

# Atlanta Metropolitan Aviation Capacity Study Phase II Executive Summary

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# Introduction

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In 2007, the Federal Aviation Administration (FAA) completed an update of a study that looked at the future capacity of the nation's airports and metropolitan areas. The original study, completed in 2004, is called the Future Airport Capacity Task (FACT) and the 2007 update is called FACT 2. The goal of these studies was to determine which airports and metropolitan areas would have the greatest need for additional capacity in the next twenty years. The FAA's FACT 2 analysis identified specific U.S. airports that are expected to require additional capacity in the future (2015 – 2025). The FACT 2 Study identified fourteen airports and eight metropolitan areas that will need additional capacity beyond what is currently planned. The Atlanta metropolitan area and Hartsfield-Jackson Atlanta International Airport (ATL) were identified as needing additional capacity. Based on these findings, the FAA initiated the Atlanta Metropolitan Aviation Capacity Study (AMACS) in 2008 to explore the methods and means by which short and long-term aviation capacity in the metropolitan Atlanta region could be enhanced. The FAA provided the City of Atlanta's Department of Aviation a grant to conduct this study. The study focused on ways to reduce airfield related delays at ATL and identified capacity and delay improvements ranging from operational modifications to a new runway.

Following AMACS, the FAA saw the need to investigate the feasibility of a second commercial passenger service airport and collaborated with the City of Atlanta's Department of Aviation and the Atlanta Regional Commission (ARC) to develop the scope of work for this second airport study. The City of Atlanta's Department of Aviation became the study sponsor with the FAA providing a grant to cover 75 percent of the study's cost. This study, referred to as the Atlanta Metropolitan Aviation Capacity Study – Phase II (AMACS 2), was prepared by the Consultant in close collaboration with City of Atlanta's Department of Aviation, the FAA, the ARC, and the Georgia Department of Transportation (GDOT), in addition to many other aviation industry and regional organizations.

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All documents provided for or relating to the Atlanta Metropolitan Aviation Capacity Study – Phase II are conceptual in nature and only describe potential airport development possibilities for the Atlanta Metropolitan Region. The inclusion of potential projects or airport sites in these materials does not constitute any statement by the City of Atlanta that such projects are planned, should be built or represent a development program already determined by the City to be required for the future. Further, all figures included in such materials, whether monetary, time or otherwise, are estimates only and are based upon facts of which the preparers were reasonably able to ascertain as of the date such materials were prepared. No person provided any of these materials may rely on such figures or information contained in such materials other than to support the conceptualization and further discussion of the projects described in such materials.

# **Study Overview**

The purpose of AMACS 2 was to identify if there are one or more sites in the greater Atlanta metropolitan area where it is feasible to build a second commercial service airport to serve a portion of the growing origination and destination (O&D) air travel demand that is currently served at ATL. **The new facility would not replace ATL but would supplement the air service provided at ATL.** 

#### The study goals are as follows:

- To analyze the feasibility of potential sites in the greater Atlanta metropolitan area for a second commercial airport.
- To review several previously identified sites as well as existing airport/airfield sites, military sites, and undeveloped 'green-field' sites.
- To conduct a high-level site assessment of airspace, environmental, and financial considerations to determine "fatal flaws" and to identify the feasibility of candidate sites.

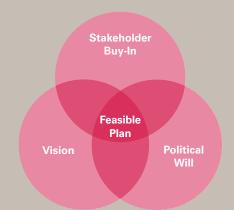
The question of feasibility with regard to a second commercial service airport at various sites in the greater Atlanta metropolitan area is a complex question involving numerous aeronautical, market, environmental, economic, social, political, financial, and other factors. As a high-level assessment of various potential second airport sites, the findings of this study are intended to identify the opportunities, challenges, and fatal flaws, as appropriate.

This study was structured to consider feasibility in four fundamental areas: aeronautical, environmental, market, and financial.

- **Aeronautical** does the plan meet basic airport planning requirements in terms of airspace, air traffic feasibility, airfield layout, approach/ terrain feasibility, and adequate airport facilities for the intended airport role?
- **Environmental** how likely is it to obtain environmental approval based on the known development and operational issues and impacts?
- **Market** if it is built, will airlines and passengers use it? A new airport must be attractive to airlines (who provide the air service) and air passengers (who decide whether to travel by air and, if so, which airline and airport they will use).
- **Financial** the bottom line test of feasibility is the financial dimension. Can the project be financed with acceptable terms for the airport sponsor, airlines, and other users, who will pay to use the facility and bond holders who will bear much of the financial risk?

