



US Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject ACTION: FAR Part 150 Noise Compatibility
Program for Baltimore-Washington International,
Baltimore, Maryland

Date JUN 21 1990

From Director, Office of Airport Planning
and Programming, APP-1

Reply to
Att: of

To ARP-1

Attached for *your* action is the Noise Compatibility Program (NCP) for the Baltimore-Washington International Airport (BWI) under FAR Part 150. The Eastern Region, in conjunction with FAA headquarters, has evaluated the program and recommends action as set forth below.

On December 28, 1989, the FAA determined that the Noise Exposure Maps (NEMs) for BWI 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 BWI's proposed program under the provisions of section 104(a) of ASNA and FAR Part 150. The 180-day formal review period ends June 26, 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 BWI program describes the current and future noncompatible land uses. The NCP proposes several measures to remedy existing noise problems and prevent future noncompatible land uses. Each measure is identified in the attached Record of Approval.

Full implementation of the abatement measures recommended for approval will provide relief to approximately 10,297 people by 1993. Additional land use zoning and acquisition and soundproofing measures will provide relief to several hundred other residences and four schools within the 65 Ldn.

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

Paul L. Galis

Attachments



US Department
of Transportation

**Federal Aviation
Administration**

Memorandum

Subject: Recommendation for Approval of Baltimore-
Washington Int'l Airport Noise Compatibility
Program (NCP)

Date

MAY 15 1990

From:

Reply to
Action of

Acting Assistant Manager, Airports Division, AEA-601A

To

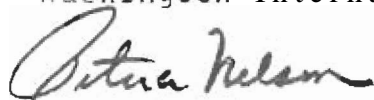
Assistant Administrator for Airports, ARP-1
ATTN: APP-600

On December 28, 1989, the Maryland Department of Transportation was notified of FAA's determination of compliance of the Noise Exposure Maps under Section 103.(c) 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 the Baltimore-Washington International Airport proposed Noise Compatibility Program under the provisions of Section 104(a) of the Act. Notice was transmitted to AGC-10 on December 28, 1989, for publication in the Federal Register. The last date for the FAA action on the program, per Section 104(b) of the Aviation Safety and Noise Abatement Act of 1979, is June 26, 1990. If the program is not acted upon by the FAA by that date, it becomes automatically approved except for flight procedures.

The Eastern Region has reviewed and evaluated the proposed Noise Compatibility Program and has 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 standard Part 150 noise compatibility program checklist was reviewed to ensure that all required items were included in the proposed program. The checklist and NCP are attached.

The proposed program has been reviewed by the Washington Airports District Office, Flight Standards, Airway Facilities, Air Traffic and Airports Divisions, Regional Counsel and APP-600. All comments received have been reviewed and evaluated and incorporated in our Record of Approval. Each proposed action in the NCP was reviewed and evaluated on the basis of effectiveness and potential conflict with Federal policy and prerogatives. These include safe and efficient use of the nation's airspace, undue burden on interstate commerce, unjust discrimination and interference with a Federal regulatory compliance schedule (i.e., FAR Part 91, Subpart E).

Our recommendation on each of the airport operator's proposed actions is described in the attached Record of Approval. Each approved action is described in detail in the Baltimore-Washington International Airport NCF.



Peter A. Nelson

Attachments:

- NCP & NEM
- Transmittal of NEM and NCP Federal Register Notice
- Record of Approval
- NCP Checklist
- NEM Checklist

Concur:



Assistant Administrator for Policy and International Aviation, API-1

6/15/90
Date

Nonconcur:

Concur:

Chief Counsel, AGC-1

June 18, 1990
Date

Nonconcur:

Approved:



Assistant Administrator for Airports, ARP-1

2 June 1990
Date

Disapproved:

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
EASTERN REGION

RECORD OF APPROVAL

NOISE COMPATIBILITY PROGRAM
BALTIMORE/WASHINGTON INT'L AIRPORT
BALTIMORE, MARYLAND

The approvals listed herein include approvals of actions that the Maryland Aviation Administration (MAA) recommends be taken by the Federal Aviation Administration (FAA) on behalf of the Baltimore-Washington International Airport (BWI), which when implemented would be consistent with the purposes of Part 150. Later decisions concerning possible implementation of these actions may be subject to applicable environmental or other procedures or requirements.

The recommendations below 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 recommendations, and before the indicated FAA approval or other determination, do not represent the opinion or decision of the FAA.

INTRODUCTION

The Maryland Aviation Administration (MAA) sponsored the development of an Airport Noise Compatibility Program for the Baltimore/Washington International Airport (BWI) in compliance with Federal Aviation Regulations (FAR) Part 150 - Airport Noise Compatibility Planning, The Noise compatibility Program (NCP) and its associated Noise Exposure Maps (NEM) consisting of: Base Case Contour - Figure 6.6, Volume II Revised; and Five Year Kap -Figure 7.2, Volume II Revised, were developed concurrently and submitted at the same time for FAA review and approval. The NEM approval and a request for public comments on the NCP were announced in the Federal Register on January 8, 1990.

