New Castle Airport

Business Plan

Draft Technical Report

Prepared for:

Delaware River & Bay Authority

State of Delaware
Department of Transportation
Nathan Hayward III, Secretary

Prepared by:

R.A. Wiedemann & Associates, Inc.

DELTA
AIRPORT CONSULTANTS, INC.

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Business Plan Study

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Delaware Department of Transportation,
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Virginia, North Carolina, Pennsylvania,
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TECHNICAL REPORT
New Castle Airport Business Plan

1. INTRODUCTION

THE PURPOSE OF THIS BUSINESS PLAN for New Castle Airport is to recommend potential means for the Delaware River & Bay Authority (DRBA) to improve the Airport's financial performance, economic development, and operation. The plan examines potential development and optimal operations that may provide increased benefits to Wilmington, New Castle County, and aviation users. Our understanding of the current situation involves a number of components, including the potential attraction of a scheduled air carrier, the Airport's competitive setting, the desire to keep and attract corporate aviation, the potential increased use of the facility by smaller general aviation users, and a number of other issues discussed below.

1.1 Vision & Key Issues

New Castle Airport features three runways: Runway 9-27 is 7,181 feet by 150 feet; Runway 1-19 is 7,012 feet by 200 feet; and runway 14-32 is 4,603 feet by 150 feet. The Airport has a massive infrastructure that supports several Fixed Base Operator (FBOs), numerous business jet users, and the 166th Airlift Wing, Delaware Air National Guard unit. The business plan presents an overall strategic direction and plan for the Airport, given its existing setting and market niche. A number of preliminary issues have been identified that are addressed including:

- ***Examination of Potential Airline Service:*** Conventional airline service at New Castle Airport has been difficult to sustain in the past, due to the nearby location of Philadelphia International. However, the large population base and catchment area for the Airport may be enough to meet the needs of a point-to-point, low-fare carrier. This business plan will examine preliminary feasibility of airline service at New Castle Airport. Given the limited resources available to this effort and the desire to adequately address the feasibility of the airline service component, a large portion of the overall business plan will be given to this analysis.

- ***Attraction of Additional Corporate Aviation:*** New Castle Airport has been the focus of corporate aviation for several decades and will continue to be so in the future. Previous management teams have focused on this market niche to the exclusion of some others. The business plan will examine current marketing practices and overall future potential. While corporate aviation is the primary market for New Castle Airport, there is a desire to examine a more balanced approach to the total regional market.

- ***Small General Aviation (GA) Users:*** For many years, this market has been ignored by New Castle Airport in favor of larger, corporate aviation. The business plan will

examine the market feasibility of including small GA users in the overall business mix.

- ***Expanded FBO Services***: There are three primary FBOs at New Castle Airport. While these companies do a good job servicing their clientele, there is a perception that some services that would attract more aviation activity at the Airport are missing. The business plan will examine these services and compare them to regional competitors.

- ***Air Cargo Service:*** Some have suggested that New Castle Airport could increase activity by actively courting air cargo companies. The business plan will examine this issue with the desire of preliminarily either confirming or denying the feasibility of such service.

- ***Air National Guard:*** New Castle Airport is home to the Delaware Air National Guard, 166th Airlift Wing. The six C-130s located at this facility were targeted by the recent Base Realignment and Closure (BRAC) committee for reductions. The final BRAC recommendation dropped changes to the current mission, and thus no future changes to the military facility are foreseen.

- ***Financial Performance:*** One overall goal of the business plan is to improve financial performance. While not always possible, the development of strategic marketing and management plans for the facility can lead to improvements in operating practices and market effectiveness. The results can be an improved bottom line.

- ***Economic Development***: New Castle Airport plays a key role in supplementing economic development in Delaware. The business plan will examine the role of the Airport in supplementing and interacting with business and industry within its market area. In addition, products from the plan can be used to help marketing and recruiting efforts of local and statewide economic development agencies.

- ***Community Relations***: The economic benefits associated with the Airport must be effectively communicated with the local residents. In particular, the value of the Airport in serving the entire region may not be appreciated by the general public and their associated political representatives. Communication of these benefits helps to justify future Airport plans and the allocation of resources to the Airport. In addition, various outreach programs can be used to generate goodwill among residents of the area.

Airport benefits are usually stated in terms of jobs, income, and output. In addition to the quantified economic benefits, a discussion of the intangible benefits associated with the Airport must be included.

1.2 Desired End Products

The end products that are produced as a result of this analysis will include the following:

- An updated, and well-defined mission statement for the Airport.
- An identification and evaluation of needs, opportunities, and challenges facing the Airport, with an emphasis on development of potential airline service.
- A five year projection of revenues and expenses at the Airport for the baseline case and alternative scenarios.
- Strategic planning recommendations for the Airport.
- Graphic materials including color photos, and/or brochures, depending upon the individual Airport needs.
- An economic impact evaluation of the Airport, identifying jobs, income, and total output associated with the facility.

1.3 Report Outline

In order to address the issues described above and to produce the desired end products, this report will include the following sections:

- ***Section 1*** - Introduction
- ***Section 2*** - Background and Management Structure
- ***Section 3*** - Existing Airport Characteristics
- ***Section 4*** - Baseline Financial Outlook
- ***Section 5*** - Business Plan Alternatives
- ***Section 6*** - Airline Passenger Service Scenario
- ***Section 7*** - Recommended Plan
- ***Section 8*** - Summary of Business Plan Recommendations
- ***Section 9*** - Economic Impact Assessment
- ***Appendix A*** - Top 50 O&D

2. BACKGROUND AND MANAGEMENT STRUCTURE

UNDERSTANDING THE BACKGROUND AND MANAGEMENT STRUCTURE of the Airport helps to identify the history and context of the Airport's existing situation. A clearly defined, current, and realistic mission for the Airport provides the oversight framework to achieve opportunities as they arise. This analysis is geared toward the future and toward positioning the Airport to take best advantage of its assets and strengths. As such, this section is organized to include the following:

- Historical Mission of the Airport
- Historical Performance Meeting the Mission
- Airport Management Structure

2.1 Historical Mission of the Airport

New Castle Airport's role is that of a general aviation service facility, providing general aviation services for regional air transportation. The Airport is certified as an FAR Part 139 facility, capable of accommodating scheduled airline service. New Castle Airport's overall mission has been specifically geared to large general aviation business jet aircraft. In the past, the Airport has served scheduled air carriers, and that role will be re-examined as a part of this Business Plan. Although there is no overall written mission statement for New Castle Airport, the following statement can be used for the Airport:

- The New Castle Airport strives to provide safe, excellent airport facilities and services to its based aircraft owners and the flying public, while operating compatibly with its neighbors and providing a base for economic development.

Program goals supporting this mission would include:

Program Goals

- Continue to operate the Airport safely, efficiently, and conveniently.
- Explore the feasibility of restarting scheduled airline service to the Airport.
- Strive to reduce expenditures and increase revenues at the Airport, without sacrificing needed services.
- Encourage private sector investment in the utilization of the Airport's facilities.
- Pursue funding for and implementation of capital improvement projects to improve safety and usability of the Airport.
- Supplement economic development goals of the region as opportunities arise at the Airport.
- Encourage compatible public use of Airport facilities or property, where possible and appropriate.
- Respond to noise and other complaints quickly and courteously.

2.2 Historical Performance Meeting the Mission

Discussions with Airport management indicate that the New Castle Airport (ILG) has met and is meeting most of the mission statements and performance goals described above. This would include the following goals:

- Continue to operate the Airport safely, efficiently, and conveniently.
- Encourage private sector investment in the utilization of the Airport's facilities.
- Strive to reduce expenditures and increase revenues at the Airport, without sacrificing needed services.
- Pursue funding for and implementation of capital improvement projects to improve safety and usability of the Airport.
- Encourage compatible public use of Airport facilities or property, where possible and appropriate.
- Supplement economic development goals of the region as opportunities arise at the Airport.
- Respond to noise and other complaints quickly and courteously.

The new Airport Director has undertaken efforts to examine the feasibility of achieving the remaining program goal: restarting airline service at ILG. This business plan will help examine the feasibility of such service. The re-start of airline service would increase Airport revenues from PFCs, parking, fuel sales, and concessions.

2.3 Airport Management Structure

The DRBA operates New Castle Airport under a long-term agreement with New Castle County. Control of the Airport shifted from the County to DRBA in July of 1995. Since that time, DRBA has invested in capital improvements and other upgrades to make the Airport into a significant competitor for corporate aviation in the region. DRBA owns and operates the Delaware Memorial Bridge and Cape May - Lewes Ferry. ILG is one of 5 airport facilities operated by DRBA under their Airports Division. The organizational chart for the Airports Division is presented in Figure 1.

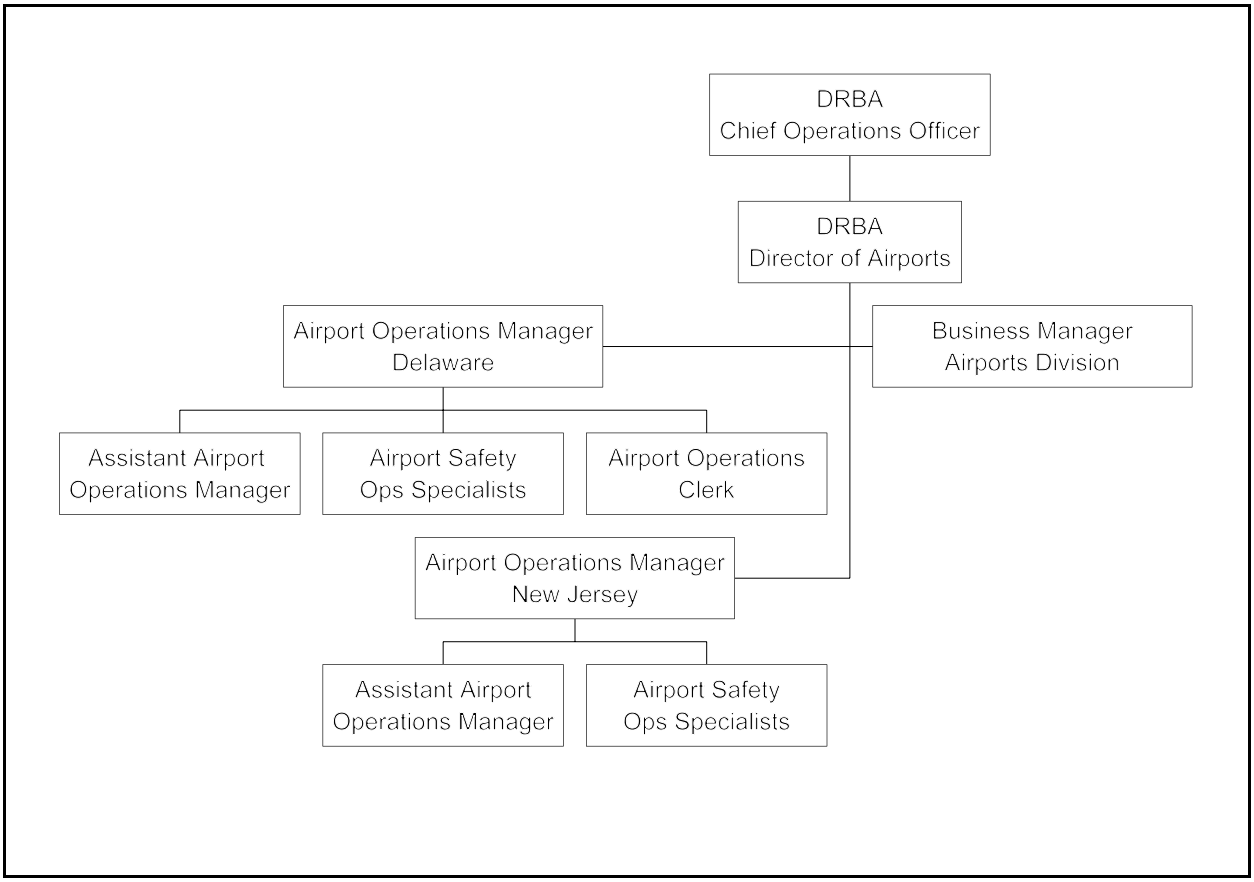


Figure 1 - ***Organizational Chart - DRBA Airports Division***

3. AIRPORT CHARACTERISTICS

THE NEW CASTLE AIRPORT WAS BUILT AS a military training facility prior to World War II. It continued in this capacity throughout the war years with gradual joint/civilian use beginning in the early 1950s. Eventually the Airport was declared surplus to the needs of the Department of Defense and control was relinquished to New Castle County. With this change, the Airport was renamed the Greater Wilmington Airport and re-classified as a civil facility even though two military units continue to be based at the airport. The Airport's location is depicted in Figure 2.

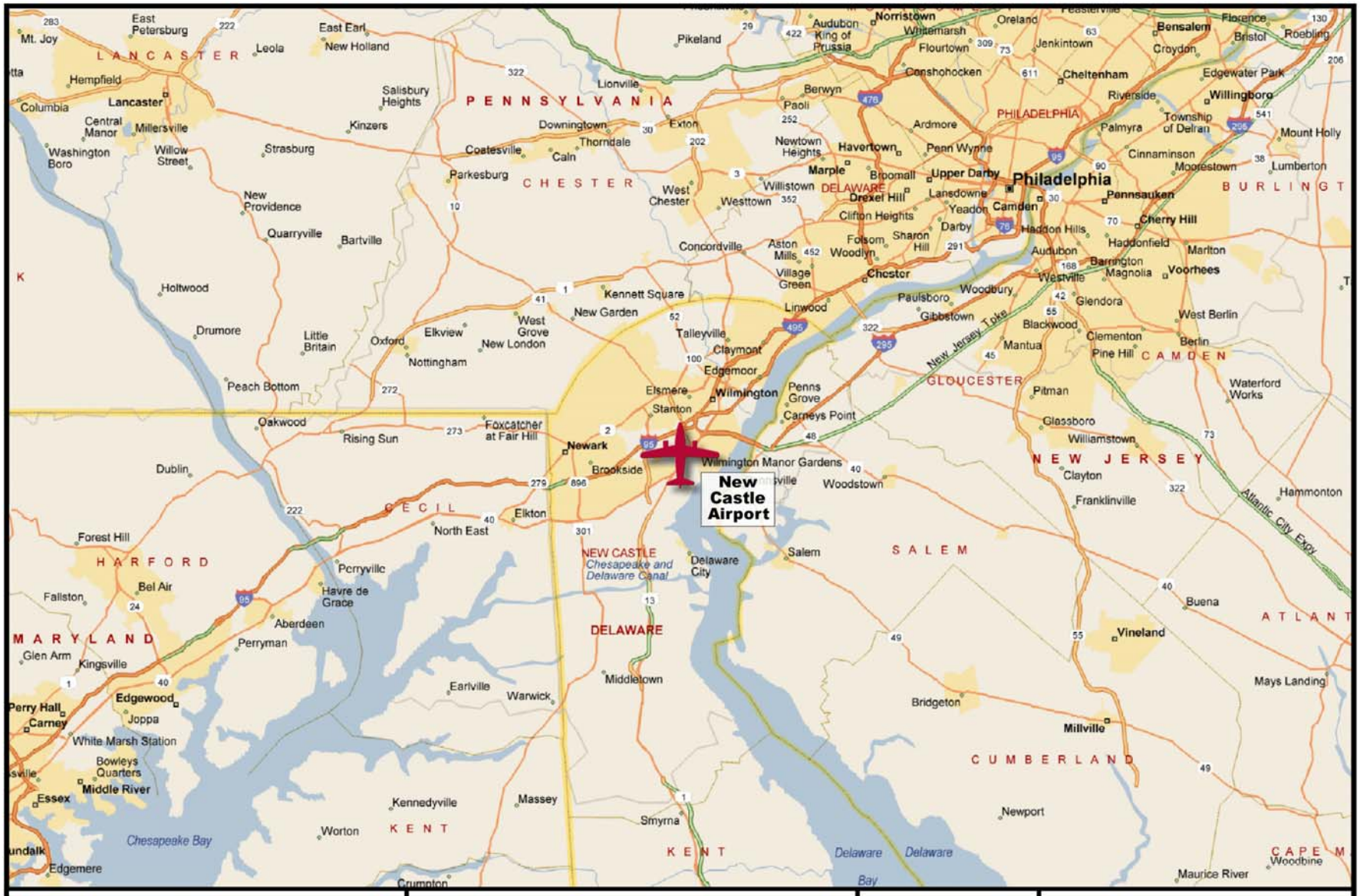
Under County control, the Airport was expanded with construction of a terminal building and auto parking, airfield improvements, hangar developments, and numerous other general aviation support facilities. Commercial airline service was available for many years, while the general aviation facilities grew to include one of the largest fixed base operators on the east coast. The Airport remains today as the only public airport in Delaware with an air traffic control tower and instrument landing system (ILS). In 1986, the Airport was renamed the Greater Wilmington/New Castle County Airport to better reflect the true service area of the facility.