Fundamentally, a feasible plan is the right balance of cost and benefit. Costs are driven by the aeronautical, environmental, and other development and operating issues. Benefits are principally driven by the potential airline and passenger demand. The lessons learned from the numerous successful and unsuccessful new airport development efforts over the past forty years is that there are four fundamental success factors that must be present.

- Vision
- Stakeholder Buy-in
- Political Will
- Feasible Plan





The Planning Basis workshop was held early in the process to establish the parameters by which the study was conducted.

The airport site template was applied to each site with the intent of assessing only Phase-I of the template. This 1,400acre footprint of Phase I includes a single 9,000-foot runway and all the major airfield components, associated critical areas, and landside components.

# Planning Basis

A planning basis workshop, was held at the start of the study to identify and agree upon the following key elements:

- Study area and potential supplemental sites to be evaluated
- Site screening criteria
- · Comparative criteria and matrix format
- Baseline regional O&D passenger demand
- Airport site development template
- Data sources for site information
- Any additional planning parameters

Defining these key parameters at the start of the study was paramount to ensure a clear and consistent understanding regarding the study.

### Airport Site Template

In order to be able to compare all sites against each other equally, an airport layout template was developed in schematic form. The template was used to determine the best possible layout on each site while still keeping the analysis at a high-level. The airfield and terminal area facilities are sized to accommodate primarily Aircraft Design Group III sized aircraft (i.e. Boeing 737, Airbus A320), but are conservatively laid out to accommodate up to an Aircraft Design Group IV aircraft (i.e. Boeing 757). The airport template that was developed and applied to each of the candidate sites is shown below:

#### Phase I Template Approximate Footprint = 1,400 Acres



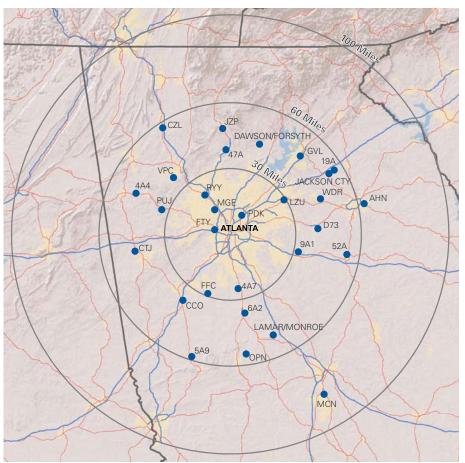
# **Initial Sites Considered**

The study area for the project was defined as a 60-mile radius (see explanation below) from the Atlanta Central Business District (CBD). All airport facilities and several 'green-field' sites (with the exception of privately-owned facilities and ATL) therein were considered in the analysis. Additionally, existing commercial passenger service airports outside of the 60-mile radius, but within 100 miles were also considered. Based on the defined study area a total of 29 sites were identified as potential candidates to be reviewed as supplemental airports to ATL.

Based on those criteria, a comprehensive list of the sites was developed, reviewed, and confirmed with the study team. Included are the following:

- 23 public-use general aviation sites;
- One military facility (Dobbins Air Reserve Base);
- Two commercial passenger service airports (Middle Georgia Regional Airport in Macon, GA and Athens Ben Epps Airport in Athens, GA); and,
- Three final sites from the 1991 Atlanta Region Airport System Plan (Dawson/ Forsyth, Jackson, and Monroe/Lamar).

#### Study Area and Sites to be Evaluated



The following table summarizes all 29 sites considered in the preliminary screening analysis the correlating airport identifier.

# IDENTIFIER AND NAME 19A Jackson County 17A Objective County

19A	Jackson County					
47A	Cherokee County					
4A4	Polk County Cornelius Moore Field					
4A7	Clayton County Tara Field					
52A	Madison Municivl					
5A9	Roosevelt Memorial					
6A2	Griffin Spalding County					
9A1	Covington Municipal					
AHN	Athens–Ben Epps Airport					
CCO	Newnan Coweta County					
CTJ	West Georgia Regional OV Gray Field					
CZL	Tom B David Field					
D73	Monroe Walton County					
FFC	Peachtree City Falcon Field					
FTY	Fulton County Airport Brown Field					
GVL	Lee Gilmer Memorial					
LZU	Gwinnett County Briscoe Field					
JZP	Pickens County					
MCN	Middle Georgia Regional Airport					
MGE	Dobbins Air Reserve Base					
OPN	Thomaston Upson County					
PDK	Dekalb Peachtree					
PUJ	Paulding Northwest Atlanta Airport					
RYY	Cobb County Mc Collum Field					
VPC	Cartersville					
WDR	Winder Barrow					
Site A	Dawson/Forsyth					
Site B	Jackson County					
Site D	Lamar/Monroe					

