



Airport Noise Zone and Noise Abatement Plan



MARYLAND DEPARTMENT OF
TRANSPORTATION

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Executive Director

Maryland Aviation Administration

A public hearing will be held on Wednesday, September 26, 2012 at Martin State Airport located at 701 Wilson Point Road, Baltimore, MD, Hangar 4, Room 412.

Public review area opens at 6pm. Public hearing begins at 7pm. Public comments on MAA's proposed 2012 Martin State Airport Noise Zone and Noise Abatement Plan maybe submitted using the forms provided at the public hearing or by writing to:

Maryland Aviation Administration
Director, Noise, Real Estate, and Land Use
Compatibility Planning
Post Office Box 8766
BWI Airport, MD 21240-0766

Written comments must be received by 5:00 p.m. on October 9, 2012 to be considered. After consideration of all oral and written comments, MAA will formally adopt the Airport Noise Zone and Noise Abatement Plan with notification in the Maryland Register. MAA will then certify and submit the adopted Airport Noise Zone to the Baltimore County Land Record Officer for use in land-use planning and development.

Purpose of Meeting

The public hearing affords all interested persons with an opportunity to comment on proposed revisions to the Martin State Airport Noise Zone and Noise Abatement Plan. Maryland State law requires the Maryland Aviation Administration (MAA) to revise the Airport Noise Zone and Noise Abatement Plan at Martin State Airport regularly to account for changes in total annual aircraft operations, aircraft types, and aircraft flight paths, which may result in changes in overall aircraft noise levels.

MAA monitors airport-related noise at specific locations near the airport to determine any significant changes in noise exposure. The current proposed 2012 Airport Noise Zone (ANZ) contours were compared to the previous 2000 ANZ contours. The 2012 ANZ contains 394 acres, an 11% reduction from 441 acres contained within the currently adopted ANZ. The reduced acreage of the ANZ is due to decreased operations, Maryland Air National Guard's (MANG) shift to a quieter C-27J aircraft, as well as a general shift to quieter corporate jets. There are a few areas in the current ANZ that are bigger than the 2000 ANZ. These reflect changes in helicopter noise modeling. The 2000 ANZ was modeled using INM version 6.0; at that time, the INM did not incorporate helicopter modeling. Beginning with INM version 7.0 and continuing in INM version 7.0b, the introduction of a standard helicopter database has dramatically improved the accuracy of helicopter noise resulting in

the larger contour areas centered on the Maryland State and Baltimore County police helipads. Variations in the placement of the helipads and military maintenance run-up areas are due to better data obtained through coordination with MTN airport staff and MANG. The large shift in the location of the Baltimore County Police helicopter activity is due to the use of a new helipad near Taxilane B across from their updated hangar facilities.

Background

The Maryland Environmental Noise Act of 1974 provides for the protection of citizens from the impact of transportation-related noise. The aviation portion of the Act requires MAA to adopt an Airport Noise Zone and Noise Abatement Plan that minimizes the impact of aircraft noise on people living near Martin State Airport and prevents incompatible land development around the airport.

MAA established an Airport Noise Zone and Noise Abatement Plan for Martin State Airport in 1977, following public hearings. The ANZ was last updated in 2000. The Noise Abatement Plan was last updated in 1987. This brochure presents the 2012 Airport Noise Zone and Noise Abatement Plan.

Airport Noise Zone

The Airport Noise Zone is based on an assessment of aircraft noise levels at Martin State Airport during 2012 and aircraft noise levels anticipated in the years 2017 and 2022. MAA conducted

this assessment during 2010-2011.

Total annual aircraft operations (the number of aircraft arriving and departing) decreased from 2000, which was the base year of the last ANZ update. Total annual operations for 2012 were 58,962. Total annual aircraft operations are forecast to be 62,370 in the year 2017 and 66,007 in the year 2022. The proposed ANZ represents the outer limit of exposure for all three analysis years (2012, 2017, and 2022).

