



University of Maryland
Robert H. Smith School of Business
BUMO758K: Professor Protiti Dastidar
Fall, 2014

Frederick Municipal Airport Consulting Project

Authors:
Caitlin Bender
Jason Ducker
Mensah Eble
Sarah Morgan
Sylvia Rivera
Shelly Ann Winokur

PALS- Partnership for Action Learning in Sustainability
A National Center for Smart Growth initiative at the University of Maryland

Gerrit Knaap, Executive Director
Uri Avin, PDC Director



Table of Contents

Executive Summary	3
The General Aviation Industry: Macro Issues to Consider	4
Likely Industry Changes	4
Negative	4
Positive	4
General Aviation Industry Analysis.....	5
Rivalry Among Competitors	5
Recommendations for Frederick Municipal Airport	6
Recommendations.....	6
Website.....	7
MARC Shuttle and Perimeter Fence	8
Rebranding Effort.....	8
NBAA Conference Attendance.....	8
New Revenue Streams.....	9
New Business (aviation and non-aviation) Regulatory Impact	9
Property development and management	10
Solar Power	10
Build More Hangars	11
Improved Customer Service.....	11
FDK Community Impact Report	12
Conclusion	12
Exhibit 1: Website Sample	14
Exhibit 2a: Current TransIT Routes	15
Exhibit 2b: Suggested Red Line Extension.....	15
Appendix A: Engagement Letter	17
Appendix B: Industry Analysis.....	21
Appendix C: Competitor Analysis	26

Executive Summary

Frederick Municipal Airport (FAA Code: FDK) is an asset to the Frederick community and a potential catalyst for business and increased tourism in the Frederick area. Due to its proximity to Washington, DC and Baltimore, MD, FDK is an ideal location for travelers who do not want to deal with the hassle of security, frequent delays and traffic at the surrounding major airports. The airport is owned by the City of Frederick and a Fixed Based Operator (FBO), Landmark Aviation, manages day-to-day operations.

The City of Frederick is interested in exploring ways to increase revenue at FDK through current operations and future business possibilities, and create a reputation as the number one corporate executive airport in the Baltimore/Washington area.

FDK can explore the following areas to increase the volume of flights and revenue streams:

- Extend the length of the runway
- Build additional hangars to increase rentals
- Explore other uses for airport land

To increase the volume of flights and generate increased revenue, FDK should make improvements to its current infrastructure and marketing strategy. As FDK increases its air traffic and grows through new expansion projects, it is critical to maximize revenue generation through strategic marketing and a concerted outreach effort. This marketing strategy will help entice additional transient travel operations, encourage local companies to invest in air travel and maximize fuel transactions. In order to do so, local government and Landmark should coordinate to enhance the airport's online presence and market directly to regional businesses in order to position FDK as the destination of choice for corporate executive travel in the area. This strategic marketing effort could include the following:

- Improved website content
- Improved corporate outreach
- Airport Fence
- An extended Bus Route to connect FDK to existing public transportation and the surrounding area
- Name change and consistent branding strategy to position Frederick Municipal Airport.
- Increased presence of FDK staff and advocates at industry conferences

The General Aviation Industry: Macro Issues to Consider

FDK is part of the General Aviation industry (GA). General Aviation is defined by the Federal Aviation Administration (FAA) as “privately owned, public use airports that enplane 2,500 or more passengers annually and receive scheduled airline service.” The FAA noted that the General Aviation sector is the “largest single group of airports in the U.S. system.”

Likely Industry Changes

Operations and usage at FDK could be impacted by new trends in the aviation industry. An understanding of these trends and their impact is crucial to strategic marketing efforts and future capital expenditures.

Negative

- Use of drones presents new potential safety hazards (i.e. local crashes and mid-air collisions)¹
- Planes have nearly doubled their fuel efficiency since 1978.² While this is good for the industry, it is a negative factor for small General Aviation Airports that rely on fuel sales as a source of income.
- Increasing national security concerns could result in increased airspace restrictions.

Positive

- The FAA is likely to institute new training requirements for drone users to avoid potential safety hazards. Small General Aviation Airports (including FDK) may be ideal training grounds for new drone users.
- A recent study found that corporate flying might be more energy efficient per mile than driving a car.³ This study was based on the amount of fuel it takes to move one person per mile; this could be a driver to increase general aviation air traffic and a selling point to encourage corporate travel.

¹ <http://www.flyingmag.com/blogs/going-direct/drones-coming-crisis-ga>

² http://www.slate.com/articles/business/the_juice/2014/07/driving_vs_flying_which_is_more_harmful_to_the_environment.html

³ http://www.slate.com/articles/business/the_juice/2014/07/driving_vs_flying_which_is_more_harmful_to_the_environment.html

General Aviation Industry Analysis

Rivalry Among Competitors

Competitors of FDK include other General Aviation Airports within a 50-mile radius that offer FBO services. These airports include:⁴

- Carroll County Regional Airport, Westminster, MD
- York Airport, York, PA
- Gettysburg Regional Airport, Gettysburg, PA
- Franklin County Regional Airport, Chambersburg, PA
- Richard A Henson Field/Hagerstown Regional Airport, Hagerstown, MD
- Potomac Airpark Airport, Berkeley Springs, WV
- Eastern West Virginia Regional/Shepherd Field Airport, Martinsburg, WV
- Winchester Regional Airport, Winchester, VA
- Leesburg Executive Airport, Leesburg, VA
- Montgomery County Airpark Airport, Gaithersburg, MD
- Freeway Airport, Mitchellville, MD
- Fort Meade (Odenton) Tipton Airport, Fort Meade, MD
- Manassas Regional/Harry P Davis Field Airport, Manassas, VA

Due to the volume of their flight operations and locations, deeper analysis focused on three local competitors: Leesburg Executive Airport, Fort Meade (Odenton) Tipton Airport and Manassas Regional/Harry P Davis Field Airport. The analyses of these three competitors help to understand how their financial performance, services and features, and marketing efforts compare to FDK. In-depth analysis of these competitors is available in Appendix C.

Leesburg Executive, Fort Meade and Manassas Regional all serve the Baltimore/Washington metropolitan area and offer similar services and amenities. However, their websites (available through their respective municipal governments) are more comprehensive and offer easy to find information about capital investments, new construction projects, upcoming events, airport services and associated prices, and their respective FBOs. It is important to note that ProJet Aviation, the FBO that manages Leesburg Executive Airport, is exclusive to Leesburg, as opposed to Landmark Aviation, which manages airports throughout the world. This is important because marketing and communication efforts are managed at Landmark's central office in Texas, as opposed to onsite at FDK. Landmark Aviation officials at FDK noted that all marketing decisions, website changes and outreach information are coordinated at the

⁴ <http://www.acukwik.com/Proximity.aspx>

Landmark central office; there is no local budget available for FDK-specific marketing efforts through Landmark.

If the ultimate goal is to increase visibility, it is best that stakeholders who are intimately acquainted with day-to-day operations and airport needs manage this effort. Unless a dispatcher or corporate travel agent is already familiar with FDK, they are not likely to learn a lot of additional information on either The City of Frederick's or Landmark's websites. Given that many people rely on Internet searches for their basic research needs, it is important to offer easy-to-find comprehensive information about facilities, pricing and booking information. A strategic marketing effort must be spearheaded by the City of Frederick, as opposed to Landmark Aviation, if FDK is to become the most used executive airport in the region.

Recommendations for Frederick Municipal Airport

Recommendations

The strategy to make FDK the number one airport in the region will focus on the following: establishing a robust online presence; improving access to facilities and making small improvements to the airport; building awareness and developing partnerships within the industry; strategic auxiliary offerings and activities; and encouraging prospective/potential client outreach.

A critical area to consider regarding the marketing plan is to understand the offerings of FDK and how the airport and its services fit into the larger market. The most important aspect of any airport's offerings is the physical location and the impact this has on its potential market. There are a number of airports more strategically located to serve as direct alternatives to both Baltimore/BWI and DC/Dulles; therefore, pursuing market shares of those closer airports (Tipton, Leesburg, etc.) should not be the primary focus of FDK's marketing strategy. FDK should instead focus some of its marketing efforts on customers who live, work, or do business within 30 driving minutes from FDK. Improving the accessibility and visibility of the airport is an essential first step to effectively develop the airport's position in the market, especially in advance of the physical expansions of the runway. Initial outreach efforts should focus on customers who would benefit most from the proximity of FDK in the short term. This will also create an essential, established forum for communicating the changes underway at the airport and announcing its increased capabilities at the completion of the runway extension in the future. By devoting resources now to improving the communication and visibility of the airport, FDK will help establish its current positioning in the market, driving immediate revenue while preparing for a cohesive and well-communicated transition to a full-service executive airport.

