MARKET AND MARKETABILITY ASSESSMENT

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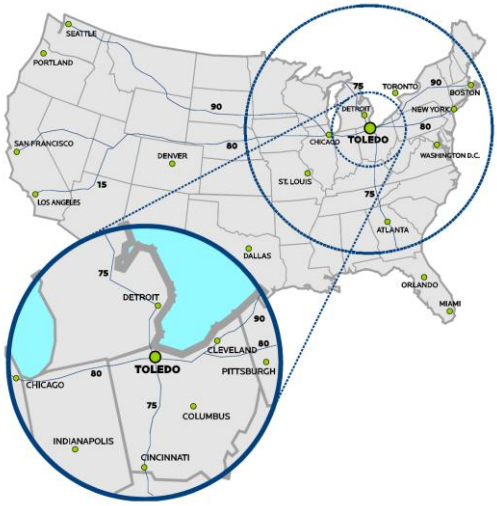
Toledo Express and
Toledo Executive Airports
Toledo, Ohio



Prepared for:

Mr. Dock Treece
Douglas Allen Associates
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Date of Report: November 4, 2013

Airport Business Solutions

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November 4, 2013

Mr. Dock Treece
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6800 West Central Avenue
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Toledo, Ohio 43617

RE: Market and Marketability Assessment of the
Toledo Express and Toledo Executive Airports
Toledo, Ohio

Dear Mr. Treece:

Pursuant to our engagement, we are pleased to present this Market and Marketability Assessment of the Toledo Express and Toledo Executive Airports located in Toledo and Millbury, Ohio, respectively. The following report provides our assessment and recommendations relative to current issues and future opportunities at the Airports. The findings and recommendations herein are included as possible actions for implementation to assist the Airport in achieving their goals and objectives for a financially viable aviation facility.

In the development of this document, *Airport Business Solutions* (*ABS*) visited and analyzed the Airports, researched many sectors of the local, regional and national aviation markets, and evaluated other similar and competing airports. Moreover, *ABS* met with Airport officials, airport tenants, and interested users, as well as reviewed historic data, operating agreements and financial statements of the Airport. The following document outlines our findings and recommendations.

We appreciate the opportunity to work with you and other members of Douglas Allen Associates on this project. If you should have questions, please do not hesitate to contact me.

Respectfully Submitted,

Michael A. Hodges, MAI
President/CEO

INTRODUCTION & BACKGROUND INFORMATION

The Toledo-Lucas County Port Authority owns and operates two airports: Toledo Express Airport (FAA identifier TOL) is a non-hub, Part 139 commercial service airport, and the Toledo Executive Airport (FAA Identifier TDZ), a general aviation airport. Both airports are managed by the Toledo-Lucas County Port Authority with TOL's day-to-day operations handled by a dedicated Airport Manager who reports to the Port. The Port Authority is a 50-person staff responsible for all the activities of the two airports including all planning, engineering, development and construction. The Port Authority manages seaport operations, airport operations, and surface transportation via the Central Union Terminal. They have been credited with the retention and/or creation of more than 15,000 jobs through projects and economic development activities. While both airports will be discussed herein, the primary focus of this analysis will be Toledo Express given its extensive land area, infrastructure, and business development opportunities.

COMMUNITY INFORMATION

Lucas County covers an area of an estimated 340 square miles that includes nine municipalities, with the City of Toledo being the largest in area and population. These municipalities include:

- City of Maumee
- City of Oregon
- City of Toledo
- Jerusalem Township
- Sylvania Township
- Village of Holland
- City of Waterville
- Village of Whitehouse
- Washington Township

The County is governed by a three person (3) Board of County Commissioners, while the Lucas County Improvement Corporation is a non-profit corporation that serves as the primary economic development agency for the County and provides business assistance and outreach for Northwest Ohio. Additionally, the Lucas County Economic Development Corporation (LCEDC) is a private non-profit organization that strives to connect resources with opportunities.

Lucas County has a population of about 442,000, while the City of Toledo has a reported 2012 urban population of 284,012, which is down 9.4 percent from 2000 levels. The County's household income is estimated at slightly more than $44,000, which is about $6,000 less than the national average. The median household income for the City has also declined from $32,566 in 2000 to a 2011 level of $31,090. Average home values have increased from 2000 prices of $73,700 to $81,900 in 2011. Unemployment in the County is currently 8.5 percent, while the City's is reported as 8.3 percent, which is down from 9.0 percent in February of this year.

CURRENT AIRPORT DATA

TOLEDO EXPRESS AIRPORT

The Toledo Express Airport (FAA Identifier TOL) lies about west of the City of Toledo and it is operated by the Toledo Lucas County Port Authority. The Airport is identified in the National Plan

TOLEDO EXPRESS AIRPORT

of Integrated Airports System (NPIAS) as a non-hub airport (less than 0.05 percent of the passenger enplanements in the U.S.), while Toledo Executive Airport is recognized as a general aviation airport. Updated every two years, the NPIAS is submitted to Congress in accordance with the United States Code. The 2013-2017 plan identified 3,355 airports (3,330 existing and 25 proposed) that are significant to national air transportation, and therefore are eligible to receive funding grants under the Federal Aviation Administration's (FAA) Airport Improvement Program (AIP). The NPIAS is used by FAA management in administering the AIP, and is comprised of all commercial service airports, all reliever airports, and selected general aviation airports. The 3,330 existing landing facilities within NPIAS includes 3,280 airports, 10 heliports and 40 seaplane bases. Ninety-eight percent, or 3,253 facilities, are public use and 77 are private. Although providing extensive general aviation services, Toledo Express falls within the Commercial category, while Toledo Executive is designated as a local general aviation airport. The higher ranking for TOL bodes well for future FAA funding and planning for TOL.

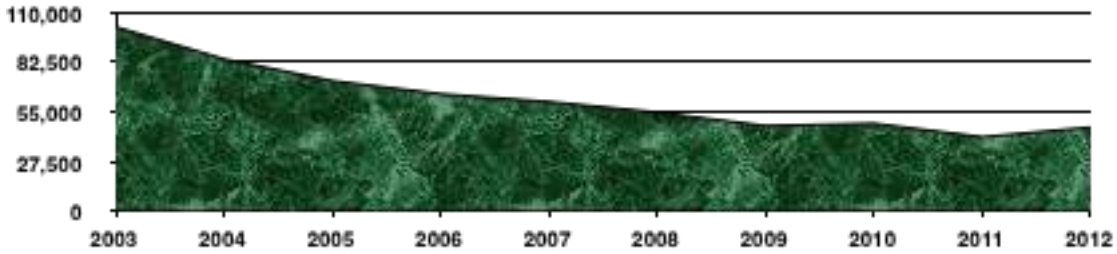
TOL's design aircraft is the DC-8-73F, although larger aircraft have operated from the Airport, mostly in support of air cargo operations. The Airport's airport reference code (ARC), which is a system utilized to determine airport design criteria, is D-IV, which is aircraft with an approach speed of 141 knots to less than 166 knots and a wingspan of 118 feet to less than 171 feet.

Toledo Express Airport is situated about 10 miles west of downtown Toledo and covers approximately 2,345 acres. It has two runways with the main runway being 10,600 feet in length and 150 feet wide with a dual double tandem wheel weight bearing capacity of 550,000 pounds. The facility currently offers scheduled air carrier service via American Eagle to Chicago, and through Allegiant Airlines, with direct air service to 3 destinations (Orlando-Sanford, Tampa-St. Petersburg, and Fort Myers-Punta Gorda). The Airport also offers limited air cargo services, but was formerly a hub for BAX Global/DB Schenker.

Toledo Express is home to the United States Air Force's 180th Fighter Wing, an F-16 Fighting Falcon fighter group assigned to the Ohio Air National Guard. In addition to airline, air cargo and military operations, the Airport provides accommodations for propeller and turbojet aircraft and helicopters, and serves as one of two primary general aviation landing facilities in the community. National Flight Services, Grand Aire and TOL Aviation are the current providers of aviation services for based and itinerant aircraft and airport users. Flight activities include fixed wing and helicopter flight training, aircraft rental and charter, aircraft maintenance and ground handling, corporate aviation flight activity, emergency air services, recreational flying and private aircraft operations.

Current reports show a based aircraft population of 69 aircraft, with 21 of those being military. Total flight operations (landings and takeoffs) have remained below 50,000 for the past three years. This trend is not unlike other similar airports and the increase of slightly less than 6,000 operations from 2011 to 2012 is encouraging.

TOL OPERATIONS HISTORY



With only two airlines currently providing scheduled passenger service to four cities, enplanements were only 71,940 in 2012, which is lowest figure in the past ten years. The highest number of enplanements this decade was in 2004 when they reached 301,252. However, the first two quarters of 2013 saw an increase, due primarily to passenger loads reflected by Allegiant Airlines. The number of passengers departing is a critical element to the Airport finances. Fuel sales, space rental, parking lot revenue, and auto rentals are just a few of the fees that are dependent on airline activity. Unfortunately, the Airport is constrained by its proximity to the airline hubs at Detroit and Cleveland, which accounts for the loss of carriers and passenger erosion. With the reduction in competition, air fares also increased resulting in additional enplanement erosion.

Toledo Express Airport is also part of Foreign Trade Zone No. 8. A foreign trade zone (FTZ) is a secured area located in or near U.S. Customs ports of entry, but legally considered to be outside of the customs territory. In an FTZ, merchandise may be assembled, exhibited, manufactured, mixed, processed, relabeled, repackaged, repaired, salvaged, sampled, stored, tested, displayed, and destroyed. The fundamental benefit of a foreign trade zone is the ability for a user to defer, reduce, or even eliminate U.S. Customs duties on products in the zone. Approximately 337 acres of the Airport is part of the designated zone, which makes the Airport a valuable asset to international freight carriers.

In an effort to improve the activity at TOL management has been seeking alternatives to increase the cargo activity, especially since the loss of BAX Global/DB Schenker in 2011. However, while cargo has reflected some increases through recent new cargo activity, the primary focus appears to have been with airlines and corporate/general aviation traffic.

TOLEDO EXECUTIVE AIRPORT

Toledo Executive Airport, formerly known as Metcalf Field, encompasses approximately 450 acres lying 6 miles southeast of downtown Toledo in Millbury, Ohio. This general aviation facility offers two crossing runways and is dedicated to serving local and regional general aviation activity in the Toledo area. The Airport has exhibited a decline in activity levels in recent years in correspondence with the declines in recreational flying, which dominates this airfield. This is a trend which has been reflected at most general aviation airports across the United States since 2007/2008. Although the Airport has demonstrated negative trends in operations and based aircraft, fuel sales exhibited a slight increase in 2012.

This Airport plays a crucial role with regard to aviation activities in the Toledo region, and with Toledo Express Airport specifically. The primary role of this Airport will be to serve as a reliever to TOL, as well as to cater to aviation activity of smaller general aviation aircraft, to include flight training. These activities will allow TOL to focus on commercial aeronautical activities that will be supported by larger air carrier class aircraft.

Public/Private Scenario

A Public/Private partnership as used in this context is a contractual agreement between a public agency and a private sector entity. Several potential benefits to be realized by such an arrangement may include:

- *Cost savings* - A recent study by the Reason Foundation indicates savings range from 20% to 50%.
- *Access to expertise* - Provides access to expertise a public entity does not typically have.

- *Improved risk management* - The private sector company becomes responsible for cost overruns and employee related issues.
- *Innovation* - Having the ability to react quickly to market changes the private sector can more easily take advantage of new technologies.

Public/private partnerships between airport sponsors and investors are a proven concept. Interest in privatization partnerships has continued to grow over the past two decades driven by financial advantages and the opportunity for private investment in airport development creating economic development and jobs in the region.

Private sector participation can take various forms, including the outsourcing of airport management, design build developments, long term lease of assets and other financial initiatives. Often due to the ability of private industry to react more rapidly to changing markets than government entities an advantage is realized in airline contracting, airport leasing, and capitalizing on investment opportunities. Additional benefits can be realized by the airport sponsor once the burden of airport management is shifted to high-end professionals allowing the airport sponsor to concentrate its core activities.

In consideration of the best possible options for Toledo Express Airport to achieve financial self-sustainability and maximize economic development, a privatization continuum should include, but not be limited to the following:

- Terminal Management and Operations
- Land Development
- Non-terminal Building Management and Maintenance
- Parking Management
- Ramp Operations
- Intermodal and Cargo Operations and Management
- Landside property Development
- Lease and Property Management
- Fuel Operations Oversight

- Airside Maintenance
- Air Service Marketing
- Airport Marketing
- Purchasing and Contract Management
- Finance and Accounting Records
- Financial Planning
- Construction Management
- Public Relations, to include Noise Abatement Programs

Why would a public/private partnership work for Toledo Express? There are several advantages and opportunities that can be realized. With consideration to the above listed operations and management activities there should be benefits from the following:

- Reduction in airport costs for employee salaries and benefits, as well as pensions and medical expenses
- Access to private sector expertise
- Acceleration of projects and a reduction in construction cost
- Allows Port Authority to focus on core mission and strategies
- Engages motivated marketing programs
- Reduces Port Authorities' subsidies
- Introduces private capital
- Provides innovative revenue enhancements
- Reduce reliance on municipal dept and preservation of public capital

Several successful public/private partnerships exist in the United States with various management scenarios. As such, each airport owner must consider the best structure for the operational and capital requirements at their airport. The oldest of these being the Bob Hope Airport in Burbank, California, that was privately managed from 1928 until 1978. A sampling of other airports that have been under private management include: Albany International Airport, Rhode Island Airport Corporation (5 airports), Indianapolis International Airport, Teterboro

Airport, Atlantic City International Airport, Newark Liberty International Airport, and the Los Angeles County Airports (5 airports).

The Federal Aviation Administration provides guidance on management contracts in FAA Order 5190.6B, Grant Assurance 5(f). Within this Order, several areas of consideration are detailed covering the legal and regulatory considerations when beginning a public/private arrangement. Primary areas of interest of the FAA are that the airport sponsor and the private entity comply with relevant legislation, regulations, and policies, mainly with regard to compliance with grant assurances, rates and charges policy, environmental regulations and Passenger Facility Charges (PFC) regulations.

While the private entity can accelerate the development timeline, it is important to remember when developing the contract that an adequate period of time must be sanctioned to allow for operating efficiencies, marketing and investment to generate results. Most importantly, while many airports have achieved successful contracts and can provide lessons learned, each situation has its own variables to be considered.

PROJECT SCOPE

Airport Business Solutions (*ABS*) has been engaged by Douglas Allen Associates to prepare the following market and marketability assessment of the airports to assist with short and long term decision making with regards to the potential market position of the Airport within the regional and national aviation marketplace. The overall analysis herein outlines numerous issues and opportunities relative to the operation and future marketability of the two airports, to include certain strategic planning opportunities related to the current and future potential of the airports. The goal of this analysis is to provide overall market information regarding air carrier, cargo, and general aviation industry trends, local market conditions, and opportunities for both aeronautical and non-aeronautical business operations. The elements of this study include background data on the major facets of the aviation industry and how we got where we are today, current market conditions locally and nationally, and market opportunities/conclusions. In addition, a key portion of the analysis will include a review of the Strengths, Weaknesses, Opportunities and Threats to

airport development/market opportunities (SWOT Analysis), for both current and future operations.

Airport Business Solutions has researched many areas in the preparation of this analysis including industry statistical data, airport data, national economics, manufacturing trends, FAA and other data from aviation associations, and information from our own proprietary database and files. The development of this working document includes information provided by the Port, interviews with local pilots and airport users, research of aviation industry trends, analysis of local and national economic trends, review of the specific market situation in Toledo, and the direct impact of the other airports in the region. Along with the specific data analysis, *ABS* also relies on its experience in managing, operating and consulting to airports and airport related businesses. Certain assumptions have been made and characterized throughout the discussion. This data, combined with the nearly 150 years of experience of *ABS* staff allows us to offer information that we believe is accurate and attainable. However, it should also be noted that various economic, environmental, military, and destabilizing world events can have a significant impact on the economy and more specifically the aviation industry.

On the following pages are our assessment of the issues and opportunities at the Toledo Express and Toledo Executive Airports. The sections that follow address primary lines of aviation business such as air cargo, general aviation, and air carrier, as well as other potential commercial aeronautical business opportunities. In addition, the report includes a SWOT analysis section that assesses the strengths, weakness, opportunities and threats to aviation in the Toledo region.

AIR CARGO

In order to assess the outlook for the air cargo operations at TOL, in addition to understanding the history of air cargo in Toledo, it is important to understand the history of the industry, how it was conceived, and how it has evolved into today's complex marketplace.

a. The Early Years

In the post World War I era, aviation was in its infancy. Aeronautical activity in this country was primarily related to limited air mail service and air-show type events utilizing what were then known as "barnstormers". While the early barnstormers were little more than circus events, the real revenue generators, and innovators in long distance flying, were those aviators hauling air-mail and very small packages. Much like the pony express mail which crossed the nation decades earlier, the demand for rapid delivery of critical documents expanded and air freight services followed. Once the reliability and safety of air mail began to stablize, passenger services slowly came into existance and commercial aviation became one of the fastest growing industries in the nation. As the air carriers grew into larger and more powerful aircraft, the vacant baggage space on commercial passenger flights was utilized to haul mail and freight. This "belly cargo" as it is known today, became an additional source of revenue and the airlines began to realize the potential for this line of business.

