THE ECONOMIC IMPACT OF AIRPORTS IN MAINE

Prepared for:

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ECONOMIC IMPACT OF AIRPORTS IN MAINE

Airports in Maine provide the State's residents and businesses with a direct, efficient link to the world. Further, Maine's 36 public-use airports generate over $1.5 billion in annual economic activity and support thousands of quality jobs. Maine residents increasingly depend on aviation to support their health, welfare and safety. When all factors are combined, Maine's 36 publicly owned, public-use airports:

- Support more than 20,900 jobs
- Account for nearly $487.6 million in payroll
- Generate $1.5 billion in economic activity
- Serve as vital business links
- support critical services such as medical care, law enforcement, recreation, and emergency access

Maine's 36 public-use airports are a major catalyst to the State's growing economy. In 2005, the economic value of aviation in the State was estimated at $1.5 billion. This includes expenditures by on-airport businesses and thousands of visitors using aviation to reach Maine, as well as the multiplier effect associated with these expenditures. In total, more than 20,900 jobs, with an annual payroll of nearly $487.6 million, are attributable to aviation in Maine. Other study findings include:

- Total economic impact for the airports comprises 3.3 percent of Maine's estimated Gross State Product.

- More than 20,900 Maine residents owe their jobs, directly or indirectly, to aviation; This represents 4.2 percent of all jobs in the State.

In 2005, Maine's system of public-use airports included six commercial service and 30 general aviation airports. The Maine Department of Transportation Office of Passenger Services provides technical expertise and funding to public-use airports throughout the State.

METHODOLOGY

There are several ways airports create economic impact. On-airport businesses and government agencies including airlines, flight schools, fixed base operators, airport sponsors, and the Federal Aviation Administration are responsible for tens of thousands of jobs and extensive capital projects at airports throughout the State. Visitors arriving on commercial airlines and private/corporate aircraft spend money for hotels, restaurants, retail, and entertainment, creating additional jobs and economic benefits.

The benefits provided by Maine's airport system were calculated using an FAA-approved methodology that has been successfully applied in other studies throughout the United States. Through extensive survey efforts, "direct" economic benefits related to on-airport tenants and "indirect" benefits stemming from visitors were measured. As these "first-round", direct and indirect, benefits are released into the state's economy, additional multiplier benefits are created. For example, when an airport employee buys groceries, this spending helps support additional economic activity. This second-round or multiplier spending re-circulates until the benefits ultimately leak

outside the area for which the economic modeling is being conducted. Secondary benefits were calculated using multipliers that are specific to Maine. The total economic impact is the sum of the direct and indirect (first-round), and multiplier (second-reound) benefits.

The economic benefits of Maine's airport system are expressed as jobs, payroll, and output. Output can be thought of as a measure of annual economic activity or spending.

COMMERCIAL SERVICE AIRPORTS

Maine's network of six commercial service airports provides residents with connectivity to regional, national, and international commercial air service. In 2005, more than 1.73 million passengers used the State's six commercial service airports. In addition, in 2005, the six commercial service airports were home to a wide variety of businesses and government entities. On-airport activities range from the airlines that transport passengers and cargo, to the airport operator who manages and maintains the facilities, to concessions such as restaurants, rental cars, and retail shops. Other on-airport activities that were considered include a wide variety of government agencies such as the Federal Aviation Administration, U.S. Customs, state and local police, and forest service agencies.

In the State, in 2005, there were over 2,930 full-time equivalent jobs in the direct category located on the six airports with commercial service. It should be noted however that the two largest commercial service airports in the State, Bangor International and Portland International Jetport, skew this result since over 90 percent of the direct employment impact is associated with these two airports. Examples of on-airport jobs include pilots, ticket agents, air traffic controllers, maintenance crews, retail staff, baggage handlers, airport management staff, and corporate flight departments. These employees receive over $120.6 million in direct annual payroll. These businesses and agencies invest in capital improvements and purchase a variety of goods and services. The annual combined total direct impact of all tenant-related activity at Maine's commercial service airports is estimated at nearly $384.1 million.

In 2005, nearly 492,000 of the passengers at the commercial service airports in Maine were visitors arriving for a variety of business, recreational, and personal reasons. In addition, nearly 51,400 visitors arrived at the commercial airports via private or corporate general aviation aircraft. Commercial and general aviation visitors arriving at the six commercial service airports annually spend approximately $346.2 million. This spending supports nearly 6,846 direct jobs with a payroll of $136.4 million.

When all on-airport business (direct) and visitor (indirect) impacts are combined with the multiplier impact, commercial service airports pump over $1.4 billion into Maine's economy. Nearly 19,400 jobs with a payroll surpassing $448.0 million are attributable to the six commercial service airports.

GENERAL AVIATION AIRPORTS

General aviation refers to all segments of aircraft activity that is not related to the commercial airlines or military aviation. Maine's 30 general aviation airports support a wide variety of functions ranging from corporate travel to pilot training to agricultural spraying to police and fire protection. Like commercial service airports, the economic impacts for Maine's general aviation airports stem from the provision of aviation services and expenditures by visitors arriving by general aviation aircraft. Aviation services include fixed base operators, flight instruction, fueling, aircraft repair and maintenance, air taxi/charter, and corporate flight departments. On-airport capital projects also serve as a source of economic activity.

The 30 general aviation airports support more than 390 direct jobs with an annual direct payroll of nearly $12.3 million. Direct economic activity associated with on-airport businesses and government

at general aviation airports is approximately $35.9 million. In addition, general aviation airports serve as important gateways into their communities. Impacts directly associated with the $26.3 million in spending by visitors using general aviation airports support more than 580 indirect jobs with nearly $12.1 million in annual payroll. When the multiplier impacts are included, general aviation airports support 800 jobs, $18.5 million in annual payroll, and $42.1 million in annual economic activity.

BUSINESS DEPENDENCE

Many non-aviation businesses in Maine depend on the airport system to efficiently move personnel, equipment, and products. Some businesses own or charter general aviation aircraft, many have employees who travel regularly via commercial airlines, others have customers or suppliers who use the airport system to reach them, and many rely on express and air cargo services. A statewide survey of approximately 1,000 businesses indicates that there are numerous additional jobs that are reliant on the system of public-use airports. When major businesses were asked to rank the top reasons why they choose their location, convenient access to a commercial service airport was ranked fourth while access to a general aviation airport was ranked ninth.

Table I
ECONOMIC IMPACT OF AIRPORTS IN MAINE
SUMMARY TABLE

	First Round Impacts [1]	Second Round Impacts [2]	Total Impacts [3]
Total Employment	10,755	10,158	20,913
Total Payroll	$268,987,100	$218,887,300	$487,874,400
Total Output	$756,478,000	$748,198,000	$1,504,676,000

1. First round impacts include the direct impact associated with on-airport businesses and tenants, airport management and on-airport construction or capital improvements. Indirect impacts associated with visitors to Maines who arrive on commercial service or general aviation aircraft.
2. Second round impacts include those calculated using Maine specific multipliers.
3. Total impacts are the sum of the first round and second round impacts or direct, indirect and multiplier impacts.

TABLE II
ECONOMIC IMPACT BY MAINE AIRPORT

Associated City	Airport Name	Total Employment*	Total Payroll	Total Output
COMMERCIAL SERVICE AIRPORTS				
Augusta	Augusta State	218	$5,949,300	$16,719,800
Bangor	Bangor International	5,091	$136,034,200	$440,819,900
Bar Harbor	Hancock County-Bar Harbor	435	$11,088,100	$30,388,800
Portland	Portland International Jetport	12,907	$275,394,000	$864,965,100
Presque Isle	Northern Maine Regional	368	$10,732,700	$22,445,300
Rockland	Knox County Regional	362	$9,239,900	$25,584,400
COMMERCIAL SERVICE AIRPORTS TOTAL		**19,381**	**$448,438,200**	**$1,400,923,000**
GENERAL AVIATION AIRPORTS				
Auburn	Auburn/Lewiston Municipal	311	$8,152,500	$24,627,700
Belfast	Belfast Municipal	62	$1,642,300	$3,900,900
Bethel	Bethel Regional	11	$270,200	$807,600
Biddeford	Biddeford Municipal	54	$1,313,900	$3,623,500
Carabassett	Sugarloaf Regional	11	$279,500	$629,300
Caribou	Caribou Municipal	18	$674,100	$2,792,900
Deblois	Deblois Flight Strip	1	$25,500	$52,100
Dexter	Dexter Regional	16	$378,000	$845,800
Dover-Foxcroft	Chas. A. Chase Jr. Memorial Field	1	$31,900	$77,900
Eastport	Eastport Municipal	17	$444,500	$995,700
Frenchville	Northern Aroostook Regional	23	$723,000	$1,956,700
Fryeburg	Eastern Slopes Regional	74	$1,770,400	$4,397,700
Greenville	Greenville Municipal	51	$1,520,600	$3,559,600
Houlton	Houlton International	42	$1,052,500	$2,545,300
Islesboro	Islesboro	4	$111,300	$174,800
Jackman	Newton Field	19	$606,100	$1,416,300
Lincoln	Lincoln Regional	73	$1,777,300	$4,667,000
Lubec	Lubec Municipal	2	$38,200	$80,700
Machias	Machias Valley	11	$298,500	$670,800
Millinocket	Millinocket Municipal	14	$325,600	$925,500
Norridgewock	Central Maine Regional	50	$1,464,600	$3,414,600
Old Town	Dewitt Field/Old Town Municipal	53	$1,652,900	$4,455,100
Oxford	Oxford County Regional	120	$2,526,700	$7,953,300
Pittsfield	Pittsfield Municipal	76	$1,925,500	$4,875,500
Princeton	Princeton Municipal	17	$450,900	$1,011,900
Rangeley	Rangeley Municipal	26	$594,200	$1,684,900
Sanford	Sanford Regional	294	$7,308,000	$16,167,700
Stonington	Stonington Municipal	9	$219,200	$507,100
Waterville	Waterville Rober LaFleur	39	$1,101,700	$2,875,700
Wiscasset	Wiscasset	31	$756,600	$2,058,700
GENERAL AVIATION AIRPORTS TOTAL		**1,532**	**$39,436,200**	**$103,752,300**
TOTALS		**20,913**	**$487,874,400**	**$1,504,675,600**

Sources: Wilbur Smith Associates, IMPLAN Multipliers, Portland International JetPort Master Plan
Note: *Full-time equivalent

INTRODUCTION

People are generally aware of the importance of an airport as a quick, efficient, and safe mover of people and goods. Airports, however, are more than just a convenient mode of transportation. The airports in Maine are key contributors to the growth and economic prosperity of the entire State. In an attempt to more fully understand the relationship between airports in Maine and the State's economy, an economic impact analysis was undertaken by the Maine Department of Transportation, Office of Passenger Transportation. This report summarizes the economic impact analysis and highlights the substantial economic value of Maine's system of public general aviation and commercial service airports.

As this analysis demonstrates, many people, beyond the immediate environs of each airport, derive economic benefit from the day-to-day operation of the airport system. These groups include the employees whose firms base corporate aircraft at Maine's airports; the commercial and industrial employers whose shipments arrive or depart via the airports; the area retail establishments who provide shopping opportunities for visitors arriving by air; and the hotels, restaurants, and tourist-related activities whose patrons arrive via general aviation and commercial service airports. Almost every economic sector in Maine, even those that never directly use an airport or its many services, receive some economic benefit from the airports.

Through quantitative modeling efforts, it is possible to estimate impacts that occur as a result of on-airport activities (airlines, fixed base operators, flight schools, corporate flight departments, government, and various other businesses), as well as the expenditures of visitors who arrive via general aviation and commercial service aircraft. These on-airport impacts and visitor expenditures, in turn, support additional economic activity in Maine. These additional impacts that are derived from airports and their operation can be measured using sector-specific employment, payroll, and output multipliers. Quantifying an airport's contribution to the State's economy, as it relates to overall business growth and development, is less precise. Nevertheless, when the benefit of the airport system to the State is reviewed, these less tangible economic contributions must also be considered.

This study identifies and quantifies impacts at 36 airports in Maine. In 2006, Maine's system of publicly-owned airports contained six commercial service and 30 general aviation airports. **Exhibit 1** depicts the location of each airport included in this study. Another goal of this study was to evaluate some of the less-quantifiable benefits linked with aviation, such as quality of life contributions that include health, safety, recreation, education, and overall community support. Important activities, such as emergency medical flights, police and fire support, traffic reporting, and search and rescue operations, benefit the residents and businesses in the State.

Using surveys, telephone interviews, airport visits, and accepted economic modeling procedures, this analysis quantifies the economic benefits associated with Maine's public airports. Benefits associated with on-airport tenants, visitors using commercial service and general aviation airports, and non-aviation Maine businesses that rely on the airport system are quantified in this study. This process produces estimates of current annual expenditures, payroll, and employment that are attributable to the State's system of public airports.

EXHIBIT 1
Maine System Airport Locations

The remainder of this report is organized as follows:

- Economic Overview
- Methodology
- Statewide Economic Impact of Airports
- Qualitative Airport Benefits
- Business Use of Maine Airports
- Economic Impacts by Airport

ECONOMIC OVERVIEW

Maine Population and Employment

Woods & Poole Economics, Inc. is a dependable resource for demographic and economic projections, highly regarded by both public entities and private organizations. Woods & Poole projections rely on a highly detailed database, which makes them an excellent source of comprehensive county-level projections. Information used in the Woods and Poole database (and projections) is updated on a year-to-year basis, making the product current and up-to-date on historic and future trends.

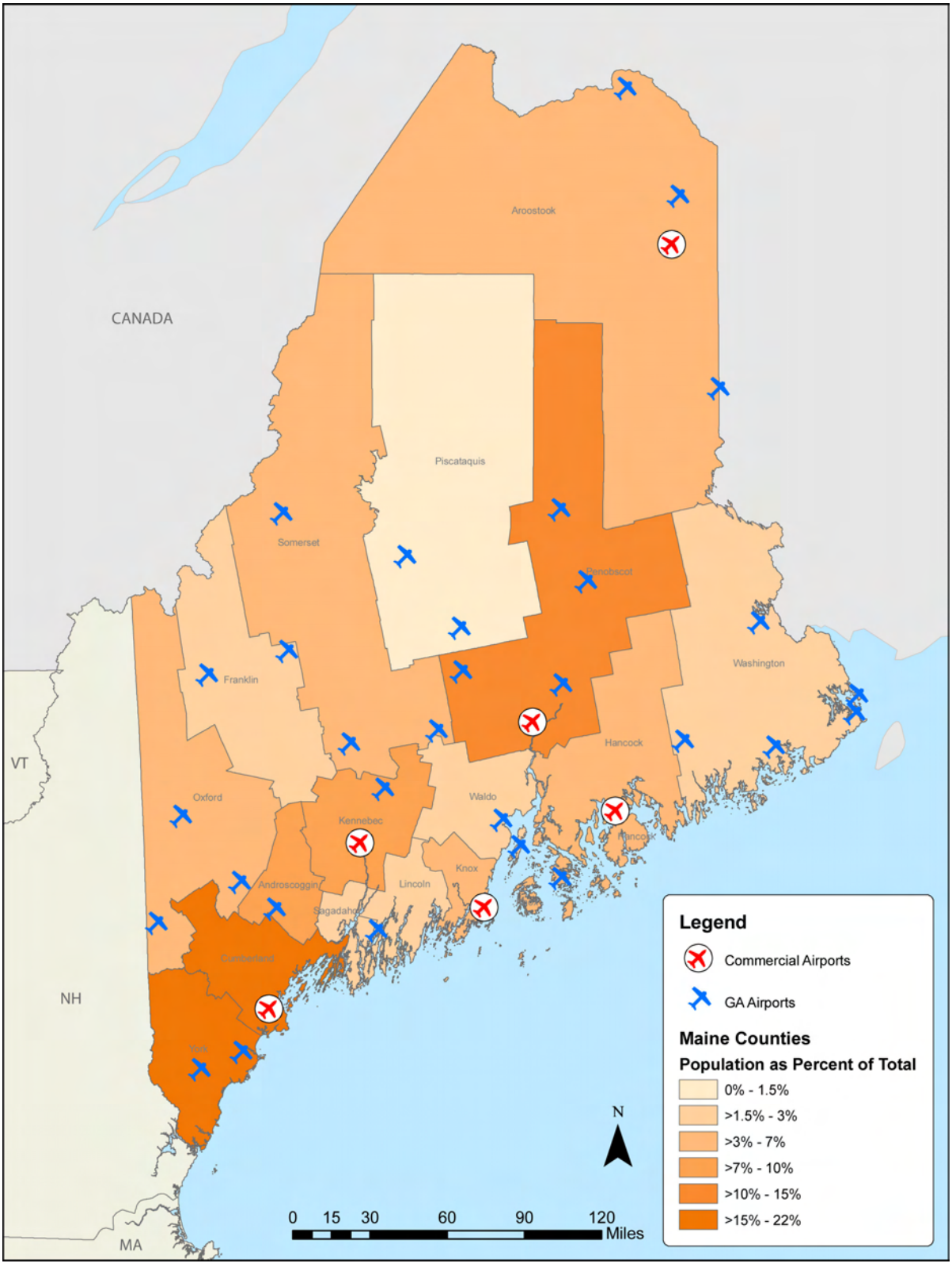
Woods & Poole data for 1990 placed the population of Maine at 1,231,719. By 2005, the figure had grown to 1,321,505, an average annual growth rate of 0.47%. **Table 1** shows Maine population trends (1990-2005) by county and provides an estimate for 2010. **Exhibit 2** shows population percentage distributed throughout the State, by county.

TABLE 1
Population Trends by County
1990-2005 and 2010 Projection

County	1990	2005	1990-2005 CAGR	2010 Projection
Androscoggin	105,412	108,039	0.16%	110,970
Aroostook	87,024	73,240	-1.14%	72,164
Cumberland	243,865	274,950	0.80%	285,455
Franklin	29,135	29,704	0.13%	30,655
Hancock	47,148	53,660	0.87%	55,886
Kennebec	116,293	120,986	0.26%	123,272
Knox	36,451	41,219	0.82%	43,794
Lincoln	30,485	35,240	0.97%	37,179
Oxford	52,748	56,628	0.47%	58,466
Penobscot	147,046	147,068	0.00%	151,243
Piscataquis	18,690	17,674	-0.37%	17,792
Sagadahoc	33,700	36,962	0.62%	37,975
Somerset	49,946	51,667	0.23%	52,703
Waldo	33,154	38,705	1.04%	40,575
Washington	35,397	33,448	-0.38%	33,889
York	165,225	202,315	1.36%	212,695
STATE TOTAL	**1,231,719**	**1,321,505**	**0.47%**	**1,364,713**

Source: Woods & Poole Economics, Inc.
Note: CAGR=Compound Average Annual Growth Rate.

EXHIBIT 2
Maine Population Percentage by County



Between 1990 and 2005, three of the State's 16 counties experienced a decline in population, while the other 13 experienced growth. The counties experiencing population declines are all in the most rural northern and eastern parts of the State. Aroostook County, the northernmost county of the State, experienced the most notable decline in population, losing nearly 15,000 residents. Another of the counties that experience a decline an population, Piscataquis, is the smallest according to population, having only 17,674 residents. Most of Piscataquis County is forested and is home to Baxter State Park.

Only Cumberland and York counties experienced notable growth between 1990 and 2005, with both counties increasing by over 30,000 residents. These counties are located adjacent in the southernmost tip of Maine. Cumberland County is home to Portland International Airport. York County is home to two additional general aviation facilities, Sanford Municipal and Biddeford Municipal airports. In 2005, Cumberland County was also the most populated county of the State with 274,950 residents.

Maine Employment Sectors

The top three employment sectors in Maine are manufacturing (12.7% of the total), retail trade (16.6%) and health care (19.6%). **Table 2** lists the number of Maine employees by sector and the respective percentage of the total workforce. Other major sectors include construction, finance/insurance, administration, and accommodation/food services.

TABLE 2
Maine Employment Sectors
2004

Employment Sector	Employees	Percent of Employment
Forestry, fishing, hunting, and agriculture support	3,580	0.72%
Mining	118*	0.02%
Utilities	2,482	0.50%
Construction	27,950	5.65%
Manufacturing	62,738	12.69%
Wholesale trade	18,796	3.80%
Retail trade	82,234	16.64%
Transportation & warehousing	14,018	2.84%
Information	11,706	2.37%
Finance & insurance	27,384	5.54%
Real estate & rental & leasing	6,717	1.36%
Professional, scientific & technical services	22,540	4.56%
Management of companies & enterprises	7,150	1.45%
Admin, support, waste mgt, remediation services	25,170	5.09%
Educational services	13,695	2.77%
Health care and social assistance	96,894	19.60%
Arts, entertainment & recreation	6,758	1.37%
Accommodation & food services	44,769	9.06%
Other services (except public administration)	19,439	3.93%
Unclassified establishments	118*	0.02%
TOTAL EMPLOYEES	**494,256**	**100.00%**

Source: U.S. Census Bureau 2004
Note: *Estimates based on residual Census data

Many of the nation's leading employers that use general aviation as a business tool are members of the National Business Aircraft Association (NBAA). The NBAA's *Business Aviation Fact Book* indicates that more than 75% of *Fortune 500* companies operate business aircraft. Maine is home to one *Fortune 500* company, Energy East, which had 2005 total revenue of $5.3 billion. Several *Fortune 500* firms operate facilities in Maine, including General Electric in Bangor. According to NBAA analysis, specific financial advantages were identified for companies operating business aircraft over non-operating firms. Businesses that operated aircraft consistently outperformed non-operators in key economic performance measures, such as annual sales volume, number of employees, value of assets, stockholder's equity, and annual income.

Business use of general aviation aircraft can range form the rental of small single-engine aircraft to multiple aircraft corporate fleets that are supported by dedicated flight crews and mechanics. The use of business aircraft by smaller companies has escalated as fractional ownership, various chartering, leasing, time-sharing, interchange agreements, partnerships, and management contracts have emerged. NBAA statistics support this claim by indicating that the number of flight departures among all the nation's businesses increased from 6,584 in 1991 to 10,661 in 2003, an increase of 62%.

Maine Top Employers

Many well-known companies have operations within Maine, and thus are also major employers in the State. **Table 3** below lists top employers in Maine. The top employers reflect the top employment sectors, as a majority of Maine's top employers fall into the categories of health and assistance, retail, or manufacturing. The Hanneford retail company is the largest employer in Maine, with nearly 8,000 employees. The Bath Iron Works Corporation, a major manufacturer of naval ships, employs over 6,000. L.L. Bean is by far the most well-known company that has its headquarters in Maine; L.L. Bean employs nearly 5,000 people in the State. The world's largest retailer, Wal-Mart, employs over 6,000 Maine residents within its distribution department. Additionally, accommodation and food service sector, accounts for nearly 10% of the jobs in Maine; this sector is represented in the top companies by two individual resorts.

TABLE 3
Maine Top Employers

Company Name	
Anthem Health Systems	L.L. Bean
Attendant Services Inc.	Larkin Enterprises, Inc.
The Aroostook Medical Center	Maine General Health
ATX, Inc.	Maine General Medical Center
Banknorth	Maine Medical Center
Bath Iron Works	MBNA Marketing Systems, Inc.
Bowdoin College	Mead Oxford Corporation
Brown Co.	Mercy Hospital/Health System
Central Maine Power Company	New Balance Athletic Shoe, Inc.
Cianbro Corporation	Point Sebago Resort
Correct Building Products	Rite Aid of Maine, Inc.*
Dead River Company	S.D. Warren
DeLorme	Shaws Supermarkets
Eastern Maine Healthcare Systems	Sunday River Ski Resort
Fairchild Semiconductor	Sweetser
Fraser Papers, Inc.	TD Banknorth
Great Works Internet	UnumProvident*
Hannaford	UPS
Home Depot*	UTC Shared Business Service
International Paper Co.*	Verizon New England, Inc.*
Irving Oil Corporation	Wal Mart Payroll Department*
The Jackson Laboratory	Webber Hospital Association
Kindred Nursing Centers	Wright Express

Source: InfoUSA, Maine State Planning Office
Note: *Fortune 500 Company

Per Capita Personal Income

Per capita personal income (PCPI) increased at a lower rate in Maine than it did in the rest of the United States. From 1990 through 2005, PCPI increased in Maine by 4.1%, higher than the national growth of 3.8%. **Table 4** details this data.

Table 4
Maine and U.S. Per Capita Personal Income Trends
1990-2005 and 2010 Projection

Economic Area	1990	2005	1990-2005 CAGR	2010 Estimate
Maine	$17,376	$31,616	4.1%	$38,529
United States	$19,477	$33,986	3.8%	$41,345

Source: Woods & Poole Economics, Inc.
Note: In current dollars

Gross State Product

Gross State Product (GSP) is a measurement analogous to Gross Domestic Product (GDP), the commonly accepted measure used to calculate the total annual value of goods and

services produced by a nation. Similarly, GSP estimates the value of goods and services produced at the state level. From 1990-2005, the GSP of Maine and national GDP grew at 4.5% and 5.4%, respectively. However, rates taken from only 2000-2005 reveal that the GSP is growing at nearly the same rate in Maine as the U.S overall. **Table 5** details this data.

Table 5
Maine GSP and U.S. GDP
1990-2005 and 2010 Projection
(in billions $US)

Economic Area	1990	2000	2005	1990-2005 CAGR	2000-2005 CAGR
Maine	$23.3	$35.5	$45.0	4.5%	4.8%
United States	$5,674.0	$9,749.1	$12,409.6	5.4%	4.9%

Source: U.S. Bureau of Economic Analysis
Note: In current dollars

Summary

Maine's economic success is due to a highly developed transportation network, access to major U.S. markets, diverse industries and a desirable quality of life. The population, PCPI, and GSP of Maine are all increasing at a moderate rate.

METHODOLOGY

Aviation is an important factor influencing the growth and development of Maine's economy. The total economic impact or contribution of each public airport in the State is quantified in this study in terms of employment, payroll, and output. The impacts associated by three aviation-dependent groups were measured as part of this study. These aviation-dependent groups are:

- On-airport tenants/businesses
- Visitors traveling to/within Maine via commercial service airlines
- Visitors traveling to/within Maine via general aviation aircraft

On-airport tenants and visitors who arrive in Maine via the State's airports are directly responsible for a significant percentage of the economic activity or benefits associated with the airport system. Through a separate survey of over 1,000 businesses located throughout Maine, this study also identified the importance of aviation to non-aviation employers throughout the State. The business-related impacts identified through this survey effort are discussed in a subsequent section. The qualitative health, welfare, and social benefits of Maine's airports are also identified and presented in this study.

Th *Portland International Jetport Economic Impact Study* was developed in conjunction with this airport's master plan that was published in October 2006. The economic impact results for the Portland International Jetport from this independent study are included in the statewide study. Separate economic impact analysis for the Jetport was not completed as part of this study.

The discussion of study approach is presented in two separate subsections, as follows:

- The Economic Modeling Process
- Data Required for the Modeling Process

In addition to 36 public airports that are included in the Maine airport system, there are additional private general aviation airports and public and private seaplane bases located throughout the State. Although these private airports and seaplane bases were not included in the detailed analysis presented here, estimates of their economic value to the State of Maine are presented in **Appendix A**.

The Economic Modeling Process

All economic impacts or benefits of the Maine airport system were calculated using an input-output model. The input-output model used in this study utilizes three impact categories to assess the economic benefits associated with on-airport tenants, commercial service visitors, and general aviation visitors. These three categories are:

First-Round Impacts – First round benefits include both direct and indirect impacts. Direct impacts are defined as those benefits that are associated with companies or businesses located on the airport. These businesses are directly related to the provision of aviation services. Direct impacts include the employment, payroll, and output related to entities such as airlines, concessionaires, rental car operators, food and beverage providers, government agencies, flight schools, fixed base operators (FBOs), and others.

