

# **CHAPTER ONE BACKGROUND**

An Environmental Impact Statement (EIS) is an environmental disclosure document prepared by the Federal agency responsible for approving a proposed action in compliance with the requirements of the National Environmental Policy Act of 1969 (NEPA). The Federal Aviation Administration (FAA) is responsible for reviewing and approving actions that pertain to airports and their operation. As such, this EIS has been prepared in accordance with FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*, and FAA Order 5050.4B, *National Environmental Policy Act Implementing Instructions for Airport Actions*.

The purpose of preparing an EIS is to investigate, analyze, and disclose the potential impacts of a proposed action and its reasonable alternatives. This EIS will evaluate the potential impacts associated with constructing a replacement Runway 10R/28L, additional taxiways to support the replacement runway, associated ancillary facilities, a new terminal and apron in the midfield, and implementing the air traffic and land use mitigation actions recommended in the 2007 Final Part 150 Study Update at Port Columbus International Airport (CMH or Airport).<sup>1</sup>

Additionally, the FAA needs to develop air traffic control (ATC) and airspace management procedures that affect the safe and efficient movement of air traffic to and from the proposed replacement runway. Such actions would include, but not be limited to the establishment or modification of flight procedures and the installation and/or relocation of navigational aids (NAVAIDs) associated with the replacement runway.

The EIS also includes an analysis of the potential environmental and socioeconomic impacts associated with reconfiguration of the Airport Golf Course and acquisition and demolition of homes located on 13<sup>th</sup> Avenue, east of Sterling Avenue. Reconfiguration of the Airport Golf Course would be required to accommodate new approach lights on the east side of the Airport. Acquisition and demolition of homes on 13<sup>th</sup> Avenue would be necessary because they would be located in the Runway Protection Zone (RPZ) of the relocated runway. Also included within the EIS, is an analysis of the potential environmental impacts associated with the relocation of the Airport perimeter road, a portion of Stelzer Road, and the expansion of a Big Walnut Creek tributary stream (ravine) southeast of Bridgeway Avenue into a stormwater detention basin.

Two timeframes (2012 and 2018) are assessed in the environmental consequences. These two timeframes correspond to the opening of replacement Runway 10R/28L (2012) and the first phase of the proposed terminal (2018). Specific Airport activity levels and their associated environmental impacts were determined not to be reasonably foreseeable beyond the year 2018. Accordingly, that year is set as the

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<sup>1</sup> The Final Part 150 Study Update for Port Columbus International Airport was submitted to the FAA for approval in November 2007. The FAA accepted the NEMs on December 5, 2007. The FAA issued a Record of Approval on the NCP on May 28, 2008.

end of the planning period for this EIS. Beyond 2018, as time elapses, activity levels become less certain. One of the variables in activity at CMH is the Airport's attractiveness to low-cost carriers, which tends to be a volatile segment of the market, resulting in large increases and decreases in service and passengers in a relatively short amount of time. For example, in the time that it has taken to prepare this EIS, Jet Blue Airlines introduced service and then discontinued service, a new ultra low-cost carrier, Skybus Airlines, initiated service and then stopped service, and most recently AirTran Airlines began operation at CMH. In order to account for the potential growth that these types of carriers could bring to the Airport, a high-growth operating scenario has been included for disclosure purposes only. The analysis of the high-growth operating scenario is included in Appendix P, *Analysis of Accelerated Sponsor's Proposed Project*.

This chapter contains the background, history, and description of CMH. Descriptions of the Airport layout, facilities, and services, as well as aviation activity, both actual and forecasted, are also presented so that the reader may understand the operations of the Airport and the context in which the proposed development actions and its alternatives are set.

## **1.1 OWNERSHIP AND LOCATION**

CMH is a commercial service airport owned and operated by the Columbus Regional Airport Authority (CRAA). The Airport is located on 2,191 acres of land in the City of Columbus, Ohio. The airfield is bound to the north by I-270, and to the east by I-270 and Hamilton Road. To the south is the Columbus International Aircenter and Fifth Avenue, and to the west of the Airport is Stelzer Road and I-670. Public access to the Airport is available from multiple directions. From downtown Columbus and the west, access is along I-670; from the north and south, access is accomplished via I-270; and from the east, access is via I-70 to I-270.

