

Carroll County Regional Airport Frequently Asked Questions

How does the airport planning process work?

Airport planning is developed through a hierarchy of governmental agencies. The FAA is responsible for the development and publication of the National Plan of Integrated Airport Systems (NPIAS). The NPIAS lists the airports considered to be in the national interest and eligible for federal funding.

State aviation organizations, such as the Maryland Aviation Administration (MAA), identify existing airports that meet the state air transportation goals and any new airports required to meet future aviation demand. This information is then used to identify airports for inclusion in the NPIAS. At the local level, airport owners/operators develop Master Plans that typically contain a higher level of detail than system plans.

What is the airport's development process?

An airport's development process begins with the Airport Master Plan and Airport Layout Plan (ALP). Following local, state, and federal approval of the ALP and appropriate environmental review, the airport owner may begin development of the projects as depicted on the approved ALP. The projects eligible for state and/or federal (FAA) funding support are completed based upon the approved Airport Capital Improvement Program (ACIP). The ACIP details those projects which are eligible to receive federal funding support. The ACIP is updated each fiscal year.

Based on the scope of the proposed project(s), an airport may need to complete an environmental review. This effort may range from a checklist to an Environmental Assessment (EA), or an Environmental Impact Statement (EIS). It is necessary to receive approval of the appropriate environmental documentation prior to project initiation.

What is an Airport Master Plan?

An Airport Master Plan is a document that represents the long-term (20-year period) development goals of an airport and is typically reviewed and updated every 5 to 10 years. The objective of a Master Plan is to provide guidelines for future airport development that will satisfy aviation demand in a financially feasible manner, while simultaneously addressing the community's aviation, environmental, and socioeconomic issues. The Airport Master Plan provides the following: graphic presentation of the future development of the airport and anticipated land uses in the vicinity of the airport; establishes a schedule for development; proposes an achievable financial plan; justifies the plan technically and procedurally; and addresses issues in a way that satisfies local, state, and federal regulations.

What components make up an Airport Master Plan?

The components of a Master Plan may include the following:

- Study design and identification of issues
- Inventory, surveys, and data collection
- Aviation forecasts
- Demand capacity and analysis
- Facility requirements
- Alternative development
- Financial feasibility

- Environmental overview/analysis
- Implementation plan for development
- Updating the Airport Layout Plan (ALP) drawing set in accordance with federal airport operating and design standards

How is a Master Plan approved?

An Airport Master Plan, inclusive of the ALP, is produced based upon FAA guidelines and regulations found in FAA Advisory Circulars, 150/5070-6A, "Airport Master Plans" and 150/5300-13, "Airport Design". The FAA does not approve a Master Plan, but rather 'accepts' it, meaning they do not verify the narrative information or data contained in the overall plan. The ALP drawing set however is approved as being in conformance with planning and design guidelines by signature on the Airport Layout Drawing (ALD).

What is an Airport Layout Plan (ALP)?

An ALP is a scaled graphic presentation of existing and proposed airport facilities (e.g. runways, taxiways, apron, terminal building, navigation aids, etc.), their location on the airport, and the pertinent safety clearance and dimensional information required. The ALP drawing set outlines the airfield development proposal using computer aided drafting and design techniques. Under certain circumstances, only the ALP drawings will be updated rather than the entire Master Plan for an airport. The FAA requires an airport sponsor to keep their ALP current as significant changes occur on the airport.

What are the different levels of Environmental Analysis?

The following are the various levels of Environmental Analysis:

- Categorical Exclusion (CatEx)
- Checklist (Form A, Form B)
- Short Form EA (Form C)
- Environmental Assessment (EA)
- Environmental Impacts Statement (EIS)

What is an Environmental Assessment (EA)?

An EA is a public document that analyzes a proposed federal action for the possibility of significant environmental impacts. The analysis is required by the National Environmental Policy Act (NEPA). If a determination is made that no significant impact would occur, a finding of no significant impact (FONSI) is issued. However, if the environmental impacts are determined to be of significance, the federal agency may then need to prepare an Environmental Impact Statement (EIS).

What is the structure of an EA?

