MAINE AVIATION
SYSTEMS PLAN UPDATE PHASE I

FINAL TECHNICAL REPORT
MAINE AVIATION SYSTEMS PLAN

MAINE DEPARTMENT OF TRANSPORTATION
OFFICE OF PASSENGER TRANSPORTATION

PREPARED BY:

ENGINEERS
PLANNERS
ECONOMISTS
Wilbur Smith Associates

WITH OEST ASSOCIATES

Maine Aviation System Plan Update

Prepared for:

Maine Department of Transportation

March 2006

Prepared by:

Wilbur Smith Associates
6600 Clough Pike
Cincinnati, OH 45244

"The preparation of this document was financed in part through a planning grant from the Federal Aviation Administration (FAA) as approved under the Airport and Airway Improvement Act of 1982. The contents of this report reflect the views of the Consultant, which is responsible for the fact and the accuracy of the data depicted herein, and do not necessarily reflect the official views or policy of the FAA. Acceptance of the report by the FAA does not in any way constitute a commitment on the part of the United States to participate in any development depicted therein, nor does it indicate that the proposed development is environmentally acceptable in accordance with applicable public laws."

TABLE OF CONTENTS

CHAPTER ONE – SYSTEM GOALS AND PERFORMANCE MEASURES

CHAPTER TWO – INVENTORY

CHAPTER THREE – ROLES FOR SYSTEM AIRPORTS AND FACILITY AND SERVICE OBJECTIVES

CHAPTER SIX – TARGET SYSTEM COMPLIANCE

CHAPTER SEVEN – FUTURE SYSTEM ROLES

CHAPTER EIGHT – FUTURE SYSTEM PERFORMANCE

CHAPTER NINE – FUTURE AIRPORT PERFORMANCE

CHAPTER TEN – IMPLEMENTATION PLAN

LIST OF EXHIBITS

CHAPTER ONE – SYSTEM GOALS AND PERFORMANCE MEASURES

CHAPTER TWO – INVENTORY

CHAPTER THREE – ROLES FOR SYSTEM AIRPORTS AND FACILITY AND SERVICE OBJECTIVES

CHAPTER FOUR – PROJECTIONS OF AVIATION DEMAND

CHAPTER FIVE – SYSTEM EVALUATION

CHAPTER SEVEN – FUTURE SYSTEM ROLES

CHAPTER TEN – IMPLEMENTATION PLAN

LIST OF TABLES

CHAPTER TWO – INVENTORY

CHAPTER THREE – ROLES FOR SYSTEM AIRPORTS AND FACILITY AND SERVICE OBJECTIVES

CHAPTER FOUR – PROJECTIONS OF AVIATION DEMAND

CHAPTER FIVE – SYSTEM EVALUATION

CHAPTER SEVEN – FUTURE SYSTEM ROLES

CHAPTER EIGHT – FUTURE SYSTEM PERFORMANCE

CHAPTER NINE – FUTURE AIRPORT PERFORMANCE

CHAPTER TEN – IMPLEMENTATION PLAN

LIST OF CHARTS

CHAPTER FIVE – SYSTEM EVALUATION

APPENDICES

CHAPTER ONE
SYSTEM GOALS AND PERFORMANCE MEASURES

OVERVIEW

This chapter represents the first in a series of technical chapters that document the Maine Aviation Systems Plan Update. Prior to this document, the State Aviation Systems Plan was last updated in 1996. This report provides a comprehensive assessment focusing on aviation conditions in Maine over the past several years.

The FAA updates its National Plan of Integrated Airport Systems (NPIAS) twice each year. State system plans, such as this, are used to develop NPIAS recommendations. The FAA draws money for eligible airport development projects from the Airport Improvement Program (AIP). AIP funding is derived from the Aviation Trust Fund; the source for this trust fund is a dedicated stream that is derived from taxes on the aviation fuel and commercial airline tickets. Airports must be included in the NPIAS for their projects to be eligible for AIP funding. While there are a variety of criteria that are considered for an airport to be included in the NPIAS, generally speaking, to be in the NPIAS, an airport must:

- Be more than 30 miles from the closest NPIAS airport
- Have at least 10 based aircraft
- Have a willing public sponsor

Recommendations from this Systems Plan Update will be coordinated with both the NPIAS and individual master plans that are developed for system airports.

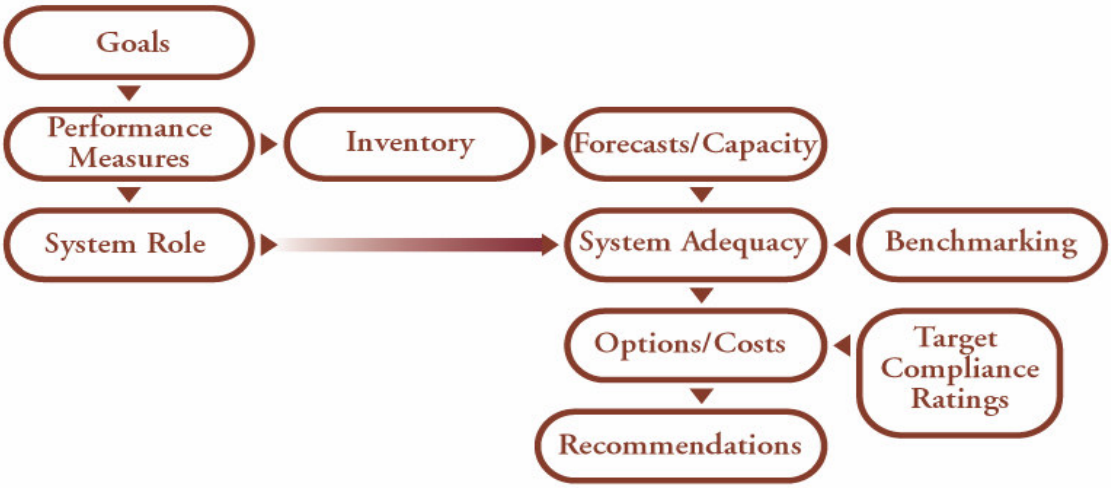
System plans examine airports on a macro level. The Maine Aviation Systems Plan Update provides a general assessment of aviation needs within the State. This Update provides a blueprint for future airport-specific planning that may be undertaken for airports throughout Maine. Individual airport planning takes place in the form of an airport master plan or an airport layout plan (ALP).

The State Aviation Systems Plan Update is being conducted in a series of separated, but related, technical steps in three phases. The first step in the analysis establishes system goals. Once goals for the system are identified, they are translated into performance measures. System performance measures are subsequently used to evaluate the adequacy of Maine's Airport System. To facilitate the evaluation process, benchmarks that are specific to each performance measure are employed. The Systems Plan Update first identifies system goals that are then translated into system performance measures. Benchmarks for each performance measure are also identified. This process provides the foundation for a "report card" that will ultimately be used in the Systems Plan Update to determine how well the Maine Airport System is currently performing. For this analysis, the performance measures are reflective of the "categories" in which the Maine Airport

System will be evaluated, while the benchmarks are the actual "tests" that will be used in each category to determine the system's adequacies, deficiencies, and potential surpluses.

The Maine Aviation Systems Plan Update will be accomplished in a series of phases. The overall study process is graphically depicted in **Exhibit 1-1**. As shown in this exhibit, in addition to the aforementioned steps to identify system goals and to establish system performance measures and benchmarks, one of the initial steps in the Systems Plan Update is the inventory effort. For this study, on-site visits were conducted to all publicly owned and most privately owned airports in Maine that are open to the public. The focus of these visits was to collect information on airport facilities and aviation activity patterns and volumes. In addition, the visits provided an opportunity to gain a firsthand understanding of the issues and needs that are specific to each airport being analyzed in the Systems Plan Update.

EXHIBIT 1-1
STUDY PROCESS



Following the completion of the inventory effort, projections of demand for all study airports are prepared. These projections consider a variety of demand components, but focus on enplaning (boarding) passengers at Maine's commercial airports, based general aviation aircraft, and annual operational levels at all study airports. These projections of demand are important when determining the system's ability to comply with capacity-related performance measures.

While all airports contribute in some way to meeting Maine's transportation or economic needs, airports contribute in different ways. In any airport system, airports contribute at varying levels. Hence, all airports do not need to have comparable service capabilities; facilities and services needed at Maine airports will be determined based on each airport's role in the system. Within any airport system, there is typically a core group of airports that are considered essential to meeting transportation needs and economic objectives. As part of Maine's prior State Aviation Systems Plan, Maine's airports were stratified and assigned to importance levels, I, II, or III. As part of the Systems Plan Update, additional criteria will be used to identify how airports are currently contributing to the system, and based on this current contribution the stratification of Maine's Airport System will be updated and revised as needed.

The final step in the Phase I analysis will be to use the system performance measures and benchmarks established in the Systems Plan Update to evaluate Maine's Airport System. This evaluation will focus on identifying system adequacies, deficiencies, and surpluses. The need to provide a new or an upgraded airport to serve the aviation needs of Western Maine will be explored as part of this system wide evaluation process. Phase I of the Maine Aviation Systems Plan Update will culminate with the issuance of a "report card" for the Maine Airport System.

Phase II of the Systems Plan Update develops recommendations to meet future needs of the system. This includes recommended changes in airport roles to fill gaps and target recommendations for each benchmark. As part of Phase III of the study, future funding needs are estimated and the Implementation of the Plan is outlined.

The remainder of this chapter is devoted to describing system goals, performance measures, and benchmarks for the Maine Aviation Systems Plan Update.

SYSTEM GOALS

States, as well as individual communities within those states, recognize the importance of an airport system to their statewide and local economic and transportation infrastructures. The need to plan for an efficient and effective collection of airports is essential to the aviation system planning process. The first step in the Maine Aviation Systems Plan Update was to identify specific goals for the airport system that serves the State of Maine.