Website

A Google search of “Frederick Municipal Airport” directs a user to the City of Frederick’s website and very basic information about FDK. In comparison to FDK’s competitors, this information is not terribly comprehensive, and does not offer a visitor information about airport services and prices, future plans, or upcoming airport events. The “General Services” tab does not list links for additional information on general services, prices, or the flight school, which could frustrate transient pilots or corporate dispatchers.

FDK should focus on the improvement of the website design and user interface. Currently the FDK website offered through Landmark provides relevant information about services offerings with contact points and links for further interaction. However, the website operated by the City of Frederick for the airport is substantially underdeveloped in terms of utilization, ease of use and information provided. Competing airports in the region have much more robust websites offering substantially more information: service descriptions, clear statement of unique competitive offerings, links to relevant airport contacts, as well as local businesses and points of interest. Additionally, this information is organized and presented in an attractive and easy to use manner (See Exhibit 2). It is critical that the City of Frederick makes an investment to develop this essential marketing tool in order to become a destination of choice in the region.

The City of Frederick should consider developing a separate stand-alone website for FDK with optimal search engine visibility containing reciprocal links to the sites of the FBO, City and various relevant local points of interest. It should also include information describing the facility, services provided, contact information, service and fuel pricing, directory of businesses onsite, schedules and dynamic or passive links to providers. This is also a significant opportunity to market leasing and development opportunities as they become available. In addition, a stand-alone website will provide a forum to disseminate information concerning the progress of new construction and development programs, which will be essential to a well-communicated launch of the new capabilities both at the airport and in the City of Frederick. Maintenance of the site as well as creating new content will be important to help ensure that it stays relevant and useful as a source of information, marketing tool and public relations driver.

MARC Shuttle and Perimeter Fence

In order to maximize current revenue, FDK can make some small improvements to increase access to the airport through relatively minor investment and collaboration. One of the first and increasingly common steps that general aviation airports are taking as they grow is to fence in the grounds. While this may seem removed from a marketing strategy, this can play an important part in FDK's competitive offering and provide an opportunity to emphasize FDK's dedication to safety. More simply, it sets the physical boundaries of the airport, which provides for a more established and perceived reputation. This can be beneficial to both transient and local clients. Customers who store their aircraft onsite want to feel as though their property is safe from intruders. A fence can help to give this perception.

While constructing a fence would require a small investment, creating a public transportation linkage between the airport and downtown or regional transportation would cost even less and could help improve the overall offering of the airport. One example includes extending the TRANSIT loop to include a stop at the airport. This would save flyers a 0.9 mile walk each way and link FDK to downtown, the MARC Train Station and the Shady Grove Metro Station (see Exhibit 2). This type of service partnership can enhance the experience, usability and connection of airport clients to the city of Frederick and surrounding areas.

Rebranding Effort

There is a significant opportunity to impact the branding of the airport through a name change. Currently, the name Frederick Municipal Airport is in line with its positioning as a regional general aviation airport. However, as FDK extends its runway, allowing it to support larger executive aircraft, a new name incorporating an executive branding could tempt corporate executives to use the airport more frequently. The actual name change event itself can also be an important marketing opportunity—when done in concurrence with the finalization of the runway—to spread awareness of new services and status through various media outlets.

NBAA Conference Attendance

Ambassadors for FDK should register and attend the National Business Aviation's (NBAA) Schedulers and Dispatchers conference in February 2015. Networking and marketing within the industry is an important aspect of gaining relevancy and exposure to key industry contacts and can substantially influence the growth of FDK. While some of this outreach can be achievable online, it is vital to get in front of these individuals in a dedicated setting such as the NBAA conference. This event in particular is "the premier event for business aviation." It is a unique opportunity to get in front of 33,000 attendees and

participate in some of the over 100 information sessions in order to meet and develop strategic contacts. Presence at the conference will increase FDK's visibility and provide management an opportunity to interact with corporate schedulers and dispatchers who can influence corporate usage of FDK. The NBAA Schedulers and Dispatchers conference is a great opportunity to pitch FDK as an ideal stopover for transient pilots to refuel their planes and as the premier corporate executive destination for the Baltimore/Washington region. After the conference, representatives should target attendees using marketing materials that tout FDK's services and encourage them to consider FDK as their preferred airport. Regular follow-up with key contacts from the conference is essential to encourage long-term usage of FDK by corporate customers.

This type of opportunity, though not without cost, can be invaluable if done correctly to drive additional business, gather prospects, and learn how to best leverage FDK's ongoing position in the market. There are also many other conferences with narrower focus such as marketing, regional interaction, new technology, and specific services. Activities such as this help establish the identity of the airport and create national visibility through booth operation, individual invitations, giveaways, informational brochures, contact generation, information capture, and business pitches.

New Revenue Streams

Capital Expenditures

Capital expenditures, like the proposed extended runway, will increase current revenue streams. With an extended runway, FDK can accommodate larger planes with a full complement of luggage and fuel. A runway extension is currently being planned, with additional feet of runway being added each year. This runway extension will serve as a way to both draw additional air traffic and also increase total fuel sales.

New Business (aviation and non-aviation) Regulatory Impact

The FAA has two criteria that specifically identify incompatible development regarding land surrounding airports and their use. These criteria are: influence of aircraft noise, and the influence of land uses that attract wildlife species that are in size, numbers, or location hazardous to aviation. These criteria are cited in reference "FAA Advisory Circular 150/5020-1, *Noise Control and Compatibility Planning for Airports*" to provide guidance for airport operators, and planners. Its main purpose is to mitigate the noise between airports and their surroundings.

Airport Height Limitation Zoning is a legislation that prevents airport hazards such as a structure or tree or use of land that obstructs the airspace required for the flight of aircrafts. As for use of land

involving wildlife that can create a hazard to aviation, the requirement by the FAA is 5000 feet to 10,000 feet, depending on the type of engine-powered aircraft.

Property development and management

Property development and management guarantees long-term revenue for general aviation airports in bad and good economic times. More specifically, industrial parks contribute to the economic wellbeing of the community; they create jobs and bring in tax revenue. All of the top 20 airports listed by the NACC have industrial park developments or are in the process of building an industrial park presence⁵. The FAA report on “How Airports Make Money” suggests utilizing airport land for property development. Properties can be developed by airport/city funds, private funds or a combination⁶.

For example, Salina Municipal Airport in Kansas has capitalized on industrial parks. The Salina Airport Industrial Center houses over 80 businesses, employs 4,700 people and has a payroll totaling over \$4 million. A former air force building is now a 25,000-square-foot modern frozen food manufacturing plant⁷. Out of the 80 businesses housed at SLN Aviation Service center, there are 17 commercial aviation businesses offering products and services to local, national and international customers. The remaining are a combination of aviation related businesses and non-aviation businesses. The non-aviation sample tenants include a brewing company, pizza factory, a print shop, an auto part shop, and a few construction firms.

Another use of airport land could be for agriculture. Beacon Airport in Georgia has the largest blueberry farm in Georgia; blueberries now lead Georgia’s fruit crop. Most of Maryland’s crop income is from greenhouse and nursery products, i.e., flowers, ornamental shrubs and young fruit trees. The airport could support worker cooperative greenhouses or nurseries and receive government grants⁸.

Solar Power

Many general aviation airports are utilizing their open land to generate solar power. Solar energy is an increasingly popular method to reduce airport operating costs and build sustainable operations. The capital cost can be minimal. Los Angeles’ Long Beach Airport has built 6 solar trees that will offset nearly a half million pounds of carbon dioxide emissions, the equivalent of planting three acres of trees over its system life. The airport used a combination of purchase agreements, low-cost energy loans, grants and

⁵ <http://www.nbaa.org/advocacy/issues/essential/airports.php>

⁶ http://www.faa.gov/airports/northwest_mountain/airports_news_events/annual_conference/2012/media/how_airports_make_money_and_whats_new_in_compliance.pdf

⁷ <http://airportjournals.com/doing-it-right-salina-municipal-airport/>

⁸ www.netstate.com/economy/md_economy.htm

private partnerships to fund the project. Sponsors include JetBlue Airways, Nestle Waters' Arrowhead brand, Southern California Edison and Enterprise Rent-a-Car, as well as 10 local sponsors^{20,9}.