In this study, the 2022 contour dominates the majority of the Noise Zone due to an increased number of overall operations as compared with 2012 and 2017. The exception to this is the area immediately off the end of Runway 33 to the south of the airport.

The 65 dB Ldn contour remains mostly on airport property in all three study years with two exceptions:

- An area on the northeast side of the airport off of runway 15 due to Military maintenances run-ups of A10A aircraft on the MANG ramp area.
- An area to the southwest side of the airport off of runway 33 due to fixed wing arrival operations, but dominated by helicopter activity at the Maryland State Police helipad.

The State of Maryland uses the Day-Night Average Sound Level (Ldn) as the measure of cumulative noise exposure in developing an ANZ. Ldn describes the total noise exposure produced by aircraft operations during a 24-hour period. The aircraft operations used to calculate the Ldn are those of an average day during a particular year, in this case 2012. The Ldn measurement includes a 10-decibel (dB) penalty for noise generated between 10:00 p.m. and 7:00 a.m. because studies have shown that human response to sound is intensified during nighttime hours. DNL is an alternative abbreviation for Day-Night Average Sound level and is synonymous with the abbreviation Ldn, which is used in MAA regulations.

The proposed Martin State Airport Noise Zone is depicted by a series of lines (noise contours) surrounding Martin State Airport. These lines connect points of equal noise exposure and represent Ldn 65 dB, 70 dB, and 75 dB noise contours. These contours represent the boundaries for determining incompatible activities or land uses established by the State in 1974. The State uses the noise contours adopted in the ANZ to restrict new development that would be incompatible with the cumulative noise exposure level acceptable for an area. The noise compatibility or land use standards are shown in the chart on page 3.

The 2012 ANZ contains 394 acres, an 11% reduction from 441 acres contained within the currently adopted ANZ. The reduced acreage of the ANZ is due to decreased operations, Maryland Air National Guard's shift to a quieter C-27J aircraft, as well as a general shift to quieter corporate jets.

The Noise Abatement Plan

In 1984 Martin State Airport adopted a Noise Abatement Plan (hereafter referred to as the Plan) that is designed to minimize the noise of aircraft operations within the constraints of the Federal Air Traffic Control System and aircraft safety. The Plan was developed with the cooperation of MANG, airport users, the aviation industry, and local governments. It was most recently updated in 1987. It was reviewed as part of this study; no changes were proposed.