### SITE SCREENING OVERVIEW

**INITIAL SITE LIST** 29 Sites

**STEP 1** Accessibility and Site Development Issues

#### **REFINED SITE LIST**

10 Sites Remaining

STEP 2 Significant Airspace Screening

REFINED SITE LIST 8 sites remaining

### DETAILED SITE ANALYSIS

# Preliminary Screening

A preliminary screening was conducted to identify those sites that, without extensive analysis, were clearly not feasible sites for a second commercial service airport. The criteria used was based on the aeronautical, environmental, market, and financial considerations. The objective of this preliminary screening was to review the sites to identify fatal flaws based on the following three criteria:

- Accessibility Since this airport would be a second airport serving the Atlanta metropolitan area it will compete with ATL for airline service and air travelers. Consequently, it will need to be within a reasonable drive time for air travelers, compared to ATL. Accessibility is a fatal flaw factor because it is a key determinant for market potential and, hence, revenue potential. Travel times from the O&D centroid were reviewed for each site using the screening criteria outlined below. in Step 1.
- Site Development Land use, terrain, and other site issues determine how difficult it could be to develop a commercial service airport at each of the sites. Site development is a fatal flaw factor because it will influence the cost of acquiring and preparing the site for the airport facilities. A high-level qualitative review of the development issues at each site was conducted by the Consultant team to establish a relative ranking. The rating scale assumed that 1 is best and 10 is the worst. These ratings were then reviewed and discussed by the team to reach a consensus rating for each site.
- Airspace and Air Traffic A second commercial service airport in the Atlanta region must be able to work within the regional airspace structure without adversely impacting the operations of ATL, which makes airspace a critical fatal flaw factor. This initial review considered whether there were any sites that would likely denigrate the safety and capacity of ATL operations.

The preliminary screening was completed in two steps. The first step applied the accessibility and site development screening and the second step applied the airspace screening.

#### Step 1 of the Preliminary Screening

Sites to be removed from further consideration if:

- Accessibility from the Atlanta CBD was greater than 120 minutes (2 hours), or
- Accessibility from the Atlanta CBD was greater than 80 minutes (1 hour and 20 minutes) and the site development issues rating was greater than 4.0.

As a result of the Step 1 screening, 17 sites were removed from consideration due to their accessibility to the Atlanta central business district and or their site development issues rating. In addition, two other sites were removed (CCO and 4A7) because they were located such that most of the air travelers would have to drive past ATL to reach the site. Consequently, while the sites were under the 120-minute accessibility threshold, their locations created a significant accessibility fatal flaw. Despite having high site issues ratings, both FTY and PDK were considered in exception to the screening criteria due to their excellent proximity to the market.

#### Step 2 of the Preliminary Screening

The airspace and air traffic screening focused on air traffic control and air traffic management requirements. The airport site requires a dedicated airspace box that is 30 miles in length and 10 miles in width. Vertical limits ideally should not be less than 9,000 feet. Applying this criteria, two sites, DeKalb Peachtree Airport and Fulton County Airport, were determined to be fatally flawed from an airspace perspective.

#### Fatal Flaw Screening Summary

Based on the two-step preliminary screening, 21 of the 29 sites were removed from consideration and the 8 remaining sites advanced to the detailed site analysis. The table below summarizes the sites considered and their compliance with the screening criteria.

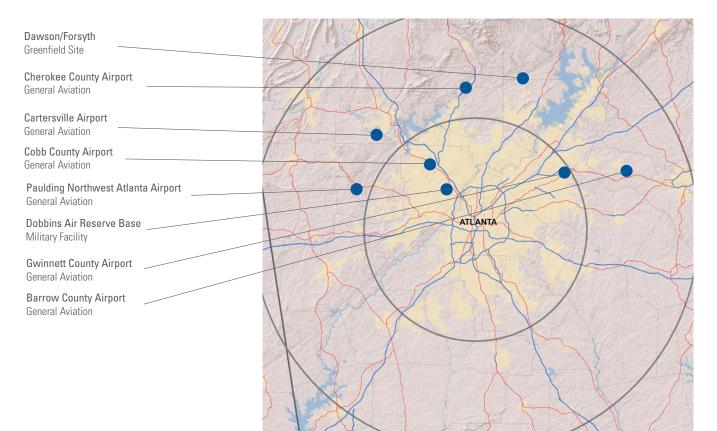
(Note: Shaded cells indicate compliance with the screening criteria shown.)