To guide the development of the Systems Plan Update, a Project Advisory Committee was established. Prior to the actual commencement of the Systems Plan Update, this Committee met to discuss and identify goals for the Maine Airport System. A workshop for the Project Advisory Committee was held in March 2001. At this workshop, the Project Advisory Committee provided valuable input into the identification and refinement of goals for the Maine Airport System. The March 2001 Project Advisory Committee workshop also yielded a foundation for establishing system performance measures and their associated benchmarks.

Using Federal and State objectives, input from the prior Maine Aviation Systems Plan, guidance from the Project Advisory Committee, and input from Office of Passenger Transportation (OPT) and Federal Aviation Administration (FAA) staff, seven (7) goals for the Maine Airport System were identified and adopted for use in the Maine Aviation Systems Plan Update. These goals included the following:

- To promote an airport system that improves Maine's quality of life by supporting health, welfare, and safety-related services and activities.

- To have an airport system that adequately serves current and forecast demand.

- To encourage and recognize system airports that support aviation programs and outreach opportunities in Maine.

- To provide for a safe airport system, as measured by compliance with applicable FAA standards.

- To advance a system of airports that is supportive of Maine's economy, ensuring that the airport system is matched to Maine's socioeconomic and demographic characteristics.

- To protect and support an airport system that maintains the flexibility to respond to changes in future needs in Maine, while considering the environment.

- To provide an airport system that is easily accessible from both the ground and the air.

As part of the system planning process, these seven goals for the airports that serve the State of Maine were translated into system performance measures. As previously noted, the system performance measures are the categories that will be used subsequently in the Systems Plan Update to evaluate the system's adequacy, as well as to identify any deficiencies or potential surpluses within the system. For the Maine Aviation Systems Plan Update, the following performance measures will be considered:

- Quality of Life
- Capacity
- Aviation Outreach
- Standards/Safety
- Economic Support
- Flexibility
- Accessibility

Each of these seven performance measures is discussed in the following sections of this chapter. In addition, the specific benchmarks that will be used for each of the

performance measures to test the system's adequacies and deficiencies and to identify its potential surpluses are noted.

SYSTEM PERFORMANCE MEASURES AND BENCHMARKS

QUALITY OF LIFE

Within any airport system, airports are often seen as important contributors to the economy, supporting many jobs and their associated payrolls and creating waves of successive economic benefits. Airports, however, can also often play critical health, welfare, and safety roles. For states such as Maine, the ways in which airports in the state system contribute to the State's quality of life can be ranked as equally important to the economic benefits that stem from the airport system.

Given Maine's expansive geography, with many areas that are relatively unpopulated, airports in Maine can play important safety, emergency, and medical roles. Airports are often used to transport injured or critically ill persons to hospitals in urban areas; conversely, airports are often used by medical personal when traveling to rural and less densely population areas of the State to hold clinics or visit patients.

Aviation provides the only means of quick access to Maine's island areas. Aviation also plays an important environmental role in the State. Aircraft are used in forest firefighting, in spraying Maine's timberlands to protect them from insects and disease, and for performing other types of environmental patrols.

Airports in the Maine system that help to support the State's quality of life by accommodating these and other related activities are important. As Maine's airport system is evaluated in subsequent portions of this Systems Plan Update, the following benchmarks will be used to determine how Maine's airports are presently contributing to the State's quality of life:

- Percent of State's remote areas that are served by a system airport.
- Percent of island areas that are served by fixed-wing public-use airports or public-use heliports/helistops.
- Percent of the State, its population, and employment centers that are within 30 minutes of a system airport that supports forest firefighting activities.
- Percent of the State, its population, and employment centers that are within 30 minutes of a system airport that supports flights by fixed-wing, twin-engine emergency/medical aircraft (LifeFlight).

CAPACITY

Capacity equates with the efficiency necessary in a good aviation system. An airport's ability to process operational demand is influenced by many factors. In the FAA's advisory circular on capacity (AC 150.5060-5), the FAA recognizes that, as demand begins to saturate an airport's operational capacity, delays to planes on the ground and in the air increase. FAA guidelines indicate that an airport should begin planning for some measure of resolve when its demand reaches 60 percent of its calculated annual operating capacity. If demand reaches 80 percent of capacity, then planned capacity-enhancing measures should be implemented.

Airfield facilities, which equate to an airport's operational capacity, are not the only indicators of a system's ability to provide sufficient capacity. Adequate landside facilities should also be available to satisfy existing and forecast demand levels. For the Maine Aviation Systems Plan Update, system airports will ultimately be reviewed for their ability to meet study facility objectives as they relate to hangars, auto parking, and terminal/administration space. Generally speaking, based aircraft and annual operational demand levels are the components that drive the need for various landside facilities.

Benchmarks that will be used to evaluate the adequacy of the Maine Airport System, as it relates to the capacity performance measure, include the following:

- Percent of system airports, by category, that operates at 60 percent or more of their annual operational capacity (ASV), current and 2020.

- Percent of State, its population, and employment centers that are within a 30-minute drive time of a system airport exceeding 60 percent demand/capacity, current and 2020.

- Percent of system airports, by category, that operates at 80 percent or more of their annual operational capacity (ASV), current and 2020.

- Percent of State, its population, and employment centers that are within a 30-minute drive time of a system airport exceeding 80 percent demand/capacity, current and 2020.

- Percent of system airports, by category, whose hangar facilities meet facility/service objectives.

- Percent of system airports, by category, whose auto parking facilities meet facility/service objectives.

- Percent of system airports, by category, whose terminal/administration facilities meet facility/service objectives.

AVIATION OUTREACH

Airports in Maine are important resources. Sometimes, however, the benefits that all residents of Maine receive from the public airport system are not apparent. Further, system airports can be valuable learning resources and centers. There are many careers in the aviation industry. Traditional education programs and curricula typically do not prepare students for the wide variety of careers that exist in the field of aviation.

Maine recognizes that its system airports are in fact aviation "classrooms." As more people learn about and understand airports and aviation, as well as the role that each plays in the State's transportation and economic infrastructures, the more equipped these individuals will be to understand the development and expansion needs of airports throughout the State.

By using a performance measure associated with aviation outreach to evaluate the Maine Airport System, OPT will have a better understanding of the role that it can play in the future in working with system airports to promote their educational opportunities. To evaluate the aviation outreach performance measure, the following benchmarks will be used:

- Percent of the State, its population, and employment centers that are within 30 minutes of a system airport with a full-time flight school/flight instructor.

- Percent of system airports that have aviation maintenance and repair.

- Percent of system airports that have established public outreach or community educational programs.

- Percent of system airports that have educational programs that are affiliated with local elementary/secondary schools, community colleges, or technical/vocational schools.

STANDARDS/SAFETY

Development standards for all airports included in the federal aviation system are established by the FAA. These standards are established to ensure that airports are planned and developed to meet the operational characteristics of the types of planes that most frequently operate at an airport. Development standards and guidelines were developed by the FAA specific to different types of airports, and it is compliance with these FAA standards and guidelines that helps to ensure a safe and an efficient airport system. System wide airport compliance with applicable standards is maintained as part of the master planning process. Any proposed airfield improvement that is eligible for Federal funding undergoes detailed and rigorous FAA review before it is approved.

The FAA has standards for a number of surfaces around an airport that should be clear from all or certain types of development. In particular, the FAA has standards that are applicable to the areas that lay in the approach to each active runway end. The area off each runway end that should be free of obstructions is referred to as the Runway Protection Zone (RPZ). As part of FAR Part 77, the FAA details the area around each airport that should be free of objects which violate applicable height restrictions.

OPT, through its planning efforts for the Maine Airport System, has also established standards for maintaining pavements at system airports to their optimum level. These standards were also used in the Maine Aviation Systems Plan Update to evaluate the adequacy of the Maine Airport System.

OPT also recognizes that there are steps that system airports can and should take to maximize the safety of their operating environment. As part of this performance measure, the number of system airports that now have procedures in place to make them compliant with these steps will be determined.

To evaluate the adequacy of Maine's Airport System as it relates to its ability to comply with applicable standards, the following benchmarks have been identified:

- Percent of system airports that have clear approaches.
- Percent of system airports that have active programs (including vegetation management plans) to clear obstructions from their approaches.
- Percent of system airports that meet runway/taxiway separation criteria for their current ARC.
- Percent of system airports that have achieved a PCI of 70 or greater on their primary runway.
- Percent of system airports that have RSAs on their primary runway that meet the standards for their current ARC.
- Percent of system airports that have established procedures, within an operations manual, for accident reporting[1].
- Percent of system airports that have a written emergency response plan.
- Percent of system airports that have a wildlife management plan.
- Percent of system airports that have procedures in place to conduct self-inspections on a regular basis.

[1] Note airports that have reported incidents that have resulted in injury or damage.

- Percent of system airports that have fuel farms that comply with NEPA guidelines.

ECONOMIC SUPPORT

Air transportation is important to Maine's economic infrastructure. Employers throughout the State consider the existence and efficiency of air transportation facilities when expanding or developing in a given geographic area. But airports in and of themselves do not spur economic growth and diversification. In addition to adequate airport facilities, market areas that airports serve must possess other characteristics that make them candidates for the retention and attraction of various economic and development activities.

Within the Aviation Systems Plan Update, this performance measure will provide OPT with information that will help to identify areas of the State that possess characteristics that make those locales potential candidates for economic growth and diversification. Market areas that are characterized by economic factors, analyzed in this performance measure, signal a higher potential for economic return from State/Federal investment.

This performance measure also enables OPT to determine if airport facilities at each system airport are matched, overmatched, or undermatched to the economic characteristics of the market area that the airport serves.

Benchmarks that will be used in the Aviation Systems Plan Update to evaluate the system for its ability to adequately support economic growth and diversification are as follows:

- 30-minute airport service areas that have the highest concentrations of hotel/motel rooms.

- 30-minute airport service areas that have the highest concentrations of employment.

- 30-minute airport service areas that have the highest rates of population growth projected for the 20-year forecast period or the highest concentrations of population.

- 30-minute airport service areas that are in closest proximity to four-lane highways.