- **Purpose and Need:** Details the purpose and need for the project(s) and lays the groundwork for a well-written, disciplined EA document.
- **Alternatives Including the Proposed Action:** Description of alternatives to be evaluated within the EA including the Sponsor's proposed action. A brief discussion of alternatives considered but eliminated from further study is also included.
- **Affected Environment:** General discussion of where the proposed project is located and general conditions in the area.
- **Environmental Consequences:** This section evaluates each alternative in regards to the 18 impact categories outlined in FAA Order 1050.1E, Environmental Impacts: Policies and Procedures.

- **Appendices:** Includes all supplemental information used to prepare the EA document.

Is the airport development funded with taxpayer’s money?

People who use our air transportation system pay for the costs of developing America's National Airspace System (NAS) and a portion of public use airports. Included in this group are people shipping packages, private pilots, airline passengers, and employees flying on corporate shuttles. Similar to the national highway systems, much of airport infrastructure is paid for with user taxes on aviation fuels.

Airport finance today is marked by a prominent federal role and an even more significant role of debt finance. The federal role is executed by the FAA Airport Improvement Plan (AIP). AIP is funded by aviation user fees deposited in the federal aviation trust fund for the purpose of improving the nation's aviation infrastructure. Currently AIP funds account for 95% of eligible projects. The remaining 5% of project costs for AIP eligible projects are divided between the MAA and local funds, typically contributing 2.5% each. The Carroll County Regional Airport (DMW) receives support in funding the local share as well as operating and maintaining the airport from Carroll County and airport user fees. MAA also offers funding support for a variety of non-AIP eligible projects and ensures that state aviation resources are allocated to airports within the state with the greatest need.

Why is the runway proposed to be extended?

The runway is proposed to be extended to better serve the range of medium to large size business jet aircraft projected to operate at the airport by the end of the planning period. The Master Plan Update identified 6,400 feet as the minimum length to adequately serve the airplanes operating at DMW currently and in the future.

What kinds of aircraft will be able to use the airport after the runway extension? What kind of uses would these new planes serve?

The runway extension is necessary to better accommodate the future based aircraft at DMW. The additional length offers the operators of the business jets greater operational efficiency and flexibility. The existing and future critical family of aircraft for DMW is the medium to large size business jet. The existing critical aircraft is represented by the Gulfstream III, while the Gulfstream V characterizes future design aircraft at DMW. Operations at DMW include single-engine and multi-engine aircraft used for business, pleasure, and flight training, as well as corporate jet traffic.

Will the number of cargo flights increase at the airport? Will the airport become a cargo hub?

The increased runway length does not make this airport any more of an attractive option for cargo operations unless local demand was to grow substantially. This is unlikely since the base infrastructure of ground based air-freight forwarders is not located at the airport. Also, air cargo operators prefer to truck shipments whenever possible to much larger hub airports, such as BWI.

Is relocating the airport a feasible option?

Although possible, the costs and environmental impacts of relocating an existing well-developed facility to undeveloped, open space often are prohibitively expensive.

As DMW is currently a general aviation airport and is projected to remain such, relocation of the facility would not be feasible.

How many aircraft operations are at the airport and how many per year are projected?

The operations forecast developed during the 2007 Master Plan Update are presented in the following table:

Airport Operations Data and Forecasts				
FORECAST ELEMENT	BASE	FORECAST YEARS		
	2005	2010	2015	2025
Total Based Aircraft	131	143	151	171
Single Engine	110	114	117	122
Multi-Engine	11	13	15	20
Jet Engine	4	9	10	15
Turbo Prop	4	5	7	12
Rotorcraft	2	2	2	2
Operations	112,739	130,695	151,512	203,619
Design Peak Hour Operations	30	35	40	54
Total Instrument Approaches	8,680	10,063	11,666	15,678

Source: Master Plan Update 2007, URS Corporation.

What is a decibel?

The decibel (dB) is the unit used to measure the magnitude or intensity of sound. It uses a mathematical scale to cover the large range of sound pressures that can be heard by the human ear. A 10 dB increase will be perceived by most people to be a doubling of loudness. For example, 80 dB typically seems twice as loud as 70 dB.