Note, there have been a series of recent reports on the issue of glare produced by the solar panels, which are currently being investigated by the FAA. In addition, the FAA has established an informal guideline with the use of the Solar Glare Hazard Analysis Tool (SGHAT) to assess potential glare impacts from solar projects at airports. This is used to help determine how glare affects controllers who are working in air traffic control towers as well as pilots who are arriving at the airports. With the help of airports, this is one of many steps the FAA is taking to resolve the current glare produced by the solar panels.

Build More Hangars

Indianapolis Executive Airport (IEA) used the strategy, “If you build them, they will come.” The airport has a modern, two-story terminal sandwiched between two, 18,000-square-foot hangars.

IEA also recently added a massive canopy out the back door of the terminal that, “resembles something out of a NASA back lot.” Aircrafts can pull in and shield passengers from sun or precipitation while they board or deplane. “Think of the largest aircraft hangar you can think of—with two walls removed.” The addition of the canopy also improves customer service, which was another reason IEA is known as a choice executive airport¹⁰.

Currently, Leesburg plans to build 22 T-hangers and 6 corporate hangars by 2019 and Manassas is encouraging corporations to fund land development by building their own hangars. FDK can talk to corporate customers and identify how many will be willing to buy hangar leases. Having customers already willing to purchase leases will make it easier to access government funds.

Improved Customer Service

Identifying customer needs and interests is key to becoming a choice executive airport. Corporate customers want to be catered to by FBOs and airport facilities. This can include providing more service options such as detailed cleaning or airplane refurbishment. Other services include a conference room in the airport, an upscale restaurant and easy transportation around town. Judging by some reviews of the top 20 airports, customers that enjoy the airports facilities and feel catered to by airport personnel will return.

⁹ http://www.faa.gov/airports/environmental/policy_guidance/media/airport_solar_guide_print.pdf

¹⁰ <http://www.ibj.com/articles/48616-competition-soars-at-indianapolis-area-airports>

FDK could make use of the local colleges in the area by hiring interns to support customer service outreach projects. These interns could help distribute outreach materials and follow-up on contacts from the NBAA conference.

FDK Community Impact Report

Airports provide a direct economic impact by inducing aviation related business; some of these businesses include flight schools, airport and aircraft service providers, and aircraft manufacturers. Airports also indirectly impact the economy by increasing spending at hotels, restaurants, and nearby retail and entertainment outlets. Furthermore, airports provide green open space, and a number of community activities including sightseeing flights, airshows, and flight history presentations¹¹.

FDK should invest in research to develop an economic impact report. The National Business Aviation Association publishes an annual national report describing the effect of general aviation airports on local communities; many general aviation airports develop specific reports to help boost their image in the local community¹².

For example, Manassas Regional Airport, a competitor to FDK, published an economic impact study performed by Infrastructure Management Group Inc. in 2002. The report showed that Manassas Regional Airport has a \$45.8 million impact on the local and county economies. Furthermore, the study showed that Manassas Regional is responsible for the creation of 562 jobs¹³. These reports also influence political leaders and allow for more readily available funds for development.

Conclusion

It is possible for FDK to grow to become the number one airport for corporate executive travel in the Baltimore/Washington area. Through a combination of both short and long-term strategies, FDK can increase volume and therefore, increase revenue. Capital investment strategies and long-term plans include the extension of the existing runway and strategies to build additional hangars. But the airport can make better use of its marketing and communication strategy in order to emphasize the value of these improvements.

In the short-term, changes can be made to FDK's website, corporate outreach strategy and industry attendance with minimal financial and time investment. Changes to the website will provide current customers and corporate dispatchers with the information that they need to make reservations and travel plans at FDK.

¹¹ <http://www.nbaa.org/advocacy/issues/essential/airports.php>

¹² <http://www.nbaa.org/ops/airports/handbook/airports-handbook-2013.pdf>

¹³ <http://www.manassascity.org/FAQ.aspx?QID=32&PREVIEW=YES>

Changes to the airport's infrastructure, including a fence, can improve the perception of safety at FDK. Regular visitors to the Aircraft Owner's and Pilot's Association (AOPA) website and message boards frequently review general aviation airports. These visitors frequently mention airport facilities and amenities. Many note that the existence of a fence makes them feel safe when flying in and out of and storing their aircraft at the airport. Unlike the construction of new hangars, the construction of a fence would require a minor capital investment and would greatly improve public perception of FDK. Minor improvements to existing bus routes can also improve access to the airport.

In the long-term, FDK's marketing and outreach should emphasize capital investments and airport improvement projects. By emphasizing improvement projects and FDK's value, FDK can attract more habitual users and increase demand from corporate users. This increase in traffic will drive the revenue stream and make FDK the number one regional airport in the Baltimore/Washington area.

Exhibit 1: Website Sample

Proposed Rules & Regulations

Agenda Packets & Minutes

Airport Cam

Airport Construction

Airport Directions

Airport Photo Album

Available Land for Development

Business Directory

Events

Fees & Payments

Fixed Based Operators

Foreign Object Debris

Gate Card

History

Minimum Standards

Noise Policy

Pilot Information

Rules & Regulations


Staff

U.S. Customs

You are here: Home > Our Government > Departments > Airport


Airport

CAPITOL CONVENIENCE




Serving the D.C. Region for more than 80 Years

Manassas Regional Airport (HEF) caters to clients by offering the personal accommodations and amenities you can't find at commercial airports.



- No Waiting behind Commercial Flights
- 30 Miles from Capitol Steps
- Direct Ramp Access
- 6,200' and 3,700' Runways
- Award-Winning FBOs
- FAA Control Tower
- U.S. Customs
- No Landing Fees
- Competitive Fuel Pricing



Pay My Bill
Online payment of utility and other bills

As the largest executive regional airport in Virginia, Manassas Regional allows you the freedom to fly on