In July of 1995, the Delaware River and Bay Authority (DRBA), owner and operator of the Delaware Memorial Bridge and the Cape May-Lewes Ferry, assumed management of the airport and set out to make the Airport a world-class facility. The DRBA upgraded the Airport with state-of-the-art technology, a new air traffic control tower, additional corporate business hangars, and customized services. The name of the Airport was changed in late 2004 to New Castle Airport.

3.1 Existing Facilities

Airport Runway System

The airfield facilities at New Castle consist of three active runways, twelve taxiways and several aircraft parking ramps (see Figure 2). The airport has three intersecting runways. Runway 1-19 is one of the airport's primary runways and is 7,012 feet in length and is 150 feet in width. Runway 9-27 is also a primary runway and is 7,181 feet in length and 150 feet in width. Runway 14-32 is most often used by general aviation aircraft and is 4,603 feet in length and 150 feet in width. Table 1 summarizes pertinent runway information.



New Castle Airport

Figure 2

AIRPORT LOCATION

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New Castle Airport

Figure 3

EXISTING LAYOUT

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Table 1 - ILG Runway Data			
Item	**Runway**		
	1-19	**9-27**	**14-32**
Runway Category	Transport	Transport	General Utility
Design Aircraft	D-III	D-III	B-II
Runway Dimensions	7,012' x 150'	7,181' x 150'	4,603' x 150'
Effective Gradient	0.20%	0.11%	0.00%
Pavement Type	Asphalt/Grooved	Asphalt/Grooved	Asphalt
Pavement Strength	Single=90,000lbs Dual=140,000 lbs Dual Tandem=250,000 lbs	Single=90,000lbs Dual=140,000 lbs Dual Tandem=250,000 lbs	Single=90,000lbs Dual=140,000 lbs Dual Tandem=250,000 lbs
Pavement Condition	Good	Fair	Good
Runway Lighting	HIRL	HIRL	MIRL
Runway Marking	Precision	Precision	Visual
Visual Aids	VASI (19) REIL (19) SALSR (1)*	PAPI/VASI	VASI (32)
Instrument Approaches	CAT I ILS (1) VOR/GPS (1) VOR/GPS (19) NDB (1)	CAT I MLS (9) VOR/GPS (9) VOR/GPS (27)	NONE
Runway Safety Area	650' x 500' (1)** 80' x 500' (19)**	1,000' x 500' (9) 850' x 500' (27)	300' x 150'
Runway Protection Zone	1,000' x 2,500' x 1,750' (1) 500' x 1,700' x 1,010' (19)	1,000' x 2,500' x 1,750' (9) 500' x 1,700' x 1,010' (27)	500' x 1,000' x 700'

Source: New Castle Airport Master Plan Update, 2005.
*A MALSR is currently under design by FAA and proposed for construction in Fall 2005.
**Runway 1-19 RSA Safety Area Analysis completed. FAA approved RSA at 650'x500' for Runway 1. Runway 19 RSA Improvements are currently under design to provide 1,000' x 500' and is proposed to be constructed Fall 2005.
Cat I ILS - An Instrument Landing System (ILS) approach that will allow landings with a cloud ceiling down to 200 feet and one-half mile visibility
Cat I MLS -A Microwave Landing System (MLS) approach that allow landings with a cloud ceiling down to 330 feet and three-quarters mile visibility
GPS - Global Positioning System
HIRL - High intensity runway lights
MIRL - Medium intensity runway lights
PAPI – Precision Approach Path Indicator
NDB - Non-Directional Beacon
REIL - Runway end identifier lights
SALSR - Simplified Short Approach Lighting System with Runway Alignment Indicator Lights
VOR - Very High Frequency Omnidirectional Range Stations
VASI - Visual approach slope indicators

Terminal Building

The existing terminal building was constructed and completed in 1955, and is approximately 27,200 square feet. The main level consists of airline and rental car counters, the baggage claim area, restrooms, a waiting area, and DRBA administration and operations space. The upper and basement level includes office space and building utilities. The terminal area is located on DuPont Highway (U.S. 13), three miles south of the Interstate 95 and 295 interchange. The airport has a signed, dedicated entrance road from DuPont Highway which leads to an internal circulation road with 150 feet of terminal curb frontage and a parking lot for 253 vehicles. Presently a number of spaces are leased for rental car parking. In addition, spaces are designated for DRBA employee parking.

General Aviation Facilities

General aviation and corporate aviation facilities are located in the Terminal Area, the southeast quadrant of the airport, the northwest quadrant, and southwest quadrant of the airport. The Airport has three full service FBOs: AeroTaxi, AvCenter-Wilmington, and Dassault Falcon Jet. Combined, these providers offer 72 T-Hangars and 30 aircraft tie down spaces and allow the DRBA to offer one of the largest and most complete general aviation service airports on the east coast. A description of the tenants and facilities are described below.

- ***Flight Safety Facilities:*** Flight Safety provides flight training to pilots from around the world and is located on the east side of the airport adjacent to the Terminal Building. Flight Safety operates out of a 40,000 square foot building.
- ***Corporate Aircraft Hangars:*** There are four corporate aircraft hangars located south of Terminal Building that are used by private tenants, most of which are small corporate flight departments. Each hangar is approximately 22,000 square feet (15,000 s.f. for aircraft and 7,000 s.f. for office space).
- ***Dassault Falcon Jet:*** Dassault Falcon Jet is an FBO operating five large hangars and an office complex. Dassault provides major maintenance repairs for Falcon Jet aircraft and serves as a service facility for transient aircraft operators.
- ***Dupont:*** Dupont's corporate flight department operates out of a hangar located north of Dassault's facility.
- ***Corporate Midfield Complex:*** Adjacent to and across Taxiway A from Dassault's facility is the Midfield Complex. This complex has six aircraft hangars, with additional space to accommodate six more hangars. Each hangar is approximately 22,000 square feet (15,000 s.f. for aircraft and 7,000 s.f. for office space).
- ***Boeing Aircraft Company:*** The Boeing Aircraft Company has a complex of buildings that is comprised of an office building and two 30,000 square foot hangars.
- ***Campbell's Soup Flight Department:*** The Campbell's Soup corporate flight department operates from a 15,000 square foot hangar.
- ***Red Eagle Aviation:*** Red Eagle Aviation operates out of a 15,000 square foot hangar facility.
- ***Elcorta:*** Elcorta operates from a 20,000 square foot building, providing aircraft maintenance services to the corporate industry.

- ***Avports:*** Avports has a small storage hangar in this quadrant that is used for the storage of cargo and airplane supplies.
- ***General Aviation T-Hangars:*** The general aviation T-hangar area consists of six buildings. There are 72 T-Hangars that house a variety of single and multi-engine aircraft.
- ***MBNA/Hertz/Penske:*** Both MBNA and Hertz/Penske operate from three hangars located in the Midfield area between Taxiways F and G.
- ***Aero Taxi/Avports:*** Aero Taxi and Avports are FBOs. Both tenants provide major flight line and fueling services for general aviation aircraft on the airport, pilot training, and also serve as the primary drop-off point for passengers that use the airport. Also located in this area are 30 aircraft tie-down positions.

Other Landside Support Facilities

Landside support facilities include fuel storage and dispensing equipment, airport maintenance, airport rescue and firefighting (ARFF), non – aviation users, and utilities.

- ***Fuel Storage and Dispensing Equipment:*** The airport offers 100LL and Jet A fuel. Fuel is distributed to aircraft by trucks. The above ground fuel storage tanks are located throughout the airport. Additionally, the Delaware Air National Guard (DEANG) has five above ground storage tanks with a capacity of 50,000 gallons.
- ***Airport Maintenance:*** The DRBA maintenance department is located within the DEANG base complex. The maintenance facility is comprised of several buildings that house airport equipment, offices, and crew room.
- ***Airport Rescue and Firefighting (ARFF):*** The purpose of an ARFF facility is to save lives by maximizing emergency response and intervention during an airport crisis. The ARFF crew conducts fire fighting rescue operations and fire prevention services. The DEANG currently has an 11,700 square-foot ARFF facility with four bays.

Military Facilities

New Castle Airport is home to the DEANG. The base is located along Basin Road on the northeast side of the airport. The complex is comprised of approximately 30 buildings, including aircraft hangars, support offices and storage facilities. The DEANG is a military base that employs 250 personnel on a weekly basis, but increases to 1,000 during drill weekends or active duty assignments. The primary mission of the DEANG is to operate C-130 aircraft and to transport cargo and personnel in support of military operations around the world.

The Delaware Army National Guard operates a facility west of Boeing's ramp. The Army Guard is an active flight wing that operates the UH-60 Black Hawk helicopter. Their operation is similar to the Delaware Air National Guard and has 25 active personnel, which can increase to 200 during drill weekends. The hangar and office complex is secured with perimeter fencing with limited points of access from the landside to airside.

Non – Aviation Users

Non-aviation users are also an important element of the airport's landside facilities. Non-aviation businesses at the airport include car rental companies, limousine/shuttle companies, and caterers. Other services include U.S. Customs, U.S. Immigration and U.S. Department of Agriculture (APHIS).

Land Use

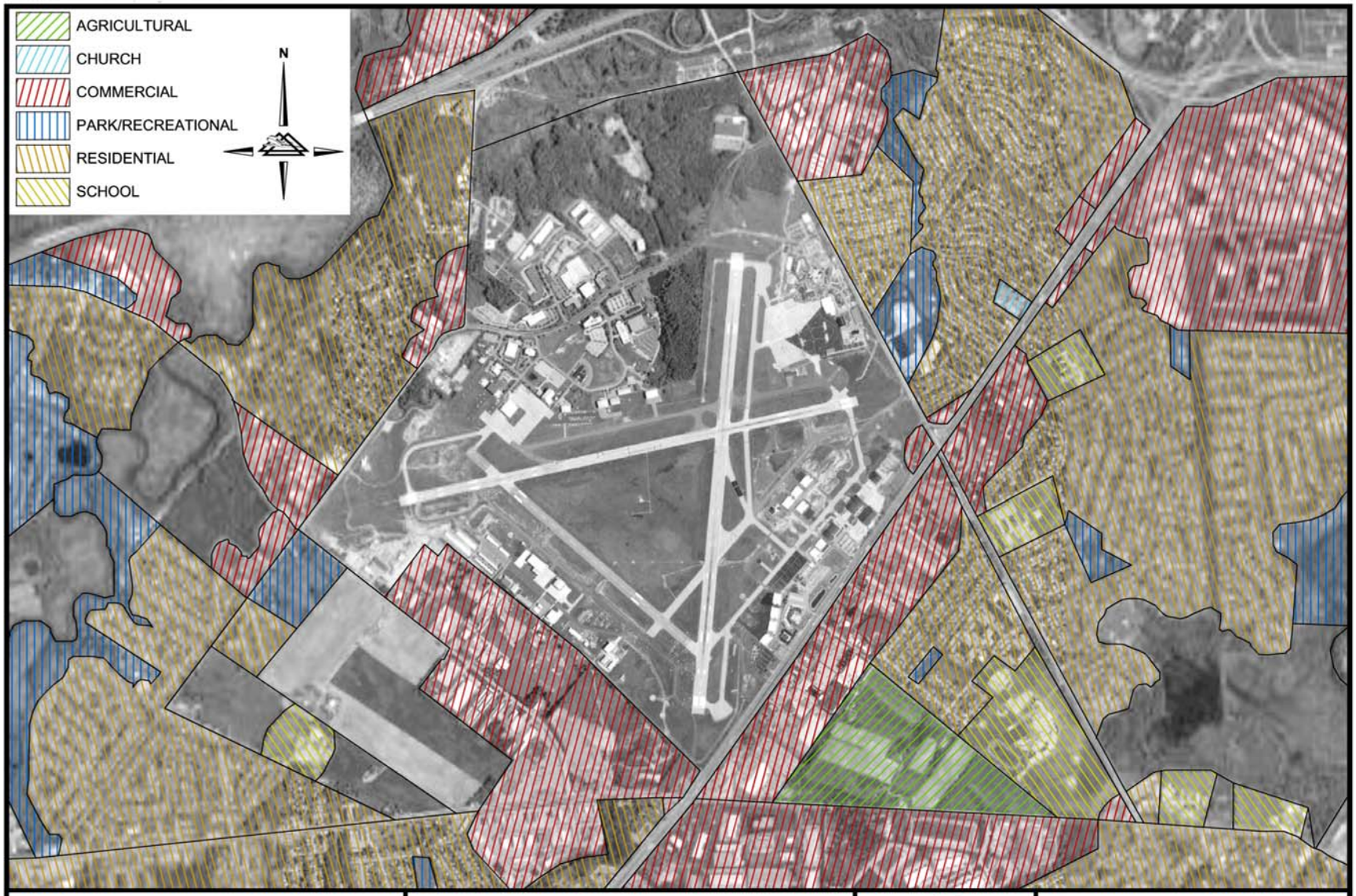
New Castle Airport is located in a highly developed urban area and is comprised of 1,053 acres zoned Industrial District, Special Uses. The surrounding area is comprised of the following districts: commercial regional, commercial neighborhood, business park, neighborhood transition, and cropland. Figure 4 presents a graphic illustration of the near-Airport land use at ILG.

3.2 Future Facilities

Airport Capital Improvement Plan (ACIP)

The principal source of Federal funding for airport development is the FAA's Airport Improvement Program (AIP). This program was initially established by the Airport and Airway Improvement Act of 1982 and periodically reauthorized since that date. In January 2004, FAA Reauthorization Legislation was signed into law as the 'Vision 100 – Century of Aviation Reauthorization Act'. The New Castle Airport is currently classified as a general aviation airport and receives approximately $150,000 each year through the AIP fund. Given current statutory provisions of the FAA Authorization Act, AIP will provide 95 percent funding for all eligible project costs at GA airports through federal fiscal year 2007; thereafter this level of participation will be reduced to 90 percent. AIP discretionary funds are also made available to the airport for high priority capacity, safety, and security projects

AIP eligible projects include the planning, design, and construction of projects associated with public use facilities and equipment of the Airport. The 2004 AIP reauthorization bill, however, contains a significant change from previous bills in that certain revenue producing aviation facilities may be eligible for AIP funding. Typical AIP eligible projects have historically included Airport master plans and Airport layout plans; land acquisition and site preparation; airfield pavements, e.g. runways, taxiways, and transient aprons; lighting and navigational aids; safety, security, and snow removal equipment; selected passenger terminal facilities; and obstruction identification and removal. The new legislation makes projects such as aircraft hangars, aviation fuel facilities, and automobile parking facilities eligible for AIP funding under certain conditions. Highest funding priority according to FAA's rating procedure, is generally given those projects that are safety related such as obstruction removal, runway safety area improvements and facility improvements to meet current FAA Airport Design Standards. Table 2 presents the 5-year ACIP for New Castle Airport.