The airport operator recommends fifteen (15) actions in its NCP to remedy existing noise problems and prevent future non-compatible land uses. These actions are grouped into the following categories:

Noise Abatement Elements (11)

- Arrival Procedures (3)
- Change Airspace Boundaries (1)
- Departure Procedures (1)
- Preferential Runway Use System (1)
- Cooperative Airline/Airport Use Restriction Program (2)

- Control of Ground-Based Noise Sources (3)
 - o Noise Barriers
 - o Powerback Restrictions
 - o Engine Maintenance Runup Restrictions

Land Use Elements (4)

- Compatible Land Use Zoning
 - o Establishment of minimum soundproofing standards
 - o Exemption of single family additions/modifications from the noise variance process
 - o Precluding new development activities prior to review by the Board of Airport Zoning Appeals (BAZA)
 - o Precluding increased zoning densities for noise sensitive land use within the ANZ
 - o Providing notifications for new buyers and renters of housing located within the ANZ
- Residential Property Acquisition
- Homeowners Assistance Program
- School Soundproofing

The action titles correspond and are referenced to those in the NCP. The fifteen (15) program elements are described herein.

NOISE ABATEMENT ELEMENTS

1. Aircraft on Visual Approach Be Turned onto Final 4 Miles from End of Runways (Page 2, Section 2.1.2 and **Pages** 125-128, Section 3.5.2) - Close-in approach turns of aircraft visual approaches have caused widespread concern in nearby communities. Having aircraft using the visual approach procedure established on final a minimum of four miles from the end of the runway will reduce this concern.

FAA Action,: Approved as a voluntary measure, when weather and air traffic permit. In the future, when the currently planned parallel Runway 10-28 at BWI is in operation the procedure will be particularly valuable in providing noise relief to residents affected by arrival operations.

2. Relocate Flight Track for Visual Approaches to Runway 10 (Page 2, Section 2.1.3; **Pages** 128-139, Section 3.5.2) - MAA recommends that the flight tracks for arrivals to Runway 10 be relocated approximately three miles to the west of their current location. The existing tracks, flown in visual flight conditions, from the Nottingham VOR follow the Severn River and expose communities along and near the Severn River to unwanted aircraft noise. Additionally, these arrivals tend to be widely

dispersed as they approach the designated landing runway end as they fly inbound to line up with the runway centerline.

MAA proposes that during east operations:

- Aircraft proceed outbound from the Nottingham VOR on the 071 radial to a point 12 1/2 miles from the Nottingham VOR, then,
- Turn left to a heading of 360 degrees until approximately 15 miles from the airport. At that point,
- Turn left west bound, maintaining 5,000 ft. altitude until south of the airport, then
- Proceed for a visual approach to Runway 10 turning on to final a minimum of 4 miles from the airport.

This procedure would reduce flight track scatter and assist in keeping arrivals away from previously impacted communities.

FAA Action: Disapproved pending submission of additional information. Although the NCP indicates that residents of Severna Park will experience a decrease in single event noise due to overflights, the document also states that communities west of the Severn River will experience an increase in noise. There is no data comparing benefit of the noise reduction in the one community vs. the noise impacts in the communities to the west. Additional data is required to determine whether there is a net noise benefit consistent with the standards of Part 150.

3. Arrival Procedures (Page 2, Section 2.1.2 and Pages 131-139, Section 3.5.2) - MAA recommends raising aircraft altitudes during VFR approach conditions to maximum extent possible consistent with safe flight procedures.

FAA Action: Approved

4. Changing Airspace Boundaries (Page 3, Section 2.1..2, and Pages 131-139, Section 3.5.2) - MAA recommends that FAA explore changes in air traffic control boundaries between Baltimore and Washington, or other traffic control modifications, that would allow establishment of a new noise abatement arrival route to Runway 33L near the 1-97 corridor.

FAA Action: No action required. This relates to flight procedures for the purpose of section 104(b) of the Aviation Safety and Noise Abatement Act of 1979. Moving the airspace boundaries between these facilities has been studied on a number of occasions in the past and the results have been negative. However, the proposal will be retained as an option

by FAA should future developments in air traffic control equipment and procedures make the rearrangement of these airspace boundaries possible.

5. Revised Departure Procedures (Page 2, Section 2.1.1; Pages 62-125, **Section 3.5.1**) - MAA proposes implementing revised departure procedures that have been developed and tested for all air carrier runways at BWI. Generally, these new procedures are modifications of current procedures. The new procedures include increased distance from the airport prior to initiating turns, and the development of Standard Instrument Departure (SID) procedures based upon Distance Measuring Equipment (DME) positions rather than solely controller initiated and directed turns.