Indirect impacts generally occur off-airport. These impacts are usually attributed to the spending of visitors who arrive in the State via a Maine airport. Spending by visitors supports jobs and payroll in service-related industries such as hotels/motels, restaurants, transportation, retail, and entertainment.

All first round impacts (direct and indirect) associated with individual airports in this study were identified through survey efforts; this study's specific survey efforts are discussed in a subsequent section of this report.

Second round Impacts – Second round impacts primarily consist of induced impacts. Induced impacts are those benefits that are the result of the recirculation of direct and indirect impacts within the economy. Recirculation of direct and indirect impacts within an economy is frequently referred to as the multiplier effect. For example, as an airport employee spends his or her salary for housing, food, or services, that spending circulates through the economy and leads to increases in associated spending, payroll, and employment throughout Maine.

For each wave of spending beyond the first round, a portion of the re-spending takes place outside the economic region being modeled (in this case, the State of Maine). Employment, payroll, and spending that take place outside Maine is considered economic leakage, and is, therefore, not reflected within the statewide multiplier.

Total Impacts – Total impacts or benefits are the sum of all first-round and second round economic activities at an airport or the airport system.

As noted, first-round and second round or multiplier impacts are combined to provide an estimate of total economic impact. Because second round impacts are not as easily measured as first-round impacts, a reliable method of estimating second round impacts must be employed. A leading method used to estimate second round or multiplier impacts is the input-output model.

The Impact Analysis for Planning (IMPLAN) input/output model was used to measure the multiplier effect and quantify second round impacts in this study. An input-output model, in its most basic form, is a linear model that estimates purchases and sales between the various sectors of the economy. This modeling process is considered to be one of the leading methods currently available for estimating the total economic impact of an industry (in this case, an airport). The U.S. Forest Service in cooperation with several other government agencies initially developed the IMPLAN system. It is now considered one of the standard methods for evaluating the economic contribution of public facilities and has been used to estimate economic impacts for individual airports and systems of airports throughout the country.

The IMPLAN model contains a large economic database that is used to generate input-output tables. It includes data from sources such as Dunn and Bradstreet, the U.S. Department of Commerce, and the U.S. Census Bureau. IMPLAN multipliers and data tables specific to Maine industrial sectors were obtained and used in this analysis. The IMPLAN input-output model used for this analysis requires impact estimates for three separate components of the economy. These categories are:

- **Employment** – Employment is based on full-time equivalent (FTE) positions. In this analysis, fractions of full-time equivalent positions may be interpreted as part-time jobs.

- **Payroll** – Payroll is the annual salary paid to all workers.

- **Output (Spending)** – Output for on-airport tenants is typically assumed to be the sum of annual gross sales and average annual capital expenditures. While this assumption works well for profit-oriented tenants, it must be modified for government tenants, airlines, and visitor impacts as they relate to output. Government entities typically do not generate sales. While airlines do generate sales, the ticket revenue is usually transferred outside the area being modeled. In order to estimate the impact of these two important tenant-related activities, government and airline output is equated with the sum of payroll, operating expenditures, and average annual capital improvement outlays. For visitors using an airport, output is assumed to equal visitor expenditures.

It is important to note that payroll and output cannot be combined because elements of economic benefit related to payroll are also contained, to some extent, in the output estimate. Each of the three impact components (employment, payroll, and output) stands alone as a measure of an airport's or the airport system's total economic impact.

Data Required for the Modeling Process

A number of data collection efforts were undertaken to gather information related to economic activity occurring at Maine airports. The collected data were used as inputs in the modeling process to identify the total economic impact of Maine's system of publicly-owned airports. The following three groups were surveyed to obtain first-round (direct and indirect) impact data:

- **On-Airport Tenants** – This group includes airport tenants with employees, such as airlines, fixed-base operators (FBOs), flight schools, concessionaires, airport restaurants, and governmental agencies. It should be noted that governmental

agencies include public airport sponsors, the Federal Aviation Administration, as well as various other State and Federal agencies.

- **Commercial Service Visitors** – This group includes estimated non-local passengers (visitors) departing via commercial airlines at Maine's six commercial service airports. Average expenditures for this group were identified through passenger surveys conducted at select commercial service airports throughout the State.

- **General Aviation Visitors** – Impacts from general aviation visitors are generated by non-local passengers arriving via private or corporate aircraft. For this analysis, general aviation visitors were assumed to be associated with that portion of each airport's itinerant general aviation activity that is truly transient (or visiting) in nature. First-round impacts for this group were identified using data collected from general aviation visitor surveys conducted in cooperation with the managers and/or FBOs at select Maine airports.

- **Construction Impacts** - Each of the airports in the study produces another type of impact that is not reported in the discussions above. Each year, nearly all of the airport sponsors undertake capital improvement projects (CIP), such as runway rehabilitation, hangar construction, terminal improvements, etc. In addition, businesses and other government agencies on the airports, such as the FAA, undertake capital improvement projects. These projects employ persons in jobs such as construction, architecture, engineering, and consulting. For this study, construction impacts are included in first-round impacts.

  The following methodology was used to estimate construction impacts:

  - CIP data for 2002-2006 was gathered from each airport sponsor in the study as well as each business tenant and government agency located at a study airport.

  - CIP data for the four year period was then averaged to avoid showing peaks or troughs in construction activity.

  - The IMPLAN Input/Output model indicates that $1.0 million spent in construction activity supports 13.1 "construction-related" jobs in Maine. These jobs are comprised of those people who are engaged directly in these projects – construction workers, equipment operators, foremen, engineers, management, etc.

All first-round impacts presented in this analysis were identified through survey efforts conducted at Maine airports. IMPLAN multipliers were then applied to the first-round impacts to estimate all subsequent second round economic impacts. By using actual survey data to estimate all first-round impacts, a high degree of confidence can be placed on the final results.

Data Collection

First-round impacts for each type of aviation-user including tenants, on-airport government agencies, commercial service visitors, general aviation visitors, and non-aviation businesses were identified through survey efforts. Airport management was also surveyed to gather data related to airport operations and construction. This aspect of the analysis is important to ensure that final economic impact estimates are valid, since estimates of second round impacts are derived in the IMPLAN model.

The methods used to collect information related to each group sampled in this analysis are discussed in the following sections:

Airport Tenants

Airport sponsors/owners were contacted to provide names, mailing addresses, and telephone numbers for each airport tenant/business. All airport tenants having employees on Maine airports during 2006 were contacted to collect information regarding their economic activity. Surveys were then sent to each tenant and follow-up calls were made to ensure responses and to verify information on returned surveys. Airport tenants at each airport were grouped into several categories to aid in data interpolation. These categories include:

- Local/State/Federal Government (this category includes airport management, city/county personnel, etc.)
- Passenger Airlines
- Air Cargo Airlines
- Concessionaires
- FBO/Flight Instruction/Aircraft Maintenance/Air Taxi
- Other

The survey sent to each airport tenant, including airport sponsors/managers, requested the following specific pieces of information:

- Type of aviation activity conducted by the business/tenant
- Number of full-time and part-time employees employed by their business on the airport in 2005, as well as year-round and seasonal employment
- Total annual wages and benefits paid to their on-airport employees in 2005
- Amount paid by the business for property taxes in 2005
- Total capital improvement expenditures (construction impacts) by the business on the airport for each year 2002 through 2006
- Total operating expenses for the business at the airport (excluding payroll and capital improvements previously identified)
- Total gross sales (where applicable) by the business on the airport during 2005

In addition, airport tenants were asked to identify any businesses that sub-lease property from them on the airport so that they could also be included in the analysis.

A 100 percent response rate was desired for the tenant survey; however, some tenants were unwilling to participate and others only provided portions of the requested information. Several rounds of follow-up telephone calls were made to non-responding tenants and to airport managers to obtain a 100 percent response rate for on-airport tenant employment. For tenants who did not supply complete information on payroll and output, estimates were

developed for each using ratios of payroll per employee and output per employee developed from those Maine tenants who did respond to the survey.

Each tenant was grouped by their North American Industry Classification System (NAICS) code based on the primary service or good they provide. This was done to facilitate subsequent IMPLAN modeling to estimate second-round impacts. The NAICS is a sector-specific list used to describe industry types. For this analysis, airlines, aircraft maintenance, FBOs, air cargo, and corporate flight departments were combined in the air transportation NAICS code. Construction impacts were divided among various construction-related NAICS codes. Concessions were distributed among retail, food and beverage, and auto rental NAICS codes.

Commercial Service Visitors

Airline flights to and from Maine's commercial service airports provide access for thousands of business and pleasure-related visitors. Visitors using commercial service airports as a gateway to the State contribute to the economy through their expenditures for food, lodging, entertainment, transportation, retail sales, and other goods and services. Numerous service industries also benefit from the multiplier effects stemming from visitor spending. The spending patterns of commercial service visitors to Maine were estimated based on the results of departing passenger surveys conducted at select commercial service airports.

During the passenger survey conducted in July 2006, departing passengers were interviewed prior to boarding and asked several questions. Departing passengers were first asked to indicate whether they were a resident of the airport area or a visitor. Those passengers who indicated that they were visitors to the area were then asked several questions to determine the following:

- The purpose of their trip to the airport area (business or personal)
- Duration of their stay in the area
- Total expenditures during their stay in each of the following categories: lodging, food and beverage, rental car/limo/taxi, entertainment, retail, and other
- The total number of people that accounted for the expenditure estimates that they identified

The number of leisure-related commercial service visitors to Maine rises dramatically in the summer months. This seasonality of air travel and spending patterns was taken into consideration in the methodology for estimating commercial service visitor impacts. Two separate impacts were developed- one for the three month "peak" summer period (June-August) and one for the other nine months (September-May). These two impacts were summed together to derive total commercial service visitor impacts.

The following methodology was used to estimate commercial service visitor impacts:

- Monthly enplanement data for 2005 was gathered from each of the commercial service airports. This data was broken down by the "peak" season and the "non-peak" season. The breakdown of local passengers to visitor passengers in the peak period was identified for each individual airport through the departing passenger survey process while the non-peak breakdown was determined using USDOT's O&D Survey data. These ratios were applied to the peak and non-peak enplanement data to determine the number of visitors using each of Maine's commercial airports.

- Using survey data for the peak period and industry standards for the non-peak period, visitors were separated into two separate categories, business-related visitors and leisure-related visitors.

- Average length of stay and average daily expenditures for business-related visitors and leisure related visitors to each of the airports were determined through the survey process. These estimates were applied to the estimate of the number of visitors to each airport to determine the total economic activity (or output) generated by commercial passenger visitors using each airport on an annual basis.

- In order to estimate the employment associated with commercial service visitor expenditures, Maine specific employment ratios per million dollars of visitor output were developed using the IMPLAN model. It was estimated that approximately 22 persons are employed in the Maine as result of every $1 million in commercial service visitor output (spending).

- In order to estimate the payroll impacts associated with employment generated by commercial service visitors, average State wages for appropriate industry sectors were applied to the estimated number of employees. Most visitor expenditures take place in the hotel/motel, food/beverage, entertainment, retail, and transportation sectors. Based on data obtained from the U.S. Bureau of Labor Statistics, an average payroll of $20,700 per employee in Maine was assumed for these job categories.

For example, Bangor International Airport reported a total of 241,900 enplanements during 2005. These enplanements were broken into peak season (84,100) and off-peak peason enplanements (157,800). It was determined that 67 percent of the peak sesason enplanements and 45 percent of the non-peak season enplanements were non-local travelers or visitors. Business-related visitors spent an estimated $141 per day during their trip while leisure visitors spent and estimated $56 per day. This information yields a total annual visitor expenditure estimate of $75 million. This expenditure is equated with output. IMPLAN indicates that for every $1 million of output in the hotel, food and beverage, retail, and entertainment industries, approximately 21.9 full time positions are created. Multiplying $75 million by 21.9 yields an estimated 1,639 visitor-related jobs associated with this airport. Since most of these visitor jobs are in the service and retail industries, multiplying the total number of visitor-related jobs by an average payroll of $20,700 produces a total annual payroll impact of approximately $33.9 million.

General Aviation Visitors

The economic activity generated by general aviation visitors at airports throughout the State was identified through a transient pilot survey effort. During on-site airport visits and Maine DOT meetings with airports, surveys were left with FBOs and airport management representatives at nearly all airports throughout Maine. It was requested that the surveys be distributed to transient pilots arriving at each airport. Visitors use general aviation aircraft to arrive at both commercial and general aviation airports in Maine. The survey requested information related to the following:

- Airport where the survey was received
- Number of travelers in the aircraft
- Type of aircraft operated by the pilot
- Purpose of the trip

- Length of stay in the airport area
- Estimated expenditures during trip

This survey effort, which lasted approximately three months, was used to estimate general aviation visitors and their associated economic activity. Estimates of transient aircraft operations were determined for each airport in the Maine system based on itinerant operations. Itinerant operations are defined as non-training flights that enter or leave an airport's airspace, whereas true transient flights are assumed to have departed from an non-local airport.

An example of how overall general aviation visitor impacts were calculated at study airports follows:

- The number of itinerant general aviation arrivals was estimated using data obtained from airport management estimates, tower counts, and data from the Maine Aviation Systems Plan completed in 2005. For example, if an airport estimates that it has 35,000 annual itinerant operations (including arrivals and departures), dividing 35,000 by two yields 17,500 annual itinerant arrivals.

- The number of itinerant arrivals performed by true transients is required to calculate visitor impacts. By definition, true transient operations are business or pleasure flights conducted by aircraft not based locally and are equated with that portion of each airport's general aviation activity that brings in visitors. It is estimated by Aircraft Owners and Pilots Association that 33 percent of itinerant arrivals at general aviation airports are typically true transients. These true transient flights are equated with either business or pleasure visitors. Therefore, approximately 33 percent of 17,500 itinerant arrivals equal 5,800 true transient arrivals.

- The findings from the transient pilot survey regarding average number of aircraft occupants and average trip length were then applied to estimates of true transient arrivals to determine total general aviation visitor days at each airport. The average trip length at airports across the State averaged 1.8 days based on the travel patterns identified through the transient pilot survey. It is important to note that while some visitors will stay for several days, many visitors using general aviation stay for only a few hours.

- For this example, the 5,800 true transient arrivals yields the following number of total visitor days:

  - *5,800 arrivals x 1.8 days x 2.5 persons/aircraft = 26,100 Total Visitor Days*

- To calculate the impact these visitors have on the economy, it is necessary to estimate average expenditures per visitor, per day. The typical visitor expenditure was then applied to the estimated number of visitor days to produce general aviation visitor expenditures (output). This expenditure figure is equated with visitor output.

  - *26,100 days x $192/person/day = $5,011,000 of visitor output at the example airport*

- To determine direct payroll and employment impacts linked to general aviation visitor spending, IMPLAN ratios based on $1 million of output were used for each industry

category. For example, ratios developed by the IMPLAN model indicate that for every $1 million of general aviation visitor output, approximately 22 full-time positions in service/retail industries are supported. Visitors using general aviation at this example airport would then support approximately 110 full-time positions. The average statewide salary for service/retail industries ($20,700) is then applied to the estimate of employment to determine annual payroll impacts associated with general aviation visitors. For this example, visitor-related payroll is equal to $2,277,000 (110 employees x $20,700).

Table 6 and **Table 7** present estimated general aviation visitor impacts for all of the study airports.

TABLE 6
2005 General Aviation Operations

	Total Operations	Itinerant Operations	Itinerant Arrivals	Estimated True Transient Arrivals
Commercial Service Airports	188,154	124,647	62,324	20,550
General Aviation Airports	415,135	183,776	91,888	30,320
TOTAL	**603,289**	**308,423**	**154,212**	**50,890**

Source: Wilbur Smith Associates

TABLE 7
2005 Estimated General Aviation Visitor Expenditures

	Estimated True Transient Arrivals	Annual Visitors	Total Annual Days Stayed	Annual Visitor Expenditures
Commercial Service Airports	20,550	51,390	92,490	$17,771,030
General Aviation Airports	30,340	75,940	136,620	$26,250,180
TOTAL	**50,890**	**127,330**	**229,110**	**$44,021,210**

Source: Wilbur Smith Associates

Non-Aviation Businesses

The economic impacts associated with aviation in Maine extend beyond on-airport tenants and commercial service and general aviation visitors. Many employees in Maine, and the companies that employ those employees, depend on the transportation efficiency provided by aviation in the movement of goods and persons. As a result, there is additional employment throughout the State that benefits from "value-added" impacts associated with air transportation. A separate survey was developed to gather data from employers throughout the State in order to identify this additional value-added employment. Surveys were sent to approximately 1,000 businesses and industries in Maine to collect the following types of data:

- Business location
- The general category of the business (manufacturing, services, retail trade, etc.)
- Total employment in Maine
- 2005 payroll and gross sales
- Employee utilization of commercial airline service
- Number of commercial airline trips by company employees
- Company ownership or charter of general aviation aircraft

- Client/customer use of commercial service and general aviation to visit their business
- Importance of various factors to the location of the business

It is important to note that the sample of businesses in this survey was targeted toward manufacturing and service companies that are considered likely to use aviation. The results of this survey effort will be discussed in a later section of this report.

Impact Multipliers

Employment, payroll, and output impacts derived from the on-airport tenant surveys and visitor surveys represent the first-round impacts identified in this study. As these first-round impacts are generated, they circulate among other sectors of the economy, creating successive waves of additional spending. This phenomenon is referred to as the multiplier effect. Multiplier effects are also referred to as *second round or induced* impacts by economists. Multiplier effects arise from various interdependencies within an economic system. For example, the operation of an airport requires inputs in the form of supplies, equipment, and maintenance. These inputs generate a boost in sales for those firms or businesses providing these products. Moreover, the goods and services themselves require inputs for their production. The process continues as a large number of impacts re-circulate through the economy. The total requirement for goods and services is a multiple of the initial needs of the airports in the study; hence they are referred to using the term "multiplier."

Multipliers for estimating second round impacts were derived from the IMPLAN model. The multipliers that were used in this analysis were developed specifically to measure economic impacts in Maine. Individual multipliers must be used for each sector of the economy being modeled. As previously mentioned, individual IMPLAN multipliers were obtained for various NAICS codes. The NAICS is a sector-specific list used to develop multipliers. Those NAICS codes used for modeling on-airport and visitor impacts in this study are depicted in **Table 8**.

TABLE 8
IMPLAN Multipliers

NAICS Industry Classification	Employment Multiplier	Payroll Multiplier	Output Multiplier
Government (Including Airport Owners) [1]	1.689	1.373	2.434
Construction C.I.P. [2]	1.614	1.582	1.693
Concessions [3]	1.273	1.501	1.654
Aviation Sector [4]	2.171	1.965	1.595
General Aviation Visitor Expenditures [5]	1.362	1.534	1.605
Commercial Service Visitor Expenditures [5]	1.397	1.544	1.608

Source: IMPLAN and Wilbur Smith Associates

Notes:
1. Government multipliers are the weighted average of the State and Local Government sectors.
2. Construction multipliers are the weighted average of the New Industrial & Commercial Construction, Maintenance and Repair, and Engineering and Architecture industries.
3. Concessions multipliers are the weighted average of the Food/Drink, Hotels/Motels, Miscellaneous Store Retailers, and Business Support Services.
4. Aviation related multipliers are the weighted average of the Air Transportation and Aircraft Maintenance and Manufacturing industries.
5. Visitor industries multipliers are the weighted average of the Hotel, Food/Drink, Retail and Automobile Rental Industries.

While these NAICS groups do not cover all on-airport tenant and visitor impact categories, they do provide a representative average for generating multipliers. For example, aviation business expenditures at the airports were grouped into air transportation and various types related to aerospace NAICS codes. Visitor expenditures were grouped into retail sales, auto rental, hotel/motel, and food/beverage NAICS codes.

The multipliers presented in Table 7 were used to estimate second-round impacts in this analysis. For example, $100 in direct expenditures (output) in the aviation sector supports a total output impact equivalent to $160. In this example, second round (induced) impacts would therefore be $60 ($160 minus $100).

The methodology discussed in this section was applied to each of the study airports. By following this methodology, estimates of annual employment, annual payroll, and annual output/spending associated with each airport was derived.

STATEWIDE ECONOMIC IMPACT OF AVIATION

An extensive network of public-use airports is available to accommodate Maine's air travel needs. These airports contribute jobs, payroll and output to the economy. Each system airport was surveyed to estimate expenditure and employment levels that affect the economy. Most of the airports have on-airport tenants that are engaged in aviation-related activity whose impacts were included in this analysis. Impacts from air traveler visitors using general aviation and commercial service aircraft were also assessed.

According to estimates derived from airport management surveys there were 950 based aircraft at the study airports. During 2005, it was estimated that there were over 710,000 aircraft operations at Maine's airports. In 2005, there were over one million enplanements at Maine's commercial service airports. Based upon industry averages and surveys of commercial service airports, it was estimated that there were nearly 517,000 visitors to the State in 2005 who used Maine's commercial service airports.

While many of the air traveler visitors to Maine use commercial service airports, a significant number of visitors arrive via private and business-owned general aviation aircraft. It is estimated that over 117,900 visitors (representing 212,100 visitor days) arrived via general aviation aircraft to all Maine airports, excluding Portland International Jetport[1]. These visitors create direct jobs and payroll in all sectors of the State's economy through their expenditures.

Employment Impacts

This study's findings indicate that airports in Maine are an important source of jobs. Employment, as defined in this analysis, is based on "Full-Time Equivalent" (FTE) estimates where two part-time jobs are generally assumed to equal one full-time job and seasonal positions are the equivalent of 0.33 jobs. Employment impacts are calculated for both on-

[1] Portland International Jetport's general aviation visitor impacts were calculated separately in conjunction with the airport's Economic Impact Study completed in October 2006.

airport tenants and visitors. Airport tenants include private businesses and government agencies.

Tenant Employment

Table 9 identifies the total number of jobs associated with on-airport aviation-related tenants at system airport. The first round or direct jobs comprise those people who are engaged in the provision of aviation-related services on an airport. In the case of on-airport aviation-related military units at public airports, the full and part-time military personnel and the military-related civilian employees were also included as part of this analysis. In addition, airport related construction workers were included in this analysis. In total, there were 3,327 direct jobs supported by the operation of Maine's airports in 2005. It is important to note that this employment estimate does not include additional jobs associated with non-aviation businesses which for various reasons may be located on an airport. For instance, some airports have on-site businesses that are not related to airport facilities or aviation in any way. Employment of non-aviation businesses is not included in this employment estimate.

Second round impacts are those jobs that are created by the multiplier effects stemming from the first round jobs associated with Maine's airport tenants. For example, an employee of a fuel distributor may owe a portion of his job to an airport since the distributor sells fuel to the airport's FBO. As a result of on-airport tenant activity, additional second round/multiplier employment is created. Second round impacts associated with the day-to-day operation of Maine's airports add 3,147 full-time positions. When first round and second round employment is considered, Maine's airport tenants and on-airport aviation related businesses support nearly 6,500 jobs. Of this total, 5,735 jobs are associated with the commercial service airports and 739 jobs are associated with the general aviation airports.

TABLE 9
On-Airport Tenant Employment

	First Round Employment	Second Round Employment	Total Employment
Commercial Service Airport Tenant Employment	2,936	2,799	5,735
General Aviation Airport Tenant Employment	391	348	739
TOTAL EMPLOYMENT	**3,327**	**3,147**	**6,474**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Commercial Service Visitor Employment

Visitors to the State arriving via commercial service airlines typically spend money, thereby helping to support additional employment. **Table 10** identifies the number of Maine employees supported by the spending of visitors arriving by commercial service airlines at the six commercial service airports. As previously discussed, it is possible to calculate the number of visitors and, subsequently, the number of jobs supported by these visitors. These first round or indirect jobs are attributed to a variety of sectors; however, the majority of

these jobs are in the hotel/motel, restaurant, recreational and entertainment, and retail sectors. As a result of commercial service visitor expenditures identified in this study, there were nearly 6,500 first-round full-time positions supported by commercial service visitor spending. Second round impacts include those jobs that exist due to the multiplier effect. Second round impacts resulted in over 6,600 additional full-time positions supported by the spending of commercial service visitors. When first round and second round visitor-related employment impacts are combined, approximately 13,100 jobs can be attributed to Maine's commercial service visitors.

TABLE 10
Commercial Service Visitor Employment

	First Round Employment	Second Round Employment	Total Employment
Commercial Service Visitor Employment	6,462	6,603	13,065

Source: Wilbur Smith Associates and IMPLAN Multipliers

General Aviation Visitor Employment

Similar to visitors using commercial airline service, intra- and inter-state visitors using general aviation aircraft typically spend money when visiting, thereby helping to support additional employment. **Table 11** identifies the number of Maine employees associated with visitors arriving by general aviation aircraft. As previously discussed, it is possible to calculate the number of general aviation visitors and, subsequently, the number of jobs supported by these visitors. These first round (indirect) jobs are attributed to a variety of sectors; however, the majority of these jobs are in the hotel/motel, restaurant, recreational and entertainment, and retail sectors. As a result of general aviation visitor expenditures, there are 966 first-round full-time positions supported in Maine.

Second round impacts include those jobs that exist due to continued circulation (multiplier impact) of general aviation visitor expenditures within Maine. Second round impacts result in over 400 additional full-time positions. When first round and second round general aviation visitor-related employment impacts are combined, 1,373 jobs can be attributed to visitors arriving in Maine via general aviation aircraft. Of this total, 580 jobs are associated with commercial service airports and 793 jobs are associated with general aviation airports.

TABLE 11
General Aviation Visitor Employment

	First Round Employment	Second Round Employment	Total Employment
Commercial Service Airport GA Visitor Related Employment	384	197	580
General Aviation Airport GA Visitor Related Employment	582	211	793
TOTAL EMPLOYMENT	**966**	**407**	**1,373**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Total Employment

Table 12 identifies the total number of employees whose jobs are related to activities at the airports in the State. As a result of on-airport tenants and visitors using commercial service and general aviation airports, there are 10,755 first round (direct and indirect) jobs related to Maine's system of airports. The multiplier effect (second round impact) added 10,158 additional jobs. In total, over 20,913 jobs are attributable to Maine's airports. Of this total, 19,381 jobs are associated with commercial service airports and 1,532 jobs are associated with general aviation airports.

TABLE 12
Total Employment

	First Round Employment	Second Round Employment	Total Employment
Commercial Service Airport Employment	9,782	9,599	19,381
General Aviation Airport Employment	973	559	1,532
TOTAL EMPLOYMENT	**10,755**	**10,158**	**20,913**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Payroll Impacts

Employment linked to, Maine's airports results in notable annual payroll being introduced in the State's economy. Payroll impacts related to the previously identified employment benefits were calculated for on-airport tenants, commercial service visitors, and general aviation visitors using the airports in Maine.

Tenant Payroll

Table 13 identifies the payroll associated with tenants/businesses at each of Maine's airports. In 2005, total first round statewide annual payroll impacts were nearly $121 million. This first round spending ripples throughout the economy creating second round payroll impacts that can be measured through the use of the IMPLAN model. The second round payroll impact related to tenants at Maine's airports estimated through the multipliers was nearly $101 million. Total payroll for airport tenants, which includes first round and second round annual payroll, was nearly $222 million. Of this total, nearly $201 million is attributable to commercial service airports. Tenant payroll associated with general aviation airports is nearly $21 million.