New Castle Airport

Figure 4

AIRPORT AREA LAND USE

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Table 2 - Airport Capital Improvement Program: New Castle Airport				
Year/Project	FAA	State	Local	Total
2006				
Rehabilitate Runway 9-27 (Design & Construct)	$5,100,000	$134,211	$134,210	$5,368,421
Snow Removal Equipment (Rollover Plow)	$175,000	$4,605	$4,605	$184,210
Security Fencing & Access Controls Phase I Design	$150,000	$3,947	$3,947	$157,894
Obstruction Removal	$300,000	$7,895	$7,895	$315,790
2007				
Rehabilitate Taxiway Signage & Lighting	$1,900,000	$50,000	$50,000	$2,000,000
Rehabilitate Taxiways Phase I (Per PMS)	$1,425,000	$37,500	$37,500	$1,500,000
Security Fencing & Access Controls Phase II Construct	$850,000	$22,368	$22,368	$894,736
Vacuum Truck	$150,000	$3,947	$3,947	$157,895
2008				
Design & Construct Taxiway H	$2,250,000	$59,211	$59,210	$2,368,421
Rehabilitate Taxiways Phase II (Per PMS)	$1,425,000	$37,500	$37,500	$1,500,000
Snow Removal Equipment (Oshkosh Blower)	$570,000	$15,000	$15,000	$600,000
Construct SRE Building	$300,000	$7,895	$7,895	$315,790
2009				
Terminal Improvements	$2,000,000	$52,632	$52,632	$2,105,264
Snow Removal Equipment (6-wheel Dump)	$150,000	$3,947	$3,947	$157,894
2010				
Construct ARFF Access Road to RW 14-32	$350,000	$9,211	$9,211	$368,421
Totals	**$17,095,000**	**$449,868**	**$449,868**	**$17,994,736**

As shown, the ACIP lists projects involving runway and taxiway rehabilitation, security fencing, terminal improvements, SRE building construction and equipment acquisition. The total planned airport capital investment over the five year period (FY 2006-2010) is approximately $18.0 million. Federal grants will make up $17,095,000 of this amount, and State grants will contribute approximately $450,000. The DRBA will be responsible for the remaining $450,000.

State Grant Programs

The State of Delaware has made monies available for airport development projects through legislative appropriations. This money has been used in the past to match the local share for FAA-funded projects - typically two and one-half percent of the total project. This practice is standard in most states and would be encouraged at New Castle Airport. Therefore, it was assumed that the policy of granting State matching funds to federal grants will continue throughout the planning period for New Castle Airport. A two and one-half percent matching percentage on eligible projects

was used to predict State funding contributions.

Local/Private Funding

Local funding of publicly-owned general aviation airports is usually accomplished through a public sponsor's general fund. This expenditure may be offset by airport generated revenues. Public bodies may also issue general obligation (GO) or revenue bonds. These bonds are usually reserved for large capital projects.

A revenue bond is backed by a promise to pay the principal and interest represented by the bond with revenues generated by the project it funds. Since the issuance of revenue bonds does not affect the general borrowing power of the issuing party, it represents an attractive funding mechanism to a local political jurisdiction. Independent underwriters must evaluate revenue bonds, and the proposed bonds must demonstrate a reasonable expectation of repayment. Since some airport facilities generate more indirect benefits to the community than direct revenues, they may not always meet this test.

Private investors are also a potential source of funds for revenue producing development. Tenants and/or investors may finance the construction of facilities from which they derive income. While the direct revenues to the airport are usually limited to the lease charges for the land underlying the facilities, the local sponsor does not need to obtain its own funding for these improvements. Additionally, the increased activity resulting from the airport improvements often increase the number of based aircraft, which in turn generate additional revenue associated with fuel sales and other aviation services.

Development Plan

The Development Plan for New Castle Airport is illustrated in Figure 5. Of note, there is currently a master plan update under development which will make recommended facility changes in addition to those recommended in this business plan. Even with these changes, the primary interest to this business plan is the reservation of space for a new airline terminal building. That space is depicted on Figure 5. It should be noted that the location of this area may change, depending upon a host of other factors that must be considered prior to its development. Although airline service may not materialize within the 5 year horizon of this study, it is considered good planning practice to have a site reserved for the future potential airline terminal.

New Castle Airport

Figure 5

DEVELOPMENT PLAN

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3.4 Market Analysis

Airport Market Area

Figure 6 illustrates the Airport service area including other nearby public-use airports. For New Castle Airport, the service area is roughly based on a 30-minute driving distance for smaller general aviation aircraft and a 60 minute driving distance for larger corporate and business jet aircraft. Within this area are located a total of ten (10) public-use airports and numerous private, restricted-use airfields. The public-use airports located within New Castle's service area are: Philadelpia International, Northeast Philadelphia, Chester County (PA), Brandywine (PA), New Garden (PA), Spitfire (NJ), Summit (DE), Delaware Airpark (DE), and Cecil County (MD).

Facilities

Table 3 provides a comparison of airport facilities at public-use airports within the service area of the New Castle Airport. Philadelphia's large commercial service airport is located roughly 30 miles north of New Castle Airport. This airport has multiple runways with the longest runway length over 10,000 feet. The facility is fully equipped with precision instrument approach procedures to multiple runway ends. Another significant competitor in the greater Philadephia area is Northeast Philadelphia Airport. That airport has a 7,000 foot runway and a 5,000 foot runway, along with precision instrument approaches. Of the remaining airports, only one has a runway with more than 5,000 feet (Chester County). Thus, New Castle Airport must compete against these other three airports for corporate aviation and business jet activity in the greater Philadelphia market. Among the non-commercial general aviation airports, New Castle has the longest and widest runway in the service area (7,181 feet by 150 feet). Philadelphia International, Northeast Philadelphia, Chester County, and New Castle have the only precision instrument approaches in the service area.

Based Aircraft

There are a reported total of 1,118 aircraft based at the public-use airports within New Castle Airport's defined service area. The majority of these (70%) are single engine aircraft. Of the 118 jet aircraft in the service area, 66 are located at New Castle, and this airport also bases roughly 17 percent of the area's multi engine aircraft (24). Five airports in the service area have based jets: Philadelphia International, Northeast Philadelphia, New Castle, Chester County, and Brandywine. With a total of 282 aircraft on the field including 66 based jets, New Castle Airport is well utilized by corporate aviation. Almost all of the airports in the service area have waiting lists for aircraft hangars.

Aviation Services

Table 4 presents the availability of various aviation services at each of the area airports. Listed services at New Castle Airport include all major airframe and powerplant repairs, flight

Figure 6 - Airport Service Area

TO BE PROVIDED

instruction, charter service, avionics installation and repair service, aircraft sales, and aircraft rentals. New Castle Airport also features air ambulance service and some specialized air cargo service. As such, New Castle Airport compares favorably to all of the other area general aviation airports in terms of aviation services provided.

Hangars and Tie-downs

Monthly tie-down spaces are available at all of the service area airports contacted. Prices range from $50 and $100 at smaller airports with limited facilities to $900 per month at Philadelphia International (Table 5). Aircraft storage space in conventional hangars is currently available at New Castle Airport and at three of the service area airports. The cost of conventional hangar space at New Castle Airport is in the upper-range of the competing airports in the service area. Four airports in the service area have T-hangars on the field; however, availibility is limited as there are waiting listes for all T-hangars in the service area. Prices on T-hangars range from $170 to $700 per month. Monthly T-hangar rates at New Castle are priced at $225-$700 per month - a wide range which depends on the size of the aircraft and amenities of the hangar. Monthly rates at some airports depend on age and condition of the T-hangars and can vary widely between airports, and even on the same airport.

Fuel Prices

Aviation Fuel (100LL Avgas) is available at ten of the service area airports. The highest per gallon prices (as of December, 2005) are found at Northeast Philadelphia ($5.05) and Philadelphia International ($4.88). The price per gallon at New Castle ($4.09) is the third lowest price of the other general aviation airports in the service area. The lowest price was found at Cecil County, at $3.75 per gallon. All gas prices change with frequency, however. Jet fuel is available five airports in the service area. The lowest price ($3.59) is found at New Castle Airport. The highest price was again at Philadelphia International ($5.28). Most of the general aviation airports did not charge non-commercial landing fees. However, at New Castle Airport, a landing fee is charged of $0.90 per 1,000 pounds for all aircraft weighing over 7,500 pounds.

Table 3. Facility Comparison

Airport	*Airport Code*	*Ownership*	*Acres*	*Number of Based Aircraft*						*Runway*		*Navaids*	*Tower*
				Jet	**Multi-**	**Single**	**Heli-**	**Other**	**Total**	**First L x W**	**Second L x W**	**Highest**	
Brandywine	N99	Private	44	1	8	96	4	0	109	3,347' X 50'	N/A	GPS/VOR	No
Cecil CO.	58M	Private	22	0	3	41	0	3	47	3,000' X 70'	N/A	GPS/VOR	No
Chester CO. Carlson	40N	Public	250	20	24	90	2	0	136	5,400' X 100'	N/A	GPS/ILS	No
Delaware Airpark	33N	Public	65	0	2	43	1	0	46	3,582' X 60'	N/A	GPS/VOR	No
New Garden	N57	Private	134	0	6	118	3	13	140	3,695' X 50'	N/A	VOR	No
New Castle	ILG	Public	1,250	66	24	167	16	9	282	7,181' X 150'	7,012' X 200'	ILS/GPS	Yes
Northeast Philadelphia	PNE	Public	1,240	13	58	132	10	0	213	7,000' X 150'	5,000' X 150'	ILS/GPS	Yes
Philadelphia Int	PHL	Public	2,302	18	7	5	2	0	32	10,506' X 200'	9,500' X 150'	ILS/GPS	Yes
Spitfire	7N7	Private	48	0	1	33	3	0	37	2,419' X 50'	N/A	GPS	No
Summit	EVY	Private	209	0	6	63	7	0	76	4,487' X 65'	3,000' X 200' T	VOR/GPS	No
		TOTAL		**118**	**139**	**788**	**48**	**33**	**1,118**				

Source: Airport Master Record as Published December 2005 (www.airnav.com).
Runways: Paved unless: T = turf,
*Other: Ultralite, Glider, or Military

Table 4. Service Comparison								
Airport	***Airframe Repairs***	***Powerplant Repairs***	***Flight Instruction***	***Charter Service***	***Avionics***	***Aircraft Sales***	***Aircraft Rentals***	***Other***
Brandywine	Minor	Major	Yes	Yes	No	No	Yes	Air Ambulance
Cecil CO.	Major	Major	Yes	No	No	No	Yes	
Northeast Philadelphia	Major	Major	Yes	Yes	Yes	Yes	Yes	Air Ambulance, Cargo
Chester CO.	Major	Major	Yes	Yes	No	Yes	Yes	Air Freight
Delaware Airpark	Major	Major	Yes	No	No	No	Yes	Crop Dusting
Harford CO.	Major	Major	Yes	No	No	No	Yes	Glider, Glider Towing
New Castle	Major	Major	Yes	Yes	Yes	Yes	Yes	Air Ambulance, Cargo
New Garden	Major	Major	Yes	No	No	Yes	Yes	Aerial Surveying, Glider
Spitfire	Major	Major	Yes	No	No	No	Yes	Aerial Surveying
Philadelphia Int.	Major	Major	No	Yes	Yes	No	Yes	Air Freight, Cargo, Bottled Oxygen, Bulk Oxygen
Summit	Major	Major	No	No	Yes	No	No	Airframe modification

Source: Airport Master Record as Published December 2005 (www.airnav.com).

Table 5: Rates and Charges Comparison

Airport	*Tie-Down*		*Conventional Hangars*		*T-Hangars*		*Fuel*		*Landing Fee*
	$/month	**Available**	**$/month**	**Available**	**$/ month**	**Available**	**100 ll**	**Jet A**	
Brandywine	110 P +50 fuel	Yes	N/A	N/A	for purchase only	No	4.30	4.30	Yes
Cecil CO	60-100	Yes	200-1,250	No	280	No	3.75	N/A	No
Chester CO	90 P	Yes	650-1,000	Yes	350	No	3.99	3.90	No
Delaware Airpark	40T 60P	Yes	180	No	N/A	N/A	4.14	N/A	No
NE Philadelphia	150-440	Yes	N/A	Yes	400	No	5.05	5.04	Yes
New Castle	40T 50P	Yes	1,200-2,000	Yes	225-700	No	4.09	3.59	Yes
New Garden	55T 80P	Yes	255	Yes	170	No	4.49	N/A	Yes
Philadelphia	900-1500	Yes	2,100-2,550	Yes	N/A	N/A	4.88	5.28	Yes
Spitfire	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	No
Summit	45T 80P	Yes	N/A	No	225	No	4.25	4.25	No

Source: RA Wiedemann & Associates Inc. Telephone Survey
Source: Airport Master Record as Published December 2005 (www.airnav.com).
N/A Not Available
T = Turf P = Paved

4. BASELINE FINANCIAL OUTLOOK

THIS SECTION IDENTIFIES HISTORICAL REVENUES AND expenses attributable to New Castle Airport and projects those revenues and expenses to the year 2011. This projection only considers a baseline scenario with no revenue enhancement projects included. In other words, what are the financial implications of continuing the Airport's operation as it is today? In a later section, alternative projections of financial performance will be developed based upon suggested improvements and marketing pro-formas. To properly frame these financial statements, this section is organized to present the following:

- Historical Revenues and Expenses
- Baseline Forecast of Revenues and Expenses

4.1 Historical Revenues and Expenses

DRBA took over the operation and control of New Castle Airport on July 1, 1995. Since that time, the Airport has been the focus of economic development activities, significant capital improvement investments, and corporate aviation expansion. For this analysis, historical revenues and expenses were examined for a four year period (2001-2004). Table 6 presents a summary of the historical operating revenues for the Airport from fiscal 2001 forward while Figure 7 shows total revenues and expenses for the period. It should be noted that capital expenditures are not included in the listing of operating revenues and expenses.

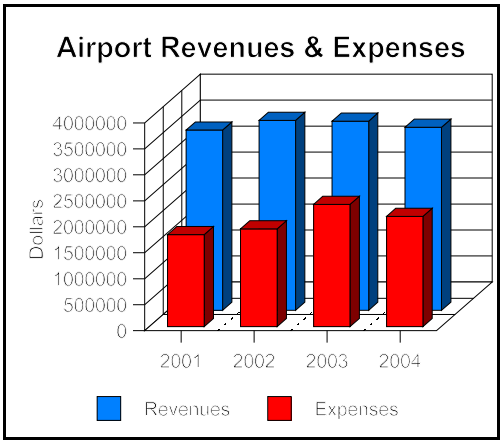

Figure 7 - ***Historical Revenues & Expenses***

As shown in Table 6, operating income from the Airport has not grown since 2002. This total does not include the annual debt service for capital development. Those contributions are not considered revenues from operations by this analysis. Rather, this analysis is geared to identify the actual revenue producing ability of the Airport, along with its actual operating costs. The table shows that lease revenues - primarily from on-airport businesses and corporate aviation clients - provide roughly four-fifths of the revenues for the Airport. Fuel fee income is second with almost 14 percent, with landing fees making up the third significant fraction of revenues (4 percent).

Table 6 - Historical Operating Revenues

ITEM	2001	2002	2003	2004	Average
Lease Revenues	$2,780,717	$2,942,883	$2,901,598	$2,858,242	80.7%

Table 6 - Historical Operating Revenues					
ITEM	2001	2002	2003	2004	Average
Landing Fee Revenues	$138,606	$138,465	$187,531	$143,226	4.3%
Fuel Fee Income	$466,377	$517,917	$516,770	$455,804	13.7%
Cafeteria/Vending Sales	$19,080	$47,295	$31,364	$1,703	0.7%
Misc. Income	($108)	$5,839	$9,530	$67,277	0.6%
Interest Income		$5,484	($5,728)	$154	0%
TOTALS	$3,404,673	$3,657,883	$3,641,064	$3,526,406	100.0%

Table 7 shows the operating expenses for New Castle Airport. These expense categories represent aggregated totals of many accounting sub-categories. Capital expenditures are not included as part of the operating expenses, by definition. These items will be evaluated separately and added to the operating expenses later to show total Airport cost to the Sponsor. The primary operating expense category at New Castle Airport is Labor, representing 73 percent of operating costs. The next closest operating cost is Utilities expense with 13 percent.