Exhibit 2a: Current TRANSIT Routes

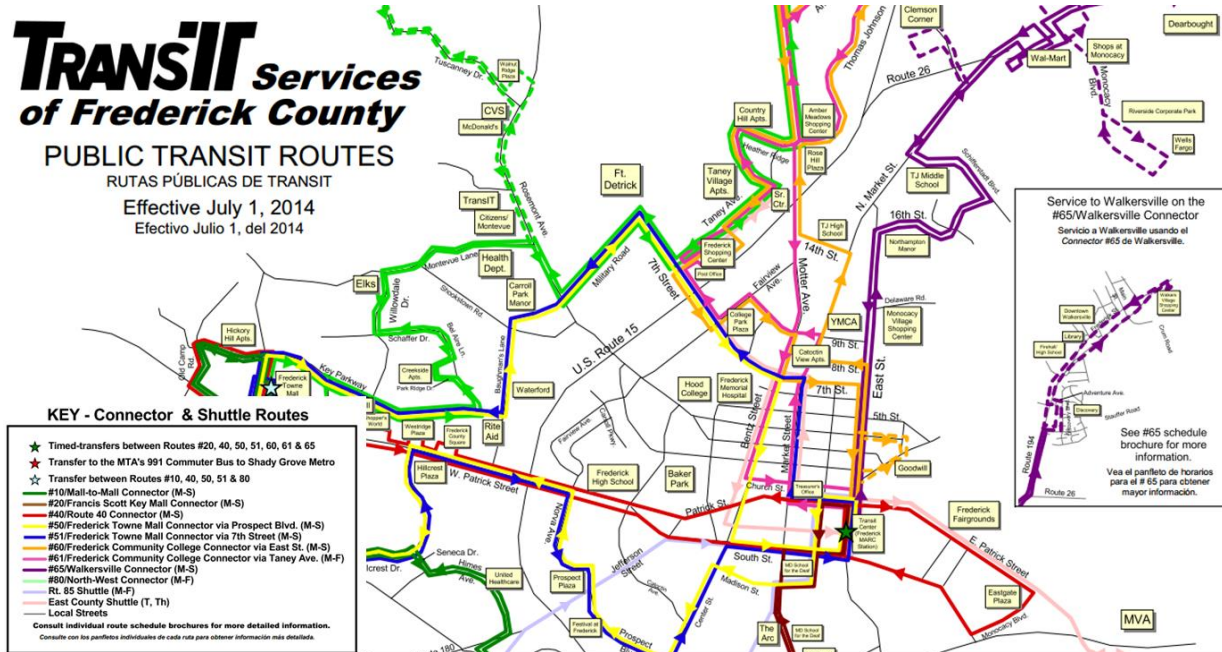
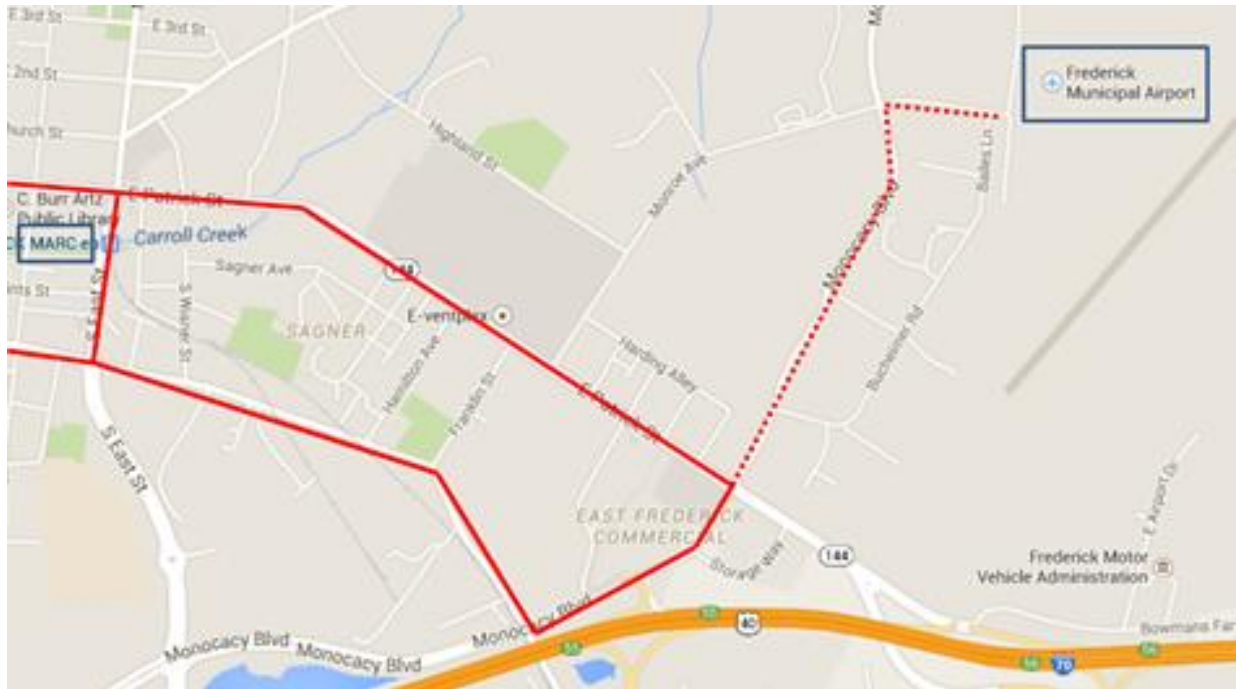


Exhibit 2b: Suggested Red Line Extension



Appendix A: Engagement Letter



UNIVERSITY OF
MARYLAND

ROBERT H. SMITH
SCHOOL OF BUSINESS

Work Specification

10 November 2014

This document outlines the engagement between The City of Frederick Economic Development Center and the Flying Terps Consulting Group consisting of University of Maryland students and faculty.

Background

The City of Frederick currently owns the Frederick Municipal Airport, one of the busiest corporate airports in Maryland, second to BWI. The City of Frederick would like to establish the airport as the number one corporate airport in Maryland. In addition, the airport would like to increase revenues sufficiently to cover a debt of \$10M over 10 years (\$1M per year). The Flying Terps consulting group will conduct a competitor analysis of corporate airports in the state to better understand factors that impact corporations' airport selection. Also, the project will entail interviewing companies which are currently using the Frederick Municipal Airport to better understand their primary reasons for choosing Frederick.

Scope of Work

As agreed upon, the work shall be primarily comprised of industry analysis, competitor analysis and a value-proposition analysis in order to develop a marketing plan:

- Industry analysis: in-depth study to understand the current corporate airport landscape. Includes Social, Technological, Economic, Ecological, and Political (STEER) factors as well as Porter's Five Forces. As part of industry analysis, regulatory landscape will also be explored in the context of restricted airspace and impact on potential new sources of revenue.
- Competitor analysis: in-depth study of all corporate airports within the DC-metro area (90 mile radius of Frederick) to include a summary of competitors' features (capacity, prices, towers, airspace, services, etc.), an analysis of each major competitor's current market presence, and a Strength, Weaknesses, Opportunities, and Threat (SWOT) analysis for the Frederick Airport.

- Customer need/value proposition analysis: a brief study of consumers to understand the factors in corporate airport selection.
- Marketing plan -the studies listed above will be used to generate a marketing plan in order to increase the volume of flights through Frederick Airport as well as generate additional revenue.
- New Revenue Sources -if schedule permits, general recommendations may be provided for new sources of revenue.

Assumptions

In order to complete this effort, the Flying Terps Consulting Group states the following assumptions:

- Access to Frederick Airport operating data for the past three years (number of flights and destinations, customer list, fuel sold, current leases, etc.). List of data required will be provided in a separate communication (e-mail).
- Frederick Economic Development Center will be available to answer questions on a weekly basis.
- The operators of the Frederick Airport will be available to answer questions on a weekly basis (or the information can be provided by the Frederick Economic Development Center).

Roles and Responsibilities

Role	Responsibility	Team Member
Client liaison	Communicates with client weekly to provide updates and/or questions.	Jason Ducker
Project manager	Ensures timely completion of project tasks.	Mensah Eble
Professor liaison	Communicates with professor weekly with updates, questions, or concerns.	Sylvia Rivera
Industry Analysis Lead	Describe industry for municipal airports. Identify best practices and trends Complete Porter's 5 forces.	Shelly Ann Winokur
Competitive Analysis Lead	Compare Fredrick's airport business with local competitors. Complete a SWOT analysis.	Sarah Morgan
Marketing Plan/Final Recommendations Lead	Consolidate all studies to generate recommendations and marketing plan.	Caitlin Bender

Deliverables and Timeline

The following research, analysis and documents will be delivered to Frederick Economic Development Center by the listed dates. To keep this schedule, the Flying Terps Consulting Group will need detailed feedback from Frederick Economic Development Center within one week of each deliverable date. Also, the team expects to work closely with Frederick Economic Development Center during the project-definition period and again during the two weeks before the final recommendations are presented.

Industry Analysis	November 17, 2014
Competitor Analysis	December 1, 2014
Marketing Plan	December 8, 2014

Budget

Incidental expenses, such as phone calls and limited travel, are covered by the project fee. Any additional costs for the likes of a market survey or a commercial industry research report must be negotiated in advance with Frederick Economic Development Center and they reserve the right to decide whether the additional expense is warranted.

Reporting Process

The Flying Terps Consulting Group will submit brief weekly reports detailing what progress has been made and asking specific questions that arise. Frederick Economic Development Center will respond to these reports within two business days. More detailed drafts will be submitted approximately one week before each of the deadlines above.

Frederick Economic Development Center and the Flying Terps Consulting Group will schedule conference calls or videoconferences as required. Draft communications will be forwarded as appropriate to encourage mutual participation in the process. All other communication will be via email or Canvas, unless there is an urgent need for data or feedback, at which point the Flying Terps Consulting Group may contact the Frederick Economic Development Center directly.

Indicators of Success

- Successful communication channel between the Flying Terps Consulting Group and the Frederick Economic Development Center.
- Timely, professional deliverables.

Renegotiation Process

Should the situation change dramatically for either the Flying Terps Consulting Group and the Frederick Economic Development Center, either party or the faculty member involved will immediately initiate discussions designed to re-align expectations and, if necessary, to renegotiate the deliverables.

Confidentiality

If required, the Flying Terps Consulting Group may sign a non-disclosure agreement with either the Frederick Economic Development Center or the operator of the Frederick Airport. Any disclosures falling under the non-disclosure agreement assigned by the Flying Terps Consulting Group must be cleared in advance and in writing (including email) or by phone confirmed in writing by the Frederick Economic Development Center.