During World War II the strategic movement of troops, equipment and supplies began to depend more and more on air transportation and the early stages of what we now call logistics began its roots. In addition to the movement of supplies, the transfer of the severely wounded also began to emerge particularly in the European theater of the war. After the war, many military pilots recognized the potential for both national and international air cargo operations. Looking to create jobs to keep themselves flying, the pilots who delivered supplies during the war started up air freight entities in the private sector when they returned home. During this post war period the

emergence of cargo operations flourished and companies such as Flying Tigers were born. With the advent of modern jet aircraft with longer international range and reliability, the 60's and 70's saw significant growth in both commercial passenger service as well as national and international air cargo. While the airlines grew rapidly during this post war period catering to passengers wanting to see the world, air cargo became somewhat of a stepchild to the passenger demand. Along with government de-regulation of the industry these factors further increased the demand for all-cargo operations that capitalized on the niche forming to offer domestic and international cargo services. Due to the loss of passenger revenue created by de-regulation the scheduled carriers began to re-focus on air cargo and began to utilize their own all-cargo aircraft and services. The airlines also briefly experimented with quick change (QC) aircraft that could be changed from passenger service to cargo. The demand for all-cargo services pushed airports to build larger and more sophisticated cargo facilities to meet the demand. As such, during this same period airport facilities with both airside and landside (dock) access started to emerge.

b. Air Express and Freight Forwarders

In the 1970's, an entirely new market was born with the entry of overnight express freight. Deregulation also provided the means for freight forwarders to utilize their own aircraft and thus began the era of expanded all-cargo operations. Under severe scrutiny and much doubt, Federal Express began operations as the first overnight express carrier. After nearly going under because of what was initally considered a flawed business model, with some luck and brilliant marketing, FedEx grew into a formidable entity. The overnight frieght business grew by double digit expansion and others followed via both domestic and international competitors. Recognizing a competitive opportunity, the formidable and well financed ground freight entity UPS entered the air carrier realm in a big way. They already had significant infrastructure for ground based delivery of packages and the addition of air cargo was a natural expansion strategy. As this segment of the industry matured from its focus on overnight express deliverys the secondary lines of business also began to grow including next-day later delivery and lower cost air shipping that included two day and extended delivery scenarios. This provided lower cost options along with the need to offer air express services to shippers wishing to deliver larger and heavier cargo packages.

During this same period of change, the airlines made a strategic decision to outsource many of the jobs they once considered only in-house functions. This included many of the technical services provided below the wing including refueling, marshalling/push backs, and maintenance. Above the wing catering and cabin cleaning were also contracted. In addition, they also outsourced ground handling services for the sorting, loading and unloading of cargo. This cargo handling business grew extensively in 80's and 90's and developed into the separate third party services and facilities for cargo and airmail operations that we see today.

c. Expansion of Air and Land Based Freight Operations

During the 1990's, the cost of fuel and the emergence of logistics in freight operations saw the further transformation of the national industry into a hybrid of both air and ground delivery systems. In order to compete with UPS, FedEx and other carriers that were primarliy aircraft operators started merging or acquiring trucking organizations with freight facilities and equipment for gound shipments. This allowed for additional routes and delivery options both regionally and nationally. While this improved revenues, and offered additional options for the shipment of goods across the nation, it was not necessarily good news for airports. This shift from all air operations to hybrid air/ground systems moved some of the freight and mail from airport sort facilities to ground based facilities off-airport. Facilities for cargo logistics started poping up in larger markets whereby there were storage and cargo pallet make-up facilities being built off airport. These facilities also were positioned near manufacturing hubs, that could easily access truck and air transportation. This shift to ground operations also created a loss of air cargo operations at smaller regional and local airports due to loss of demand for smaller freight aircraft and associated facilities. Rural communities that had overnight air express operations at their local airport have seen a shift to truck services that move freight to a regional hub to connect with larger aircraft within a few hours driving distance.

The emergence of logistics, defined as the management and flow of resources between the point of origin and the point of destination, has become the new paradigm for the industry. This part of the industry now offers material handling, produciton, packaging, inventory, warehousing, security and of course transportation. With the strategic use of personnel, facilities, supplies and

equipment, logistics offers services for both inbound and outbound scenarios. Inbound logistics may include the shipment of raw materials and parts, whereby outbound logistics would include completed products and equipment destined for the end user. This situation has provided airports that have good acces to interstate highways, ports, rail lines and warehousing a distinct advantage in attracting both inbound and outbound logistics entities and services.

What's Ahead for the Future of Air Cargo

a. A Turbulent Decade

While the past decade has brought problems for many industries due to the downturn of the economy both nationally and internationally, the air carrier industry has seen the most significant issues. The post 9/11 years have brought many challenges including both economic and regulatory. Increased security for every facet of aviation has increased costs for aircraft operators, as well as for the facilities and ground based operations at airports. In addition to security concerns, the national economic downturn that began in early 2008 has had a significant impact on all types of freight operations including air cargo. At the same time, the industry has also seen operating expenses rise with the high cost of fuel. Regulatory and political issues have also been problematic including a lengthy process to approve FAA funding and system modernization combined with overall national and global financial uncertainty. Environmental regulations such as the push to limit carbon footprint and the European Union's emissions trading scenario have also caused the entire aviation industry to be concerned with the future.

The years 2008 and 2009 were by far the worst the cargo industry has seen in decades. According to the International Air Transport Association (IATA), 2009 saw air carrier passenger demand down 3.5% while cargo demand sank by 10.1%. This cargo downturn essentially

eliminated nearly 3.5 years of growth in the freight business. In 2010, the industry showed a brief upturn, but 2011 showed another slow year. However, 2012 demonstrated an overall stable trend over 2011, with some positive signs of nominal growth in 2013 and beyond.

b. What's Ahead for the Future

Today, according to the The International Air Cargo Association (TIACA), air cargo is now a $60 billion industry that equals approximately 35% of the worlds trade by value. This represents over $5 trillion in goods shipped annually by air. In addition, air cargo exports are aproximately 31% of the yearly shipments out of the U.S.

While the industry, along with the national economy seems to be somewhat stabilized, there are continued risks associated with uncertainty in both the domestic economy and the future of the European Union. Looming spending cuts and potential future gridlock in Washington will also impact the potential growth of the economy and in particular domestic and international air cargo. The good news is that the general trend in GDP growth is improving and consumer confidence is also changing slowly towards more spending on items such as automobiles and other big-ticket items. The GDP is predicted to grow by over 3% in the next 18 to 24 months; however, given the continued economic environment, the GDP will likely continue to be somewhat flat until government spending and the national debt is reduced. As such, freight of all types including air cargo is expected to grow at or slightly above the GDP increase of 3% in 2013 with further expansion in the next five years along with additional domestic economic improvements. It is also expected that as the cargo market rebounds and even expands, additional airport facilities outside of major gateway airports may be needed to meet demand. It is likely that the airlines will also continue to outsource their facilities and that any new cargo infrastructure will likely come from third party developers and in some markets through direct construction by airport sponsors.

In addition, consumer confidence, and economic resilience is particularly better in the regions of the country that are tied to the movement of products and freight. This is related to the jobs associated with both shipping and logistics, and the local manufacturing jobs that are slowly on the increase. The housing market is also beginning to rebound with foreclosures at a five year low.

This is due to the affordability of new homes, availability of low interest money, and the willingness of banks to once again fund land developers and homebuilders.

Also, directly related to air cargo operations, the price of aviation fuel is expected to be somewhat more stable this coming year and into the future. This is due to lower demand for oil products and increased production in the U.S. due to Fracking and other oil producing technologies. Alternative forms of energy in the next decade will also relieve some of the demand for fossil fuels. Biofuels will also have a positive impact on the price of jet fuel and diesel for truck transports.

As indicated in the 2012-2013 World Air Cargo Forecast prepared by the Boeing Company, the overall outlook for the various domestic and international cargo markets shows steady improvement. It should be noted that these projections are correlated to the future sales of aircraft and as such should be viewed in this context. The following chart shows historical annual growth rates for the period 2001 through 2011 and the forecast 20-year period 2011 through 2031. The data included in the chart below includes the annual growth of total air cargo worldwide, and specifically, North America. In addition, those markets that have a connection to North American airports are also highlighted.

WORLD AIR CARGO FORECAST Historic and 20 Year Forecast (Annual Growth Rates)		
Marketplace	**Historic Annual Growth 2001 – 2011**	**Forecast Annual Growth 2011 - 2031**
Worldwide Total Air Cargo	+3.7%	+5.2%
Intra – North America	-1.5%	+2.3%
North America – Latin America	+1.8%	+5.6%
North America – Europe	+1.5%	+3.5%
North America - Asia	+4.3%	+5.8%

Overall, the future of air cargo both domestically and through connecting markets shows a very positive outlook for cargo carriers, forwarders, and associated facilities including the established airport markets that serve the nation and the globe.

TOLEDO EXPRESS AIRPORT

Toledo Express enjoyed a major growth spurt in air cargo activity after Burlington Air Express, subsequently BAX Global, opened a sorting hub at the Airport in 1991. Over the next 20 years, cargo activity at TOL grew exponentially. Unfortunately, that business declined significantly in recent years as DB Schenker, who acquired BAX in 2006, shifted some freight to trucks and reconfigured some of its flights away from the hub model in favor of direct service in high-volume markets. DB Schenker terminated their air freight business in 2011.

Despite the departure of BAX Global/DB Schenker, the potential value of Toledo Express Airport as a domestic and global air cargo center is well-established. Infrastructure and cost benefits include:

- Direct airfield access to a 10,600-foot runway
- Instrument Landing System (capable of upgrade to Category III if required by aircraft operations)
- 80-Acre air cargo apron adjacent to development site designed to accommodate 747 and other large cargo freighters
- 24/7 Air Traffic Control Operations
- On-site U.S. Customs and Foreign Trade Zone
- Active perishables facility
- Competitive pricing
- No congestion
- Compatible land use

The Toledo Express Airport is also an emerging participant in the global distribution network. Regularly scheduled air cargo activity at Toledo Express currently includes flights to and from Canada, Mexico, Australia, Europe and the Middle East. TOL is an established domestic cargo hub with increasing international connectivity and is positioned to function as an inland port and an alternative to congested air cargo gateways. This is a trend occurring throughout the U.S. as major gateway airports become heavily congested with both passenger and air cargo activities, which has increased delays associated with landings/departures, freight loading and unloading, and the availability of developable facility space. For example, some airports throughout the Midwest and northeastern United States have embarked on an aggressive marketing campaign to attract a portion of the perishables market from the Miami International Airport, who handles almost 90% of all perishables coming into the U.S. from South and Central America. By offering functional facilities, on-site/on-call customs, and lower operating costs, some airports are enjoying success in

getting some of the South American carriers to overfly Miami and other major gateway airports and route directly into these secondary distribution markets. *(It should be noted that overflight rights are not tied to permission from the FAA, but rather are associated the ability of a market to offer U.S. Customs and to get the local Custom's office to support their efforts to forego gateway airports by offering 24-hour or short-term, usually 2 hours, call-out response times.)*

In addition, the Toledo and the Northwest Ohio region offer a full range of transportation resources that make it very attractive to potential international freight carriers:

- An international air cargo hub operation
- Excellent highway access to industry and consumers at the juncture of two major interstates
- National crossroads of four railroads
- Close proximity to the CSX National Gateway project in North Baltimore, Ohio
- Access to the largest land-mass seaport on the Great Lakes

These are just some of the reasons why the major freight integrators (UPS and FedEx) and major retailers such as Walgreens, Menards and Best Buy, have established ground distribution centers in the Toledo/Northwest Ohio area. Within a 300-mile radius of Toledo, more industrial space can be reached than from any other location in North America. Within a one-day truck trip, a major population segment in both the U.S. and Canada can be accessed. Toledo provides access to more population when compared to other Ohio distribution centers, with daily round-trip ground access to major metro areas such as Detroit, Chicago, Cincinnati and Pittsburgh. The area lies at the intersection of two major highways: Interstate 80/90, which runs east and west from California to New York, and Interstate 75, the longest north/south interstate in the U.S. In addition, the area offers extensive rail access and access to a major seaport, providing substantial multi-modal opportunities in the region.

As a result of all of these factors, a study by BX Solutions, a cargo logistics company situated on a large development on the south side of the Airport, evaluated the comparative cargo logistics for air cargo coming into TOL versus Chicago's O'Hare International Airport (ORD). According to Mr. Chris Marshall with BX Solutions, their analysis determined that time it takes for a cargo plane to land at the Toledo Express Airport, taxi to the ramp, unload its cargo, and truck it to downtown Chicago, is only slightly longer (less than an hour) than what is realized by a plane that lands at ORD, taxis to the ramp, unloads its cargo, and transports it by truck to the same location in downtown Chicago.

While the perception of the impact of the distance between Toledo and major markets such as Chicago, Detroit and others is that it is time-prohibitive, the reality is that the opportunities for international cargo activities at TOL are significant if marketed correctly and aggressively. Toledo Express Airport lies within a 500-mile radius of 43% of the U.S. and 47% of the Canadian population, making it an ideal location for international air cargo.

In order to make this international cargo opportunity a reality, there are several operational changes that need to occur at TOL. The most significant issue to be addressed is fuel. Fuel represents the most significant expense for airlines and air freight carriers. This is especially true for international cargo carriers that travel long distances on a non-stop basis. Because of the large volumes of fuel purchased by international carriers (often negotiating with a single supplier for fuel at multiple locations around the world), it is imperative that viable and cost-effective alternatives are provided to attract them to a particular location. Most often, this relates to the ability for a carrier to procure their own fuel, store it on location, and contract with an on-site entity to provide into-plane fueling services. This not only provides them with the ability to negotiate the best price, but also to insure that a sufficient volume of fuel is available as needed.

Based upon our research, this issue has been an obstacle in the past with regard to attracting international cargo carriers to TOL. While TOL has a total capacity of 791,000 gallons for Jet fuel, this is spread across 18 fuel storage tanks scattered around the Airport. However, 500,000 gallons of this capacity is contained within 2 tanks formerly owned and operated by BAX Global on the south side of the field. This is the anticipated "base of operations" for any cargo carriers locating at TOL.

It is our understanding from our due diligence that there have been multiple issues over the years with regard to complaints from the FBOs at TOL regarding the fueling of cargo carriers utilizing the Airport by BAX Global. The challenges by the FBOs over the years relative to the fueling rights for these aircraft resulted in the inability of BAX Global to fuel or service aircraft that were not specifically associated with or contracted by them. This created problems with attracting other carriers to TOL, in that none of the FBOs at TOL had the requisite fuel storage capacity and/or equipment to service the large aircraft seeking to utilize the Airport. The ultimate result was a situation that only served to benefit competing airports in the region.

In order to put the Airport in the best position to market themselves to national and international cargo carriers, it will be necessary to modify the way business has historically been done at the Airport. Most significantly, it is recommended that prospective cargo users at TOL have the ability to purchase their own fuel directly from their supplier of choice and store that fuel on-site. If the co-mingling of fuel in the 500,000 gallon fuel storage facility on the south side of the Airport is acceptable to the carrier's fuel supplier, then those facilities could be utilized on a flat monthly fee basis or as a per-gallon storage fee. Alternatively, individual fuel tanks could be acquired by a carrier (or by the Airport and leased to the carrier) and placed on a consolidated site on the south side of the Airport. (Under this scenario, a ground lease rate would be applicable for the right to place a fuel storage tank on-site.) The carriers would be required to contract with an FBO on the Airport to provide into-plane fueling or other services to their aircraft. It would be the responsibility of the FBO to make arrangements for the necessary equipment to provide fueling and/or other ground services.

In addition, it should be noted that the location of the FTZ on the south side of the Airport allows for international cargo carriers to acquire fuel on a tax-exempt basis for their aircraft traveling internationally directly from TOL. The establishment of a tax free fuel cost can be a significant market advantage.

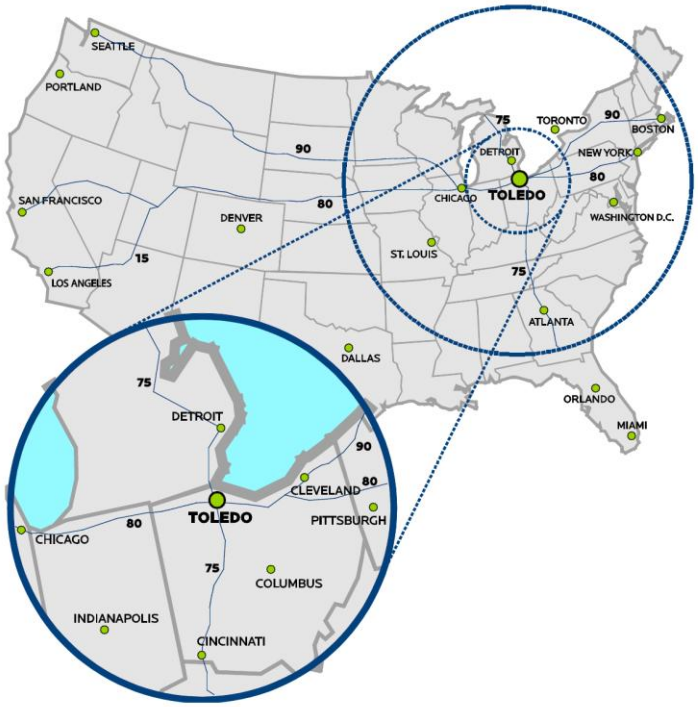
Another concern expressed by prospective cargo users is the fact that the Airport offers only a single functional runway for large cargo aircraft, and that the instrument landing system (ILS) at TOL is only Category I. The concerns are related to potential weather and other operational delays with only a single runway and minimal navigational aids in inclement weather. While the single runway issue is minimal given the prospective operational environment at TOL and positive history with BAX Global's operation, the availability of at least a Category II ILS would improve the attractiveness of the Airport significantly to international carriers. The cost to an aircraft operator to divert to DTW and incur additional costs associated with being a transient aircraft could be significant in relation to fuel costs, landing fees, parking fees, etc. It is our understanding that the existing ILS at TOL has the ability to be upgraded to a Category II, or even a Category III. As such, it would be recommended that research be initiated into the prospective cost of an upgrade to a Category II or III ILS and the ability to obtain FAA grant funding to cover the majority of the cost. (It

is our understanding that one issue with an upgrade to Category III is that few aircraft currently include the avionics package to support it.)