Table 7 - Historical Operating Expenses					
ITEM	2001	2002	2003	2004	Average
Labor	$1,307,794	$1,329,848	$1,755,793	$1,572,262	73.3%
Equipment & Supplies	$179,834	$150,579	$208,768	$176,585	8.8%
Maintenance & Repair	$57,648	$75,323	$97,482	$133,168	4.5%
Utilities	$216,114	$317,983	$279,401	$223,407	12.8%
Miscellaneous	$11,953	$9,823	$10,855	$16,807	0.6%
TOTALS	$1,773,343	$1,883,557	$2,352,299	$2,122,230	100.0%

4.2 Baseline Forecast of Revenues & Expenses

This baseline forecast presents a status quo look at revenues and expenses, influenced primarily by historical activity. It does not consider all of the potential changes in the Wilmington area economy or at the Airport that might change the historical trend. However, it is important to see the forecast results of what could be called a minimal change alternative, where only the programs that are currently underway and mandatory contractual changes are shown. The FAA's Terminal Area Forecasts were used for the projection of based aircraft and operations at the Airport, showing modest growth through the year 2020.

Baseline Operating Revenue Projection

The Baseline Operating Revenue Projection was tied to the growth of based aircraft and operations along with lease escalations. In this regard, the FAA's Terminal Area Forecast (TAF) was used to project based aircraft and operations through the year 2011. That projection showed an eight percent growth in based aircraft and less than one percent growth in operations. All lease agreements have an inflation index built into the contract. For this analysis, inflation was assumed at four percent per year. Thus, lease agreement revenues were optimistically assumed to grow at the rate of inflation plus the growth in based aircraft. Landing fees and fuel sales were tied to operations while the other smaller categories were assumed to grow at the rate of inflation. Table 8 presents the forecast of baseline revenues for ILG. As shown, operating revenues under the status quo are projected to grow from $3.8 million in 2006 to $4.7 million in 2011 - a 4.2 percent annual rate of growth.

Table 8 - Baseline Forecast of Operating Revenues

	2006	2007	2008	2009	2010	2011
Lease Revenues	$3,144,386	$3,316,201	$3,488,015	$3,659,830	$3,831,645	$4,003,459
Landing Fee Revenues	$143,515	$143,730	$143,945	$144,160	$144,375	$144,590
Fuel Fee Income	$456,488	$457,172	$457,855	$458,539	$459,223	$459,906
Cafeteria/Vending Sales	$1,841	$1,915	$1,992	$2,071	$2,154	$2,240
Misc. Income	$72,767	$75,678	$78,705	$81,853	$85,127	$88,532
Interest Income	$167	$173	$180	$188	$195	$203
TOTALS	$3,819,164	$3,994,869	$4,170,693	$4,346,641	$4,522,719	$4,698,931

Baseline Operating Expense Projection

Expenses are somewhat different from revenues in that they can more easily increase as a result of price inflation. For example, the cost of labor, the cost of utilities including fuel, and the cost of materials and supplies are subject to price inflation that is beyond the control of the local airport. For this reason, the baseline expense forecast included a 4.0 percent inflation factor for spending over the five year projection period. For labor spending, a lower, 3.0 percent inflation factor was used, since employee turnover and part-time staff usage can insulate this category from full price inflationary effects.

Operating expenses do not include capital expenditures, depreciation expense, or grants from governmental agencies. Rather, operating expenses are those costs associated with the day-to-day operation of the Airport. By comparing operational revenues and expenses, a true gauge for the need of supplemental income or grants can be developed. Table 9 presents the baseline forecast of operational expenses through the year 2011.

Table 9 - Baseline Forecast of Operating Expenses						
	2006	2007	2008	2009	2010	2011
Labor	$1,668,013	$1,718,053	$1,769,595	$1,822,683	$1,877,363	$1,933,684
Equipment & Supplies	$190,995	$198,635	$206,580	$214,843	$223,437	$232,374
Maintenance & Repair	$144,035	$149,796	$155,788	$162,020	$168,500	$175,240
Utilities	$241,637	$251,302	$261,354	$271,809	$282,681	$293,988
Miscellaneous	$18,179	$18,906	$19,662	$20,449	$21,267	$22,117
TOTALS	$2,262,858	$2,336,693	$2,412,980	$2,491,803	$2,573,248	$2,657,405

When the baseline operational costs are compared with the baseline forecasts of operational revenues, the net operating costs for the Airport can be predicted as follows:

	Operating Expenses	Operating Revenues	Net Operating Revenues
● 2006	$2,262,900	$3,819,200	$1,556,300
● 2007	$2,336,700	$3,994,900	$1,658,200
● 2008	$2,413,000	$4,170,700	$1,757,700
● 2009	$2,491,800	$4,346,600	$1,854,800
● 2010	$2,573,200	$4,522,700	$1,949,500
● 2011	$2,657,400	$4,698,900	$2,041,500

As shown, net operating revenues are projected grow from $1.56 million in 2006 to $2.04 million by the end of the forecast period. The results of the baseline forecast also indicate that net operating revenues should be available to fund significant portions of the local share of capital development projects at the Airport.

5. BUSINESS PLAN ALTERNATIVES

SEVERAL BUSINESS PLAN ALTERNATIVES WERE DEVELOPED TO explore a variety of methods designed to increase net revenues. These revenues could be used to pay for portions of the local share of capital development projects and to help reduce the dependence upon DRBA subsidies. In order to present these alternatives, this section is organized to include the following:

- Area-wide factors supporting growth and development of the Airport
- Obstacles to Airport performance and goal attainment
- Revenue enhancement
- Cost efficiency options

5.1 Area-wide Factors Supporting Growth and Development of the Airport

There are a number of factors that now support the potential growth and development of the New Castle Airport. These factors are directly related to the future growth and development of the community that the Airport supports.

Potential Community Growth

Continued economic development and growth in New Castle County is essential to the growth and development of the New Castle Airport. A recent assessment of the market in Wilmington indicated the following:

- "In 2004, the Delaware market experienced a surprisingly successful year of leasing activity. Transactions totaling more than 1 million square feet were recorded and substantial new construction projects are on the horizon. Discussions surrounding new speculative office buildings are the direct result of the need for high-end space in downtown Wilmington. Much like the rest of the Greater Philadelphia area, the Wilmington economy has been slow to recover, yet an increase in city-dwelling residents and the signing of six major tenants have given new life to the downtown marketplace. Wilmington, DE also continues to be successful due to its business friendly tax structure. Chemical and financial services companies have been, and will continue to be crucial to the real estate recovery in Wilmington. AAA Mid-Atlantic, Invista and ING Direct are just a handful of major companies that signed leases in Wilmington in 2004; of those tenants, AAA Mid-Atlantic announced their new corporate headquarters will rise on the Wilmington Riverfront, the center of new commercial and residential development. In 2005 the City of Wilmington will be a critical component to the economic reawakening in the state of Delaware. Currently, local investor and developer Buccini-Pollin Group has proposed Gateway Plaza, a new 14-story office tower in downtown Wilmington. The Riverfront will continue to win awards for 'most popular' location for new corporate headquarters and residential development. The Commonwealth Group is also proposing a Class A office facility at Marrows Road, with the development of Renaissance Center just across from the County Courthouse."[1]

[1] Source: www.cbre.com (CB Richard Ellis).

Delaware Tax Structure

Delaware has reduced its personal income taxes at all income levels. The State has never had a general sales tax or an inventory tax. There are no State real property taxes, and the local real property taxes are very low. The total State and local tax burden in Delaware is competitive with most other states. Key tax features making Delaware attractive to new business include:

- A Constitutional requirement that any increase in existing State taxes, or new State taxes, is adopted by a super-majority (3/5) vote in the State Legislature.
- No State or local general sales tax.
- An improved structure for unemployment insurance taxation that includes accelerated experience ratings for new employers.
- Tax credits on bank franchise, corporate income and reduction of gross receipts taxes for new and expanded businesses.
- Additional tax credits on corporate income and reduction of gross receipt taxes for new and expanding businesses locating in 30 targeted census tracts.
- Property tax relief for new construction and improvements of existing property.
- The adherence of the State tax structure to the federal definition of corporate net income so that companies may take full advantage of any federal tax law change, such as more rapid depreciation of newly purchased assets.
- Two approved foreign trade zones which allow the deferment of import taxes. One of these is located at the Port of Wilmington.
- Public Utility Tax rebates of 50 percent on increased consumption for qualifying industries, and a reduced rate for manufacturers and agricultural processors.

Airport Amenities

New Castle Airport is the largest, best equipped general aviation airports in Delaware. In addition to New Castle's 7,181-foot runway, the Airport enjoys Air Traffic Control Tower (ATCT) operation, a full Instrument Landing System, and a full-time Airport Rescue & Fire Fighting force. The Airport holds a Federal Aviation Regulations (FAR) Part 139 Operating Certificate and has space for the development of hangars and other on-airport aviation clients. All of these amenities permit the Airport itself to function as a magnet of aviation business and industry. In addition, the potential for airline activity at the Airport exists. If needed, the existing terminal could be used for airline service or new facilities could be developed on the Airport.

5.2 Obstacles to Airport Performance and Goal Attainment

In addition to the positive trends, there are a number of factors that present challenges to the attainment of stated goals and objectives for the financial performance of the Airport. These obstacles include the following:

- ***Increased Vacancy in Corporate Hangars:*** Currently, two corporate hangars are vacant, with additional space available in a third hangar. Either a slow market has prevented growth at ILG or competitive forces have moved corporate aircraft clients to other airports. In either case, marketing will be necessary to offset the vacancy rate in corporate clients.

- ***Citizen Support:*** One of the greatest assets of the Airport is the support that it receives from the community. Philadelphia International flight patterns have been challenged by Delaware citizens over noise concerns. Thus, any significant changes in the flight patterns or noise exposure in and around the New Castle Airport may also meet with resistance. Citizen opposition to Airport growth or activity could limit its ability to attract airline service or air cargo service.

5.3 Revenue Enhancement

There are only two ways to increase net revenues for the New Castle Airport: increase revenues or cut costs. In this section, revenue enhancement strategies will be discussed. Elements of these strategies include the following:

- ***Attraction of an Airline:*** One method to increase revenues and supplement local commerce is to attract a low fare airline to ILG. As explained in Section 6, a low fare carrier with significant drawing power is likely the only viable air service option for ILG, due to its close proximity to PHL. The feasibility of such a plan is established later in this analysis.
  - ***New Terminal Services:*** The attraction of an airline brings concession revenue to an airport in the form of terminal rentals for businesses (newstands, food service, etc.). In addition, revenues from taxis, pay parking, additional rental car space, airline operational space, and government (TSA) rental space all contribute to the bottom line.

- ***Airport Branding:*** Branding is the process of developing a unique selling identity for a product or service. In this regard, the Airport may be in need of changing the previous branded stereotype as a large corporate aviation facility only. Sometimes an airport sponsor can examine this option through the SWOT (strengths, weaknesses, opportunities, and threats) self-evaluation process, along with other political and economic development initiatives. Branding initiatives must consider the future role of the Airport, including the potential attraction of airline service, small general aviation, and large corporate aviation.

  The Airport can work this process through possible name change, marketing, and infrastructure investment. But the process will have to be cooperative between the potential commercial users of the Airport and the DRBA. For example, the decision

to attract an airline would require additional infrastructure and services investment. Much this investment would be recouped through charges to the airline and FAA grants. On the other hand, changing the name of the Airport to attract a greater service area can be accomplished with a modest marketing budget. Brand recognition from airline passenger users and corporate and other general aviation users means increased airport activity - all contributing to the Airport's bottom line.

- ***Attraction of More Corporate Aviation:*** To continue its role as the premier corporate aviation hub in northern Delaware and southeastern Pennsylvania, New Castle Airport must attract more business and corporate aviation. Strategies for accomplishing this will be detailed in the Recommended Plan. Two methods stand out: 1) Hire a marketing person with ties to the corporate aviation industry 2) Undertake an in-house effort to market corporate aviation. This approach has been used in the past, to varying degrees of success.

  For one corporate jet at New Castle Airport, the numbers could add up to 5 personnel and between 1,000 and 1,500 gallons of jet fuel per week. This doesn't include leased hangar space or use of other airport services. DRBA revenue margins from the fuel could be estimated at the current rate of $0.09 per gallon for tenants. When the employment benefits and the hangar lease aspects of the operation are included, there is a significant potential revenue impact of attracting corporate aircraft to New Castle Airport.

  - ***Hangar Revenue Options:*** DRBA has increased revenues at ILG through the development of aircraft hangars. Currently, there are several vacancies in the large corporate hangars that will provide additional revenue when filled. Lease revenues make up roughly 80 percent of all airport revenues and as such are the single most important clientele on the Airport. For the present, increasing the occupancy rate for existing hangars should be the primary objective. In the future, more hangar development can be undertaken once current vacancies are filled. Simply by filling the vacant hangars, an estimated $150,000 additional annual revenues could be generated.

- ***Attraction of More Small GA Users:*** The feasibility of attracting more single and twin engine propellor aircraft will be examined in the Recommended Plan. On the positive side, they represent a revenue base with needs for fuel, maintenance, and hangar storage space. Typical annual spending for these items at Delaware airports averages $9,000 for single and twin engine propellor aircraft.[2] ILG would likely have a higher than average pricing structure for these types of general aviation users. On the negative side, this user group typically requires more time and attention per

[2] Source: Year 2000 Delaware survey data, updated by Consumer Price Index (CPI) to year 2005.

earned unit of revenue due to their low fuel usage and realitvely small hangar space needs. Also, increased operations from this user group may increase noise exposure or sensitivities with surrounding neighbors.

- ***Additional/Specialty FBOs:*** Specialty FBOs include paint shops, avionics repair/installation, airframe modification, helicopter charter, engine overhaul (specific types), etc. Economic activity from specialty FBOs includes the attraction of aircraft to the Airport, the employment of local residents, and the purchase of supplies and materials both locally and from outside the area. While specialty FBOs look for niche market opportunities, they generally don't compete directly with the full service FBOs. The focus of such an FBO could include:
  - Large aircraft maintenance/overhaul
  - Aircraft paint/refurbishment shop
  - Maintenance for smaller general aviation aircraft market

- ***Rates and Charges:*** One method to increase revenues is to re-examine rates and charges at the Airport relative to competing airports. Factors to consider include the expiration dates of the current lease agreements, the market's ability to support any price increases, and any special circumstances surrounding a tenant's use of the Airport.
  - Miliary Mission: At one time, it was believed that the Air National Guard flying mission would be moved from ILG. If so, it may have changed the rates and charges policy for the Army facility located at the Airport. However, the flying mission was restored in the final version of the BRAC and thus, any changes in rates and charges for the military are unlikely.

- ***Federal and State Grants:*** Another area that can help balance the books in terms of overall spending at the Airport involves the efficient use of Federal and State grants. Key to State participation is early coordination with DelDOT for any desired matching funds for federal grants.

- ***Air Cargo Operation:*** Some have suggested that New Castle Airport could increase activity by actively courting air cargo companies. This idea gained some credibility when the Air National Guard ramp looked as though it may be available for other use as a result of the preliminary BRAC recommendations. However, since there will likely be no change in the mission of the ANG, the space needed for air cargo operations is limited. One other negative issue regarding air cargo involves night time operations. Noise sensitive areas around the Airport may be impacted by overnight cargo operations, if they were to locate at ILG. Thus, the tradeoff between air cargo operation revenues and local citizen support would have to be considered prior to seeking an air cargo carrier.