Appendix B: Industry Analysis



UNIVERSITY OF
MARYLAND

ROBERT H. SMITH
SCHOOL OF BUSINESS

Industry Analysis

17 November 2014

This document serves as an industry analysis for the Frederick Municipal Airport, located in the city of Frederick Maryland. This analysis is being conducted by the Flying Terps, a group of University of Maryland students, for The City of Frederick Economic Development Center.

Background

The City of Frederick currently owns the Frederick Municipal Airport, one of the busiest corporate airports in Maryland, second to BWI. The City of Frederick would like to increase its revenue and establish the airport as the number one corporate airport in Maryland. This document is designed to better understand the industry and related factors that impact the Frederick Municipal Airport.

Industry Definition

The Frederick Municipal Airport (FDK) is part of the General Aviation industry. General Aviation is defined by the Federal Aviation Administration (FAA) as “privately owned, public use airports that enplane 2,500 or more passengers annually and receive scheduled airline service.” The FAA adds that the General Aviation sector is the “largest single group of airports in the U.S. system.”

Other Airport Industry sectors include:

- Commercial Service Airports
 - Primary Commercial Service Airports carry more than 10,000 passengers per year
 - Nonprimary Commercial Service Airports carry between 2,500 and 10,000 passengers per year
- Cargo Service Airports
 - Served by aircraft that carry more than 100 million pounds of cargo annually
 - A single airport can be both a Commercial Service and a Cargo Service Airport
- Reliever Airports
 - Designated to relieve congestion at nearby Commercial Service Airports and improve community access to aviation

- Reliever Airports may be privately or publicly owned.¹⁴
- FMA is currently listed as a Reliever Airport¹⁵

Aside from the airport sectors listed above, the FAA also divides the United States into nine separate regions. These regions are state-specific, as seen below:¹⁶

Region Title	States/Territories in Region
Alaskan Region	AK
Central Region	IA, KS, MO, NE
Eastern Region	DC, DE, MD, NJ, NY, PA, VA, WV
Great Lakes Region	IL, IN, MI, MN, ND, OH, SD, WI
New England Region	CT, ME, MA, NH, RI, VT
Northwest Mountain Region	CO, ID, MT, OR, UT, WA, WY
Southern Region	AL, FL, GA, KY, MS, NC, PR, SC, TN, VI
Southwest Region	AR, LA, NM, OK, TX
Western-Pacific Region	AZ, CA, HI, NV

The Aircraft Owners and Pilots Association (AOPA) estimated in 2009 that there are 27M General Aviation Aircraft registered in the Eastern Region of the United States. Maryland ranks as the fifth most General Aviation Aircraft-populated state in the region, as seen below:¹⁷

Total Eastern Region	Aircraft Population Size
Pennsylvania	8,504,000
New York	7,808,000
Virginia	5,524,000
New Jersey	4,192,000
Maryland	4,079,000
Delaware	3,204,000
West Virginia	1,636,000
District of Columbia	80,000

Industry Participants

There are many participants in the General Aviation industry, which can be divided into Buyers, Suppliers, Competitors, and Potential Market Entrants. Due to FDK's size, many of the below-mentioned businesses and organizations are referenced on a local or regional basis.

Buyers

This category is assembled from a broad range of potential Buyers, who may lease hanger space, pay for aircraft maintenance, purchase airplane fuel, and/or reserve on-premises conference spaces.¹⁸ Due to the size of FDK, only local/regional Buyers are listed below.

¹⁴ http://www.faa.gov/airports/planning_capacity/passenger_allcargo_stats/categories/

¹⁵ http://www.faa.gov/airports/planning_capacity/ga_study/media/2012assetreportappb.pdf

¹⁶ http://www.faa.gov/about/office_org/headquarters_offices/arc/ro_center/?file_name=contact_us_eastern

¹⁷ <http://www.aopa.org/About-AOPA/General-Aviation-Statistics/Active-General-Aviation-Aircraft-by-State>

- U.S. Army Base: Fort Detrick
 - Largest employer in Frederick County
 - Hosts most elements of the United States biological defense program
 - U.S. Army Medical Research and Materiel Command (USAMRMC)
 - U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID)
 - National Cancer Institute-Frederick (NCI-Frederick)
 - National Interagency Confederation for Biological Research (NICBR)
 - National Interagency Biodefense Campus (NIBC)¹⁹
- Local businesses, including but not limited to:
 - Leidos Biomedical Research
 - Wells Fargo Home Mortgage
 - State Farm Insurance Company
 - Astra Zeneca
- Hood College students and/or family members
- Regional hospitals/patient transfers, including but not limited to:
 - Frederick Memorial Healthcare System
 - National Institutes of Health
- Government officials, including but not limited to:
 - National Emergency Training Center
 - FEMA²⁰
- Civil Air Patrol, Maryland Wing²¹
- Frederick Flight Center (Flight School)²²
- Local leisure pilots
- Transient pilots²³

Suppliers

This section speaks to known local businesses and/or supplier at FDK.

- Whirlwind Aviation Inc., local aircraft charter²⁴
- AOPA Headquarters²⁵
- Airways Inn Restaurant²⁶
- Landmark Aviation
 - Sells three out of the ten total aircraft fuel types found via GlobalAir.com²⁷

¹⁸http://www.faa.gov/airports/northwest_mountain/airports_news_events/annual_conference/2012/media/how_airports_make_money_and_whats_new_in_compliance.pdf

¹⁹ http://en.wikipedia.org/wiki/Fort_Detrick

²⁰ http://www.discoverfrederickmd.com/business_support/major_employers

²¹ <http://www.mdcap.org/index.cfm>

²² <http://frederickflightcenter.com/>

²³ <http://www.wileypostairport.com/page/airportstrust>

²⁴ <http://www.charterhub.com/Dealers/Detail.aspx?CID=1361509&DTID=1>

²⁵ <http://www.aopa.org/About-AOPA/Contact-AOPA>

²⁶ http://www.frederick.com/airways_inn_of_frederick-sp-781/

²⁷ <http://www.globalair.com/airport/apt.notams.aspx?aptcode=FDK#fuel>

- o Fixed Base Operation (FBO) services include:²⁸

Jet A fuel	Ground Handling	Lavatory Service	Potable Water
Avgas fuel	Oxygen/Nitrogen	Quick-turn Service	De-icing
Aircraft Charter	Maintenance	Concierge Services	Office Space
Gourmet Catering	Aircraft Detailing	Avionics	Hangar
Pilot Lounge	WSI	On-site Rental Cars	Wireless Internet
Workstation w/Internet Access	Ramp-side Vehicle Access	Executive Conference Room	Limousine Service

- o Maintenance, Repair, and Operations (MRO) services include:²⁹

Avionics Installation	Avionics Repair	Airplane Parts
Airframe Maintenance	Wholesale Parts	Avionics Dealership
Pre-purchase Evaluations	Detailing Services	Airplane Inspections
Factory-authorized Service Facility	Varied Maintenance Capabilities	40,000+ sq. ft. of hangar space

Competitors

Competitors of FDK include other General Aviation Airports within a 50-mile radius that offer FBO services. These airports include:³⁰

- Carroll County Regional Airport, Westminster, MD
- York Airport, York, PA
- Gettysburg Regional Airport, Gettysburg, PA
- Franklin County Regional Airport, Chambersburg, PA
- Richard A Henson Field/Hagerstown Regional Airport, Hagerstown, MD
- Potomac Airpark Airport, Berkeley Springs, WV
- Eastern West Virginia Regional/Shepherd Field Airport, Martinsburg, WV
- Winchester Regional Airport, Winchester, VA
- Leesburg Executive Airport, Leesburg, VA
- Montgomery County Airpark Airport, Gaithersburg, MD
- Freeway Airport, Mitchellville, MD
- Fort Meade (Odenton) Tipton Airport, Fort Meade, MD
- Manassas Regional/Harry P Davis Field Airport, Manassas, VA

Substitutes

General Aviation substitutes can vary based on both economic conditions and based on a customer's needs. These substitutes include, but are not limited to:³¹

- Telecommunications and video conferencing
- High-speed railroad³²

²⁸ <http://www.landmarkaviation.com/fbo/fdk>

²⁹ <http://www.landmarkaviation.com/fbo/fdk>

³⁰ <http://www.acukwik.com/Proximity.aspx>

³¹ <http://www.acukwik.com/Proximity.aspx>

- Other local transportation (car, bus, metro)
- Commercial flights

Potential Entrants

- Colleges or universities
- Shipping companies (FedEx or UPS)
- Small local airports that contract to offer FBO services
- Unmanned Aircraft Systems (Drones)³³

Likely Industry Changes

Negative

- Use of drones presents new potential safety hazards (i.e. potential local crashes and mid-air collisions)³⁴
- Planes have nearly doubled their fuel efficiency since 1978.³⁵ While this is good for the industry, it is a negative factor for small General Aviation Airports that rely on fuel sales as a source of income.
- Increasing national security concerns could result in increased airspace restrictions.