Other needs to attract international cargo carriers are less impactful and include the availability of cross-docking facilities, third-party ground handling that are trained to meet the specific protocols of each carrier, and some limited maintenance capabilities, at least within a reasonable call-out time. (*Note*: The availability of an MRO on-site was not considered a significant requirement to prospective users, just the availability of one or more mechanics on-call in case of emergency.)

Cargo volumes at Detroit Metropolitan Airport have increased year over year every year since 2009, increasing from almost 357 million pounds in 2009 to over 482.5 million pounds in 2012. Relative to international cargo, volumes were almost 81 million pounds in 2009, but ballooned to almost 187 million pounds in 2012, a growth of over 130%. Much of this growth is being driven by activity from the Asia-Pacific region, primarily China and India, which are enjoying rapid growth trends while much of the remainder of the world is stagnating.

According to data from Airbus, freighter fleets of Asian carriers will have more than tripled in size between 2003 and 2023, a significantly greater growth trend that any other region of the world. Similarly, Boeing just released a report that they project Chinese airline fleets to triple over the next 20 years. Much of this growth is tied to expected demand in international air cargo as global companies need global cargo services. While most of the U.S. domestic economy has migrated away from "just-in-time" inventory management as the recession hit and industry declined, this has not been the case with international companies. The relocation of manufacturing to low labor cost countries has increased the need for "made-to-order" production, which has led to an increasing need for international air cargo. This is further evidenced by figures that indicate that over 812,000 tons of air freight is imported from China by the U.S., compared to only 226,000 tons being exported. (Exports to Europe were 1.3 million tons versus 995,000 tons being imported.) Another indication of this trend was a recent report that indicated that dictated that this increasing fleet will create a significant demand for new pilots. All of these factors indicate a strong air freight demand in the U.S. going forward as the economy rebounds. Moreover, markets such as Toledo, which can not only handle the air freight activity, but also efficiently and effectively accommodate its movement to and from the aircraft and airport, are at a distinct advantage over even major gateway airports.



Given Toledo's location and efficient accessibility to such a large portion of the U.S. population, there is a significant opportunity for TOL to take advantage of this growing trend by marketing to Asia-Pacific cargo carriers. The ability to become a lower cost alternative to DTW and ORD can be a powerful marketing tool to international carriers who are highly focused on efficiency and cost-effective operations, because they are not typically structured to offset certain costs by offering more frequent operations. However, it will be crucial to the success of any air cargo venture at the Toledo Express Airport that the local community and the entire northwest Ohio region provide support and involvement to the Airport in its efforts to grow this aspect of the Airport. The benefits to the community are substantial, as the addition of even one regular international cargo flight can mean dozens, if not hundreds, of new jobs not just at the Airport, but throughout the community via the "trickle-down" effect of economic development generated by such activities.

SUMMARY

- Air cargo trends have been somewhat stagnant in recent years as it is closely tied to the overall economy
- Growth trends in air cargo are anticipated to exceed GDP growth over the next 5-year period and beyond
- Air cargo growth will continue to be led by expansion in the Asia-Pacific markets, specifically China and India
- The importing of goods from China continues to be a major economic driver
- The opportunity for secondary markets to attract international air freight operators is significant due to the lower cost structure, both direct and indirect, that can be offered my markets such as Toledo
- Toledo's location as a multi-modal hub can be a significant marketing opportunity to international carriers
- In order to accomplish the growth goals for air cargo at TOL, it is imperative that the Toledo community and Northwest Ohio region take a more active role in supporting the Airport and its marketing
- Modifications to the storage and handling of fuel for prospective international carriers must be accomplished to allow cargo carriers to purchase their own fuel and store it on the Airport
- Arrangements must be made for on-site and/or on-call U.S. Customs, with a relationship developed to facilitate overflights direct to TOL from Europe, Asia, and South America.

GENERAL AVIATION

History and Evolution of the FBO Industry

In order to fully understand the outlook for general/corporate aviation opportunities at TOL, both now and into the future, it is important to understand the history of the major segments of the industry, how they were conceived, and how they have evolved into today's complex marketplace. This background information is offered to inform all potential readers of this report as to the various aspects of the general aviation service industry.

The Early Years

In the post World War 1 era, aviation was in its infancy. Aeronautical activity in this country was primarily related to limited airmail service and flying circus events utilizing what were then known as "barnstormers". These barnstormers were identified as such because they flew to and from farmer's fields often utilizing a barn or other protected area to park their aircraft and perform refueling and maintenance services. During that period, in most areas of the country, airports were nonexistent and the pilots of the era relied on a chase vehicle or mobile operation to support their existence. These "mobile" bases of operation were typically small support vehicle or truck with holding space for drums of gasoline, a few spare parts and some tools for maintenance. As the industry expanded, particularly airmail routes, it was quickly recognized that these chase vehicles were very impractical. It was determined that a fixed location for support services would be required to meet the needs of the aircraft transiting the country. These "fixed" bases of operation were established to provide the needed services, and therefore the first Fixed Base Operations (FBOs) were born. Essentially, these first FBOs, or Operators, also became the first airports. Later, hangars were built, terminals added, runways were paved and navigational aids became a part of the system. Regulatory control of airports and airspace came into being in 1938 with the Civil

Aeronautics Authority (CAA), which in 1958 became the Federal Aviation Administration (FAA). As the airports grew, municipalities and other entities began to control the airport environs; however, the service entities that provided the fuel and maintenance continued to be called FBOs, and the term is still in use today.

Full Service FBOs

As the fledgling industry grew, and personal aircraft ownership/flying expanded, a new sector of aviation was formed called general aviation. This sector grew out of what was identified as either a military operation or commercial air carrier activity, including either mail/cargo or passengers. Today, general aviation is the largest segment of the industry and includes all air operations other than military and air carrier. This segment includes over 220,000 active aircraft which fly all types of missions including pleasure/personal flying, air ambulance, fight training, fire suppression, aerial surveillance/police work, charter, and business or corporate flying. Although FBOs, both then and now, regularly cater to all segments of the industry, it was the growth of the general aviation segment of the industry that created an explosion of FBOs across the country. At its peak in the late 1970s, there were nearly 10,000 FBOs in the U.S., and nearly all of them were considered "full service". There are few "full service" FBOs today that offer nearly all of the services listed. (At TOL, there are currently three FBO providers. One of which would be considered full service, with the others described as limited service, but more than just a fuel stop.) During the peak historic period of the 70's, there were often multiple FBOs on every field and the potential for growth seemed limitless. It is estimated that today, there are approximately 3,000 fixed base operators across the nation.

Like the early auto gas stations of the same era that often provided not only gas, but windshield washes, fuel attendants, oil changes and repair, parts and tires, FBOs also offered a full line of services. In order to meet the demands of each airports users or aircraft owners, FBOs offered fuel sales, aircraft maintenance, aircraft refurbishing/painting, aircraft parts, pilot supplies, flight instruction, hangar rental and parking, avionics (radio) repairs, aircraft rental and/or charter, in-flight catering, car rentals, and the sale of new and used aircraft. Many of these operators were aligned with aircraft manufacturers to be the regional sales offices for new aircraft. In addition to

the services, these early operators also offered terminal facilities with restrooms, waiting areas and vending machines.

Later, these became known as "executive terminals" to cater to the boom in business aircraft ownership and corporate flying. These executive terminals, which are typical of today's modern FBOs, include conference areas, private offices, passenger lounges, pilot lounges, quiet rooms, flight planning areas, restrooms, flight service counters, vending areas, and in some cases, sit-down restaurants. In addition to the terminals, these FBOs also offer ramp areas for staging and parking of aircraft, hangars for rental (daily and monthly), aircraft tie-down areas, auto parking and fuel storage facilities.

Fuel and Liability Issues in the 1980's

A significant event in the evolution of the FBO came in the early 1980's when the Organization of Petroleum Exporting Countries (OPEC) placed an embargo on crude oil destined for the U.S. As a result, the cost of aviation gasoline (avgas) and aviation jet fuel spiked to record highs. This high cost of fuel combined with the loss of product supply caused a major downturn in all of aviation, but particularly in general aviation. There were extensive periods when many auto gas stations could not get fuel, and as a result, the higher-end aviation fuels were refined in even smaller quantities. FBOs could not get fuel, particularly on weekends, when most of the flight training and pleasure flying took place. The overall downturn in the economy with this lack of fuel product sent the industry into a tailspin. Many corporate flight departments closed and simply walked away from hangar leases and aircraft operations. This downturn, combined with the oversupply of full service FBOs, caused a sudden loss of thousands of FBO entities across the country. Many just closed their doors and walked away leaving airports and other banking entities with abandoned facilities and airport leaseholds.

In addition to the loss of overall aviation activity, the aircraft manufacturing industry took a sharp downturn as well. The three major manufacturers, Cessna, Beechcraft and Piper, all saw an immediate cessation in the sale of new aircraft. The price of fuel had priced most prospective buyers out of the market, and also caused flight schools and other entities to stop buying new aircraft. This created a ripple effect that included no new aircraft entering the market, limited flying hours taking place, and a dramatic drop in new entry student pilots because the hourly cost of operating airplanes skyrocketed.

Another key issue that had a direct effect on aircraft sales, and indirectly to the FBOs, was the lack of what would later become Tort Reform legislation regulating the liability of manufacturers. During the peak periods of the 1970's and early 80's, when many aircraft were sold and large numbers of hours being flown, there were a number of fatal aircraft accidents that were primarily the cause of inexperienced pilots in older aircraft. In almost every case, even though the experience of the pilot was a key causal factor, the aircraft manufacturer, the engine manufacturer, the maintenance provider, and sometimes even the FBO who last fueled the aircraft, were all named in litigation by the survivors. During this period, regardless of the root cause of the accident, manufacturers were being found liable for damages because the aircraft that were sometimes over twenty years old were being held to the standards of the day, even though the aircraft were well maintained. Ultimately, the manufacturing of single engine aircraft in the late 1980's was ceased because the demand was low and the cost of liability insurance made it cost prohibitive to build these smaller aircraft.

All these factors combined to create a huge downturn in FBO activities. The lack of new aircraft, the loss of flight departments, and limited personal flying hit every department of the FBO. Fuel sales were down, maintenance was down, hangars were empty, and service operators were closing their doors almost daily. The higher cost of liability insurance, new environmental laws for fuel storage, and the skyrocketing cost of doing business on an airport became prohibitive for many businesses. By the early 1990's, the number of FBOs had decreased from 10,000 to around 4,000. Today, there are only about 3,000 businesses that can be officially called FBOs.

Consolidation

As a result of the heavy losses and abandoned facilities, there were opportunities for the FBOs that survived the 1980's. Once the industry began its slow emergence from this bleak period, those that survived were in a position to take over their competitors' facilities, either by default or purchase. Often, those airports that had multiple FBOs were consolidated into two competitors, and in many cases, just one surviving entity. Many of those lost were family owned or single entity operations that had limited capital resources to stay in business. This brought about the advent of the chain or multiple location FBOs. Also, in some cases, in order to compete, these individual FBOs became part of a group of franchise organizations to gain the marketing and support from the franchise organization.

This was a key period in the development of and definition of FBOs, because it was at this time that many of these new emerging chain entities began to slowly sell off, or eliminate, lines of business that were not profitable. At that time, the core chain FBOs began to concentrate on fuel sales, properties (tie-down, hangar and office rental), some aircraft maintenance, and ground services, to support fuel sales. This resulted in the selling off or elimination of flight schools, parts sales, charter, paint shops, avionics shops, and other services as parts of the FBO operation. In the past five years, further consolidation has resulted through the acquisition of both individual locations, and other chain operations, by investment banking groups. These groups have developed large chain organizations, which have further limited the lines of business they provide. In some cases, these operators offer fuel sales, ground services and properties as their key lines of business, and thereby rely on other surrounding businesses to provide the other requested services typically found at an airport. At TOL, due to the continuing struggle of single entity or limited chain FBOs to continue to survive it is critical that Airport management and the FBO's work closely together to cooperatively market the Airport and its key market niche services to all of the various sectors of aviation.

A La Carte Services

With the emphasis on fuel sales and hangar revenue as their primary sources for revenue, these new FBO entities often rely on others to provide support services. At many locations, the FBO has become the anchor tenant, much like a large chain store would be at the local mall. The FBO brought in the aircraft for fuel, but other services were offered a la carte through other entities on the field or under that same roof. In many cases a subtenant of the FBO provides these other services, particularly aircraft maintenance. Often, the former FBO maintenance personnel either bought out, or took over the FBO's maintenance operation and ran it as a separate business. This resulted in the advent of the a la carte offering of many of the support services other than fuel, ground services, and properties. This change in business models allowed each entity to focus on their niche in the airport marketplace. It is at this point that the Specialized Aviation Service Organization (SASO) was formed. These other entities, which did not sell fuel or ground services, became known as SASOs.

Most airports are dotted with small maintenance, avionics, parts or other entities that meet the users demand for that airport or region. Because of the mobile nature of the aircraft, in some communities there may be various service providers (SASOs) with specialties at one particular airport that may not be available at other airports in the area. As such, it is significant to note that both FBOs and SASOs compete locally, on the field, and also regionally, and sometimes nationally for services such as major maintenance, refurbishment, and charter.

Aviation and Airports, Where We Are Today

Today's definition of an FBO is a little more complex because of the nature of the industry and the trend toward a la carte services. What once was called a full service FBO, which included every line of business available on the airport, is now almost non-existent. However, the one key element to defining any FBO is fuel sales to the flying public. By definition, and by the consensus of every sector of the industry including pilots, aircraft owners, airport users, air carriers, industry

trade organizations, airport managers, regulatory agencies and FBO service providers, an FBO is recognized as follows:

- An FBO must provide fuel sales to based and itinerant flying public and have a commercial aeronautical lease or operating agreement with the airport sponsor. In most cases, this would include both 100LL/Avgas and Jet fuel.
- An FBO must provide terminal services and other facilities in support of fuel sales. At a minimum, the terminal must have passenger waiting areas, restrooms, vending areas, flight counters and weather briefing stations. At a minimum, other facilities would include aircraft parking, ramp access and staging areas, aircraft tiedown, hangar space, fuel storage and auto parking. The size and make-up of these areas to be dictated by an airport's Minimum Standards.
- In addition to fuel sales, an FBO must provide at least one (1) additional secondary service from the list of typical services provided at an airport including:
  - ✓ Properties - Including hangar and office rental or land leasing
  - ✓ Maintenance
  - ✓ Avionics
  - ✓ Parts Sales
  - ✓ Aircraft Sales
  - ✓ Flight Training and/or Aircraft Rental
  - ✓ Charter
  - ✓ Aircraft Refurbishment and/or Paint & Interior
  - ✓ Air Carrier Services
  - ✓ Cargo Handling
  - ✓ Ground Services* - Including lavatory servicing, aircraft towing, oil servicing, oxygen servicing, deicing, catering, ground power, food/vending and ground transportation.

*In all cases the FBO must, at a minimum, offer the ground support services along with fuel sales as one of the additional secondary services.

It is important to note that a corporate flight department, or other airport tenant that has its own fuel storage and/or provides fuel to their own aircraft, or to other entities within or through that facility, would not be considered an FBO or a SASO because they do not meet the other service or facility requirements of an FBO. Furthermore, they would not typically have the commercial aeronautical lease to allow these operations nor would they meet the typical airport minimum standards for FBO status.

SASOs

Specialized Aviation Service Operators (SASOs) would include other tenants or sub-tenants on the field who would typically have a commercial aeronautical lease or operating agreement, either directly or indirectly, with the airport sponsor and meet the following criteria:

- Each SASO must offer at least one of the secondary services listed above
- The offering of ground services alone does not qualify as a SASO
- The SASO designation would specifically exclude the sale of fuel

In the case of TOL, Toledo Jet would be an example of an SASO on the field providing charter and maintenance. They would not be considered an FBO because their operating agreement/lease does not allow for dispensing fuel.

Aircraft Manufacturing

One statistic that is often used to analyze the future business outlook of airports is the number of general aviation aircraft manufactured each year. The piston-engine aircraft industry, which is a somewhat active part of the activity at TOL enjoyed success in the 1960s and 1970s, but suffered a major decline in the 1980's. The decline was largely due to the increase in liability lawsuits that raised insurance premiums beyond acceptable levels and the negative impact this imposed to

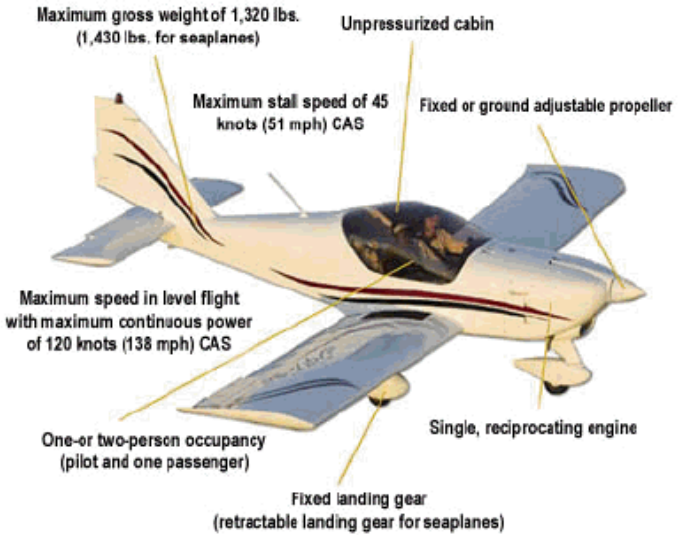
aircraft manufacturing. Between 1978 and 1986, annual United States airplane shipments dropped from 17,811 to 4,000, and the manufacturers were spending more on lawsuits than on research and development.

In 1994, the General Aviation Revitalization Act was passed which limited the liability of aircraft manufacturers, and aircraft production began to moderately rise. According to the General Aviation Manufacturers Association (GAMA), since 1994, manufacturers of general aviation airplanes have produced and shipped close to 48,000 fixed-wing general aviation airplanes worth over $240 billion. GAMA also estimates that there are over 223,000 active fixed wing and rotorcraft aircraft in operation in the United States and approximately 320,000 aircraft in operation around the world.