5.4 Cost-Efficiency Options

As mentioned previously, there are only two ways to increase net revenues for the New Castle Airport: increase revenues or cut costs. The most costly segments of Airport expenses include the following:

- ***Labor:*** The highest expense category for New Castle Airport is labor, representing approximately 73 percent of total expenditures. Discussions with Airport Management indicate that there are no significant cuts that could be made with regard to labor, particularly with such a large infrastructure. In addition, there may be a requirement to add personnel to accommodate potential airline service requirements. Thus, no further cost cutting measures are feasible for personnel expenses.

- ***Utilities, Supplies, Maintenance, & Other Expenses:*** These expenses are all reasonable for an Airport the size and complexity of New Castle. No changes recommended.

The conclusions indicated that there were no impacts to the current or forecast level of expenses resulting from cost-cutting or efficiency-improving measures. There is simply no "fluff" in the current budget. If net revenues are to be increased, higher revenues will be needed.

6. AIRLINE PASSENGER SERVICE SCENARIO

BECAUSE POTENTIAL AIRLINE SERVICE FEASIBILITY IS SUCH a significant factor in this business plan, an entire section was devoted to its discussion. This section presents an overview of the feasibility determination process and is meant as a means of making informed policy decisions concerning the pursuit of airline service at New Castle Airport.

Airlines are operated today similar to many business ventures; the end goal is to return a profit to the shareholders who own the airline. Because the airlines are private, for profit companies, they do not provide air transportation simply as a service, but must make money with their capital equipment, in this case, airplanes. Airlines are generally free to enter and exit airports at will in the deregulated airline environment. Decisions are made about entering new markets and moving equipment to different routes based on several factors. Through discussions with airline personnel, including airline route planners, the most important factors considered are the availability of aircraft equipment and the rate of return that could be expected on that equipment when flying a selected route. Airlines look for several key components when analyzing a community for potential service; these components include:

- Population
- Business and industrial activity
- Historical air travel statistics

The anticipated growth in these factors is also considered. Internal airline forecasts of a community's potential make or break the possibility of air service. Each community can influence these airline predictions to a degree, but the right combination of these factors must exist in order for a community to be considered in the airline planning process.

6.1 Potential Airline Demand

In order to make informed decisions concerning air service actions, it is important to know the size and direction of airline passenger leakage from the local area to other competing airports. In this regard, leakage may flow to three or more airports in the region - Philadelphia International, BWI, and Allentown. However, without question, the greatest number of passengers from the metro Wilmington Delaware area are using Philadelphia International (PHL). Low fares from Southwest Airlines are featured at PHL and BWI. Table 10 presents a brief history of airline passenger enplanements at all four airports.

Table 10 - Historical Airline Enplanements*

Year	ILG	PHL	BWI	ABE	Total
1995	452	8,849,175	6,595,515	466,075	15,911,217

Table 10 - Historical Airline Enplanements*					
Year	ILG	PHL	BWI	ABE	Total
1996	460	9,039,527	6,535,884	465,873	16,041,744
1997	393	10,433,050	7,052,860	458,879	17,945,182
1998	841	11,470,165	7,069,682	474,477	19,015,165
1999	39,817	11,711,583	8,315,582	463,461	20,530,443
2000	13,006	12,131,345	9,445,906	490,111	22,080,368
2001	0	12,232,358	10,315,599	499,754	23,047,711
2002	0	11,664,158	9,449,181	387,123	21,500,462
2003	0	11,740,483	9,385,356	437,147	21,562,986
2004	0	13,376,442	9,810,650	449,529	23,636,621

* Source: FAA Terminal Area Forecasts, 2005

As shown, the Shuttle America Airline service at New Castle Airport in 1999 and part of 2000 provided the first significant enplanement levels at ILG in a number of years. At both PHL and BWI, there was significant growth over the last 10 years, while ABE remained somewhat static. For the region, total enplanements at the airports grew from 15.9 million to 23.6 million - an average growth rate of 4.5 percent per year. During the same period, population in the three impacted MSAs grew from 9.05 million to 9.68 million or at an average growth rate of 0.6 percent per year. Thus, airline enplanements outgrew local population bases by roughly 3.9 percent per year.

Airline Passenger Leakage Measurement

There are a number of methods of measuring airline passenger leakage from one market to another. The most direct method would be a survey or census of airline passengers at each of the markets with questions concerning their place of origin. Other direct methods include license plate surveys in airport parking lots and airline ticket lifts from travel agencies. The primary goal of these studies is to estimate the number of passengers driving past one airport to go to another.

Because of the limited resources of this study effort, an estimating technique was used that did not involve direct surveys or ticket lifts. In this regard, the method used in this analysis involved an estimation of the total potential passenger trip generation from New Castle County along with an estimate of the actual passenger capture potential in the ILG market area. If the total number of potential passengers is known or estimated, it can be compared to the potential capture of enplanements and some estimate of "leaked" demand can be generated.

A comparative methodology developed for air service studies was employed in this study.

A comparative analysis examines historical performance of other airline airports that are similar in size and economic profile to ILG. Obviously, there are numerous factors that contribute to the success of an airline operation and no two communities are exactly alike. But there is value in looking at the common measures of airline demand, including the number of enplanements-per-capita that occur in different communities and the impact of larger nearby airline airports on demand.

For this study, a model was used that estimates total potential air travel demand from small-to-medium sized cities located near major alternate airports. Because we know that large airports (or airports with low fares) attract a certain percentage of passengers from smaller airports, one way of estimating the effects of this phenomenon is to chart the information from many different airports concerning their number of enplanements, their local population base, and their distance to the nearest larger airline airport. A final level of comparison dealt with the types of airline service available and how that, in itself, either limits or enables local enplanement growth. Recent statistical information from 91 communities throughout the U.S. was gathered in developing the model. Information input to the model included: enplanements, county population, distance to the nearest large hub air terminal, and type of airline service available (turbo prop, jet, etc.).

The type of airline service available turns out to be a significant factor in measuring the actual ability of an airport to capture local airline passengers. In this regard, airports with large jet service enplaned more *per capita* than did airports with regional jet service only. Similarly, airports with regional jet service enplaned more per capita than airports with turbo-prop service only. For these reasons, three estimates of local demand were generated: one for the total service area and two for the probable immediate demand that could be captured with 1) good local service using large jet aircraft service and, 2) for regional jet aircraft (50-seat or less) only.

	Annual Enplanements
• New Castle County total passenger potential:	790,600
• Large jet aircraft market capture potential:	290,900
• Regional jet aircraft market capture potential:	87,300

These numbers are based on the *average* performance of other cities across the United States. Actual performance at ILG could be either higher or lower than these averages. Currently, there is a 100 percent leakage of all passenger trips generated from New Castle County, Delaware. That translates into almost 800,000 passenger enplanements per year. While it would not be possible to capture all of these passengers at New Castle Airport due to the presence of PHL and BWI, the model predicts that 37 percent of these could be retained if large jet service were available. The model also predicts that if regional jet service were offered at ILG, only 11 percent of the market could be captured.

6.2 ILG Airline Service Scenario

The location of Wilmington roughly 30 miles from PHL creates unique competitive issues for any carrier attempting to start service at ILG. Gravity transportation models predict that the closer a community is to a large hub airport, the greater the use of that hub. Conversely, this means that alternate airports have less of chance of capturing air travelers that are in close "orbit" to a large hub. In 2004, PHL ranked 15th in the nation in total enplanements. The airport is home to many airlines including a large US Airways connecting hub operation and low fare service from Southwest Airlines. The implications for ILG are clear:

- There can be no hub-and-spoke operations from ILG because the critical mass of feeder traffic needed to support such an operation is already at PHL.
- None of the legacy carriers (Delta, US Airways, United, American, Northwest, Continental, etc.) can operate without a hub-and-spoke operation.
- Only a self-contained airline operation with low fares has a chance of succeeding in such a market - e.g. Southwest Airlines at Houston-Hobby Airport, Burbank, CA, or JetBlue at Long Beach, CA.
- Southwest Airlines and Airtran Airways are already in BWI and PHL and thus are not candidates for service to ILG.
- The prime carrier to fit the possible market scenario is JetBlue, which does not have a presence in PHL or BWI.

Given the above factors, the most likely carrier to approach for service at ILG is JetBlue. Their service capabilities, prices, market penetration needs, etc., are the best fit for ILG. This does not mean that other low fare carriers should not be approached, however, it does mean that the direction of this business plan will consider first the possibility that JetBlue Airways is the primary candidate for ILG service.

JetBlue Airways

JetBlue Airways first flight was in February 2000 with the inauguration of service between New York City's John F. Kennedy International Airport and Fort Lauderdale, FL. The airline now serves 32 cities around the U.S. and the Caribbean with a fleet of 77 Airbus A320 aircraft. Every JetBlue aircraft is outfitted with all-leather seats, each equipped with the satellite system offering up to 36 channels of programming. JetBlue innovation included the following:

- First and only U.S. start-up airline to launch with more than $100 million in capital
- First and only airline to offer 24-channels of live satellite television free at every seat
- First and only airline to broadcast the Olympic Games live at every seat
- First U.S. airline to introduce "paperless cockpit" flight technology
- Only U.S. airline to be 100 percent ticketless
- First U.S. airline to install bullet-proof cockpit doors across its fleet

- First and only airline to install security cameras in passenger cabin for customer and crew safety

JetBlue was profitable within their first year of operation. They explain their formula for success as follows:[3]

- ***Start with a lot of money:*** JetBlue had the best-capitalized airline start-up in history. As such, they were able to invest in the best product available including new planes, leather seats, free satellite TV, and fast check-in technology.
- ***Fly new planes:*** The fleet of new Airbus A320s comes with a host of advantages. New aircraft are more reliable, so they spend less time on the ground where they don't make money. They're more efficient, so they use less fuel than other carriers. JetBlue currently has the youngest airline fleet in the industry.
- ***Hire the best people:*** JetBlue screens employees rigorously, trains them well and gives them the best tools. Their employees are motivated and service-oriented. Their challenge is to change the industry for the better.
- ***Focus on service:*** By offering customers an outstanding product, most of them come back regularly and tell others about JetBlue.

JetBlue Service Structure

JetBlue serves 30 cities in the United States and Carribean using 33 airports:

- Aguadilla, Puerto Rico
- Boston, MA
- Buffalo, NY
- Burbank, CA
- Burlington, VT
- Denver, CO
- Fort Lauderdale, FL
- Fort Myers, FL
- Las Vegas, NV
- Long Beach, CA (near Los Angeles)
- Nassau, Bahamas
- New Orleans, LA
- New York City, NY (JFK)
- New York City, NY (LaGuardia)
- Newark, NJ (service starts October 5, 2005)
- Oakland, CA (near San Francisco)
- Ontario, CA (near Los Angeles)
- Orlando, FL
- Phoenix, AZ
- Ponce, Puerto Rico
- Portland, OR
- Rochester, NY
- Sacramento, CA
- Santiago, Dominican Republic
- Salt Lake City, UT
- San Diego, CA
- San Jose, CA
- San Juan, Puerto Rico
- Seattle, WA
- Syracuse, NY
- Tampa, FL
- West Palm Beach, FL
- Washington, DC (Dulles)

[3] Source: www.jetblue.com

JetBlue has grown significantly in its 5-year history. Table 11 shows the number of passenger enplanements carried in previous years. Year 2005 is estimated from the first 5-months data available at the time of this writing (9/9/05).

Table 11 - JetBlue Airways Growth

Year	Enplaned Passengers	Annual Growth %
2000	1,128,146	NA
2001	3,056,371	271.0%
2002	5,672,638	185.6%
2003	8,949,744	157.8%
2004	11,731,733	131.1%
2005	14,000,000*	119.3%

* Estimated from Jan-May 2005 actual data.

Looking at the cities served, JetBlue's philosophy of growth is to serve large metropolitan areas with dense origin and destination traffic markets. One of the largest U.S. markets not currently served by JetBlue is the Philadelphia metro area. ILG could provide a foothold into that market without the type of costs associated with PHL or BWI.

JetBlue has orders with Airbus for as many as 233 A-320 aircraft and has placed an order with Embraer for a fleet of up to 200 Embraer 190 aircraft. Both aircraft types have single-class configurations. The A-320 seats 156 while the EMB 190 seats 100. Implications for the EMB 190 are that JetBlue will be able to serve smaller communities with "right-sized" aircraft.

ILG Market for JetBlue

The market for JetBlue services in the Philadelphia metro area as served through ILG are described by the local air transportation patterns at PHL, BWI, and ABE. In this regard, Appendix A presents a listing of the top 50 Origin and Destination passengers from these markets. From that database, a summary of demand from the PHL/BWI/ABE region in 2004 to each of JetBlue's domestic markets is shown in Table 12.

Table 12 - ILG Market Potential for JetBlue Cities of Interest

MARKET	Origin & Destination Passengers
Boston, MA	1,183,570
Buffalo, NY	253,020
Burlington, VT	25,860
Denver, CO	590,100
Fort Lauderdale, FL	1,468,340
Fort Myers, FL	185,500
Las Vegas, NV	1,071,220

Table 12 - ILG Market Potential for JetBlue Cities of Interest	
MARKET	Origin & Destination Passengers
Los Angeles, CA	1,449,590
New Orleans, LA	454,620
New York City, NY	270,740
Orlando, FL	1,868,510
Phoenix, AZ	754,840
Portland, OR	195,220
Rochester, NY	132,900
Sacramento, CA	154,190
Salt Lake City, UT	272,080
San Diego, CA	570,260
San Francisco, CA	978,530
Seattle, WA	215,010
Syracuse, NY	45,870
Tampa, FL	1,004,010
West Palm Beach, FL	317,340
Washington, DC	N/A
TOTALS	13,461,320

As shown, Florida markets are made up of mostly high-density traffic from the PHL/BWI/ABE region. These markets include:

	O&D Pax
• Orlando	1,868,500
• Southeast Florida	1,468,300
• Tampa	1,004,000
• West Palm Beach	317,300
• Fort Myers	185,500
Total Florida	4,853,500

Any combination of flights from ILG to one or two of the top Florida destinations could yield the required number of passengers to breakeven, assuming good market share penetration. Other markets that JetBlue might consider would include:

	O&D Pax
• Boston	1,183,600
• Las Vegas	1,071,200
• Los Angeles	1,449,600
• San Francisco	978,500

Los Angeles and San Francisco may be difficult to serve from ILG with A-320 equipment due to runway length requirements on those long city-pair stage lengths. With 7,181 feet of runway length

at ILG, an A-320 aircraft will need a minimum of 7,218 for a full load at 59 degrees Fahrenheit at sea level. Hotter days will require more runway length. However, the EMB 190 requires 6,913 feet of runway under the same conditions and has a stage length of 2,300 nautical miles - enough to make the trip - according to manufacturer's specifications.

Minimum Traffic Levels for JetBlue at ILG

In order to operate profitably from ILG, JetBlue will require assurance that minimum traffic levels and revenue needs are met. In this regard, average load factors for JetBlue for 2003, 2004, and the first five months of 2005 are as follows:

	Av. Load Factor
• 2003	84.2%
• 2004	82.8%
• 2005 (Jan-May)	84.6%

Assuming the need for an 84 percent load factor at ILG, the following passenger levels would be needed for a given level of service with A-320 aircraft:

Table 13 - Enplanements Needed To Support JetBlue A-320 Service at ILG

Flights/Day	Daily Enplanements	Monthly Enplanements	Annual Enplanements
2	262	7,862	95,700
3	393	11,794	143,500
4	524	15,725	191,300
5	655	19,656	239,100
6	786	23,587	287,000
7	917	27,518	334,800
8	1,048	31,450	382,600

Given the estimated capture of 291,000 annual enplanements at ILG, the most that the Airport could support would be 6 flights per day.

As mentioned, JetBlue has ordered 200 EMB-190 aircraft, with seating capacity of 100. With these smaller aircraft, smaller numbers of passengers are needed to support a station such as ILG. Table 14 presents a listing of enplanements needed to support service with the EMB-190.