When lengthening of Runway 15L-33R is completed, right turns for departures from 15R should be possible. Implementing all procedures should move current noise exposure contours enough to lower the population remaining with the Ldn 65 contour from about 14,200 to 13,300. In 1993, with 15L-33R lengthened and a parallel 10-28 constructed, it may be possible to shift departure routes away from high density residential areas which could lower the population inside the Ldn 65 from 20,700 to about 12,900.

FAA Action: Approved. However, Flight Standards recommend that all departure turns should begin at DME distances or without DME, turns should not begin below 300 ft. above ground level in VFR conditions. Further, FAA Handbook 8260.3B, (TERPs) Chapter 1, Pg. 118, Para. 1203, applicable to IFR procedures, directs that aircraft climb straight ahead on the heading on the takeoff surface until reaching 400 ft, above airport elevation (within two miles) and then immediately begin a turn to intercept a departure course. Therefore, the departure procedures must be developed in accordance with the requirements of Flight Standards and Handbook 8260.3B.

The FAA Tower advises that revised departure procedures based on DME turns have been implemented. Some of the recommended departures require "immediate" turns. Since some aircraft might initiate an "immediate" turn at one place and another aircraft at a different location, these departures could be scattered over many communities, therefore, the reference to "immediate" turns should be modified. We have been informed by the Air Traffic Control Manager that aircraft utilizing the immediate turn will be instructed by the Air Traffic Controller to turn right or left to a specific heading at the departure end of the runway.

6. Preferential Runway Use System - (Page 3, Section 2-1.3, Page 14, Section 2.3.1.3, and Page 38, section 3.4) - An analysis of runway utilization present and future, shows that

at BWI the west flow (Runway 28) is quantitatively the preferred direction of runway use in terms of population affected and that considerable benefits, in terms of populations living within the Ldn 65 contours can be realized through increased use of west flow operations. Both with the present runway configuration and with the proposed future configuration, 300 to 400 people are moved outside of the Ldn 65 contour for each 1% increase in west flow operations.

For the current runway configuration, the need to maintain capacity and safe airspace places limitations on how runways can be used. Historic wind data suggests that with these limitations, west flow is possible about 73% of the time. Current runway use of about 70% suggesting that west flow is presently close to being maximized.

In the future, however, new runway construction, specifically the addition of a parallel 10-28, after Runway 15L-33R is complete, could mean increased use of a west flow of up to an additional 11%. (See Section 3.4.2.3)

FAA Action: Approved as a voluntary measure. The informal preferential runway use program is developed and implemented by the FAA Tower in accordance with FAA Order 8400.9, subject to the authority of the pilot-in-command pursuant to FAR Part 91.75 to request an amended departure clearance.

7. Noise Rule for Runway - 3 (Reference Page 3, Section 2.1.3., and Page 56, Section 3.4.3) - Aircraft that have been identified as producing noise levels greater **than** a specified amount be required to use runways other than 15L-33R. This preference will reduce the expected noise level to the north of this runway by 5dB. The noise rule will prohibit any aircraft with an arrival or takeoff SEL value of 90dB or greater (in accordance with AC 36-3). These aircraft will be prohibited from using 15L-33R except in emergency conditions. The MAA will implement the rule through notification of aircraft operators through Tenant Directives and Notices to Airmen and will establish an administrative process for possible violations to ensure enforcement.

FAA Action: Approved - Analysis of this noise abatement **measure** was included in the 1988 FEIS for the extension of Runway 15L-33R and determined to have a negligible impact on airport capacity. Approximately 7-8 daily business jet operations would be affected in the 1993-2005 timeframe (Chapter 4, FEIS). These aircraft are permitted and encouraged to use the airports trans- port runways, 10-28 and 15R-33L. The primary result is the reduction of the noise levels north of 15L-33R by approximately 5dB.

8. Preferential Use of Runway 10-28, 15R-33L (Reference Page 3, Section 2.1.3 and Page 59, Section 3.4.4) - The Sponsors letter dated April 12, 1990, and BWI Tenant Directive 501.1 identifies Runway 15R-33L and 10-28 as the preferred runways and closes Runway 04-22 to multi-engine aircraft from 10 pm to 7 am. The NCP continues this directive - Sections 2.1.3 and 3.4.4.

FAA Action: Approved. Restrictions on Runway 4-22 are subject to air traffic management conditions. The BWI Tower has not denied use of the runway when needed. The operational use of Runway 4-22 is very limited currently, and will continue to decrease with the opening of the commuter runway in June. Runway 4-22 is programmed to become a taxiway when Runway 10R-2PL is constructed in the mid-1990's.