TABLE 13
On-Airport Tenant Payroll

	First Round Payroll	Second Round Payroll	Total Payroll
Commercial Service Airport Tenant Payroll	$108,266,300	$92,495,800	$200,762,100
General Aviation Airport Tenant Payroll	$12,332,300	$8,618,100	$20,950,400
TOTAL PAYROLL	**$120,598,600**	**$101,113,900**	**$221,712,500**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Commercial Service Visitor Related Payroll

Table 14 identifies the payroll attributable to spending by visitors using Maine's commercial service airports. First round payroll is money paid to employees working at the restaurants, hotels/motels, retail businesses, and other service industries that are patronized by commercial service visitors. The first round annual statewide payroll attributable to spending by commercial service visitors was estimated at over $128 million. Businesses that supply visitor-related industries owe a portion of their employees' payroll to the service industries. As employees in the service industries spend their payroll, the monies continue to circulate, generating additional employment and subsequent payroll. Second round annual payroll impacts associated with commercial service visitor-supported payroll were estimated at nearly $107 million. When first round and second round payroll impacts stemming from commercial service visitor spending are combined, a total annual payroll impact of over $235 million is produced.

TABLE 14
Annual Commercial Service Visitor Payroll

	First Round Payroll	Second Round Payroll	Total Payroll
Commercial Service Airport Visitor Payroll	**$128,472,500**	**$106,624,700**	**$235,097,200**

Source: Wilbur Smith Associates and IMPLAN Multipliers

General Aviation Visitor Related Payroll

Table 15 identifies the payroll attributable to visitors arriving at Maine's airports via general aviation (GA) aircraft. First round payroll includes salary paid to employees working at visitor-related businesses and other service industries that are utilized by general aviation visitors. The first round statewide annual payroll attributable to spending by general aviation visitors is estimated at nearly $20.0 million. As employees of the visitor-related industries spend their payroll, the monies continue to circulate generating additional employment and subsequent payroll. Second round annual payroll impacts associated with general aviation visitor spending is estimated at over $11.1 million. When first round and second round payroll impacts stemming from general aviation visitor spending are combined, a total payroll impact of $31.1 million is produced. Of this total general aviation visitor-related payroll, $12.6 million is associated with commercial service airports and nearly $18.5 million is associated with general aviation airports.

TABLE 15
Annual General Aviation Visitor Payroll

	First Round Payroll	Second Round Payroll	Total Payroll
Commercial Service Airport GA Visitor Payroll	$7,864,500	$4,714,400	$12,578,900
General Aviation Airport Visitor Payroll	$12,051,500	$6,434,300	$18,485,800
TOTAL PAYROLL	**$19,916,000**	**$11,148,700**	**$31,064,700**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Total Annual Payroll

The total impact of the combined on-airport tenant, commercial service visitor, and general aviation visitor-related payroll is identified in **Table 16**. When just first round impacts were combined, Maine's airport system is responsible for supporting nearly $269 million in annual payroll. With nearly $219 million in second round payroll benefits, a total of nearly $488 million in annual payroll was created in Maine as a result of visitor spending and tenants at general aviation and commercial service airports. Of this total, over $448 million in annual payroll is associated with commercial service airports and over $39 million in annual payroll is associated with general aviation airports.

TABLE 16
Total Payroll

	First Round Payroll	Second Round Payroll	Total Payroll
Commercial Service Airport Total Payroll	$244,603,300	$203,834,900	$448,438,200
General Aviation Airport Total Payroll	$24,383,800	$15,052,400	$39,436,200
TOTAL PAYROLL	**$268,987,100**	**$218,887,300**	**$487,874,400**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Output Impacts

Output or economic activity is defined as annual gross sales and average annual capital expenditures for on-airport tenants. One exception is government and airline tenants located on the airports. Government and airline output is defined as the sum of annual capital expenditures, payroll, and operating expenses. Output related to commercial service and general aviation visitors is defined as expenditures made during their visits. These visitor-related expenditures are typically in the hotel/motel, restaurant, transportation, and retail sectors. Output impacts for airport tenants and visitors are discussed below.

Tenant Output

Table 17 identifies the first round, second round and total tenant output for the State. As aviation-related businesses and government tenants located on each airport expend monies, these expenditures ripple throughout Maine's economy. For example if an airport FBO were to construct a hangar on an airport, a significant amount of money would be spent in the area's economy on construction materials, labor, and other services.

TABLE 17
On-Airport Tenant Output

	First Round Output	Second Round Output	Total Output
Commercial Service Airport Tenant Output	$348,148,800	$371,569,500	$719,718,300
General Aviation Airport Tenant Output	$35,919,700	$25,691,632	$61,611,000
TOTAL OUTPUT	**$384,068,500**	**$397,261,132**	**$781,329,300**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Total first round annual output by on-airport tenants is estimated at over $384 million. Second round tenant related output or spending impacts are estimated using the INPLAN multipliers. Second round output is estimated at over $397 million. When first round and second round impacts are combined, the total output for on-airport tenants at Maine's airports is estimated at over $781 million. Total output for commercial service airports is nearly $720 million and is $62 million for general aviation airports.

Commercial Service Visitor Related Output

Table 18 identifies the output attributable to visitors using Maine's commercial service airports. First round output is comparable to visitor expenditures. Total first round output from commercial service visitor spending is estimated at $329 million. As the service industries re-spend this first round output, monies continue to circulate resulting in second round impacts. These second round annual impacts related to visitor output or spending are estimated at approximately $323 million. The total output from commercial service visitors is over $651 million.

TABLE 18
Commercial Service Visitor Output

	First Round Output	Second Round Output	Total Output
Commercial Service Airport Visitor Output	**$328,583,100**	**$322,808,400**	**$651,391,500**

Source: Wilbur Smith Associates and IMPLAN Multipliers

General Aviation Visitor Related Output

Table 19 identifies the output attributable to general aviation visitors using Maine's airports. First round output is comparable to general aviation visitor expenditures. Total first round annual output from general aviation visitor spending is estimated at approximately $43.8 million. As the service industries re-spend this first round output, monies continue to circulate resulting in second round impacts. Second round impacts related to general aviation visitor output or spending is estimated at $28.1 million. The total annual output from spending by visitors arriving at Maine's airports by general aviation aircraft is nearly $72 million. General aviation visitor output at commercial service airports is $29.8 million. Annual general aviation visitor output at general aviation airports is $42.1 million.

TABLE 19
General Aviation Visitor Output

	First Round Output	Second Round Output	Total Output
Commercial Service Airport GA Visitor Output	$17,576,000	$12,237,500	$29,813,500
General Aviation Airport GA Visitor Output	$26,250,200	$15,891,100	$42,141,300
TOTAL OUTPUT	**$43,826,200**	**$28,128,600**	**$71,954,800**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Total Annual Output

The total combined annual economic impact of tenant, commercial service, and general aviation visitor output is identified in **Table 20**. Statewide first round total output is over $756 million. Second round impacts were estimated at nearly $748 million. The combination of first round and second round output impacts from tenants, visitors and the multiplier effect produced a statewide total annual output of over $1.5 billion. Of this total output, over $1.4 billion is attributable to commercial service airports. General aviation output is equal to nearly $104 million.

TABLE 20
Total Annual Output

	First Round Output	Second Round Output	Total Output
Commercial Service Airport Output	$694,307,900	$706,615,400	$1,400,923,300
General Aviation Airport Output	$62,169,900	$41,582,732	$103,752,300
TOTAL OUTPUT	**$756,478,000**	**$748,198,000**	**$1,504,676,000**

Source: Wilbur Smith Associates and IMPLAN Multipliers

Total statewide employment attributable to commercial service and general aviation airports in Maine is estimated at over 20,900 full-time positions; total annual payroll for these jobs is estimated at nearly $488 million. **Table 21** summarizes first and second round employment and payroll impacts identified in this study.

TABLE 21
Total Annual Employment and Payroll

	First Round Impacts	Second Round Impacts	Total Impacts
EMPLOYMENT			
Tenant Impacts	3,327	3,147	6,474
Commercial Service Visitor Impacts	6,462	6,603	13,065
General Aviation Visitor Impacts	966	407	1,373
TOTAL EMPLOYMENT	**10,755**	**10,158**	**20,913**
PAYROLL			
Tenant Impacts	$120,598,600	$101,113,900	$221,712,500
Commercial Service Visitor Impacts	$128,472,500	$106,624,700	$235,097,200
General Aviation Visitor Impacts	$19,916,000	$11,148,700	$31,064,700
TOTAL PAYROLL	**$268,987,100**	**$218,887,300**	**$487,874,400**

Source: Wilbur Smith Associates and IMPLAN Multipliers

QUALITATIVE AIRPORT BENEFITS

While previous sections of this study focused on the quantitative economic benefits resulting from airports in Maine, there are also a number of qualitative benefits that must be discussed when the total value of the airport system is presented. Qualitative benefits are those factors for which dollar values cannot be readily assigned. Qualitative benefits are those activities which take place at an airport on a regular basis that add to the quality of

life of residents in Maine. Qualitative benefits are generally considered benefits regarding health, welfare, or safety. While it is difficult to place a dollar value on such impacts, these benefits improve the quality of life of Maine's residents in a variety of ways. Among these benefits are activities such as medical flights, police patrol, forest fire fighting, pest control, traffic reporting, educational opportunities, high profile visitors and government official arrival, and recreational benefits.

A key focus of the airport management survey conducted in conjunction with this study was to identify specific examples of qualitative benefits associated with each Maine airport. While the demographics of individual market areas and available facilities greatly influence each airport's ability to support these benefits, each airport provides some level of qualitative benefits. **Table 22** presents the specific qualitative benefits identified for each airport. While this matrix is not all encompassing, it does provide an important overview of the diversity of benefits that airports support, beyond the creation of jobs, payroll, and output.

TABLE 22
Qualitative Activity and Benefits of Maine Airports

City	Airport Name	Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections (pipeline, etc.)	Air cargo	Flight training	Gateway for recreational visitors	Location of community facilities	Police/law enforcement	Prisoner transport	Military exercises/training	Career/vocational training	Search & rescue/Civil Air Patrol	Environmental patrol (i.e. wildlife)	Emergency medical evacuation	Medical shipments/patient trans	Forest firefighting	Aerial photography/surveying	Real estate tours	Aerial advertising/banner towing	Air shows	Skydiving, parachuting, other
COMMERCIAL SERVICE AIRPORTS																							
Augusta	Augusta State	H	*	H	*	*	H	H	*	*	*	L	*	M	*	*	*	*	L	*	*	*	*
Bangor	Bangor International	H	L	H	L	M	M	H	L	H	L	H	L	M	L	L	M	L	L	L	L	L	*
Bar Harbor	Hancock County-Bar Harbor	H	L	H	L	M	L	H	L	L	L	M	L	M	L	L	L	L	L	L	L	L	L
Portland	Portland International Jetport	H	L	H	L	H	H	H	H	H	H	H	H	L	L	L	H	M	M	H	H	L	L
Presque Isle	Northern Maine Regional	H	H	H	M	H	L	H	L	L	M	M	L	M	L	H	H	M	M	L	L	L	L
Rockland	Knox County Regional	H	*	H	L	H	M	H	M	M	L	L	L	L	L	M	M	*	M	M	M	M	*
GENERAL AVIATION AIRPORTS																							
Auburn	Auburn/Lewiston Municipal	H	L	H	H	H	H	H	M	L	L	L	L	L	M	L	L	L	L	M	L	L	*
Belfast	Belfast Municipal	H	*	H	L	L	H	H	M	L	*	L	M	*	*	M	M	*	H	M	*	L	*
Bethel	Bethel Regional	M	L	L	L	L	M	H	M	*	*	*	*	M	L	M	*	M	M	L	L	M	*
Biddeford	Biddeford Municipal	H	L	M	L	L	H	M	L	L	L	M	L	L	L	M	L	M	H	L	H	L	*
Carabasset	Sugarloaf Regional	M	*	L	*	*	*	M	L	L	*	*	*	L	*	L	*	L	*	L	*	*	*
Caribou	Caribou Municipal	H	*	L	*	*	L	*	L	L	*	*	*	M	*	H	H	L	L	*	*	L	*
Deblois	Deblois Flight Strip	L	H	L	*	*	H	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Dexter	Dexter Regional	H	*	M	*	*	L	H	L	L	*	M	*	*	M	L	*	*	*	L	*	*	*
Dover-Foxcroft	Charles A. Chase Jr. Memorial Field	M	L	L	L	L	L	M	L	M	L	L	L	M	*	L	L	M	L	L	*	L	*
Eastport	Eastport Municipal	M	L	M	L	L	L	H	L	L	L	L	L	L	L	L	L	L	L	M	L	L	*
Frenchville	Northern Aroostook Regional	M	L	M	L	L	M	L	L	M	*	*	L	*	M	L	L	L	M	M	*	*	*
Fryeburg	Eastern Slopes Regional	H	L	M	*	*	M	H	L	L	*	*	L	L	*	L	L	M	L	L	*	L	*
Greenville	Greenville Municipal	H	L	M	H	L	L	H	L	*	*	L	L	M	H	M	L	M	M	L	*	*	*
Houlton	Houlton International	H	L	M	L	L	M	M	L	M	L	L	L	L	L	M	M	L	L	L	L	L	*
Islesboro	Islesboro	M	*	L	*	M	L	M	*	L	*	*	L	*	*	L	*	*	L	L	*	*	*
Jackman	Newton Field	M	*	L	M	L	L	M	L	L	*	L	*	M	M	M	L	M	L	*	*	*	*
Lincoln	Lincoln Regional	H	L	M	L	L	L	M	L	L	L	M	L	L	L	M	M	M	L	L	L	L	*
Lubec	Lubec Municipal	L	M	L	L	L	L	M	L	L	L	L	L	L	L	L	M	L	M	M	L	L	*

TABLE 22 continued
Qualitative Activity and Benefits of Maine Airports

City	Airport Name	Recreational flying	Agricultural spraying	Corporate/business activity	Aerial inspections (pipeline, etc.)	Air cargo	Flight training	Gateway for recreational visitors	Location of community facilities	Police/law enforcement	Prisoner transport	Military exercises/training	Career/vocational training	Search & rescue/Civil Air Patrol	Environmental patrol (i.e. wildlife)	Emergency medical evacuation	Medical shipments/patient trans	Forest firefighting	Aerial photography/surveying	Real estate tours	Aerial advertising/banner towing	Air shows	Skydiving, parachuting, other
Machias	Machias Valley	M	M	M	L	L	L	M	L	*	*	L	*	L	L	M	L	L	M	L	L	*	*
Millinocket	Millinocket Municipal	H	L	M	L	L	L	M	L	L	L	M	L	L	L	L	L	L	L	L	L	L	H
Norridgewock	Central Maine Regional	H	L	M	L	L	M	M	M	M	M	L	L	L	L	M	M	L	H	L	L	M	*
Old Town	Dewitt Field/Old Town Municipal	H	H	H	L	L	M	L	L	L	L	M	M	L	L	L	L	H	H	L	L	L	*
Oxford	Oxford County Regional	H	L	H	M	L	L	M	L	L	L	M	L	L	L	M	M	L	M	L	L	L	L
Pittsfield	Pittsfield Municipal	H	L	H	L	M	M	L	L	L	*	M	M	L	L	L	L	*	M	M	L	L	H
Princeton	Princeton Municipal	M	H	M	L	L	L	L	L	L	*	L	L	L	L	M	L	L	M	L	*	*	*
Rangeley	Rangeley Municipal	M	L	L	M	L	L	H	L	*	*	L	*	H	M	M	M	H	L	M	L	*	*
Sanford	Sanford Regional	H	L	M	M	L	H	H	L	L	L	L	L	L	L	L	L	L	M	L	L	M	*
Stonington	Stonington Municipal	M	*	*	L	*	L	*	*	*	*	*	*	*	*	*	L	*	*	*	*	*	*
Waterville	Waterville Robert LaFleur	H	L	H	*	M	M	H	L	L	*	*	*	L	L	L	M	*	*	L	L	*	*
Wiscasset	Wiscasset	H	L	M	M	L	H	H	L	L	L	L	M	L	L	M	L	L	M	L	L	L	*

Source: Airport Inventory Form

Legend
High Frequency of Activity = H Medium Frequency of Activity = M Low Frequency of Activity = L No Known Activity = *

As noted in Table 22, almost all of the system airports provide recreational benefits. In this regard, the airports can be thought of as additional park land around the State. This particular benefit is especially important in the more densely developed and urbanized areas of the State where the airport's low-density development helps to contribute to the preservation of open areas and green space.

Information supplied by the airports themselves has highlighted some of the more notable examples of the qualitative benefits supported by Maine's airport system. Numerous life-saving emergency medical evacuation operations occur at airports throughout the State. LifeFlight of Maine has airport-based operations at Bangor International and Auburn-Lewiston Municipal airports. Recognizing the important role that LifeFlight plays in Maine, in 2003, a $900,000 State transportation bond was issued to the LifeFlight Foundation to improve aviation infrastructure in the State. Improvements to Maine's remote airports included weather reporting, a wider availability of jet fuel, and new published approaches.

The Maine Air National Guard shares "joint use" facilities at Bangor International Airport. The 314-acre property is owned by the City of Bangor and used as an aircraft fueling and maintenance facility by the 101st Air Refueling Wing. The Air National Guard station employees 450 full-time personnel and an additional 1,100 reservists that report to the air station on weekends. The economic benefit associated with this station is included in Bangor's estimated economic impact.

Numerous airports throughout the State hold fly-ins, air shows and provide tours of the airports to the local communities. These events bring in thousands of visitors each year. One of the largest seaplane fly-ins, the International Seaplane Fly-in is held in Greenville each year. **Table 23** presents the annual events held at airports throughout the State.

TABLE 23
Airport Sponsored Community Events

Airport	Event	Date	Est. Number of Attendees
Auburn/Lewiston Municipal	Great Falls Hot Air Balloon Festival	August	100,000
Belfast Municipal	Fly-In	Varies	500
Biddeford Municipal	Air Show	August	500
Caribou Municipal	Fly-In	2nd wknd July	100
Central Maine Regional	Central Maine Fly-In	1st wknd August	1,000
Charles A. Chase Jr. Memorial Field	Dover-Foxcroft Homecoming	August	60
Dewitt Field/Old Town Municipal	Fly-In	July	100
Eastern Slopes Regional	Airport Day	Varies	300
Eastport Municipal	Eastport Fly-in Blueberry Pancake Breakfast	July 4th wknd	1,000
Greenville Municipal	International Seaplane Fly-in	September	5,000
Hancock County-Bar Harbor	Breakfast & Fly-In	June	1,200
Knox County Regional	Auto and Antique Airplane Show (at Museum)	Summer wknds	Unknown
Newton Field	Sunday Fly-in Breakfast	Summer Sundays	Unknown
Northern Aroostook Regional	Open House	Varies	250
Sanford Regional	Airport Open House, Air Show & Car Show	Early Summer	1,500
Sanford Regional	Maine Model Jet Rally	September	Unknown
Sanford Regional	Red Star Fly-in	September	Unknown
Sugarloaf Regional	Fly-in during Summer Festival	June	Unknown
Stonington Municipal	Sightseeing Rides during Island Festival	July	Unknown
Wiscasset	Airport Open House	June	500

Aviation in Maine also supports the 116 youth camps located around the State. Kids and camp counselors fly into Maine from all over the world to attend the camps each summer. In addition to people arriving via commercial airline service, several of Maine's general aviation airports, including Waterville, Wiscasset, Pittsfield, and Greenville, also see an influx of children arriving and departing via general aviation aircraft in the summer months to attend camp.

What is most notable is no matter how large or small the contributions, all airports contribute in some way to the quality of life of Maine residents.

BUSINESS USE OF MAINE AIRPORTS

Many employers in Maine that are not directly located on an airport benefit from the State's system of airports. Without the availability of the airport system, employment levels for many businesses in Maine could be adversely impacted. Because of the efficiencies gained through the use of aviation, many businesses receive a "value-added" employment benefit. This section identifies the additional value-added benefit that Maine employers derive from the day-to-day operation of Maine's airport system.
More than 1,000 businesses throughout Maine were surveyed to assess their dependence on aviation; 195 surveys were completed and returned for a response rate of 19 percent.

Several questions in the survey were oriented toward business use of the State's airports. The survey sought information on topics such as reliance on general aviation, use of commercial service airports, use of air express/cargo services, and requirements for company-owned general aviation aircraft. While the survey sampled all types of businesses, it targeted businesses that have a propensity to use commercial service and general aviation.

The size of the responding companies ranged from 1 to 5,500 employees, with the average size being 107 full-time employees and 21 part-time employees. The average annual gross sales volume of the responding companies was $16.9 million. The average annual payroll for the responding businesses was $3.5 million.

There are many Maine businesses that depend on the airports on a day-to-day basis. Without access to general aviation and commercial service airports, there are companies that would be forced to cut employment or possibly even to relocate outside of Maine. Key information gathered from this non-aviation business survey is summarized here.

Nearly 74 percent of the respondents indicated they use scheduled commercial service airlines in conducting business. On average, each respondent's employees took 69 airline trips per year. Top destinations identified by the respondents include Washington D.C., New York City, Mobile, Norfolk, Kansas City, Chicago, Boston, and Indianapolis. Approximately 59 percent of the respondents indicated that they have customers or suppliers who travel by scheduled airline service to visit them in Maine. Top originations of respondents' customers and suppliers include Chicago, New York, Boston, Atlanta, and Philadelphia.

Survey respondents note more limited reliance on general aviation. Nearly 24 percent of respondents note that Maine based employees take at least one general aviation trip per year. Approximately 15 percent of all the survey respondents indicate that their company actually owns, leases, charters, or has fraction ownership in general aviation aircraft. The average number of general aviation trips for each responding business is 5.5 per year.

The survey also estimated aviation-related business dependence. Each business was asked to provide information regarding its reliance on general aviation and commercial air service. Nearly 63 percent of the survey respondents noted that their business would not be as successful without the availability of commercial airline service and 26 percent noted at least some portion of their business activity depends on general aviation.

The final section of the business survey questioned respondents on importance of various factors that they would consider if they are contemplating relocating or expanding. When the scores were averaged, the key factors in order of importance that are considered by Maine companies when relocating or expanding are as follows:

- Available labor supply
- Convenient highway access
- Tax incentives
- Commercial service airport
- Proximity to suppliers
- Academic or cultural centers
- University/research & development centers
- An urban business district
- General aviation airport
- Historic location
- Rail access
- Waterway access

Approximately 40 percent of all businesses indicated that a commercial service airport was "Essential" or "Important" to their locational decision. This compares to 17 percent of the respondents that considered a general aviation airport as "Essential" or "Important" to their location.

Other results of the business survey may be summarized as follows:

- Over 25 percent of the respondents classified their business as manufacturing; professional and support services employers accounted for approximately 16 percent of the returned surveys.
- Approximately 83 percent of the manufacturing sector respondents indicated they use commercial airline service related to their routine business functions. The manufacturing sector represents 11 percent of Maine's 2005 Gross State Product (GSP); manufacturing accounts for $38 billion in annual output in Maine.
- Approximately 23 percent of the manufacturing sector respondents indicated they use general aviation aircraft related to their business activities by owning, leasing, fractional ownership, or chartering.
- Over 79 percent of the responding manufacturing sector businesses indicated that they have customers or suppliers who rely on scheduled airline service when conducting business in Maine with their company.
- Approximately 65 percent of the respondents indicated they use air cargo/package express on a regular basis. Approximately 73 percent of the respondents in the manufacturing sector indicated they use air cargo/package express on a regular basis.
- Over 25 percent of respondents indicated they use commercial service airlines for international travel.

Business survey respondents also noted a variety of ways that airports in Maine benefit their businesses. Comments provided by respondents are found in **Appendix B**.

ECONOMIC IMPACTS BY AIRPORT

The preceding economic impact analysis summarizes the significant contribution that Maine's system of airports makes to the State's economy. As shown by this analysis, airports help to create an estimated 20,913 jobs in Maine. These jobs have a total annual estimated payroll of $487.9 million. Total annual economic activity associated with Maine's 36 commercial and general aviation airport's is estimated at $1.5 billion. This study's non-aviation business survey also indicated that businesses rely heavily on the availability of commercial service and general aviation airports in Maine. **Table 24** presents the individual impact associated with each system airport. When reviewing the information presented in Table 24 it is important to remember that these impacts represent both first round (direct tenant and indirect visitor) and second round (indirect impacts estimated through multipliers) impacts. A more detailed description of each airport's economic impact and value can be found in **Appendix C**.

TABLE 24
Economic Impact by Maine Airport

Associated City	Airport Name	Total Employment*	Total Payroll	Total Output
COMMERCIAL SERVICE AIRPORTS				
Augusta	Augusta State	218	$5,949,300	$16,719,800
Bangor	Bangor International	5,091	$136,034,200	$440,819,900
Bar Harbor	Hancock County-Bar Harbor	435	$11,088,100	$30,388,800
Portland	Portland International Jetport	12,907	$275,394,000	$864,965,100
Presque Isle	Northern Maine Regional	368	$10,732,700	$22,445,300
Rockland	Knox County Regional	362	$9,239,900	$25,584,400
COMMERCIAL SERVICE AIRPORTS TOTAL		**19,381**	**$448,438,200**	**$1,400,923,000**
GENERAL AVIATION AIRPORTS				
Auburn	Auburn/Lewiston Municipal	311	$8,152,500	$24,627,700
Belfast	Belfast Municipal	62	$1,642,300	$3,900,900
Bethel	Bethel Regional	11	$270,200	$807,600
Biddeford	Biddeford Municipal	54	$1,313,900	$3,623,500
Carabassett	Sugarloaf Regional	11	$279,500	$629,300
Caribou	Caribou Municipal	18	$674,100	$2,792,900
Deblois	Deblois Flight Strip	1	$25,500	$52,100
Dexter	Dexter Regional	16	$378,000	$845,800
Dover-Foxcroft	Chas. A. Chase Jr. Memorial Field	1	$31,900	$77,900
Eastport	Eastport Municipal	17	$444,500	$995,700
Frenchville	Northern Aroostook Regional	23	$723,000	$1,956,700
Fryeburg	Eastern Slopes Regional	74	$1,770,400	$4,397,700
Greenville	Greenville Municipal	51	$1,520,600	$3,559,600
Houlton	Houlton International	42	$1,052,500	$2,545,300
Islesboro	Islesboro	4	$111,300	$174,800
Jackman	Newton Field	19	$606,100	$1,416,300
Lincoln	Lincoln Regional	73	$1,777,300	$4,667,000
Lubec	Lubec Municipal	2	$38,200	$80,700
Machias	Machias Valley	11	$298,500	$670,800
Millinocket	Millinocket Municipal	14	$325,600	$925,500
Norridgewock	Central Maine Regional	50	$1,464,600	$3,414,600
Old Town	Dewitt Field/Old Town Municipal	53	$1,652,900	$4,455,100
Oxford	Oxford County Regional	120	$2,526,700	$7,953,300
Pittsfield	Pittsfield Municipal	76	$1,925,500	$4,875,500
Princeton	Princeton Municipal	17	$450,900	$1,011,900
Rangeley	Rangeley Municipal	26	$594,200	$1,684,900
Sanford	Sanford Regional	294	$7,308,000	$16,167,700
Stonington	Stonington Municipal	9	$219,200	$507,100
Waterville	Waterville Rober LaFleur	39	$1,101,700	$2,875,700
Wiscasset	Wiscasset	31	$756,600	$2,058,700
GENERAL AVIATION AIRPORTS TOTAL		**1,532**	**$39,436,200**	**$103,752,300**
TOTALS		**20,913**	**$487,874,400**	**$1,504,675,600**

Sources: Wilbur Smith Associates, IMPLAN Multipliers, Portland International JetPort Master Plan
Note: *Full-time equivalent

Appendix A

Private Airport Locations

Maine Aviation Systems Plan, completed in 2005, indicated that there are 12 privately owned airports, which are open to the public located throughout the State of Maine with a significant number of based aircraft and annual operations. About a third of these facilities offer aviation services such as fuel and light aircraft repair. Maine Aviation Systems Plan data indicates there are approximately 200 based aircraft located at these private airports and an estimated 102,000 annual aircraft operations take place at these private airports. These airports include:

Airport	City
Blue Hill	Blue Hill
Bowman Field	Livermore Falls
Brewer	Brewer
Gillespie Field	Meddybemps
Limington-Harmon	Limington
Littlebrook Airpark	Eliot
Merrymeeting Field	Bowdoinham
Cove Landing Field	Naples
Ring Hill	Carmel
Swans Field	Dixfield
Twitchell	Turner
Wales	Wales

Economic Impact

Economic impacts at a private airport are measured through employment, payroll, and output (spending). Private airport business and government activities (direct impacts) account for a significant portion of a private airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's private airports (indirect impacts). Spending by these visitors supports additional employment and associated annual payroll. These first round impacts create additional spin-off benefits that ripple through the economy. These second-round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first-round and second-round benefits equal the total economic impact associated with each airport.