- 30-minute airport service areas that have the highest concentrations of post-secondary enrollment.

- 30-minute airport service areas that are in closest proximity to intermodal transfer facilities (ports or rail).

- 30-minute airport service areas that are in proximity to one of Maine's 69 "service center communities."

FLEXIBILITY

The FAA recognizes and stresses the importance of planning to increase the long-term flexibility of the nation's airport system. The identification of future airport development needs is important to ensuring that an airport system is adequate to meet future demand levels. It is important for airports to understand and identify local issues and to maintain good relationships with their host communities to enhance their opportunities for growth and expansion. Proactive land use planning provides one mechanism for minimizing adverse airport-related impacts in the airport environs, thereby increasing long-term flexibility.

The FAA and the Department of Housing and Urban Development (HUD) have developed standards, which delineate specific types of land use that are compatible or incompatible with certain levels of cumulative noise exposure. Generally speaking, all noise-sensitive land uses should be discouraged in areas that are in proximity to an airport's operational area or its flight tracks. Further, development of objects around airports that pose a hazard to navigation from the standpoint of height should be restricted through active planning and zoning activities. Planning and zoning to implement appropriate land use controls represent the best mechanisms for promoting compatibility in the airport environs and for increasing flexibility to respond to longer-term needs.

Airports that are protected from the encroachment of activities or land uses that are not compatible with day-to-day operations and activities generally have a greater potential to be able to be expanded in the future. Proper planning on and around system airports generally increases the flexibility of that system to respond to both foreseen and unforeseen development needs.

In addition, airports that have full-time on-site staff tend to be more proactive in planning for the future. Airports that maintain financial and aviation activity records and practice some level of financial planning also increase their longevity, and thereby their flexibility to respond to changing conditions over an extended planning horizon.

Specific benchmarks that will be used to evaluate the adequacy of the aviation system as it relates to the flexibility performance measure include the following:

- Percent of system airports that have current (past five years) airport master plans/ALPs.

- Percent of system airports with surrounding municipalities that have adopted controls/zoning to make land use in the airport environs compatible with airport operations and development.

- Percent of system airports that are recognized in local comprehensive plan.

- Percent of system airports with financial/accounting records and/or a business plan.

- Percent of system airports that have a system in place to maintain, update, and report annual aviation activity statistics to OPT.

ACCESSIBILITY

For an airport system to adequately serve a state, it should provide convenient and reasonable access, from both the ground and the air. The ability of any airport system to meet the accessibility performance measure can be determined in several ways. One way is the level of scheduled airline service that is available at system airports. Scheduled airline service to most markets in the U.S. has undergone a variety of complex and continued changes since the deregulation of the U.S. carriers in the late 1970s. More recently, the events of September 11, 2001 have led to changes, including the bankruptcy of several major U.S. carriers. To understand how accessibility to Maine, as expressed by commercial airline service, has changed, service histories for all commercial airports in the Maine Airport System will be indexed.

An airport system's ability to provide access can also be determined, in part, based on the number of airports in the system that have Part 135 operators who provide on-demand charter service. In recent years, corporate use of general aviation for business travel has seen resurgence. Programs, such as fractional ownership, have been largely responsible for general aviation's renewed role in meeting the travel needs of corporate America. Within the system planning process, the presence of a Part 135 operator at a system airport serves as a proxy for that airport's ability to meet the accessibility needs of general aviation aircraft.

To meet this particular performance measure, airports in the Maine system should be accessible from both the ground and the air. Ground accessibility can be measured by determining the coverage that system airports provide to all geographic areas of the State, and by determining the percentages of the State's population and employment centers that are within established drive times of system airports. System accessibility can also be determined by measuring the effective coverage provided by airports that accommodate special use aviation activities including air cargo movements or operations by helicopters.

Air accessibility is also an important factor in measuring system performance. Air accessibility is influenced by factors such as the airport's type of approach (precision, non-precision, or visual) and the presence or lack of on-site weather-reporting equipment. Airports that are equipped and capable of operating in all-weather conditions also help to determine a system's air accessibility.

Benchmarks that will be used to evaluate the system's ability to provide adequate air and ground access include the following:

Ground Accessibility

- Airport-specific commercial air service characteristics, 1980, 1990, and 2000/2001 (number of carriers, top O&D points, average fares, non-stop hubs served, and equipment types).

- Percent of the State, its population, and employment centers that are within 30 minutes of a system airport that has a Part 135 Certified air taxi/charter operator.

- Percent of the State, its population, and employment centers that are within 60 minutes of an airport with major/national scheduled commercial airline service.

- Percent of the State, its population, and employment centers that are within 30 minutes of an airport with regional/commuter scheduled commercial airline service.

- Percent of the State, its population, and employment centers that are within 30 minutes of any system airport.

- Percent of the State, its population, and employment centers that are within 30 minutes of system airports accommodating all air cargo activity.

- Percent of the State, its population, and employment centers that are within 30 minutes of public-use heliports/helistop.

- Percent of the State, its population, and employment centers that are within 30 minutes of an attended seaplane base with facilities.

- Percent of the State, its population, and employment centers that are within 30 minutes of an airport serving special use aviation activities (balloons, ultralights, model airplanes, others).

Air Accessibility

- Percent of the State, its population, and employment centers that are within 30 minutes of a system airport that has on-site weather-reporting equipment (AWOS or ASOS).

- Percent of the State, its population, and employment centers that are within 30 minutes of a system airport that has a precision approach.

- Percent of the State, its population, and employment centers that are within 30 minutes of a system airport that has a non-precision approach.

- Percent of the State, its population, and employment centers that are within 30 minutes of an all-season system airport (paved, snow removal, and de-icing).

SUMMARY

This chapter of the Maine Aviation Systems Plan Update provides a foundation for subsequent analysis. Information presented in this chapter will be used to:

- Guide the collection of data and information at system airports during the inventory phase of the study.

- Determine how well Maine's system of public airports is currently performing.

- Identify where Maine's Airport System is currently adequate, as well as where it is presently deficient.

- Determine if there are redundancies or surpluses in the current aviation system.

- Identify the need for new or upgraded airport facilities to meet Maine's future aviation needs.

CHAPTER TWO
INVENTORY

INTRODUCTION

This chapter presents an inventory of aviation facilities for airports currently identified as part of the Maine Airport System. The Maine Department of Transportation, Office of Passenger Transportation (OPT), currently oversees 36 publicly owned airports. These are shown in **Exhibit 2-1**. OPT also has an interest in 27 privately owned public-use airports, shown in **Exhibit 2-2**. These 63 airports comprise the existing airport system. The airports range in size from single, turf runway facilities to large, multi-runway commercial facilities. The system also includes several privately owned, public-use seaplane bases. As discussed in Chapter One, the adequacy of the aviation system in Maine is largely determined based on the facilities that are provided to the public and to airport users. Therefore, it is extremely important to determine the physical attributes and services available at each airport.

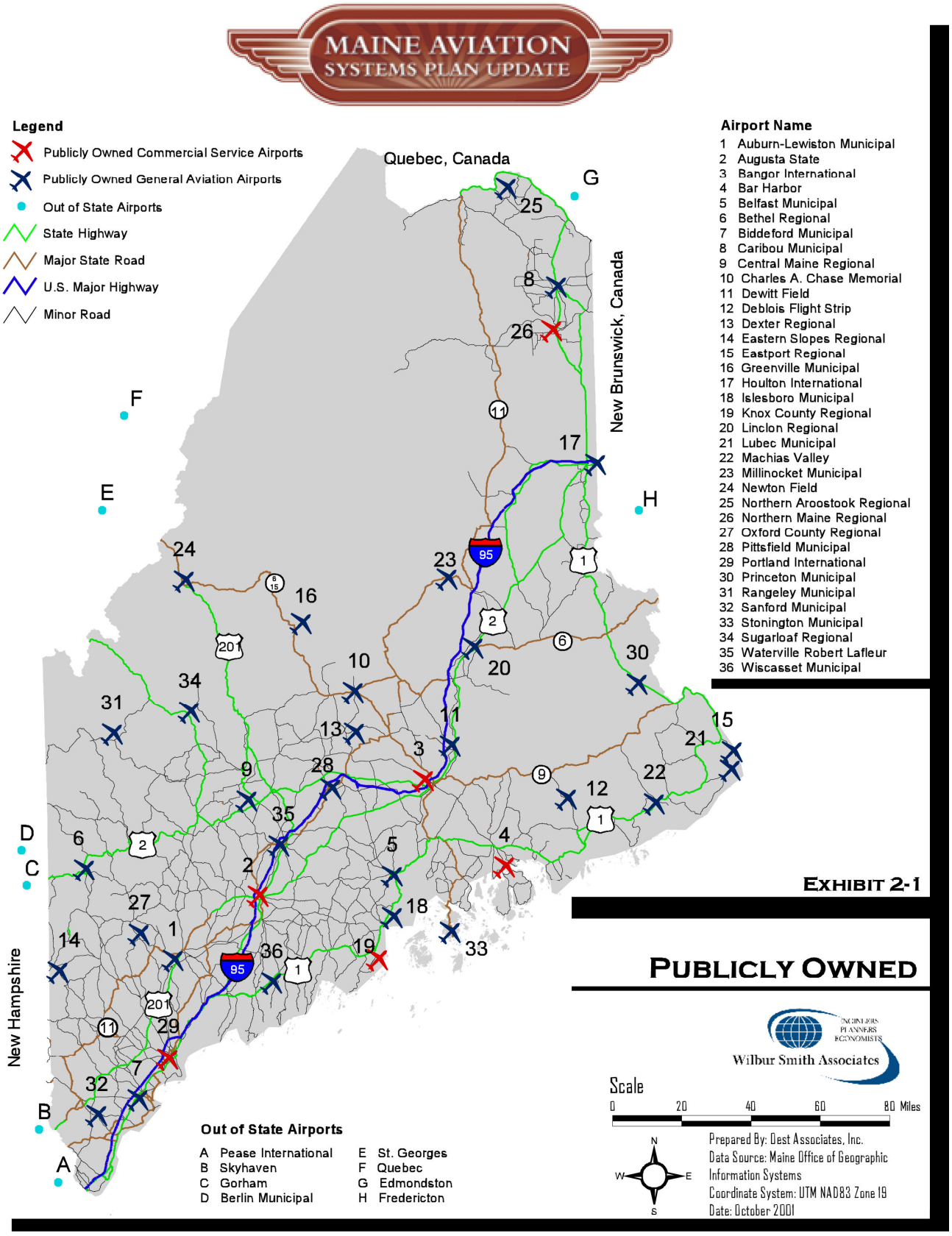
This chapter of the Maine Aviation Systems Plan Update (MASPU) documents the facility details for each airport included in the system. This information is provided primarily in tables that present the information in a form for later use in the analysis.