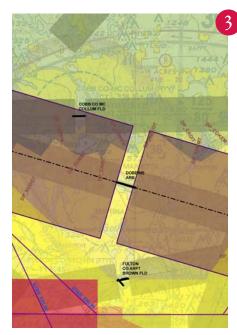


ID	NAME	ACCESSIBILITY	SITE ISSUES	ATLANTA MARKET PROXIMITY	AIRSPACE	NOTES
19A	Jackson County					Removed due to accessibility
47A	Cherokee County					To be reviewed in detailed site analysis
4A4	Polk County Cornelius Moore Field					Removed due to accessibility
4A7	Clayton County Tara Field					Removed due to proximity to ATL & its market strength
52A	Madison Municipal					Removed due to accessibility
5A9	Roosevelt Memorial					Removed due to accessibility
6A2	Griffin Spalding County					Removed due to site issues
9A1	Covington Municipal					Removed due to site issues
CCO	Newnan Coweta County					Removed due to proximity to ATL & its market strength
CTJ	West Georgia Regional OV Gray Field					Removed due to accessibility
CZL	Tom B David Field					Removed due to accessibility
D73	Monroe Walton County					Removed due to site issues
FFC	Peachtree City Falcon Field					Removed due to site issues
FTY	Fulton County Airport Brown Field					Removed due to airspace issues
GVL	Lee Gilmer Memorial					Removed due to site issues
LZU	Gwinnett County Briscoe Field					To be reviewed in detailed site analysis
JZP	Pickens County					Removed due to site issues and accessibility
MGE	Dobbins Air Reserve Base					To be reviewed in detailed site analysis
OPN	Thomaston Upson County					Removed due to accessibility
PDK Dekalb Peachtree						Removed due to airspace issues
PUJ	Paulding Northwest Atlanta Airport					To be reviewed in detailed site analysis
RYY	Cobb County Mc Collum Field					To be reviewed in detailed site analysis
Site A Dawson/Forsyth						To be reviewed in detailed site analysis
Site B	Jackson County					Removed due to accessibility
Site D	Lamar/Monroe			Removed due to accessibility		
VPC Cartersville		,				To be reviewed in detailed site analysis
WDR	Winder Barrow					To be reviewed in detailed site analysis
AHN	Athens - Ben Epps					Removed due to accessibility
MCN	Middle Georgia Regional					Removed due to accessibility

# 8 Final Sites

As depicted in the screening summary on the previous page, 21 of the 29 sites were removed from consideration and the 8 remaining sites advanced to the detailed site analysis. The eight final sites and their locations are shown below:





**IFR Airspace Composite** 

# **Detailed Site Analysis**

The analysis of each site focused on the site development, aeronautical, environmental, market and financial feasibility issues associated with each site.

# **Aeronautical Review**

The aeronautical feasibility focused on the fundamental question of whether the sites could meet the basic airport planning requirements in terms of airspace, air traffic feasibility, airfield layout, approach/terrain feasibility, and adequate airport facilities for the intended airport role.

### **Airfield Layout**

Each site was analyzed to optimally layout out the Site Template. For those sites with existing runways, the airport's existing runway alignment was analyzed to determine if it could accommodate a 9,000-foot runway and the associated Site Template. Alternate runway alignments and/or runway end elevations were reviewed and utilized to mitigate potential site related issues or to better balance site development requirements.

#### Wind Analysis

A standard wind analysis was conducted for each of the eight final sites to confirm whether the proposed alignment provided at least 95 percent wind coverage at an acceptable crosswind component. All sites were able to be aligned to achieve 95 percent wind-coverage.

#### **Facility Development**

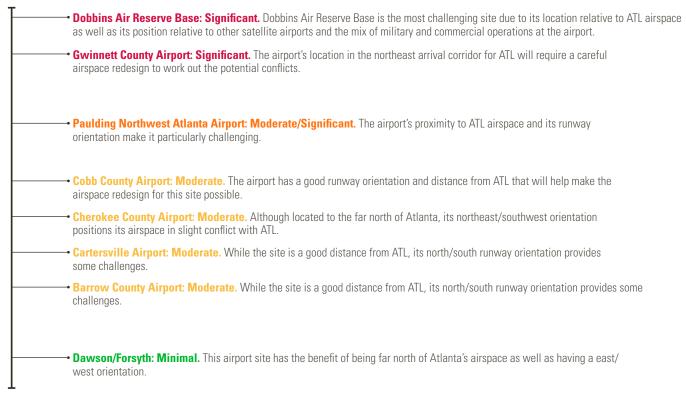
Following the establishment of the runway alignment and verifying adequate wind coverage, the remaining airport elements were sited within the confines of the conceptual facility template. This template was used to provide a consistent site planning process for all eight sites. Site buildings, parking lots, and terminal circulation roads were specifically sited to fit each site's unique needs.

