum sound levels of up to 86 dBA. The elimination of these overflights will result in reduction in maximum sound levels from individual events of approximately 13 to 15 dBA over residences on Shennencossett Road, which are located closer to the end of a runway than are any other residences around the airport. This measure was also recommended in the 1978 Airport Master Plan for the airport for maintenance cost savings and will not adversely affect the airport capacity. ' The implementation cost will be minimal.

13. Voluntary Purchase of Easement and Rights of first Refusal (Page 4.13)

APPROVED. There are five properties currently .within the Ldn 65 contours. By 1990, five additional residences will fall within Ldn 65 contour, if nothing is done to improve the noise environment. CT DOT has no intention of taking residential property against the wishes of the owners, but will investigate the feasibility of and interest by homeowners within the Ldn 65 contour for 1990 to sell easement and rights of first refusal to the state on a voluntary basis. If any interest is expressed in the future by the residents, CT DOT will proceed with this measure in accordance with the provisions of Connecticut state law.

14. Install Airport Signing (Page 4.14)

APPROVED. This will be an informational/educational program to remind pilots to comply with noise abatement measurements. Following the approval of the NCP, the CT DOT will install signs at locations, such as FBO, the Army Guard, the airport terminal, at the maintenance runup area, and on parallel taxiways to runways 5 and 23. Signs will include statements of regulations, descriptions of noise abatement turns, depictions of helicopter flight corridors, etc. Minimal implementation cost (\$1,000) will be involved.

15. Encourage Compatible Use Zoning by the Town of Groton (Page 4.14)

APPROVED. Although no areas within Ldn 65 contour are currently zoned for incompatible use around GON, there are two areas within Ldn 60 contours, both within the Bluff Point Coastal Reserve, which, if developed according to their single family residential zoning, are likely to be viewed as incompatible. The CT DOT will encourage the Town of Groton to amend its zoning regulations to adopt a new zoning category for open space and rezone the area for that use. CT DOT will also encourage and assist the town in prohibiting all .incompatible uses within Ldn 60 contour.

16. Upgrade Noise Complaint Review Procedure (Page 4.15)

APPROVED. Through this measure CT DOT will obtain a better appreciation for the extent and causes of noise complaints. A noise complaint number will be published and the staff will be encouraged to be responsive. CT DOT will not only continue to maintain its file of complaint records, but will also plot complaint record by location and by type of operation. Summaries of complaint records will be included in the annual review of noise exposure discussed under measure 11.