## **1.2 AIRPORT HISTORY**

CMH was dedicated and officially began operating on July 8, 1929. Columbus gained national prestige for providing a stop for the first Transcontinental Air/Rail Service from New York to Los Angeles. The Airport opened with a single building and two runways measuring 2,500 feet and 3,500 feet in length. During the first year of operation, over 11,000 people traveled through CMH. In 1936, in the midst of the Great Depression, the Public Works Administration built an east/west runway at CMH. By 1939, there were 14 flights from CMH daily. Of these flights, ten were Transcontinental and Western Airlines, and four were American Airlines.

In 1941, the Federal government took over operation of CMH, lengthened the runways, and established a Naval Air Facility at the Airport. By 1952, larger planes were able to land at the Airport after the east/west runway, known today as Runway 10R/28L, was extended from 4,500 feet to 8,000 feet long with parallel taxiways. In 1953, the decision was made to move operations from the original Fifth Avenue terminal to a site more centrally-located on Airport property. Construction also began on a new control tower located in the middle of the Airport property. On September 21, 1958, the new \$4 million terminal was dedicated

and began passenger service to Parkersburg, West Virginia. Construction of Runway 10L/28R began in 1958 and was completed in 1959. In 1965, with the establishment of a U.S. Customs facility, the Airport was officially named the Port Columbus International Airport.

The 1970s saw the first scheduled landing of a Boeing 747 at the Airport, which occurred in 1972 by Continental Airlines. On July 8, 1979, CMH celebrated its 50<sup>th</sup> anniversary and the original terminal building was added to the National Register of Historic Places.

Rapid growth started in the late 1980s when Northwest and Continental airlines increased service at CMH. In July 1989, the City of Columbus renamed 17<sup>th</sup> Avenue, which is the main road into CMH, International Gateway. Later that same year, a new seven gate, \$15.5 million concourse opened (Concourse A).

During the 1990s, operation of CMH was transferred to the Columbus Municipal Airport Authority from the City of Columbus. In 2001, the Columbus Airport Authority became the CRAA, which manages and operates CMH, Rickenbacker International Airport, and Bolton Field Airport. Concourse C opened in 1996 and the extension of Runway 10L/28R, was completed in 1997. The runway was extended from 6,000 feet to 8,000 feet in length. In 1999, the first phase of the North Airfield Project was completed. This included the extension of Bridgeway Avenue, new hangars, and office space for Executive Jet Aviation (later renamed NetJets).

In 2000, a new \$92 million parking garage was completed. The parking garage had an underground terminal entrance, new rental car facilities, and a dedicated ground transportation area. A new state-of-the-art Airport Traffic Control Tower (ATCT) was dedicated on April 25, 2004. The new tower extends 21 stories and 195 feet above the ground, allowing for twice the work space as the old ATCT. In addition, it has improved visibility and has the latest communications, computer, and radar consoles. The year 2004 also marked the 75<sup>th</sup> anniversary of CMH.

Currently, the major carriers represented at CMH are Air Canada, AirTran, American, American Eagle, Continental, Continental Express, ComAir, Delta, Midwest Connect, Northwest, Southwest Airlines, US Airways, US Airways Express, United, and United Express. There are also two fixed-base operators (FBOs) and five corporate aircraft facilities in operation at the Airport.

## **1.3 FACILITIES**

The airfield system consists of two parallel runways. The runways (10R/28L and 10L/28R)<sup>2</sup> are oriented in an east/west direction with lengths of 10,125 feet and 8,000 feet, respectively. A distance of 2,800 feet separates the runways. **Exhibit 1-1, Existing Airport Layout**, shows existing Airport facilities.

The Airport currently has CAT I instrument approaches<sup>3</sup> on Runways 10R and 10L. Although CMH does not presently support CAT II/III instrument approaches,<sup>4</sup> maintaining the capability to do so was deemed an important operational objective by the CRAA and FAA ATCT as the planning for this runway was occurring. Computer modeling indicated that adding a minimum of 702 feet between the runways would allow CAT II/III instrument approaches to occur on the Runway 10R end with additional ATC equipment.