Cooperative Airline/Airport Use Restrictions (2 Elements)

9. Voluntary Program: (Page 4, Section 2.1.5 and Pages 140-151, Section 2.3.1.5) - Increased use of quieter aircraft and decreased use of louder aircraft will provide significant reduction of noise exposure around BWI. The MAA has committed to a goal of limiting future noise created by the total commercial jet fleet to a level no higher than that which existed in 1987. Based upon discussions held with BWI's passenger and cargo carriers during the noise study, MAA has concluded that this goal can best be reached through a cooperative airline/airport program. This voluntary program will focus on reducing nighttime activities through rescheduling of flights, where possible, and greater use of Stage 3 aircraft during both day and nighttime periods. The MAA believes that there are limitations inherent in any voluntary program and consequently as a part of the NCP has instituted monitoring procedures for tracking progress of the Voluntary Program goals. An annual review of the progress will be conducted, with the opportunity for the public to review program achievements. If necessary, the MAA will pursue the need for mandatory use restrictions if the desired goal of reducing noise is not being reached.

FAA Action: Approved as a voluntary measure. If in the future any mandatory use restrictions are proposed, they must be analyzed and approved by FAA prior to inclusion in the Part 150 program. Of particular concern is the imposition of restrictions that might impose an undue burden on interstate and foreign commerce or be unjustly discriminatory.

Control of Ground - Based Noise Sources (3 Elements) - (Section 2.1.4)

10. Noise Barrier Along Hammonds Ferry Road (Pages 3-4, Sections 2.1.4.1, Pages 26-37, Section 3.3) - The MAA proposes

to plant a 100' x 1,500' buffer of trees. The buffer, when mature, will provide some noise attenuation, as well as addressing concerns about roadway noise and overall aesthetics. It also will provide replacement for trees removed elsewhere on the airport.

FAA Action: Disapproved pending submission of additional information. The airport is situated west of Hammonds Ferry Road and residences are across the highway to the east. Additional information is required to demonstrate that the barrier of trees contributes to reducing nighttime airport generated noise by at least 5 dB. Information should include quantification of the nighttime impact of relevant ground operations on nearby residential properties and quantification of the benefit of the buffer of trees.

11. Powerback Restrictions (Page 4, Section 2.1.4.3, Pages 151-152, Section 3.7.1.1, Page 155, Section 3.7.2.1 and Page 157, Section 3.7.3.1) - Airline use of powerbacks has required approval by the MAA. This approval, described in BWI Tenant Directive 203.1, is given only for specified gates, only if approved by the FAA ADO, and only if the procedure is in compliance with a maximum noise level test. The Noise Compatibility Program continues this approval process, but adds the restriction that powerbacks are prohibited between the hours of 10:00 pm and 7:00 am.

FAA Action: Approved. This approval extends to the noise related portion only and does not extend to the provisions which are in place to prevent structural damage to the terminal buildings. However, FAA continues to support this portion of the measure for safety reasons outside of the Part 150 process.

12. Engine Maintenance Runup Restrictions (Page 4, Section 2.1.4.3, Pages 152-154, Section 3.7, Page 156, Sections 3.7.2.2 and 3.7.3.2, Airport Sponsor's April 12, 1990, letter) - BWI Tenant Directive 501.1 restricts the time and duration of runups. It identifies a specific location (holding block Runway 10), heading (260° to 275°), duration of time above idle (60 seconds or less) and limits multi-engined aircraft to accomplishing the runup one engine at a time. Runway 33L holdblock on heading 140° to 160° is the alternate runup area. The NCP continues these restrictions. BWI recommends that BWI Tenant Directive 501.1 be retained. Additionally, the directive should continue to allow only one engine to be runup at a time, with a maximum time above idle to be set after coordination with the airlines.

FAA Action: Approved.

LAND USE ELEMENTS

13. Compatible Land Use Zoning (Section 4.2.1) - The MAA oversees and approves two types of zoning/development permits for the Baltimore/ Washington International (BWI) Airport - Noise Permits and High Structure Permits. Per State law, anyone desiring to establish or modify a structure or land use around a State owned airport, such as BWI, is first required to obtain an Airport Zoning Permit from the MAA. State law requires that MAA approve or deny zoning permits based upon the structures height relative to runway approach paths and upon the predicted noise exposure level of the specific area in question relative to established noise exposure standards. The BWI standards closely parallel those land use compatibility guidelines in Part 150.

