



TENANT DIRECTIVE

BWI: 501.1
DATE: August 27, 1998
Revised
DISTRIBUTION: D

TITLE: BWI NOISE ABATEMENT PLAN

I. REFERENCES:

- A. Transportation Article Sections 5-805, 5-806 and 5-819, Annotated Code of Maryland.
- B. Maryland Aviation Administration Directive 6905.0.1.
- C. BWI Airport Tenant Directive 203.1.
- D. This Directive supersedes BWI Airport Tenant Directive 501.1, dated July 21, 1998.
- E. Final Environmental Impact Statement (FEIS), Baltimore/Washington International Airport, Extension of Runway 15L/33R, US Department of Transportation-Federal Aviation Administration, Maryland DOT-SAA, January 1989

II. DIRECTIVE STATEMENT:

- A. The Baltimore/Washington International Airport (BWI) Noise Abatement Plan is established pursuant to the Maryland Environmental Noise Act of 1974 (Transportation Article Sections 5-805, 5-806 and 5-819, Annotated Code of Maryland).
- B. Compliance with this Directive, which includes the provisions of the BWI Noise Abatement Plan, is mandatory for all parties conducting any activities at BWI facilities.

- C. The BWI Noise Abatement Plan is formulated to address impacted land used in neighboring communities while maintaining efficient Airport operations.

III. PROCEDURES:

- A. The following procedures apply to noise abatement at BWI.
 - 1. Aircraft Reverse-Thrust Powerbacks:

Must be conducted in accordance with the provisions of BWI Airport Tenant Directive 203.1, dated August 3, 1995.
 - 2. Aircraft Engine Maintenance Run-ups:
 - a. **Definition:** Maintenance engine run-ups include any aircraft engine operation not directly associated with an imminent (within 15 minutes) aircraft flight.
 - b. **Idle aircraft engine tests:** Aircraft engine checks conducted at idle settings are authorized at any time and location unless otherwise restricted.
 - c. **Run-up Locations:** All maintenance engine run-ups of jet and turboprop powered aircraft with the exception of idle run-ups, regardless of when conducted, shall be conducted in the holding block of Runway 10 with the nose of the aircraft positioned on a magnetic heading between 190° and 220°. If the holding block for Runway 10 cannot be used, the alternate area for engine run-ups is the holding block for Runway 33L with the nose of the aircraft positioned on a magnetic heading between 140° and 160°. Any deviation from this procedure (e.g. aircraft heading or location change) must receive prior approval from the MAA's BWI Airport Operations Center and specific information (e.g. aircraft heading, duration and power setting) must be reported to the Airport Operations Center.

- d. **Run-up Duration:** Any exempted maintenance engine run-up activity must not exceed a total of five (5) minutes duration in intervals of 60 seconds or less, at full power during the prohibited time period (idle maintenance engine run-ups may be conducted as needed). In all maintenance engine run-up activity, engine power settings above idle will be maintained for a maximum of 60 seconds or less at a time.
- e. **Multi-engined aircraft:** Maintenance engine run-ups of multi-engined aircraft will be accomplished one engine at a time for all aircraft.
- f. **Prohibition:** No maintenance engine run-ups above idle power settings will be authorized between the hours of 2300 and 0700 local time. The following exemptions apply:
 - 1) **Emergency Operations:** Aircraft serving in an emergency status, such as Life Flight, aircraft diverted to BWI and requiring engine tests for continuation of the flight, or other similar emergencies, shall be approved by the MAA's BWI Airport Operations Center.
 - 2) **Unscheduled Maintenance Operations:** Aircraft that must conduct engine tests due to an unexpected abnormality which had been discovered on an inbound flight segment to BWI and which requires further diagnosis, adjustment or replacement to assure a safe outbound flight in accordance with regulatory and manufacturer's requirements and in order to meet an early morning departure time may perform run-ups beginning two (2) hours prior to the scheduled departure time, but not earlier than 0400, with prior approval from the MAA's BWI Airport Operations Center. For example, an aircraft scheduled to depart at 0600 may run-up no earlier than 0400; an aircraft scheduled to depart at 0700 may run-up no earlier than 0500.

- 3) **Required Reporting:** Requests for engine run-up exemptions must be made to the MAA's BWI Airport Operations Center to obtain authorization. The aircraft operator must provide a written report to the Director, Aviation Noise and Abatement no later than three (3) business days after the event (form attached). At a minimum, the report must identify the unexpected abnormality requiring the maintenance procedure; type of run-up conducted including location, time, duration, and aircraft heading; aircraft type; flight number; and scheduled departure time and date.