First Round Impact

The first round economic impact related to private airports were derived from averages developed in the economic impact model of Maine's system of airports. Applying average impacts based on the number of based aircraft and total annual operations at the airports provides an estimate of the economic activity associated with private airport activity. In addition, total private airport businesses and visitor impacts have been combined. For 2005, the total combined first round output stemming from all private airport tenants and visitors was approximately $3.5 million. Total first round full-time employment related to private airport businesses and visitors is estimated at 55 persons with a total first round payroll of approximately $1.4 million annually. These employees include pilots, mechanics, and FBO employees.

Second Round Impact

The first round impacts associated with private airport related businesses and visitors also create second-round impacts throughout the State. Second-round impacts are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second-round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

For 2005, the total output (including first round and second-round impacts) stemming from all private airports and related visitors is approximately $5.8 million. Total full-time employment related to private airports and related visitors, including all secondary impacts, is estimated at approximately 86 persons, with a total annual payroll (first round and second round) of approximately $2.2 million associated with these jobs.

Private Airport Uses

In addition to the economic benefits described above, these private airports provide various services to the local community. These airports typically serve as a base for local recreational pilots. However, these airport also support flight instruction, agricultural spraying, and air ambulance activity. These airports also are used for corporate aviation, air cargo, aerial photography and real estate tours. These airports are also a gateway for resort visitors.

Several private airports, including Bowman Field in Livermore and Twitchell Airport in Turner sponsor annual fly-ins which invite the community to visit the airports and encourage pilots from all over the region to fly to the airports.

Summary

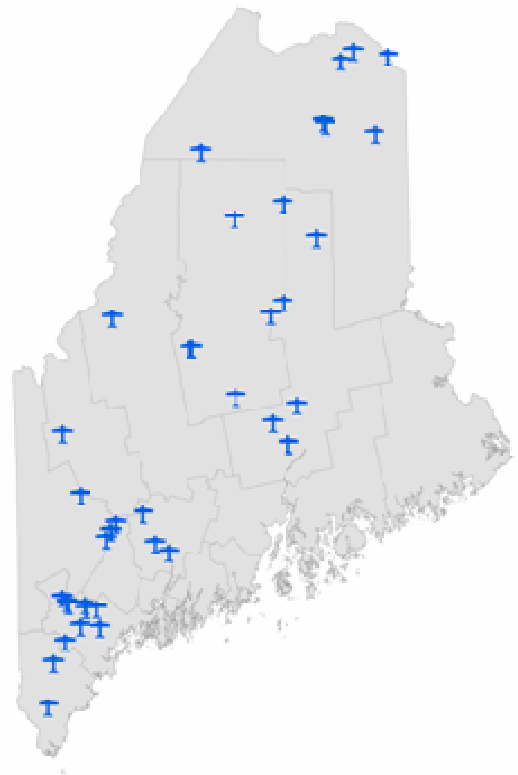
On an annual basis, Maine's private airports in aggregate provide the following total benefits:

TOTAL PRIVATE AIRPORTS			
EMPLOYMENT			
	First Round	Second Round	Total
Total	55	31	86
PAYROLL			
	First Round	Second Round	Total
Total	$1,369,900	$845,700	$2,215,600
OUTPUT			
	First Round	Second Round	Total
Total	$3,492,800	$2,336,200	$5,829,000

Source: Wilbur Smith Associates & IMPLAN multipliers

Seaplane Base Locations

FAA records indicate there are 39 seaplane bases located on bodies of water throughout the State of Maine. About half of these facilities offer aviation services such as fuel and light aircraft repair. As the map below illustrates, seaplane bases are located in lakes and rivers throughout the State and provide access to remote portions of the western mountain region. FAA data indicates there are 69 based aircraft located at Maine's seaplane bases and an estimated 33,800 aircraft operations annually take place at seaplane bases throughout the State.



Economic Impact

Economic impacts at a seaplane base are measured through employment, payroll, and output (spending). Seaplane base business and government activities (direct impacts) account for a significant portion of a seaplane base's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's seaplane bases (indirect impacts). Spending by these visitors supports additional employment and associated annual payroll. These first round impacts create additional spin-off benefits that ripple through the economy. These second-round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first-round and second-round benefits equal the total economic impact associated with each airport.

First Round Impact

The first round economic impact related to the 39 seaplane bases were derived from averages developed in the economic impact model of Maine's system of airports. Applying average impacts based on the number of based aircraft and total annual operations at the bases provides an estimate of the economic activity associated with seaplane activity. In addition, total seaplane base businesses and visitor impacts have been combined. For 2005, the total combined first round output stemming from all seaplane base tenants and visitors was approximately $5.3 million. Total first round full-time employment related to seaplane base businesses and visitors is estimated at 84 persons with a total first round payroll of approximately $2.1 million annually. These employees include pilots, mechanics, and sporting camp employees.

Second Round Impact

The first round impacts associated with seaplane related businesses and visitors which utilize seaplanes also create second-round impacts throughout the State. Second-round impacts are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second-round, and total impacts for output, payroll, and employment as they relate to seaplane businesses and visitors.

Total Impact

For 2005, the total output (including first round and secondary impacts) stemming from all

seaplane bases and related visitors is approximately $8.9 million. Total full-time employment related to seaplane bases and related visitors, including all secondary impacts, is estimated at approximately 132 persons, with a total annual payroll (first round and second round) of approximately $3.4 million associated with these jobs.

Seaplane Base Uses

In addition to the economic benefits described above, seaplane bases in Maine provide several services to the community.

Seaplanes and seaplane base facilities provide access to remote parts of the State for fisherman, hunters, kayakers, canoeists, photographers, hikers and eco-tourists. A system of backcountry lodges, cabins, campgrounds and sporting camps are made more easily accessible via seaplane activity and seaplane bases. The Maine Sporting Camp Association has 62 member sport camps located in central, western, and northern Maine. Many of these camps utilize seaplanes for transporting guests to and from their north woods lodge as well as accessing remote fishing spots and hunting areas.

The Seaplane Pilots Association indicates there are seven Maine based flight instruction businesses that offer seaplane flight instruction. In addition, The New England Air Safety Association sponsors the Annual Maine Seaplane Safety Expo at Naples private airport in Naples, Maine. This day-long event features safety seminars, vendors and manufacturers. Greenville, located at the southern tip of Moosehead Lake, serves as base of operations for many guide services, outfitters, canoe renters and rafting adventurers. It's also the largest seaplane base in New England, with hundreds of seaplanes buzzing into Greenville for the annual International Seaplane Fly-in Weekend in September. Its purpose is to promote camaraderie among seaplane pilots, as well as hold recreational and competitive events.

During the summer of 2004, the Maine Department of Environmental Protection (DEP) utilized a seaplane to conduct weekly aerial monitoring of Gulf Island Pond and the Androscoggin River.

Summary

On an annual basis, Maine's seaplane bases in aggregate provide the following total benefits:

TOTAL MAINE SEAPLANE BASES			
EMPLOYMENT			
	First Round	Second Round	Total
Total	84	48	132
PAYROLL			
	First Round	Second Round	Total
Total	$2,102,300	$1,297,800	$3,400,100
OUTPUT			
	First Round	Second Round	Total
Total	$5,360,200	$3,585,100	$8,945,300

Source: Wilbur Smith Associates & IMPLAN multipliers

Appendix B

Businesses throughout Maine were sent a survey inquiring on their use of aviation in their day-to-day business activity. Below are some of the comments received by the respondents and their associated industries and products.

Business Product	Sector	Comments
Crabmeat Production	Manufacturing	[We use overnight express for] perishable product transport.
Wholesale Footwear	Wholesale trade	Airports allow us access to supplies, customers & trade shows.
Credit Union	Finance & insurance	Airports are a crucial part of transportation infrastructure and should have the same [funding] consideration as highways.
Contract Manufacturing	Manufacturing	Airports are important by making air freight (FedEx UPS etc) possible.
Hospital	Health Care	Airports provide emergency preparedness and management.
NA	Wholesale trade	Aviation allows ease of traveling to conventions sites and business supplier meetings.
Gen. Contractors - Commercial Buildings	Professional, scientific & technical services	Aviation shortens lost time on driving on the highway and attracts businesses to Maine.
Retail Discount Stores	Retail Trade	General aviation allows for immediate response to travel needs and often times allows flying to an airport closer to actual destination
Logging	Forestry, agriculture support	General aviation and commercial aviation is important to land owners we work for. Owners live out of state and without air transport would not be interested in owning land here.
NA	NA	I own two aircraft and use one of them about two times a year for business travel.
Property & Casualty Insurance	Finance & insurance	Our local airport is very important to our business since most of our business is in Southern Maine, New Hampshire, Vermont and Pennsylvania. It is very important that our business partners have access to us through commercial flights.
NA	Wholesale trade	Our primary use of GA has been to get mission critical parts for our boom trucks from a facility based at an airport in Massachusetts.
Mfg	Manufacturing	Overnight delivery services are critical to our business. Having various shipping options are very important to us as a manufacturer both for shipping raw materials in and finished goods out
Mfg & Sales of supplies for xmas tree industry	Manufacturing	The use of our leased aircraft allows us to easily travel to our facility in St. Francis where we have a private airstrip.
Timberland & forest products	Manufacturing	We extensively use airports for aerial photography.
Boat Building	Manufacturing	We travel by car a lot to service out boats and to meet w/ customers and envision using general aviation, in the future, for all of this travel to save travel time and enable us to provide better service to our customers

Source: Wilbur Smith Associates

Appendix C

Airport Location and Environs

Augusta State Airport is located less than a mile from the center of Augusta, Maine, in Kennebec County. Augusta is Maine's capital city where entrepreneurs start, grow, and maintain a variety of businesses. Citizens pursue life-long learning in first-rate schools, libraries, historic, and cultural facilities. Residents, workers, and tourists circulate around and enjoy the Heart of Augusta - on both sides of the Kennebec River, along Water Street, and throughout the Capitol complex. Augusta has a population of 18,560. Major employers in the area include Central Maine Power Co., Maine General Medical Center Hospitals, the State of Maine, and SCI Systems, Inc.

The 350-acre airport's primary runway, Runway 17/35, measures 5,001 feet in length and 150 feet in width. The airport with 46 based aircraft, experiences approximately 30,000 aircraft operations annually. Scheduled passenger service to and from Boston is provided by US Airways Express, operated by Colgan Air.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

In 2005, there were 11 aviation-related tenants on the airport who supported 57 employees. These tenants' first round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $5.6 million annually. The estimated direct annual payroll of these tenants is $2.1 million. Visitors using commercial airlines also create economic impacts. Survey data indicated that approximately 8,100 visitors arrived via Augusta State Airport in 2005. Commercial airline visitor-related output (spending) supported an additional 42 full-time jobs for employees earning $869,400 annually. Output from commercial airline visitors is estimated at $1.9 million. Operational data indicated that approximately 5,050 general aviation visitors used the airport in 2005. This visitor-related output (spending) supported an additional 39 full-time jobs with a total annual payroll of $807,300. Output from general aviation visitors is estimated at $1.7 million.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create

Second-round impacts throughout the State. Second-round impact are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the 2005 first round, Second-round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

For 2005, the total output (including first round and secondary impacts) stemming from all on-airport tenants and all commercial airline and general aviation visitors to Augusta State Airport was approximately $16.7 million. Total full-time employment related to airport tenants and general aviation visitors, including all secondary impacts, is estimated at approximately 218 persons, with a total annual payroll (first round and secondary) of approximately $5.9 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Augusta State Airport provides several services to the local community. Aviation activities that take place at the airport on a regular basis include recreational flying, corporate use, flight instruction, as well as acting as a gateway for resort visitors. The airport is also utilized occasionally by the military, law enforcement agencies and for environmental research. The Maine Wing Civil Air Patrol is also based at the airport and supports statewide search and rescue missions.

Transient pilot survey data indicates the airport was utilized by businesses from nearby New England and MidAtlantic states. While most recreational pilots traveled from nearby New England and MidAtlantic states data also indicates they traveled from as far away as North Carolina and Florida.

FAA data indicates Bristol-Myers Squibb Co., Conagra Foods Inc., Corning Inc., General Electric Co., Georgia Pacific Corp., and International Paper Co. utilized the airport in 2006.

Summary

On an annual basis, Augusta State Airport currently provides the following total benefits:

AUGUSTA STATE AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	57	50	107
GA Visitors	39	14	53
CS Visitors	42	17	59
Total	13	81	**218**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$2,143,200	$1,225,300	$3,368,500
GA Visitors	$807,300	$431,000	$1,238,300
CS Visitors	$869,400	$473,100	$1,342,500
Total	$3,819,900	$2,129,400	**$5,949,300**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$5,553,200	$5,268,900	$10,822,100
GA Visitors	$1,746,600	$1,057,300	$2,803,900
CS Visitors	$1,924,500	$1,169,300	$3,093,800
Total	$9,224,300	$7,495,500	**$16,719,800**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA=General Aviation
CS=Commercial Service

Airport Location and Environs

Bangor International Airport is located two miles from the center of Bangor, Maine, in Penobscot County. The Bangor Region is surrounded by extraordinary natural scenery that includes ocean coastlines, majestic mountains, mighty rivers, serene lakes, and access to some of the best fall foliage anywhere. The unique spirit of the Bangor Region is evident in its charming shops, delicious dining, and world class performing arts Bangor Metro Area has a population of 147,068. Major employers in the area include: Eastern Maine Medical Center, Bangor Mall, University of Maine, Bangor Savings Bank, General Electric Power Systems, and Microdyne Outsourcing.

The airport covers 2,079-acres. The airport's primary runway, Runway 15/33, measures 11,440 feet in length and 200 feet in width. The airport with 35 based aircraft and experiences 81,000 aircraft operations annually. Bangor International has scheduled airline service on over 60 flights per day by American, Continental, Delta, Northwest, and US Airways. The airport is also home to the Maine Air National Guard's 101st Air Refueling Wing.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's firs round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are 26 aviation-related tenants on the airport who support 1,583 employees. These tenants' first round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $144.0 million annually. The estimated direct annual payroll of these tenants is $55.8 million. Visitors using commercial airlines also create economic impacts Survey data indicated that approximately 127,565 visitors arrive annually via Bangor International Airport. Commercial airline visitor-related output (spending) supported an additional indirect 1,639 full-time jobs for employees earning $33.9 million annually. Output from commercial airline visitors is estimated at $74.9 million. Operational data indicates that approximately 7,580 general aviation visitors use the airport each year. This indirect visitor-related output (spending) supported an additional 58 full-time jobs with a total annual payroll of $1.2 million. Output from general aviation visitors is estimated at $2.6 million.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and visitors.

Total Impact

For 2005, the total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Bangor International Airport was approximately $440.8 million. Total full-time employment related to airport tenants and visitors including all second round impacts, are estimated at approximately 5,091 persons, with a total annual payroll (first round and second round) of approximately $136.0 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Bangor International Airport provides several services to the local community. Aviation activities that take place at the airport on a regular basis include recreational flying, corporate use, flight instruction, as well as law enforcement activity. In addition, the airport is frequented by military aircraft and visitors to local area resorts Air ambulance activity is common at the airport as well. LifeFlight of Maine has a crew based at Bangor International Airport.

FAA data indicates Bistate Oil Co Inc. Black And Decker Us Inc., Caterpillar Inc., Chevron-Texaco Corp., Cleveland Browns Transportation LLC, Coleman Microwave Company, Conoco-Phillips Co., Deere & Company, Emerson Electric Co., Exxon Mobil Corporation, Family Dollar Inc. General Electric Co., Georgia Pacific Corp., Hilton Hotels Corporation, Kentucky Fried Chicken Corp., Kimberly-Clark Inc. La Vega Sands Corp. Nokia Inc., Occidental Petroleum Corporation, Scotts Miracle-Gro Co., Tyson Foods Inc., United States Steel Corp., United Technologies Corp., and Whirlpool Corp. utilized the airport for general aviation in 2006.

Summary

On an annual basis, Bangor International Airport currently provides the following total benefits:

BANGOR INTERNATIONAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	1,58	1,140	2,723
GA Visitors	5	21	79
CS Visitors	1,63	651	2,290
Total	3,28	1,811	**5,091**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$55,820,700	$25,983,900	$81,804,600
GA Visitors	$1,200,600	$641,000	$1,841,600
CS Visitors	$33,927,300	$18,460,700	$52,388,000
Tota	$90,948,600	$45,085,600	**$136,034,200**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$144,027,500	$172,086,200	$316,113,700
GA Visitors	$2,620,800	$1,586,600	$4,207,400
CS Visitors	$74,957,200	$45,541,600	$120,498,800
Tota	$221,605,500	$219,214,400	**$440,819,900**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA=General Aviation
CS=Commercial Service

Airport Location & Environs

Hancock County-Bar Harbor Airport is located 11 miles north of Bar Harbor, Maine, in Hancock County. The airport is a gateway to Acadia National Park, home of 1,532-foot Mount Cadillac. Its summit is the first spot in the U.S. where the sunrise can be seen. Acadia's stunning mountains, lakes, and sea cliffs can be viewed from a number of vantage points: an auto loop, carriage roads closed to car traffic, and 125 miles of trails exclusively for hiking. The Bar Harbor area possesses a great selection of family activities, including a family nature camp, an oceanarium, a zoo, and a lumberjack show. Visitors can also indulge in rock climbing, sailing, paddling, brewery tours, boat excursions, and golf.

Hancock County has a population of 53,000. Major employers in the area include: Jackson Laboratory, MDI Biological Laboratory, Maine Coast Memorial Hospital Ellsworth American and Maine Shellfish. The 450-acre airport's primary runway, Runway 04/22, measures 5,200 feet in length and 100 feet in width. The airport with 44 based aircraft, experiences approximately 44,500 aircraft operations annually. Scheduled passenger service to and from Boston is provided by US Airways Express, operated by Colgan Air.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are 9 aviation-related tenants on the airport who support 60 employees. These tenants' first round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $7.9 million annually. The estimated direct annual payroll of these tenants is $2.2 million. Visitors using commercial airlines also create economic impacts Survey data indicated that 10,597 passengers arrived via Hancock County Bar Harbor Airport with 7,161 of the passengers being visitors. Commercial airline indirect visitor-related output (spending) supports an additional 124 full-time jobs for employees earning $2.6 million annually. Annual output from commercial airline visitors is estimated at $5.7 million. Operational data indicated that approximately 13,650 general aviation visitors use the airport. This visitor-related output (spending) supports an additional 105 full-time jobs with a total annual payroll of $2.2 million. Indirect output from general aviation visitors is estimated at $4.7 million.

Second Round Impact

The first round impacts associated with on-airport tenants and visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment a they relate to on-airport tenants and visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and all commercial airline and general aviation visitors to Hancock County-Bar Harbor Airport was approximately $30.4 million. Total full-time employment related to airport tenants and visitors, including all second round impacts, are estimated at approximately 435 persons, with a total annual payroll (first round and second round) of approximately $11.1 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Hancock County-Bar Harbor Airport provides several services to the local community. Aviation activities that take place at the airport on a regular basis include recreational flying, corporate use, flight instruction, as well as search and rescue activity. The airport is also used frequently for medical transport by Maine Coast Memorial Hospital. In addition, the airport is frequented by military aircraft and visitors to local resorts in the area. It is noteworthy to point out that Morris Yachts manufacturing facility is located on the airport. The airport is used frequently by Jackson Laboratory, MDI Bio Laboratory, the Hinckley Company, and Morris Yachts to transport goods and personnel as well as customers and suppliers to the area.

2006 FAA data indicates Hancock County- Bar Harbor Airport received nonstop flights from private aircraft departing airports in California, Arizona, Florida, Texas and Washington State.

Summary

On an annual basis, Hancock County-Bar Harbor Airport currently provides the following total benefits:

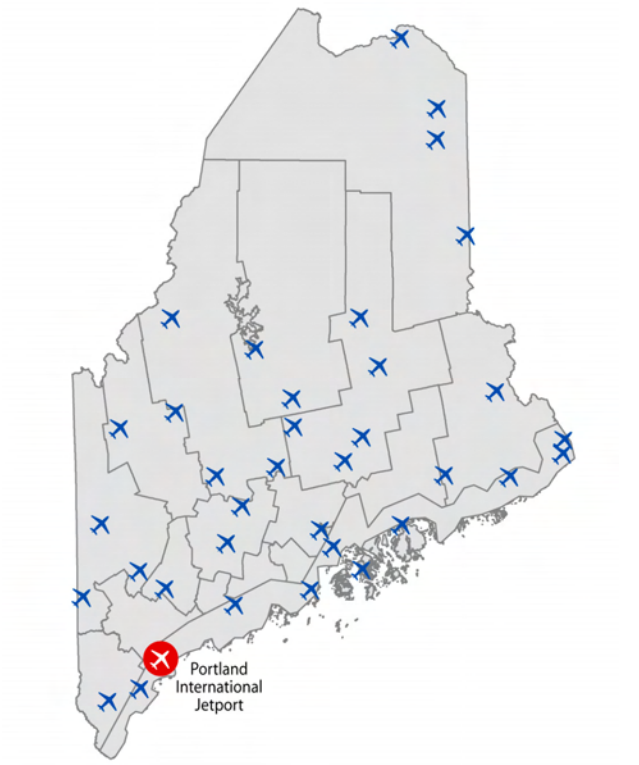
HANCOCK COUNTY BAR HARBOR AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	60	59	119
GA Visitors	105	38	143
CS Visitors	124	49	173
Total	289	146	**435**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$2,182,300	$1,608,400	$3,790,700
GA Visitors	$2,173,500	$1,160,400	$3,333,900
CS Visitors	$2,566,800	$1,396,700	$3,963,500
Total	$6,922,600	$4,165,500	**$11,088,100**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$7,918,700	$5,801,500	$13,720,200
GA Visitors	$4,720,900	$2,857,900	$7,578,800
CS Visitors	$5,654,400	$3,435,400	$9,089,800
Total	$18,294,000	$12,094,800	**$30,388,800**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA=General Aviation
CS=Commercial Service

Airport Location and Environs

Portland International Jetport is located three miles from the center of Portland, Maine, in York County. Nestled between Maine's forest-covered mountains and spectacular rugged coast is the historic and vibrant city of Portland. Greater Portland offers unspoiled landscapes, beautiful vistas, succulent lobster, stately lighthouses, outdoor adventures, exceptional shopping, and sandy beaches. Greater Portland has a population of 244,000 and major employers in the area include: L.L. Bean, Inc., Maine Medical Center, UnumProvident, Delahaize, Bank North Group, National Semiconductor, and Verizon.

The 636-acre airport's primary runway, Runway 11/29, measures 7,200 feet in length and 150 feet in width. The airport, with 43 based aircraft, experiences approximately 100,953 aircraft operations annually. Six scheduled commercial service airlines (Continental, Delta, JetBlue, Northwest, United, US Airways) provide nonstop service to 12 other airports in the U.S.



Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are over 30 aviation-related tenants on the airport who support 1,070 employees. Direct output from all on-airport aviation-related tenants is estimated at $175.5 million annually. The estimated direct annual payroll of these tenants is $42.0 million. Visitors using commercial airlines also create economic impacts. Survey data indicated that approximately 771,000 visitors arrived via Portland International Jetport in the past year. Commercial airline visitor-related output (spending) supports an additional 4,481 full-time jobs for employees earning $87.5 million annually. Output from commercial airline visitors is estimated at $238.0 million. Operational data indicates that approximately 12,350 general aviation visitors use the airport each year. This visitor-related output (spending) supports an additional 62 full-time jobs with a total annual payroll of $1.2 million. Output from general aviation visitors is estimated at $3.1 million.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-

specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and all commercial airline and general aviation visitors to Portland International Jetport is approximately $865.0 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 12,900 persons, with a total annual payroll (first round and second round) of approximately $275.4 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Portland International Jetport provides several services to the local community. The airport is primarily utilized for commercial service, corporate activity, and air cargo.

FAA data indicates the following businesses utilized the airport in 2006: Bath Iron Works, Cabelas Inc., Chase Manhattan Bank, Cigna Corporation, Corning Inc., Delhaize America Inc., Federal Express, General Dynamics Corp., General Electric Company, JPMorgan Chase Bank, Lincoln National Life Insurance Co., Louisiana-Pacific Corp., Massachusetts Mutual Life Insurance Co., Morgan Stanley Management Services Inc., Nokia Inc., Northrop Grumman Systems Corp., Paramount Pictures Corp., Parker-Hannifin Corp., Perdue Farms Inc., Scotts Miracle-Gro Co., Sears Roebuck and Co., Seneca Foods Corp., Union Pacific Corp., and Wal-Mart.

The airport typically accommodates nonstop flights in private aircraft from New England and MidAtlantic states but was visited by aircraft from as far away as Ohio, Florida, Tennessee, Arkansas, Texas, Minnesota, California, Washington, and Bermuda.

Summary

On an annual basis, Portland International Jetport currently provides the following total benefits:

PORTLAND INTERNATIONAL JETPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	1,070	1,397	2,467
GA Visitors	62	80	142
CS Visitors	4,481	5,817	10,298
Total	5,613	7,294	**12,907**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$42,009,500	$59,252,000	$101,261,500
GA Visitors	$1,199,100	$1,155,800	$2,354,900
CS Visitors	$87,465,800	$84,311,800	$171,777,600
Total	$130,674,400	$144,719,600	**$275,394,000**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$175,354,400	$177,360,700	$352,715,100
GA Visitors	$3,073,200	$3,457,900	$6,531,100
CS Visitors	$237,966,300	$267,752,600	$505,718,900
Total	$416,393,900	$448,571,200	**$864,965,100**

Source: Wilbur Smith Associates & IMPLAN multipliers
Notes: May not sum due to rounding
GA=General Aviation
CS=Commercial Service

Airport Location and Environs

Northern Maine Regional Airport is located less than one mile west of Presque Isle, Maine, in Aroostook County. It is a summer resort and a commercial and distribution hub for the agricultural Aroostook Valley. This area is known as the New England Uplands and is farmland where Maine potato crops prosper.

Presque Isle has one of the largest Industrial parks in the State, second only to the Loring Commerce Center. Presque Isle has a population of 9,500. Major employers in the area include: The Aroostook Medical Center, Columbia Forest Products, Maine Mutual Group, Maine Public Service, MBNA, Burrelle's Information Services, and WalMart.

The 1,489-acre airport's primary runway, Runway 01/19, measures 7,440 feet in length and 150 feet in width. The airport, with 22 based aircraft, experiences approximately 6,000 aircraft operations annually. Scheduled commercial airline service is provided by US Airways Express carrier, Colgan Air, which provides residents and visitors with nonstop service to Boston.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the total annual economic impact associated with each airport.

First Round Impact

There are 14 aviation-related tenants on the airport who support 94 employees. These tenants' first round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $7.3 million annually. The estimated direct annual payroll of these tenants is $3.7 million. Visitors using commercial airlines also create economic impacts. Survey data indicate that approximately 9,056 commercial airline visitors arrived via Northern Maine Regional Airport last year. Commercial airline visitor-related output (spending) supports an additional 123 full-time jobs for employees earning $2.5 million annually. Output from commercial airline visitors is estimated at $5.6 million. Operational data indicate that approximately 1,180 general aviation visitors use the airport annually. This visitor-related output (spending) support an additional nine full-time jobs with a total annual payroll of $186,300. Output from general aviation visitors is estimated at $407,300.