Table 14 - Enplanements Needed To Support JetBlue EMB-190 Service at ILG

Flights/Day	Daily Enplanements	Monthly Enplanements	Annual Enplanements
2	168	5,040	61,300
3	252	7,560	92,000
4	336	10,080	122,600

Table 14 - Enplanements Needed To Support JetBlue EMB-190 Service at ILG			
Flights/Day	Daily Enplanements	Monthly Enplanements	Annual Enplanements
5	420	12,600	153,300
6	504	15,120	184,000
7	588	17,640	214,600
8	672	20,160	245,300
9	756	22,680	275,900

As shown, JetBlue will have significantly greater flexibility with the smaller aircraft at ILG. For example, 5 flights per day to Orlando and 4 flights per day to Fort Lauderdale from ILG with the EMB-190 would serve roughly 275,000 enplanements (550,000 total origin and destination passengers).

6.3 Potential Airline Revenues and Expenses

A revenue and expense pro forma was developed to evaluate whether or not the initiation of air service to ILG is worth pursuing. On the revenue side, Passenger Facility Charges, rental car fees, and other concession revenue must be considered. On the expense side, a new passenger terminal building, auto parking lot, and airline equipment and facilities must be considered. There were a number of assumptions made in developing the revenue projections:

Assumptions

- It was assumed that the first year of airline service would be 2007.
- For the first two years, it was assumed that the existing terminal building would be retrofitted and used while a new terminal building was being constructed.
- It was assumed that a new terminal building would become available for use in 2009.

Potential Airline Revenues

For this analysis, airline revenues were assumed to accrue from six separate areas:

- ***Passenger Facility Charges:*** It was assumed that $4.50 per passenger would be levied to pay for capital development of the terminal building and other airline-related improvements.
- ***Auto Parking Fees:*** These revenues would be generated through pay-parking at the Airport. Expanded and new facilities would be required.
- ***Terminal Concession Fees:*** These revenues represent the total rental value of the terminal building including airline, restaurant, and all other rental space.
- ***Rental Car Fees:*** These revenues would be generated through rental car concessions at the Airport including parking and commissions.
- ***Landing Fees:*** These revenues would be charged to the airline and were estimated at $2.50 per 1,000 pounds landed weight.

- ***Fuel Flowage Fees:*** These revenues would be from the sale of jet fuel to the airline. It was assumed that a rate of $0.09 per gallon would be charged.

Table 15 presents a summary of the potential airline revenues that could be conservatively expected from the initiation of airline service at ILG.

Table 15 - Potential Airline Revenues

ITEM	2007	2008	2009	2010	2011
Passenger Traffic	122,600	184,000	245,300	275,900	275,900
PFCs	$551,700	$828,000	$1,103,850	$1,241,550	$1,241,550
Auto Parking Fees					
Spaces filled	200	350	400	500	500
Average $6/day	$438,000	$766,500	$876,000	$1,095,000	$1,095,000
Concessions					
Terminal Space	14,100	22,600	28,200	33,900	33,900
Average $10-$15/sf	$141,000	$226,000	$423,000	$508,500	$508,500
Rental Car					
Spaces	163	245	327	368	368
Rental Car Fees	$237,980	$358,187	$477,517	$537,085	$537,085
Landing Fees					
Flights/day	4	6	8	9	9
Landing Fees @ $2.50/1000	$346,020	$519,030	$692,040	$778,545	$778,545
Fuel Flowage Fees					
Jet Fuel Sales Gallons	2,190,000	3,285,000	4,380,000	4,927,500	4,927,500
Jet Fuel Flowage Fee	$197,100	$295,650	$394,200	$443,500	$443,500
Total Operational Revenues	**$1,473,800**	**$2,226,900**	**$3,966,600**	**$4,604,200**	**$4,604,200**
Primary Airport Entitlement Funds	$1,000,000	$1,000,000	$1,027,780	$1,107,340	$1,367,340
TOTAL - ALL SOURCES	**$2,473,800**	**$3,226,900**	**$4,994,380**	**$5,711,540**	**$5,971,540**

Potential Costs of Airline Service

There are a number of costs associated with the initiation of airline service at ILG. The most significant costs are those needed to adapt the Airport to airline passenger use. That process would require the expansion of auto parking, retrofitting of the terminal building with at least one jetway, Transportation Security Administration (TSA) security, and ultimately, a new terminal and parking area. The same assumptions used in the revenue projections were incorporated into the cost

projections - first service in 2007 with new terminal building by 2009. In addition, it was assumed that a new airline terminal apron would be constructed and that the new terminal building would be capable of accommodating up to three airline gates by the year 2010. It was assumed that the existing parking lot would be expanded in front of the Fight Safety Building for the near term accommodation of demand. For the longer term, a new parking area would be constructed at the new terminal building site. Table 16 presents a summary of these costs.

Table 16 - Potential Costs of Airline Service

ITEM	2007	2008	2009	2010	2011
Terminal Building					
Gates	1	2	2	3	3
Size (sq. ft.)	14,100	22,600	22,600	33,900	33,900
Cost	$500,000		$8,500,000		
Apron Area					
Size (sq. yd.)	10,000	14,000	21,000	21,000	21,000
Cost			$2,000,000		
Public Parking (spaces)					
Public	270	460	560	690	690
Employees	60	90	110	140	140
Rental Cars	170	250	330	370	370
Total	500	800	1,000	1,200	1,200
Cost	$400,000		$2,400,000		
Access Improvements	(Entrance Roads, etc.)				
Cost			$1,000,000		
TOTAL Costs	$900,000	$0	$13,900,000	$0	$0

As shown, the construction costs for the 2009-2011 period were "loaded" into the 2009 period with the idea that it is more economical to build the entire terminal at one time than to break it up into two segments. The total cost to develop the airline capability at ILG is $14.8 million by the year 2011. To pay for these facilities, the Airport can use surplus revenues, Passenger Facility Charges, and primary airport entitlement funds that are distributed on the basis of passenger enplanements.

Comparison of Funding Needs to Revenues

While there are likely to be additional maintenance and utility costs to DRBA with the development of airline service and a new terminal, most of those costs can be passed along to the airline. For purposes of this analysis, they were not included in the comparison of revenues and funding needs. As shown below, the comparison of costs and revenues indicates that year 2009 construction of the proposed terminal building would have to be financed through some type of debt instruments.

Revenues and expenses that can be derived from potential airline service are shown as follows:

	Airline Capital Expenses	Airline Related Revenues	Surplus Revs
● 2007	$ 900,000	$2,473,800	$1,573,800
● 2008	$ 0	$3,226,900	$3,226,900
● 2009	$13,900,000	$4,994,400	($8,905,600)
● 2010	$ 0	$5,711,500	$5,771,500
● 2011	$ 0	$5,971,500	$5,971,500

If surplus airline-related revenues and funding were dedicated to pay off the terminal construction, it is likely that such debt could be paid by the year 2011. In reality, debt service timeframes are likely to be longer (up to 10 years), depending upon the type of debt instrument used.

6.4 Overall Revenues & Expenses of the Business Plan

Impact on Revenues

Quantifying the levels of additional potential revenue that would result from implementing all the strategies discussed in this plan is highly subjective. The only reasonable method is one where the assumptions for each strategy are stated, along with the resulting impact. Then, if the assumptions are not met, deviations from the predicted revenues can be expected. It is believed that changes in revenues to DRBA would come primarily from the initiation of airline service along with increased airport development and aviation activity.

Changes in Aviation Activity

The first and most important step in determining the impacts of these strategies is to predict the change in aviation demand that would occur if each strategy were implemented. Table 17 presents a listing of the potential demand changes along with the assumptions used in estimating demand changes.

Table 17 - Potential Demand Changes by Year 2011

Demand Change	Assumption	Operations	Based Aircraft	Scheduled Enplanements
Current Activity		**118,216**	**319**	**0**
Corporate Aviation	Derived from marketing corporate aviation interests, and attracting corporate aviation to fill large hangars.	2.0%	6	
Airport Branding	Additional passenger enplanements via marketing	NA	0	30,600
Hangar Development	Attraction of smaller GA aircraft	3.0%	20	

Table 17 - Potential Demand Changes by Year 2011				
Demand Change	Assumption	Operations	Based Aircraft	Scheduled Enplanements
Airline Activity	Attract low fare carrier to ILG	5.0%	0	245,300
Terminal Concessions	Airline related businesses - newstands, food service, pay parking, etc.	0.0%	0	
Additional/Specialty FBOs	New FBO or new services offered by specialty FBOs.	0.0%	0	
Additional Potential Growth		10.0%	26	
Total Potential Activity		**130,038**	**345**	**275,900**

Potential Revenues

Table 18 presents a listing of how all these potential demand increases could impact the revenue picture for New Castle Airport, if the assumptions for each scenario are met.

Table 18 - Potential Increases Resulting from All Revenue Enhancement Strategies						
	2006	2007	2008	2009	2010	2011
Lease Revenues	$3,144,386	$3,464,409	$3,784,432	$4,104,454	$4,424,477	$4,744,500
Landing Fee Revenues	$143,515	$489,750	$662,975	$836,200	$922,920	$923,100
Fuel Fee Income	$456,488	$654,272	$753,505	$852,739	$902,698	$946,850
Airline PFC	$0	$551,700	$828,000	$1,103,850	$1,241,550	$1,241,550
Airline Pay Parking	$0	$0	$876,000	$1,095,000	$1,095,000	$1,095,000
New Hangars	$0	$84,000	$84,000	$84,000	$92,400	$92,400
Miscellaneous	$74,800	$78,020	$81,240	$84,460	$87,680	$90,900
TOTAL REVENUE	$3,819,189	$5,322,150	$7,070,152	$8,160,703	$8,766,725	$9,134,300

As shown, revenues would grow dramatically with the onset of airline service. This includes revenues from landing fees, terminal concessions, pay parking, PFCs, and additional rental car activity. Other revenue growth could be derived from additional corporate based aircraft, the attraction of another specialty FBO, and the development of T-hangars for smaller general aviation aircraft. If all of the revenue enhancement components worked as predicted, income from operations would increase from $3,819,200 in 2006 to $9,125,900 by the year 2011 - an average annual growth of 19 percent.

Impact on Expenses

If airline service is successfully brought to ILG, more labor, equipment and supplies, maintenance and repair, and investment in infrastructure will be needed. For purposes of this analysis, it was assumed that DRBA staff would be added to accommodate the longer operational

hours of airline service, along with the expanded functions needed to deal with airline service (pay parking, security, etc.). A total of $250,000 was added to the budget to account for between 6 and 8 new employees. Similarly, budgets for equipment and supplies and maintenance and repair were increased by 10 percent to account for the larger infrastructure and greater use. If the Sponsor must invest in facilities to increase revenues, the cost of that investment must be counted against the revenue generation. In the case of New Castle Airport, debt service interest expense for the retrofitting of the existing terminal, construction of a new terminal, and development of 20 T-hangars was included in the expanded expense estimation (see Table 19). Also shown is a budget amount for marketing, since that work does not happen until funds are dedicated to its implementation. It is estimated that under the impact on expenses of all revenue enhancement actions, expenses would grow from roughly $2.47 million in 2006 to $3.73 million in 2007. From then through 2011, expenses would gradually decrease due to lower interest expense payments.

Table 19 - Impact on Expenses of Revenue Enhancement Actions

ITEM	2006	2007	2008	2009	2010	2011
Labor	$1,768,013	$1,971,053	$2,030,185	$2,091,090	$2,153,823	$2,218,438
Equipment & Supplies	$190,995	$218,498	$227,238	$236,327	$245,781	$255,612
Maintenance & Repair	$144,035	$164,776	$171,367	$178,222	$185,350	$192,764
Utilities	$241,637	$251,302	$261,354	$271,809	$282,681	$293,988
Miscellaneous	$18,179	$18,906	$19,662	$20,449	$21,267	$22,117
Marketing	$50,000	$50,000	$50,000	$50,000	$50,000	$50,000
Debt Service Interest	$54,200	$1,055,100	$955,300	$766,800	$578,100	$375,600
TOTALS	$2,467,059	$3,729,635	$3,715,106	$3,614,697	$3,517,002	$3,408,519

Comparison of Expenses & Revenues

When the enhanced operating revenue forecast is compared to the associated operating expenses, the new net operating revenues for the Airport can be predicted:

	Operating Expenses	Operating Revenues	Net Operating Revenues
● 2006	$2,467,100	$3,819,200	$1,352,100
● 2007	$3,729,600	$5,322,200	$1,592,600
● 2008	$3,715,100	$7,070,200	$3,355,100
● 2009	$3,614,700	$8,160,700	$4,546,000
● 2010	$3,517,000	$8,766,700	$5,249,700
● 2011	$3,408,500	$9,134,300	$5,725,800

Comparison of the enhanced forecasts of revenues and expenses show the Airport moving from $1.35 million to a steadily increasing revenue surplus. Key to this improving financial performance is the development of scheduled airline service at the Airport, the attraction of more corporate aviation, and diversification of Airport clientele

If the annual local capital expenditures and debt service are included with the operating expenses, and the primary airport entitlement funding is added to the enhanced operating revenue projection, the following projection of total net revenues can be made:

	Capital Costs & Expenses	Entitlement + Op. Revenues	Net Revenues
● 2006	$3,228,200	$3,819,200	$ 591,000
● 2007	$4,170,300	$6,322,200	$2,151,800
● 2008	$6,551,300	$8,070,000	$1,518,700
● 2009	$6,292,000	$9,188,500	$2,896,500
● 2010	$6,376,500	$9,874,000	$3,497,500
● 2011	$6,411,000	$10,501,600	$4,090,600

As shown, the Airport will still show positive net revenues even when the local share capital development costs and the principal debt retirement payments are included in the expenses.

7. RECOMMENDED PLAN

THE RECOMMENDED BUSINESS PLAN FOR NEW CASTLE Airport focuses on the initiation of low fare airline service combined with branding concepts for the Airport. The plan covers two primary strategic areas: management/administrative actions and revenue enhancement strategies and actions. Cost efficiency actions were not identified in this report. Baseline revenue and expense projections presented earlier in this report showed an operating revenue surplus scenario. This did not include the local share of capital development projects. If there is a desire to increase net revenues, the following range of options are available in each of the strategic areas described below.

7.1 Recommended Management/Administrative Actions

The existing Management structure provides excellent support for the safe operation of the Airport. However, it is not likely that this small staff is equipped to perform significant marketing and planning functions. Such undertakings generally require a larger staff. If Management desires to market the Airport and its potential airline service effectively, consideration should be given to expanding the resources used for that purpose. Generally speaking, marketing doesn't happen until resources are allocated. Therefore, it is recommended that:

> ***If airline service occurs, additional money should be budgeted for marketing activities related to the new service.***

This budget should be jointly developed with the assistance of the airline, since they are key stakeholders in the revenue development process.

Currently, the administrative system, including the accounting function works well. After examining the methods and systems of accounts at the Airport it is recommended that:

> ***No changes in the system of accounts are recommended at this time***.

7.2 Revenue Enhancement Recommendations

The revenue enhancement recommendations did not focus on one strategic option to the exclusion of all others. Instead, a number of different revenue enhancement strategies are recommended for the New Castle Airport. These include the following:

Airline Service

The most significant revenue enhancement initiative to offered by this business plan is the development of low fare scheduled airline service at ILG. This service would not only be a benefit to local economic development, it would also benefit many Delaware citizens that currently have to leave the State to use airline service. Thus, the first recommendation is as follows:

> ***DRBA should seek to attract a low fare airline to ILG.***

As described in Section 6, ILG is in a good position to attract a low fare carrier to the Airport. Of the carriers considered, it is believed that only JetBlue has the name recognition and financial power to successfully initiate low fare service in Wilmington. If successful, the new airline service would attract more than 275,000 enplanements and provide substantial economic benefits in the form of support activities for car rentals, terminal concessions, pay parking, and fuel sales.

Airline service at ILG will not occur on its own. It will require careful planning, preparation, a marketing budget, and the right approach to JetBlue. DRBA will only have one chance to sell ILG to the carrier and the most should be made of that opportunity. The marketing program needed to convey the necessary information to JetBlue should include, but not be limited to the following:

- Feasibility Study proving the economic viability of the service.
- Presentation that incorporates video, data, and graphics.
- Sufficient budget to convey to JetBlue the importance of their move to Wilmington.