#### **Airspace Analysis**

This qualitative analysis identified the relative challenges that each of the sites would face as a supplemental commercial service airport. The review included a detailed analysis of the Atlanta Metropolitan Class B airspace as well as using Sabre Flight Explorer Air Traffic Monitoring software to capture actual approach and departure patterns for ATL flights. All of the sites will require airspace redesign in order for them to work effectively from an airspace/ air traffic control standpoint. The objectives of such redesign would be to accommodate this additional commercial service airport without impacting the capacity of ATL and having minimal impact on other satellite airports in the region. New air traffic control technology and procedures are likely to aid in the effective redesign effort. Much more detailed analysis will be required to make any of these sites feasible from an airspace/air traffic perspective. Although none of the final eight sites are being declared fatally flawed, it is not clear that they are all completely feasible. The key observations for each site are outlined below in the Key Airspace Issues Scale:

#### Key Airspace Issues Scale

#### **Most Challenging**



#### Least Challenging

# Environmental

The environmental feasibility focused on how likely it would be to obtain environmental approval based on the known development, operational issues, and impacts. The analysis was based on available information and did not include any field surveys. The purpose was to provide a general overview of the potential environmental issues associated with key environmental topics, including noise, land use and comprehensive plans, housing impacts and relocation requirements, cultural resources and Department of Transportation (DOT) Section 4(f) Resources, socioeconomic impacts (minority and low income impacts), wetlands and floodplain, threatened and endangered species, and air quality.

All of these sites will require an environmental impact statement to be completed by the FAA in order to determine actual environmental impact and potential mitigation strategies.

#### **Key Environmental Issues Scale**

#### **Most Challenging**

	<ul> <li>Dobbins Air Reserve Base: Significant. The existing and planned land uses in proximity to the Base are compatible although some residents and commercial properties would need to be purchased. There would however be extensive residential impact associated with aviation noise. There would be multiple schools, places of worship, cemeteries and parklands potentially impacted as well by aviation noise. Lastly there is potential for impact to minority and low income populations. The impacts to wetlands and floodplains could be mitigated.</li> </ul>
	• Cartersville Airport: Significant. The existing and planned land uses in proximity to the Airport allow both commercial and residential use and approximately 340 residents and some commercial properties would need to be purchased. Additionally, there would be residential impact associated with aviation noise. There would be impacts to local roadways and a railroad track. There would be extensive impact to the Etowah River, including extensive flood plain and some wetland impacts. Lastly, there would be potential impact to the Etowah River Valley Historic District (Section 4(f) resource) and one place of worship.
	• Cobb County Airport: Significant. The existing and planned land uses are mostly compatible with airport development although approximately 100 commercial properties would need to be purchased and some residents would be impacted by aviation noise. Interstate 75, Route 3 and a railroad track would be impacted. Impacts to floodplains and wetlands are considerable but could be mitigated.
	<ul> <li>Cherokee County Airport: Moderate. The existing and planned land uses are mostly compatible with airport development although some residents and commercial properties would need to be purchased and some residents would be impacted by aviation noise. Interstate-575 would need to be relocated. The impacts to wetlands and floodplains could be mitigated.</li> </ul>
	<ul> <li>Gwinnett County Airport: Moderate. The existing and planned land uses are mostly compatible with airport development although some residents and commercial properties would need to be purchased; no additional residents would be impacted by aviation noise. Multiple local roads and a railroad track would be impacted as well as two places of worship. The impacts to wetlands and floodplains could be mitigated.</li> </ul>
	• Barrow County Airport: Moderate. The existing and planned land uses are mostly compatible with airport development although approximately 210 residents and some commercial properties would need to be purchased; additionally some residents would be impacted by aviation noise. Multiple places of worship and one cemetery would be impacted. There would be extensive impacts to flood plains and some wetlands however these impacts could be mitigated. Lastly, there is the potential to impact minority and low income populations.
	• <b>Paulding Northwest Atlanta Airport: Minimal.</b> The existing and planned land uses are mostly compatible with airport development although some residents and commercial properties would need to be purchased. Additionally, some residents would be impacted by aviation noise and US 278 would need to be relocated. The impacts to wetlands could be mitigated. There is potential to impact low income populations.
	• <b>Dawson/Forsyth: Minimal.</b> The existing and future land uses would require modification to be more compatible with airport operations however there are no residents or commercial properties to impede land use modifications. The only site issue is associated with the Etowah river protection buffer. The impacts to wetlands could be mitigated. This site is the only site in attainment for all national ambient air quality standard pollutants.
Least Cha	llenging

# 4 Market Feasibility

The market feasibility assessment focused on the likely response from airlines and air travelers if a second airport was located at one of the sites. This analysis essentially attempted to answer the question "If it is built, will airlines and passengers use it?" A new airport must be attractive to airlines (who provide the air service) and air passengers (who decide whether to travel by air and, if so, which airline and airport will be used). On this factor, the sites had clear differences. In fact, the preliminary screening used accessibility as a primary threshold criterion for screening out sites. A number of distant sites remained after the preliminary screening. The competitive disadvantage of these sites due to their remoteness became evident in the detailed market analysis. The following are key findings from the market feasibility analysis:

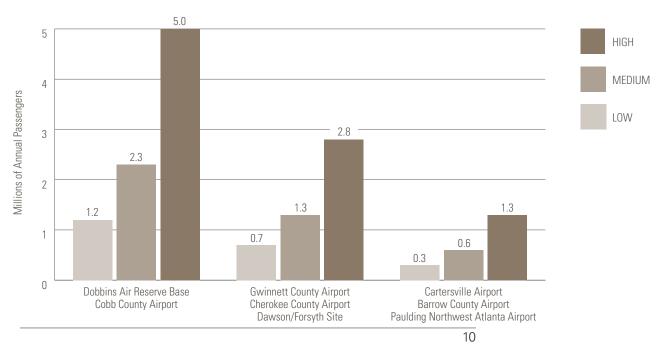
- Several other metropolitan areas that are of similar size to Atlanta today, or its expected size in the next 20 to 30 years, are served by more than one airport.
- For regions with multiple airports, air service concentrates at primary airports.
- Secondary airports must be located in reasonable proximity to population centers to be successful.
- Despite being well-located, secondary airports may not be successful or may dramatically lag the primary airport in terms of passenger demand and take decades to develop a market.
- The only secondary airports that have been successfully developed in the U.S. are international gateway airports that were developed 50 or more years ago to supplement existing, capacity constrained airports located near the business centers. No supplemental airports developed to primarily serve origination & destination passengers have been a success.

In order to estimate market demand three potential scenarios for air service were developed. These scenarios include:

- The **Low Scenario**, which assumes that a leisure-oriented airline, such as the Allegiant airline model, initiates service from the secondary Atlanta airport to major Florida destinations.
- The **Medium Scenario**, which assumes that carriers will serve a mix of major business and hub markets in the Eastern U.S., along with some large Florida markets.
- The **High Scenario**, which builds on the Medium Case, assumes more flights to big cities and major hub markets and that eight additional destinations are added to other large U.S. destinations.

Of the eight sites evaluated in this study, two sites – Dobbins Air Reserve Base and Cobb County – had the greatest market potential. The estimated market demand for each of the sites in 2030 under each of these potential scenarios are as follows:

#### Estimated Market Demand 2030 Forecast (in millions of annual passengers)



### **Comparative Matrix**

FEASIBILITY CATEGORY/ QUESTIONS		COMPARATIVE CRITERIA	METRIC	DOBBINS AIR RESERVE BASE	CHEROKEE COUNTY AIRPORT	
>	Does it meet the design requirements?	Airfield Requirements	Adequate space for initial phase development	TBD	Yes	
AERONAUTICAL FEASIBILITY		Approach Capabilities	Clear 34:1 approach surfaces	Yes	Yes	
		Expansion Potential	Ability to accommodate terminal/ landside facility expansion.	NO/TBD	Yes	
AUTICA		Runway Expansion Potential	Ability to accommodate 2nd runway	No	Yes	
AERON		Wind coverage	Percentage of weather conditions within wind coverage requirements (above 95%)	Yes	Yes	
		Airspace Design	Feasible airspace structure	Yes	Yes	
(ET ILITY	Is it accessible?	Accessibility	Average travel time during PM Peak from O&D Centroid (2030)	65 Minutes	112 Minutes	
MARKET Feasibility	Will it be used? Potential Market Demand		Potential Supplemental Airport Passengers (2030)	1.2 to 5.0 Million	0.7 to 2.8 Million	
	Can it meet environmental approval requirements?	Relocation Requirements	Total number of residences within template (approx.)	5	5	
			Commercial/industrial buildings within template (approx.)	35	40	
		Residences within Noise Impact Area	Residential dwelling units within DNL 65 dB noise contour. (approx.)	3,080	35	
		Residential Population in Noise Impact Area	Population residing within DNL 65 dB or greater noise contour. (approx.)	8,316	100	
VIRONMENTAL FEASIBILITY		Air Quality	Qualitative analysis using available data.	Non-attainment for PM2.5 Non-attainment for 8-hr Ozone	Non-attainment for PM2.5 Non-attainment for 8-hr Ozone	
ENVIRONMENT		Threatened and Endangered Species	Federally-listed species believed to exist in the County (USFWS).	Gulf moccasinshell (E, clams) Cherokee darter (T, fish)	Amber darter (E, fish) Cherokee darter (T, fish) Etowah darter (E, fish) Tennessee Yellow-Eyed grass (E, flowering plant)	
		Wetlands/ Floodplains	Acreage	Floodplains - 15 Wetlands - 6	Floodplains - 30 Wetlands - 5	
		Historic, Architectural, Archaeological, Paleontological, Cultural Resources/ Section 4(f) Resources	Exist within DNL 65 dB or greater noise contour.	Schools: 2 Places of Worship: 7 Cemeteries: 7 Parks/Rec Areas: 3	None	