Aircraft shipments around the world have decreased over the past five years. The primary reason for the decline in aircraft shipments is the overall economic impact of the national and global financial collapse in 2008. According to GAMA, the most significant decrease in deliveries was in the piston aircraft market which decreased by over 54% from 2008 to 2009. Turbine sales also decreased that same year by nearly 29%. In addition, during the first three years of the downturn, a large number of used aircraft flooded the market. This further eroded the demand for new aircraft. Although the number of used aircraft on the market has slowly decreased in the past two years, the total percentage of used aircraft is still around 13% of the active fleet.

Although our economy is currently experiencing a slight upturn, and there are signs of recovery of general aviation, throughout the recession, there has been steadier demand for business jets outside North America. According to aircraft shipment data, over 40% of the units delivered were exported. It should also be noted that the general aviation industry typically follows the national economy in terms of recovery. Historically, the industry begins to improve six to twelve months after the national trends begin to peak. This is because of several factors including buyers' reluctance to jump back into the market and the volatile nature of the pricing of fuel. Currently, the industry is also faced with uncertainty in the future of aviation gasoline due to lead content. Like the housing industry, aviation is slowly but steadily increasing, particularly in areas of the country that have shown more resilience to the downturn.

One relatively new category of aircraft, which is not represented in the overall data listed above, is the emergence of light sport aircraft. Light sport aircraft are typically two-place aircraft under 1,200 pounds (1,430 for float planes) including traditional primary flight trainers, powered gliders, and sophisticated light float planes that have the capability of both amphibious and hard surface landing operations. This new category had developed because of the demand for low cost flight training aircraft, demand for personal use aircraft and also due to the proposed conversion of many traditional general aviation aircraft engines to burn Mogas or auto fuel. The EPA and the aviation engine manufacturers are working on plans for a major push toward the reduction of the production and use of Avgas due to its lead content. (It should also be noted that there is active on-going litigation in the State of California regarding Avgas powered aircraft and allegations of violations to various State and Federal Clean Air Acts.) TOL is in a position to benefit from this trend since the region is popular for both flight training.



Aviation Fuel Sales

In addition to the number of aircraft produced in the United States, the amount of aviation fuel sold annually should be reviewed to analyze trends. Although general aviation in the United States flies 166 million passengers each year, this segment of aviation consumes less than 7 percent of all aviation fuel burned annually. Jet fuel is the predominant type of aviation fuel used by civil aviation, but general aviation consumes just over 5 percent of this type of fuel each year. Domestic airlines use approximately 95 percent of the total jet fuel burned in the U.S. by nonmilitary operators. It is estimated that turbojets burn 62 percent of the total general aviation fuel, while piston-powered burn 20 percent. Turboprops are estimated to consume 13 percent of the total general aviation fuel and helicopters 5 percent.

Because general aviation fuel is a relatively small segment of the total petroleum products consumed in the U.S., it is highly susceptible to changes in the marketplace. The current volatility of fuel prices has most people in the industry concerned as to how high prices will ultimately go. (Fortunately, at the time of this report, fuel prices have stabilized and even receded to reasonable levels in some markets.) Although it has been shown that business aircraft owners and operators have been absorbing the additional cost of fuel and continuing to fly, it has been reported that many flight departments are looking at ways to reduce costs. Many have indicated that the budgets of flight operations have reached levels that required significant changes to the types of aircraft utilized and new purchases have been deferred. The cost of fuel and its volatility always pose a significant threat to FBOs that are dependent on fuel margins, particularly those that are highly leveraged. However, those operators and airports that have survived the past five years of one of the worst economies in recent history are well positions to grow in the future.

In addition, in the future, fuel efficiency of both the recreational and business aviation fleet will continue to improve. Engine manufacturers are continually enhancing the fuel efficiency of the powerplants since they realize the need to lower the operating costs of their clients. In addition, aircraft manufacturers are searching for new designs to incorporate advances in aerodynamics and lightweight composite structures that reduce weight and drag and thus lower fuel consumption. This will also have an impact on service providers and the airports where they operate.

Flight Hours and Pilot Data

Each year it is estimated that the FAA and contract air traffic control services around 63 million operations at airports across the United States, of which a large percentage is general aviation. For instance, general aviation accounts for almost 39 percent of the 47 million instrument operations at FAA monitored facilities each year, the largest share of any segment of aviation. By comparison, air carriers account for 29 percent of instrument operations, air taxis comprise 25 percent, and military aviation is less than 7 percent of the total.

The United States' pilot population numbers in 2012 were in excess of 610,000, including over 188,000 private pilots, 116,400 commercial pilots and 145,000 air transport pilots. Of these pilots, 99,000 also hold a flight instructor certificate. According to the FAA, there were 610,576 pilots in the United States at the end of 2012, of which approximately 16,083 were from the State of Ohio. Since 1980, when the U.S. recorded the highest number of pilots (827,071), the total number has steadily declined, with the exception of a slight uptick in 2010.

FAA CERTIFICATED PILOTS (Source: GAMA)								
Year	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**
Total Pilots	609,737	597,109	590,349	613,746	594,285	627,588	617,128	610,576

The decline of pilots nationwide affects each airport differently. For instance, after the terrorist events of September 11, 2001, several airports recorded an increase in operations due to the increase in student pilots. Many of these student pilots were business travelers that wanted to avoid the perceived hassle of commercial air service security and enjoy the benefits, such as time and flexibility that general aviation offers. While the population of commercial/airline pilots has been increasing, the total number of pilots has remained relatively flat indicating the considerable expense of achieving pilot certification due to the increased price of fuel and related flight training.

Business Aviation and Fractional Ownership

While the past several years has exhibited flat line growth in aircraft ownership, prior to the downturn, fractional ownership was the fastest growing segment of the general aviation industry. It is expected that this segment will continue to be a key growth segment as the economy improves. Over the years, a misunderstanding has evolved by the general public regarding the use of jets. A misconception exists across the country that jets such as a Gulfstream are used exclusively by celebrities and wealthy individuals to travel between their summer and winter homes. Corporate aircraft have consistently proven to increase productivity and enable corporations to manage geographically disbursed operations. Several companies with aircraft in this category are based in the region, and the number of business aircraft will likely increase if they receive the services and attention demanded.

Since business aviation plays such a strong role in the general aviation marketplace, it would be beneficial to identify all the different on-demand air transportation methods available to the general aviation community and to begin to track and market transient aircraft. All of the following industry segments should be understood, as they are all current and potential users of TOL.

Aircraft Charter - Operators offering on-demand air transportation services to the public, and by law must be certified by the FAA by meeting stringent operational, maintenance, and safety rules.

Management Company - Under this method, an aircraft owner contracts with an aircraft management company to provide all necessary elements to operate the aircraft.

Joint Ownership - Under this arrangement, two or more entities become registered joint owners of an aircraft.

In-House Flight Department - Currently used by large companies, this method affords user the highest level of control possible in regards to service quality, personnel, training, and security.

Interchange - Under this arrangement an owned aircraft is leased to another entity in exchange for equal time in that entity's aircraft when needed. This would be done in order to have a backup aircraft for use when owned aircraft is either scheduled or in maintenance.

Time Sharing - A time-sharing agreement means an arrangement whereby a company leases its airplane with flight crew to another person, to whom direct operating expenses of the aircraft may be charged.

Fractional Ownership - Fractional ownership offers the option to purchase shares of a business aircraft, instead of buying an entire aircraft. Most fractional providers offer a variety of aircraft to choose from, ranging from small turboprops to large intercontinental turbojets.

As indicated, fractional ownership will continue to be a key factor in future business aircraft purchases and flight operations. By definition, fractional ownership offers the option to purchase shares of a business aircraft, instead of buying one outright. Most fractional providers offer a variety of aircraft to choose from, ranging from small turboprops to large intercontinental turbojets. Companies such as Flexjets, NetJets, and Flight Options have made considerable advancements in the business aviation market. For instance, NetJets flies over 300,000 flights to over 170 countries annually. Fractional ownership attributes include joint-ownership, guaranteed availability, favorable response times, uniform service levels, and hassle-free operation. The major expenditure associated with fractional ownership is the value of the fractional share of the aircraft itself. Ranging from $500,000 to $10 million, depending on the aircraft type and fractional share, this expense entitles the fractional owner to the rights, benefits, and obligations of any owner of a major asset for a fraction of the full acquisition cost. Many companies who may not have considered private travel for executives have entered the market due to the low initial investment required. Regardless, fractional ownership is still the fastest growing form of on-demand air transportation.

TOLEDO EXPRESS AIRPORT

The Toledo Express Airport has a long history with regard to general aviation. Unfortunately, as market conditions changed, the FBO environment at TOL failed to follow the industry. As a result, while most airports of the size and activity level of TOL have one, maybe two FBOs. Toledo Express has three: National Flight Services, TOL Aviation, and Grand Aire. Although traditional FBO services, to include the sale of fuel, are not the primary line of business for National Flight Services (maintenance) or Grand Aire (charter), it is still a focus of these businesses. Because of the constantly changing general aviation marketplace, which has trended toward more business/corporate aviation, this segment of the market maintains much higher expectations relative to service and facilities.

FBO Fuel Issues

Based upon our review of the general aviation marketplace at TOL, total general aviation fuel at TOL was 1,246,145 gallons in 2012. This number is inclusive of retail fuel sales by the FBOs (retail fuel refers to all fuel sales excluding those to airlines, cargo carriers, or the military), which were approximately 866,554 gallons in 2012. The retail volumes broke down to 806,632 gallons of Jet fuel and 59,922 gallons of100LL/Avgas, which reflected a decline from 2011 levels of 969,315 gallons of Jet and 66,727 gallons of Avgas. A major challenge of the FBOs at TOL is the existence of two major corporate entities based at the Airport with self-fueling capabilities. Owens Corning pumped 242,465 gallons into their corporate aircraft in 2012, while Maumee Air Associates pumped 137,126 gallons. Although these numbers were down from 2011 (251,923 and 215,402 gallons respectively), the volumes still represent a major lost revenue opportunity to the FBOs at TOL.

Based upon our research, the existing FBO facilities at the three FBOs at Toledo Express are in need of updating in order to equal what is typically found or expected at similar size and located airports in the U.S. The existing facilities are not generally designed to meet today's corporate pilots' needs or expectations, nor are the overall facility appearances or accoutrements consistent with these expectations. Because of the fractured FBO marketplace, with three FBOs in what would

generally be recognized as a one FBO market based upon fuel volumes, none of the operators have elected to, or perhaps been able to financially, reinvest in facilities to update them to modern, state-of-the-art FBO terminals. While the reputations of the operators are good relative to customer service and for their other lines of business, from a facility perspective, they are inadequate for what is expected in a market such as Toledo.

The main issue with the three FBOs is the current marketshare of fuel sales being split between three operators. While the reduction in margins created by a highly competitive market with three operators competing for limited marketshare initially benefits the consumer, solely from a price perspective, the limited revenues derived from this major source creates an environment with minimal profit opportunities which often ultimately results in a decline in facilities and amenities available to pilots. This appears to be the case at TOL. In the current environment, it does not appear that any of the FBOs generate sufficient retail fuel volumes or revenues to adequately support their operations from an investment or return on investment standpoint.

National Flight Services is primarily focused on their highly successful engine overhaul business with multiple locations throughout the U.S. Their fuel revenues represent a small fraction of annual revenues, and the majority is derived from the sale of fuel to the airlines at TOL (25,515 gallons of Avgas, 436,080 gallons of retail Jet, and 570,443 to airlines in 2012). Similarly, Grand Aire is predominately an air cargo operator, with their fueling operation serving to reduce the operating costs of that business. Again, while they do derive some revenue from the sale of fuel, it is a small portion of their overall revenues and net profits (27,686 gallons of Avgas and 332,394 gallons of Jet in 2012). TOL Aviation is primarily a fuel and hangar operation, but reflects the least volume of fuel sales among the three FBOs (only 45,180 gallons total in 2012). It is our understanding that the majority of their revenues from fuel come from the resale of fuel to some of the corporate operators.

The market decline at TOL is considered to be due to a number of factors, including but not limited to, the declines in the general aviation market on a national basis, the impact of corporate self-fuelers, and the declining general aviation marketplace in Toledo. In order to grow the general/corporate aviation aspects of the Toledo Express Airport, there likely need to be some

changes in the FBO business model. One of these changes is potentially associated with the storage of fuel at the Airport. The three FBOs currently maintain a total of 195,000 gallons of Jet fuel storage in 10 tanks. There is an additional 47,000 gallons of Avgas storage. This is in addition to another 96,000 gallons of Jet storage by the two corporate self-fuelers. The overcapacity of fuel storage creates a significant amount of inefficiencies, as well as encumbering the operators with a significant economic burden associated with amortizing, maintaining and insuring these facilities. This is further exacerbated by the additional operational expenses of the fuel trucks maintained by each of the operators.

While there are a number of complexities involved in facilitating a change, it is recommended the potential for a single, consolidated fuel storage system be assessed for the FBOs and corporate operators at the Airport. Potentially, this could be further expanded by including the storage of fuel used by air carriers and prospective cargo carrier at TOL. Although a number of details and operational scenarios would need to be vetted by all pertinent parties at the Airport, the positive economic impact on all Airport users (including and especially FBOs) dictates that this alternative should be evaluated.

An issue that was brought up during our due diligence on the fuel storage issue was regarding the impact of the loss of a marketing presence offered by a fuel supplier should each operator lose their ability to have their own fuel supplier arrangement. (Fuel suppliers prefer that there is no co-mingling of fuel between suppliers due to liability issues.) It is anticipated that a consolidated fuel farm operation would solicit a fuel supplier through the issuance of a Request for Proposal in order to obtain the most beneficial financial structure with regard to pricing, marketing, equipment and other aspects of FBO operations. While the loss of "brand identity" from the fuel supplier can be a valid concern for some operators, other FBOs throughout the U.S. have found that the enhanced economics of the single fuel supplier, which typically results in a lower cost per gallon, provides them with increased revenues that can be used for direct marketing of the business and reinvestment in facilities. As such, this is just one of many factors that should be vetted in the analysis of this alternative business model.

Corporate Fueling

The fueling of the corporate operators would be similar to the FBOs, in that they would have the ability to purchase fuel at a discount from a consolidated fuel farm at a discounted rate based upon their volumes. The corporate operators would have the ability to continue to fuel their own aircraft through the use of their own refueling trucks. However, some type of incentive program should be developed to encourage the corporate operators to contract with one of the FBOs at the Airport to provide into-plane fueling services. The corporate operators would pay the FBOs a negotiated per gallon fee to the FBOs for fuel delivery, which would reduce their overall operating costs by eliminating the need for fuel trucks, related personnel, reporting requirements, and insurance costs. Such an arrangement would also benefits the FBOs by providing a small revenue stream not currently being realized.

Other Services

Based upon our review of the TOL marketplace, there may also be some limited demand for other aviation services not currently offered, or offered on a limited basis, at the Airport. For example, our due diligence indicated a reasonable demand for passenger air charter exists in the market, although there is not currently a service provider at the Airport. While the FBOs can arrange for passenger air charter, there are not currently any aircraft based at TOL to provide this service. Based upon the business environment in the area, as well as the significantly lower cost for a charter operator to operate from TOL (no delays, shorter taxi time, overall economics), it is expected that if properly marketed, TOL could serve as a secondary base for a national charter operator to support existing activities out of Detroit, Chicago, and other Midwestern markets. (The additional opportunities for scheduled charter services will be discussed in the Air Carrier section of this report.)

In addition to passenger air charter, there appears to be some opportunities for aircraft maintenance and painting services at TOL. Toledo Jet is currently a major provider of turbine aircraft maintenance and avionics services at the Airport. There business appears to be thriving with a notable backlog of work orders. While the success of Toledo Jet would tend to indicate potential demand for other maintenance providers at the Airport, caution must be given to assuming the level of that demand. Toledo Jet has a strong history of providing high quality maintenance services, and as such, has a reputation that allows them to attract aircraft from a wide

region. As such, the greatest opportunity for additional maintenance providers at TOL would be the solicitation of other nationally recognized maintenance providers that are seeking to expand to other Midwestern markets to take advantage of the volume of corporate activity in the region. (While National Flight Services provides engine overhaul services, most of this activity does not require access to aircraft on-site. Most of their work consists of engines that are shipped to them for maintenance, then shipped back out upon completion.)

SUMMARY

- General aviation trends have been somewhat stagnant in recent years as a result of the national recession
- Many of the general aviation issues at TOL result from having three FBOs with fuel volumes typical of an airport with only one FBO
- The FBO facilities at TOL are considered inferior compared to similar operations at airports similar to Toledo Express
- The lack of reinvestment in facilities by the FBOs is likely due to lower margins and limited fuel volumes which do not make it economically feasible
- There needs to be an assessment of the FBO business model at TOL with some modifications needed to maximize business and economic opportunities
- One scenario at TOL would be for the Airport to consolidate fuel storage at the Airport to eliminate redundancies and increase profitability of the FBOs
- Corporate self-fuelers should be enticed to contract with an FBO at the Airport to provide into-plane fuel services
- Secondary services may ultimately warrant some demand at TOL, but they will likely be developed as the result of growth from other sectors, not as the driver of growth
- In order to accomplish the growth goals for general/corporate aviation at TOL, it is imperative that the Toledo community and Northwest Ohio region take a more active role in supporting the Airport and its marketing.