Positive

- The FAA is likely to institute new training requirements for drone users to avoid the above-mentioned safety hazards. Small General Aviation Airports (including FDK) may be ideal training grounds for new drone users.
- A recent study found that corporate flying may be more energy efficient per mile than driving a car.³⁶ This study was based on the amount of fuel it takes to move one person per mile.

³² http://sydney.edu.au/business/__data/assets/pdf_file/0010/67789/johnw-presentation.pdf

³³ <http://www.flyingmag.com/blogs/going-direct/drones-coming-crisis-ga>

³⁴ <http://www.flyingmag.com/blogs/going-direct/drones-coming-crisis-ga>

³⁵ http://www.slate.com/articles/business/the_juice/2014/07/driving_vs_flying_which_is_more_harmful_to_the_environment.html

³⁶ http://www.slate.com/articles/business/the_juice/2014/07/driving_vs_flying_which_is_more_harmful_to_the_environment.html

Appendix C: Competitor Analysis



Competitor Analysis

1 December 2014

This document serves as a competitor analysis for the Frederick Municipal Airport, located in the city of Frederick Maryland. This analysis is being conducted by the Flying Terps, a group of University of Maryland students, for The City of Frederick Economic Development Center.

Frederick Municipal Airport (FDK) is classified as a reliever airport. It is designated to relieve nearby Commercial Service Airports and improve community access to aviation.

This competitor analysis will focus on three of the 13 local, FBO served airports located within 50 miles of Frederick. Selection of these airports was based on total flights completed within one fiscal or calendar year. This analysis will focus on the differences in financial and operations data, aviation services offered, marketing efforts, and corporate strategies between Frederick Airport and Leesburg Executive Airport, Fort Meade Tipton Airport, and Manassas Regional Airport.

Frederick Municipal Airport

Background

Frederick Municipal Airport (FAA code FDK) is owned by the City of Frederick, Maryland at the intersection of Interstate 70 and Interstate 270, 50 miles northwest of Washington, D.C. and 49 miles west of Baltimore, MD. It is designated as a general aviation reliever airport for BWI, Reagan National Airport and Dulles Airport.

Fixed Base Operator (FBO) Landmark Aviation (Landmark), which manages 67 regional airports in the United States, Canada and Western Europe, manages FDK. Landmark manages day-to-day operations at FDK, including charter plane and hangar booking, management of repair services and building usage. Information about FDK-specific Landmark services can be found through the Landmark Aviation website (<http://www.landmarkaviation.com>), which includes bulleted lists of services, amenities, equipment available, preferred hotels and payment information.

Financial & Operations

Airport fees at FDK were last reviewed in 2008. As of FY13, it was determined that landing fees were not viable. That is to say, that The City of Frederick does not collect a fee when aircraft land at FDK, nor would it be a viable source of revenue for the city in the future.

At present, 44 of 75 hard surface tie downs are leased at the airport, and all hangars (127) are currently leased (including new and old hangars). In FY2013, FDK completed 98,902 flight operations, 55 percent were local general aviation and 40 percent were itinerant general aviation. The composition of FDK's flight operations for FY2013 are shown in Figure A.

Services & Features

Landmark, the FBO, offers fueling, aircraft sales, service and repairs (including major engine and airframe repairs), and car rentals. Landmark manages the day-to-day operations at FDK, management and storage, jet and turbo-prop charters and aircraft for rent.

There are flight schools onsite at FDK that offer instruction for airline transport, certified flight instructor, commercial, instrument, multi-engine, and private pilot certification.

The headquarters of the Aircraft Owners and Pilots Association (AOPA), the largest general aviation association in the world, is at Frederick Municipal Airport. AOPA members actively use and review local airports, participate in training and flight certification, and routinely meet at FDK. There is currently a plan to build an AOPA model community flying center, which will serve as an education facility and training site for AOPA members.

Marketing

Unlike some of its competition, FDK does not possess a large web presence; its website can be accessed through The City of Frederick's main website (<http://www.cityoffrederick.com>). It provides only cursory information about FDK's location and airport manager contact information (see Table C1 for a list of major topics on the website). The webpage does not easily provide information that charter dispatchers might be looking for: available hangar space and prices, detailed information about flight schedules, long-term plans for possible hangar expansion, or waitlists for hangar rentals. By contrast, the Landmark website does provide some information about FDK, including information about making reservations at FDK and points of contact at the airport.

Because Landmark manages several airports, a person looking for information about FDK has to actively look for the information by searching for FDK, so only dispatchers and customers who are already familiar with FDK could easily access the information. It is less likely that someone would find information on the airport through a basic search of Landmark's website. It is possible to make a reservation and request a charter jet quote directly through Landmark's website.

Most recently, the Frederick Municipal Airport has been in the news for negative events; stories of recent aircraft crashes and the transport of an Ebola-infected patient dominate Internet searches for airport news. The airport does not have a large enough presence on social media, or on its own website to counter this negative press with updates about upcoming airport activity, daily airport activities or more positive news stories.

Corporate Strategies

FDK has a long-term strategy to expand the length of its runway. It is believed that this capital investment will make it possible for corporate jets to take off safely fully loaded with a full tank of fuel. At the current runway length, planes cannot take off and land safely while fully loaded.

Leesburg Executive Airport

Background

Leesburg Executive Airport (FAA code JYO) is owned and operated by the town of Leesburg, Virginia and is the second busiest General Aviation airport in the Commonwealth of Virginia.

JYO is located within 35 miles of Washington, D.C. and its major airports, and serves as a reliever airport for Dulles and Reagan National Airport. The runway at JYO is 5,499 feet by 100 feet with a 70,000-pound dual-wheel capacity.

ProJet Aviation, JYO's FBO, offers a number of services and manages the day-to-day operations of the airport. ProJet Aviation operates exclusively at JYO and very clearly outlines the types of planes available for charter (including clear pricing information and pictures). This is in direct contrast to the Landmark Aviation website, which requires a potential customer to contact Landmark directly for pricing options. For a broker or a casual customer doing cursory research, having this information readily available is useful and could help in decision-making.

Leesburg Executive Airport is open from 6:00am to 9:00pm daily.

Financial & Operations

As of May 2009³⁷, JYO averaged 303 aircraft operations per day, 87 percent of which were general aviation flights, 10 percent transient general aviation, 2 percent air taxi and 1 percent military.

In 2011, the Virginia Department of Aviation released an economic impact study identifying statewide economic benefits associated with the 66 airports located in the Commonwealth of Virginia. JYO is ranked third among 57 general aviation airports in terms of its economic contributions to Virginia. The study estimates that JYO contributes \$78 million in economic activity (directly and/or indirectly) and is responsible for 634 jobs.³⁸ A table summarizing the airport's FY15 operating budget is shown in Table A2.

Services & Features

ProJet Aviation offers a number of the same services that Landmark Aviation offers at FDK. These services include: Fuel, Hangar Parking, Bottled Oxygen, Private Aircraft Charter, Flight Planning, Pilot's Lounge, Gift shop and Concierge Services.

³⁷ <http://airnav.com/airport/JYO>

³⁸ <http://www.leesburgva.gov/government/departments/airport>

JYO hosts an annual Air Show featuring acrobatic demonstrations and skydivers. Information about the 2015 Air Show, including a Save the Date, countdown clock and Event Sponsors is already listed online.³⁹

JYO is the site of a pilot test of Remote Control Tower Technology being developed by Saab Sensis Corporation, Virginia SATS Lab and the Town of Leesburg.⁴⁰ The Remote Control Tower Test will be staffed by certified controllers and will serve as a test for deployment in other U.S. airports.