Second Round Impact

The first round impacts associated with on-airport tenants and visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and all commercial airline and general aviation visitors to Northern Maine Regional Airport is approximately $22.8 million. Total full-time employment related to airport tenants and all visitors, including all second round impacts, is estimated at approximately 432 persons, with a total annual payroll (first round and second round) of approximately $11.3 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Northern Maine Regional Airport provides several services to the local community. The airport has customs clearance for aircraft entering the country from all over the world. The airport is primarily a base for corporate and business use, air cargo, recreational uses, and for agricultural application. The airport is also used extensively by the medical community for transporting doctors to remote areas to conduct clinics as well as for patient transfers and the shipment of medical supplies. The airport is used on occasion for aerial inspection of utilities, military activity, prisoner transport, law enforcement, aerial photography, search and rescue, and forest fire fighting.

FedEx, UPS, and DHL utilize the airport daily for air cargo shipments. Survey data indicates several local firms use the airport in their business operations. These firms include: LifeFlight of Maine, Aroostook Beverage, Arco, Lane Construction, Columbia Forest Products, Naturally Potato, Irving, and Maine Instrument Flight. In addition, the airport supports the World Cup Skiing charter aircraft.

The airport typically accommodates nonstop flights in private aircraft from New England and MidAtlantic states but was visited by jet aircraft from as far away as Ohio, Virginia, North Carolina, Colorado and Kansas.

Summary

On an annual basis, Northern Maine Regional Airport currently provides the following total benefits:

NORTHERN MAINE REGIONAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	94	110	204
GA Visitors	9	4	13
CS Visitors	123	92	215
Total	226	206	**432**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$3,716,700	$2,952,700	$6,669,400
GA Visitors	$186,300	$120,000	$306,300
CS Visitors	$2,546,100	$1,763,400	$4,309,500
Total	$6,449,100	$4,836,100	**$11,285,200**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$7,333,600	$5,699,100	$13,032,700
GA Visitors	$407,300	$246,600	$653,900
CS Visitors	$5,646,500	$3,430,600	$9,077,100
Total	$13,387,400	$9,376,300	**$22,763,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Notes: May not sum due to rounding
GA=General Aviation
CS=Commercial Service

Airport Location and Environs

Knox County Regional Airport is located three miles south of Rockland, Maine, in Knox County. Rockland is an officially designated "micropolitan" area, and has made several "best cities and towns to live" lists in recent years. Since the early 1990s, Rockland has seen a shift in its economy away from fisheries toward a service based economy. Rockland has also seen a large increase in tourism and the downtown has transformed into one of unique shops, boutiques, fine dining and art galleries. Rockland is the commercial center of the Midcoast Region. Knox County has a population of 40,000. The largest employers in the County are Penobscot Bay Medical Center and the State of Maine.

The 538-acre airport's primary runway, Runway 13/31 measures 5,007 feet in length and 100 feet in width. The airport has 60 based aircraft and experiences approximately 53,375 aircraft operations annually. US Airways Express carrier, Colgan Air, provides daily nonstop commercial airline service between Knox County Regional Airport and Boston.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are seven aviation-related tenants on the airport who support 73 employees. These tenants' first round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $8.0 million annually. The estimated direct annual payroll of these tenants is $2.4 million. Visitors using commercial airlines also create economic impacts. Survey data indicate that approximately 3,900 commercial visitors arrived via Knox County Regional Airport last year. Commercial airline visitor-related output (spending) supports an additional 53 full-time jobs for employees earning $1.1 million annually. Output from commercial airline visitors is estimated at $2.4 million. Operational data indicate that approximately 14,480 general aviation visitors use the airport each year. This visitor-related output (spending) supports an additional 111 full-time jobs with a total annual payroll of $2.4. Output from general aviation visitors is estimated at $5.0 million.

Second Round Impact

The first round impacts associated with on-airport tenants and all visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific

IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and all commercial airline and general aviation visitors to Knox County Regional Airport is approximately $26.1 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 404 persons, with a total annual payroll (first round and second round) of approximately $9.8 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Knox County Regional Airport provides several services to the local community. The airport is primarily a gateway for visitors traveling on business and leisure pursuits. The airport also acts as a hub for transporting residents, freight, and mail to the nearby islands of Vinalhaven, North Haven and Matinicus. Air ambulance service as well as aviation-related law enforcement activity is common at the airport and to the nearby islands. The airport is utilized heavily during annual community events such as the Antique Auto and Aircraft Show, the Blues Festival, and the Lobster Festival.

FedEx, UPS, USPS, and DHL use the airport on a daily basis for air cargo operations. Survey data also notes that local fisherman and lobstermen utilize the airport for fresh shipments. FAA data indicates the following businesses corporate aircraft utilized the airport in 2006: Ameriflight Inc., Alabama Medical Consultants Inc., Automobile Transport Co., Bank Of America, Bell Aviation Inc., Communications Laboratories Inc., Conair Group Inc., Ethox Chemicals Inc., General Electric Company, Janus Equities LLC, J M Smucker Co., and Louisiana-Pacific Corporation. The airport typically accommodates nonstop flights in private aircraft from New England and Mid-Atlantic states but was visited by corporate jet aircraft from as far away as Ohio, Florida, Texas, Arizona, Wisconsin, Missouri, New Mexico and Virginia.

Summary

On an annual basis, Knox County Regional Airport currently provides the following benefits:

Knox County Regional Airport

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	73	84	156
GA Visitors	111	44	155
CS Visitors	53	40	93
Total	237	167	**404**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$2,393,900	$1,752,100	$4,146,000
GA Visitors	$2,297,700	$1,480,100	$3,777,800
CS Visitors	$1,097,100	$759,900	$1,857,000
Total	$5,788,700	$3,992,100	**$9,780,800**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$7,961,400	$6,157,300	$14,118,700
GA Visitors	$5,007,200	$3,031,200	$8,038,400
CS Visitors	$2,434,200	$1,478,900	$3,913,100
Total	$15,402,800	$10,667,400	**$26,070,200**

Source: Wilbur Smith Associates & IMPLAN multipliers
Notes: May not sum due to rounding
GA=General Aviation
CS=Commercial Service

Airport Location and Environs

Auburn/Lewiston Municipal Airport is located in southeastern Androscoggin County, Maine, in the City of Auburn, approximately four miles southwest of the city's center. The Maine Turnpike provides direct access to Auburn-Lewiston with two exits, and coincides with I-495 and I-95.

Lewiston-Auburn, twin cities on the Androscoggin River, offers a variety of recreational opportunities, yet has an urban feel as municipal leaders in both cities have improved the development of both downtowns and explored creative re-use ideas for the traditional New England mill buildings that line the river. The twin cities are 30 minutes north of Portland; and 30 minutes from ocean or the mountains. Cited as one of the 100 best arts town in America, Lewiston-Auburn is home to the L/A Arts Council which sponsors local arts organizations.

The Auburn/Lewiston has a population of 59,827; and is the second largest metropolitan area in Maine. Major private employers in the area include: Sisters of Charity Health Systems, Central Maine Medical Center, Banknorth Group, Bates College, and Tambrands Inc. The 547-acre airport's primary runway, Runway 04/22, measures 5,001 feet in length and 100 feet in width. The airport with 88 based aircraft, experiences approximately 60,365 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport busines and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits Additional first round benefits are also linked to visitors who arrive via the State's system of airports (in direct impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

This study identified nine aviation-related tenants on the airport, including airport management, who supported 84 employees. These tenants' direct or first round employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $9.8 million annually. The estimated direct annual payroll of these tenants is $2.7 million. Operational data indicates that approximately 14,600 visitors use the airport. Visitor-related spending supports an additional indirect 112 full-time jobs earning over $2.3 million annually. Annual indirect output from general aviation visitors is estimated at $5.0 million.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create

second round impacts Second round impacts are induced impacts calculated using Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

For 2005, the total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Auburn/ Lewiston Municipal Airport was approximately $24.6 million. Total full-time employment related to airport tenants and general aviation visitors, including all Second round impacts, is estimated at approximately 311 persons, with a total annual payroll (first round and second round) of approximately $8.2 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Auburn/Lewiston Municipal Airport provides several services to the local community. There is 35-acre intermodal facility located adjacent and to the west of the airport. The St. Lawrence & Atlantic Railroad Company provides a wide range of intermodal services in coordination with Canadian National Railway through its Auburn, Maine terminal.

Aviation activities that take place at the airport on a regular basis include recreational flying, corporate use, flight instruction, aerial inspection of utilities, real estate tours and environmental patrols. UPS and FedEx contract carriers provide the community with access to express shipping services. The airport is occasionally used for air ambulance service. FAA data indicates Aramark, Inc., International Veneer, Inc., Lowes, Walmart, Purdue Farms, Inc. and Weyerhauser Inc., utilized the airport in 2006.

Auburn/Lewiston is one of the sponsors of the Annual Great Falls Balloon Fest, which attracts an estimated 100,000 visitors to the area each summer.

The Airport has a foreign trade zone, a Pine Tree Development Zone, and an urban development zone.

Summary

On an annual basis, Auburn/Lewiston Municipal Airport currently provides the following total benefits:

AUBURN/LEWISTON MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
Annual On-Airport Activity	84	75	158
GA Visitors	112	41	153
Total	196	115	**311**
PAYROLL			
	First Round	Second Round	Total
Annual On-Airport Activity	$2,679,700	$1,916,600	$4,596,300
GA Visitors	$2,318,400	$1,237,800	$3,556,200
Total	$4,998,100	$3,154,400	**$8,152,500**
OUTPUT			
	First Round	Second Round	Total
Annual On-Airport Activity	$9,833,900	$6,687,600	$16,521,500
GA Visitors	$5,049,400	$3,056,800	$8,106,200
Total	$14,883,300	$9,744,400	**$24,627,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding.
GA = General Aviation

Airport Location and Environs

Belfast Municipal Airport is located 1.2 miles south of Belfast, Maine, in Waldo County. Belfast is located in the Midcoast region of Maine on the Penobscot Bay. The Belfast area's industries and businesses are as diverse as its people. There is no better example of the traditional craftsmen working alongside the latest technology. Generations of lobstermen work the same waters their forefathers did.

Belfast has a population of 6,400. Major employers in the area include MBNA America, Camden National Bank, Reny's, Hannaford, Irving Oil, Moss, Inc., Waldo County General Hospital, and Maine School Administrative District No. 34.

The 320-acre airport's primary runway, Runway 15/33, measures 4,000 feet in length and 100 feet in width. The airport, with 23 based aircraft, experiences approximately 13,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are three aviation-related tenants as well as construction activity on the airport which support 20 employees. These tenants' first round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants and construction activity is estimated at $1.5 million annually. The estimated direct annual payroll of these tenants and activity is $628,400. Operational data indicated that approximately 2,480 general aviation visitors use the airport annually. This indirect visitor-related output (spending) supported an additional 19 full-time jobs with total annual payroll of $393,300. Indirect annual output from general aviation visitors is estimated at $856,900.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts

for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants, construction activity and general aviation visitors to Belfast Municipal Airport was approximately $3.9 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 62 persons, with a total annual payroll (first round and second round) of approximately $1.6 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Belfast Municipal Airport provides several services to the local community. The airport is primarily used for recreational flying and corporate/business activity. The airport is also a gateway for resort visitors coming to the region. There is a flight school located at Belfast Municipal (offered by Maine Scenic Airways), so training related flights also occur frequently. In addition, flights related to aerial photography and real estate tours occur on a frequent basis. Occasionally, patient transfer and medical evacuations take place at the airport.

Each year the airport sponsors AOPA safety seminars and other events at the airport.

FAA data indicates most itinerant aircraft traveled from nearby New England and MidAtlantic states.

Summary

On an annual basis, Belfast Municipal Airport currently provides the following total benefits:

BELFAST MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	20	16	36
GA Visitors	19	7	26
Total	39	23	**62**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$628,400	$410,600	$1,039,000
GA Visitors	$393,300	$210,000	$603,300
Total	$1,021,700	$620,600	**$1,642,300**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$1,505,200	$1,020,100	$2,525,300
GA Visitors	$856,900	$518,700	$1,375,600
Total	$2,362,100	$1,538,800	**$3,900,900**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding.
GA = General Aviation

Airport Location and Environs

Bethel Regional Airport is located 2.2 miles northwest of Bethel, Maine, in Oxford County. Bethel is home to a historic downtown and is surrounded by majestic natural scenery in nearby Grafton Notch State Park and White Mountain National Forest. Activities also include a variety of shopping, dining, and cultural and arts activities.

Bethel has a population of 2,360. The broad economy of Bethel provides jobs in wood products, forestry, agriculture, education, retail trade, and services, and recreation-based tourism.

The 225-acre airport's primary runway, Runway 14/32, measures 3,818 feet in length and 75 feet in width. The airport, with 9 based aircraft, experiences approximately 4,500 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts associated with the airport are the result of sponsor operation of the airport, construction activity and visitor related impacts. The total combined first round output stemming from all sponsor activity, construction, and general aviation visitors to Bethel Regional Airport was approximately $438,100. Total first round full-time employment related to the airport and general aviation visitors is estimated at eight persons with a total first round payroll of approximately $176,800 annually. Survey data indicated that approximately 750 visitors arrive in Maine via the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The annual total output (including first round and second round impacts) stemming from all airport activity and general aviation visitors to Bethel Regional Airport is approximately $807,600. Total full-time employment related to the airport and general aviation visitors, including all second round impacts, is estimated at approximately 11 persons, with a total annual payroll (first round and second round) of approximately $270,200 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Bethel Regional Airport provides several services to the local community. The airport is primarily used for recreational flying and as a gateway for summer and winter visitors to the region. The airport is also occasionally used for flight training, search and rescue missions, medical evacuations, forest firefighting, aerial photography/surveying, and fly-ins.

FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Bethel Regional Airport currently provides the following total benefits:

BETHEL REGIONAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	2	1	3
GA Visitors	6	2	8
Total	8	3	**11**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$56,700	$29,300	$86,000
GA Visitors	$120,100	$64,100	$184,200
Total	$176,800	$93,400	**$270,200**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$178,700	$212,500	$391,200
GA Visitors	$259,400	$157,000	$416,400
Total	$438,100	$369,500	**$807,600**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Biddeford Municipal Airport is located two miles south of Biddeford, Maine, in York County. Biddeford is as beautiful as it is richly diverse. The downtown area is typically urban in its density and fabric with numerous historic commercial buildings and churches. Just a few miles to the east of the City Center lies a coastline that includes vast stretches of sandy beaches. To the west of the Maine Turnpike are rolling hills, pastures and horse farms which capture rural life from a by-gone era.

The quality of life for Biddeford residents is further enhanced by the availability of an outstanding array of community facilities including a modern regional hospital, schools and colleges, cultural institutions, and numerous parks and recreational facilities. Local attractions include the historic Wood Island Lighthouse, Kennebunkport, and the Rachel Carson U.S. Wildlife Preserve.

Biddeford has a population of 22,100. Major employers in the area include Southern Maine Medical Center, Interstate Bakeries (Nissen), Wal-Mart, and the City of Biddeford.

The airport, with 41 based aircraft, experiences approximately 30,750 aircraft operations annually. The 126-acre airport's primary runway, Runway 06/24, measures 3,000 feet in length and 75 feet in width.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are four aviation-related tenants on the airport (including airport management) who support 9 employees. Direct or first round employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $954,500 annually. The estimated direct annual payroll of these tenants is $258,900. Operational data indicates that approximately 3,450 visitors used the airport. Visitor-related spending supported an additional 27 full-time jobs earning over $548,600 annually. Indirect output from general aviation visitors is estimated at nearly $1.2 million each year.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

For 2005, the total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Biddeford Municipal Airport is approximately $3.6 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 54 persons, with a total annual payroll (first round and second round) of approximately $1.3 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Biddeford Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses and corporate aircraft operations. The airport has been used on a regular basis by a construction company overseeing development of a shopping mall in the Biddeford-Saco area to transport key personnel and goods. In addition, United States Marine One often utilizes the airport when the president visits Kennebunkport.

Transient pilot survey data indicates the airport was utilized by businesses from Virginia, New York, Pennsylvania, Connecticut, New Hampshire and Maine. While most recreational pilots traveled from nearby New England and MidAtlantic states, data also indicates they traveled from as far away as Florida to this airport.

In addition to recreational and corporate flying, other aviation activities that take place at the airport on a regular basis include flight instruction, aerial advertising, aerial photography, as well as air ambulance services. The airport has also been used in forest fire fighting efforts.

Summary

On an annual basis, Biddeford Municipal Airport currently provides the following total benefits:

BIDDEFORD MUNICIPAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	9	9	18
GA Visitors	27	10	36
Total	35	18	**54**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$258,900	$213,500	$472,400
GA Visitors	$548,600	$292,900	$841,500
Total	$807,500	$506,400	**$1,313,900**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$954,500	$753,500	$1,708,000
GA Visitors	$1,193,200	$722,300	$1,915,500
Total	$2,147,700	$1,475,800	**$3,623,500**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Sugarloaf Regional Airport is located in the town of Carrabassett Valley, Maine, in Franklin County. Carrabassett Valley is very close to several picturesque skiing locations including Sugarloaf/USA. Carrabassett Valley Academy, known for its academics and winter-based athletic programs, which have produced medal-winning Winter Olympics athletes is also located nearby.

Carrabassett has a population of 399. Major employers in the area include Sugarloaf Mountain, Corp., Carrabassett Valley Academy and tourism employers. The 65-acre airport's primary runway, Runway 17/35, measures 2,800 feet in length and 75 feet in width.

The airport, with 12 based aircraft, experiences approximately 5,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts associated with the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Sugarloaf Regional Airport is approximately $374,800. Total first round full-time employment related to the airport and general aviation visitors is estimated at eight persons with a total first round payroll of approximately $182,000 annually. Survey data indicated that approximately 830 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total annual impacts for output, payroll, and employment as they relate to airport activities and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all airport activities and general aviation visitors to Sugarloaf Regional Airport is approximately $629,300. Total full-time employment related to the airport activities and general aviation visitors, including all second round impacts, is estimated at approximately 11 persons, with a total annual payroll (first round and second round) of approximately $279,500 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Sugarloaf Regional Airport provides several services to the local community. The airport is primarily a base for recreational flights including flights transporting Sugarloaf Mountain ski resort guests and companies doing business with the resort. The airport is used several hundred times a year by Sugarloaf Mountain. The airport serves an extensive population of second home owners. On a more limited basis, the airport is also used for search and rescue, medical evacuations, and forest firefighting.

The airport typically accommodates nonstop flights in private aircraft from New England and MidAtlantic states.

Summary

On an annual basis, Sugarloaf Regional Airport currently provides the following total benefits:

SUGARLOAF REGIONAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	2	1	2
GA Visitors	6	2	9
Total	8	3	**11**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$52,000	$27,500	$79,500
GA Visitors	$130,400	$69,600	$200,000
Total	$182,400	$97,100	**$279,500**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$88,500	$81,200	$169,700
GA Visitors	$286,300	$173,300	$459,600
Total	$374,800	$254,500	**$629,300**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA+ General Aviation

Airport Location and Environs

Caribou Municipal Airport is located 1.2 miles north of Caribou, Maine, in Aroostook County. Just 10 minutes from the Canadian border, Caribou, the most northeastern city in the U.S., has 10 golf courses within an hour drive. The town is also known for its dynamic natural environment. This allows for activities, such as excellent mountain biking and skiing.

Caribou has a population of 8,312. Major employment sectors in the area include education (with two universities and two colleges), lumber, and tourism. Top employers in Caribou are Cary Medical Center and ATX II. The 75-acre airport's primary runway, Runway 01/19, measures 4,003 feet in length and 100 feet in width.

The airport, with 10 based aircraft, experiences approximately 3,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There is one aviation-related tenant located on the airport. This tenant functions as the FBO and as airport management for the airport sponsor. In order to preserve tenant confidentiality, total tenant (direct) and visitor (indirect) impacts have been combined. Direct employment, payroll, and output impacts were derived from survey data. The total combined first round output stemming from all on-airport tenants and general aviation visitors to Caribou Municipal Airport is approximately $1.6 million. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at 10 persons with a total first round payroll of approximately $402,400 annually. Survey data indicates that approximately 80 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and

total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Caribou Municipal Airport is approximately $2.8 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 18 persons, with a total annual payroll (first round and second round) of approximately $674,100 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Caribou Municipal Airport provides several services to the local community. The airport is primarily a base for recreational flights and air ambulance activity. Carey Medical Center utilizes the airport to transport medical professionals to conduct clinics in Caribou. The airport is also used for flight instruction, search and rescue and corporate aviation. The airport has been used in the past for forest fire fighting, aerial photography, air shows, law enforcement, and real estate tours. The airport hosts an annual Fly-In every July, and invites the community to visit the airport.

FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Caribou Municipal Airport currently provides the following total benefits:

CARIBOU MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	10	8	**18**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$402,400	$271,700	**$674,100**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$1,672,800	$1,120,200	**$2,792,900**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA= General Aviation

Airport Location and Environs

Deblois Flight Strip is located 1.9 miles southeast of Deblois, Maine, in Washington County. Deblois is in close proximity to the Canadian Border, Lamoine State Park, and the Atlantic coast.

Deblois has a population of 35. Major employment sectors in the area include farming, fishing, manufacturing, agriculture, forestry, and the local government. The 153-acre airport's primary runway, Runway 15/33, measures 3,520 feet in length and 75 feet in width.

The airport has no based aircraft but experiences approximately 100 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts associated with the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors was approximately $24,700. Total first round full-time employment related to airport activity and general aviation visitors is estimated at one person with a total first round payroll of approximately $18,100 annually. Survey data indicated that approximately 30 visitors use the airport annually.

Second Round Impact

The first round impacts associated with airport activity and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to airport activity and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport activity and general aviation visitors to Deblois Flight Strip was approximately $52,100. Total full-time employment related to the airport and general aviation visitors, including all second round impacts, is estimated at approximately one person, with a total annual payroll (first round and second round) of approximately $25,500 associated with this activity.

Other Benefits

In addition to the economic benefits described above, Deblois Flight Strip provides several services to the local community. The airport is primarily a base for recreational uses, agricultural spraying, and for aircraft used to transport blueberries from nearby berry farms.

FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Deblois Flight Strip currently provides the following total benefits:

DEBLOIS FLIGHT STRIP			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	1	0	1
GA Visitors	0	0	0
Total	1	0	**1**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$14,000	$5,200	$19,200
GA Visitors	$4,100	$2,200	$6,300
Total	$18,100	$7,400	**$25,500**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$15,100	$21,600	$36,700
GA Visitors	$9,600	$5,800	$15,400
Total	$24,700	$27,400	**$52,100**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Avition

Airport Location and Environs

Dexter Regional Airport is located 3.5 miles east-southeast of Dexter, Maine, in Penobscot County. Namesake and home to the world famous Dexter Shoe Company, Dexter is also home to Lake Wassookeag, known for its shining waters. Popular activities in Dexter include camping, fishing, and water-sports on Lake Wassookeag, as well as golfing, shopping, and hunting.

Dexter has a population of 3,890. Major employment sectors in the area include retail trade and construction. The 311-acre airport's primary runway, Runway 16/34, measures 3,009 feet in length and 80 feet in width.

The airport, with 23 based aircraft, experiences approximately 8,500 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts associated with the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Dexter Regional Airport is approximately $513,900. Total first round full-time employment related to airport activity and general aviation visitors is estimated at 11 persons with a total first round payroll of approximately $246,600 annually. Survey data indicated that approximately 1,230 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to airport activity and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Dexter Regional Airport is approximately $845,800. Total full-time employment related to the airport and general aviation visitors, including all second round impacts, is estimated at approximately 16 persons, with a total annual payroll (first round and second round) of approximately $378,000 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Dexter Regional Airport provides several services to the local community. The airport is primarily a base for recreational uses, flight instruction, and for corporate aviation. The airport has been used in the past for air cargo, aerial photography, military operations, law enforcement, air ambulance, and real estate tours. The airport is also a gateway for resort visitors and sight seeing flights. Businesses that use the airport include Dexter Shoes and PQ Controls.

FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Dexter Regional Airport currently provides the following total benefits:

DEXTER REGIONAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	2	1	3
GA Visitors	9	3	13
Total	11	5	**16**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$52,000	$27,500	$79,500
GA Visitors	$194,600	$103,900	$298,500
Total	$246,600	$131,400	**$378,000**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$89,300	$74,900	$164,200
GA Visitors	$424,600	$257,000	$681,600
Total	$513,900	$331,900	**$845,800**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Charles A. Chase Jr. Memorial Field is located in Dover-Foxcroft, Maine, in Piscataquis County. Dover-Foxcroft is in close proximity to three state parks: Peaks-Kenny, Baxter, and Liliy Bay. In addition, the town is less than an hour drive to Bangor International Airport, offering global access.

Dover-Foxcroft has a population of 4,211. Major employers in the area include Moosehead Manufacturing, several healthcare centers, Pleasant River Lumber Company, CMP, the local government, and various retail and service businesses. The 55-acre airport's primary runway, Runway 09/27, measures 2,926 feet in length and 75 feet in width.

The airport, with 2 based aircraft, experiences approximately 1,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the total annual economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts associated with the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Charles A. Chase Jr. Memorial Field is approximately $37,900. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at one person with a total first round payroll of approximately $22,300 annually. Survey data indicated that approximately 50 visitors use the airport each year.

Second Round Impact

The first round impacts associated with the airport activities and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to airport activities and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the airport and general aviation visitors to Charles A. Chase Jr. Memorial Field was approximately $77,900. Total full-time employment related to airport activities and general aviation visitors, including all second round impacts, is estimated at approximately one person, with a total annual payroll (first round and second round) of approximately $31,900 associated with this activity.

Other Benefits

In addition to the economic benefits described above, Charles A. Chase Jr. Memorial Field provides several services to the local community. The airport is primarily a base for recreational uses, flight instruction, aviation related law enforcement activity, search and rescue, as well as forest fire fighting. The airport has been used in the past for corporate aviation, agricultural spraying, air cargo, and aerial photography. The airport is also a gateway for resort visitors and sight seeing flights.

FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Charles A. Chase Jr. Memorial Field currently provides the following total benefits:

CHARLES A. CHASE JR. MEMORIAL FIELD			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	1	0	1
GA Visitors	0	0	0
Total	1	0	**1**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$14,000	$5,200	$19,200
GA Visitors	$8,300	$4,400	$12,700
Total	$22,300	$9,600	**$31,900**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$20,600	$29,500	$50,100
GA Visitors	$17,300	$10,500	$27,800
Total	$37,900	$40,000	**$77,900**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Eastport Municipal Airport is located 1.1 miles west of Eastport, Maine, in Washington County. The region has a rich history of trading, ship building, ironworks, and the sardine industry. The area is rich in natural phenomena, with miles of cobble beaches, tidal covers, rivers and inland lakes, making it one of the last unspoiled stretches of Maine coastline. The region is also home to Old Sow, the largest whirlpool in the Western Hemisphere.

Eastport has a population of approximately 1,600. Major employment sectors in the area include aquaculture, lumber, administration, and tourism. The 252-acre airport's primary runway, Runway 15/33, measures 4,000 feet in length and 75 feet in width.

