

Orlando Melbourne International Airport Part 150 Study Public Workshop and Public Hearing Informational Handout June 30, 2016

Airport Overview

Owned/Operated By: Melbourne Airport Authority
FAA Three Letter Identifier: MLB

History

- In 1933, the City of Melbourne acquired 160 acres west of the Indian River for a new airport location
- Airport served as a Naval Air Station training Navy and Marine pilots through WWII, and became a municipal airport in 1947
- The MAA was created in 1967 and is responsible for maintaining and operating the airport
- In 1991, the terminal facility was completed, and in 1993 Melbourne Municipal Airport became Melbourne International Airport

Aircraft Operations Modeled in the Part 150 Study

- 2016: 132,998
- 2021: 160,805

Source: MLB Master Plan Update Forecast, 2015.

Runways

- Runway 9R-27L: 10,181' long by 150' wide
- Runway 9L-27R: 6,000' long by 150' wide
- Runway 05-23: 3,001' long by 75' wide

Airport Role

MLB is classified as a Primary Commercial Service Airport in the Federal Aviation Administration's (FAA's) National Plan of Integrated Airport Systems (NPIAS). Inclusion in the NPIAS indicates an airport is considered "significant to national air transportation and therefore, eligible to receive grants under the FAA's Airport Improvement Program."

Air Traffic Control Tower

- Operates from 6:00am to 12:00am each day



Frequently Asked Questions

What is a Part 150 Study?

Title 14 Code of Federal Regulations (CFR) Part 150, *Airport Noise Compatibility Planning*, provides the opportunity for an airport to conduct a voluntary noise exposure and land use study (commonly referred to as a Part 150 Study), to address noise and land use compatibility. The Study components, prescribed by 14 CFR Part 150, allow an airport to develop programs to increase compatibility of land uses around the airport. This compatibility can be accomplished in several ways through noise abatement, land use, and administrative measures.

What Does the Part 150 Study Include?

The Part 150 Study develops noise exposure maps for current and future conditions; evaluates measures that could be implemented to reduce noise exposure over residential areas; considers land use controls that could be established to reduce future incompatible land uses from being developed within high noise areas; and evaluates administrative measures to enhance community outreach.

How is Aircraft Noise Analyzed?

The standard methodology for analyzing the noise conditions at airports involves the use of a computer simulation model. The FAA-approved Integrated Noise Model (INM) was the current noise model available when this project commenced. Airport specific data used in the INM to develop the noise contours included:

Daily Operations: An aircraft operation is defined as an aircraft takeoff or landing. The total number of aircraft operations for 2016 and 2021 were obtained from the MLB Master Plan Update Forecast, approved by the FAA in December 2015. The yearly operations are then divided by 365 to generate the annual-average day operations, which is used for noise modeling.

Aircraft Fleet Mix: The aircraft fleet mix included the various types of aircraft operating at MLB. Identifying the fleet mix was important because certain aircraft are noisier than others.

Runway Use: Wind speed and direction together with runway length are the primary factors that determine the direction of flow of aircraft at the Airport. Air Traffic Control (ATC) designates the flow of aircraft arrivals and departures into the wind.

Flight Tracks: Flight tracks were established by obtaining flight track information from ATC. These corridors represent the paths that aircraft follow when approaching or departing MLB.

Day/Night Use: Following FAA guidelines, day is defined as 7:00am to 10:00pm and night is 10:00pm to 7:00am. The number of aircraft that use MLB during nighttime hours is important factor because each nighttime operation is weighted to account for the greater annoyance of noise as night.

Stage Length: The distance aircraft travel is an important factor because aircraft going long distances require more fuel. The increased fuel weight results in slower departure rate of climb and increased noise during the departure.

What is DNL?

Day-Night Average Sound Level (DNL) was developed as a single number measure of cumulative community noise exposure. DNL was introduced as a simple method for predicting the effects on a population of the average long term exposure to noise. DNL provides a 10 dB penalty for nighttime noise intrusions (i.e., each nighttime operation is the equivalent of 10 daytime operations). The incorporation of the 10 dB penalty is in recognition of increased annoyance that is generally associated with noise during the later night hours.

Does the Study Receive Organizational Input?

Yes, this Part 150 Study has received input from the major stakeholders of the Airport that include the MAA, the FAA, the Space Coast Transportation Planning Organization, Air Traffic Controllers, Pilots, and Citizens. During this Study, two public workshops have been held. The development of the modeling inputs and study progress was shared, and input was received, during these workshops.

What Are the Stakeholders Roles and Responsibilities?

Airport Administration: The Melbourne Airport Authority is the Sponsor of this Part 150 Study and in that role is responsible for planning and assisting with the implementation of measures designed to reduce the effect of noise on residents in the surrounding area. Such actions may include noise abatement procedures, zoning changes, and other measures that do not discriminate, create an unsafe situation, impede the management of the air navigation system, or interfere with interstate or foreign commerce.