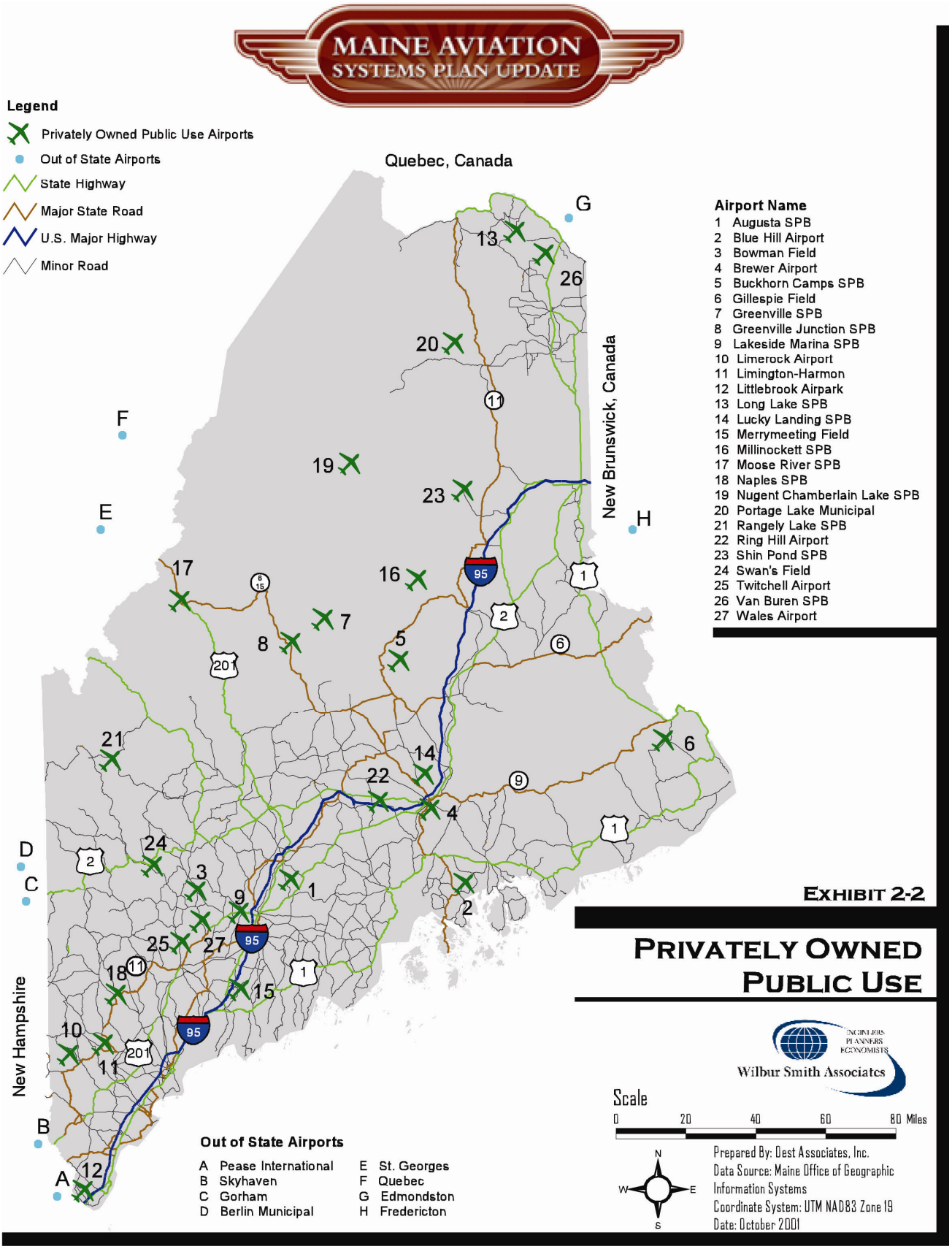
INVENTORY PROCESS

There is a large volume of information on file about the airports in the Maine Airport System. This includes information accumulated by the OPT and the Federal Aviation Administration, as well as information available from the airports. An inventory process was developed to gather all of the available information regarding the airports so that it could be presented and supplemented in a consistent manner.

The first step in the inventory process was to develop a form that could be used for every airport, regardless of size or current facilities. Based on forms utilized in previous studies and input from OPT, a 13-page Airport Inventory and Data Survey document was developed for the inventory process. This form was completed to the extent possible using information from the following sources:

- FAA 5010 Airport Master Record
- Airport Layout Plan Drawings
- Airport Master/Action Plan Reports
- AirNAV Airport Information
- Northeast U.S. Airport/Facility Directory
- U.S. Terminal Procedures (Approach Plates)


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Belfast Municipal
6 Bethel Regional
7 Biddeford Municipal
8 Caribou Municipal
9 Central Maine Regional
10 Charles A. Chase Memorial
11 Dewitt Field
12 Deblois Flight Strip
13 Dexter Regional
14 Eastern Slopes Regional
15 Eastport Regional
16 Greenville Municipal
17 Houlton International
18 Islesboro Municipal
19 Knox County Regional
20 Lincln Regional
21 Lubec Municipal
22 Machias Valley
23 Millinocket Municipal
24 Newton Field
25 Northern Aroostook Regional
26 Northern Maine Regional
27 Oxford County Regional
28 Pittsfield Municipal
29 Portland International
30 Princeton Municipal
31 Rangeley Municipal
32 Sanford Municipal
33 Stonington Municipal
34 Sugarloaf Regional
35 Waterville Robert Lafleur
36 Wiscasset Municipal
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 2-1
PUBLICLY OWNED
Wilbur Smith Associates
ENGINEERS PLANNERS ECONOMISTS
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Privately Owned Public Use Airports
Out of State Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Augusta SPB
2 Blue Hill Airport
3 Bowman Field
4 Brewer Airport
5 Buckhorn Camps SPB
6 Gillespie Field
7 Greenville SPB
8 Greenville Junction SPB
9 Lakeside Marina SPB
10 Limerock Airport
11 Limington-Harmon
12 Littlebrook Airpark
13 Long Lake SPB
14 Lucky Landing SPB
15 Merrymeeting Field
16 Millinockett SPB
17 Moose River SPB
18 Naples SPB
19 Nugent Chamberlain Lake SPB
20 Portage Lake Municipal
21 Rangely Lake SPB
22 Ring Hill Airport
23 Shin Pond SPB
24 Swan's Field
25 Twitchell Airport
26 Van Buren SPB
27 Wales Airport
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 2-2
PRIVATELY OWNED PUBLIC USE
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

Partially completed inventory forms were then distributed to the airport owner, manager, or operator for each airport for verification and further completion. In October 2001, an on-site visit was conducted at each public airport and most private airports. During this on-site visit, the completed inventory data forms were collected, and all information was reviewed with each airport to clarify all data. Data from the completed forms was entered into a database and resubmitted to all airports for their final approval.

For purposes of this study, it is important to note that all airport-specific data is presented alphabetically by associated city. The airports are separated into scheduled commercial service, publicly owned general aviation airports, and privately owned, public-use general aviation airports.

FACILITIES

The first section of the Airport Inventory and Data Survey requested information on airport ownership, plan information, and physical features of the airports. **Table 2-1** presents data on airport ownership. Table 2-1 shows the airport identifier at the time of the preparation of this document, whether the airport is publicly or privately owned, and whether the airport is currently included in the National Plan of Integrated Airport Systems (NPIAS).

Table 2-2 is organized to present the existence of airport plans and, if available, the year the plan was developed. The airport plans that were identified are Airport Master Plan, Airport Layout Plan, Economic Impact Study, Air Service or Market Analysis, Cargo Study, Environmental Analysis, Emergency Response Plan, Wildlife Management Plan, Operations Manual, Industrial Park Study, Annual Budget/Business Plan, Marketing Brochures, Vegetation Management Plan, Obstruction Removal Plan, and a Local Comprehensive Plan.

Table 2-3 summarizes the airside facilities that exist at each airport. The information identified includes elevation above mean sea level (MSL), runway designation, length, width, surface type, strength and lighting type, the existence of a parallel taxiway, taxiway width, surface type, type of taxiway lighting, and the pavement condition index (PCI) of the runway.

Table 2-4 contains information on the buildings that currently exist at each airport. The information that is shown includes the area in square feet of air carrier terminal, general aviation terminal and administration buildings, the number of T-hangar units, the area in square feet of conventional hangar space, and the number of portable units. Information was gathered for air cargo buildings at each airport but was not included in the table because only three (3) airports within the system have dedicated air cargo buildings. These airports are Houlton International, Portland International Jetport (FedEx), and Waterville Robert LaFleur.

Table 2-5 summarizes the parking facilities that currently exist at each airport for based and itinerant aircraft and for automobiles. The information includes apron size, surface type and use, the number of paved and unpaved aircraft tie-downs, and the size or number of automobile parking spaces.

Table 2-6 is organized to present information on the fuel facilities that currently exist at each airport. It includes a listing for AvGas (80 and 100), Jet A, and MoGas. The information that is provided for each fuel type includes the number of tanks, type of tank, total available fuel capacity, and the type of distribution.