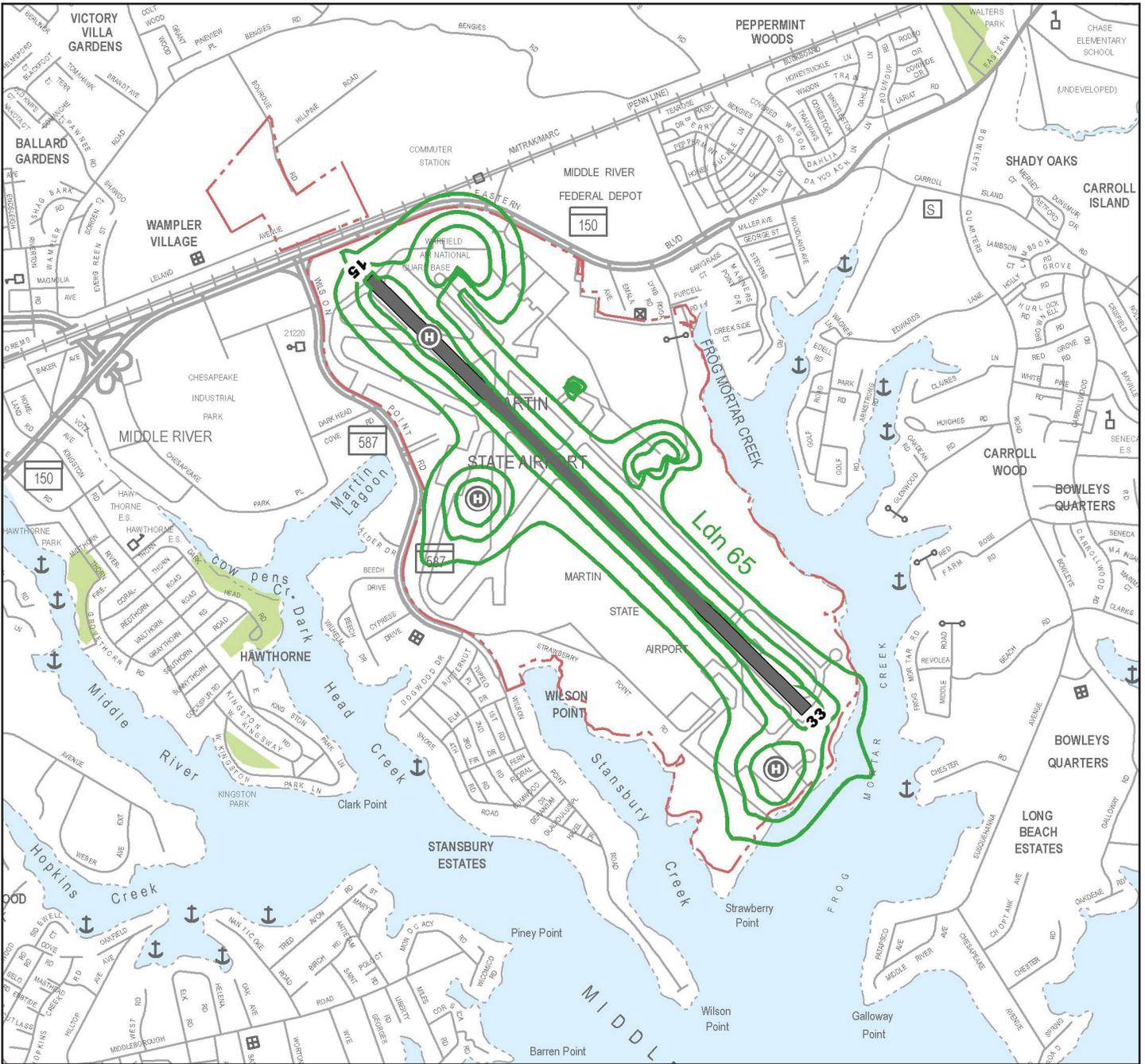
The Plan includes the following Visual Flight Rules (VFR) or "good weather" abatement procedures:

Departures

- Piston-engine aircraft shall fly runway heading for 1 mile prior to turning to the tower-approved, on-course heading.
- Turbine-powered aircraft shall climb on runway heading for 1 mile or above 1,500 feet Mean Sea Level (MSL) prior to turning to the tower-approved, on-course heading.
- Helicopters shall climb to 500 feet MSL on departure heading before turning on-course, unless operating under a Letter of Agreement specifying otherwise.
- Instrument departures shall be accomplished in accordance with Air Traffic Control direction or clearance.

Arrivals

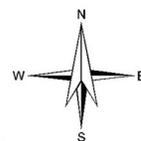
- Aircraft conducting a visual approach should, to the maximum extent feasible, remain at or above the glide slope. Aircraft should intercept the glide slope at the highest feasible altitude, commensurate with flight and air traffic procedures, to minimize aircraft noise exposure to communities underlying the final approach course.
- A left-hand traffic pattern shall be used at Martin State Airport unless otherwise directed by Air Traffic Control. Traffic pattern altitudes are 1,000 feet above MSL for piston engines, 1,500 feet above MSL for civil turbine and military turboprops, 2,000 feet above MSL for military jets, and 500 feet above MSL for rotary wing aircraft.