AIR CARRIER ACTIVITIES

The history of air carrier service in the Toledo region has been dictated by the history of the industry as a whole, and the economic issues facing the local communities. The national recession only served to exacerbate the financial struggles of the airline industry, which have realized a long and sorted history of economic challenges since deregulation. The trend in the past 10 years or so has been the consolidation of the legacy carriers in the United States to the point that there are only five major U.S. airlines in operation today (Delta, United, Southwest, American and US Airways), and that will soon be reduced to four with the merger of American and US Airways. While there are numerous "secondary" airlines such as JetBlue, Alaska, and Frontier, that are offering competition, most of these airlines serve limited markets, mostly large metropolitan. In addition, their schedules are often more limited with minimal connection options. Moreover, there are several smaller regional carriers that are serving smaller markets, such as American Eagle at TOL, but these carriers typically utilize smaller regional jets or turboprop aircraft that are less desirable to many travelers. In addition, because of the smaller passenger loads and less frequent schedules with smaller aircraft, the airfares tend to be less competitive.

The one bright spot in the airline industry are carriers such as Allegiant Airlines that offer larger jet aircraft and low fares to many secondary markets across the U.S., often to destination markets such as Florida, Las Vegas, etc. However, these airlines typically offer somewhat infrequent service and will charge for each "extra" of the passenger, to include baggage fees, ticketing fees, and even carry-on fees. As such, these airlines are typically very popular with the recreational or vacation traveler, as opposed to the business traveler that needs frequent, reliable service, with secondary consideration to price.

The consolidation of the legacy airline industry has hit markets such as Toledo especially hard. The merger of Delta and Northwest Airlines further reduced the competitive options at DTW and has allowed Delta to monopolize the market and utilize predatory pricing tactics to not only thwart competition at DTW, but also throughout the region. While airports such as TOL used to

have the benefit of numerous flight options to major hubs in their region, the constantly shifting airline models have gone away from this approach.

As demonstrated on the following chart, passenger enplanements at TOL have been declining over the past 10 years. There has also been a significant shift in the carriers that have dominated local marketshare. There was a slight uptick in enplanements in 2012 when Chautauqua Airlines took over for American Eagle as the American Airlines feeder to Chicago. This appears to continue to be a positive trend in 2013, due primarily to increased flight frequency. The addition of Allegiant Airlines to the Toledo market has also been a boost to the local air transportation market. Flying nonstop to three locations in Florida has been a big boost to the market, although they have not flown in September, as has their history since commencing service from TOL.

Airport Business Solutions

Passenger Traffic Summary for Toledo Express Airport

Airline	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 (Jan-May)
1AQ										106		
Air Wisconsin Airlines Corp					84				86			
AirTran Airways Inc.	43,450											
Allegiant Air				4,733	67,486	55,243	56,721	62,677	58,259	56,087	54,778	41,303
American Eagle Airlines Inc.	110,560	92,382	85,603	101,392	95,140	82,952	70,083	56,768	54,290	23,725	5,216	
American Trans Air- Inc.			188									
Casino Express		1,421	630	524								
Chautauqua Airlines, Inc.			5,810		20,069	67,640	28,724	26	4,475	47,662	74,903	30,670
Chicago Express	34,241	77,615	79,509	524								
Comair	125,990	83,173	110,277	112,938	56,784	315	1,270	80	182			
Commutair		12,738	18,054	19,893	14,976	14,057	9,572	31	23			
Continental Air Lines Inc.				260								
Custom Air Transport		0										
Delta Air Lines Inc.	15,764								1,243	431	1,326	
ExpressJet Airlines (ASA)	115,149	70,034	40,325	91,988	62,875	45,830	8,667					
Freedom Airlines									57			
Frontier Airlines- Inc.									249			
Independence Air/Atlantic Coast Airlines	17,609	90,742	68,560									
Mesaba Airlines	72,810	66,852	82,413	77,315	62,887	62,425	58,887	41,091	41,329	668		
Northwest Airlines Inc.	2,510	1,089	412	1,292	1,090	1,364	356	986				
Pinnacle Airlines	4,496	2,181	0	9,363		945	482	9,783	2,029	948		
PSA Airlines- Inc.	8											
Shuttle America Corp.	16,301	57,408	24,916									
Spirit Air Lines								280	518	280	198	
Sun Country Airlines						234	184				0	368
Trans States Airlines	20,276	166										
United Air Lines Inc.					1,268							
Vision Airlines											678	
Grand Total	**579,164**	**555,801**	**516,697**	**420,222**	**382,659**	**331,005**	**234,946**	**171,722**	**162,740**	**129,907**	**137,099**	**72,341**

Based upon our research, much of the Port Authority's marketing efforts relative to airline service have been aimed at trying to attract business from DTW. Unfortunately, it appears that this will continue to be a difficult marketing approach due to the magnitude of Delta at DTW and their history of predatory actions toward competition. Moreover, Toledo is just not a large enough market to sustain a legacy carrier given today's airline business models. The best that the community can expect from the legacy carriers is some infrequent service options on their affiliated regional carriers. However, until some guarantees on passenger loads can be offered, it is doubtful that this will even be a viable option for the near term.

There was a time in the past when Toledo would have been an ideal alternative for Southwest Airlines. Many markets like Toledo appealed to Southwest given their close proximity to a major metropolitan area with a dominant legacy carrier, plus their ability and willingness to offer lower operating costs and other incentives to attract their service. Unfortunately, Southwest has not been adding new routes like this in recent years, instead focusing on more strategic growth initiatives such as their acquisition of AirTran, which opened the door for them in major markets such as Atlanta.

Fortunately, the Toledo market is an attractive market for the "second tier" carriers such as Allegiant. Airline such as these do not rely on direct connections with mainline carriers, and as such, prefer to locate at secondary airports in close proximity to major markets. These alternatives provide them with a lower cost operating environment that allows them to keep their prices low and maximize profits. Even carriers such as JetBlue have begun to look at secondary markets, as they also follow more of a point-to-point model with little to no reliance on the mainline carriers for connecting services. Nevertheless, Toledo will have to continue to show their support for any airlines operating from TOL in order to attract new or expanded service. This will obviously have to come from the community and region, as this is a marketing effort that cannot viably be directed by the Airport alone.

Scheduled Charter

The challenge that Toledo faces with their current airline operating environment is the lack of viable flight alternatives for local business leaders and executives. In the current scenario, the options for a local businessperson to attend a meeting in a major market such as New York, Boston, Washington, DC, Minneapolis, and others, is to drive to Detroit for an early morning flight to catch a direct connection to their destination. If they want to come back the same day, the likely option will be an evening flight back to DTW, which will leave them with an hour plus drive back to Toledo. Alternatively, they will likely be required to incur an overnight stay before and/or after their meeting if they choose to fly out of TOL, since their only option will be to connect through ORD. This is one of the issues that serves to restrict the economic growth opportunities of the Toledo area, and potentially deter corporations from locating to the area, given their upper management will have to drive to DTW to catch a flight.

For certain businesspeople in the area, the option has been on-demand air charter. In this scenario, the businessperson would be required to contract with a private charter company to deliver them to their major market destination and back to Toledo the same day. However, air charter can be cost prohibitive for a single traveler, which appears to be an obstacle at TOL, as there was no evidence of any significant charter activity occurring at the Airport. Alternatively, there have been some successes enjoyed at some airports offering "scheduled charter". Scheduled charter is similar to regional airline services, in that it occurs in aircraft of 30 seats. However, companies offering scheduled charter can only offer flights up to 4 days per week. The frequency those days is unlimited, but they cannot offer flights more than 4 days per week. By meeting these two requirements, operators are able to operate under Part 135 on-demand charter standards, as opposed to the more stringent Part 121 air carrier standards. This significantly reduces the operational costs to the operator, which in turn, reduces the individual ticket costs.

As part of our analysis, we researched these types of businesses and found a few such operations taking advantage of this unique regulation. Kenmore Air operates such an operation in the Northwest, primarily in the Seattle and Portland markets, while there are several similar operations in the Caribbean. The only notable operator in the Midwest U.S. was a company called

Ultimate Jetcharters. Ultimate Jetcharters is headquartered in Akron/Canton, Ohio and was founded by John Gordon in 1984 as a small, one-aircraft charter company. They became widely known in the charter industry for their development of the large cabin market, and have grown to become the recognized leader in providing Corporate and Project Shuttle service for Fortune 500 companies. They currently operate a fleet of 30-seat Dornier 328 jets offering highly-personalized and reliable service for corporate shuttles, sports team/fan travel, project shuttles, incentive/group travel and casino trips. Their aircraft are strategically positioned at multiple locations throughout the country, allowing them to provide efficient and cost-effective travel solutions.

In July 2009, Ultimate Jetcharters successfully launched its Ultimate Air Shuttle service between Cincinnati and New York City. According to their website, "Four days a week, business and leisure travelers enjoy "VIP Travel for the Cost of Commercial" on Ultimate's Public Charter flights out of Cincinnati's Lunken Airport. The Cincinnati to New York Shuttle has been so well received that Ultimate Air Shuttle has expanded its service to include Shuttles to Chicago and Charlotte." We contacted Eddie Moneypenny of Ultimate Jetcharters regarding their potential interest in the Toledo market for directly flights to New York, etc. They indicated a high level of interest and offered to meet with representatives of the Airport.

Support Services

Regardless of whether TOL enjoys increasing air service through traditional air carriers, or via more non-traditional activities like scheduled charter, the key to the Airport's success will clearly be led by its support from the community and Northwest Ohio region. Nevertheless, another key component will be the Airport's ability to make any type of air carrier service's operating costs competitive. This will allow the carrier to keep airfares low, while still generating a reasonable return on investment. Part of these cost savings efforts will likely come from offering subsidized fuel and services as an incentive to initiate service, with the potential to maintain these subsidies for an extended period until the market can establish itself. These incentives may come in the form of discounted fuel, reduced or free landing fees, reduced cost or free ground handling fees, and the reduction of other traditional airport costs. As such, the Airport would need to negotiate a reduced rate with an existing service provider at TOL to insure that rates and fees remained competitive.

Regardless of the incentive program offered at TOL, it is imperative that close attention be paid to the overall load factors of the service provider and maintain continued dialogue with them to keep apprised of their successes or challenges. The incentive program cannot be a long-term solution, but rather just a short-term commitment to show that you recognize that you are in a partnership with both sides willing to share in the risk and reward.

SUMMARY

- Changes in the airline model have had a major impact on the role of airports like Toledo Express in the national system
- Second tier airlines are still noting and taking advantage of the opportunities created by satellite markets outside of major metropolitan areas
- Carriers like Allegiant Airlines should continue to thrive in markets like Toledo in the support of recreational/vacation travelers
- Business travel can be extremely challenging in markets like Toledo. Travelers have limited options to include driving long distances, overnight stays, and extensive connections
- On-demand charter appears to be cost-prohibitive to most potential users in the marketplace due to the limited activity
- Potential exists for scheduled charter in aircraft of 30-seats or less with a frequency of 4 days per week or less
- Demand for scheduled charter is most likely going to be driven by markets such as New York, Boston, Minneapolis, Washington, DC and others
- A key to success of any air carrier service from TOL, whether through traditional or non-traditional carriers, will be partially associated with the Airport's ability to offer discounted fuel and services to attract, maintain and expand service providers

OTHER MARKET OPPORTUNITIES AND ISSUES

Other Aviation Service Businesses

While the traditional sources of activity (airlines, air cargo, and general/corporate aviation) will likely lead the way to revitalization of business activities at the Toledo Express Airport, there are many other secondary or complementary uses that could assist in the attraction of aviation business, or serve to maintain their operations once they arrive. While true in many other areas, in the aviation industry, the concept of "activity breeds activity" is especially prevalent. This is accurate in part because aviation is relatively small in comparison to some other industries, and as a result, the communication within the various subsets of the aviation community is significant. The aviation industry is a "copycat" industry. Both good and bad experiences get around quickly, and the success of one operator quickly spreads throughout the industry and facilitates the due diligence of many similar and/or competing companies to see how that success was obtained and if it can be easily duplicated. As such, if one carrier or supporting business has a good experience at TOL, either in the way they are treated by the community or through their successes, there is typically a line of businesses that follow looking for the same result.

Aircraft Maintenance

The potential for aircraft maintenance at TOL is considered good, but rather for commercial aircraft rather than general aviation aircraft. While National Flight Services and Toledo Jet exhibit a thriving business at TOL, National Flight does not really need to be on an airport to do their type of overhaul services, and Toledo Jet has a number of competitors throughout the region and nation. The proximity to DTW provides an excellent opportunity to solicit heavy aircraft maintenance providers to support Delta Airlines operations at DTW as a more cost effective alternative. While line maintenance will obviously be maintained at DTW due to the necessity of quick turnover, the potential for addressing longer term maintenance needs is possible. This type of service could also beneficial to other carriers, especially international air cargo operators, by eliminating their need to deal with the congestion and higher cost of utilizing DTW. Similar benefits could be marketed to carriers at ORD, such as American or United, as well as utilized to help facilitate the relocation of international cargo carriers from ORD through the offering of another economic and time-saving benefit to O'Hare. This was the case at the Tulsa International Airport in Tulsa, Oklahoma, which

served as a maintenance base for American Airlines. Similarly, the Abilene Regional Airport in Abilene, Texas serves as a maintenance base for American Eagle. Both are secondary airports proximate to the mainline hub.

In addition to the proximity to DTW and ORD, another benefit to a potential air carrier aircraft maintenance business is the existence of the 80-acre concrete ramp/apron on the south side of the Airport, which lies adjacent to an abundance of developable land. The construction of ramp capable of accommodating air carrier class aircraft is substantial, and is often one of the cost prohibitive aspects of an aviation facility's development. The existence of this existing asset can be a significant marketing tool to attracting air carrier class aircraft support businesses to TOL.

Aircraft Painting

Another line of business mentioned during our due diligence was the potential demand for aircraft painting facilities. However, based upon our research, while the demand for paint facilities has been increasing, it was determined that the cost for development of a new state-of-the-art paint facility is generally not cost effective in today's marketplace, unless on a larger scale by an established entity with existing contracts. The oversight by the Environmental Protection Agency (EPA) creates a significant administrative burden on the development of new paint facilities in today's marketplace, which creates an inflated facility development cost to meet all current regulations. This is typically not cost effective for a new operator or one committed to serving small general aviation aircraft. These operations general operate from an older facility that is either grandfathered into the old EPA requirements, or perhaps is in an area that allows them to ignore EPA regulations completely. As such, while the opportunity exists for a paint operation to be developed at TOL, the most likely user would be one of the few existing aircraft painting companies around the U.S. that currently have contracts with commercial air carriers or large corporate

aircraft fleet operators. Companies like Associated Painters, Dean Baldwin, and AvEx, all have multiple locations and maintain extensive contracts to paint a variety of aircraft types.

Established painting businesses such as these could benefit from a location like TOL, especially given the existing infrastructure (ramp) on the south side of the Airport. This is probably the only way that such an operation would be feasible in today's market, despite the marketing opportunities at TOL. Otherwise, the demand for an aircraft painting facility would likely be the result of, as opposed to the generator of, increased activity at the Airport. For example, if the Airport were able to attract a large international cargo carrier, perhaps there might be some opportunities for TOL to market to various support businesses (maintenance, painting, etc.) to accommodate their needs while on the ground.

Flight Training

Finally, the potential for one or more flight training operators was noted as potential opportunities at TOL. While the increasing need for pilots is a reality, the problem with marketing for these services to be provided at TOL is the potential impact on other more profitable (both direct and indirect economics) opportunities. As will be discussed further herein, given the existing infrastructure at TOL, as well as the multi-modal opportunities, the primary growth options for the Airport are likely related to increased international air cargo, corporate aviation, and scheduled passenger charter activities. All of these potential markets would view the potential impact of flight training as having a negative impact on their ability to maximize their operations out of TOL. The mixture of small and large aircraft is not only a safety issue in the air, but also on the ground. Moreover, the presence of a flight training operation in small general aviation aircraft at TOL could create the impression, if not the reality, of significant takeoff, landing, and/or pattern delays for large aircraft operators. This is not a situation that will maximize the marketing or operational opportunities of the Toledo Express Airport.

Nevertheless, given the existence of the former FlightSafety simulator facility at TOL, which still includes all of the simulators and related equipment, there are likely opportunities to market this facility to various international airlines in the Asia-Pacific region, where there is currently a shortage of trained pilots. Moreover, this shortage is expected to continue to grow in the future. In conjunction with this simulator training, there could be the prospectus of some large aircraft flight

training at TOL. However, the small training aircraft activities would be better served at Toledo Executive Airport due to the more open airspace which would be much more conducive to this type of flight training.

With regard to Toledo Executive Airport, there may be some significant opportunities for the development of flight training operations at TDZ. In fact, the infrastructure at this airport is actually more conducive to flight training given the shorter and crossing runways. In addition, the airspace issues are significantly less restrictive in this area.

The flight training industry has experienced significant cycles over the years, with most of them over the past ten years being more "down than up". However, this trend seems to be reversing, in part due to the need for trained and qualified pilots internationally, specifically in China and India. Training for pilots in these countries, as well as most countries around the world, has historically been centered in the United States. As such, with the expected tripling of the aircraft fleet in China over the next 20 years, as well as booming growth throughout the Asia-Pacific region, the demand for flight training centers is expected to grow exponentially.

In addition to the opportunities generated directly from flight training, the trickle-down benefit to the community from international pilot training operations is substantial. These student pilots will relocate to the area during their training, and will therefore require housing, food, and other requirements and amenities. Toledo is well-positioned to meet this potential demand, and it is our opinion that Toledo Executive Airport would be a prime location for such an operation.

Defense Contractors

While not a traditional aviation support activity, the availability of land and infrastructure, namely the 80-acres of air carrier aircraft class ramp/apron, on the south side of TOL could be an opportunity for the Airport to attract a defense contractor. Companies such as L-3 Communications, Northrop Grumman, Lockheed Martin, General Dynamics, Raytheon and Boeing, are all major U.S. defense contractors in the U.S. While many of the contracts procured by the companies are accommodated by their existing facilities, there are always new contracts being offered by the Federal government that require the development of new and/or specialized facilities to meet the requirements of the contract. For example, during the course of this project,

we were made aware of a prospective U.S. defense contract that would require the development of three 90,000 square foot hangar facilities to meet the terms of the contract. The south side of TOL would potentially be ideal for a use such as this, in part because of the existing infrastructure, but in addition, because of the somewhat "isolated" nature of this area with restricted access points.