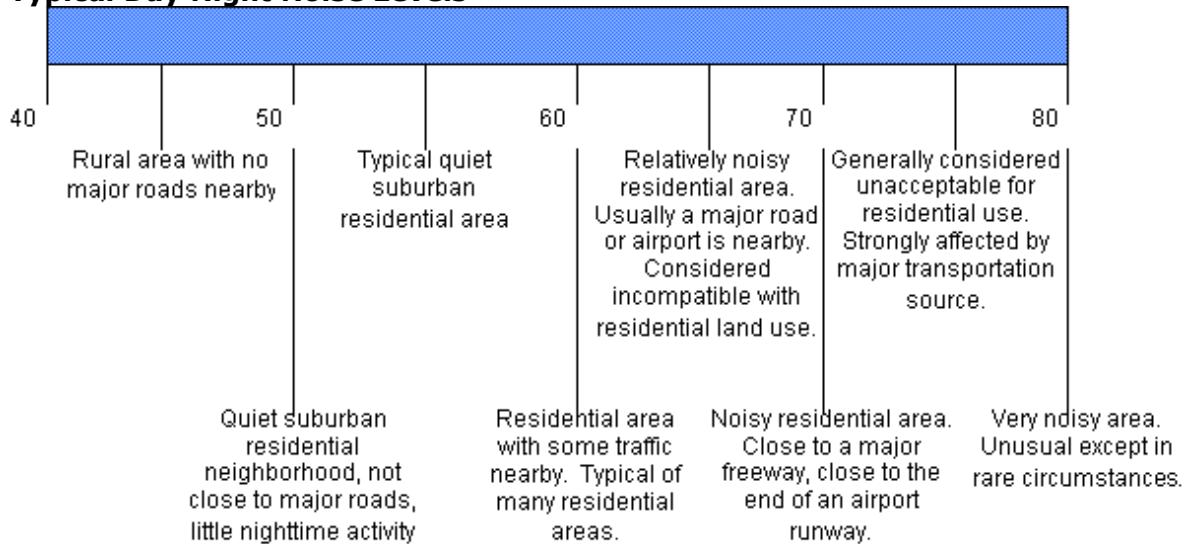
What is the A-weighted decibel?

The A-weighted Decibel (dBA) is the most common unit used for measuring environmental sound levels. It adjusts, or weights, the frequency components of sound to conform with the normal response of the human ear at conversational levels.

What is a DNL?

The Day Night Average Sound Level (DNL) represents noise exposure events over a 24-hour period. The FAA has adopted DNL as the standard metric to measure sound exposure on and near an airport. A 10-decibel (dB) weighting penalty is added to aircraft noise occurring during the nighttime hours (between 10:00 pm and 7:00 am). The 10 dB penalty represents the added intrusiveness of noise events that occur during normal sleep hours, when ambient sound levels are typically about 10 dB lower than during daytime hours, because of the annoyance associated with sleep disruption. The 10 dB noise penalty means that one nighttime sound event is equivalent to 10 daytime events of the same level. Figure 1 illustrates typical day night noise levels.

Figure 1
Typical Day Night Noise Levels



Source: Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment* (April 1995).

What are noise contours?

Noise contours are continuous lines on a map that represents equal levels of DNL. Noise lessens from the innermost area within a contour line outward. The contours are then used to highlight existing or potential areas of significant aircraft noise exposure, as determined by the FAA. Please click [here](#) to view the existing and future noise contour exhibits for the Carroll County Regional Airport.

How are noise levels determined?

Noise contours of specific DNL levels are developed using the FAA's Integrated Noise Model (INM). Airport specific data is entered into the model to produce contours illustrating the noise exposure in the vicinity of the airport. Airport specific data is used in the INM includes:

- Average Daily Operations
- Aircraft Fleet Mix
- Runway Use
- Flight Corridors and Usage
- Departure Destinations
- Day/Night Use

How does FAA assess overall aircraft noise exposure?

The metric used and required for FAA studies requiring aircraft noise exposure calculations is the DNL. The FAA's threshold of significance, according to Order 1050.1E, *Environmental Impacts: Policies and Procedures*, has been determined to be a 1.5 dB increase in noise over any noise-sensitive area located within the DNL 65 contour. It is at this level that the FAA recommends land-use controls be implemented.