Marketing

Unlike FDK, JYO offers more information on its website to clearly explain the services offered at the airport. The information is easy to navigate and includes comprehensive information about upcoming events (including the Air Show), information about the airport's economic impact on the State of Virginia and its benefits to its community, and comprehensive information about the surrounding area. A table summarizing the major topics listed on the city's website is shown in Table C2.

Corporate Strategies

The City of Leesburg considers capital improvement projects to the Leesburg Executive Airport in relation to all capital improvement projects in the city. Recently completed projects at JYO include:

- Instrument Landing System (ILS) grading
- Land acquisition, north and southwest of the runway
- Navigation Aids Upgrades
- Access road repairs
- Safety Area Grading
- Expansion of South Apron Hangars
- Expansion of South Apron Helipads

Current and future capital improvements at JYO include:

- Airport Maintenance Shed-(projected to start in Spring 2019, complete Summer 2019). This project is to create a maintenance shed to store equipment needed to maintain airport property.
- Airport North Hangars-(Start and end date TBD). This project includes hangars on the North end of the property, including 22 T-hangars and 6 corporate hangars.
- Airport Perimeter Fence-West Side-(projected start date Fall 2014, complete Winter 2014/2015). This project includes completion of the security fence along the west side of the airport.

Fort Meade (Odenton) Tipton Airport

³⁹ <http://www.leesburgairshow.com>

⁴⁰ <http://www.leesburgva.gov/government/departments/airport/remote-control-tower/remote-tower-faq-s>

Background

Fort Meade Tipton Airport (FAA code FME) is located in Fort Meade, MD, approximately 13 miles south of Baltimore-Washington International (BWI) airport, 19 miles southwest of Baltimore, and 23 miles northeast of Washington D.C. Tipton Airport was a former U.S. Army airfield and reopened as a public airport in 1999. It is operated by the Tipton Airport Authority, a state-chartered public corporation⁴¹. Tipton is classified as a reliever airport and contains one paved runway measuring 3,000 feet by 75 feet. Tipton operates seven days a week, 24 hours a day (office hours are limited to 8:30AM to 6PM).

Financial & Operations

As of April 09, 2014, Tipton Airport averaged 131 flight operations per day and has a total of 111 aircraft based on their field: 95 single-engine airplanes, 7 multi-engine airplanes, and 9 helicopters⁴². A summary of the type of flights at Tipton Airport between April 2013 and 2014 is shown in Figure C; local general aviation flights make up the majority of the operations at Tipton.

As Tipton Airport is operated by a state-charted public corporation, revenue information for the airport could not be found, nor an airport budget specifically for Tipton in either the state or county (Anne Arundel) budget.

Services & Features

Tipton Airport offers many of the standard services as other regional airports: self-serve fuel (JET-A and AVGAS), rental car services, flight schools and aircraft maintenance services. They also offer a conference room for flight planning, internet access, pilot supplies, and a crew lounge. For based aircraft, Tipton offers both tie-down and hangars. At this time, only tie-down space is available (\$88 per month). Lastly, Tipton does not own an instrumented tower.

Marketing

Finding general information on Tipton Airport is relatively easy. A Google search of either Tipton Airport or Fort Meade Airport results in the airport's website as the first link (<http://tiptonairport.org>). The website is user friendly and provides the majority of the information a visitor would need: directions, pilot information, fuel prices, services, and contact information. In its marketing materials, Tipton Airport has positioned itself as the best airport for those seeking access to the Baltimore-Washington corridor. It boosts the benefits of good infrastructure through recently renovated runways, great service and a prime location near major highways such as I-95, I-97, Route 32, and MD 295/BW Parkway.

Corporate Strategies

The Tipton Airport Authority states that its primary future efforts are a 1,200-foot extension to its current runway as well as widening the runway by 25 feet (final dimension would be 4,200 feet by

⁴¹ <http://tiptonairport.org>

⁴² <http://www.airnav.com/airport/KFME>

100 feet)⁴³. In addition, the Airport Authority would also like to build a parallel taxiway. The Airport Authority has conducted an environmental assessment and is conducting a facilities planning study as well as a construction phasing study. There is no information on whether the airport authority is considering building additional hangars.

Manassas Regional/Harry P. Davis Field Airport

Background

Manassas Regional Airport (FAA code HEF) is located in Manassas, VA, approximately 23 miles south of Washington Dulles International Airport (IAD), 37 miles southwest of Washington D.C., and 74 miles southwest of Baltimore. Manassas Regional Airport is owned by the City of Manassas and has been a public use airport since 1945⁴⁴. It is operated by two FBOs: APP Jetcenter and Dulles Aviation. Manassas is classified as a reliever airport and contains two paved runways. The first measures 3,700 feet by 100 feet. The second measures 6,200 feet by 100 feet. Manassas operates seven days a week, between the hours of 6:30AM and 10:30PM.

Financial & Operations

In 2013, Manassas Airport completed a total of 80,415 flight operations and had completed a total of 70,347 flights by the end of October 2014. A summary of the types of flights at Manassas Airport in 2013 is shown in Figure D: 48 percent of flights are local general aviation and 40 percent of flights are itinerant general aviation (flights in 2014 have a similar composition). Manassas has over 400 based aircraft: 306 single-engine airplanes, 48 multi-engine airplanes, 32 jet airplanes, 17 helicopters, and one glider airplane⁴⁵.

As Manassas Airport is owned by the City of Manassas, its budget information could be found as part of the city's operating budget. The FY2015 budget for the airport is \$2,462,010, an increase of 2 percent from FY2014⁴⁶. The majority of the revenue that is generated by the city is from leases and rent. In 2013, the city generated \$1.95M in revenue and projected \$1.98M for FY2014. An overview of the operating budget for FY2015 is shown in Table A3.

Services & Features

Manassas Airport offers many of the standard services as other regional airports: self-serve fuel (JET-A and 100LL), rental car services, flight schools, and aircraft maintenance services. They also offer a conference room for flight planning, internet access, and a crew lounge. For based aircraft, Manassas offers both tie-down and hangars (42 and 48 foot doors), prices for these spaces is shown in Table B3. Manassas also owns an instrumented tower and can accommodate international flights by providing U.S. Customs and Border Patrol services⁴⁷.

⁴³ <http://tiptonairport.org/about-us/>

⁴⁴ http://en.wikipedia.org/wiki/Manassas_Regional_Airport#History

⁴⁵ <http://www.airnav.com/airport/KHEF>

⁴⁶ <http://www.manassascity.org/index.aspx?NID=249>

⁴⁷ <http://www.manassascity.org/index.aspx?NID=889>

Marketing

The ease of finding general information on Manassas Airport depends on which airport name is searched. A Google search of Manassas Regional Airport will direct to the city's website as the first link (<http://www.manassascity.org/index.aspx?NID=131>). A Google search of Harry P. Davis Field Airport will direct to AirNav's profile of the airport (<http://www.airnav.com/airport/KHEF>). One can then find the website of the FBOs for the airport, but finding the city website would require additional searches. The city's website is user friendly and provides an abundance of information. Please see Table C3 for list of all the major topics listed on the City's website.

In its marketing materials, Manassas Airport has positioned itself as the best airport for those who want an alternative to IAD Airport. It boasts the benefits of two long runways, no waiting behind commercial flights, a short distance to Washington D.C., an FAA Control Tower and U.S. Customs services. Manassas also organizes annual 5K/10K runs at the airport as well as an airshow that gained attendance of over 8,000 spectators⁴⁸. In FY2013, Manassas Airport hired a marketing firm to develop a marketing plan; the first year of this plan was executed in FY2014. This included attending the NBAA Schedulers & Dispatchers Conference in order to promote the airport.

⁴⁸ <http://www.manassascity.org/index.aspx?NID=249>

Corporate Strategies

The Manassas Airport has recently focused on three major projects:

- Bridge Widening project (projected to complete end of 2014): widening of the existing runway and taxiway bridge structures that accommodate the portion of Broad Run stream that runs across the airfield. This would extend the bridges to the runway and taxiway safety area limits and repair areas of the existing structures that require maintenance.
- Taxiway relocation (projected to complete end of 2014): Realignment of taxiway that, when completed, will run perpendicular to both runways and a new, larger holding apron. The realignment also allows mechanisms to be put in place to ensure flooding will not be a concern.
- Development study for west side of the airport (on-going): opportunity for FBOs or corporations to develop facilities or hangars on a portion of the airport. Seven acres are available for heavy industrial use and 25 acres are available for light industrial use.