Similarly, there are numerous business opportunities that exist in support of the production of parts and components for the new Boeing and Airbus aircraft. The current trend in the aircraft manufacturing industry is for the various components to be manufactured in different locations around the U.S., or even the world, then shipped to an alternate location for final assembly. Many of these components are being shipped by rail or ship, and other are being shipped via air cargo. For example, the Kinston Regional Jetport in Kinston, North Carolina has a large development that accommodates Spirit AeroSystems, a major producer of parts for Airbus. They produce the parts on-site in Kinston, and then ship some out via rail, while others go direct to France via an Antonov 225 aircraft.

Air Park

While more of a multi-use, long-term alternative, the development of an air park on the south side of the Toledo Express Airport could be an additional opportunity to attract aviation-related businesses to the area. Again, the availability of a significant amount of undeveloped land, coupled with the extensive ramp/apron, would be conducive to a mixed-use development comprising both airside and landside projects in concert. Not all aviation businesses require direct ramp access, but still benefit from close proximity to the airfield for convenience for their customers or the shipping and/or receiving of products. This is the case of the Spirit AeroSystems facility in Kinston, whereby most of their facilities are not airside, but still reside within the North Carolina Global TransPark, which includes the Airport. In addition, as noted herein, National Flight Services' primary business of engine overhaul does not require an on-airport location. In fact, the newest expansion to their business is in New Braunfels, Texas in an off-airport development.

It should be noted that while an air park development could be successful in Toledo, such projects are typically longer term development opportunities, unless an "anchor tenant" is found in advance. Many such successful developments around the U.S. were not "overnight" successes, but rather took up to 20 years to achieve their success. This is not meant to discourage the pursuit of an air park project at TOL, but rather to encourage a "dual track" approach with marketing toward individual users to continue on a parallel, concurrent path.

CHALLENGES

The primary obstacles to revitalizing an airport are typically related to funding issues, to include the willingness of the airport sponsor and community-at-large to aggressively attack the funding issues and spend monies needed to move the airport forward. This is typically fueled by the perception within a community is that the airport only serves a small percentage of the population. This is far from the truth, but requires a dedicated effort to educate the community on the benefits of an airport, both on an on-going and emergency basis. Capital improvement funding does not appear to be an issue at TOL. The Port Authority has done a good job over the years in procuring grants and continuing to invest in the infrastructure of the Airport. The infrastructure at TOL exceeds what is typically found at similar size airport in comparable communities.

While the issue of bureaucratic issues impacting the ability for the Port Authority to make timely decisions to facilitate opportunities is certainly a matter that warrants consideration, the primary challenge faced by the Toledo Express Airport appears to community support outside of infrastructure needs. A common theme during our due diligence on this project was the lack of enthusiasm and support by the local Toledo community, as well as Northwest Ohio in general, for the Toledo Express Airport. There appears to be a lack of recognition of the impetus that the Airport can be to economic recovery in the region, led by a reduced reliance on being a "sister city" to Detroit. While much of the commerce of air cargo or business travel will likely be associated with the proximity to Detroit, yet the ability of TOL to be a more cost and time-effective alternative to DTW, Toledo Express does not have to resign themselves to just getting the "leftovers" that DTW

does not want. This seems to have been the position of the community since the departure of BAX Global.

It order for TOL to take advantage of all of the opportunities it offers to international air cargo carriers, it is imperative that the local community and the Northwest Ohio region play a more active role in supporting the marketing efforts of TOL. It will require a community-led effort to help facilitate attracting the first international carrier, which will likely yield more activity as the success is expanded in the industry. Similarly, the support of the community to patronize air carrier options at TOL, whether the traditional airlines or scheduled charter operations, will be crucial to the ability to maintain these service options on a long-term basis.

Finally, even the general/corporate aviation aspects of TOL require the support of the community. While it is often perceived that general aviation is only for the rich, the reality is that general aviation affects the lives of almost every citizen in the region. When corporate executives are searching for a location for a manufacturing plant, call center, corporate headquarters, or regional office, these managers are not going to show up on an Allegiant Airlines flight. The most important "Main Street" in any community is the local airport runway, because it is such a critical component to the economic vitality of the area. As such, the airport is often the "front door" to the community and represents it as one of its goodwill ambassadors. This is especially important in Toledo, as the Airport is a critical access point to the community from a business perspective. As such, it is imperative that the Toledo Express Airport is able to offer the appropriate "gateway" or "front door" to the community when the entities are looking for expansion alternatives. This will take a concerted effort by not only the airport sponsor, but also of the community leaders, to insure that the Airport is presented in its most positive light, and that prospective tenants and users get the impression that not only can the Toledo Express Airport accommodate their needs, but also that they will have the full weight of the Toledo community and Northwest Ohio region behind them to help them succeed.

SUMMARY

- The immediate focus of the Toledo Express Airport needs to be to generate some type of activity to generate interest not only throughout the Toledo community and Northwest Ohio region, but also to facilitate chatter through the aviation industry
- While the demand for general aviation aircraft maintenance is somewhat muted in the region, opportunities may exist for air carrier class aircraft maintenance
- Demand for air carrier class aircraft maintenance could be driven by its proximity to DTW and ORD, which both serve as hubs to airlines which could be potential customers.
- The existence of the 80-acre paved ramp/apron capable of accommodating large air carrier class aircraft can be a positive marketing tool
- The cost to develop an aircraft painting facility for small aircraft is likely cost prohibitive, although there may be demand for air carrier class aircraft painting through marketing to some of the larger aircraft painting companies that maintain contracts with carriers and manufacturers
- General aviation flight training demand is limited, and probably would not blend well with larger aircraft activities; however, larger aircraft flight training might warrant demand in the future if marketed with the former FlightSafety simulator building.
- A potential market for air carrier class flight and recurrent training might be through international cargo carriers or airlines presently serving the U.S.
- General aviation flight training would be better served at Toledo Executive Airport due to the location, fewer airspace restrictions, and more conducive infrastructure
- The extensive land holdings and paved ramp may be attractive to a U.S. defense contractor to support new contracts or missions
- The development of an air park on the south side is a possible long-term opportunity if marketed concurrently with the various commercial aeronautical uses.
- The challenge of attracting any aeronautical business opportunities to TOL will be heavily driven by the support and participation of the local community and Northwest Ohio region.

SWOT ANALYSIS

As part of the analysis of the market opportunities at the Toledo Express Airport, we completed an assessment of the Strengths, Weaknesses, Opportunities and Threats (SWOT) associated with the Airport situation.

SWOT Analysis

The purpose of analyzing the strengths and weaknesses of an airport is to identify the key internal factors that are important to achieving its mission. In order to have a complete analysis, opportunities and threats must also be addressed to examine various external factors. By adding the external factors, the analysis becomes what's known as a SWOT Analysis (Strengths, Weaknesses, Opportunities and Threats), which is a tool for auditing an organization and its environment. Once completed, the SWOT Analysis becomes a plan that takes into consideration many different factors, and maximizes the potential of strengths and opportunities of an airport, while minimizing the impact of the weaknesses and threats.

Based upon the review of TOL, an analysis of competing airports, and a study of national, regional, and local socio-economic and aviation trends, the Toledo Express Airport's strengths, weaknesses, opportunities and threats were identified as follows.

Strengths

Strengths are items that are accomplished particularly well or are unique assets that can be used to achieve the mission of an airport. Once identified, the strengths should be preserved and built upon. To determine the strengths of TOL, *ABS* asked the following questions:

- ❑ What do customers/users in the market see as the Airport's strengths?
- ❑ What advantages does the Airport have?

- ❑ What does TOL do better than any other airport in the region?
- ❑ What unique resources does the Airport have access to?

While answering these questions, a number of strengths were identified. The most significant strengths of TOL included the following:

Runway Infrastructure – Two runways, with Runway 7/25 being the longest at 10,600 feet long by 150 feet wide. It is constructed of asphalt, is in excellent condition, and is capable of accommodating commercial aircraft up to 550,000 pounds which includes most any aircraft in today's fleet, including a B-747. The main runway was recently completely rehabilitated, which significantly extends its useful life. Runway 7 also has a Category I precision instrument approach (ILS).

Developable Property – The Airport offers a significant amount of developable land on the south side which could accommodate a wide variety of aeronautical or non-aeronautical developments. In addition, there is an approximate 80-acre concrete paved ramp/apron to support a variety of commercial aviation uses.

Location – While the proximity to Detroit has had a negative impact on airline activity, the short distance to a major metropolitan area is a significant positive impact to the overall economic opportunities. Toledo Express Airport lies within a 500-mile radius of 43% of the U.S. and 47% of the Canadian population, making it an ideal location for international air cargo. Toledo provides access to more population when compared to other Ohio distribution centers, with daily round-trip ground access to major metro areas such as Detroit, Chicago, Cincinnati and Pittsburgh.

Multi-Modal - Toledo lies at the juncture of the nation's two transcontinental interstate highways: Interstate 80/90, which runs east and west from California to New York, and Interstate 75, which is the longest north/south interstate in the U.S. In addition, the area offers extensive rail access and access to a major seaport, providing substantial multi-modal opportunities in the region.

Foreign Trade Zone - Approximately 337 acres of the Airport is part of Foreign Trade Zone No. 8. In this FTZ, merchandise can be assembled, exhibited, manufactured, mixed, processed, relabeled, repackaged, repaired, salvaged, sampled, stored, tested, displayed, and destroyed without being subject to the full U.S. Customs duties on the products.

Weaknesses

Weaknesses are those items that are not accomplished well and/or prevent an airport from superior performance. Once identified, weaknesses must be addressed and corrected, or at least improved or enhanced, in order to accomplish the mission of the airport. If you do not recognize and understand your weaknesses, they can be difficult to overcome. To determine the weaknesses of TOL, *ABS* asked the following questions:

- ❑ What are customers in the market likely to see as weaknesses?
- ❑ What could the Airport improve?
- ❑ What should the Airport avoid?

While answering these questions, four primary weaknesses were identified for the Toledo Express Airport, and include the following:

Facilities – Many of the current facilities at TOL are dated and are beginning to show their age due to an irregular maintenance schedule. In addition, many of the facilities reflect a poor design that is not consistent with the expectations of travelers in today's economy. For example, the airline terminal reflects an inefficient two-story design with a significant amount of wasted/unusable space. Furthermore, the FBO terminal facilities are deemed inadequate compared to what is typically found at similar size and located airports with regard to design, finish and amenities.

Excessive Redundancies – The Airport offers a number of excess redundancies that increase the operational costs to the tenants and businesses. These include more terminal gates than can reasonably be utilized over the near term, an overcapacity of fuel storage and fuel delivery vehicles, a parking lot with excess capacity that requires extensive maintenance, an excessive number of FBOs compared to the fuel volumes available to support them, and others.

Port Authority – The connection of the Airport to the Port has been a weakness to its growth opportunities in recent years. Airport entities are dynamic enterprises that operate in an industry with dramatic swings in activity and market conditions. This requires that airport management be in a position to act quickly to changes in market situations and industry trends. It has been our experience that in some situations, airports overseen by large municipal entities can sometimes be bogged down in so many levels of government and/or decision-makers that decisions cannot be make quickly. An example of the would be situations whereby prospective tenants requesting quick decisions on available land, lease rates, and negotiation questions are not provided information on a timely basis.

Community Support – In many of our interviews, a concern was mentioned about the level of apathy within the Toledo community, and Northwest Ohio region in general, with regard to the success of the Airport. The lack of community support can be a real obstacle in the marketing of an airport, as the community is often asked to step forward and offer a commitment to supporting a potential tenant/user through labor, patronization, and commitment to success.

Opportunities

Opportunities are items that an airport may or may not currently focus resources on, but have the opportunity to capitalize upon with corrective or proactive actions. Once they become apparent, an airport should plan and take measures to seize the opportunity. To determine the opportunities at TOL, we asked the following questions:

- ❑ What are the trends that the Airport should try to capitalize upon?
- ❑ Where are good opportunities for TOL?

There are numerous opportunities for the Toledo Express Airport moving forward. The following opportunities are realistic and can be capitalized upon in the short-term planning period.

Business Spillover – As runways, facilities, and airspace have become congested at hubs such as Detroit and Chicago, aeronautical businesses have increasingly turned to alternative airports. For example, some airports throughout the Midwest and northeastern United States have embarked on an aggressive marketing campaign to attract a portion of the perishables market from the Miami International Airport. By offering functional facilities, on-site/on-call customs, and lower operating costs, some airports are enjoying success in getting some of the South American carriers to overfly Miami and other major gateway airports and route directly into these secondary distribution markets. Similarly, air charter services can operate more cost effectively than at major hub airports.

South Side Cargo – Previously mentioned as a strength, the existence of the abundance of developable land and an approximate 80-acre paved concrete ramp on the south side of the Airport creates a number of marketing opportunities for TOL. These could include a variety of users to include international cargo carriers, maintenance, repair, and overhaul (MRO) facilities, defense contractors, and/or the development of an air park.

Location – The Airport's location provides the opportunity to market it as a multi-modal hub that can serves to receive and deliver cargo through a variety of transportation means to a large percentage of the U.S. and Canadian population at a lower cost than the alternatives. The location at a major interchange along a major trucking thoroughfare provides for numerous options for non-aeronautical development on non-essential portions of the Airport to the north.

Foreign Trade Zone – The existence of the Foreign Trade Zone, coupled with the potential to allow international air cargo carriers to "control their own destiny" with regard to purchasing fuel, their primary cost center, could serve to provide TOL with a unique marketing opportunity unmatched within the Midwestern U.S. Moreover, the FTZ allows for fuel on a tax-exempt basis for aircraft traveling internationally directly from TOL. The establishment of a tax free fuel cost can be a significant market advantage.

Threats

Threats are items that could negatively affect or impact an airport's operations. Similar to weaknesses, these threats must be recognized and eliminated before they become bigger problems or weaknesses. In order to assess the threats at TOL, we asked the following questions:

- ❑ Is the constantly changing economy threatening the Airport's position?
- ❑ What are the obstacles?
- ❑ What is TOL's competition doing?

Oftentimes, threats are hard to anticipate and can sneak up on a business. Through the analysis of possible threats at Toledo Express Airport, the following were identified.

Airport Competition – Toledo Express Airport is surrounded by a number of airports serving the region, most importantly, Detroit Metropolitan Airport. However, Columbus and Cleveland are both within a reasonable distance with regard to air traffic. The volume of airline traffic from these three airports is significantly greater that at TOL, offering variety of alternatives to the flying public.

Stagnation - A continued lack of growth at the Airport will ultimately lead to a negative stigma that will be difficult for the Airport and its businesses to overcome. The limited airline alternatives have forced many travelers to drive to DTW to catch a flight, and the lack of significant cargo activity since the departure of BAX Global has created a situation where TOL has lost much of

its momentum as a regional cargo alternative. In addition, the significant slowdown in general aviation activity at TOL has created a challenging environment whereby there are three FBOs clamoring for a limited marketshare of fuel sales.

Political/Financial Pressure and Community Support – One of the most important marketing jobs for any airport is the promotion of the facility to the surrounding community. While there are no active anti-airport groups in the area, the Airport does operate at a deficit. As such, there are numerous external pressures focused on the Airport, with few of them in a positive way. In difficult economic times, this is even more critical and mitigating the negative impacts of the Airport's financial situation cannot be discounted. With the decrease in air freight, commercial passenger service, and general aviation, Toledo Express has experienced some fiscal challenges. The consolidated Airport budget forecast for 2013 reflects an overall net loss of $3,282,548 and net income loss of $674,648. Revenue is stated to be $3,620,244 and expenses are anticipated at $4,294,892, with Hub facility debt of $2,607,900.

Public airports in the U.S. rely heavily upon grants from the FAA, as well as state governments. These financial resources could become somewhat obsolete over time, and are already highly competitive or non-existent due to political issues. In an effort to make airports less dependent upon these outside financial sources, the FAA's policy on grant assurances and rates and charges as noted under Title 49 of the United States Code section 47107, states that an airport has a "legal obligation to maintain a fee and rental structure that makes the airport as self-sustaining as possible." The policy goes on to say that if an airport is not self-sustaining, then it should establish long-range goals to make it so. However, this policy does not mandate self-sufficiency, but rather requires the airport sponsor to have a plan to consistently work towards a goal of self-sustainability. As a part of the Port, the Airport must compete with other transportation needs and budget constraints.

Economic Impacts and Sequestration - Often during poor economic times, recreational pilots tend to fly less or sell their aircraft, which equates to less fuel sales and hangar rentals. This can also be the case for corporate flight departments. Executives looking to cut costs often consider

liquidating business jets and outsourcing. Airlines have restructured their business model to focus primarily on only the most profitable routes, while reducing frequency and/or aircraft size for those routes that are less profitable.

TOL has survived one of the worst 5 year periods in the history of aviation. Although the economy appears to be improving, the Airport needs to prepare for future swings of the economy by diversifying their revenue base and looking to non-traditional means of revenue generation. The effect of the economy on aircraft activity typically lags behind the overall national trends. This means that even though the price of fuel is dropping, it will likely take several months for a recovery. In addition, aviation fuel prices do not move as quickly as auto fuel due in part to the fact that less volume is produced. The current sequestration scenario is still playing out in Washington and unforeseen changes in political issues must continue to be considered a threat to TOL.