Several revisions to State Code have been identified which would strengthen/streamline the zoning permit process and related administrative activities. These include:

- o Soundproofing Standards (Page 161, Section 4.2.2.1) - Under this proposal, the MAA would promulgate regulations with minimum standards of noise attenuation that the structure must meet in order to receive a variance of the noise standards. Agreement to meet the soundproofing standards does not, in any manner, compel approval of a variance by the Board of Airport Zoning Appeals (BAZA). Rather, this change will establish uniform methods and a clear understanding of the requirements for soundproofing if a variance is granted, and puts the burden of meeting the noise standards on the developer.
- o Exemption (Page 161, Section 4.2.2.2) - Currently, all modification to existing structures, including additions to homes, are subject to the zoning permit process the same as new development. There was concern expressed by communities that this was an unreasonable burden for the many homeowners with residential properties in the ANZ, especially if conditions such as aviation easements and soundproofing requirements were applied [during the permit process]. Therefore, the MAA will submit a proposed statute modification to exempt additions and modifications to single family residential units, as long as the modification does not change the structure into a multiple unit.
- o Avigation Easements (Page 161, Section 4 2.2.3) - The BAZA has generally required an aviation easement be granted holding the State harmless from any and all effects from normal aircraft overflight over the

property. The easement is recorded with the property deed as a perpetual easement. This proposed statute modification will make the easement a mandatory condition for obtaining a variance to the noise regulations.

- o Development Restrictions (Page 161, Section 4.2.2.4) - Currently, a local jurisdiction is prohibited from issuing a building permit prior to receiving a zoning permit from the MAA or a variance from BAZA. However, occasionally developers have spent considerable time and expense in development activities such as obtaining subdivision approvals and utility and grading permits, and have claimed financial hardship when seeking a variance from BAZA at the building permit stage. This proposed statute modification will restrict local government approval of all development activities prerequisite to construction prior to receiving a zoning permit or variance.
- o Noise Zone Notification (Page 161, Section 4.2.2.5) - Many residents have complained that they were unaware when buying or renting their residence of the location and requirements of the ANZ, or the extent of aircraft noise in their community. This proposal is intended to provide notification for new buyers and renters of a property's location within an adopted Noise Zone. The MAA will undertake a program with the Anne Arundel and Howard County Board of Realtors to educate realtors and, if possible, have clauses added to standard sales and rental contracts in the ANZ area.

FAA Action: Approved, except Exemption (Page 161, Section 4.2.2.2). The minimum Soundproofing Standards (page 161) would be consistent with FAA's minimum standards. The Exemption option does not meet the goals of Part 150 to reduce existing non-compatible land uses or prevent the introduction of future non-compatible land uses. Disapproval of this option is limited to the measure's effectiveness in meeting Part 150 criteria. FAA recognizes that land use measures are the prerogative of the responsible local land use planning jurisdictions.

14. Residential Property Acquisition (Page 162, Section 4.3) - In 1985, MAA implemented a voluntary program for acquiring residential properties which are severely impacted by aircraft noise. The program provides for relocating the occupants of impacted properties. Property owners are paid full market value for their properties at the highest and best rate, and are provided relocation assistance in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and implementing DOT regulations.

The initial program required relocating 59 properties within communities with noise levels of Ldn 75 and greater. The Program was expanded in 1988 to include an additional 82 Properties within communities with Ldn 75 or greater. To assist in this regard, MAA has received three Federal grants totaling \$12.3 million. As of November 1, 1988, 32 properties have been acquired, 14 others are in the acquisition process and 34 properties are on a waiting list.

MAA proposes to expand the program to include 156 eligible properties. This phase provides for acquiring properties within communities that experience cumulative noise levels of Ldn 70-75 and where the area is proposed by local government to eventually transition from residential to noise compatible land use. Excluded would be large, currently residential properties, where the owners have reasonable opportunity for non-residential resale without State or Federal assistance.

MAA seeks Federal approval for their expanded acquisition and homeowners program in areas within the 70 to 75 Ldn noise levels.

FAA Action: Approved. Upon acquisition of a sufficient number of homes, the State would rezone the area compatible and then resell the property for compatible development. This is how the "eventual transition from residential to noise compatible land use" would take place.

15. Homeowners Assistance Program (Pages 164-170, Section 4.4)
- The MAA's Homeowners Assistance Program provides financial assistance for homeowners residing within the ANZ, who are eligible for voluntary acquisition and relocation. Two options are available: Residential soundproofing for owners wishing to stay in their homes within the ANZ, and resale assurances for owners wanting to relocate outside the ANZ. Both options require the owners to grant aviation easement to the State, allowing continued overflight of the property in exchange for the benefits of the program.

MAA initiated a pilot program in 1987. During the first year of the program, three houses were sold to accomplish this task and seventeen soundproofed. In the second year, ten houses were to be sold under the program using State funds only.

Beginning in July 1989, the MAA proceeded with a full-scale Homeowners Assistance Program with options for residential soundproofing and resale assurance. Approximately 763 homeowners within communities with noise levels of Ldn 70-75 will be eligible for the full-scale program. These homeowners are in communities that are proposed by local government to

remain residential and, therefore, are not eligible under the voluntary acquisition program.