AIRSPACE AND NAVAIDS

Various types of navigational aids (NAVAIDs) and approaches are available at the airports included in the Maine Airport System. This portion of the MASPU inventory is intended to provide information concerning the types of navigational aids, approaches, weather-reporting capabilities, and air traffic control available to the flying public at each facility.

Table 2-7 depicts the availability of each type of navigational aid, approach, weather-reporting systems, or air traffic control at each of the airports. The number and location of each facility are not shown. Included in the information that is depicted is the existence of any of the following: Precision Approach Path Indicators (PAPI), Visual Approach Slope Indicators (VASI), Runway End Identifier Lights (REIL), airport beacon, wind cone, segmented circle, Instrument Landing System (ILS), localizer, Approach Lighting System (ALS) with or without Runway Alignment Indicator Lights (RAILS), Distance Measuring Equipment (DME), very high omnidirectional approach (VOR), Global Positioning System approach (GPS), Nondirectional Beacon approach (NDB), circling approach, weather reporting system, and air traffic control tower.

The presence of a full ILS system (glide slope and localizer) indicates a precision approach to the airport. The presence of a localizer only, an NDB, VOR, or GPS, indicates a nonprecision approach to the airport. The presence of none of these NAVAIDs indicates that there is only a visual approach to the airport.

LAND USE

Among the issues facing airports in Maine today is the effect of land use or other activities that may impact or restrict airport operations or expansion. Some types of development can inhibit an airport's activity and growth. Incompatible land uses, ordinances limiting airport development, and structures, trees, or towers, which pose a hazard to the safe operation of the airport, were documented in this part of the inventory. **Table 2-8** shows the municipality(s) that controls the airport. Table 2-8 also shows whether or not the airport owns its runway protection zones (RPZ). Having control of the RPZ is critical to ensure that inappropriate development does not take place in the runways approaches.

AIRPORT/AVIATION SERVICES

Tables 2-9 and 2-10 depict the services available at each airport in Maine. These services are important to the pilots and flying public that utilize the airport, as well as to the general public. The services that are listed are as follows:

- Recreational Flying
- Corporate/Business Activity
- Just-in-Time Shipping
- Prisoner Transport
- Community Events
- Career Training/Education
- Environmental Patrol
- Medical Shipments/Patient Transfer
- Aerial Photography/Surveying
- Banner Towing
- Air Shows
- Model Aircraft
- Agricultural Spraying
- Aerial Inspections
- Gateway for Resort Visitors
- Police/Law Enforcement
- Community Facilities
- Civil Air Patrol (CAP)
- Emergency Medical Evacuation
- Forest Fire Fighting
- Real Estate Tours
- Traffic/News
- Aviation Clubs
- Experimental Aircraft

AIRPORT DEVELOPMENT ISSUES

Table 2-11 shows community support, laws that could affect growth, whether the airport sponsors any community events, whether the airport has system procedures in place to promote environmental responsibility, and whether or not the airport supports flight for life or firefighting activities.

SUMMARY

The data presented in this chapter is used as the foundation for subsequent analysis of the system needs for Maine's airports.

TABLE 2-1
AIRPORT OWNERSHIP

CITY NAME	FACILITY NAME	PUBLIC/PRIVATE OWNERSHIP	NPIAS
AUBURN	AUBURN/LEWISTON MUNICIPAL	PU	YES
AUGUSTA	AUGUSTA STATE	PU	YES
AUGUSTA	AUGUSTA SPB	PR	NO
BANGOR	BANGOR INTERNATIONAL	PU	YES
BANGOR	LUCKY LANDING MARINA AND SPB	PR	NO
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	PU	YES
BELFAST	BELFAST MUNICIPAL	PU	YES
BETHEL	BETHEL REGIONAL	PU	YES
BIDDEFORD	BIDDEFORD MUNICIPAL	PU	YES
BLUE HILL	BLUE HILL	PR	NO
BOWDOINHAM	MERRYMEETING FIELD	PR	NO
BREWER	BREWER	PR	NO
CARIBOU	CARIBOU MUNICIPAL	PU	YES
CARMEL	RING HILL	PR	NO
CARRABASSETT	SUGARLOAF REGIONAL	PU	YES
CHESUNCOOK	NUGENT CHAMBERLAIN LAKE	PR	NO
DEBLOIS	DEBLOIS FLIGHT STRIP	PU	NO
DEXTER	DEXTER REGIONAL	PU	YES
DIXFIELD	SWANS FIELD	PR	NO
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	PU	YES
EAST WINTHROP	LAKESIDE MARINA	PR	NO
EASTPORT	EASTPORT MUNICIPAL	PU	YES
ELIOT	LITTLEBROOK AIR PARK	PR	NO
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	PU	YES
FRYEBURG	EASTERN SLOPES REGIONAL	PU	YES
GREENVILLE	GREENVILLE SPB	PR	NO
GREENVILLE	GREENVILLE MUNICIPAL	PU	YES
GREENVILLE JUNCTION	GREENVILLE JUNCTION SPB	PR	NO
HOULTON	HOULTON INTERNATIONAL	PU	YES
ISLESBORO	ISLESBORO	PU	YES
JACKMAN	MOOSE RIVER	PR	NO
JACKMAN	NEWTON FIELD	PU	YES
LIMINGTON	LIMERICK	PR	NO
LIMINGTON	LIMINGTON-HARMON	PR	NO
LINCOLN	LINCOLN REGIONAL	PU	YES
LIVERMORE FALLS	BOWMAN FIELD	PR	NO
LUBEC	LUBEC MUNICIPAL	PU	YES
MACHIAS	MACHIAS VALLEY	PU	YES
MEDDYBEMPS	GILLESPIE FIELD	PR	NO
MILLINOCKET	MILLINOCKET	PR	YES
MILLINOCKET	MILLINOCKET MUNICIPAL	PU	YES
NAPLES	NAPLES	PR	NO
NORCROSS/ MILLINOCKET/	BUCKHORN CAMPS	PR	NO
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	PU	YES
PORTLAND	PORTLAND INTL JETPORT	PU	YES
PRESQUE ISLE	NORTHERN MAINE REGIONAL	PU	YES
PRINCETON	PRINCETON MUNICIPAL	PU	YES
RANGELEY	RANGELEY MUNICIPAL	PU	YES

TABLE 2-1
AIRPORT OWNERSHIP (CONTINUED)

CITY NAME	FACILITY NAME	PUBLIC/PRIVATE OWNERSHIP	NPIAS
RANGELEY	RANGELEY LAKE	PR	NO
ROCKLAND	KNOX COUNTY REGIONAL	PU	YES
SANFORD	SANFORD REGIONAL	PU	YES
SINCLAIR	LONG LAKE	PR	NO
STONINGTON	STONINGTON MUNICIPAL	PU	YES
TURNER	TWITCHELL	PR	NO
VAN BUREN	VAN BUREN SPB	PR	NO
WALES	WALES	PR	NO
WATERVILLE	WATERVILLE ROBERT LAFLEUR	PU	YES
WISCASSET	WISCASSET	PU	YES

SOURCE: WSA

TABLE 2-2
AIRPORT PLANING INFORMATION

CITY NAME	FACILITY NAME	AIRPORT MASTER PLAN	AIRPORT LAYOUT PLAN	ECONOMIC IMPACT STUDY	AIR SERVICE OR MARKET ANALYSIS	ENVIRON. ANALYSIS	EMERG. RESPONSE PLAN	WILDLIFE MGMT. PLAN	OPERATIONS MANUAL	CARGO STUDY	IND. PARK STUDY	ANNUAL BUDGET/ BUS INESS PLAN	MKTG BROCHURES OR VIDEO	VGT. MGMT. PLAN	OBSTRUCTION REMOVAL PLAN	MKTG. PLAN	LOCAL COMP PLAN
AUBURN	AUBURN/LEWISTON MUNICIPAL	YES	YES	YES	NO	YES	NO	NO	NO	NO	NO	YES	NO	YES	YES	YES	YES
AUGUSTA	AUGUSTA STATE	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	YES
BANGOR	BANGOR INTERNATIONAL	YES	YES	YES	YES	NO	YES	YES	YES	NO	NO	YES	YES	NO	NO	YES	YES
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	YES	YES	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO
BELFAST	BELFAST MUNICIPAL	YES	YES	NO	YES	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	YES
BETHEL	BETHEL REGIONAL	YES	YES	NO	NO	YES	YES	YES	NO	NO	NO	YES	NO	YES	YES	NO	YES
BIDDEFORD	BIDDEFORD MUNICIPAL	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
CARIBOU	CARIBOU MUNICIPAL	YES	YES	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	YES	NO	YES
CARRABASSETT	SUGARLOAF REGIONAL	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	YES
DEBLOIS	DEBLOIS FLIGHT STRIP	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
DEXTER	DEXTER REGIONAL	YES	YES	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	YES
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	YES	YES	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO
EASTPORT	EASTPORT MUNICIPAL	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	YES
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES	YES	NO	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	NO	YES
FRYEBURG	EASTERN SLOPES REGIONAL	YES	YES	NO	NO	YES	NO	NO	NO	NO	YES	YES	YES	NO	NO	NO	YES
GREENVILLE	GREENVILLE MUNICIPAL	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES	NO	NO
HOULTON	HOULTON INTERNATIONAL	YES	YES	NO	YES	NO	YES	NO	YES	NO	NO	YES	NO	NO	YES	YES	YES
ISLESBORO	ISLESBORO	NO	NO	NO	NO	NO	YES	NO	YES	NO	NO	YES	NO	NO	NO	NO	YES
JACKMAN	NEWTON FIELD	YES	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
LINCOLN	LINCOLN REGIONAL	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES	YES	YES	NO	NO	NO	YES
LUBEC	LUBEC MUNICIPAL	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	NO	NO	YES
MACHIAS	MACHIAS VALLEY	YES	YES	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES
MILLINOCKET	MILLINOCKET MUNICIPAL	YES	YES	NO	NO	NO	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	YES
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	YES	YES	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	NO
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	YES	YES	NO	NO	YES	NO	YES	YES	NO	YES	NO	NO	NO	YES	NO	NO
OXFORD	OXFORD COUNTY REGIONAL	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
PITTSFIELD	PITTSFIELD MUNICIPAL	YES	YES	NO	NO	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES

TABLE 2-2
AIRPORT PLANING INFORMATION (CONTINUED)

CITY NAME	FACILITY NAME	AIRPORT MASTER PLAN	AIRPORT LAYOUT PLAN	ECONOMIC IMPACT STUDY	AIR SERVICE OR MARKET ANALYSIS	ENVIRON ANALYSIS	EMERG. RESPONSE PLAN	WILDLIFE MGMT. PLAN	OPERATIONS MANUAL	CARGO STUDY	IND. PARK STUDY	ANNUAL BUDGET/ BUS INESS PLAN	MKTG BROCHURES OR VIDEO	VGT. MGMT. PLAN	OBSTRUCTION REMOVAL PLAN	MKTG. PLAN	LOCAL COMP PLAN
PORTLAND	PORTLAND INTL JETPORT	YES	YES	YES	NO	NO	NO	YES	YES	NO	NO	NO	NO	YES	YES	NO	NO
PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES	YES	YES	YES	NO	YES	NO	YES	NO	NO	YES	YES	NO	YES	YES	YES
PRINCETON	PRINCETON MUNICIPAL	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
RANGELEY	RANGELEY MUNICIPAL	YES	YES	NO	NO	YES	NO	NO	YES	NO	NO	YES	NO	YES	NO	NO	YES
ROCKLAND	KNOX COUNTY REGIONAL	YES	YES	YES	NO	YES	YES	NO	YES	NO	NO	YES	NO	YES	YES	YES	YES
SANFORD	SANFORD REGIONAL	YES	YES	NO	NO	YES	YES	NO	YES	NO	NO	YES	YES	YES	YES	NO	YES
STONINGTON	STONINGTON MUNICIPAL	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO
WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES	YES	NO	NO	YES	YES	YES	YES	NO	YES	YES	NO	YES	NO	NO	YES
WISCASSET	WISCASSET	YES	YES	NO	YES	NO	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES

SOURCE: WSA
NOTE: Data collected Fall 2001

TABLE 2-3
AIRSIDE FACILITIES

CITYNAME	FACILITYNAME	ELEVATION MSL (FT)	RUNWAY ID	R/W LENGTH (FT)	R/W WIDTH (FT)	R/W SURFACE TYPE	R/W STRENGTH (,000 LBS)	PCI	R/W LIGHTING	PARALLEL TAXIWAY	T/W WIDTH (FT)	T/W SURFACE TYPE	T/W LIGHTING
AUBURN	AUBURN/LEWISTON MUNICIPAL	288	17/35	2,750	75	ASPH	S-30	73	MED	PARTIAL	75	ASPH	MED
AUBURN	AUBURN/LEWISTON MUNICIPAL	288	4/22	5,001	100	ASPH	S-30, D-108, DT180	94	HIGH	NO	75	ASPH	MED
AUGUSTA	AUGUSTA STATE	352	8/26	2,703	75	ASPH	S-30	56	MED	PARTIAL	40	ASPH	NO
AUGUSTA	AUGUSTA STATE	352	17/35	5,001	150	ASPH	S-50, D-60	80	HIGH	YES	40	ASPH	MED
BANGOR	BANGOR INTERNATIONAL	192	15/33	11,441	300	CONC	S-100, D-210, DT-400	74	HIGH	YES	75	CONC	MED
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	84	17/35	3,364	75	ASPH	S13, D-20	79	NONE	NO	NA	NA	NA
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	84	4/22	5,200	100	ASPH	S-48, D-63	98	HIGH	YES	35	ASPH	MED
BELFAST	BELFAST MUNICIPAL	195	15/33	4,002	100	ASPH	S-30	65	MED	PATRIAL	60	ASPH	MED
BETHEL	BETHEL REGIONAL	654	14/32	3,818	75	ASPH	NA	75	NONE	NO	50	ASPH	NO
BIDDEFORD	BIDDEFORD MUNICIPAL	162	6/24	3,011	75	ASPH	S-25	70	MED	NO	NA	NA	NA
CARIBOU	CARIBOU MUNICIPAL	625	1/19	4,003	100	ASPH	S-30	85	MED	PARTIAL	20	ASPH	MED
CARIBOU	CARIBOU MUNICIPAL	625	11/29	3,017	75	ASPH	S-30	80	MED	NO	NA	NA	NA
CARRABASSETT	SUGARLOAF REGIONAL	885	17/35	2,800	75	ASPH	S-12.5	53	NONE	PARTIAL	30	ASPH	NO
DEBLOIS	DEBLOIS FLIGHT STRIP	217	15/33	4,000	150	ASPH	S-84, D-200, DT-400	100	NONE	NO	NA	NA	NA
DEXTER	DEXTER REGIONAL	533	16/34	3,000	75	ASPH	S-30	94	LOW	NO	NA	NA	NA
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	520	9/27	2,400	90	TURF	NA	NA	NONE	NO	NA	NA	NA
EASTPORT	EASTPORT MUNICIPAL	46	15/33	4,000	75	ASPH	S-30	98	MED	STUB	30	ASPH	NO
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	988	14/32	4,601	75	ASPH	S-25	80	MED	STUB	40	ASPH	MED
FRYEBURG	EASTERN SLOPES REGIONAL	452	14/32	4,200	75	ASPH	S-30	99	MED	PARTIAL	40	ASPH	MED
GREENVILLE	GREENVILLE MUNICIPAL	1401	3/21	3,000	75	ASPH	S-12.5	61	NONE	STUB	35	ASPH	MED
GREENVILLE	GREENVILLE MUNICIPAL	1401	14/32	3,999	75	ASPH	S-12.5	63	MED	NO	NA	NA	NA
HOULTON	HOULTON INTERNATIONAL	489	5/23	5,001	150	ASPH	S-30, D-57	79	MED	PARTIAL	55	ASPH	MED
ISLESBORO	ISLESBORO	92	1/19	2,400	50	ASPH	S-12.5	76	NONE	NO	NA	NA	NA
JACKMAN	NEWTON FIELD	1170	14/32	2,900	60	ASPH	S-12.5	70	MED	NO	NA	NA	NA
LINCOLN	LINCOLN REGIONAL	208	06W/24W	5,000	500	WATER	NA	NA	NONE	NO	NA	NA	NA
LINCOLN	LINCOLN REGIONAL	208	17/35	2,804	75	ASPH	S-25	91	MED	STUBS	30	ASPH	NO
LUBEC	LUBEC MUNICIPAL	85	8/26	2,032	100	TURF-GRVL	NA	NA	LOW	NO	NA	NA	NA
MACHIAS	MACHIAS VALLEY	96	18/36	2,909	60	ASPH	S-12.5	84	MED	NO	NA	NA	NA
MILLINOCKET	MILLINOCKET MUNICIPAL	840	11/29	4,713	100	ASPH	S-30, D-44	98	MED	NO	NA	NA	NA
MILLINOCKET	MILLINOCKET MUNICIPAL	840	16/34	4,008	150	ASPH	S-30, D-44	65	NONE	NO	NA	NA	NA
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	270	3/21	3,998	100	ASPH	S-30, D-60	88	NONE	PARTIAL	40	ASPH	MED
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	270	15/33	3,996	100	ASPH	S-30, D-60	54	MED	NO	NA	NA	NO
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	270	12/30	3,999	100	ASPH	S-30	54	MED	PARTIAL	40	ASPH	NO
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	270	4/22	3,199	75	ASPH	S-37, D-45	93	MED	PARTIAL	40	ASPH	NO
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	270	17W/35W	8,400	100	WATER	NA	NA	NONE	NO	NA	NA	NA
OXFORD	OXFORD COUNTY REGIONAL	346	15/33	3,000	75	ASPH	S-25	79	MED	STUBS	40	ASPH	NO

TABLE 2-3
AIRSIDE FACILITIES (CONTINUED)

CITYNAME	FACILITYNAME	ELEVATION MSL (FT)	RUNWAY ID	R/W LENGTH (FT)	R/W WIDTH (FT)	R/W SURFACE TYPE	R/W STRENGTH (,000 LBS)	PCI	R/W LIGHTING	PARALLEL TAXIWAY	T/W WIDTH (FT)	T/W SURFACE TYPE	T/W LIGHTING
PITTSFIELD	PITTSFIELD MUNICIPAL	198	1/19	3,998	150	ASPH	S-38, D-49	34	MED	NO	NA	NA	NA
PORTLAND	PORTLAND INTL JETPORT	74	18/36	5,001	150	ASPH	S-75, D-165, DT-300	85	MED	YES	40	ASPH	MED
PORTLAND	PORTLAND INTL JETPORT	74	11/29	7,200	150	ASPH	S-75, D-169, DT-300	70	HIGH	YES	60	ASPH	MED
PRESQUE ISLE	NORTHERN MAINE REGIONAL	534	10/28	5,994	150	ASPH	S-30, D-60	100	MED	NO	NA	NA	NA
PRESQUE ISLE	NORTHERN MAINE REGIONAL	534	1/19	7,440	150	ASPH	S-85, D-108, DT-167	67	HIGH	YES	40	ASPH	MED
PRINCETON	PRINCETON MUNICIPAL	266	6/24	3,999	150	ASPH	NA	30	NONE	NO	NA	NA	NA
PRINCETON	PRINCETON MUNICIPAL	266	15/33	4,004	100	ASPH	S-31, D-38	95	LOW	NO	NA	NA	NA
RANGELEY	RANGELEY MUNICIPAL	1825	14/32	3,200	75	ASPH	S-13	99	MED	STUB	30	ASPH	NO
ROCKLAND	KNOX COUNTY REGIONAL	55	3/21	4,000	100	ASPH	S-30, D-44	61	MED	NO	40	ASPH	MED
ROCKLAND	KNOX COUNTY REGIONAL	55	13/31	5,007	100	ASPH	S-30, D-44	100	HIGH	NO	40	ASPH	MED
SANFORD	SANFORD REGIONAL	244	7/25	6,000	150	ASPH	S-50, D-82	85	HIGH	NO	NA	NA	NA
SANFORD	SANFORD REGIONAL	244	14/32	4,999	100	ASPH	D-72	99	MED	PARTIAL	40	ASPH	MED
STONINGTON	STONINGTON MUNICIPAL	30	7/25	2,100	60	ASPH	S-12.5	95	NONE	STUB	40	ASPH	NO
WATERVILLE	WATERVILLE ROBERT LAFLEUR	322	14/32	2,301	150	ASPH	S-25	43	MED	NO	NA	NA	NA
WATERVILLE	WATERVILLE ROBERT LAFLEUR	322	5/23	5,500	100	ASPH	S-40, D-60	85	HIGH	YES	40	ASPH	MED
WISCASSET	WISCASSET	70	7/25	3,397	75	ASPH	S-22	99	MED	PARTIAL	40	ASPH	MED

SOURCE: WSA
NOTES: N/A = Not Applicable
PCI = Pavement Condition Index
Data collected Fall 2001.