In this regard, JetBlue management may not have ever seen ILG or the Wilmington area. Video and PowerPoint can be combined to provide the JetBlue management with an in-depth look at the Airport, its facilities, management, and the community at large. Interviews with local business leaders, Wilmington's mayor, and Delaware's Congressional representatives will all be important to capture on video for presentation to JetBlue. DRBA must use this opportunity to put the best face on the Airport and the community's desire to attract the carrier. Therefore, it is recommended that:

> ***A high-end presentation should be developed for use in attracting JetBlue to ILG, including feasibility study, video, and PowerPoint.***

The whole project needs to be "choreographed" to ensure highest impact with the carrier.

If DRBA is successful in attracting a low fare carrier, immediate development steps would be needed to prepare the Airport to accommodate that service. Therefore, it is recommended that:

Terminal and other airline-related facilities should be prepared or developed to accommodate new airline service.

In this regard, the steps envisioned include the following:

- Retrofit existing terminal building to accommodate start-up airline service.
- Expand parking area at the existing terminal to support airline service
- If airline service looks to be long-term, begin construction of a new terminal building and parking area.

In addition to these items, other developments are needed to prepare the Airport for airline service including new access roadways, new taxiway connectors, airline apron, etc.

Branding

Branding is the process of developing a unique selling identity for a product or service. If the Airport successfully attracts airline service, it must expand its image to incorporate this significant change. New Castle Airport must transform itself from a general aviation image into an airline service airport with a multi-state service area. The first step in this process is a name change for the Airport, properly identifying its regional significance. Thus, if the Airport attains airline service, it is recommended that:

New Castle Airport should be renamed to convey its regional significance and new airline market reach.

Generally, a name change provides the opportunity to introduce new services, a new look, and a revitalized marketing campaign. Names such as "Northern Delaware Regional" or "Delaware Valley Regional" could be considered. Discussions should be held with JetBlue to determine market targets and how to cooperatively work toward attracting these to the Airport.

Attraction of Corporate Aviation

Most airport sponsors have learned that corporate aviation helps “pay the bills” by providing a disproportionately higher source of airport revenue than recreational general aviation. Several factors have combined to make New Castle Airport the logical location for corporate aviation expansion. First, the Airport’s two 7,000+ foot runways are the longest at any public-use airport in Delaware. Second, the Airport is located within the greater Philadelphia area. Corporate aviation interests using North Philadelphia or Philadelphia International could be well served at New Castle Airport. Given these conditions, it is recommended that:

Corporate aviation clients should be marketed directly by the DRBA or through the use of an industry "insider."

Sometimes it is easier to "hire" contacts than to develop them independently. In this regard, DRBA may desire to hire someone with ties to corporate aviation manufacturers or fractional jet operators. Although previous in-house marketing efforts have used direct mail to fractional jet operators or corporate aircraft owners in the region, sometimes there is value in person-to-person relationships. If in-house marketing is desired, steps in this process (many of which are already being undertaken by DRBA) include the following:

- Send marketing representative to industry functions such as NBAA conferences and to aircraft manufacturers' sites to gain valuable person-to-person contacts.
  - By learning in advance what companies are buying aircraft, DRBA is in a better position to offer those companies in the region hangar space for their new corporate aircraft.
- Identify corporate/business aircraft owners within a 100-mile radius of the New Castle Airport.
- Create or use professional, glossy promotional material with a targeted cover letter to these aircraft owners. A DVD showing the Airport and its attributes could be used as well.
- Create or use a website that shows the Airport, corporate hangar locations, terms, inducements, etc. Streaming video from the website could be used to broadcast the Airport video. The website address should be included on all promotional materials and DRBA letterhead.
- Ensure that a follow-up mechanism that can handle call-backs, referrals, and questions about the corporate aviation program is used for all inquiries.

A key goal is to fill all vacant corporate hangars on the field with revenue-producing tenants.

Attraction of Smaller GA Users

Although DRBA has focused on larger corporate aviation clients for New Castle Airport in the past, the loss of several significant corporate tenants can materially impact the bottom line. Thus, there may be a desire to diversify the revenue base to include more small general aviation aircraft tenants. One method of attracting such tenants is to construct T-hangars. For this plan, it was assumed that 20 new aircraft were attracted to T-hangars developed by DRBA. In addition to hangar rents, these GA users purchase fuel and maintenance services from FBOs on the Airport.

A typical pro forma for a 20-unit T-hangar project at ILG could include the following:

- Annual revenues of $84,000 ($350 per month per unit).
- Development costs of $700,000

- Financing for 15 years at 7 percent interest = $75,500 in payments per year.

Interest rates below seven percent would increase net revenues by lowering debt service payments. Therefore, it is recommended that:

DRBA should examine the possibility of developing additional T-hangars to attract smaller GA users and help diversify its revenue base.

Several creative methods have been employed by airport sponsors to develop hangar facilities using both public and private investment. For public investment, Federal grants or low-interest bond issues are preferred sources of funds. If DRBA is to develop the T-hangars recommended by this business plan, it is recommended that:

DRBA should seek additional FAA grant money to develop hangars.

Grants from Airport entitlement funding provide a maximum $150,000 per year which can only fund a portion of the hangar needs. Unfortunately, there is no guarantee that grants will be available when needed for hangar development. Therefore, the debt financing method must be retained as a second option for DRBA.

If DRBA desires to encourage private investment in hangars at the Airport, there are several options. First is the straight land lease, where land is leased to a private investor (at a very nominal rate), who develops a hangar facility on that land. Usually, 20 years or longer are permitted with such a lease to allow the investor to recoup the useful life out of the hangar investment. Many such leases have reversion clauses that transfer ownership of the hangar to the Airport Sponsor after the term of the lease. The Sponsor then has the ability to charge market prices and use the money from the hangars to support Airport operations.

Another method of encouraging private hangar development is to seek aircraft hangar condominium developers that would be willing to lease land on the Airport for such development. Generally, these leases are very long (up to 40 years), and aircraft hangars are can be bought and sold by their owners similar to residential condominium ownership. The cost of these hangars often ends up much higher than rental units, since there are monthly "maintenance" fees in addition to mortgage payments and property taxes. Often, a market study must be completed by the developer to determine whether or not sufficient demand exists in the area to support these higher priced facilities. At high-demand airports where condominium hangars have been developed, the financial return to the Airport sponsor has been good, sometimes netting up to $10,000 per acre in annual fees. With the current cost and price structure at New Castle Airport, condominium developments with this type of yield may be possible.

A third creative method of encouraging private investment in aircraft hangars provides for immediate ownership of hangars by the public sponsor, thereby eliminating property taxes for the private user. A long-term flat lease (20 years or more) permits the developer to get full value of the investment back prior to reversion to airport sponsor use. Since the airport sponsor owns the hangar, at the end of the lease, it can operate the facility and charge market rents and receive a steady stream of revenue from that time forward. By foregoing any tax revenue from the hangars for over 20 years, DRBA provides investment incentives to the private investor. In the long term, revenue streams from the hangars will revert to the Authority, strengthening its financial performance and long-term viability. Thus, it is recommended that:

If private investment is desired, hangar construction should be encouraged through tax and lease agreement incentives.

Additional/Specialty FBOs

Additional FBOs or Specialty Fixed Base Operators (FBOs) such as paint shops, avionics repair/installation, airframe modification, helicopter charter, engine overhaul (specific types), etc. attract clients from an entire multi-state region. Already, Dassault Falcon Jet, Flight Safety International, and other aviation-related businesses use New Castle Airport. These companies employ significant numbers of trained workers and provide incomes to local families. Thus, for the longer term, it is recommended that:

Marketing efforts should be directed toward the attraction of additional specialty FBOs for the Airport.

It was assumed that at least one new aviation business could be attracted to the Airport within the next five years. The focus of such an FBO could include:

- Large aircraft maintenance/overhaul
- Aircraft paint/refurbishment shop
- Maintenance for smaller general aviation aircraft market that will be attracted to the proposed T-hangars at New Castle Airport

Rates and Charges/FBO Agreement Structure

It is important that new agreements include rent escalators that are tied to the CPI or other inflation index. Current DRBA leases contain these escalators. Thus, it is recommended that:

Escalator clauses should be included in all lease agreements, tying rent increases to the CPI or other cost of living index.

It is important to include the new hangars in this category. During the rent-up period (which can be as long as 2 years) a moratorium on price increases should be observed. After that time, leases should stipulate the escalation method and terms.

Rates and charges for fuel, hangar space, and tie-down space were examined as a part of the business plan. All appeared reasonable and competitive for the market in which there is competition. Although 11 airports were examined, only Northeast Philadelphia, Philadelphia International, Chester County, Millville, and possibly Summit Airport are actual competitors. The other facilities are too small to compete for the same services and clientele. The fuel flowage fees of $0.11 per gallon for signatory users and $0.09 per gallon for FBOs are reasonable and should be continued. Therefore it is recommended that:

No changes should be made to existing rates and charges for fuel, hangar space and tie-down space in the near term.

State and Federal Grants

Another area that can help balance the books in terms of overall capital spending at the Airport involves the efficient use of Federal and State grants. In this regard, a total of $18.9 million is shown on the Airport Capital Improvement Program for the years 2006-2010. An additional $13.9 million would be required for the airline-related capital projects. Therefore, between $18.4 and $24.4 million of this requirement will be made up of State and Federal grants.

It is recommended that grants for all eligible projects be sought from both the FAA and DelDOT.

The key to State contributions of capital will be early coordination with DelDOT on all budget items. Also of importance will be the minimum $1.0 million annual airline entitlement grant from FAA for all primary airports (airports with over 10,000 annual enplanements).

Air Cargo Carrier

There have been recommendations over the years that ILG attract an air cargo carrier such

as FedEx or UPS. These and other smaller air cargo operators haul freight and overnight cargo for both priority and non-priority packages. For just-in-time inventories, air freight is sometimes used. This occurred at ILG some years ago when supply chains were crippled by a rail strike. The GM plant near Wilmington shipped car doors from Dayton directly to ILG for use in keeping the production line running. These shipments sometimes occurred after midnight, creating noise-related complaints from neighbors. Unfortunately, late-night operations and air cargo go together. As such, there is a high public relations price to pay for such service. DRBA is in the best position to judge whether or not the noise compatibility issue is significant enough to eliminate consideration of air cargo service.

In addition to noise issues, there are significant facility considerations. That is, a large air cargo operation needs ground facilities for handling, sorting, and transitioning the cargo to ground or air mode. Those facility options may have existed if the Air National Guard facility was available for other development. However, that option is not in play and it would be difficult to locate such a facility on the Airport in addition to a new passenger terminal area. For these reasons, it is recommended that:

Air cargo operations should not be sought unless significant community support is forthcoming and space becomes available on the Airfield.

8. SUMMARY OF BUSINESS PLAN RECOMMENDATIONS

A NUMBER OF RECOMMENDATIONS HAVE BEEN MADE as a part of this business plan study, all with the goal of improving financial performance at the Airport and increasing economic development and employment in the area. The recommended plan of action from this report rests on three primary strategic initiatives:

1) ***Attraction of Low Fare Airline:*** The attraction of JetBlue to ILG is a major component of this business plan. Low fare service at ILG can compete with other low fare carriers at PHL and BWI. In addition, the development of airline service at ILG is projected to serve more than 275,000 air travelers each year. An added benefit to DRBA is that revenues from airline operations at ILG would more than double the current revenues within five years. Overall employment and economic development will increase as a result of airline service.

2) ***Attraction of More Corporate Aviation:*** The current vacancies in corporate hangar facilities requires marketing attention. By filling the existing vacant hangars, an additional $150,000 could be added to the Airport's revenues. As a Part 139 certified airport, ILG is ideal for any corporate aviation operator that desires all-weather capability. Expanded marketing is a key to promoting ILG to corporate aviation interests.

3) ***Clientele Diversification:*** For some time, ILG has focused on the corporate aviation market as the primary source of revenue for the Airport. One downside to this policy is the impact of a sluggish corporate aviation market on the Airport's revenue base. In this regard, the loss of 3 or 4 tenants can negatively impact overall revenues at the Airport. Thus, it is recommended that a diversified client base be targeted by DRBA. This would include the attraction of more specialty FBOs, smaller general aviation tenants, and of course, the airline.

Specific recommendations by timeframe are as follows:

Immediate

- ***1st Priority - Attract Low Fare Airline:*** DRBA should seek to attract a low fare airline to ILG.
  - A high-end presentation should be developed for use in attracting JetBlue to ILG, including feasibility study, video, and PowerPoint.
- ***2nd Priority - Attract More Corporate Aviation:*** Corporate aviation clients should be marketed directly by the DRBA or through the use of an industry "insider."
- ***3rd Priority - Federal & State Grants:*** It is recommended that grants for all eligible projects be sought from both the FAA and DelDOT. Coordination with DelDOT should be completed well in advance of the need for funding.

1/2006-6/2007

- ***1st Priority - Prepare Airport Facilities:*** If an airline is attracted to ILG, terminal and other airline-related facilities should be prepared or developed to accommodate the new service.
  - Retrofit existing terminal building to accommodate start-up airline service.
  - Expand parking area at the existing terminal to support airline service
- ***2nd Priority - Marketing for Airline Service:*** If airline service occurs, additional money should be budgeted for marketing activities related to the new service.
  - New Castle Airport should be renamed to convey its regional significance and new airline market reach.
- ***3rd Priority - Attract Specialty FBOs:*** Marketing efforts should be directed toward the attraction of additional specialty FBOs for the Airport.
- ***4th Priority - GA Hangars:*** DRBA should examine the possibility of developing additional T-hangars to attract smaller GA users and help diversify its revenue base.
  - DRBA should seek additional FAA grant money to develop hangars.
  - If private investment is desired, hangar construction should be encouraged through tax and lease agreement incentives.

7/2007-12/2011

- ***1st Priority - Prepare Airport Facilities:*** If airline service looks to be long-term, begin construction of a new terminal building and parking area. This should be completed by 2009.

Other Items:

- ***Accounting:*** No changes in the system of accounts are recommended at this time.
- ***Rates & Charges:*** No changes except for CPI adjustments should be made to existing rates and charges for fuel, hangar space and tie-down space in the near term.
- ***Air Cargo Operations:*** Air cargo operations should not be sought unless significant community support is forthcoming and space becomes available on the Airfield.

When the enhanced operating revenue forecast is compared to the associated operating expenses, the new net operating revenues for the Airport can be predicted:

	Operating Expenses	Operating Revenues	Net Operating Revenues
2006	$2,467,100	$3,819,200	$1,352,100
2007	$3,729,600	$5,322,200	$1,592,600
2008	$3,715,100	$7,070,200	$3,355,100
2009	$3,614,700	$8,160,700	$4,546,000
2010	$3,517,000	$8,766,700	$5,249,700
2011	$3,408,500	$9,134,300	$5,725,800

Comparison of the enhanced forecasts of revenues and expenses show the Airport moving from $1.35 million to a steadily increasing revenue surplus. Key to this improving financial performance is the development of scheduled airline service at the Airport, the attraction of more corporate

aviation, and diversification of Airport clientele

If the annual local capital expenditures and debt service are included with the operating expenses, and the primary airport entitlement funding is added to the enhanced operating revenue projection, the following projection of total net revenues can be made:

	Capital Costs & Expenses	Entitlement $ + Op. Revenues	Net Revenues
● 2006	$3,228,200	$3,819,200	$ 591,000
● 2007	$4,170,300	$6,322,200	$2,151,800
● 2008	$6,551,300	$8,070,000	$1,518,700
● 2009	$6,292,000	$9,188,500	$2,896,500
● 2010	$6,376,500	$9,874,000	$3,497,500
● 2011	$6,411,000	$10,501,600	$4,090,600

As shown, the Airport will still show positive net revenues even when the local share capital development costs and the principal debt retirement payments are included in the expenses.