Under the soundproofing option, modifications are made to the house to reduce the interior noise levels of habitable rooms to acceptable levels. The re-sale assurance option, requires that the owners market the property through a realtor, and the State pay the difference in sales value versus the properties fair market value, as determined by an appraiser, if the property were located outside the ANZ adopted and defined by the State of Maryland. The owners also receive some financial assistance in relocation costs. An avigation easement is granted to the State prior to settlement, with any new owner being made fully aware of the easement conditions.

Some 818 homes are involved. The location of these homes, off the ends of runways, precludes the possibility that they might be able to benefit from operational noise abatement procedures.

FAA Action: Approved.

16. School Soundproofing (Page 12, Section 2.2.4., Page 170-172, Section 4.5, Airport Sponsor's ltr. dtd. 3/21/90) - The FAR Part 150 documentation submitted by the MAA for BWI Airport states that four schools were considered for soundproofing. MAA has proceeded with soundproofing the Corkran High School and is negotiating an agreement with the County Board of Education for the soundproofing of the Glen Burnie Park Elementary School.

The decision to soundproof the two remaining schools, Arthur Slade Regional Catholic School and Oakwood Elementary, was delayed pending the completion of the EIS for 15L-33R extension.

Subsequent to the submission of the Part 150 documentation, a Record of Decision was issued by the FAA on July 14, 1989, environmentally accepting the extension of Runway 15L-33R. Paragraph 3, Page 8 of the Record of Decision instructed the MAA to offer to soundproof the Arthur Slade School and Oakwood Elementary. MAA currently intends to provide soundproofing to all four schools.

The Arthur Slade School will present some special problems in that it is an independent incorporated school with very limited resources. Since the school building is approximately thirty six years old, it will be very expensive to soundproof adequately because of the condition of the building. If projected costs for soundproofing this school approach the value of the property, MAA may recommend that it be acquired, rather than modified. The soundproofing improvements may also

tend to increase the economic life of the structure prolonging the existence of a school located under a flight path, which may not be desirable.

FAA Action: Approved



US Department
of Transportation
Federal Aviation
Administration

Memorandum

Subject: **RESPONSE!** Noise Compatibility Program;
BWI Part 150 Study

Date: **February 27, 1990**

From: **Manager, BWI Tower**

Reply to
Attn of:

To: **Manager, Airports Division, AEA-600**
Thru: **Manager, Air Traffic Division, AEA-500**

We have reviewed the **subject** document and offer **the** following comments:

Paragraph 2.1.1. Departure Procedures.

Revised departure procedures based on DME turns have been implemented. These procedures have reduced the noise over some of the close-in communities.

Paragraph 2.1.2. Arrival Procedures.

This paragraph was intended to mean jet aircraft conducting a "Visual Approach" procedure, not VFR aircraft. There is a big difference and a distinction should be made to avoid any misunderstanding.

We also recommend that references to changing airspace boundaries between Baltimore and Washington be removed. This issue has been thoroughly studied and such a change is not feasible. It would disrupt traffic flows at Washington National and severely restrict traffic at Andrews AFB.

We are routing aircraft in the vicinity of 1-97 when traffic permits, but this is infrequent and we do not want to give the impression that moving the bounds is still a viable option.

Paragraph 2.1.3. Preferential Runway Use System.

This paragraph refers to MAA Tenant Directive 501.1 and states that the Noise Compatibility Program continues this directive. The reader is then directed to paragraph 3.4.4 for an analysis. Rather than an analysis, the tenant directive is quoted and we believe contradictions exist between this directive and the noise compatibility document. Several restrictions were instituted in response to complaints from a few vocal community members and not as a result of a noise study. Specifically, we are opposed to departure restrictions on Runway 22, arrival restrictions on Runway 15R at night and departure restrictions on Runway 33R at night.

We recommend that any reference to the tenant directive be removed from the Part 150 document.



U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: INFORMATION: Noise Compatibility Program; Date: MAR 19 1990
BWI Part i50 Study; your memo dated 1/11/90

From: Assistant Manager, Air Traffic Division,
AEA-501

Reply to
Ann of: Jordan: x1229

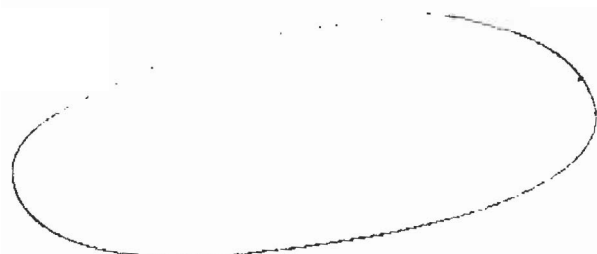
To: Acting Xanager, Airports Division, AEA-600

We have reviewed the subject memorandum and have received several comments from Baltimore Tower.