TABLE 2-4
LANDSIDE FACILITIES - BUILDINGS

CITYNAME	FACILITYNAME	AIR CARRIER TERMINAL (SF)	GA TERMINAL (SF)	ADMIN. BUILDING (SF)	T-HANGAR (UNITS)	CONV. HANGARS (UNITS)	PORTABLES (UNITS)
AUBURN	AUBURN/LEWISTON MUNICIPAL	---	---	2,250	40	20	-
AUGUSTA	AUGUSTA STATE	9,775	---	---	24	4	-
BANGOR	BANGOR INTERNATIONAL	144,422	7904	7,281	-	25	-
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	3,200	-	-	1	24	-
BELFAST	BELFAST MUNICIPAL	-	600	-	8	2	-
BETHEL	BETHEL REGIONAL	-	200	-	-	6	1
BIDDEFORD	BIDDEFORD MUNICIPAL	-	650	-	9	5	-
CARIBOU	CARIBOU MUNICIPAL	-	1,780	150	2	4	-
CARRABASSETT	SUGARLOAF REGIONAL	-	-	-	-	1	8
DEBLOIS	DEBLOIS FLIGHT STRIP	-	-	-	-	-	-
DEXTER	DEXTER REGIONAL	-	13,680	168	1	12	-
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	-	300	-	2	-	-
EASTPORT	EASTPORT MUNICIPAL	-	400	-	2	3	-
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	-	1,330	576	-	8	-
FRYEBURG	EASTERN SLOPES REGIONAL	-	-	-	20	5	-
GREENVILLE	GREENVILLE MUNICIPAL	-	-	-	3	11	-
HOULTON	HOULTON INTERNATIONAL	-	1,000	400	-	45	-
ISLESBORO	ISLESBORO	-	-	-	2	-	-
JACKMAN	NEWTON FIELD	-	500	-	2	2	-
LINCOLN	LINCOLN REGIONAL	-	-	-	-	26	-
LUBEC	LUBEC MUNICIPAL	-	-	-	2	-	-
MACHIAS	MACHIAS VALLEY	-	125	-	2	-	-
MILLINOCKET	MILLINOCKET MUNICIPAL	-	780	-	1	5	-
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	-	1,000	1000	17	37	-
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	-	5,000	-	-	19	-
OXFORD	OXFORD COUNTY REGIONAL	-	1,000	-	-	3	-
PITTSFIELD	PITTSFIELD MUNICIPAL	-	2,400	-	11	6	-
PORTLAND	PORTLAND INTL JETPORT	13,5000	5,000	13,5000	6	17	-
PRESQUE ISLE	NORTHERN MAINE REGIONAL	3,590	1,100	2290	-	18	-
PRINCETON	PRINCETON MUNICIPAL	-	800	-	8	-	-
RANGELEY	RANGELEY MUNICIPAL	-	150	-	5	4	-
ROCKLAND	KNOX COUNTY REGIONAL	1,000	-	360			
SANFORD	SANFORD REGIONAL	-	1,500	-	57	8	-
STONINGTON	STONINGTON MUNICIPAL	-	150	-	4	4	-
WATERVILLE	WATERVILLE ROBERT LAFLEUR	-	16,400	-	-	11	-
WISCASSET	WISCASSET	-	4,900	-	-	14	-

SOURCE: WSA
NOTE: Data collected Fall 2001

TABLE 2-5
LANSIDE FACILITIES - PARKING

CITY NAME	FACILITY NAME	TOTAL APRON SIZE (SQ)	TOTAL TIEDOWNS PAVED	TOTAL TIEDOWNS UNPAVED	AUTOMOBILE PARKING SPACES
AUBURN	AUBURN/LEWISTON MUNICIPAL	39,996	70	0	132
AUGUSTA	AUGUSTA STATE	31,397	21	0	81
BANGOR	BANGOR INTERNATIONAL	375,000	45	0	814
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	18,000	37	0	150
BELFAST	BELFAST MUNICIPAL	1,800	9	0	15
BETHEL	BETHEL REGIONAL	2,500	4	0	15
BIDDEFORD	BIDDEFORD MUNICIPAL	56,250	7	0	200
CARIBOU	CARIBOU MUNICIPAL	6,938	14	0	40
CARRABASSETT	SUGARLOAF REGIONAL	3,750	7	0	10
DEBLOIS	DEBLOIS FLIGHT STRIP	0	0	0	0
DEXTER	DEXTER REGIONAL	0	0	6	18
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	24,000	0	3	20
EASTPORT	EASTPORT MUNICIPAL	3,000	5	5	10
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8,647	8	0	70
FRYEBURG	EASTERN SLOPES REGIONAL	17,545	64	0	30
GREENVILLE	GREENVILLE MUNICIPAL	2,800	20	0	10
HOULTON	HOULTON INTERNATIONAL	31,304	16	0	15
ISLESBORO	ISLESBORO	500	0	3	7
JACKMAN	NEWTON FIELD	4,111	7	0	10
LINCOLN	LINCOLN REGIONAL	3,889	12	0	80
LUBEC	LUBEC MUNICIPAL	250	0	4	20
MACHIAS	MACHIAS VALLEY	5,000	9	0	10
MILLINOCKET	MILLINOCKET MUNICIPAL	52,571	13	0	7
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	2,500	3	25	20
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	5,000	18	0	90
OXFORD	OXFORD COUNTY REGIONAL	1,800	39	0	45
PITTSFIELD	PITTSFIELD MUNICIPAL	11,280	10	0	16
PORTLAND	PORTLAND INTL JETPORT	25,000	60	0	1,720
PRESQUE ISLE	NORTHERN MAINE REGIONAL	46,312	29	0	162
PRINCETON	PRINCETON MUNICIPAL	6,000	0	4	5
RANGELEY	RANGELEY MUNICIPAL	7,320	14	0	12
ROCKLAND	KNOX COUNTY REGIONAL		58	0	50
SANFORD	SANFORD REGIONAL	11,527	40	0	23
STONINGTON	STONINGTON MUNICIPAL	0	0	4	10
WATERVILLE	WATERVILLE ROBERT LAFLEUR	6,600	34	4	37
WISCASSET	WISCASSET	21,810	33	0	24