The airport, with 6 based aircraft, experiences approximately 7,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts associated with the airport are the result of sponsor operation of the airport, construction activity and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Eastport Municipal Airport is approximately $598,300. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at 12 persons with a total first round payroll of approximately $288,700 annually. Survey data indicated that approximately 1,250 visitors use the airport each year.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total annual impacts for output, payroll, and employment as

they relate to the airport activity and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport activity and general aviation visitors to Eastport Municipal Airport is approximately $1.0 million. Total full-time employment related to the airport activity and general aviation visitors, including all second round impacts, is estimated at approximately 17 persons, with a total annual payroll (first round and second round) of approximately $444,500 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Eastport Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses and serves as a gateway for resort visitors and second homeowners. The airport is also frequently used for business-related travel and for real estate tours to fly realtors and potential home buyers to see properties and the region.

According to management survey data, major airport users include Creative Apparel, Domter paper company, Cooke Aquaculture, the U.S. Coast Guard, and the state and federal government. FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Each year Eastport Municipal Airport sponsors a 4th of July Pancake Breakfast in conjunction with the Eastport's Old Home Week. It is estimated that 1,000 people visit the airport during the Pancake Breakfast.

Summary

On an annual basis, Eastport Municipal Airport currently provides the following total benefits:

EASTPORT MUNICIPAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	3	2	4
GA Visitors	10	4	13
Total	12	5	**17**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$90,000	$49,700	$139,700
GA Visitors	$198,700	$106,100	$304,800
Total	$288,700	$155,800	**$444,500**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$166,000	$135,700	$301,700
GA Visitors	$432,300	$261,700	$694,000
Total	$598,300	$397,400	**$995,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Northern Aroostook Regional Airport is located 6.5 miles west of Frenchville, Maine, in Aroostook County off US Route 1. Minutes from New Brunswick and Quebec Canada, Frenchville is also in close proximity to the vast wilderness of western Aroostook County and the county's 2,000 lakes.

Frenchville has a population of 1,225. Major employment sectors in the area include lumber, tourism, and natural resources. The area farmlands grow potatoes, broccoli, and other crops.

The 116-acre airport's primary runway, Runway 14/32, measures 4,601 feet in length and 75 feet in width. The airport, with 6 based aircraft, experiences approximately 1,000 aircraft operations annually. The airport has customs capabilities as well.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are two aviation-related tenants as well as construction activity on the airport which support 13 employees. First round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants and construction activity is estimated at $1.1 million annually. The estimated direct annual payroll of these tenants and activity is $435,500. Operational data indicates that approximately 100 general aviation visitors use the airport each year. Visitor-related output (spending) supported one additional full-time job with a total annual payroll of $16,000. Indirect annual output from general aviation visitors is estimated at $34,600.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total annual impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants, construction activity and general aviation visitors to Northern Aroostook Regional Airport was approximately $2.0 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 23 persons, with a total annual payroll (first round and second round) of approximately $723,000 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Northern Aroostook Regional Airport provides several services to the local community. The airport is primarily a base for recreational uses and for corporate business activity. Valley Air Flight School is located at the airport and utilizes the airport frequently for flight instruction and training activities. The Forest Service utilizes the airport for environmental patrol and aerial photography/surveying. Aerial real estate tours also take place at the airport.

Businesses that utilize the airport include Creative Apparel, Fraser Papers, and Daigle Oil. Northern Maine Medical Center (NMMC) also uses the airport to transfer patients and supplies. FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Northern Aroostook Regional Airport currently provides the following total benefits:

NORTHERN AROOSTOOK REGIONAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	13	9	22
GA Visitors	1	0	1
Total	13	9	**23**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$435,500	$262,000	$697,500
GA Visitors	$16,600	$8,900	$25,500
Total	$452,100	$270,900	**$723,000**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$1,064,200	$837,000	$1,901,200
GA Visitors	$34,600	$20,900	$55,500
Total	$1,098,800	$857,900	**$1,956,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Eastern Slope Regional Airport is located 4.5 miles southeast of Fryeburg, Maine, in Oxford County. The Mt. Washington Valley region offers all the services and amenities one would expect in a major urban area, but in a quaint country setting. Fryeburg is also home to a historic Main Street district, and is close to the Lovewell's pond battleground monument. The Fryeburg fair is another popular attraction to the area. Just across the state line is North Conway, NH, a major 4-season recreation and vacation area

Fryeburg has a population of approximately 3,000. Major employers in the area include Dearborn Precision Tubular Products and other employers in the area. The 533-acre airport's primary runway, Runway 14/32, measures 4,200 feet in length and 75 feet in width.

The airport, with 43 based aircraft, experiences approximately 33,350 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There is one aviation-related tenant located on the airport. This tenant functions as the FBO. In order to preserve tenant confidentiality, total tenant and visitor impacts have been combined. Direct employment, payroll, and output impacts were derived from survey data. The total combined first round output stemming from all on-airport tenants and general aviation visitors to Eastern Slope Regional Airport is approximately $2.6 million. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at 51 persons with a total first round payroll of approximately $1.1 million annually. Survey data indicates that approximately 5,600 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment

as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Eastern Slope Regional Airport is approximately $4.4 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 74 persons, with a total annual payroll (first round and second round) of approximately $1.8 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Eastern Slope Regional Airport provides several services to the local community. The airport is primarily a base for corporate aviation, recreational uses and for emergency response. The airport is also used for flight instruction, forest fire fighting, and visitor access.

Businesses that use the airport on a regular basis include Dearborn Precision, Green Thumb Farms, and Log House Designs.

While most itinerant aircraft at the airport traveled to the airport from nearby New England and Mid-Atlantic states, FAA data also indicates visitor aircraft traveled from as far away as South Carolina, Virginia, Ohio, Minnesota and Michigan.

Summary

On an annual basis, Eastern Slope Regional Airport currently provides the following total benefits:

EASTERN SLOPE REGIONAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	51	23	**74**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$1,133,600	$636,800	**$1,770,400**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$2,640,700	$1,757,000	**$4,397,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Greenville Municipal Airport is located 1.9 miles west of Greenville, Maine, in Piscataquis County. Greenville is located in the beautiful Moosehead Lake region. Because of several small high-tech industries, Greenville has been able to enjoy the perks of both a rural and urban area. Greenville is also home to a variety of outdoor activities.

Greenville has a population of 1,623. Major employment sectors in the area include light industry, recreation, natural resources, and retail services. The 241-acre airport's primary runway, Runway 03/21, measures 3,000 feet in length and 75 feet in width.

The airport, with 21 based aircraft, experiences approximately 13,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There is one aviation-related tenant located on the airport. This tenant, Folsom Aviation, functions as the FBO. In order to preserve tenant confidentiality, total tenant and visitor impacts have been combined. Direct employment, payroll, and output impacts were derived from survey data. The total combined first round output stemming from all on-airport tenant activity and general aviation visitors to Greenville Municipal Airport is approximately $2.1 million. Total first round full-time employment related to the airport tenant and general aviation visitors is estimated at 33 persons with a total first round payroll of approximately $963,600 annually. Survey data indicates that approximately 1,950 visitors use the airport each year.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create Second round impacts. Second round impacts are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the on-airport tenant and general aviation visitors to Greenville Municipal Airport is approximately $3.6 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 51 persons, with a total annual payroll (first round and second round) of approximately $1.5 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Greenville Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses and as a gateway for resort visitors. In addition, the airport supports frequent use by forest firefighting, medical evacuations, and search and rescue missions.

While most itinerant aircraft traveled to the airport from nearby New England and MidAtlantic states, FAA data also indicates that aircraft traveled to this airport from as far away as Ohio and West Virginia.

Summary

On an annual basis, Greenville Municipal Airport currently provides the following total benefits:

GREENVILLE MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	33	18	**51**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$963,600	$557,000	**$1,520,600**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$2,122,700	$1,436,900	**$3,559,600**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding

Airport Location

Houlton International Airport is located 3.7 miles east of Houlton, Maine, in southern Aroostook County. Southern Aroostook County offers tremendous outdoor activities for snowboarders, cyclists, and ATV enthusiasts alike. In addition, many of the lakes have launch sites, while some of the larger lakes have water parks. Houlton International Airport is located at the US/Canadian border along Interstate 95. The Airport also has direct access to the Trans-Canada Highway.

Houlton has a population of approximately 6,500. Major employers in the area include Houlton Regional Hospital, Louisiana-Pacific, and industrial companies in the Houlton International Airport Industrial Park, particularly Smith and Wesson. Agriculture and tourism are other major employment sectors in the Houlton region.

The 1,615-acre airport's primary runway, Runway 05/23, measures 5,001 feet in length and 150 feet in width. The airport, with 23 based aircraft, experiences approximately 18,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There were three aviation-related tenants on the airport, including airport management which support seven employees. Direct or first round employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $575,900 annually. The estimated direct annual payroll of these tenants is $208,000. Operational data indicate that approximately 2,850 visitors use the airport. Visitor-related spending supports an additional 22 full-time jobs earning over $453,300 annually. Indirect output from general aviation visitors is estimated at $985,700.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Houlton International Airport is approximately $2.5 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 42 persons, with a total annual payroll (first round and second round) of approximately $1.1 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Houlton International Airport provides several services to the local community. The airport is primarily a base for recreational uses and corporate aviation. The airport is also used extensively for flight instruction, law enforcement, and air ambulance activity. The airport has been used in the past for air cargo, agricultural spraying, search and rescue, military operations, aerial photography and real estate tours. The airport is also a gateway for resort visitors and sight seeing flights.

Accoridin to airport management data, the major airport users include Smith and Wesson, Inc., Lousiana Pacific Corp., and Barrett Diversified. FAA data indicates the following other businesses and agencies utilized the airport in 2006: Ampco Inc., Columbia Aircraft Manufacturing Corp., Ohio Division of Wildlife, Seneca Creek Research Inc., and US Border Patrol Air Operations.

Summary

On an annual basis, Houlton International Airport currently provides the following total benefits:

HOULTON INTERNATIONAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	7	6	12
GA Visitors	22	8	30
Total	28	14	**42**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$208,000	$149,200	$357,200
GA Visitors	$453,300	$242,000	$695,300
Total	$661,300	$391,200	**$1,052,500**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$575,900	$387,000	$962,900
GA Visitors	$985,700	$596,700	$1,582,400
Total	$1,561,600	$983,700	**$2,545,300**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Islesboro Airport is located in the Town of Islesboro, Maine, in Waldo County. Located on Islesboro Island, Islesboro has been a summer haven of choice for over 200 years. The island offers some of the best sailing waters in the world, amid other boating activities. In addition, the region offers various art shows, musical education programs, and summer festivals.

Islesboro has a permanent population of approximately 600 residents; this number is enhanced by over 50,000 visitors each summer. Employment for permanent residents mostly involves tourism and recreation. The 41-acre airport's primary runway, Runway 01/19, measures 2,400 feet in length and 50 feet in width.

The airport, with 2 based aircraft, experiences approximately 350 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts generated by the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total annual combined first round output stemming from all sponsor activity and general aviation visitors to Islesboro Airport is approximately $99,000. Total first round full-time employment related to activities at the airport and general aviation visitors is estimated at three persons with a total first round payroll of approximately $72,700 annually. Survey data indicates that approximately 130 visitors use the airport each year.

Second Round Impact

The first round impacts associated with on-airport activities and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to the airport and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the airport and general aviation visitors to Islesboro Airport was approximately $174,800. Total full-time employment related to the airport and general aviation visitors, including all second round impacts, is estimated at approximately four persons, with a total annual payroll (first round and second round) of approximately $111,300 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Islesboro Airport provides several services to the local community. The airport is primarily a base for recreational uses and for air cargo deliveries. The airport also acts as a gateway for local resort visitors and second home owners. Occasional aviation activity at the airport includes corporate aviation, flight instruction, law enforcement, air ambulance, aerial photography, and real estate tours.

FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Islesboro Airport currently provides the following total benefits:

ISLESBORO AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	2	1	2
GA Visitors	1	0	1
Total	3	1	**4**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$52,000	$27,500	$79,500
GA Visitors	$20,700	$11,100	$31,800
Total	$72,700	$38,600	**$111,300**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$54,800	$49,100	$103,800
GA Visitors	$44,200	$26,800	$71,000
Total	$99,000	$75,900	**$174,800**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location

Newton Field is located less than one mile northeast of Jackman, Maine, in Somerset County. The airport is located off US Route 201. The region offers a wide variety of nature-based recreational activities, including whitewater rafting, horseback riding, rock climbing, fishing, and canoeing. During the winter months, a full range of winter-sports are available. Jackman has a population of approximately 700. Major employment sectors in the area include wood products, recreation and tourism, and retail services. Jackman is located 16 miles south of the Quebec, Canada. A new truck to train reload facility operated by the Bangor and Aroostook Railroad provides freight service to Jackman.

The 132-acre airport's primary runway, Runway 13/31, measures 2,900 feet in length and 60 feet in width. The airport, with 9 based aircraft, experiences approximately 6,000 aircraft operations annually. There is 24-hour self service fuel located at the airport, which has become useful for visitors and medical evacuation crews.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts generated by the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total annual combined first round output stemming from all sponsor activity and general aviation visitors to Newton Field is approximately $833,900. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at 13 persons with a total first round payroll of approximately $387,700 annually. Survey data indicated that approximately 680 visitors used the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to the airport and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the airport and general aviation visitors to Newton Field is approximately $1.4 million. Total full-time employment related to the airport and general aviation visitors, including all second round impacts, is estimated at approximately 19 persons, with a total annual payroll (first round and second round) of approximately $606,100 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Newton Field provides several services to the local community. The airport is primarily a base for recreational uses and for emergency medical evacuations and firefighting activities. The airport is used on a more limited basis for corporate/business activity, law enforcement activities, search and rescue missions, aerial inspections, wildfire patrol, and aerial surveying.

FAA data indicates most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states.

Summary

On an annual basis, Newton Field currently provides the following total benefits:

NEWTON FIELD			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	8	5	12
GA Visitors	5	2	7
Total	13	7	**19**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$280,100	$161,000	$441,100
GA Visitors	$107,600	$57,400	$165,000
Total	$387,700	$218,400	**$606,100**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$599,500	$440,500	$1,040,000
GA Visitors	$234,400	$141,900	$376,300
Total	$833,900	$582,400	**$1,416,300**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Lincoln Regional Airport is located 2.3 miles west of Lincoln, Maine, in Penobscot County. The airport is conveniently located off I-95 along the Penobscot River. Lincoln offers year-round recreation for both residents and tourists. In addition, growing industry is helping residents while maintaining proximity to surrounding natural beauty.

Lincoln has a population of 5,221. Major employers in the area include Lincoln Paper and Tissue, the Johnston Dandy Company, FASTCO Corporation, PK Floats, and various recreational employers.

The 55-acre airport's primary runway, Runway 17/35, measures 2,408 feet in length and 75 feet in width. The airport, with 33 based aircraft, experiences approximately 20,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the annual total economic impact associated with each airport.

First Round Impact

There is one aviation-related tenant located on the airport. In order to preserve tenant confidentiality, tenant and visitor impacts have been combined. This tenant's direct employment, payroll, and output impacts were derived from survey data. The total combined first round output stemming from the airport and general aviation visitors to Lincoln Regional Airport was approximately $2.9 million. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at 47 persons with a total first round payroll of approximately $1.1 million annually. Survey data indicates that approximately 4,430 visitors use the airport annually.

Second Round Impact

The first round impacts associated with the airport tenant and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to the airport tenant and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the airport tenant and general aviation visitors to Lincoln Regional Airport is approximately $4.7 million. Total full-time employment related to airport tenant and general aviation visitors, including all second round impacts, is estimated at approximately 73 persons, with a total annual payroll (first round and second round) of approximately $1.8 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Lincoln Regional Airport provides several services to the local community. The airport is primarily a base for recreational uses and for corporate aviation related to the paper industry. The airport is also used by air ambulances, the military, and forest fire fighting. The airport has been used in the past for agricultural spraying, air cargo and aerial photography and real estate tours. The airport is also a gateway for resort visitors and sight seeing flights.

Airport management noted that the largest employer in town, Lincoln Paper and Tissue, frequently uses the airport to fly executives. PK Floats, located on the airport, and its customers also use the airport frequently. FAA data indicates most itinerant aircraft traveled to this airport from nearby New England and MidAtlantic states.

Summary

On an annual basis, Lincoln Regional Airport currently provides the following total benefits:

LINCOLN REGIONAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	47	26	**73**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$1,085,200	$692,100	**$1,777,300**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$2,890,000	$1,777,000	**$4,667,000**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Lubec Municipal Airport is located 2.9 miles southwest of Lubec, Maine, in Washington County. In addition to being located among the most preserved stretch of Maine's coastline, Lubec is a popular location for summer homes and vacations. The community also offers several educational programs in arts and music, and ideal waters for sailing.

Lubec has a population of 1,652. Major employers in the area include aquaculture for the harvesting of salmon, urchin, and sea cucumber; fishing; sea salt harvesting; and tourism and recreation.

The 6-acre airport's primary runway, Runway 08/26, measures 2,024 feet in length and 100 feet in width. The airport, with one based aircraft, experiences approximately 500 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts generated by the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Lubec Municipal Airport is approximately $42,300. Total first round full-time employment related to the airport and general aviation visitors is estimated at one person with a total first round payroll of approximately $26,400 annually. Survey data indicates that approximately 80 visitors used the airport annually.

Second Round Impact

The first round impacts associated with the airport and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to the airport and general aviation visitors.

Total Impact

The total annual output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Lubec Municipal Airport was approximately $80,700. Total full-time employment related to the airport and general aviation visitors, including all second round impacts, is estimated at approximately two persons, with a total annual payroll (first round and second round) of approximately $38,200 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Lubec Municipal Airport provides several services to the local community. The airport is primarily a base for agricultural spraying, recreational uses, flight instruction, and air ambulance activity. The airport has been used in the past for corporate aviation, air cargo, aerial photography and real estate tours. The airport is also a gateway for resort visitors and sight seeing flights.

Airport management records noted that the airport is frequently used by Woodworth Construction in the summer months.

Summary

On an annual basis, Lubec Municipal Airport currently provides the following total benefits:

LUBEC MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	1	0	1
GA Visitors	1	0	1
Total	1	1	**2**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$14,000	$5,200	$19,200
GA Visitors	$12,400	$6,600	$19,000
Total	$26,400	$11,800	**$38,200**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$15,400	$22,100	$37,500
GA Visitors	$26,900	$16,300	$43,200
Total	$42,300	$38,400	**$80,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location

Machias Valley Airport is located 1.9 miles southwest of Machias, Maine, in Washington County. The region is rich in history and includes many pre-Revolutionary War towns with picturesque harbors. Activities include fishing, a crafts festival, shopping, kayaking, hiking, and boating. The harvest of low bush wild blueberries is an autumn tradition in the region, that is capped off by the Machias Blueberry Festival.

Machias has a population of 2,353. Major employment sectors in the area include agriculture, recreation and tourism, aquaculture, and retail services.

The 30-acre airport's primary runway, Runway 18/36, measures 2,909 feet in length and 60 feet in width. The airport, with four based aircraft, experiences approximately 4,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts generated by the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Machias Valley Airport is approximately $397,900. Total first round full-time employment related to the airport tenants and general aviation visitors is estimated at eight persons with a total first round payroll of approximately $193,500 annually. Survey data indicates that approximately 650 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the airport and general aviation visitors to Machias Valley Airport is approximately $670,800. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 11 persons, with a total annual payroll (first round and second round) of approximately $298,500 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Machias Valley Airport provides several services to the local community. The airport is primarily a base for recreational uses and corporate activity. The airport is also used frequently for agricultural spraying and aerial surveying. On a more limited basis, the airport is used for hospital patient transfer, local sightseeing tours, and flight training.

FAA data indicates the following businesses utilized the airport in 2006: Cirrus Design Corp., Connecticut Department Of Public Safety, Icarus Instruments Inc., and Machias Auto Parts Inc.

Summary

On an annual basis, Machias Valley Airport currently provides the following total benefits:

MACHIAS VALLEY AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	3	2	4
GA Visitors	5	2	7
Total	8	3	**11**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$90,000	$49,700	$139,700
GA Visitors	$103,500	$55,300	$158,800
Total	$193,500	$105,000	**$298,500**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$173,100	$136,900	$309,900
GA Visitors	$224,800	$136,100	$360,900
Total	$397,900	$273,000	**$670,800**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Millinocket Municipal Airport is located 1.4 miles southeast of Millinocket, Maine, in Penobscot County along the Penobscot River. The town is set in the shadow of Mount Katahdin, is a four-season recreational area, and serves as gateway to Baxter State Park. Millinocket is famous for great hunting, fishing, camping, and hiking.

Millinocket has a population of 5,203. Major employment sectors include paper mills, forest industries, and tourism services. The area's largest employer is the Great Northern Paper Company, Katahdin Paper Company, which operates a hydroelectric generating station on the Penobscot River. Millinocket has begun the process of converting from reliance on Great Northern Paper's mill to the attraction of outdoor enthusiast

The 322-acre airport's primary runway, Runway 11/29, measures 4,713 feet in length and 100 feet in width. The airport, with 18 based aircraft, experiences approximately 8,100 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are three on-airport businesses, including airport management, which support four employees. Direct or first round employment, payroll, and output impacts for these tenants were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $312,700 annually. The estimated direct annual payroll of these tenants is $93,300. Operational data indicates that approximately 680 visitors use the airport annually. Visitor-related spending supports an additional five full-time jobs earning over $107,600 annually. Indirect output from general aviation visitors is estimated at $234,400.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Millinocket Municipal Airport is approximately $925,500. Total full-time employment related to airport tenants and general aviation visitors, including all Second round impacts, is estimated at approximately 14 persons with a total annual payroll (first round and second round) of approximately $325,600 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Millinocket Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses and for corporate aviation. The airport has also been used for military operations and acts as a gateway for resort visitors. The airport has been used in the past for air cargo, aerial photography, forest fire fighting, prisoner transport, law enforcement, and real estate tours. The airport is also utilized by air ambulance companies and for agricultural spraying.

According to airport management, Sky Dive New England also operates at Millinocket Municipal Airport in the summer months for skydiving operations. FAA data indicates the following businesses aircraft utilized the airport in 2006: Bancroft Contracting Corporation, Dubois Anesthesia Associates, Iron Mountain Information Management Inc., and Lane Construction Corporation.

Summary

On an annual basis, Millinocket Municipal Airport currently provides the following total benefits:

MILLINOCKET MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	4	3	7
GA Visitors	5	2	7
Total	9	5	**14**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$93,300	$67,300	$160,600
GA Visitors	$107,600	$57,400	$165,000
Total	$200,900	$124,700	**$325,600**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$312,700	$236,500	$549,200
GA Visitors	$234,400	$141,900	$376,300
Total	$547,100	$378,400	**$925,500**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Central Maine Regional Airport is located 4 miles west of Norridgewock, Maine, in Somerset County. Norridgewock lies on the Kennebec River, and thus enjoys all of the culture and tradition of that region. Agriculture is an area tradition, exemplified by the famous Skowhegan State Fair, which takes place just minutes from Norridgewock.

Norridgewock has a population of approximately 3,200 residents. Major employment sectors in Norridgewock are primarily in the service, retail, managerial, and skilled labor categories.

The 426-acre airport's runways, 03/21 and 15/33, both measure 3,999 feet in length and 100 feet in width. The airport, with 55 based aircraft, experiences approximately 20,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are four aviation-related tenants on the airport (including airport management) who supported 16 employees. Direct or first round employment, payroll, and output impacts for these tenants were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $2.1 million annually. The estimated direct annual payroll of these tenants is $561,200. Operational data indicates that approximately 1,650 visitors use the airport annually. Visitor-related spending supports an additional 13 full-time jobs earning over $262,900 annually. Indirect output from general aviation visitors is estimated at $570,700.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Central Maine Regional Airport is approximately $3.4 million. Total full-time employment related to airport tenants and general aviation visitors, including all Second round impacts, is estimated at approximately 50 persons, with a total annual payroll (first round and second round) of approximately $1.5 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Central Maine Regional Airport provides several services to the local community. The airport is primarily a base for recreational uses and for aerial photography. The airport is also used extensively for flight instruction, community events, law enforcement, prisoner transport, air ambulance, and real estate tours. The airport has been used in the past for air cargo and agricultural spraying. The airport is also a gateway for resort visitors and sight seeing flights.

Airport management notes that Morgan Aviation and Aerial Survey are the major users of the airport, each with aircraft based at Central Maine Regional Airport. FAA data indicates the following businesses utilized the airport in 2006: Seneca Creek Research Inc., and FMR International Corporation.

The airport typically accommodates nonstop flights in private aircraft from New England and MidAtlantic states but was visited by aircraft from as far away as Pittsburgh, PA and Buffalo, NY.

Each year, the Central Maine Regional Airport hosts a fly-in on Fourth of July weekend. It is estimated that 1,000 people visit the airport during this time.

Summary

On an annual basis, Central Maine Regional Airport currently provides the following total benefits:

CENTRAL MAINE REGIONAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	16	17	33
GA Visitors	13	5	17
Total	29	22	**50**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$561,200	$500,100	$1,061,300
GA Visitors	$262,900	$140,400	$403,300
Total	$824,100	$640,500	**$1,464,600**

OUTPUT

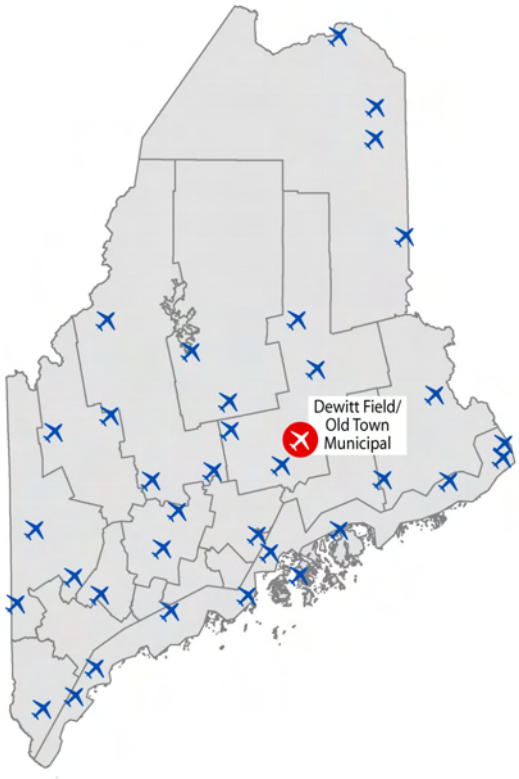
	First Round	Second Round	Total
On-Airport Activity	$1,496,300	$1,002,100	$2,498,400
GA Visitors	$570,700	$345,500	$916,200
Total	$2,067,000	$1,347,600	**$3,414,600**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Dewitt Field/Old Town Municipal Airport is located 2.4 miles northwest of Old Town, Maine, in Penobscot County. Old Town is a unique island community, situated on several islands amidst the Penobscot River. Old Town has long attracted outdoor enthusiasts such as hunters, hikers, and canoeists. The region is perhaps best known for its 50 miles-plus of rivers and streams, known nationwide as prime fishing waters for small-mouthed bass.

Old Town has a population of 8,500. Major employment sectors include lumber, recreation and tourism, and retail services. Largest employers in town is the James W. Sewall Company. Several manufacturing companies have also recently committed to opening businesses in Old Town in the recently closed Georgia Pacific paper mill.



The 360-acre airport's primary runway, Runway 17W/35W, measures 8,400 feet in length and 100 feet in width. The airport with 48 based aircraft, experiences approximately 16,500 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are four aviation-related tenants on the airport (including airport management) which support 24 employees. Direct or first round employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $2.1 million annually. The estimated direct annual payroll of these tenants is $955,700. Operational data indicate that approximately 630 visitors use the airport annually. Visitor-related spending supports an additional five full-time jobs earning over $99,400 annually. Indirect output from general aviation visitors is estimated at $217,100.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and

employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Dewitt Field/Old Town Municipal Airport is approximately $4.5 million. Total full-time employment related to airport tenants and general aviation visitors, including all Second round impacts, is estimated at approximately 53 persons, with a total annual payroll (first round and second round) of approximately $1.7 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Dewitt Field/Old Town Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses, agricultural spraying. and for corporate flights. The airport is also used extensively for in forest preservation activity and aerial photography and mapping. Flight instruction is also offered at the airport and frequent training operations occur. Search and rescue operations also take place at the airport occasionally.