The suggested changes by Air Traffic are forwarded. We look forward to reviewing the next draft.

Billy E. Commander

Attachments



AIRPORTS DIVISION			
Rec'd MAR 19 1990			
ATT	ACT.	INDEX	DATE
600			
✓ 601		AV	3/19
602			
✓ 610			
620			
630			
File			
Discard			



U.S. Department
of Transportation
Federal Aviation
Administration

Memorandum

Subject: RESPONSE: Recommendation for Approval of Baltimore-
Washington International Airport Noise Compatibility
Program (NCP) Date: May 1, 1990

From: Manager, BWI Tower

Reply to
Att: of:

To: Manager, System Management Branch, AEA-530

We recommend that the following changes be made to the subject draft.

Page 4, First Paragraph, Last Sentence. Change to read: In the future, when the parallel runway 10/28 is in operation, the procedure will be particularly valuable in providing noise relief to residents affected by operations on the runways.

Page 5, First Sentence. Proceed for a visual approach to Runway 10 turning to final a minimum of 4 miles from the airport. Again, this is contingent on the opening of the parallel Runway 10/28.

Page 6, FAA Action: Remove sentence: FAA should ask the BWI Air Traffic Control Tower Manager to continually review this matter.

Page 7, FAA Action: We concur: The immediate turn after takeoff instruction be removed from the proposed procedures. Add: Aircraft will be instructed to turn right or left to a specified heading at the departure end of the runway.

Page 12, Last Paragraph. We have no objection to the engine runup procedures contained in Tenant Directive 501.1; however, we recommend that the Directive be cancelled because of other obsolete guidance contained within. We also believe Tenant Directive 561.1 should not be part of the 150 Program.

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 for MICHAEL J. SARLI

Frank Squeglia
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tend to increase the economic life of the structure prolonging the existence of a school located under a flight path, which may not be desirable.

If you have any further questions on this matter please do not hesitate to call me on (301) 859-7068.

Sincerely yours,



Michael C. West
Associate Administrator
Office of Planning & Engineering

MCW:cb

cc: Robert Talbert



Maryland Department of Transportation
MARYLAND AVIATION ADMINISTRATION

Richard H. Trainor
 Secretary

Theodore E. Mathison
 Administrator

L.H.

March 21, 1990

Frank Squeglia
 Environmental Specialist
 FAA Eastern Regional Office
 Airports Division, AE A 610
 Fitzgerald Federal Building
 JFK International Airport
 Jamaica, New York 11430

78 REC'D
 3/26/90

Re: FAR Part 150
 BWI Airport
 School Soundproofing

Dear Mr. Squeglia:

The FAR Part 150 Documentation submitted by the Maryland Aviation Administration (MAA) for BWI Airport states that four schools were considered for soundproofing. The MAA has proceeded with the soundproofing of **Corkran** High School and is negotiating an agreement with the County Board Education for the soundproofing of Glen Burnie Park Elementary.

The decision to soundproof the two remaining schools, Arthur Slade Regional Catholic School and **Oakwood** Elementary, was delayed pending the completion of the Environmental Impact Statement (EIS) for 15L/33R Extension.

Subsequent to the submission of the part 150 Documentation, a Record of Decision was handed down by the FAA on July 14, 1989, accepting the (EIS) for the extension of Runway 15L/33R. Paragraph 3, page 8 of the Record of Decision instructed the MAA to offer to soundproof the Arthur Slade School and **Oakwood** Elementary. Our current intention is to provide soundproofing to all four schools

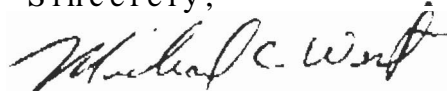
The Arthur Slade School will present some special problems in that it *is* an independent incorporated school with very limited resources. Since the school building is approximately thirty **six** years old, it will be very expensive to soundproof adequately. If projected costs for this school approach the **value** of the property, the MAA may recommend that it be acquired, rather than modified. The soundproofing improvements may also

Mr. Anthony P. Spera
Page Three

5. When Visual Flight Rules (VFR) are discussed in the HCP, **it** refers to flights executing a visual approach as part of an Instrument Flight Rules (IFR) procedure as described in ATP 7110.65F.
6. Distance Measuring Equipment (DME) turns have been considered in **the** development of departure procedures. **For your** information, Runway 22 departure procedure (page 121, NCP) has recently been **changed** from 1 1/2 miles **before** turning, to 2 DME. Immediate departure turns on Runway 33L have been in effect for 2 years and have proven the best procedure for noise **abatement** north of the airport. The BWI FAA Tower monitors departure turns on non-DME runways (4, 33L, 33R) for safe altitude turn procedures.