SWOT Matrix

The SWOT matrix illustrates how management can match the external opportunities and threats facing an airport with its internal strengths and weaknesses to yield sets of possible strategic alternatives. The SWOT matrix framework lends itself to creative strategies. Basically, four main strategies are proposed within a SWOT Analysis:

- S-O Strategies – These strategies are based on the Airport's strengths to take advantage of market opportunities
- W-O Strategies – These strategies are based on the overcoming the Airport's weaknesses to take advantage of market opportunities
- S-T Strategies – These strategies are base on the Airport's strengths to avoid market threats
- W-T Strategies – These strategies are based on overcoming the Airport's weaknesses to avoid market threats

The dimensions of the SWOT Analysis can be displayed as a matrix and the following contains some suggested measures to move the Airport forward:

SWOT ANALYSIS		Internal	
		Strengths	**Weaknesses**
External	**Opportunities**	S-O Strategies Develop new methods, which are suitable to Airport's strengths. • Utilize location to cater to aviation businesses • Acquire funds to improve facilities and services	W-O Strategies Eliminate weaknesses to enable new opportunities. • Obtain grants to help finance airport situation • Assess redundancies to determine areas to reduce costs
	Threats	S-T Strategies Use strengths to defend threats • Enhance facilities and services to compete in the region • Maximize and market infrastructure to compete with other airports	W-T Strategies Develop strategies to avoid weaknesses that could be targeted by threats • Build community support in order to combat any unforeseen negative issues • Act quickly to improve facilities and services

SWOT Limitations

The SWOT Analysis is a simple but useful tool for analyzing the strengths and weaknesses, and the opportunities and threats an airport faces. While useful for reducing a large quantity of situational factors into a more management profile, the SWOT framework has a tendency to oversimplify the situation by classifying an airport's environmental factors into categories in which they may not always fit. TOL's management should take into consideration the limitations of the analysis.

SUMMARY OF CONCLUSIONS

The document herein outlines a number of issues, ideas, opportunities and challenges for the aviation community in the Toledo, Ohio area, and specifically at the Toledo Express and Toledo Executive Airports. Both airports are currently managed by the Toledo-Lucas County Port Authority, who has done a good job over the years at facilitating all of the available grants and other funding opportunities to improve, maintain and grow the infrastructure associated with the two airports. Unfortunately, many things have occurred over the years that have had a negative impact on the economic vitality of the Toledo airport system, most of which have been out of the control of the Port Authority. These include changes in the economic environment both regionally and nationally, the demise of the automobile industry in conjunction with the economic downturn, the changing airline business model, and the decisions of the primary tenant of the Airport (BAX Global/DB Schenker) to cease U.S. operations.

In addition, the Port Authority had the challenge of dealing with the downturn of the aviation and airport industry at the same time that they were dealing with similar downturns in rail, seaport and other aspects of transportation and business development that they were responsible for. As a result, the difficulties in managing the available resources, both financially and otherwise, as well as overall political pressures, led to a number of issues that contributed to some prospective missed opportunities at the Airports.

Neither the U.S. economy nor the Port Authority is not solely at fault for the decline in activities at the Toledo airports. The tenants and users of the Airports played a role, as well. As the businesses at the Airports were dealing with the economic realities, they were often forced to overlook the long-term issues in an effort to stay focused on the emergency at hand. "Crisis management" is extremely common in business during difficult economic time. This seems to be even more prevalent with aviation businesses due to the multi-faceted challenges and obstacles that are faced in terms of national economics, local, state, and Federal regulatory mandates, constantly changing consumer demands and expectations, dwindling demand coupled with squeezed margins, and continuing investment requirements. This somewhat myopic and "in the

moment" business acumen makes it very difficult for a business to plan or adapt to the future and the trends it always seems to bring. Moreover, the reluctance to modify the business model that worked during prosperous times tends to extend additional challenges to the business once the economy does rebound. This antiquated business model is one of the aspects of virtually all businesses of the Toledo airports that need to be carefully evaluated and modified to adapt to today's economic and operational environment.

As noted herein, the Toledo Express Airport has a diversity of opportunities that it can reasonably and feasibly achieve. These opportunities include the following:

- International air cargo
- Scheduled passenger air charter services
- Enhanced general aviation services and facilities
- Maintenance, repair and overhaul (MRO)
- Defense contractor facilities
- Aircraft painting facilities
- Air park development
- Multi-modal developments
- International carrier flight training, both simulator and hands-on
- Non-aeronautical development

All of these opportunities have a reasonable chance at success if there is a concerted effort by the Airport, tenants, users and community to facilitate a change in the perception and business model of the Airport. Many of these changes will likely occur over an extended period, while others may create personal challenges to some businesses due to the need to exercise change in a more expedited and extreme basis. However, the goal must be related to the long-term success of the Airport and its businesses, with a coordinated effort by all parties to determine those changes that will help foster a renewed commitment by the community to help market and support the airports in recognition to the economic opportunities and benefits they can offer.

Similarly, the Toledo Executive Airport also has several opportunities for enhanced success available to it. These include:

- International flight training, both ground school and hands-on flight training in smaller training aircraft
- Enhanced general aviation services
- Development of complementary businesses and facilities to support flight training and other activities
- Organic growth of activity through the enhancement of facilities and promotion of a variety of general aviation services
- Development of private aircraft storage facilities

Again, as with the businesses at Toledo Express, the realization of these opportunities will depend greatly on the modifications to the business model of both the Airport and its tenants. In addition, the support of the community will play a major role in this Airport's ability to adapt to opportunities and realize an economic structure that enhances the growth potential of all stakeholders.

In conclusion, the Toledo airport system has all of the basic tenets available to achieve a high level of success over the long-term. These successes will likely require significant modifications to the way the airports and the businesses thereon operate. In addition, a significant marketing effort will have to be initiated that highlights the changes, as well as developing an incentive program that will attract businesses regionally, nationally and internationally. While the modification to the business models will play a significant role, the key to success will be a concerted effort by the Toledo community, its leaders, local businesses, and the Northwest Ohio region in order to achieve the goals and objectives.

APPENDIX


Ohio Turnpike (Toll road)
Blue Jay Ln
Cardinal Ln
Oriole Ln
Soul Rd
S Berkey Southern Rd
2
W Airport Srv Rd
E Airport Srv Rd
84
90
118
Airport Srv Rd
120 Weskerly Rd
Toledo Express Airport
295
117
S Eber Rd
Salisbury Rd
91
Wilkins Rd
92
S Airfield Rd
Maumee Western Rd
Air Cargo Pkwy E
108
20
94
Sager Rd
© 2013 Google
Google earth

AIRPORT DIAGRAM

AL-184 (FAA)

TOLEDO EXPRESS (TOL)
TOLEDO, OHIO

EC-2, 14 NOV 2013 to 12 DEC 2013

EC-2, 14 NOV 2013 to 12 DEC 2013

AIRPORT DIAGRAM

TOLEDO, OHIO
TOLEDO EXPRESS (TOL)

13122

KTOL Toledo Express Airport
Toledo, Ohio, USA

FAA INFORMATION EFFECTIVE 17 OCTOBER 2013

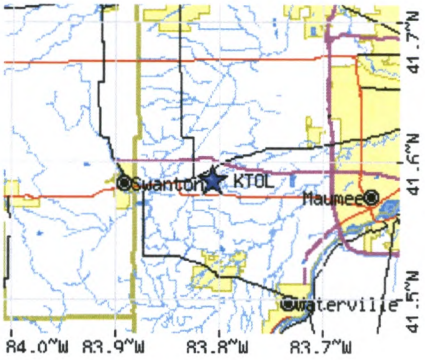
Loc | Ops | Rwys | IFR | FBO | Links
Com | Nav | Svcs | Stats | Notes

Location

FAA Identifier: TOL
Lat/Long: 41-35-12.5000N / 083-48-28.2000W
41-35.208333N / 083-48.470000W
41.5868056 / -83.8078333
(estimated)
Elevation: 683 ft. / 208.2 m (surveyed)
Variation: 05W (1990)
From city: 10 miles W of TOLEDO, OH
Time zone: UTC -4 (UTC -5 during Standard Time)
Zip code: 43558

Airport Operations

Airport use: Open to the public
Activation date: 01/1955
Sectional chart: DETROIT
Control tower: yes
ARTCC: CLEVELAND CENTER
FSS: CLEVELAND FLIGHT SERVICE STATION
NOTAMs facility: TOL (NOTAM-D service available)
Attendance: CONTINUOUS
Wind indicator: lighted
Segmented circle: no
Beacon: white-green (lighted land airport)
Operates sunset to sunrise.
Landing fee: yes
Fire and rescue: ARFF index B
International operations: customs landing rights airport



Road maps at: MapQuest Bing Google Yahoo!

Aerial photo

Airport Communications

UNICOM: 122.95
ATIS: 118.75 290.225
WX ASOS: PHONE 419-865-8351
TOLEDO GROUND: 121.9 348.6

TOLEDO TOWER: 118.1 285.4
TOLEDO APPROACH: 126.1 360-179 134.35 180-359 307.0 (360-179) 317.55(180-359) 123.975
TOLEDO DEPARTURE: 126.1 360-179 134.35 180-359 307.0 (360-179) 317.55(180-359) 123.975
CLEARANCE DELIVERY: 121.75 348.6
AS ASGND: 120.8 298.85 381.2
CLASS C: 126.1 360-179 307.0(360-179)
CLASS C IC: 134.35 180-359 317.55(180-359)
EMERG: 121.5 243.0
WX AWOS-3 at DUH (11 nm NE): 119.175 (734-856-1563)
WX AWOS-3 at 1G0 (14 nm SE): 120.725 (419-354-1415)
WX AWOS-3P at USE (14 nm W): 127.375 (419-335-0775)
WX ASOS at TDZ (15 nm E): 121.575 (419-838-5034)

- RADAR ELEV: 671.6 3RD PARTY SURVEY

Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
VWVr319/11.1	WATERVILLE VOR/DME	113.10	02W
CRLr213/31.8	CARLETON VORTAC	115.70	03W
MAHr354/(34.9)	MARATHON VOR	114.90	05W
FBCr358/38.0	FLAG CITY VORTAC	108.20	02W

NDB name	Hdg/Dist	Freq	Var	ID
FULTON	100/14.6	375	05W	USE ..- ... .
ADRIAN	151/20.8	278	06W	ADG .- -.. --.
TECUMSEH	179/27.1	239	06W	TCU - -.-. ..-
FOSTORIA	327/30.2	379	05W	FZI ..-. --.. ..
BRYAN	082/30.3	260	04W	BYN -... -.-- -.
DEFIANCE	066/31.8	246	05W	DFI -.. ..-. ..
OTTAWA	018/34.2	233	05W	PDR .--. -.. .-.
BENTON RIDGE	355/34.5	334	05W	BNR -... -. .-.
TIFFIN	323/39.8	269	05W	TII - .. ..

Airport Services

Fuel available: 100LL JET-A
Parking: hangars and tiedowns
Airframe service: MAJOR
Powerplant service: MAJOR
Bottled oxygen: HIGH
Bulk oxygen: NONE

Runway Information

Runway 7/25

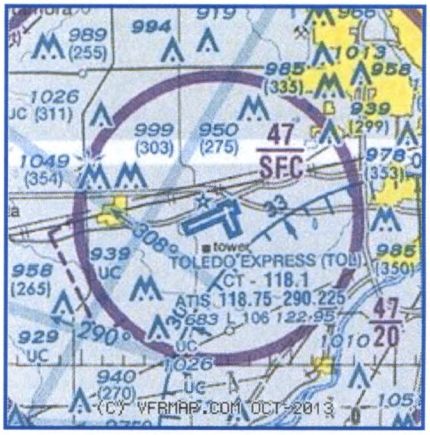
Dimensions: 10599 x 150 ft. / 3231 x 46 m
Surface: asphalt/grooved, in fair condition
Weight bearing capacity: Single wheel: 100.0
Double wheel: 174.0
Double tandem: 300.0

WARNING: Photo may not be current or correct

Photo courtesy of AirNav, LLC
Photo taken 21-Jul-2010

Do you have a better or more recent aerial photo of Toledo Express Airport that you would like to share? If so, please send us your photo.

Sectional chart



Airport diagram

CAUTION: Diagram may not be current

Download PDF
of official airport diagram from the FAA

Airport distance calculator

From KSEF- Sebring Regional Airport
To KTOL- Toledo Express Airport

856.4 nautical miles N
Initial true course: 353

Flying to Toledo Express Airport from another airport? Find the distance to fly.

	Dual double tandem: 550.0	
Runway edge lights:	high intensity	
	RUNWAY 7	**RUNWAY 25**
Latitude:	41-34.883197N	41-35.560337N
Longitude:	083-49.842055W	083-47.699443W
Elevation:	682.5 ft.	664.8 ft.
Gradient:	0.1%	0.1%
Traffic pattern:	left	left
Runway heading:	072 magnetic, 067 true	252 magnetic, 247 true
Declared distances:	TORA:10599 TODA:10599 ASDA:10599 LDA:10599	TORA:10599 TODA:10599 ASDA:10599 LDA:10599
Markings:	precision, in good condition	precision, in good condition
Visual slope indicator:		2-box VASI on left (3.00 degrees glide path)
RVR equipment:	touchdown	
Approach lights:	ALSF2: standard 2,400 foot high intensity approach lighting system with centerline sequenced flashers (category II or III)	MALSR: 1,400 foot medium intensity approach lighting system with runway alignment indicator lights
Runway end identifier lights:	no	no
Centerline lights:	yes	yes
Touchdown point:	yes, lighted	yes, no lights
Instrument approach:	ILS	ILS
Obstructions:	91 ft. trees, 4400 ft. from runway, 1000 ft. right of centerline, 46:1 slope to clear	75 ft. trees, 2600 ft. from runway, 760 ft. left of centerline, 32:1 slope to clear

Runway 16/34

Dimensions:	5599 x 150 ft. / 1707 x 46 m	
Surface:	asphalt/grooved, in good condition	
Weight bearing capacity:	Single wheel: 100.0 Double wheel: 174.0 Double tandem: 300.0	
Runway edge lights:	medium intensity	
	RUNWAY 16	**RUNWAY 34**
Latitude:	41-35.609483N	41-34.759737N
Longitude:	083-48.137418W	083-47.661265W
Elevation:	674.1 ft.	664.5 ft.
Gradient:	0.2%	0.2%
Traffic pattern:	left	left
Runway heading:	162 magnetic, 157 true	342 magnetic, 337 true
Declared distances:	TORA:5599 TODA:5599 ASDA:5599 LDA:5599	TORA:5599 TODA:5599 ASDA:5599 LDA:5599
Markings:		

From [ ] to KTOL

CALCULATE DISTANCE

Sunrise and sunset

Times for 14-Nov-2013

	Local (UTC-5)	Zulu (UTC)
Morning civil twilight	*06:54*	*11:54*
Sunrise	*07:24*	*12:24*
Sunset	*17:15*	*22:15*
Evening civil twilight	*17:45*	*22:45*

Current date and time

Zulu (UTC)	*14-Nov-2013 21:22:37*
Local (UTC-5)	*14-Nov-2013 16:22:37*

METAR

KTOL *140452Z 22017G24KT 10SM CLR 00/M07 A3022 RMK AO2 PK WND 21026/0419 SLP243 T00001072 400281072 $*

KDUH *11nm NE* *140455Z AUTO 22010G19KT 10SM CLR 01/M07 A3020 RMK AO2*

KUSE *14nm W* *140455Z AUTO 23014G22KT 10SM CLR M01/M07 A3022 RMK AO2*

KTDZ *15nm E* *140453Z AUTO 22015G24KT 10SM CLR 00/M07 A3024 RMK AO2 SLP245 T00001067 400281061 TSNO*

TAF

NOTAMs

Click for the latest ***NOTAMs***

NOTAMs are issued by the DoD/FAA and will open in a separate window not controlled by AirNav.

	nonprecision, in good condition	nonprecision, in good condition
Visual slope indicator:	4-light PAPI on left (3.00 degrees glide path)	4-light PAPI on left (3.00 degrees glide path)
Runway end identifier lights:	yes	yes
Touchdown point:	yes, no lights	yes, no lights
Obstructions:	95 ft. trees, 2740 ft. from runway, 40 ft. right of centerline, 26:1 slope to clear	none

Airport Ownership and Management from official FAA records

Ownership: Publicly-owned
Owner: TOLEDO LUCAS COUNTY PORT AUTHORITY
11013 AIRPORT HWY
SWANTON, OH 43558
Phone 419-865-2351
Manager: STEVE ARNOLD
11013 AIRPORT HWY
SWANTON, OH 43558
Phone 419-865-2351

Airport Operational Statistics

Aircraft based on the field: 69
Single engine airplanes: 21
Multi engine airplanes: 15
Jet airplanes: 9
Helicopters: 3
Military aircraft: 21

Aircraft operations: avg 126/day *
33% local general aviation
32% transient general aviation
17% air taxi
13% military
4% commercial
* for 12-month period ending 31 December 2012

Additional Remarks

- RMK-RSTD: TRAN MIL ACFT WITH PPR USE TWY D, AVOID TWY B DUE TO FOD HAZ. TWY D INT TWY D1, HVY ACFT USE MIN PWR TO REDUCE FOD ON ANG RAMP. CTC COMD POST OR AFLD OPS ON 338.9 IF QUESTIONS.
- ATIS RECEPTION INTMT BYD 35 NM, 270 DEG-320 DEG.
- CUSTOMS: SAT-SUN REQUEST MUST BE MADE PRIOR TO 1700 ON FRI. PHONE 419-259-6424.
- A-GEAR BAK12(B)/14 1500 FT AER 7; BAK12(B)/14 1050 FT AER 25.
- BIRDS ON & INVOF ARPT.
- TWY 'A' W OF RY 16 & THE W RAMP BTN TWY 'B9' & 'B13' NOT VSBL FM ATCT.
- RMK-ANG: PPR - OFFL BUS ONLY, ACFT WITH WINGSPANS GREATER THAN 75 FT CAN EXP PRK ON TWY D OR THE BAX RAMP, CTC AFLD OPS DSN 580-4084/4036, C800-495-4250 EXTN 868-4084/868-4036. 180TH COMD POST 24 HR DSN 580-4035. ALL INBD TRAN ACFT CTC COMD POST.

Instrument Procedures

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should download the free Adobe Reader.