3. Aircraft Departures:

- a. All jet and turbo prop powered aircraft takeoff operations shall conform to the flight path and noise abatement climb procedures specified in applicable federal regulations (FAA Circular 91-53) or as directed by Air Traffic Control.

b. Aircraft Noise Abatement Departure Procedures

- 1) Jet aircraft utilizing Distance Measuring Equipment (DME) will commence departure turns as specified from the following runways (unless otherwise directed by the BWI Tower):

Runway 15R - two mile DME when turning left and one mile DME when turning right.

Runway 28 - three mile DME for all turns.

Runway 10 - two mile DME for all turns.

Runway 22 - two mile DME for all turns.

- 2) Jet aircraft departing from Runway 33L will not commence turns below 300 feet above ground during VFR conditions and not below 400 feet during IFR conditions.
- 3) Runway 04 will be used only when excessive cross winds or emergency conditions exist. Jets departing Runway 04 will maintain runway heading until one mile from end of the runway.
- 4) All aircraft departing Runway 33R with destinations to the north or east will maintain runway heading until one mile from the end of the runway.
- 5) Multi-engined aircraft departing from Runway 15L are encouraged to maintain runway heading for one half mile before turning on course.

c. Aircraft Noise Abatement Arrival Procedures

- 1) As a voluntary measure, all jet aircraft conducting visual approaches will turn onto final approach a minimum of four miles from the end of the runway, when weather and air traffic permit.
- 2) All turbojet aircraft conducting visual approaches are expected to maintain 3,000 feet or above until 10 DME from the BWI VOR and, to the maximum extent possible, should remain at or above the Instrument Landing System (ILS) or Visual Approach Slope Indicator (VASI), consistent with safe flight procedures.
- 3) When air traffic and weather permit, and when cleared by the BWI Tower, the Interstate Visual Runway 33L procedure is to be used by turbojet aircraft arriving via the Nottingham

VOR for VFR approaches to Runway 33L.
(This procedure provides aircraft a visual approach over I-97 and Route 3.)

- 4) All aircraft arriving on Runway 15L will turn on to the final approach course a minimum of one mile from the end of the runway.

d. Preferential Runway Use System

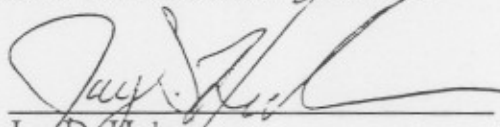
- 1) West operations, which concentrate turbojet aircraft departures on Runway 28, are preferred for noise abatement.
- 2) Runway 10/28 is the preferred runway for noise abatement between the hours of 2300 and 0500 local time. Traffic and weather permitting, aircraft should arrive on Runway 10 and depart on Runway 28. Runways 15R/33L and 15L/33R are available for use during the above hours, but are not preferred for noise abatement purposes.
- 3) Runway 33R should not be assigned to departing aircraft from 2300 to 0500 local time. During these hours, Runway 15L should not be assigned to arriving aircraft except for unusual weather conditions, emergencies or mercy flights requiring its use.
- 4) Practice landings and approaches by turbojet and turboprop aircraft are prohibited on all runways from 2200 to 0600 local time.
- 5) Noise Rule for Runway 15L/33R - Any aircraft producing a Sound Exposure Level (SEL) of 90 decibels or above, for either take-off or landing, is prohibited from operating on Runway 15L/33R, except for emergencies or mercy flights. See Appendix C, Aircraft Restricted from Use of Runway 15L/33R.

e. **Restricted Use of Runway 04/22**

Runway 04/22 shall be closed to multi-engined aircraft from 2200 to 0700 local time. Except as noted below, Runway 04 shall be closed to turbojet aircraft departures, and Runway 22 shall be closed to arriving turbojet aircraft. Runway 04 turbojet aircraft arrivals are permitted from 0700 to 2200 local time when a 2,500 foot or higher weather ceiling exists. The above restrictions apply except for unusual weather conditions, emergencies or runway closures which preclude use of other runways.

- B. The MAA Aviation Noise & Abatement Office maintains a 24-hour telephone service 410-859-7021 to enable citizens to register noise-related complaints.
- C. The Maryland Aviation Administration will monitor Airport-related noise at selected locations in communities surrounding the Airport on a regular basis using both permanent and portable noise monitors. (The Division of Aviation Noise and Abatement is the point of contact.)
- D. The BWI Environmental Committee serves as a forum for discussion of airport noise related issues. (The Office of Planning and Engineering is the point of contact.)
 - 1. The BWI Environmental Committee is composed of:
 - a. Representatives of the Maryland Aviation Administration.
 - b. Representatives of the Federal Aviation Administration.
 - (1) Local Flight Standards Manager
 - (2) Local Air Traffic Manager
 - (3) Regional Noise Abatement Office
 - c. Representatives of tenant airlines.