Runway ends 10R, 10L, 28L, and 28R are equipped with an Instrument Landing System (ILS). An ILS consists of a localizer for horizontal guidance, a glide slope for vertical guidance, and position markers to identify distance from the runway. These NAVAIDs allow for precision approaches to the Airport. Runway ends 10R, 10L, 28L, and 28R have published approach procedures using both ILS and Global Positioning System (GPS) navigation. In addition, Runway ends 10R, 10L, and 28R have a Precision Approach Path Indicator (PAPI).

The Airport's terminal consists of one main processing building with three passenger concourses (Concourses A, B, and C). The main terminal is a bi-level structure that contains airline ticketing, airport and airline operations offices, maintenance offices, a public lobby, major concessions, baggage make-up, and baggage claim areas, and Federal Inspection Services (FIS) for terminating international flights. Concourses A, B, and C have a total of 38 gates for both air carrier and commuter aircraft operations.

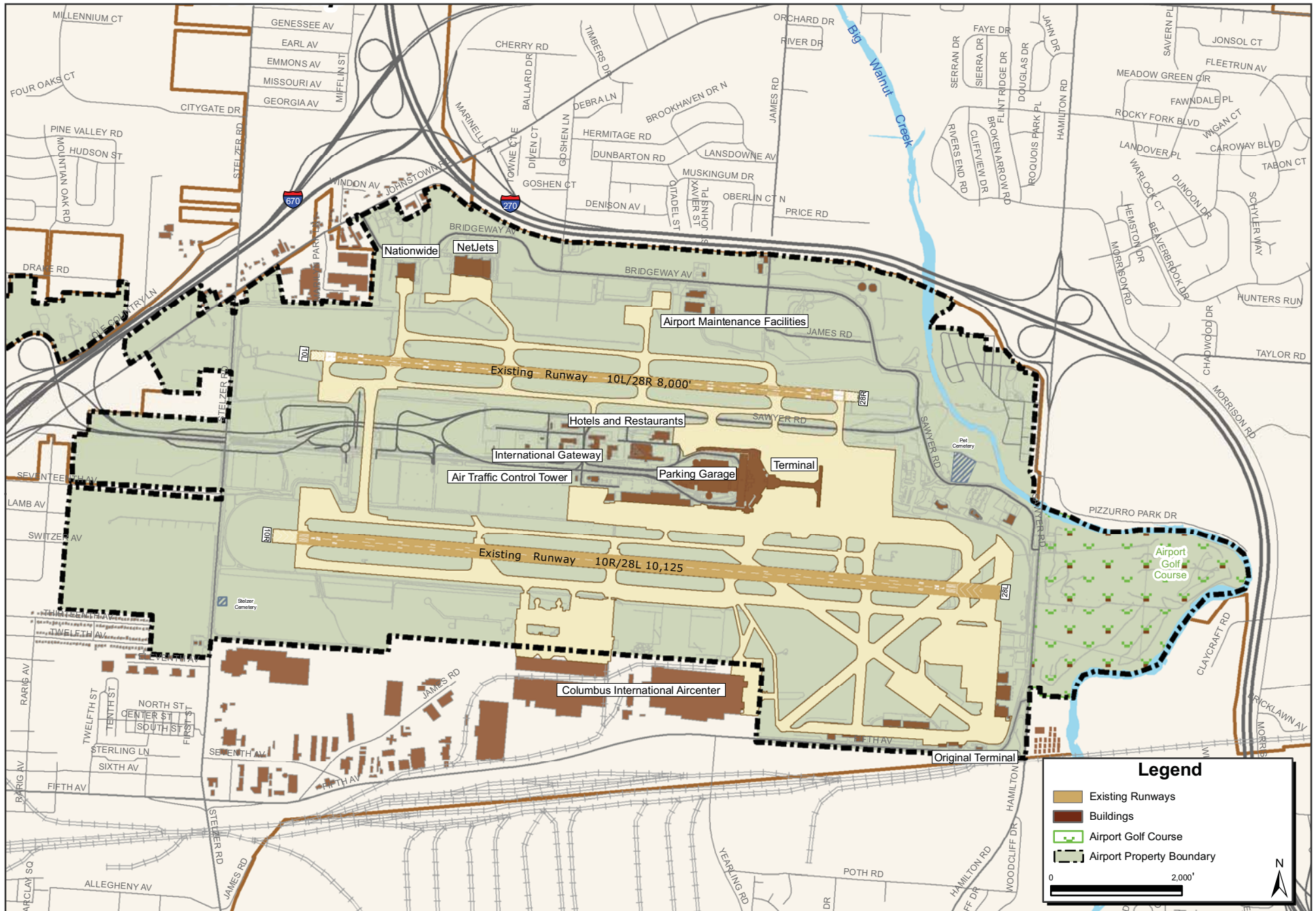
The major airlines operating out of Concourse A include Continental, Continental Express, and Southwest Airlines. Operating out of Concourse B are Air Canada, American, American Eagle, Midwest Connect, Northwest, US Airways, US Airways Express, United, and United Express. Concourse C contains Delta, ComAir, and AirTran.