NOT FOR NAVIGATION. Please procure official charts for flight.
FAA instrument procedures published for use between 14 November 2013 at 0901Z and 12 December 2013 at 0900Z.

IAPs - Instrument Approach Procedures

HI-ILS OR LOC RWY 07	download (225KB)
HI-ILS OR LOC RWY 25	download (251KB)
ILS OR LOC RWY 07	download (218KB)
ILS OR LOC RWY 25	download (275KB)
RNAV (GPS) RWY 07	download (239KB)
RNAV (GPS) RWY 16	download (170KB)
RNAV (GPS) RWY 25	download (252KB)
RNAV (GPS) RWY 34	download (175KB)
VOR/DME RWY 34	download (173KB)
HI-TACAN RWY 07	download (174KB)
HI-TACAN RWY 25	download (176KB)
Radar Approach Procedures available ****CHANGED****	download (30KB)
NOTE: Special Alternate Minimums apply	download (18KB)
NOTE: Special Take-Off Minimums/Departure Procedures apply	download (164KB)

Other nearby airports with instrument procedures:

KDUH - Toledo Suburban Airport (11 nm NE)
1G0 - Wood County Airport (14 nm SE)
KUSE - Fulton County Airport (14 nm W)
KTDZ - Toledo Executive Airport (15 nm E)
7W5 - Henry County Airport (17 nm SW)

FBO, Fuel Providers, and Aircraft Ground Support

Business Name	Contact	Services / Description	Fuel Prices	Comments
National Flight Services	**ASRI 130.925** 419-866-2995 [web site] [email]	Aviation fuel, Oxygen service, Aircraft parking (ramp or tiedown), Hangars, Passenger terminal and lounge, Aircraft charters, Aircraft maintenance, Aircraft parts, ... *More info and **photos** of National Flight Services* AIRBOSS SAFETY I US Government AIR Card WSI LUX FUEL -PILOT REWARDS- COURTESY NBAA	100LL Jet A FS $6.24 $5.09 GUARANTEED MEMBERS ONLY Discounts Login Join	★★★★★ 6 read write
GRAND AIRE	**122.875** 419-861-6700 toll-free 1-800-704-7263 [web site] [email]	Aviation fuel, Aircraft parking (ramp or tiedown), Hangars, GPU / Power cart, Passenger terminal and lounge, Flight training, Aircraft rental, ... *More info and **photos** of Grand Aire, Inc.*	AVFUEL 100LL Jet A FS $6.21 $4.99 Updated 13-Nov-2013	★★★★★ 6 read write

TOL Aviation, Inc.	419-866-9375 419-367-3150 [web site] [email]	Aviation fuel, Aircraft ground handling, Oxygen service, Aircraft parking (ramp or tiedown), Hangars, Hangar leasing / sales, GPU / Power cart, ... CONTRACT FUEL	Sunoco 100LL Jet A FS $6.40 $5.20 Updated 08-Nov-2013	not yet rated 3 read write

More info about TOL Aviation, Inc.

FS=Full service

UPDATE PRICES

Where to Stay: Hotels, Motels, Resorts, B&Bs, Campgrounds

In this space we feature lodging establishments that are convenient to the Toledo Express Airport. If your hotel/inn/B&B/resort is near the Toledo Express Airport, provides convenient transportation, or is otherwise attractive to pilots, flight crews, and airport users, consider listing it here.

FEATURE A LODGING ESTABLISHMENT

AirNav users who flew into KTOL have stayed at...

	Miles	Price ($)
QUALITY INN TOLEDO AIRPORT	6.2	50-51
DAYS INN TOLEDO AIRPORT	0.8	55-69
COURTYARD BY MARRIOTT TOLEDO	6.2	124-144

Other hotels near Toledo Express Airport

	Miles	Price ($)
BAYMONT INN & SUITES - TOLEDO/MAUMEE	5.8	72-89

Distances are approximate, and may vary depending on the actual route traveled and the location of the travel start on the airport.

Hotels in other cities near Toledo Express Airport

1 in Swanton	10 in Toledo
6 in Holland	6 in Bowling Green
16 in Maumee	3 in Oregon
8 in Perrysburg	4 in Wauseon
5 in Rossford	2 in Northwood

Would you like to see your business listed on this page?

If your business provides an interesting product or service to pilots, flight crews, aircraft, or users of the Toledo Express Airport, you should consider listing it here. To start the listing process, click on the button below

ADD YOUR BUSINESS OR SERVICE

Other Pages about Toledo Express Airport

- www.toledoexpress.com
- www.flytoledo.com
- Page from the Michigan Airport Directory (PDF)

UPDATE, REMOVE OR ADD A LINK


Ayers Rd
Luckey Rd
Drouillard Rd
Moline Martin Rd
Metcalf Field
280
© 2013 Google
Google earth

KTDZ Toledo Executive Airport

Toledo, Ohio, USA

FAA INFORMATION EFFECTIVE 17 OCTOBER 2013

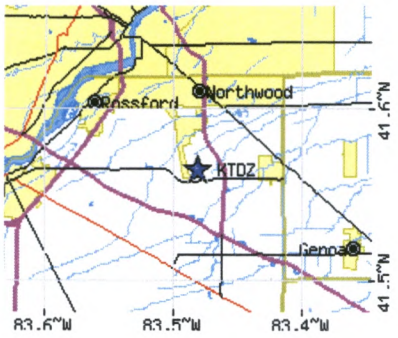
Loc | Ops | Rwys | IFR | FBO | Links
Com | Nav | Svcs | Stats | Notes

Location

FAA Identifier: TDZ
Lat/Long: 41-33-53.8000N / 083-28-56.0000W
41-33.896667N / 083-28.933333W
41.5649444 / -83.4822222
(estimated)
Elevation: 623 ft. / 189.9 m (surveyed)
Variation: 07W (2010)
From city: 6 miles SE of TOLEDO, OH
Time zone: UTC -4 (UTC -5 during Standard Time)
Zip code: 43447

Airport Operations

Airport use: Open to the public
Activation date: 10/1937
Sectional chart: DETROIT
Control tower: no
ARTCC: CLEVELAND CENTER
FSS: CLEVELAND FLIGHT SERVICE STATION
NOTAMs facility: TDZ (NOTAM-D service available)
Attendance: MON-FRI 24 HOURS/DAY, ALL SAT-SUN 0800-2000
Wind indicator: lighted
Segmented circle: no
Lights: ACTVT MIRLS RYS 04/22, 14/32, PAPI AND REILS, RYS 04, 22, AND 14 - CTAF.
Beacon: white-green (lighted land airport)
Operates sunset to sunrise.
Landing fee: yes



Road maps at: MapQuest Bing Google Yahoo!

Aerial photo

Airport Communications

CTAF/UNICOM: 123.05
WX ASOS: 121.575 (419-838-5034)
TOLEDO APPROACH: 126.1
TOLEDO DEPARTURE: 126.1
CLEARANCE DELIVERY: 125.6
WX AWOS-3 at 1G0 (12 nm SW): 120.725 (419-354-1415)
WX AWOS-3 at DUH (13 nm NW): 119.175 (734-856-1563)
WX ASOS at TOL (15 nm W): PHONE 419-865-8351

- CD 125.6 OTS INDEFLY.

Nearby radio navigation aids

VOR radial/distance	VOR name	Freq	Var
VWVr048/9.8	WATERVILLE VOR/DME	113.10	02W
CRLr185/29.0	CARLETON VORTAC	115.70	03W
MAHr019/(34.0)	MARATHON VOR	114.90	05W
SKYr286/38.0	SANDUSKY VOR/DME	109.20	04W
FBCr021/38.6	FLAG CITY VORTAC	108.20	02W
DXOr194/39.2	DETROIT VOR/DME	113.40	06W

NDB name	Hdg/Dist	Freq	Var	ID
FOSTORIA	355/22.9	379	05W	FZI ..-. --.. ..
PORT CLINTON	283/27.7	423	07W	PCW .--. -.-. .--
FULTON	100/29.3	375	05W	USE ..- ... .
TIFFIN	342/30.7	269	05W	TII - .. ..
ADRIAN	130/32.3	278	06W	ADG .- -.. --.
TECUMSEH	153/33.4	239	06W	TCU - -.-. ..-
BENTON RIDGE	019/33.7	334	05W	BNR -... -. .-.
GROSSE ILE	212/35.4	419	07W	RYS .-. -.-- ...
OTTAWA	040/39.0	233	05W	PDR .--. -.. .-.

Airport Services

Fuel available: 100LL JET-A
Parking: hangars and tiedowns
Airframe service: MAJOR
Powerplant service: MAJOR
Bottled oxygen: HIGH
Bulk oxygen: HIGH

Runway Information

Runway 14/32

Dimensions: 5829 x 100 ft. / 1777 x 30 m
Surface: asphalt/grooved, in good condition
Weight bearing capacity: Single wheel: 63.0
Double wheel: 85.0
Runway edge lights: medium intensity

	RUNWAY 14	RUNWAY 32
Latitude:	41-34.263717N	41-33.596347N
Longitude:	083-29.406250W	083-28.487727W
Elevation:	621.8 ft.	621.0 ft.
Traffic pattern:	left	left
Runway heading:	141 magnetic, 134 true	321 magnetic, 314 true
Displaced threshold:	225 ft.	351 ft.
Declared distances:	TORA:5829 TODA:5829 ASDA:5182 LDA:4957	TORA:5829 TODA:5829 ASDA:5278 LDA:4927
Markings:	nonprecision, in good condition	nonprecision, in good condition
Visual slope indicator:	4-light PAPI on left (3.00 degrees glide path)	
Runway end identifier lights:	yes	no
Touchdown point:	yes, no lights	yes, no lights
Obstructions:	45 ft. twr, 735 ft. from runway, 159 ft. right of centerline, 11:1 slope to clear	17 ft. road, 348 ft. from runway, 252 ft. right of centerline, 8:1 slope to clear RUNWAY 32

WARNING: Photo may not be current or correct

Photo taken 12-Oct-2010
looking north.

Do you have a better or more recent aerial photo of Toledo Executive Airport that you would like to share? If so, please send us your photo.

Sectional chart

Airport distance calculator

From KSEF- Sebring Regional Airport
To KTDZ- Toledo Executive Airport

853.0 nautical miles N
Initial true course: 353

Flying to Toledo Executive Airport from another airport? Find the distance to fly.

From [ ] to KTDZ
CALCULATE DISTANCE

Sunrise and sunset

Times for 14-Nov-2013

	Local (UTC-5)	Zulu (UTC)
Morning civil twilight	06:53	11:53
Sunrise	07:23	12:23
Sunset	17:14	22:14
Evening civil twilight	17:44	22:44

Current date and time

Zulu (UTC)	14-Nov-2013 21:23:07
Local (UTC-5)	14-Nov-2013 16:23:07

METAR

KTDZ 140453Z AUTO 22015G24KT 10SM CLR 00/M07 A3024 RMK AO2 SLP245 T00001067 400281061 TSNO

KDUH 13nm NW 140455Z AUTO 22010G19KT 10SM CLR 01/M07 A3020 RMK AO2

	RUNWAY 14 APPROACH RATIO 16:1 TO DISPLACED THRESHOLD.	APPROACH RATIO 26:1 TO DISPLACED THRESHOLD.

Runway 4/22

Dimensions:	3799 x 75 ft. / 1158 x 23 m	
Surface:	asphalt, in excellent condition	
Weight bearing capacity:	Single wheel: 63.0, PER ARPT MGR BOTH RWYS. Double wheel: 85.0	
Runway edge lights:	medium intensity	
	RUNWAY 4	**RUNWAY 22**
Latitude:	41-33.601612N	41-34.089233N
Longitude:	083-29.175185W	083-28.653337W
Elevation:	622.7 ft.	620.5 ft.
Traffic pattern:	left	left
Runway heading:	046 magnetic, 039 true	226 magnetic, 219 true
Displaced threshold:	100 ft.	380 ft.
Markings:	nonprecision, in good condition	nonprecision, in good condition
Visual slope indicator:	4-light PAPI on left (3.50 degrees glide path)	4-light PAPI on left (3.00 degrees glide path)
Runway end identifier lights:	yes	yes
Touchdown point:	yes, no lights	yes, no lights
Obstructions:	15 ft. road, 412 ft. from runway, 280 ft. right of centerline, 14:1 slope to clear RUNWAY APPROACH RATIO 20:1 TO DISPLACED THRESHOLD.	29 ft. rr, 361 ft. from runway, 262 ft. left of centerline, 5:1 slope to clear RWY 22 APCH RATIO 25:1 TO DSPLCD THLD DUE TO +29 FT RR 737 FT FM DSPLCD THLD 308 FT L.

Airport Ownership and Management from official FAA records

Ownership: Publicly-owned
Owner: TOLEDO LUCAS COUNTY PORT AUTHORITY
ONE MARITIME PLAZA
TOLEDO, OH 43604
Phone 419-243-8251
Manager: STEVE ARNOLD
11013 AIRPORT HWY BOX 11
SWANTON, OH 43558
Phone 419-838-6921
APT ADDRESS: 28331 LEMOYNE RD, MILLBURY, OH 43447.

Airport Operational Statistics

Aircraft based on the field: 51
Single engine airplanes: 34
Multi engine airplanes: 16
Jet airplanes: 1

Aircraft operations: avg 248/day *
64% local general aviation
22% air taxi
14% transient general aviation
<1% military
* for 12-month period ending 18 May 2009

Additional Remarks

E94 SAWRS AVBL.
- PARALLEL TWY RY 04/22 & 14/32 35 FT WIDE.

KTOL 14nm W 140452Z 22017G24KT 10SM CLR 00/M07 A3022 RMK AO2 PK WND 21026/0419 SLP243 T00001072 400281072 $

TAF

NOTAMs

Click for the latest **NOTAMs**
NOTAMs are issued by the DoD/FAA and will open in a separate window not controlled by AirNav.

- ERIC BARNUM ARPT FIELD CTC - 419-838-6921.
- SEAGULLS ON & INVOF ARPT.

Instrument Procedures

NOTE: All procedures below are presented as PDF files. If you need a reader for these files, you should download the free Adobe Reader.

NOT FOR NAVIGATION. Please procure official charts for flight.
FAA instrument procedures published for use between 14 November 2013 at 0901Z and 12 December 2013 at 0900Z.

IAPs - Instrument Approach Procedures

RNAV (GPS) RWY 04	download (188KB)
RNAV (GPS) RWY 32	download (192KB)
VOR RWY 04	download (201KB)
NOTE: Special Alternate Minimums apply	download (21KB)
NOTE: Special Take-Off Minimums/Departure Procedures apply	download (164KB)

Other nearby airports with instrument procedures:

1G0 - Wood County Airport (12 nm SW)
KDUH - Toledo Suburban Airport (13 nm NW)
KTOL - Toledo Express Airport (15 nm W)
14G - Fremont Airport (20 nm SE)
KTTF - Custer Airport (23 nm N)

FBO, Fuel Providers, and Aircraft Ground Support

Business Name	Contact	Services / Description	Fuel Prices	Comments
Crow Executive Air, Inc.	419-838-6921 692-972-2769 [web site] [email]	Aviation fuel, Oxygen service, Aircraft parking (ramp or tiedown), Hangars, Hangar leasing / sales, GPU / Power cart, Aircraft charters, Aircraft maintenance, ... AIRBOSS COLT International UVair WINGPOINTS Piper Service Center WiFi NBAA More info about Crow Executive Air, Inc.	100LL Jet A FS $6.20 $5.18 GUARANTEED MEMBERS ONLY Discounts Login Join	not yet rated 3 read write

FS=Full service
UPDATE PRICES

Where to Stay: Hotels, Motels, Resorts, B&Bs, Campgrounds

In this space we feature lodging establishments that are convenient to the Toledo Executive Airport. If your hotel/inn/B&B/resort is near the Toledo Executive Airport, provides convenient transportation, or is otherwise attractive to pilots, flight crews, and airport users, consider listing it here.

FEATURE A LODGING ESTABLISHMENT

AirNav users who flew into KTDZ have stayed at...

	Miles	Price ($)
COMFORT SUITES PERRYSBURG	6.1	90-140
COMFORT INN SOUTH	4.2	63-110

Other hotels near Toledo Executive Airport

	Miles	Price ($)
SUPER 8 TOLEDO/MILLBURY, OH	1.7	51-52
TRAVEL INN PERRYSBURG	2.6	
TRAVEL INN PERRYSBURG	2.6	
REGENCY INN PERRYSBURG	2.7	
SLEEP INN AND SUITES OREGON	3.8	85-110
BAYMONT TOLEDO/PERRYSBURG	4.0	69-70
	4.5	38-80

Hotels in other cities near Toledo Executive Airport

2 in Northwood	10 in Toledo
5 in Rossford	16 in Maumee
3 in Oregon	6 in Holland
8 in Perrysburg	6 in Bowling Green

KNIGHTS INN TOLEDO SOUTH		
AMERICAN INN ROSSFORD-TOLEDO	4.6	40-43
DAYS INN TOLEDO OH	4.9	55-120
COMFORT INN EAST	5.0	80-100
HOLIDAY INN EXPRESS TOLEDO-OREGON	5.0	100-140
COURTYARD BY MARRIOTT TOLEDO ROSSFORD/PERRYSBURG	5.1	93-139
COUNTRY INN & SUITES BY CARLSON, TOLEDO SOUTH, OH	5.1	99-114
HAMPTON STE TOLEDO PERRYSBURG	5.2	124-125

Distances are approximate, and may vary depending on the actual route traveled and the location of the travel start on the airport.

Would you like to see your business listed on this page?

If your business provides an interesting product or service to pilots, flight crews, aircraft, or users of the Toledo Executive Airport, you should consider listing it here. To start the listing process, click on the button below

ADD YOUR BUSINESS OR SERVICE

Other Pages about Toledo Executive Airport

- *www.toledoportauthority.org/...*
- *Page from the Michigan Airport Directory (PDF)*

UPDATE, REMOVE OR ADD A LINK