Executive Summary

Introduction

Martin State Airport (MTN) is owned by the State of Maryland and operated by the Maryland Department of Transportation Maryland Aviation Administration (MDOT MAA). MTN is located in Middle River, Maryland.

Maryland law requires the protection of citizens from the impact of transportation related noise. MDOT MAA is required to adopt an Airport Noise Zone (ANZ) that minimizes the impact of aircraft noise on people living near MTN and prevents incompatible land development around the airport. MTN is also required to implement a Noise Abatement Plan (NAP) if an impacted land use area exists within the noise zone. Although there are no impacted land uses within the MTN noise zone, MTN has adopted a NAP in the past and will continue to do so.

Noise analysis required to complete the ANZ study results in a better understanding of current and future noise conditions at the airport for both MDOT MAA and MTN stakeholders, including communities surrounding MTN. The ANZ update intends 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. Updating the ANZ involves studying airport noise and developing noise contours for both existing and future conditions at MTN necessary for local land use planning. The ANZ provides a means for MDOT MAA to identify, control, and prevent incompatible land development around the airport. The study also includes a review of the MTN NAP. The NAP prescribes measures to monitor and reduce or eliminate impacted land use areas to the extent feasible, while maintaining efficient airport operations.

Public Engagement

The ANZ update process includes multiple public consultation efforts to ensure that MTN stakeholder input is reflected in the resulting ANZ contour and NAP documentation. This public involvement component included two major initiatives: voluntarily forming and convening a Stakeholder Advisory Committee (SAC); and conducting a public workshop and hearing.

The SAC convened representatives of stakeholder groups affected by airport activities to ensure that these groups were informed of the 2020 MTN ANZ update process and methodology. Members of the SAC were invited to participate throughout the MTN ANZ update process by reviewing study inputs, assumptions, analyses, and documentation. They were also encouraged to provide input, advice, and guidance related to the NAP. They were invited to share pertinent MTN ANZ update information with the groups or any interested citizens that they represent.

The SAC convened twice during the ANZ update process. SAC members served in an advisory role to the MDOT MAA solely for purposes of the MTN ANZ update process. The SAC is composed of stakeholders representing all significant interests at MTN:

- Local government planning staff
- Community organizations
- MTN tenants and users
- Aviation trade associations

As required by Maryland law, a public workshop and hearing were held concerning the 2020 MTN ANZ on January 26, 2021. The public workshop and hearing afforded all interested persons with an opportunity to comment on proposed revisions to the MTN ANZ and NAP.

Airport Noise Zone

The ANZ is an area specified by noise level contours in terms of the Day-Night Average Sound Levels, abbreviated DNL or Ldn. The study process considered existing conditions (2019) and forecast conditions in 2025 and 2030.

This 2020 MTN ANZ document includes the DNL noise contours for the following three conditions:

- Base year 2019 conditions with the current runway layout;
- Five-year post certification, forecast 2025 conditions, with the updated runway layout as identified in the MTN Airport Layout Plan (ALP);
- Ten-year post certification, forecast 2030 conditions, with the updated runway layout as identified in the MTN ALP.

The ANZ, as shown in Figure ES-1 is a composite of the three contours described above. The 2020 ANZ represents the largest extent of the annual DNL contours for each of the three study years (2019, 2025 and 2030) and is defined to provide the largest area of the existing or future noise exposure contours for planning purposes. The noise contours are presented in five-decibel increments, from 65 dB to 75 dB.

The 65 dB DNL contour for the 2020 ANZ is 411 acres in size and remains almost entirely on airport property (approximately 96%). The noise contour extends beyond airport property in three areas:

- An area approximately nine acres in size on the north side of the airport off of the approach end of Runway 15 over compatible land uses including portions of the Amtrak railroad track and Eastern Boulevard due to military maintenance runups of A10 aircraft on the Maryland Air National Guard ramp area;
- An area approximately one acre in size on the northwest side of the airport along Wilson Point Road off of the approach end of Runway 15 due to the Baltimore City Police helipad location and the addition of a civilian aircraft runup location; and
- An area approximately seven acres in size on the south side of the airport over Frog Mortar Creek off of the approach end of Runway 33 due to fixed wing arrival operations and helicopter activity at the Maryland State Police Helipad.

The 2030 forecast year contour dominates the overall extent of the 2020 ANZ contour due to projected higher operations levels. The one exception to this is the area immediately off the departure end of Runway 33 where aircraft operations are projected to shift to the northwest due to the changes in the future configuration of the runway layout for Runway 15/33 that currently is dominated by the 2019 base year contour.

In conjunction with development of the 2020 ANZ DNL contour, land use within the contour boundary as well as land use in the vicinity surrounding MTN was analyzed. Maryland law considers all land uses compatible below 65 dB DNL. The 2020 ANZ represents a 4% increase from the 394 acres contained within the previous ANZ. This increase is attributed in part to increased operations and the future configuration of the runway layout for Runway 15/33, which may reconfigure each end of the existing runway for civilian aircraft. The 2020 ANZ does not include any noise-sensitive land uses (such as residential or educational), as shown in Figure ES-1.

Noise Abatement Plan

MDOT MAA has a long history of noise abatement at MTN. The NAP[1] is designed to minimize the noise of aircraft operations within the constraints of the Federal Air Traffic Control System and ensure aircraft safety. The NAP was developed with the cooperation of Maryland Air National Guard (MDANG), airport users, the aviation industry, and local governments. The NAP was reviewed and updated as part of the 2020 MTN ANZ update process in order to accurately reflect current operating conditions at MTN.

The NAP is formulated to minimize noise disturbance to neighboring communities while maintaining safe and efficient MTN Airport operations. The MDOT MAA Division of MTN Airport Operations is responsible for the overall administration of the MTN NAP.

Per COMAR Section 11.03.02.10C(3)(b), the Maryland Air National Guard, the Maryland State Police, and local law enforcement agencies are exempt from the provisions of this regulation when operational necessity dictates noncompliance, or in the event of a State or national emergency.

The NAP is comprised of two parts; (1) the efforts MDOT MAA is taking to mitigate noise in the areas surrounding MTN, and (2) aircraft operating procedures.

[1] The MTN NAP is established pursuant to the Maryland Environmental Noise Act of 1974 (Transportation Article, §§ 5-805, 5-806, and 5-819, Annotated Code of Maryland) and COMAR Section 11.03.02.10. http://mdrules.elaws.us/comar/11.03.02.10

MARTIN STATE AIRPORT

Airport Noise Zone Update

Figure ES-1

MTN ANZ Update 2020 ANZ Contours

- 2020 Airport Noise Zone DNL Contours
- Airport Boundary
- Helicopter Operation Area
- Military Runup Location
- Civilian Runup Locations
- Civilian Runway (Future)
- Additional Runway Available for Military Operations
- Roads
- Railroad
- Stream / Creek
- Buildings
- Residential Use
- Recreational / Open Space
- Multi-Family Residential Use
- Commercial Use
- Mixed Use
- Manufacturing / Production
- Public Use (Non-Compatible)
- Vacant / Undeveloped
- Public Use (Compatible)
- Transportation / Utility
- Agriculture
- Water
- School
- Library
- Place of Worship
- Hospital / Health Care

Data Sources: Baltimore County Government Open Data Portal; Environmental Systems Research Institute (ESRI); AirNav.com; HMMH

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