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<sup>2</sup> Runway names are based on their orientation against a 365-degree compass, with the last digit removed. Therefore, the runways at CMH are oriented at 100-degrees and 280-degrees (roughly east-west). Dropping the last digit results in 10 and 28. A letter after a runway name (L or R) is used when there are parallel runways, such as at CMH, and refers to left or right.

<sup>3</sup> Instrument approaches are categorized based on the visibility and cloud ceiling conditions at the airport. CAT I refers to a condition where the visibility is ½ mile or greater and the cloud ceiling is 200 feet or greater.

<sup>4</sup> Instrument approaches are categorized based on the visibility and cloud ceiling conditions at the airport. CAT II/III refers to a condition where the visibility is as low as 700 feet and the cloud ceiling is as low as 100 feet.



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## **1.4 AVIATION ACTIVITY**

In general, either one of two major forecast methods is used in the preparation of an EIS: (1) FAA's Terminal Area Forecast (TAF), or (2) a Planning Study (also referred to as a Master Plan) Aviation Forecast. On an annual basis, the FAA prepares a forecast of aviation activity for all commercial service airports in the U.S. It is very general in nature, focusing on larger national trends. The TAF usually divides aviation activity into four to five groups (i.e., commercial service, air taxi, cargo, general aviation) and is very broad in nature. This approach is sometimes referred to as a "top down" forecast.

Conversely, a planning study aviation forecast is periodically developed by an airport sponsor, usually during the early stages of an airport Master Plan or Planning Study, with the objective of developing a forecast that incorporates local trends and conditions specific to that airport. This forecast approach is sometimes referred to as a "bottom up" forecast and usually has more detailed information on aircraft types and specific aircraft destinations.

Both forecast methods have their place within the context of aviation planning and the environmental process. As one might anticipate, these two forecasts do not always agree 100 percent. However, as a general rule, the FAA considers differences in aircraft operations of up to ten percent within the first five years and 15 percent within the first ten years to be insignificant, as is the case with the forecasts for CMH. Historical activity in the TAF does not always correlate with historical data in the Planning Study due to several factors, including differences in the timeframes used to develop the two data sets and differences in aircraft categorization.

Data in the TAF are presented on a Federal government fiscal year (FY) basis (October 1 through September 30) and is derived from sources within the FAA.

Historical data in the Planning Study are based on data from the Airport which are presented on a calendar year (CY) basis and compiled from airline, FBO, and FAA ATCT reports following the end of the CY period.

Additionally, how aircraft are categorized by the two forecasts can account for some differences. For instance, the TAF air taxi operations category includes commuter and air taxi operations, whereas the Planning Study group air taxi with general aviation (GA).

For CMH, the Planning Aviation Forecasts have slightly higher growth rates for enplanements and lower growth rates for operations than the FAA's 2005 TAF.<sup>5</sup> These differences in growth rates result in a difference of ten percent in the 2012 enplaned passenger forecast and four percent in the 2012 aircraft operations forecast. However, both forecasts show that the Airport can expect moderate growth over the next 15 to 20 years. **Table 1-1** and **Table 1-2** show the forecast of aviation activity for years 2006, 2007, 2012, and 2018 for both the 2005 TAF and

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<sup>5</sup> At the time the EIS was initiated, the 2005 TAF was the most recent forecast available.

Planning Aviation Forecast. Overall, the Planning forecast better defines the timing of future demand levels and more closely represents actual performance in terms of total annual operation levels. Therefore, the Planning Aviation Forecast was used as the basis for analysis in this EIS from the perspective of total annual operation levels.