GWINNETT COUNTY AIRPORT	PAULDING NORTHWEST ATLANTA AIRPORT	COBB COUNTY AIRPORT	DAWSON/ FORSYTH SITE	CARTERSVILLE AIRPORT	BARROW COUNTY Airport
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
No	Yes	No	Yes	No	Yes
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
90 Minutes	160 minutes	75 Minutes	112 Minutes	135 Minutes	141 Minutes
0.7 to 2.8 Million	0.3 to 1.3 million	1.2 to 5.0 Million	0.7 to 2.8 Million	0.3 to 1.3 Million	0.3 to 1.3 Million
130	25	0	0	340	210
50	0	100	0	30	10
0	15	100	0	35	30
0	40	270	0	100	90
Non-attainment for PM2.5 Non-attainment for 8-hr Ozone	Non-attainment for PM2.5 Non-attainment for 8-hr Ozone.	Non-attainment for PM2.5 Non-attainment for 8-hr Ozone	Nothing in non- attainment in Dawson County; NAAQS Assessment needed (over 1.3 million annual passengers)	Non-attainment for PM2.5 Non-attainment for 8-hr Ozone	Non-attainment for PM2.5 Non-attainment for 8-h Ozone
Black Spored quillwort (E, ferns/allies) Little amphianthus (T, flowering plant)	Finelined pocketbook (T, clams) Cherokee darter (T, fish) Etowah darter (E, fish)	Gulf moccasinshell (E, clams) Cherokee darter (T, fish)	Amber darter (E, fish) Cherokee darter (T, fish) Etowah darter (E, fish)	Cherokee darter (T, fish) Etowah darter (E, fish) Large-Flowered skullcap (T, flowering plant) Tennessee Yellow-Eyed grass (E, flowering plant) Gray bat (E, mammal)	Black Spored quillwort (E, ferns and allies)
Floodplains - 58 Wetlands - 17	Floodplains - 0 Wetlands - 14	Floodplains - 167 Wetlands - 56	Floodplains - 0 Wetlands - 26	Floodplains -331 Wetlands - 25	Floodplains - 186 Wetlands - 20
Places of Worship: 2	Parks/Rec Areas: 1	Cemeteries: 2	None	Place of Worship: 1	Places of Worship: 4 Cemetery: 1



# Financial Feasibility

The final test of feasibility is the bottom line test of financial feasibility. Can the project be financed with acceptable terms for the airport sponsor, airlines and other users who will pay to build and operate the facility? Fundamentally, a feasible plan is the right balance of cost and benefit. Costs are driven by the need to address aeronautical, environmental, and other development issues and operating expenses. Benefits are principally driven by the potential airline and passenger demand.

The financial feasibility analysis determines if there are sufficient projected operating revenues and other funding sources to pay the projected capital and operating costs associated with the development and operation of a new supplemental commercial air service airport.

- Any financing undertaken for the initial capital development would need to be supported by other revenues or the tax authority of the airport sponsor.
- Without an alternate source of funding for the capital development required for the supplemental airport, the "break-even" airline rates and charges per enplanement that the supplemental airport would have to charge in order to recover the total annual airport operating cost and debt service costs far exceed the rates charged at US commercial air service airports.

The development of a new supplemental, commercial air service airport faces major risks including: (1) market risk in terms of air service capacity and passenger demand at the supplemental airport, (2) uncertainty in operating costs associated with the commissioning and opening of a new airport facility and the limitations on the ability to adjust staffing and other resource levels with a decline in passengers due to the largely fixed level of operating costs, (3) uncertainty of the non-airline revenues that could be achieved at the new supplemental airport, and (4) changes in the development schedule and cost changes that could impact the total cost of developing a new supplemental airport. Any of these risks individually or combined could significantly increase the required upfront or annual contribution by the airport sponsor.