Figures

Figure A: Fredericksburg Municipal Airport Flights (2013 Calendar Year)

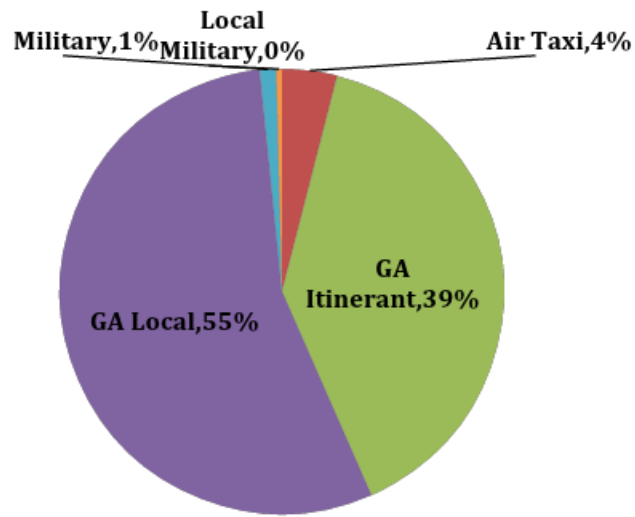


Figure B: Leesburg Executive Airport Flights (2009 Calendar Year)

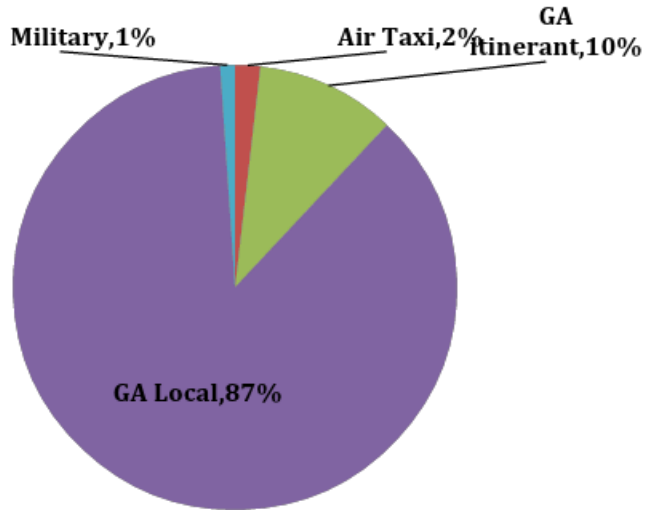


Figure C: Tipton Flights (April 2013-2014)

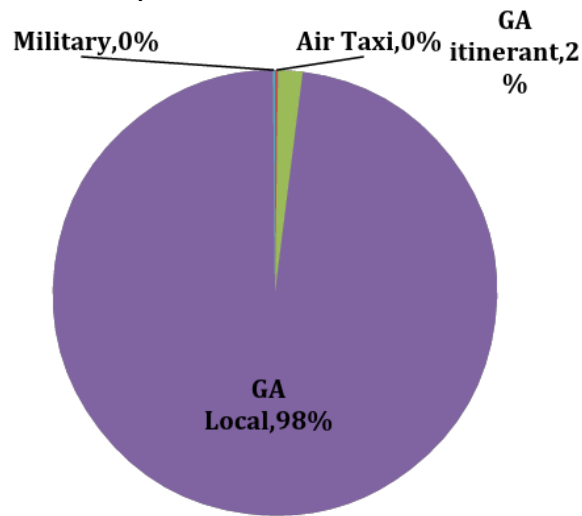
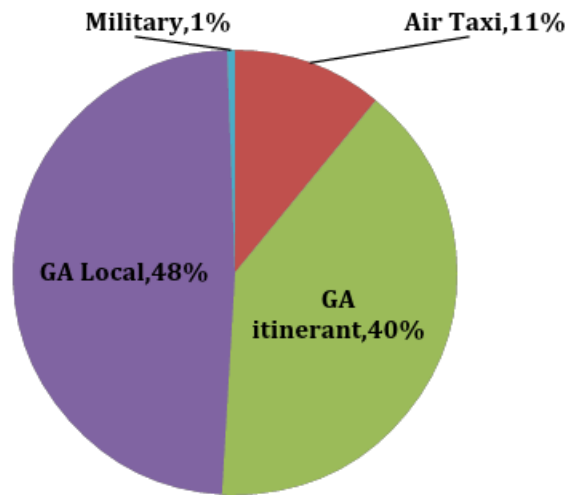


Figure D: Manassas Airport Flights (2013 Calendar Year)



Tables

Table A1: FY2015 Operating Budget for Frederick Municipal Airport

Object Categories	FY 2014 Adopted
<i>Airport Fund</i>	
Intergovernmental State	\$150,000
Total Intergovernmental	\$150,000
<i>Charges for Services</i>	
Airport Leases	\$273,723
Hangar and Tie-Down Leases	\$604,704
Fuel and Other	\$40,300
Total Charges for Services	\$918,727
<i>Miscellaneous</i>	
Rents	\$7,200
Other	\$1,000
Total Miscellaneous	\$8,200
Total Airport Fund	\$1,076,926

Table A2: FY2015 Operating Budget for Leesburg Executive Airport

Object Categories	FY 2015 Adopted
<i>Sources</i>	
Permits & Fees	\$119,000
Use of Money & Property	\$1,052,800
Donations & Transfers	\$50,00
Commonwealth of Virginia	\$138,000
Total Revenue	\$1,359,800
Local Tax Funding	(\$660,692)
Total Sources	\$699,108
<i>Uses</i>	
Personnel Services	\$303,437
Contractual Services	\$260,575
Materials & Supplies	\$22,900
Continuous Charges	\$112,196
Total Uses	\$699,108

Table A3: FY2015 Operating Budget for Manassas Regional Airport

Expenditure Category	FY 2015 Adopted
Personal Services	524,080
Benefits	183,980
Purchased Services	397,360
Internal Services	202,150
Other Charges	195,540
Supplies	123,000

Capital	30,000
Debt Service	347,260
Other Uses of Funds	458,240
Total	2,462,010
Division Summary	FY 2015 Adopted
Administration	780,980
Operations	1,267,240
Maintenance	361,100
FAA Tower Non-reimbursable	9,700
FAA Tower Reimbursable	26,300
Special Projects	16,690
Total	2,462,010

Table B1: Tie-Down and Hangar Pricing at Frederick Municipal Airport

Space Type	Price (monthly)	Number of Spaces	Space Utilization (%)
Hard Surface Tie Down	\$109	75	59%
Old Hangars	\$244.45	47	100%
New Hangars	\$433.10	80	100%

Table B2: Tie-Down and Hangar Pricing at Leesburg Executive Airport

Space Type	Price (monthly)	Deposit	Number of Spaces	Space Utilization (%)
Tie-down	\$120	\$120	120	85%
T-Hangar	\$550	\$400	46	100%
Corporate Hangar	\$1,900-\$2,200	\$400	11	100%

Table B3: Tie-Down and Hangar Pricing at Manassas Regional Airport

Space Type	Price (monthly)
Tie down, single engine	\$80
Tie down, twin engine	\$90
T-Hangars, regular unit	\$325
T-hangar, regular end unit	\$375
T-hangar, regular unit 42' door	\$398
T-hangar, regular end unit 42' door	\$495
T-hangar, regular unit 48' door	\$495

T-hangar, regular end unit 48' door	\$550
-------------------------------------	-------

Table C1: City of Frederick Airport Website-Major Topics

About Us
General Services
Studies & Technical Reports
AWOS Weather

Table C2: City of Leesburg Airport Website-Major Topics

Pilot information
Location & Directions
FY 2013 Airport Annual Report
Airport Services
Leesburg Airshow
Flight Schools
Hangar & Tie-Down Rentals
Remote Control Tower
Airport Improvements
Airport History
Leesburg Airport Commission
Contact Airport Staff

Table C3: City of Manassas Airport Website –Major Topics

Proposed rules & regulations
Agenda Packets & Minutes
Airport Cam
Airport Construction
Airport Directions
Available for Land Development
Business Directory
Events
Fees & Payments
FOB
FOD
Gate Card
History
Minimum Standards

Noise Policy
Pilot Info
Rules and Regulations
Staff
U.S. Customs