In summary, for the horizon years assessed in this document, 2012 and 2018, the number of annual operations assessed were 241,600 and 271,450, respectively. These numbers are within the ten percent variance with the 2005 TAF allowed by the FAA and will be used for analysis in the EIS.<sup>6</sup>

Due to the attractiveness of CMH to low-cost carriers, a High-Growth Scenario was developed. This Scenario represents the “base” forecast plus additional growth brought on by the operation of one or more low-cost carriers. These types of airlines may be extremely successful at CMH, and therefore, could have a major impact on the number of passengers and operations at CMH in the future. This scenario represents a relatively aggressive view of the future activity levels at the Airport. For 2012, the High Growth Scenario projects 6,847,600 enplaned passengers and 288,400 operations, which are a 103 percent and 37 percent increase over current levels, respectively. In 2018, 7,618,800 enplanements and 318,250 annual operations are forecasted in the High Growth Scenario. Tables 1-1 and 1-2 show the High Growth Scenario as compared to the Planning Aviation Forecasts.

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<sup>6</sup> For a detailed discussion of the methodology used to generate the forecast, see Appendix C, *Aviation Activity Forecast*.



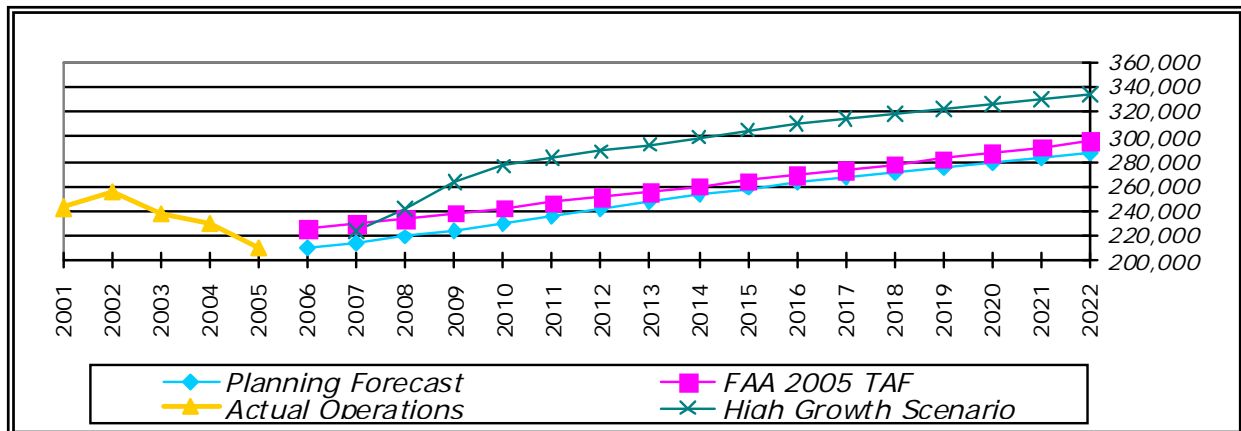
**Table 1-1  
COMPARISON OF FAA TERMINAL AREA FORECASTS AND PLANNING  
OPERATIONS FORECASTS  
Port Columbus International Airport**

Years	Enplaned Passengers			Aircraft Operations			High-Growth Scenario	
	FAA TAF	Planning	% Difference	FAA TAF	Planning	% Difference	Enplanements	Operations
2001(a)	3,412,384	3,336,027	2%	243,203	243,201	0%	N/A	N/A
2002(a)	3,204,770	3,348,456	5%	253,325	255,630	1%	N/A	N/A
2003(a)	3,149,103	3,156,520	0%	240,665	237,979	1%	N/A	N/A
2004(a)	2,996,209	3,112,870	4%	229,325	230,095	0%	N/A	N/A
2005(a)	3,374,708	3,306,753	2%	222,531	210,480	5%	N/A	N/A
2006(f)	3,429,853	3,376,675	2%	226,363	210,322	7%	N/A	N/A
2007(f)	3,487,962	3,503,800	1%	230,283	214,650	7%	4,029,850	224,250
2012(f)	3,828,828	4,214,900	10%	251,291	241,600	4%	6,847,600	288,400
2018(f)	4,374,991	4,986,100	14%	277,670	271,450	2%	7,618,800	318,250

(a) = Actual / (f) = Forecast /

Sources: Aviation Activity Forecast Port Columbus International Airport, June 2006, prepared by Landrum & Brown.  
FAA Terminal Area Forecast (TAF).