Airport management noted that the Maine Forest Service and James W. Sewell Company are the major users of the Dewitt Field/Old Town Municipal Airport. While most itinerant aircraft arriving at the airport traveled from nearby New Brunswick, New England, and the Mid-Atlantic states, FAA data also indicates they also traveled from as far away as Virginia.

The airport is in the process of developing a business park on airport property, which is located in a Pine Tree Zone and offers prospective companies major tax benefits.

Dewitt Field/Old Town Municipal Airport also hosts a Fly-In each July. An estimated 100 people attend the event each year.

Summary

On an annual basis, Dewitt Field/Old Town Municipal Airport currently provides the following total benefits:

DEWITT FIELD/OLD TOWN MUNICIPAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	24	23	47
GA Visitors	5	2	7
Total	29	25	**53**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$955,700	$544,700	$1,500,400
GA Visitors	$99,400	$53,100	$152,500
Total	$1,055,100	$597,800	**$1,652,900**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$2,087,900	$2,018,700	$4,106,600
GA Visitors	$217,100	$131,400	$348,500
Total	$2,305,000	$2,150,100	**$4,455,100**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Oxford County Regional Airport is located 2.2 miles north-northeast of Oxford, Maine, in Oxford County. The airport offers proximity to all-season recreation and tourism, including an abundance of fishing and skiing.

Oxford has a population of approximately 4,000. Major employment sectors in the area include construction, retail services, and tourism.

The 70-acre airport's primary runway, Runway 15/33, measures 2,997 feet in length and 75 feet in width. The airport, with 10 based aircraft, experiences approximately 34,070 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There is one aviation-related tenant located on the airport. This tenant functions as the FBO and as airport management for the airport sponsor. In order to preserve tenant confidentiality, tenant and visitor impacts have been combined. This tenant's direct employment, payroll, and output impacts were derived from survey data. The total combined first round output stemming from all on-airport tenant and general aviation visitors to Oxford County Regional Airport is approximately $4.9 million. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at 60 persons with a total first round payroll of approximately $1.4 million annually. Survey data indicates that approximately 830 visitors used the airport annually.

Second Round Impact

The first round impacts associated with the airport tenant and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the airport tenant and general aviation visitors to Oxford County Regional Airport is approximately $8.0 million. Total full-time employment related to the airport tenant and general aviation visitors, including all second round impacts, is estimated at approximately 120 persons, with a total annual payroll (first round and second round) of approximately $2.5 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Oxford County Regional Airport provides several services to the local community. The airport is primarily a base for recreational uses and for corporate aviation activity. The airport is also used extensively for aerial inspection of utilities, military operations, air ambulance services, and aerial photography. The airport also acts as a gateway for resort visitors.

While most itinerant aircraft traveled from nearby New England and Mid-Atlantic states to the airport. FAA data also indicates that aircraft traveled from as far away as North Carolina, Minnesota and Texas.

Summary

On an annual basis, Oxford County Regional Airport currently provides the following total benefits:

OXFORD COUNTY REGIONAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	60	60	**120**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$1,377,500	$1,149,200	**$2,526,700**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$4,921,600	$3,031,700	**$7,953,300**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Pittsfield Municipal Airport is located one mile southeast of Pittsfield, Maine, in Somerset County. Set among many of Maine's lakes, rivers, and streams, Pittsfield is an ideal gateway to the state's outdoor activities. Pittsfield is also home to the annual Central Maine Egg Festival.

Pittsfield has a population of 4,214. Major employers in the area include KyND Internet Services, Robinson Mobil Mart, and Craig Construction. The 325-acre airport's primary runway, Runway 01/19, measures 4,000 feet in length and 100 feet in width.

The airport, with 32 based aircraft, experiences approximately 24,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are three aviation-related tenants as well as construction activity on the airport which support 21 employees. First round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants and construction activity is estimated at $1.8 million annually. The estimated direct annual payroll of these tenants and activity is $639,900. Operational data indicates that approximately 3,430 general aviation visitors use the airport annually. This visitor-related output (spending) support an additional 26 full-time jobs with a total annual payroll of $544,400. Output from general aviation visitors is estimated at $1.2 million.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport

tenants, construction activity and general aviation visitors to Pittsfield Municipal Airport is approximately $4.9 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 76 persons, with a total annual payroll (first round and second round) of approximately $1.9 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Pittsfield Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses, corporate aviation and skydiving. The airport is also used extensively for air cargo, military operations, and flight instruction. The airport has been used in the past for aerial photography and real estate tours. The airport is also a gateway for resort visitors and sight seeing flights. The airport hosts several community events such as Girl Scouts, Maine Aviation History meetings, Civil Air Patrol meetings, and tours of the airport.

Businesses that utilize the airport include Cianbro Inc., CM Almy, Woodworth Construction, Moosehead Log Homes, and Central Maine Skydiving.

While most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states, FAA data also indicates aircraft traveled from as far away as Michigan.

Summary

On an annual basis, Pittsfield Municipal Airport currently provides the following total benefits:

PITTSFIELD MUNICIPAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	21	19	40
GA Visitors	26	10	36
Total	47	28	**76**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$639,900	$450,500	$1,090,400
GA Visitors	$544,400	$290,700	$835,100
Total	$1,184,300	$741,200	**$1,925,500**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$1,784,500	$1,187,800	$2,972,300
GA Visitors	$1,185,500	$717,700	$1,903,200
Total	$2,970,000	$1,905,500	**$4,875,500**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Princeton Municipal Airport is located 2.3 miles southeast of Princeton, Maine, in Washington County. Princeton is located on Long Lake in eastern Maine and has close proximity to many other natural lakes. The region is ideal for outdoor activities of all types, including hunting, fishing, kayaking, and hiking. In addition, Princeton is minutes from the Canadian border and near the Atlantic coast.

Princeton has a population of 892. Major employment sectors in the area include retail, professional services, manufacturing, and education.

The 420-acre airport's primary runway, Runway 15/33, measures 4,004 feet in length and 100 feet in width. The airport, with 7 based aircraft, experiences approximately 4,500 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts generated by the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Princeton Municipal Airport is approximately $604,900. Total first round full-time employment related to airport activities and general aviation visitors is estimated at 12 persons with a total first round payroll of approximately $292,900 annually. Survey data indicates that approximately 1,280 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to the airport and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the airport and general aviation visitors to Princeton Municipal Airport is approximately $1.0 million. Total full-time employment related to the airport and general aviation visitors, including all second round impacts, is estimated at approximately 17 persons, with a total annual payroll (first round and second round) of approximately $450,900 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Princeton Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses and for corporate activity. The airport is also frequently used for medical evacuations, patient transport, agricultural spraying, and military training. Outdoor enthusiasts and second home owners also utilize the airport frequently in the summer months.

While most itinerant aircraft traveled to the airport from nearby New England and Mid-Atlantic states. FAA data also indicates aircraft traveled from as far away as North Carolina, Nova Scotia, and Newfoundland.

Summary

On an annual basis, Princeton Municipal Airport currently provides the following total benefits:

PRINCETON MUNICIPAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	3	2	4
GA Visitors	10	4	13
Total	12	5	**17**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$90,000	$49,700	$139,700
GA Visitors	$202,900	$108,300	$311,200
Total	$292,900	$158,000	**$450,900**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$163,000	$139,500	$302,500
GA Visitors	$441,900	$267,500	$709,400
Total	$604,900	$407,000	**$1,011,900**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Rangeley Municipal Airport is located 2.6 miles north of Rangeley, Maine, in Franklin County. The Rangeley Lakes region is touted as a four-season recreation destination. Fishing, hiking, canoeing, fishing, golf, and a variety of winter sports await visitors. The airport is within close proximity to the Saddleback Ski Area. The region also attracts visitors through a variety of events, festivals, and concerts.

The Town of Rangeley has a population of 1,052. The population of the region jumps to 10,000 in the summer months. Major employment sectors in the area include recreation and retail trade.

The 125-acre airport's primary runway, Runway 14/32, measures 3,200 feet in length and 75 feet in width. The airport, with 22 based aircraft, experiences approximately 9,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There is one aviation-related business operating at the airport. In order to preserve business confidentiality, total on-airport and visitor impacts have been combined. This tenant's direct employment, payroll, and output impacts were derived from survey data. The total combined first round output stemming from the airport tenant and general aviation visitors to Rangeley Municipal Airport is approximately $1.0 million. Total first round full-time employment related to the airport tenant and general aviation visitors is estimated at 17 persons with a total first round payroll of approximately $364,400 annually. Survey data indicates that approximately 1,450 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate

to the one on-airport tenant and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the one airport tenant and general aviation visitors to Rangeley Municipal Airport was approximately $1.7 million. Total full-time employment related to the airport tenant and general aviation visitors, including all second round impacts, is estimated at approximately 26 persons, with a total annual payroll (first round and second round) of approximately $594,200 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Rangeley Municipal Airport provides several services to the local community. The airport is primarily a base for recreational and for emergency uses including medical evacuations, forest firefighting, and search and rescue. The airport is frequently used as a gateway for tourists and by second home owners. Due to its location near the Canadian border, Rangeley Municipal Airport is also used occasionally by border patrol officials.

Summary

On an annual basis, Rangeley Municipal Airport currently provides the following total benefits:

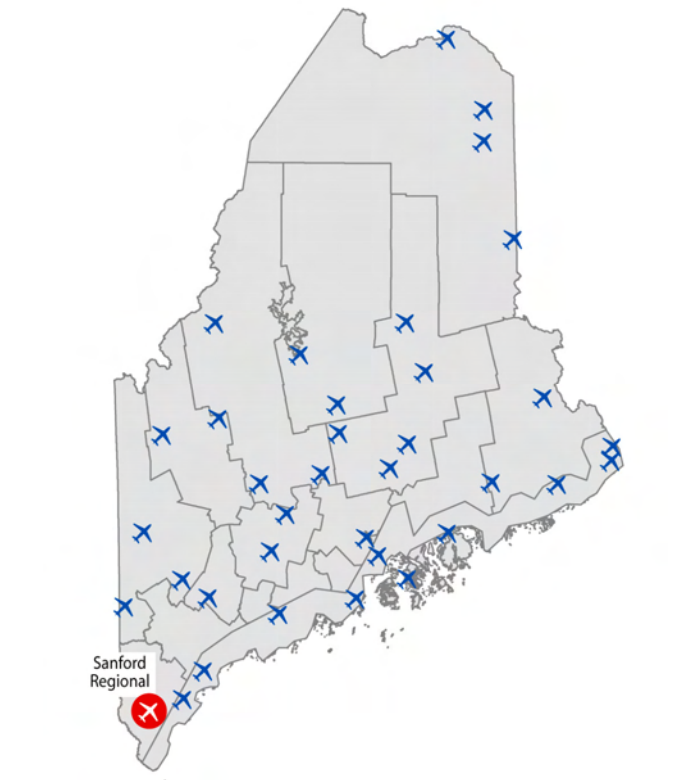
RANGELEY MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	17	10	**26**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$364,400	$229,800	**$594,200**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$1,017,500	$667,432	**$1,684,900**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location

Sanford Regional Airport is located 4.5 miles southeast of Sanford, Maine, in York County. Located less than 10 miles from the Atlantic coast, within a half hour of Portland, Maine and Portsmouth, NH, and close to the Maine highlands, Sanford is a perfect central location for a wide variety of activities within the region. Sanford itself offers many of the recreational activities that the State is known for, such as fishing, hunting, golf, and hiking.

Sanford has a population of over 23,000. Major employment sectors in the area include retail trade, manufacturing, health care, construction, and tourism. Major employers in Sanford include Cyro Industries, Goodall Hospital, Rubb Industries, Pratt and Whitney, Sanford School Department, WASCO Industries, Tom's of Maine, Baker Company, Hussey Seating, York Manufacturing, Flemish Master Weavers. The 1,097-acre airport's primary runway, Runway 07/25, measures 6,000 feet in length and 150 feet in width.



The airport, with 72 based aircraft, experiences approximately 80,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are seven aviation-related tenants on the airport, including airport management which support 44 employees. These tenants' direct or first round employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants is estimated at $2.8 million annually. The estimated direct annual payroll of these tenants is $1.3 million. Operational data indicate that approximately 20,480 visitors used the airport each year. Visitor-related spending supports an additional 157 full-time jobs earning over $3.2 million annually. Indirect output from general aviation visitors is estimated at $7.0 million.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the first round, second round, and

total impacts for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Sanford Regional Airport is approximately $16.1 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 294 persons, with a total annual payroll (first round and second round) of approximately $7.3 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Sanford Regional Airport provides several services to the local community. The airport is primarily a base for recreational uses and for flight instruction. The airport also experiences, on a regular basis, corporate aviation, aerial inspections by utility companies, aerial photography, and air cargo. The airport is also the airport of choice for Air Force One and other distinguished visitors to nearby Walkers Point. Oxford Aviation/Sanford Jet Division also recently made its home at the Sanford Regional Airport.

FAA data indicates the following businesses utilized the airport in 2006: Ameris Health Systems LLC, General Electric, Kohler Co., Maytag Corp., Meyer Tool Inc., Northrop Grumman Systems Corp., Pizzagalli Construction Co., Scalper Fishing Charters Inc., United Technologies Corp., Whirlpool Corp., and Whittier Hospital Management Inc.

The airport typically accommodates nonstop flights in private aircraft from New England and Mid-Atlantic states but was visited in 2006 by corporate jet aircraft from as far away as California, Alabama, Texas, Georgia, Ohio, Iowa, Virginia, Illinois, Indiana, Michigan, Minnesota, and Kansas.

The airport also hosts several air shows and events each year and attracts up to 1,500 participants.

Summary

On an annual basis, Sanford Regional Airport currently provides the following total benefits:

SANFORD REGIONAL AIRPORT

EMPLOYMENT

	First Round	Second Round	Total
On-Airport Activity	44	36	80
GA Visitors	157	57	214
Total	201	93	**294**

PAYROLL

	First Round	Second Round	Total
On-Airport Activity	$1,367,100	$955,900	$2,323,000
GA Visitors	$3,249,900	$1,735,100	$4,985,000
Total	$4,617,000	$2,691,000	**$7,308,000**

OUTPUT

	First Round	Second Round	Total
On-Airport Activity	$2,812,900	$1,985,100	$4,798,000
GA Visitors	$7,082,300	$4,287,400	$11,369,700
Total	$9,895,200	$6,272,500	**$16,167,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Stonington Municipal Airport is located 2.7 miles northwest of Stonington, Maine, in Hancock County. Stonington is located on beautiful Deer Isle off the Atlantic coast. The community is known for its scenery, tranquil environment, and fresh seafood, including the world-famous Deer Island lobster. Music and the arts, displayed at twenty arts and crafts galleries, also thrive on the island.

Stonington has a population of 1,152. Major employment sectors in the area include fishing and tourism. The 12-acre airport's primary runway, Runway 07/25, measures 2,099 feet in length and 60 feet in width.

The airport, with 4 based aircraft, experiences approximately 4,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There are no aviation-related tenants located on the airport. All economic impacts generated by the airport are the result of sponsor operation of the airport, construction activity, and visitor related impacts. The total combined first round output stemming from all sponsor activity and general aviation visitors to Stonington Municipal Airport is approximately $306,000. Total first round full-time employment related to airport activity and general aviation visitors is estimated at 7 persons with a total first round payroll of approximately $144,400 annually. Survey data indicates that approximately 830 visitors use the airport annually.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and employment as they relate to airport activity and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants and general aviation visitors to Stonington Municipal Airport is approximately $507,100. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 9 persons, with a total annual payroll (first round and second round) of approximately $219,200 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Stonington Municipal Airport provides several services to the local community. The airport is primarily a base for recreational uses, air cargo activity, and air ambulance activity. The airport is also a gateway for resort visitors and sight seeing flights. Local businesses that use the airport include Billings Diesel Shipyard.

The airport typically accommodates nonstop flights in private aircraft from New England and Mid-Atlantic states.

Summary

On an annual basis, Stonington Municipal Airport currently provides the following total benefits:

STONINGTON MUNICIPAL AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	1	0	1
GA Visitors	6	2	9
Total	7	3	**9**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$14,000	$5,200	$19,200
GA Visitors	$130,400	$69,600	$200,000
Total	$144,400	$74,800	**$219,200**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$19,700	$27,800	$47,500
GA Visitors	$286,300	$173,300	$459,600
Total	$306,000	$201,100	**$507,100**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location and Environs

Waterville Robert LaFleur Airport is located 3.1 miles southwest of Waterville, Maine, in Kennebec County. Located amidst rivers, several lakes, and the heartland of Maine's agricultural area, Waterville is ideal for fishing, hunting, and many other year-round outdoor activities. Agricultural activity in the region is supported by the Downtown Waterville Farmers' Market, open 6 months out of the year.

Waterville has a population of over 15,000 residents. Major employment sectors in the area include a variety of professional and management services. Colby College is also located in Waterville. The 350-acre airport's primary runway, Runway 05/23, measures 5,500 feet in length and 100 feet in width.

The airport, with 26 based aircraft, experiences approximately 7,500 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There is one aviation-related tenant located on the airport. In order to preserve tenant confidentiality, tenant and visitor impacts have been combined. This tenant's direct employment, payroll, and output impacts were derived from survey data. The total combined first round output stemming from the one airport tenant and general aviation visitors to Waterville Robert LaFleur Airport was approximately $1.5 million. Total first round full-time employment related to airport tenants and general aviation visitors is estimated at 26 persons with a total first round payroll of approximately $706,300 annually. Survey data indicates that approximately 2,330 visitors use the airport each year.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts throughout the State. Second round impacts are induced impacts calculated using the Maine specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts

for output, payroll, and employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from the on-airport tenant and general aviation visitors to Waterville Robert LaFleur Airport was approximately $2.9 million. Total full-time employment related to the airport tenant and general aviation visitors, including all second round impacts, is estimated at approximately 39 persons, with a total annual payroll (first round and second round) of approximately $1.1 million associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Waterville Robert LaFleur Airport provides several services to the local community. The airport is primarily a base for recreational uses, corporate aviation, flight instruction, and air cargo. The airport is also used by air ambulance companies for patient transport.

FAA data indicates the following businesses utilized the airport in 2006: Americraft Carton Inc., Aralia Homes Inc., Cigna Corporation, King Pharmaceuticals Inc., New York Times Company, Seneca Creek Research Inc., Stevens Industries Inc., and Veneer Specialties Inc.

The airport typically accommodates nonstop flights in private aircraft from New England and Mid-Atlantic states but also was visited by corporate jets from Georgia, Tennessee, Illinois, and Michigan.

Summary

On an annual basis, Waterville Robert LaFleur Airport currently provides the following total benefits:

WATERVILLE ROBERT LAFLEUR AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	26	13	**39**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$706,300	$395,400	**$1,101,700**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	***	***	***
GA Visitors	***	***	***
Total	$1,593,300	$1,282,400	**$2,875,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Airport Location

Wiscasset Airport is located 4.5 miles southwest of Wiscasset, Maine, in Lincoln County. In Wiscasset, visitors can shop for anything from antiques to organic food, dine on the waterfront, visit nationally significant historic sites, and choose form a wide variety of recreational activities. For a town of its size, Wiscasset has a remarkable infrastructure that benefits its local businesses.

Wiscasset has a population of approximately 3,603. Major employment sectors in the area include food service, other tourism-related sectors, professional services, and administrative services. The 196-acre airport's primary runway, Runway 07/25, measures 3,397 feet in length and 75 feet in width.

The airport, with 43 based aircraft, experiences approximately 7,000 aircraft operations annually.

Economic Impact

Economic impacts at an airport are expressed through employment, payroll, and output (spending). On-airport business and government activities (direct impacts) account for a significant portion of an airport's first round economic benefits. Additional first round benefits are also linked to visitors who arrive via the State's system of airports (indirect impacts). Spending by these visitors supports employment and associated annual payroll. First round impacts create additional spin-off benefits that ripple through the economy. These second round or induced benefits were measured with Maine-specific IMPLAN multipliers. When combined, first round and second round benefits equal the Annual total economic impact associated with each airport.

First Round Impact

There were two aviation-related tenants as well as construction activity on the airport which support 11 employees. These tenants' first round or direct employment, payroll, and output impacts were derived from survey data. Direct output from all on-airport aviation-related tenants and construction activity is estimated at $811,800 annually. The estimated direct annual payroll of these tenants and activity is $298,200. Operational data indicate that approximately 1,130 general aviation visitors use the airport annually. This visitor-related output (spending) supported an additional 9 full-time jobs with a total annual payroll of $178,000. Output from general aviation visitors is estimated at $390,000.

Second Round Impact

The first round impacts associated with on-airport tenants and general aviation visitors also create second round impacts. Second round impacts are induced impacts calculated using the Maine-specific IMPLAN multipliers. The accompanying table presents the 2005 first round, second round, and total impacts for output, payroll, and

employment as they relate to on-airport tenants and general aviation visitors.

Total Impact

The total output (including first round and second round impacts) stemming from all on-airport tenants, construction activity and general aviation visitors to Wiscasset Airport is approximately $2.1 million. Total full-time employment related to airport tenants and general aviation visitors, including all second round impacts, is estimated at approximately 31 persons, with a total annual payroll (first round and second round) of approximately $756,600 associated with these jobs.

Other Benefits

In addition to the economic benefits described above, Wiscasset Airport provides several services to the local community. The airport is primarily a base for recreational uses and for flight instruction. The airport is also used extensively for corporate aviation, aerial inspections by utility companies, air ambulance activity, and for aerial photography. Several local pilots also volunteer for Angel Flight Patient Transport. The airport hosts an annual open house as well as Young Eagle Flights.

FAA data indicates the following businesses utilized the airport in 2006: Hartley Marine Services Inc., Iron Mountain Information Management Inc., Hughes Logistics Inc., Hutter Construction Corporation, Machinery Service Co Inc., Metro Publishers Services Inc., and Raytheon Aircraft Company. Airport survey data indicates Boothbay Regional Boatyard, Sprinkler Systems, and Teleflex use the airport on a regular basis.

The airport typically accommodates nonstop flights in private aircraft from New England and Mid-Atlantic states.

Summary

On an annual basis, Wiscasset Airport currently provides the following total benefits:

WISCASSET AIRPORT			
EMPLOYMENT			
	First Round	Second Round	Total
On-Airport Activity	11	9	20
GA Visitors	9	3	12
Total	19	12	**31**
PAYROLL			
	First Round	Second Round	Total
On-Airport Activity	$298,200	$185,400	$483,600
GA Visitors	$178,000	$95,000	$273,000
Total	$476,200	$280,400	**$756,600**
OUTPUT			
	First Round	Second Round	Total
On-Airport Activity	$811,800	$620,800	$1,432,600
GA Visitors	$390,000	$236,100	$626,100
Total	$1,201,800	$856,900	**$2,058,700**

Source: Wilbur Smith Associates & IMPLAN multipliers
Note: May not sum due to rounding
GA = General Aviation

Appendix D

APPENDIX D

BENEFITS OF LOW-COST CARRIER SERVICE

One of the challenges presented to Maine's commercial service airports is to retain air travelers in each airport's service area. Too often, air travelers are lured by lower fares offered by low-cost carriers, to alternative airports to begin the air portion of their trip. This is called the "drive-fly" phenomenon, referring to passenger leakage to competing airports. Airports competing with Maine's commercial service airports that offer low-cost carriers are as follows:

- Boston Logan service by JetBlue, AirTran
- Manchester service by Southwest Airlines

Southwest Airlines does not have an airline feeder providing service from outlying communities to meet their aircraft operated at larger airports. The airline does however have a code sharing agreement with its airline partner ATA. Many regional airlines have attempted to become a code share partner with Southwest Airlines, but all have failed. This is because Southwest Airlines considers the automobile its commuter carrier. Automobile license plate surveys in airport parking lots have confirmed the "drive-fly" phenomenon for airports served by Southwest Airlines. Such surveys show drivers from three hours away parked at airports served by Southwest Airlines. This is known as the "Southwest Effect." The term "Southwest Effect" was first coined by the Department of Transportation in a 1993 study. The moniker defines a proven result that follows the entry of a low-fare airline into the traditional airline marketplace. There are scores of examples to document its existence. There are three distinct features of the "Southwest Effect":

- Passenger counts at a particular airport,
- The fares at a particular airport,
- And the effects on surrounding airports.

A study by the U.S. Department of Transportation shows that Southwest Airlines typically increases competition in the market. For example, when Southwest Airlines entered Raleigh-Durham in 1999 the impacts were substantial. During the fourth quarter of 1999, out of the 34 routes nationwide on which prices declined by at least 30 percent, 12 of these routes were at Raleigh-Durham. All were on Southwest routes, which entered the local market in June 1999. The survey, which compared all routes and airlines at Raleigh-Durham between the fourth quarter of 1998 and 1999, provides an enlightening perspective on the impact that one low cost airline can have. Of the 14 routes served by Southwest at Raleigh-Durham, fares declined by an average of 40 percent.

Southwest Airlines brought more changes to the Raleigh-Durham market area than just lower ticket prices. The study revealed an even more dramatic change in passengers. On 14 Raleigh-Durham routes flown by Southwest, the number of passengers increased by an average of 92 percent for all carriers, not just Southwest. As a result of the "Southwest effect," traffic in and out of Raleigh-Durham increased by 25.5 percent, or more than 1 million passengers, during the first half of 2000 compared to the same period in 1999.

Lower fares entice more travelers, especially leisure travelers, to drive to a more distant airport. In addition, low cost carriers stimulate new fare-driven passengers. Travelers might choose air travel over an automobile trip if ticket prices are affordable. Since other airlines in this example generally meet the lower fares, all carriers have increased traffic. Fares to

cities not served by low cost carrier remain generally the same as before the carrier arrived in the market.

In July 2006, Portland International Jetport gained low-cost carrier JetBlue. JetBlue has six full time employees and 10 part time employees at the airport. There were over 300 job applicants for these positions. Although it is too early to tell , it is anticipated that as a result of this low-cost carrier operating at Portland International Jetport the airport will attract passengers from greater distances. This service may bring in passengers from nearby states but may also attract passenger enplanements from other Maine commercial service airports. With only six months of data, it is not possible to conclusively measure the economic benefit of JetBlue's operations at Portland International Airport. However, an estimate of the benefits can be derived using several assumptions, including increased passenger volumes due to competitive airfares and airfare savings to the traveling public.

Analysis by USDOT indicates that Origin and Destination passengers in the Boston market traveling on JetBlue save, on average, $41 per roundtrip airfare.[1]

Analysis in **Table 1D** provides an estimate of airfare savings for the traveling public using select destinations from Portland International Jetport. The analysis assumes that each low-cost carrier route operated from Portland results in, an average savings of $41 per passenger in airfare. In addition, the analysis assumes that each route will experience a conservative growth rate of 5 percent in passenger demand due to increased airline competition. The 5 percent growth rate was applied to all Portland markets which JetBlue serves[2]. Based on this analysis, it is estimated that the traveling public departing from Portland Jetport could save nearly $12.8 million in airfare in 2007. These savings provide "opportunity costs" to Maine consumers which allow for additional spending. Air fare savings can be used for a number of activities and may or may not positively impact the State's economy. As a result, no attempt was made to quantify the additional impacts that might be associated with the $12.8 million in cost savings.

[1] http://ostpxweb.dot.gov/aviation/domestic-competition/1Q04.pdf. Boston market was selected due to available data and proximity to Maine.