Why is noise measured as an average and not as a measure of exposure from a single noise event?

While sometimes helpful as a supplemental noise measurement, the single event metrics pose problems. These metrics do not accurately depict noise exposure or the overall impact of noise on the community. Although DNL is an average of cumulative noise levels, sound levels of the loudest events control the DNL calculation.

As noted in the *FAA Aviation Noise Abatement Policy (2000)*, "Because single event metrics by definition are not composites of cumulative events, 100 aircraft operations a day would be no worse than one operation. Similarly, one event at 90 dB would be assessed as worse than 100 events at 89 dB. These effects clearly do not reflect noise impacts or annoyance reactions accurately." Although the FAA has determined DNL 65 dB as the level of significance, it does not mean that no one may perceive sounds levels below that level as annoying.

Will noise due to aircraft operations increase?

Analysis performed during the Master Plan Update for the future (2025) scenario indicated that sound generated from aircraft would remain within acceptable limits as prescribed by the FAA metrics. While the 65 DNL contour would extend off airport property, it would not cause significant noise impacts on residential property or noise-sensitive facilities. Off-airport land uses within the 65 DNL noise contour consist of Industrial, Forested, and Agricultural uses. FAA guidelines indicate that these land uses are compatible within the 65 DNL contour.

Will noise due to aircraft operations affect my property value?

A report completed by the Sage Policy Group, Inc. for Carroll County in 2007 conducted a literature review to summarize results of previous studies and determine a general relationship of aircraft noise to property values. Studies discussed in the Sage Group report indicated that the property value discount in relation to airport noise was not statistically significant, especially at or below the 65 DNL contour. A copy of this report may be found on Carroll County's website at: <http://www.ccgovernment.carr.org/ccg/airport/sage-airport.pdf>. Noise analysis performed for the preferred development during the 2007 Master Plan Update did not identify non-compatible land use within the 65 DNL contour; therefore, negative affects on property values near the airport are not anticipated to result from aircraft noise.

With regard to noise, are all current guidelines/rules/regulations being applied from the national level through the city level?

The noise analysis conducted in the EA follows applicable guidelines as designated by the FAA and MAA. Both the Carroll County Maryland Code of Public Laws and Ordinances (Chapter 146, Noise) as well as The Maryland Environmental Noise Act of 1974 specify that "Aircraft and related operations at airports licensed by the Maryland State Aviation Administration" are exempt from noise regulations.

Will the fly pattern be addressed? How are the flight patterns chosen, who enforces them, and how can they be changed if/when they create a negative impact on the populations around the airport?

Current flight patterns at DMW were incorporated in the noise analysis and the resulting 65 DNL contour is compatible with the surrounding land use. The FAA has defined standard traffic patterns as noted in FAA Advisory Circular No. 90-66A, *Recommended Standard Traffic Patterns and Practices for Aeronautical Operations at*

Airports Without Operating Control Towers. The airport staff may coordinate modification to the standard traffic patterns if deemed to be in the best interest of the local community and the modification does not compromise aviation safety. As discussed in the 2007 Master Plan Update, "Runway 16 maintains the standard left traffic pattern. Runway 34 maintains a right traffic pattern to avoid over flight of the residential areas in the vicinity of the airport."

What action can the County, and just importantly its citizens, take should they have comments regarding the Environmental Assessment?

Comments have been accepted throughout the study process and responses posted within the FAQ section of the EA website. Upon completion and review by the FAA, the final draft EA will be available for a 30 day public comment period. A public hearing will be conducted and records of public comments recorded by a court reporter near the end of the assessment process. Comments from the public review and hearing will then be reviewed, addressed, and the EA revised if necessary.

Will an Environmental Impact Statement be completed?

An Environmental Impact Study (EIS) is not anticipated to be necessary for the proposed action. In accordance with FAA regulations, an EIS would be necessary if the impacts of the proposed action, including mitigation, remain significant. As noted in FAA Order 1050.1E, "The addition of mitigation to reduce impacts below significance may avoid the requirement to prepare an EIS." The FAA defines the threshold of significance for each environmental impact category, and the impacts from the proposed development at DMW are not anticipated to be significant.