Federal Aviation Administration: The FAA's primary role is to ensure safe and efficient use of the National Airspace System. It is responsible for the movement of aircraft on the airfield, and in the air, and has the authority to implement voluntary noise abatement procedures, which have been recommended by MLB. Any noise abatement procedure must be consistent with air safety and all legal requirements, and is voluntary.

Local Governments: The local governments have the responsibility to provide land use planning, zoning, and housing regulations that limit non-compatible development near the Airport.

Pilots: The pilot has the ultimate responsibility for the safe operation of their aircraft. Although certain noise mitigation procedures can be set by the airlines, and the FAA assigns the flight track and altitude, the pilot (both commercial and general aviation) still maintains the authority to make the final judgment. In general, it is up to the pilot to adhere to noise abatement procedures.

Residents and Prospective Residents: The residents in areas surrounding an airport should provide input regarding noise concerns and strive to understand measures that can and cannot be taken to minimize the effect of aircraft noise. Future residents should acquaint themselves with noise and flight track information available from MAA.

What Has Been Produced During the MLB Part 150 Study?

In its simplest form, 14 CFR Part 150 is a process that includes the development of Noise Exposure Maps (NEMs), preparation of a Noise Compatibility Program (NCP), and public involvement. The FAA has prepared checklists for the NEM and NCP which must be followed to ensure compliance with 14 CFR Part 150.

As part of the MLB Part 150 Study, MAA and its consultant quantified existing (2016) and future (2021) aircraft noise exposure levels in the vicinity of MLB. After the MLB NEMs were complete, a range of measures were considered, including operational, preventative, and administrative measures to address incompatible land uses. The MLB Part 150 Study provides NEMs for 2016 and 2021. Additionally, the NCP portion of the Study includes measures providing the greatest potential to minimize the noise impacts from aircraft operations at MLB. The Part 150 Study, including the NEM and NCP, will be submitted to the FAA for acceptance of the NEMs, and approval of the NCP.

The MLB Part 150 Study is available at:

<http://www.mlbair.com/EconomicOpportunities.aspx/BusinessOpportunities/FutureLandUsePlan.aspx>

Will MLB Accept Additional Input?

Yes, the purpose of this Public Workshop / Public Hearing is to receive feedback on the Draft MLB Part 150 Study. These comments will be taken under advisement and addressed in the Final MLB Part 150 Study.

What are the Results of the MLB Part 150 Study?

The FAA includes land use guidelines that relate the compatibility of aircraft activity to areas surrounding an airport (14 CFR Part 150 Appendix A). FAA guidance indicates that virtually all land uses below DNL 65 are considered to be compatible with the effects of aircraft noise. The future 2021 NEM (shown below) reflects a slight increase in the size of the contours compared to 2016, primarily due to the projected increase in aircraft operations. Similar to the existing (2016) NEM, the 2021 DNL 65+ contours remain on-Airport property, with the exception of less than 2 acres of Industrial land, which is considered compatible with DNL 65. Accordingly, no mandatory measures, such as sound insulation or mandatory aircraft procedures, can be implemented or approved for the purposes of Part 150.

The recommended NCP for MLB includes both existing and new measures. Existing measures consist of those that have been approved and implemented through the 1993 Part 150 Study and will be continued as part of the baseline conditions at MLB. New measures will complement the existing measures to continue progress towards addressing noise concerns in the area of the Airport.

ID	Noise Compatibility Program Measure (New)	Benefit of Implementation
SP-1	NBAA Recommended Noise Abatement Procedures	<ul style="list-style-type: none"> Limits noise exposure to communities. Reduces potential for annoyance resulting from aircraft operations.
SP-2	AOPA Recommended Noise Abatement Procedures	<ul style="list-style-type: none"> Limits noise exposure to communities. Reduces potential for annoyance resulting from aircraft operations.
AM-1	Noise Compatibility Program Management	<ul style="list-style-type: none"> Ensures timely implementation of program measures.
AM-2	Community Involvement	<ul style="list-style-type: none"> Opens communication with the public. Provides forum to provide information and receive public feedback.
AM-3	Airport Noise Abatement Signage	<ul style="list-style-type: none"> Enhances pilot-awareness of noise-sensitive areas. Improves voluntary noise abatement procedure compliance. Reduces potential for annoyance resulting from aircraft operations.
AM-4	Develop Jeppesen-style Insert on Noise Abatement Programs at MLB	<ul style="list-style-type: none"> Educates pilots regarding local noise concerns. Reduces potential for annoyance resulting from aircraft operations.
AM-5	Noise Program Update	<ul style="list-style-type: none"> Prevents potential for future non-compatible land use through recurring NEM updates, as necessary.

SOURCE: ESA, 2016.

2021 Noise Exposure Map