**Table 1-2  
COMPARISON OF FAA TERMINAL AREA FORECASTS AND  
PLANNING OPERATIONS FORECASTS  
Port Columbus International Airport**



Sources: Aviation Activity Forecast Port Columbus International Airport, June 2006, prepared by Landrum & Brown.  
2005 FAA Terminal Area Forecast (TAF).

## **1.5 SCOPING AND EARLY COORDINATION**

As a requirement of FAA Orders 1050.1E and 5050.4B, a scoping process must be conducted to provide the opportunity for maximum public and agency participation during the preparation of an EIS. Guidelines for conducting such scoping processes are contained within the Council on Environmental Quality (CEQ) Regulations, 40 Code of Federal Regulations (CFR) § 1501.7, which states that “there shall be an early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to the proposed action. This process shall be termed scoping.”

The FAA, with the cooperation of the CRAA, completed a number of scoping activities to determine the range of issues to be analyzed, and to what magnitude they were to be treated in this EIS. These activities included:

- Early written coordination with Federal, State of Ohio, and local resource agencies;
- Filing of a Notice of Intent to Conduct a Scoping Meeting on the EIS for CMH; and
- Conducting an agency scoping meeting and a public scoping meeting.

In an effort to identify potential issues associated with the proposed project, coordination letters were mailed to key agencies responsible for resource protection and public policy. These letters requested responses from Federal, State, and local agencies which might have information pertaining to natural and human resources and their locations within the study area. A copy of the FAA coordination letter and a list of agency addresses are included in Appendix A, *Agency Scoping and Coordination*, as well as, copies of the response letters received from these agencies. The FAA conducted an Agency Scoping Meeting at 10:00 a.m. May 31, 2006, in the Emergency Operations Center at CMH. Members of the FAA, EIS consultant team, and CRAA staff were available to respond to questions and discuss issues. Copies of sign-in sheets and other meeting materials for the Agency Scoping Meeting are also included in Appendix A.

Two Public Scoping Meetings were conducted on May 31 and June 1, 2006, at the Holiday Inn – Stelzer Road and Ramada Inn – Broad Street, respectively. These meetings, held from 5:00 p.m. to 8:00 p.m., afforded the general public an opportunity to review and comment on the preliminary environmental analysis and the Sponsor’s Proposed Project. Members of the FAA, EIS consultant team, and CRAA staff were available to respond to questions from the public. Copies of the sign-in sheets, advertising, and other meeting materials used for the Public Scoping Meetings are provided in Appendix B, *Public Involvement*.

Comment forms were provided at the scoping meetings to solicit and encourage written comments. In addition, a project website<sup>7</sup> offered the public an opportunity to email comments. Copies of all public comments received throughout the project are provided in Appendix B.

## **1.6 PART 150 NOISE COMPATIBILITY STUDY UPDATE**

The CRAA recognized the potential for increased noise impacts as a result of implementing the Sponsor's Proposed Project. As such, the CRAA prepared an update to the Airport's Part 150 Noise Compatibility Study, in accordance with 14 CFR Part 150. The 2007 Part 150 Study included an analysis of the potential noise and land use impacts resulting from the proposed relocation of Runway 10R/28L. Recommendations were developed for the implementation of noise abatement and land use mitigation measures to help reduce the noise impacts around the Airport. The noise abatement recommendations focused on runway use programs and modifications to flight tracks, while the land use mitigation recommendations offered sound insulation and encouraged compatible land use planning in the communities near the Airport.

The recommendations of the 2007 Part 150 Study have been incorporated into this EIS. The noise abatement recommendations included in the Noise Compatibility Program are environmentally assessed in Chapter Five, *Environmental Consequences* as an air traffic scenario. The land use mitigation recommendations included in the Noise Compatibility Program have been incorporated into this EIS as mitigation commitments made by the CRAA to help offset the environmental impacts of the Sponsor's Proposed Project. All of the recommendations of the study can be found in the 2007 Part 150 Study. The CRAA published the Final Part 150 Study in November 2007 and the FAA issued a Record of Approval in May 2008.

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<sup>7</sup> EIS project website can be found at: [www.airportsites.net/cmh-eis](http://www.airportsites.net/cmh-eis).

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