AIRPORT SITE	Earthwork and Site Preparation	On-Airport Facilities	Land Acquisition, Environmental, Legal	Off-Airport Cost	TOTAL ORDER OF MAGNITUDE COST	Legend Highest Cost Site Above Average
Dobbins ARB	\$105	\$1,047	\$77	\$173	\$1,402	Below Average
Gwinnett County Airport	\$471	\$1,522	\$215	\$230	\$2,223	Lowest Cost Site
Dawson/Forsyth	\$527	\$1,355	\$2	\$386	\$2,268	
Barrow County Winder	\$174	\$1,438	\$62	\$612	\$2,224	
Cherokee County Airport	\$883	\$1,506	\$100	\$127	\$2,516	
Cobb County Airport	\$588	\$1,343	\$502	\$179	\$2,610	
Paulding NW Atlanta	\$856	\$1,382	\$24	\$609	\$2,847	
Cartersville Airport	\$1,025	\$1,463	\$75	\$445	\$2,933	

### Comparative Cost Estimates (in millions 2010\$'s)



The two most significant factors that contribute to this finding are the upfront development cost and the market potential. A strong market potential is critical to the financial feasibility of a new airport. Also, a low upfront development cost is equally important. Overall these two factors must be weighed against one another as depicted on the scale below. As shown in the previous sections, Dobbins Air Reserve Base is the best site from a market potential and development cost perspective. However, this site has airspace and environmental issues, and would require a joint-use operating agreement with the military. Cobb County Airport holds potential as a feasible site with good accessibility but also has major issues, most notably an extremely high development cost.



As stated in the report, the final test of feasibility is the bottom line test of financial feasibility. Is there the right balance of cost and benefit? Based on the current cost-benefit analysis, none of the eight sites studied were found to be feasible at this time; however, given the growing population of the region, an ever changing economic climate, and the dynamic nature of aviation, the feasibility of a second airport in the Atlanta metropolitan region will need to be revisited periodically in the future.

### White Paper Overview

Three white papers were drafted as part of the AMACS 2 study process. The general conclusions of these papers are as follows:

- **Piedmont Atlantic Megaregion:** Atlanta is part of this megaregion, which includes major metro areas within Georgia, Alabama, Tennessee, North Carolina, and South Carolina. A second airport located in the Atlanta metro area could potentially enhance the significance of the metro area in megaregion air travel depending on how it is used by airlines and air travelers.
- **High-Speed Ground Transportation**: In the Atlanta region, high speed rail is not anticipated to be able to substitute air travel in the foreseeable future.
- Joint-Use Feasibility: Ultimately, there are a significant number of challenges that must be overcome in order to have a joint-use operation at Dobbins Air Reserve Base. Significant coordination, collaboration and analysis will be imperative if a joint use operation at Dobbins ARB is ever considered.

All documents provided for or relating to the Atlanta Metropolitan Aviation Capacity Study – Phase II are conceptual in nature and only describe potential airport development possibilities for the Atlanta Metropolitan Region. The inclusion of potential projects or airport sites in these materials does not constitute any statement by the City of Atlanta that such projects are planned, should be built or represent a development program already determined by the City to be required for the future. Further, all figures included in such materials, whether monetary, time or otherwise, are estimates only and are based upon facts of which the preparers were reasonably able to ascertain as of the date such materials were prepared. No person provided any of these materials may rely on such figures or information contained in such materials other than to support the conceptualization and further discussion of the projects described in such materials.



# **Report Conducted By**

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# Acknowledgements

#### Stakeholder Group

Technical Advisory Committee

- Air Transport Association of America
- Airlines Airport Affairs Committee
- Airline Pilots Association
- Atlanta Airlines Technical Representatives
- Georgia Department of Transportation
- Georgia Airports Association
- Metropolitan Atlanta Airports Council
- Metropolitan Atlanta Rapid Transit Authority
- Northeast Georgia Surface and Air Transportation Commission
- U.S. Air Force/Naval Air Station Dobbins

#### **Consultant Team**

#### **HNTB** Corporation

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- Oliver Wyman
- Faithful + Gould
- Frasca
- Airspace Solutions
- EuQuant

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### Regional Advisory Committee

- City of Atlanta
- Civic League for Regional Atlanta
- Georgia Chamber of Commerce
- Georgia Department of Economic
   Development
- Georgia Municipal Association of
   Governments
- Georgia Regional Transportation
   Association
- Georgian's for Better Transportation



# Kasim Reed, Mayor

### Atlanta City Council

Ceasar Mitchell, *Council President* Carla Smith, *District 1* Kwanza Hall, *District 2* Ivory Lee Young, *District 3* Cleta Winslow, *District 4* Natalyn Archibong, *District 5* 

Alex Wan, *District 6* Howard Shook, *District 7* Yolanda Adrean, *District 8* Felicia Moore, *District 9* C. T. Martin, *District 10* Keisha Bottoms, *District 11*  Joyce Sheperd, *District 12* Michael Julian Bond, *Post 1 at large* Aaron Watson, *Post 2 at large* H. Lamar Willis, *Post 3 at large* 

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