- d. Representatives of Air Transport Association, Air Line Pilots Association, National Business Aircraft Association, Aircraft Owners and Pilots Association, and other interested aviation industry organizations.
 - e. Representatives of Anne Arundel, Baltimore and Howard County governments.
 - f. Representatives of the BWI Neighbors Committee.
2. The Environmental Committee shall meet periodically, or at least once a year to:
- a. Review existing procedures and compliance with the BWI Noise Abatement Plan.
 - b. Review additional or revised procedures with the interest of minimizing the noise impact on the surrounding areas.
 - c. Present community concerns and recommend potential solutions to environmental problems.


Jay D. Huber
Director of Operations
BWI Airport

JDH/rl
Attachments

_____ Denotes changes

AIRCRAFT RESTRICTED FROM USE OF COMMUTER RUNWAY 15R/33R

The following aircraft are prohibited either from takeoff or landing under the Noise Rule for Runway 15 Left/33 Right because they produce a SEL of 90 decibels or above.

JETS
All Air Carrier Jets
BAE-125/800
Beechjet 400 (BE40)
Cessna C550/C551/C560
Cessna T37/T38
Citation II
Citation III *
Falcon 10/50/200/900
Gulf Stream II/III
Hansa 320
HS-125-400/600/700
IAI Westwind 1123/1124
Jet Aero Commander
Lear Jet 23/24/25/31/35/36/55
Lockheed Jet Star I/II
Moraine – Saulniere
MU 300-10 (Diamond II) *
Sabre 40/60/65/70/75

PROPS
ATR72
BAE ATP
C-130
Convair – 600/640
DC-3
DC-4
DC-6
DC-7
DHC-4
DHC-5
F-27
Gulfstream I
HS748
L-188
Lockheed Constellation
P-3
SA227
SAAB 2000
Vickers Viscount – VC-7/VC-72
YS-11

* Addition

Maryland Aviation Administration
Baltimore/Washington International Airport

Aircraft Engine Maintenance Run-up Report

(Aircraft engine maintenance run-ups are prohibited at BWI Airport between 2300 and 0700 hours local time. If an air carrier is granted an exemption to the prohibition, this report must be filed within three business days.)

AIRLINE: _____

AIRCRAFT TYPE/MODEL: _____ TAIL NO: _____

FLIGHT NUMBER: _____ Scheduled Departure Time: _____

NATURE OF MECHANICAL PROBLEM:

WAS PROBLEM DISCOVERED ON INBOUND FLIGHT TO BWI AIRPORT?

YES _____ NO _____

RUN-UP PERFORMED: DATE _____

RUN-UP DURATION: BEGIN TIME _____ END TIME _____

NUMBER OF POWER-UP APPLICATIONS: _____

ENGINE POWER APPLIED: LOW _____ MEDIUM _____ HIGH _____

RUN-UP LOCATION: _____ AIRCRAFT HEADING: _____

REPORT SUBMITTED BY: _____

PLEASE PRINT

TITLE: _____ PHONE NUMBER: _____

SUBMIT REPORT WITHIN 3 DAYS TO:

Director, Aviation Noise and Abatement
Maryland Aviation Administration
P.O. Box 8766
BWI Airport MD 21240-0766

MAA Use Only RMS # _____ Noise Data _____

Comments: _____



Parris N. Glendening
Governor

David L. Winstead
Secretary

Maryland Aviation Administration

*"To provide services to our customers and the air transportation industry
To foster and develop aviation in Maryland • To develop and empower our employees."*

Theodore E. Mathison Executive Director

July 21, 1998

To Tenant Directive Distribution List D:

As part of the Baltimore/Washington International Airport (BWI) Noise Abatement Plan, aircraft noise abatement arrival and departure procedures, as well as engine maintenance run up procedures, were implemented during the 1988-1990 time frame by the Maryland Aviation Administration (MAA) to reduce noise impacts on communities near the Airport. Recently, the MAA updated the BWI Airport Noise Zone and is currently submitting a supplement to the FAR Part 150 to the Federal Aviation Administration.

The enclosed revised BWI Tenant Directive 501.1 addresses the Noise Abatement Plan changes being implemented by the MAA. This is provided for your use in familiarizing your organization with the revised restrictions placed upon engine maintenance run up procedures as well as to remind airline operators of the noise abatement arrival and departure procedures that have been in place for many years.

The MAA appreciates the cooperation received from the many operators at BWI with our efforts to reduce the impacts of aircraft noise on people living near the Airport. Should you have any questions, please contact Mr. Wayne Bryant, Director of Aviation Noise and Abatement at 410-859-7070.

Sincerely,

Theodore E. Mathison
Executive Director