[2] Due to low cost carrier JetBlue entering the Portland market in 2006 it is assumed the carrier's entry will put downward pressure on airfares to all markets it serves and frequented by Maine travelers. Generally speaking other carrier's fares will decrease to stay competitive with the low cost carrier while passenger traffic increases.

TABLE 1D
Estimated Airfare Savings on Low-Cost Carrier Routes

Portland to	2006 O&D Passengers	2007 Anticipated O&D Passengers	Airfare Savings
Washington-Dulles	55,210	57,971	$2,376,800
Orlando	28,500	29,925	$1,226,900
Tampa	21,850	22,943	$940,600
Chicago-O'Hare	21,200	22,260	$912,700
Southwest Florida Regional	11,980	12,579	$515,700
Las Vegas	11,380	11,949	$489,900
West Palm Beach	10,760	11,298	$463,200
Seattle	10,680	11,214	$459,800
Jacksonville FL	10,010	10,511	$430,900
Fort Lauderdale	9,550	10,028	$411,100
Raleigh-Durham	9,080	9,534	$390,900
Charlotte	8,940	9,387	$384,900
Denver	8,890	9,335	$382,700
Pittsburgh	8,540	8,967	$367,600
San Diego	7,860	8,253	$338,400
Phoenix	6,960	7,308	$299,600
Nashville	6,830	7,172	$294,000
Columbus OH	6,680	7,014	$287,600
Portland OR	5,520	5,796	$237,600
New Orleans	4,490	4,715	$193,300
Sarasota-Bradenton FL	3,810	4,001	$164,000
Salt Lake City	3,790	3,980	$163,200
Buffalo	3,450	3,623	$148,500
Richmond VA	3,290	3,455	$141,600
Rochester NY	3,210	3,371	$138,200
Austin	3,080	3,234	$132,600
San Jose	2,350	2,468	$101,200
Sacramento	2,350	2,468	$101,200
Orange Co. CA (Wayne)	1,900	1,995	$81,800
Syracuse	1,770	1,859	$76,200
Boston	1,600	1,680	$68,900
Oakland	1,100	1,155	$47,400
TOTAL	**296,610**	**311,441**	**$12,769,000**

Source: Wilbur Smith Associates

Appendix E

MAINE AIR CARGO OVERVIEW

INRODUCTION

This discussion provides insight into global air cargo trends and the air cargo industry in the United States. This overview also provides a brief description of the services, carriers and airports utilized in today's air cargo industry. Air cargo trends that specifically related to airports in the State of Maine are also presented. The following specific topics are discussed:

- Global Air Cargo Trends
- U.S. Air Cargo Trends
- Maine Air Cargo Overview
- Economic Impact of Cargo in Maine

GLOBAL AIR CARGO TRENDS

Air cargo is big business. It is estimated by the International Air Cargo Association (TIACA) that the air cargo industry transports 40 percent of world trade by value but a mere two percent by weight. The air cargo industry typically transports goods that are high value, time-sensitive and light weight in nature. These commodities most often include:

- Aerospace - Equipment & Parts
- Automotive - Equipment & Parts
- Pharmaceuticals
- Computers & Computer Components
- Diagnostic Equipment
- Medical Equipment
- Software
- Textiles - Garments
- Consumer Electronics
- Perishables - Flowers, Fruit, Vegetables & Seafood
- Economically Perishable Materials - Printed Material
- Telecommunications Equipment - Cell Phones, Blackberries, etc.
- Photographic Film

In 2005, the U.S. domestic air freight and express market activity was valued at $30 billion, whereas the international air freight/express market was valued at $62 billion. When combined, the worldwide air cargo industry was valued at $92 billion for calendar year 2005. Cargo's share of total revenue passenger airlines varies widely but is estimated at:

- 5 percent of revenue for U.S. major carriers
- 15 percent of revenue for European major carriers
- 20 percent to 30+ percent of revenue for Asian major carriers

Overall, 85 percent of airline revenue comes from passengers and 15 percent from cargo. Boeing indicates in their biannual air cargo forecast that freight traffic worldwide will grow six to seven percent per year this indicates the air cargo market size doubles every 10 years. By volume, approximately 50 percent of air cargo is shipped worldwide in the lower deck of

passenger aircraft. The remaining 50 percent shipped by freighter aircraft operators (Atlas, Polar Air Cargo, etc) and by integrated express carriers (DHL, FedEx, and UPS).

CASS USA, a division of the International Air Transport Association (IATA), has 78 member airlines which provide annual air cargo tonnage information. This data indicates, worldwide, air cargo activity for the six year period from 1999 to 2004 experienced an up tick in tonnage flown in 1999 and 2000 followed by a decrease in tonnage in 2001 and 2002. (See **Exhibit 1E**) While this data does not capture the entire universe of air cargo activity, it does provide a sample of worldwide trends within the industry. Air cargo tonnage increased significantly in 2004, reflecting resiliency in the air cargo sector as well as world economy.

EXHIBIT 1E
Worldwide Air Cargo Trends 1999-2004

Region	1999	2000	2001	2002	2003	2004
Africa	25,118	24,894	23,490	23,124	26,282	31,405
Asia	469,012	516,640	459,618	458,087	501,186	640,391
Europe	778,548	775,780	690,130	620,428	669,334	775,847
Middle East	73,944	69,392	69,078	68,573	82,783	108,726
N & C America	54,444	63,997	56,474	56,588	54,763	62,472
South America	111,971	115,305	95,919	76,862	96,369	138,884
Total	**1,513,037**	**1,566,009**	**1,394,709**	**1,303,660**	**1,430,717**	**1,757,725**

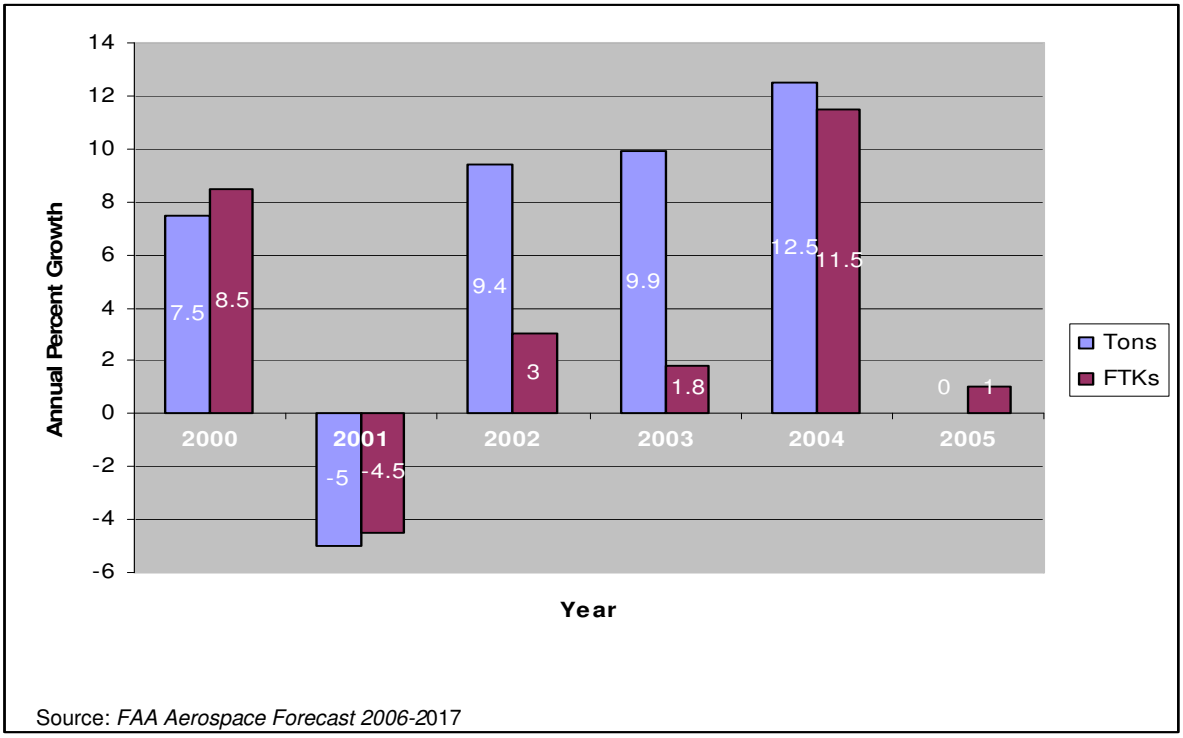
Source: CASS USA Market Monitor

The *FAA Aerospace Forecast 2006-2017* indicates worldwide air cargo demand in 2004 responded positively to stronger global economic activity, with freight tons and freight ton kilometers (FTKs) up 12.5 and 11.5 percent, respectively. However, it appears that high fuel prices took their toll on air cargo demand in 2005 as illustrated in **Exhibit 2E**. For 2005, IATA reported that member carrier cargo traffic was up only 2.6 percent. AEA and AAPA statistics show that their member carriers' FTKs were up only 2.2 and 3.2 percent, respectively, during 2005. The International Civil Aeronautics Organization (ICAO) estimated that member cargo carrier traffic increased about 1.0 percent in 2005.

U.S. AIR CARGO TRENDS

Air freight has been the fastest growing segment of the U.S. cargo industry, according to a report by the U.S. Department of Transportation's Bureau of Transportation Statistics. Air freight is growing rapidly as U.S. businesses seek timely delivery of valuable goods, and create greater demand for truck and intermodal services.

EXHIBIT 2E
World Air Cargo Demand 2000-2005



Source: *FAA Aerospace Forecast 2006-2*017

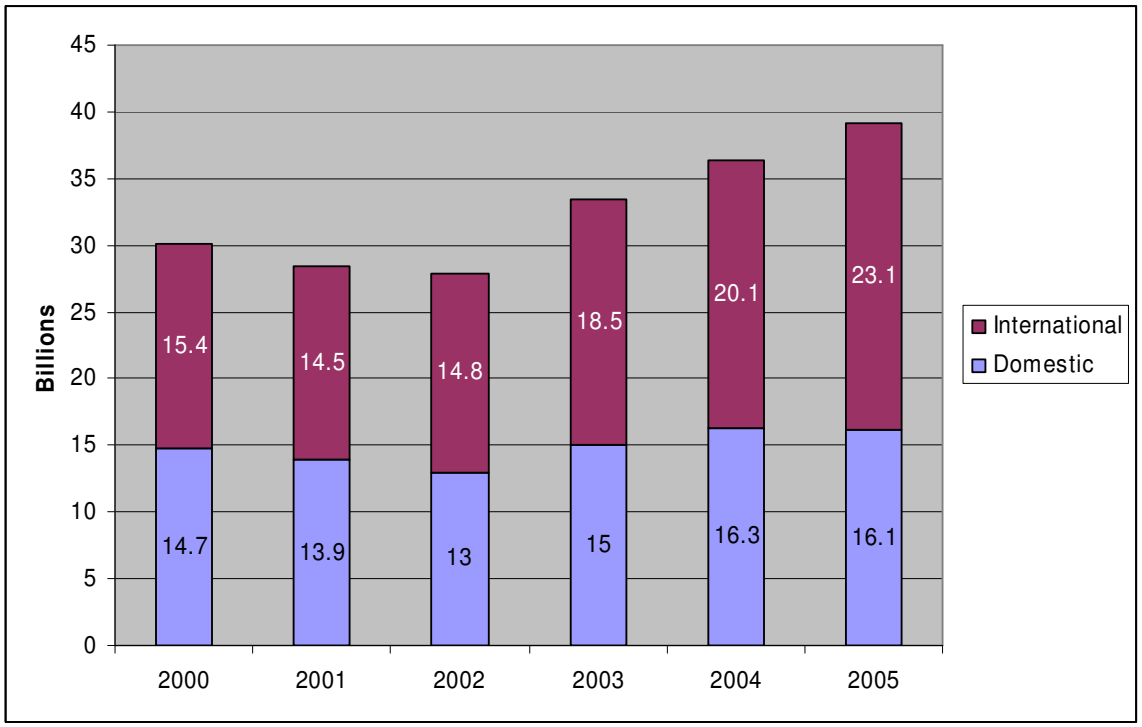
Although air freight's overall tons and ton-miles totals remains small (less than 1 percent) compared to annual totals for other transportation modes, use of air cargo continues to grow. From 1993 to 2002, totals for tonnage grew about 46 percent and totals for ton-miles increased 63 percent. The value of goods shipped by U.S. businesses also grew, from $56,000 per ton in 1993 to $75,000 per ton in 2002. In 2002, air freight shipments were valued at over $770 billion, nearly double the $395 billion total for 1993. Because most air shipments begin and end their journeys by truck, air freight growth creates growth in truck and intermodal services as well.

The *FAA Aerospace Forecast 2006 to 2017* provides insight into recent U.S. trends in the air cargo sector of aviation. The following text is from this publication:

U.S. air carriers flew 39.2 billion revenue ton miles (RTMs) in 2005, up 7.5 percent from 2004. Domestic cargo RTMs (16.1 billion) decreased 1.6 percent, while international RTMs (23.1 billion) were up 14.8 percent. The decrease in domestic RTMs reflects a continuation of the modal shift from air to ground shipments and the impact of air fuel surcharges. The increase in international RTMs is attributable to increases in trade (e.g., Asia) and military shipments to the Middle East. (**See Exhibit 3E**)

Air cargo RTMs flown by all-cargo carriers were 70.8 percent of total RTMs in 2005: passenger carriers flew the rest, or 29.2 percent of the total. Total RTMs flown by all-cargo carriers increased 7.6 percent in 2005, from 25.8 billion to 27.7 billion. Total RTMs flown by passenger carriers were 11.4 billion in 2005 (up 7.2 percent).

EXHIBIT 3E
U.S. Commercial Air Carriers Cargo Revenue Ton Miles 2000-2005



Source: FAA Aerospace Forecast 2006-2017

Boeing Commercial Aircraft provides a forecast of air cargo activity for North America and other regions of the world every two years. The *2004/2005 World Air Cargo Forecast* indicates the following:

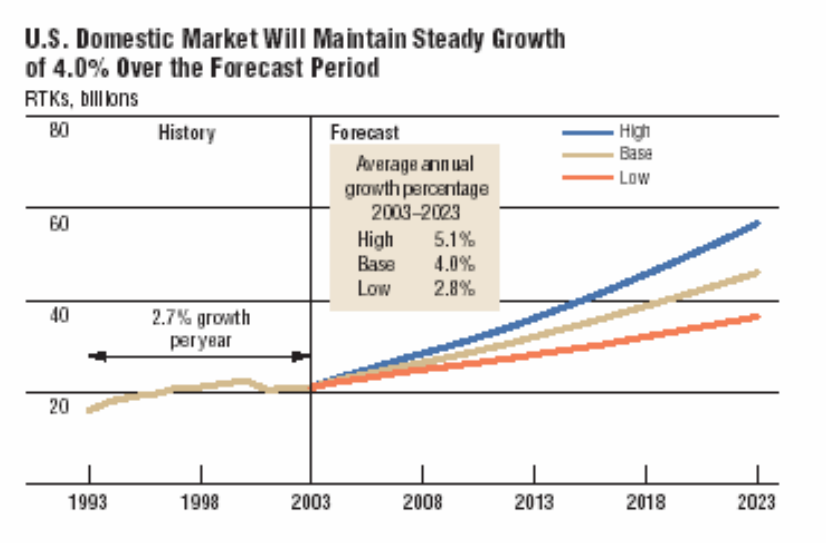
Air cargo traffic in North America grew 0.7 percent in 2003, following growth of 1.9 percent in 2002. The market growth for North America has averaged 4.5 percent per year since 1985. North America air cargo traffic is projected to sustain 4.4 percent average growth during the 10-year forecast period and a 4.1 percent growth rate over the 20-year period from 2003 to 2023.

The transborder market between Canada and the United States is projected to grow faster than the domestic air cargo markets of either country. Both Canadian and U.S. industries have expanded business ties under the North American Free Trade Agreement (NAFTA) and the Air Transport Agreement especially at border locations in the northeastern and northwestern United States. Bolstering this trend, U.S. shippers use the relatively uncongested and accessible Canadian airports to transport finished and intermediate goods to both Europe and Asia. Overall, transborder air trade between Canada and the United States is projected to grow approximately 7.5 percent during the 10-year period of 2003 through 2013, but will average 6.1 percent over the second half of the 20-year forecast period, from 2013 to 2023.

The U.S. domestic sector will continue as the dominant market in North America, comprising slightly more than 93 percent of total RTKs. Air cargo trade within the United States will display steady growth, averaging 4.3 percent during the 10-year forecast period and 4.0 percent over the 20-year forecast period from 2003 to 2023. Growth in the domestic

Canadian air cargo market is projected at 3.0 percent and 2.6 percent for the 10-year and 20-year time horizons, respectively. Overall, growth in both domestic markets could be limited by the expected expansion of truck shipments in the time-definite sector. (See Exhibit 4E).[1]

EXHIBIT 4E



Source: Boeing 2004/2005 World Air Cargo Forecast

U.S. AIRPORT INFRASTRUCTURE FACILITATING AIR CARGO DEMAND

There are relatively few airports in the world that are considered strictly "air cargo airports".[2] Nearly all airports that have air cargo activity are either passenger airports with air cargo activity or "industrial" airports where cargo is one of many aviation activities taking place on the airport. A more limited number of general aviation airports also serve varying levels of air cargo demand. Commercial, general aviation and industrial airports can each experience various levels of air cargo activity. An airport's air cargo function or classification can be divided into the following four distinct types and; these functional types are not mutually exclusive:

- Local market station
- Air cargo hub
- International gateway
- Intercontinental hub

Local Market Station - The criteria for a local market station, or direct air cargo service (origin and destination [O&D] service to an airport's surrounding market area), generally coincides with large population centers where there is a concentration of industry, commerce, and transportation infrastructure. Often referred to as a "node" within a cargo carrier's network, the local market station is the simplest and most common type of air cargo facility. These airports represent the "spoke" in a hub-and-spoke air carrier network. For airport-to-airport service providers, the local market station represents the origin or destination point for the cargo they are transporting.

[1] Boeing 2004/2005 World Air Cargo Forecast, Page 23
[2] In North America the only true air cargo airport is Airborne Airpark (ILN) in Wilmington, OH which is a former military base but is now privately owned by DHL.

The sole function of a direct air cargo service facility or local market station is to collect outbound air cargo and distribute inbound air cargo to the airport's surrounding market area. In order to make direct air cargo service economically feasible, the airport's surrounding market area or "catchment area" must generate enough inbound and outbound air cargo traffic and revenue to offset an air cargo carrier's operational costs at that airport.

Air Cargo Hub - The air hub operations and associated sort facility at an airport or a gateway facility are fed by the local market stations. A hub/sort facility can operate independently of the local market area demand for air cargo service. At an air cargo hub, the majority of the material to move through the hub/sort airport has an origin and destination that does not coincide with that airport's surrounding market area.

International Gateway – To a certain extent, an air cargo gateway is similar to a hub airport in that the gateway airport is not reliant on the surrounding market area to generate sufficient air cargo to justify operations. The gateway functions as a consolidation, distribution, and processing point for international air cargo. As with the air cargo hub, much of the air cargo moving through an international gateway airport does not originate in or is not destined for the gateway airport's surrounding market area.

Intercontinental Hub – An intercontinental hub connects two or three continents by air cargo and passenger aircraft and can be located in relatively remote parts of the world away from dense populations. These airports have cargo hub capabilities as well as aircraft service centers for aircraft needing to refuel and change out crews.

MAINE AIR CARGO TRENDS

Two airports in Maine accommodate the majority of air cargo activity in the State: Portland International Jetport and Bangor International. All airports in Maine with air cargo activity are considered local market stations. There are no airports in the State that are considered air cargo hubs, international gateways or intercontinental hubs. Commodities commonly transported via air cargo in the State include seafood, seasonal berries, textiles, semiconductors, other computer components, and bank documents.

Portland International Jetport is the only airport in the State with scheduled cargo jet activity. Other airports in the State are serviced with turboprop aircraft commonly used by integrated express carriers such as FedEx and UPS. Boston-Logan International Airport continues to be a departure point for most regional international air cargo. International air cargo is most often trucked to Boston from Maine on scheduled road-feeder-service (RFS) trucks. It is not unusual for international gateway airports such as Boston to attract air cargo from markets as far as 600 miles away.

Passenger airlines provide air cargo service on a limited basis to customers in Maine. Aircraft baggage compartments have become smaller as more regional aircraft, such as regional jets, are utilized by the passenger airline industry. This reduction in "belly capacity" has limited the use of passenger aircraft to transport cargo. The rise in integrated express carriers, such as FedEx, has also decreased the passenger carrier market share of air cargo.

Bangor International Airport – FedEx, UPS and DHL operate turboprop cargo feeder aircraft at Bangor and fly to airports such as Portland Jetport, Burlington Regional, or Manchester Regional where freight is transloaded onto awaiting cargo jets. FedEx at one time operated a B727 cargo jet at Bangor but currently operates two Cessna Caravans.

Bangor International Airport is in an advantageous location for polar air cargo routes and intercontinental air cargo routes. In fact, at one point in the Airport's history, prior to airline deregulation in 1978, Bangor was used extensively as a "technical stop" for passenger airlines flying from Europe to Florida. Passengers would clear customs at Bangor; the aircraft was refueled, and upon arrival in Miami, passengers would bypass US Customs. Eventually, long-range aircraft decreased the need for the tech-stop in Bangor by passenger airlines.

Today, air cargo carriers occasionally will have aircraft tech-stop in Bangor to refuel. This is more common in winter months as winter head winds may cause air cargo carriers to stop in Bangor to refuel on their way to respective U.S. air cargo hubs. DHL commonly uses Bangor as a tech-stop on its Europe to Wilmington, Ohio routes.

Portland International Jetport – FedEx has significant operations at Portland International. The integrated express carrier operates both a B727 and wide-body Airbus 300 at the airport on a scheduled basis. Freeport-based LL Bean contracts with FedEx to provide shipping to their customers. In fact, FedEx has a local market station located within LL Bean's Freeport distribution center. In addition, FedEx and DHL operate from the airport's air cargo facility. FedEx leases three ramp positions totaling 55,000 square feet. DHL has one ramp position totaling 26,000 square feet. DHL operates a DC9 cargo jet at the airport. Much of DHL's cargo is transferred from truck to aircraft on the airport's cargo ramp. UPS does not operate jet aircraft at the airport on a scheduled basis. According the recent airport master plan, air cargo volumes at the Jetport doubled between 1994 and 2003, reaching 17,650 annual tons carried by all carriers.

Other Maine Airports – Air cargo is common at other airports within the State but is less visible. Many privately owned air cargo charter companies contract with integrated express companies to provided scheduled cargo lift five days a week to carriers such as UPS. For example, Air Now operates an Embraer 110 aircraft for UPS at Auburn-Lewiston Regional Airport and a Cessna Caravan at Waterville Robert LaFleur Airport. These cargo aircraft operations are often in unmarked aircraft and blend in with the other general aviation activity at these airports. Although these operations are small in scale, they are critical links to business and consumers in Maine.

ECONOMIC IMPACT OF AIR CARGO IN MAINE

Air cargo activity at airports in Maine provides jobs and supports economic activity throughout the State. Many businesses and industries rely on air cargo to transport commodities to their customers or as a function of their manufacturing supply chain. Approximately 6.4 percent of the economic impact of Maine's airports is related to on-airport air cargo activity. Survey data indicates 216 first round jobs at Maine's airports are in the air cargo industry. The majority of these jobs are at Portland International Jetport where FedEx and DHL have notable operations. Payroll and benefits related to these jobs averages about $40,000 annually per employee. After the multiplier impacts are calculated total output for the air cargo industry on Maine's airports is nearly $50 million annually.

EXHIBIT 5E
Air Cargo Economic Impact in Maine

	First Round Impacts	Second Round Impacts	Total Impacts
EMPLOYMENT			
Air Cargo Employment	216	204	420
PAYROLL			
Air Cargo Payroll	$8,551,200	$7,170,255	$15,721,455
OUTPUT			
Air Cargo Output	$24,542,500	$25,400,536	$49,943,036

Source: Wilbur Smith Associates

Appendix F

ESSENTIAL AIR SERVICE AIRPORT IMPACT ESTIMATES

Four commercial service airports in Maine currently receive federal funding to subsidize commercial airline operators. The Essential Air Service (EAS) program was developed by the federal government to support small communities' commercial air service. Airports receiving EAS funds in Maine include:

- Augusta State Airport
- Hancock County-Bar Harbor Airport
- Knox County Regional Airport
- Northern Maine Regional Airport

Based on the economic impact model used in this study, a scenario was developed which identifies the economic impact to EAS airports if these airline operating subsidies are terminated. The analysis removes the economic impact of airlines and support activity to airlines from the economic impact model. It also calculates the economic impact loss related to visitors to each airport that utilize each respective airport for commercial airline service. Economic impact related to general aviation activity is held constant. This scenario also assumes no airline service replaces that currently supported through EAS.

The analysis indicates that when all EAS airports are combined a loss of nearly 640 jobs and $38.9 million in annual economic output would be lost. This represents approximately 41 percent of all economic benefit related to these four commercial service airports whose airline service depends on EAS funding. The largest decrease in economic benefit would be for Northern Maine Regional Airport which would experience a 55 percent reduction in economic output and a 65 percent reduction in employment if EAS subsidies were lost. Table 1F identifies, by airport and in aggregate, the decreases in economic benefit that could take place if EAS service would be terminated in Maine. August State Airport would lose about one third of its annual economic impact, while Hancock County-Bar Harbor Airport would lose approximately half of its impact. Approximately 25 percent of the annual economic impact of Knox County Regional Airport would be lost if EAS service was terminated.

TABLE 1F
Anticipated Decreases in Economic Impact
If Essential Air Service Program is Terminated at Maine Airports

Augusta State				
		EMPLOYMENT		
	First Round	Second Round	Total	% Decrease
Total	54	28	81	37%
		PAYROLL		
	First Round	Second Round	Total	% Decrease
Total	$1,338,300	$740,100	$2,078,400	35%
		OUTPUT		
	First Round	Second Round	Total	% Decrease
Total	$3,095,000	$2,441,700	$5,536,700	33%

Hancock County-Bar Harbor				
		EMPLOYMENT		
	First Round	Second Round	Total	% Decrease
Total	149	75	224	52%
		PAYROLL		
	First Round	Second Round	Total	% Decrease
Total	$3,552,500	$2,151,000	$5,703,500	51%
		OUTPUT		
	First Round	Second Round	Total	% Decrease
Total	$8,687,400	$5,903,300	$14,590,700	48%

Knox County Regional				
		EMPLOYMENT		
	First Round	Second Round	Total	% Decrease
Total	63	30	93	26%
		PAYROLL		
	First Round	Second Round	Total	% Decrease
Total	$1,403,800	$779,800	$2,183,600	24%
		OUTPUT		
	First Round	Second Round	Total	% Decrease
Total	$3,605,600	$2,601,000	$6,206,600	24%

TABLE 1F (cont'd)
Anticipated Decreases in Economic Impact
If Essential Air Service Program is Terminated at Maine Airports

Northern Maine Regional				
		EMPLOYMENT		
	First Round	Second Round	Total	% Decrease
Total	156	84	240	65%
		PAYROLL		
	First Round	Second Round	Total	% Decrease
Total	$3,952,700	$2,563,500	$6,516,200	61%
		OUTPUT		
	First Round	Second Round	Total	% Decrease
Total	$7,654,700	$4,680,400	$12,335,100	55%

Estimated Economic Impact Losses for EAS Airports				
		EMPLOYMENT		
	First Round	Second Round	Total	% Decrease
Total	422	217	638	46%
		PAYROLL		
	First Round	Second Round	Total	% Decrease
Total	$10,247,300	$6,234,400	$16,481,700	45%
		OUTPUT		
	First Round	Second Round	Total	% Decrease
Total	$23,042,700	$15,626,400	$38,669,100	41%

Source: Wilbur Smith Associates, 12/2006