We hope that the **information** provided will **assist** you in clarifying the **questions** raised regarding procedures in the NCP. If you have any further questions, please contact Robert L. Talbert, Director, MAA Noise **and** Abatement, at 301-859-7070.

Sincerely,



Michael C. West
Associate **Administrator**
Office of Planning and Engineering

MCW:kjk

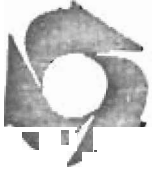
Mr. Anthony P. Spera
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residents on whether to build a berm. **As** a result, the **MAA** decided to plant a 100 by 1500 foot barrier of trees as a compromise solution to provide some noise attenuation and replacement for **trees** removed on airport property, due to construction priorities. This **compromise** was accepted by the residents. The tree planting has been completed and fully funded by the **MAA**. Federal funding will not be requested,

3. The primary purpose of publishing BWI Tenant **Directive** 203.1 is to provide guidance in the non-movement area that is the responsibility of the **MAA**. It provides instruction for **safety** and **environmental** reasons for personnel and equipment, and **also** provides protection for the airport **terminal**. Powerbacks **are** authorized at certain gates after being measured by the **MAA** for **maximum** noise levels. A noise **level** of **120** decibels has been set as the maximum noise level. Decibels **above** 120 db cause **severe** vibration of the terminal area and have in the past caused structural damage. The powerback procedures are well described on pages 151-152 of the NCP. American, Eastern and Continental Airlines have been authorized to powerback. Their flights depart prior to **10:00 p.m.**

A **10:00 p.m.** to **7:00 a.m.** restriction was placed on powerbacks **to reduce** nighttime noise levels affecting neighborhoods close-in to the Airport. Powerback noise measurements taken in the **communities** east of the airport have indicated noise levels as high as 80 decibels during nighttime hours when vehicular traffic is reduced on **Hammonds Ferry Road**. **The** nighttime restriction has not interfered with flight operations, because airlines departing after **10:00 p.m.** do not require powerbacks.

4. The policies established by the **MAA** in Tenant Directives 203.1 and 501.1 on powerbacks, engine maintenance **runups** and some **curtailment** of runway use is our **commitment** to concerned citizens to provide a well balanced **noise** abatement program, that will have a positive effect on reducing noise levels. Powerbacks and runway use procedures were discussed previously. Maintenance engine **runups** have also been a strong concern of the surrounding communities and noise monitoring has verified it can be a problem. The procedures used for engine nighttime **runups** have been developed over a long period of time with consultation with air carriers, These policies **have** been **successful** without restricting flight operations,

*Maryland Department of Transportation***MARYLAND AVIATION ADMINISTRATION**

Richard H. Trninor
Secretary

Theodore E. Matheson
Administrator

April 32, 1990

Mr. Anthony P. Spera
Manager, Planning and Programming Branch
Federal Aviation Administration
John F. Kennedy International Airport
Jamaica, New York 11430

Dear Mr. Spera:

This letter provides the Maryland Aviation Administration's (MAA) response to **six** questions raised in your March 22, 1990, letter regarding the **Baltimore/Washington International (BWI) Part 150 Noise Compatibility Program (NCP)**.

1. BWI Tenant Directive 501.1 was initiated by the MAA after the last Airport Noise Zone and **Abatement** Plan Update adopted in **1982**. The directive was developed as a means to formalize the abatement program and to **inform** the Tenants at BWI of the abatement procedures. The operational procedures in the directive, including closure of Runway 4/22 to multi-**engined** aircraft between the hours of 10:00 p.m. and 7:00 a.m., were adopted with the concurrence of the **BWI Federal Aviation Administration (FAA) Tower**. Procedures have been added and refined to meet the concerns and sensitivities of citizens residing close in to the airport.

The abatement procedures in **Tenant Directive 501.1** have proven to be successful in decreasing noise levels in the affected neighborhoods and reducing noise complaints while improving community relations. Despite the restrictions (page **59**, NCP) on Runway 4/22, the BWI FAA Tower **has** not been denied use of the runway when needed. The operational use of Runway 4/22 is very **limited** currently, and will continue to decrease with the opening of the commuter runway in June. Runway 4/22 is programmed to become a taxiway when Runway 10R/28L is constructed in the **mid-1990's**. The MAA **sees** no useful purpose in reexamining this long standing and accepted noise **abatement** procedure.

2. The analysis of the noise berm along Hammonds Ferry Road was provided in the NCP **only** to show the thoroughness of investigating all noise concerns, The noise berm will not be implemented **because** of the lack of agreement among the

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Paragraph 3.5.2.4

We have thoroughly studied this issue a minimum of four times in the past 18 months and have advised the Maryland Aviation Administration that this is not feasible and the reasons why.


MICHAEL J. SARLI