8.1 Timetable and Trigger Points

Table 20 presents a timetable and listing of trigger points for implementation of the recommended plan, grouped by type of action (administrative, marketing, etc.).

Table 20 - Action Plan Trigger Points: New Castle Airport

Action	Description	Trigger Point	Timeframe
Administrative			
System of Accounts	No changes to current system of accounts.	Immediate	Immediate
Allocate Marketing Budget	Allocate money toward marketing and implementation of new airline service.	As soon as practical	1/2006
Marketing			
Branding	Rename Airport to recognize its regional market.	Immediate	Immediate
Market Airline	Develop high-end marketing program to approach and market JetBlue or other low fare carrier.	Immediate	1/2006
Market Corporate Aviation	Begin direct marketing of corporate aviation either by the Authority or combination of common interest entities.	After brochures/ video become available	2/2006
Market Specialty FBO	Attract new specialty FBO or aviation business to the Airport.	After brochures become available	1/2007
Airport Development			
Existing Terminal Area	Retrofit existing terminal building to accommodate start-up airline service. Expand existing parking to accommodate additional automobiles.	As soon as an airline is signed to serve ILG	6/2006

Table 20 - Action Plan Trigger Points: New Castle Airport			
Action	Description	Trigger Point	Timeframe
New Terminal Area	Construct new terminal building and auto parking area.	As capital improvement money becomes available.	1/2008
Aircraft Hangars	Hangar construction should be undertaken as demand warrants. Either grant money debt financing or private investment should be used.	Upon securing enough firm commitments from based aircraft owners	6/2008
Rates & Charges			
State/Federal Grants	Apply for eligible grants and close out open grants permitted by project completion.	As soon as practical	Immediate
Hangar and Fuel Fees	No changes to these fees are needed except annual CPI or other inflation index escalation.	Upon contract renewal.	6/2006

9. ECONOMIC IMPACT ASSESSMENT

THE PURPOSE OF THIS SECTION IS TO quantify the economic impact and contribution of New Castle Airport to the local economy. By showing the current and future jobs, income, and total economic output, acceptance and support for Airport projects may be generated. This analysis demonstrates the economic effects of Airport and aviation use within northern Delaware by tracing the movement of expenditures through the various economic sectors until the money is exported incrementally from the New Castle County through purchases of outside goods and services. In particular, the analysis highlights the economic impacts that airline service would have on northern Delaware's economy.

9.1 Goals and Methods of Analysis

The goal of this analysis was to quantify the following economic aspects of New Castle Airport for the existing situation:

- ***Direct Spending:*** On-airport and off-airport spending on employment, operations, and capital projects. Associated with *providers and users* of airport services. Also includes rental car, hotel, and restaurant spending.
- ***Induced Benefits:*** Impacts created by the successive rounds of spending in the local economy until the original direct or indirect impact has been incrementally exported from the local area.
- ***Jobs and Income:*** Income generated by aviation and the number of jobs supported by the Airport.
- ***Total Output in Dollars:*** The combined impacts of direct, indirect, and induced spending.
- ***Taxes:*** Tax revenue contribution of the Airport and aviation industry to local and State units of government in Delaware.

To accomplish this goal, the study utilized the following simplified process and methodology:

- Collect data on direct impacts from previous survey work and new business plan data.
- Apply regional multipliers to direct impact numbers.
- Describe non-monetary impacts of New Castle Airport and local aviation.

One measure of the economic significance of the Airport involves the number and size of companies that base their aircraft or rent facilities at ILG. In this regard, the Airport serves clients such as Boeing Defense & Space Group, ITT Industries, DuPont, Flight Safety International, W.L. Gore, Campbells Soup Company, Penske Jet, Overhead Door, CitiCorp North America, and many others. In addition, the Airport supports significant military training and fueling operations from the National Guard units on the field.

9.2 Results of Analysis

The economic impact methodology first identified the direct spending and employment at New Castle Airport (called direct impacts) and included the direct spending at off-airport sites such as hotels and restaurants. Armed with this information, regional respending multipliers derived from IMPLAN software were applied to the data to determine the multiplied impacts of direct and indirect spending (called induced impacts). Table 21 presents a summary of New Castle Airport's direct, indirect, and induced economic impacts.

Table 21 - Direct, Indirect, and Induced Economic Impacts

Item	Estimated Current Impacts	Year 2011 Additional Impacts	Total Year 2011 Impacts of Rec. Plan
Direct Impacts			
Airport Related Income*	$91,128,900	$6,157,200	$97,286,100
Airport Related Expenditures (Total including capital costs)	$154,487,500	$18,860,400	$173,347,900
Airport Related Employment (Total including capital spending)	1,819	218	2,037
Induced Impacts**			
Induced from Direct Spending	$71,462,600	$8,150,400	$79,613,000
Total Induced Employment Impacts	905	76	981
Estimated State/Local Taxes	$9,253,700	$1,812,400	$11,066,100
Grand Total Dollar Impacts	$225,950,100	$27,010,800	$252,960,900
Grand Total Income Impacts*	$120,432,000	$8,973,700	$129,405,700
Grand Total Employment Impacts	2,724	294	3,018

* Includes indirect incomes from visitor spending and capital development. This is a subset of the total impacts and is already included in the output number.
** Source: IMPLAN Software - Developed originally by the US Forest Service, it is a comprehensive impact system built on the framework of input-output and social accounting methodology.

As shown, New Castle Airport currently supports over 2,700 jobs, $120.4 million in incomes, and almost $226.0 million in total economic output. The aviation activity at the Airport generates over $9.25 million in State and local taxes. If the recommended plan is implemented, these impacts will increase in the future by almost 300 jobs and $27 million, annually.

9.3 Non-monetary Impacts

There are a number of non-monetary benefits of aviation that have not been mentioned in this analysis. Some of these benefits include:

- ***Transportation Benefits:*** Defined as the time saved and cost avoided by travelers who use airports rather than the next best alternative. New Castle Airport would

provide more convenient access to the National Air Transportation System than out-of-state airports such as PHL and BWI.

- ***Stimulation of Business:*** Airports have been shown in other studies to be an important factor in the attraction and siting of new businesses in a community. This is particularly true for businesses with over 100 employees.
- ***Aeromedical Evacuation:*** New Castle Airport serves as a base for aeromedical evacuation. This life-saving function has intrinsic value that often cannot be adequately quantified.
- ***Recreation:*** Roughly 50 percent of commercial airline travel and 60 percent of general aviation travel is for recreational purposes. This includes the valuable tourist trade which brings economic activity to the study region.

All of the above factors point to a value of an airport that is not easily quantified. The impacts that were estimated within the body of this report - direct and induced - are only one facet of the overall picture. New Castle Airport enjoys a significance that is much larger than these numbers can estimate. It is part of a scarce resource that needs support, protection, and appreciation from all the citizens that benefit from its operation, both directly and indirectly.

Appendix A:
Top 50 O&D

Appendix A - Top 50 Origin & Destination Passengers PHL, BWI, ABE

		PHL			BWI			ABE
Rank	Market	Passengers	Rank	Market	Passengers	Rank	Market	Passengers
1	MCO ORLANDO/ FL	1,080,510	**1**	MCO ORLANDO/ FL	771,920	**1**	MCO ORLANDO/ FL	16,080
2	CHI CHICAGO/ IL	980,710	**2**	CHI CHICAGO/ IL	668,530	**2**	FLI FL SOUTH/ FL	9,800
3	FLI FL SOUTH/ FL	833,020	**3**	LBO MAJOR LOS ANGELES/ CA	643,620	**3**	ATL ATLANTA/ GEORGIA	7,420
4	LBO MAJOR LOS ANGELES/ CA	802,470	**4**	FLI FL SOUTH/ FL	635,320	**4**	CHI CHICAGO/ IL	7,250
5	ATL ATLANTA/ GA	775,050	**5**	PVD PROVIDENCE/ RI	559,460	**5**	TPA TAMPA(INTL)/ FL	6,730
6	BOS BOSTON/ MA	694,560	**6**	ATL ATLANTA/ GA	551,270	**6**	CLE CLEVELAND/ OH	5,990
7	LAS LAS VEGAS/ NV	573,640	**7**	LAS LAS VEGAS/ NV	497,580	**7**	PIT PITTSBURGH/ PA	5,820
8	SOS MAJOR SAN FRANCISCO	567,220	**8**	MHT MANCHESTER/ NH	492,500	**8**	DTT DETROIT/ MI	5,410
9	TPA TAMPA(INTL)/ FL	525,800	**9**	BOS BOSTON/ MA	487,380	**9**	CLT CHARLOTTE/ N. C.	4,210
10	DAS DALLAS(ALL AIRPORTS)/TX	404,830	**10**	DAS DALLAS(ALL AIRPORTS)/TX	481,930	**10**	LAS LAS VEGAS/ NV	3,750
11	RDU RALEIGH-DURHAM/N. C.	370,050	**11**	TPA TAMPA(INTL)/ FL	471,480	**11**	CVG CINCINNATI/ OH	3,630
12	PHX PHOENIX/ AZ	360,250	**12**	SOS MAJOR SAN FRANCISCO	408,190	**12**	LBO MAJOR LOS ANGELES/ CA	3,500
13	DEN DENVER/ CO	332,790	**13**	PHX PHOENIX/ AZ	392,090	**13**	DAS DALLAS(ALL AIRPORTS)/TX	3,200
14	HOS HOUSTON(HOU+IAH)/ TX	325,760	**14**	HOS HOUSTON(HOU+IAH)/ TX	381,500	**14**	SOS MAJOR SAN FRANCISCO	3,120
15	PBI WEST PALM BEACH/ FL	314,770	**15**	CLE CLEVELAND/ OH	329,870	**15**	RSW FORT MYERS/ FL	3,040
16	PVD PROVIDENCE/ RI	265,380	**16**	BNA NASHVILLE/ TN	327,950	**16**	PBI WEST PALM BEACH/ FL	2,570
17	SJU SAN JUAN/ PUERTO RICO	259,880	**17**	BDL HARTFORD(INTL)/CT	320,860	**17**	PHX PHOENIX/ AZ	2,500
18	MSP MINNEAPOLIS-ST. PAUL/MN	252,320	**18**	SAN SAN DIEGO/ CA	317,250	**18**	MSP MINNEAPOLIS-ST. PAUL/MN	2,140
19	SAN SAN DIEGO/ CA	251,310	**19**	STL ST. LOUIS/ MO	294,820	**19**	DEN DENVER/ CO	2,130
20	DTT DETROIT/ MI	233,760	**20**	DEN DENVER/ CO	255,180	**20**	HOS HOUSTON(HOU+IAH)/ TX	2,130
21	SFF SEATTLE - ALL AIRPORTS	215,010	**21**	BUF BUFFALO/ NY	253,020	**21**	MSY NEW ORLEANS/ LA	2,130
22	MSY NEW ORLEANS/ LA	209,730	**22**	MSY NEW ORLEANS/ LA	242,760	**22**	STL ST. LOUIS/ MO	1,900
23	MHT MANCHESTER/ NH	189,590	**23**	ALB ALBANY/ NY	210,590	**23**	BNA NASHVILLE/ TN	1,730
24	STL ST. LOUIS/ MO	186,440	**24**	RDU RALEIGH-DURHAM/N. C.	206,630	**24**	SAN SAN DIEGO/ CA	1,700
25	RSW FORT MYERS/ FL	182,460	**25**	ISP LONG ISLAND/ NY	203,900	**25**	BOS BOSTON/ MA	1,630
26	JAX JACKSONVILLE/ FL	178,150	**26**	SDF LOUISVILLE/ KY	203,290	**26**	MCI KANSAS CITY/ MO	1,580
27	PIT PITTSBURGH/ PA	175,400	**27**	SFF SEATTLE - ALL AIRPORTS	199,780	**27**	GSO GREENSBORO-HIGH POINT/ N.CAROL	1,570
28	BNA NASHVILLE/ TN	151,480	**28**	JAX JACKSONVILLE/ FL	192,960	**28**	IND INPOLIS/ IN	1,560
29	CLT CHARLOTTE/ N. C.	146,440	**29**	DTT DETROIT/ MI	191,190	**29**	CMH COLUMBUS/ OH	1,510
30	MCI KANSAS CITY/ MO	137,710	**30**	PBI WEST PALM BEACH/ FL	190,170	**30**	JAX JACKSONVILLE/ FL	1,420
31	IND INPOLIS/ IN	136,300	**31**	SAT SAN ANTONIO/ TX	186,850	**31**	AUS AUSTIN/ TX	1,230
32	SLC SALT LAKE CITY/ UTAH	114,140	**32**	CMH COLUMBUS/ OH	181,680	**32**	SJU SAN JUAN/ PUERTO RICO	1,230
33	CVG CINCINNATI/ OH	110,120	**33**	MCI KANSAS CITY/ MO	171,360	**33**	GSP GREENVILLE-SPARTANBURG/S.C./US	1,220

Appendix A - Top 50 Origin & Destination Passengers PHL, BWI, ABE

34	MKE MILWAUKEE/ WI	108,180		**34**	AUS AUSTIN/ TX	167,750		**34**	SFF SEATTLE - ALL AIRPORTS	1,190
35	CLE CLEVELAND/ OH	96,980		**35**	MSP MINNEAPOLIS-ST. PAUL/MN	159,560		**35**	RDU RALEIGH-DURHAM/N. C.	1,150
36	CMH COLUMBUS/ OH	94,860		**36**	SLC SALT LAKE CITY/ UTAH	156,880		**36**	SRQ SARASOTA-BRADENTON/FL	1,140
37	MEM MEMPHIS/ TN	83,480		**37**	BHM BIRMINGHAM/ AL	148,800		**37**	SAT SAN ANTONIO/ TX	1,100
38	SAT SAN ANTONIO/ TX	79,950		**38**	IND INPOLIS/ IN	144,020		**38**	SDF LOUISVILLE/ KY	1,100
39	PDX PORTLAND/ OR	75,700		**39**	ABQ ALBUQUERQUE/ NM	119,970		**39**	CHS CHARLESTON/ S. C.	1,090
40	AUS AUSTIN/ TX	74,260		**40**	PDX PORTLAND/ OR	118,770		**40**	SLC SALT LAKE CITY/ UTAH	1,060
41	BDL HARTFORD(INTL)/CT	65,890		**41**	RSW FORT MYERS/ FL	109,690		**41**	BHM BIRMINGHAM/ AL	980
42	ABQ ALBUQUERQUE/ NM	61,760		**42**	ROC ROCHESTER/ NY	101,410		**42**	DAY DAYTON/ OH	950
43	STT ST. THOMAS/ VIRGIN ISLANDS	60,700		**43**	SMF SACRAMENTO/ CA	94,810		**43**	MKE MILWAUKEE/ WI	950
44	GSO GREENSBORO-HIGH POINT/ N.CAROL	60,050		**44**	MKE MILWAUKEE/ WI	94,570		**44**	DAB DAYTONA BEACH/ FL	920
45	SMF SACRAMENTO/ CA	58,950		**45**	ORF NORFOLK/ VIRGINIA	88,210		**45**	SAV SAVANNAH/ GA	920
46	SAV SAVANNAH/ GA	55,680		**46**	DAY DAYTON/ OH	87,380		**46**	HNI MAJOR HAWAII	880
47	DAY DAYTON/ OH	54,860		**47**	HNI MAJOR HAWAII	85,010		**47**	TYS KNOXVILLE/ TN	830
48	HNI MAJOR HAWAII	53,950		**48**	CLT CHARLOTTE/ N. C.	78,870		**48**	PDX PORTLAND/ OR	750
49	CHS CHARLESTON/ S. C.	50,340		**49**	TUS TUCSON/ AZ	78,430		**49**	GRR GRAND RAPIDS/ MI	700
50	SDF LOUISVILLE/ KY	49,800		**50**	SJU SAN JUAN/ PUERTO RICO	68,210		**50**	SBN SOUTH BEND/ IN	700