Noise Compatibility Standards	
Land Use	Area of Compatibility (Noise Levels)
Residences, schools, hospitals, libraries, churches, auditoriums, rest homes, nursing homes, concert halls.	Up to Ldn 65
Transient lodging, hotels, motels, sports arenas, outdoor spectator sports, playgrounds, neighborhood parks, noise sensitive manufacturing.	Up to Ldn 70
Golf courses, riding stables, water recreation, cemeteries, office buildings, retail and wholesale establishments, movie theaters, restaurants, industry, manufacturing, utilities, livestock farming, animal breeding.	Up to Ldn 75
Agriculture (except livestock), mining, fishing, aviation related uses.	All

Martin State Airport Noise Zone

— Ldn Contour



0 2000 Feet

Closed Traffic Patterns

- Aircraft remaining in closed traffic under VFR conditions will not turn crosswind until reaching the airport boundary unless cleared otherwise by Martin Tower (left closed traffic Runway 15 excepted).
- Fixed Wing aircraft remaining in left closed traffic Runway 15 (VFR) shall fly runway heading for 1 mile, turning crosswind at the western shore of Galloway Creek, and fly crosswind leg until abeam the western shore of Seneca Creek prior to beginning a turn to downwind. The downwind leg should be entered level at the appropriate pattern altitude for aircraft type. The downwind leg should be flown until north of the large government warehouse, prior to turning base leg.

Taxiing Aircraft

- All taxiing C-130¹ aircraft shall perform engine run-up on Taxiway T abeam Taxiway D prior to departing Runway 33.

“Touch-and-Go” and/or Practice Approach Restrictions

- No touch-and-go operations are permitted for aircraft having a maximum gross landing weight in excess of 12,500 pounds without the permission of the Airport Manager. No practice approaches or practice landings are permitted from 9:45 p.m. to 6:15 a.m. local time.
- Military aircraft shall be limited to two (2) practice landings/take-offs or approaches unless additional operations are approved by Airport Management personnel.

Helicopter Special VFR Arrival/Departure Procedures

The Plan includes a Tenant Directive, revised in June of 1994, which outlines Helicopter Special VFR or “marginal weather” arrival/departure procedures. These procedures reduce noise exposure in local communities by keeping helicopter operations over less populated areas. A copy of the Tenant Directive is on file in Airport Operations.

Noise Concerns

MAA established a telephone hotline in 1977 to enable staff

¹ All Maryland Air National Guard C-130 aircraft have been retired and replaced with C-27J aircraft as of the 2012 ANZ base year.

to respond to citizen concerns about aircraft noise. The Noise Hotline number is 410-682-8800.

MANG Noise Barrier

In 1989, MANG erected two noise barriers, both between MANG’s engine maintenance area and homes northeast of the airport. These barriers provide a significant reduction in noise impacts from engine maintenance activity at several homes east and northeast of Martin State Airport.

Zoning Permit and Appeal Procedure

MAA regulates land use within the Airport Noise Zone. Anyone desiring to construct or modify a structure or land use is required to obtain an Airport Zoning Permit. An application can be obtained from the Baltimore County Office of Planning and Zoning or the MAA Office of Noise and Abatement. Either office will assist the applicant in completing the application.

MAA is required by law to approve or deny zoning permits based on the location relative to the Airport Noise Zone and the compatibility standards listed in the chart on page 3. For example, a person may wish to build a new housing development within the Ldn 65 dB noise contour. As the maximum limit for new residential land use is Ldn 65 dB, (see Noise Compatibility Standards chart), the applicant would be denied a permit by MAA. In the event a permit application is denied by MAA, the applicant may appeal to the Board of Airport Zoning Appeals (BAZA) for a variance. BAZA may deny an appeal or grant a variance requiring construction standards designed to reduce noise exposure to future occupants. BAZA was created in 1974 by the Maryland General Assembly and is composed of 10 citizen members appointed by the Governor.

Martin Neighbors Committee

MAA established a permanent committee to serve as liaison between Martin State Airport and the surrounding communities to ensure continuing and timely discussion of mutual airport and community matters. The committee consists of a chairman and nine local community representatives and meets periodically to ensure direct communications are maintained between Martin State Airport and its neighbors.

Questions/Comments

Please direct inquiries on the Martin State Airport Noise Zone and Noise Abatement Plan to:

Maryland Aviation Administration
Director, Noise, Real Estate, and Land Use Compatibility Planning
Post Office Box 8766
BWI Airport, Maryland 21240-0766
410-859-7375