SOURCE: WSA
NOTE: Data collected Fall 2001

TABLE 2-6
FUEL FACILITIES

CITY NAME	FACILITY NAME	# AVGAS TANKS	AVGAS TANK TYPE	AVGAS TOTAL CAPACITY	AVGAS DISTRIBUTION	# JETA TANKS	JETA TANK TYPE	JETA TOTAL CAPACITY	JETA DISTRIBUTION	# MOGAS TANKS	MOGAS TANK TYPE	MOGAS TOTAL CAPACITY	MOGAS DISTRIBUTION
AUBURN	AUBURN/LEWISTON MUNICIPAL	1	BELOW	12,000	PUMP	1	BELOW	12,000	PUMP	---	---	---	---
AUGUSTA	AUGUSTA STATE	1	BELOW	15,000	PUMP	2	BELOW	15,000	PUMP	---	---	---	---
BANGOR	BANGOR INTERNATIONAL	1	ABOVE	NA	TRUCK	3	ABOVE	NA	TRUCK	1	ABOVE	NA	PUMP
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	1	BELOW	10,000	PUMP/TRUCK	2	BELOW	20,000	PUMP/TRUCK	---	---	---	---
BELFAST	BELFAST MUNICIPAL	---	---	750	TRUCK	---	---	---	---	--	---	---	---
BETHEL	BETHEL REGIONAL	---	---	---	---	---	---	---	---	---	---	---	---
BIDDEFORD	BIDDEFORD MUNICIPAL	1	BELOW	10,000	PUMP	---	---	---	---	---	---	---	---
CARIBOU	CARIBOU MUNICIPAL	1	BELOW	10,000	PUMP	---	---	---	---	---	---	---	---
CARRABASSETT	SUGARLOAF REGIONAL	---	---	---	---	----	---	---	---	---	---	---	---
DEBLOIS	DEBLOIS FLIGHT STRIP	---	----	---	---	---	---	---	---	---	---	---	---
DEXTER	DEXTER REGIONAL	---	---	---	---	---	---	---	---	---	---	---	---
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	---	---	---	---	---	---	---	---	---	---	---	---
EASTPORT	EASTPORT MUNICIPAL	---	---	1,500	TRUCK	---	---	---	---	---	---	---	---
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	1	ABOVE	10,000	PUMP	1	ABOVE	10,000	PUMP	---	---	---	---
FRYEBURG	EASTERN SLOPES REGIONAL	1	ABOVE	10,000	PUMP	---	---	---	---	---	---	---	---
GREENVILLE	GREENVILLE MUNICIPAL	1	BELOW	6,000	PUMP	---	---	---	---	---	---	---	---
HOULTON	HOULTON INTERNATIONAL	1	BELOW	10,000	PUMP	1	BELOW	15,000	PUMP	---	---	---	---
ISLESBORO	ISLESBORO	---	---	---	---	---	---	---	---	---	---	---	---
JACKMAN	NEWTON FIELD	1	ABOVE	10,000	PUMP	---	---	---	---	---	---	---	---
LINCOLN	LINCOLN REGIONAL	1	ABOVE	5,000	PUMP	---	---	---	---	---	---	---	---
LUBEC	LUBEC MUNICIPAL	0	---	---	---	---	---	---	---	---	---	---	---
MACHIAS	MACHIAS VALLEY	0	---	---	---	---	---	---	---	---	---	---	---
MILLINOCKET	MILLINOCKET MUNICIPAL	1	BELOW	10,000	PUMP	---	---	---	---	---	---	---	---
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	1	ABOVE	5,000	PUMP	---	---	---	---	1	ABOVE	5,000	PUMP
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	1	ABOVE	10,000	PUMP	1	ABOVE	10,000	PUMP	---	---	---	---
OXFORD	OXFORD COUNTY REGIONAL	1	ABOVE	3,000	PUMP	1	ABOVE	5,000	PUMP				
PITTSFIELD	PITTSFIELD MUNICIPAL	1	BELOW	8,000	PUMP	1	BELOW	10,000	PUMP	---	---	---	---
PORTLAND	PORTLAND INTL JETPORT	1	ABOVE	20,000	PUMP	3	ABOVE	62,000	PUMP/TRUCK	---	---	---	---
PRESQUE ISLE	NORTHERN MAINE REGIONAL	1	BELOW	12,000	PUMP	1	ABOVE	15,000	PUMP/TRUCK	---	---	---	---
PRINCETON	PRINCETON MUNICIPAL	0	---	---	---	---	---	---	---	---	---	---	---
RANGELEY	RANGELEY MUNICIPAL	1	ABOVE	5,000	PUMP	1	ABOVE	5,000	PUMP	---	---	---	---
ROCKLAND	KNOX COUNTY REGIONAL	2	ABOVE	12,000	PUMP/TRUCK	3	ABOVE	32,000	PUMP/TRUCK	---	---	---	---
SANFORD	SANFORD REGIONAL	1	BELOW	10,000	PUMP	2	ABOVE	10,000	PUMP	---	---	---	---
STONINGTON	STONINGTON MUNICIPAL	---	---	---	---	---	---	---	---	---	---	---	---
WATERVILLE	WATERVILLE ROBERT LAFLEUR	1	ABOVE	12,000	PUMP	1	ABOVE	12,000	PUMP	---	---	---	---
WISCASSET	WISCASSET	1	ABOVE	12,000	PUMP	1	ABOVE	12,000	PUMP	---	---	---	---

SOURCE: WSA
NOTE: Data collected Fall 2001

TABLE 2-7
NAVIGATIONAL AIDS

CITY NAME	FACILITY NAME	PAPI	VASI	REIL	BEACON	SEGMENTED CIRCLE	AWOS/ ASOS	ILS	LOC	ALS	DME	VOR	GPS	NDB	CA
AUBURN	AUBURN/LEWISTON MUNICIPAL	YES	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
AUGUSTA	AUGUSTA STATE	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES
BANGOR	BANGOR INTERNATIONAL	YES	NO	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	NO	NO	NO
BELFAST	BELFAST MUNICIPAL	NO	YES	NO	YES	YES	NO	NO	NO	NO	NO	NO	YES	YES	NO
BETHEL	BETHEL REGIONAL	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
BIDDEFORD	BIDDEFORD MUNICIPAL	YES	NO	NO	YES	NO	YES	NO	NO	NO	NO	YES	YES	NO	YES
CARIBOU	CARIBOU MUNICIPAL	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO	YES	YES	NO	YES
CARRABASSETT	SUGARLOAF REGIONAL	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
DEBLOIS	DEBLOIS FLIGHT STRIP	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
DEXTER	DEXTER REGIONAL	NO	NO	NO	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
EASTPORT	EASTPORT MUNICIPAL	YES	NO	YES	YES	YES	YES	NO	NO	NO	NO	NO	YES	YES	YES
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES	NO	YES	YES	YES	YES	NO	NO	NO	NO	NO	YES	YES	NO
FRYEBURG	EASTERN SLOPES REGIONAL	NO	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	YES	YES	NO
GREENVILLE	GREENVILLE MUNICIPAL	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	NO	YES	NO	NO
HOULTON	HOULTON INTERNATIONAL	YES	YES	YES	YES	YES	YES	NO	NO	NO	NO	YES	YES	NO	YES
ISLESBORO	ISLESBORO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
JACKMAN	NEWTON FIELD	NO	NO	YES	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO
LINCOLN	LINCOLN REGIONAL	NO	NO	NO	NO	YES	NO	NO	NO	NO	NO	YES	NO	YES	YES
LUBEC	LUBEC MUNICIPAL	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
MACHIAS	MACHIAS VALLEY	NO	NO	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
MILLINOCKET	MILLINOCKET MUNICIPAL	NO	YES	YES	YES	NO	YES	YES	NO	YES	NO	YES	YES	YES	YES
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	NO	NO	YES	YES	YES	NO	NO	NO	NO	YES	YES	YES	NO	NO
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	YES	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES	NO
OXFORD	OXFORD COUNTY REGIONAL	NO	YES	NO	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO
PITTSFIELD	PITTSFIELD MUNICIPAL	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	YES	YES	YES
PORTLAND	PORTLAND INTL JETPORT	NO	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
PRINCETON	PRINCETON MUNICIPAL	NO	YES	NO	YES	YES	NO	NO	NO	NO	NO	NO	YES	NO	NO
RANGELEY	RANGELEY MUNICIPAL	NO	NO `	YES	YES	YES	NO	NO	NO	NO	NO	NO	YES	YES	YES

TABLE 2-7
NAVIGATIONAL AIDS (CONTINUED)

ROCKLAND	KNOX COUNTY REGIONAL	NO	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO	YES	YES	YES
SANFORD	SANFORD REGIONAL	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	NO	YES	YES
STONINGTON	STONINGTON MUNICIPAL	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO
WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES	YES	YES	YES	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES
WISCASSET	WISCASSET	YES	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	YES	YES	YES

SOURCE: WSA
NOTE: Data collected Fall 2001

LEGEND
PAPI – PRECISION APPROACH PATH INDICATOR
VASI – VISUAL APROACH SLOPE INDICATOR
REIL – RUNWAY END IDENTIFIER LIGHTS
AWOS/ASOS – AUTOMATED WEATHER OBSERVING SYSTEM/AUTOMATED SURFACE OBSERVING SYSTEM
ILS – INSTRUMENT LIGHTING SYSTEM
LOC – LOCAILIZER
ALS – APPROACH LIGHTING SYSTEM
DME – DISTANCE MEASURING EQUIPMENT
VOR – VISUAL OMNI RANGE
GPS – GLOBAL POSITIONING SYSTEM
NDB – NONDIRECTIONAL RADIO BEACON
CA – CIRCLING APPROACH

TABLE 2-8
LAND USE

CITY NAME	FACILITY NAME	ASSOCIATED MUNICIPALITY/COUNTY	AIRPORT OWNS ENTIRE RPZ
AUBURN	AUBURN/LEWISTON MUNICIPAL	AUBURN	NO
AUGUSTA	AUGUSTA STATE	AUGUSTA	NO
BANGOR	BANGOR INTERNATIONAL	BANGOR	YES
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	BAR HARBOR	NO
BELFAST	BELFAST MUNICIPAL	BELFAST	NO
BETHEL	BETHEL REGIONAL	BETHEL	YES
BIDDEFORD	BIDDEFORD MUNICIPAL	BIDDEFORD	YES
CARIBOU	CARIBOU MUNICIPAL	CARIBOU	NO
CARRABASSETT	SUGARLOAF REGIONAL	CARRABASSETT	YES
DEBLOIS	DEBLOIS FLIGHT STRIP	DEBLOIS	NO
DEXTER	DEXTER REGIONAL	DEXTER	NO
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	DOVER/FOXCROFT	YES
EASTPORT	EASTPORT MUNICIPAL	EASTPORT	YES
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	FRENCHVILLE	YES
FRYEBURG	EASTERN SLOPES REGIONAL	FRYEBURG	NO
GREENVILLE	GREENVILLE MUNICIPAL	GREENVILLE	NO
HOULTON	HOULTON INTERNATIONAL	HOULTON	YES
ISLESBORO	ISLESBORO	ISLESBORO	NO
JACKMAN	NEWTON FIELD	JACKMAN	NO
LINCOLN	LINCOLN REGIONAL	LINCOLN	NO
LUBEC	LUBEC MUNICIPAL	LUBEC	NO
MACHIAS	MACHIAS VALLEY	MACHIAS	NO
MILLINOCKET	MILLINOCKET MUNICIPAL	MILLINOCKET	NO
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	NORRIDGEWOCK	YES
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	OLD TOWN	NO
OXFORD	OXFORD COUNTY REGIONAL	OXFORD	NO
PITTSFIELD	PITTSFIELD MUNICIPAL	PITTSFIELD	NO
PORTLAND	PORTLAND INTL JETPORT	PORTLAND	NO
PRESQUE ISLE	NORTHERN MAINE REGIONAL	PRESQUE ISLE	NO
PRINCETON	PRINCETON MUNICIPAL	PRINCETON	NO
RANGELEY	RANGELEY MUNICIPAL	RANGELEY	YES
ROCKLAND	KNOX COUNTY REGIONAL	ROCKLAND	YES
SANFORD	SANFORD REGIONAL	SANFORD	NO
STONINGTON	STONINGTON MUNICIPAL	STONINGTON	NO
WATERVILLE	WATERVILLE ROBERT LAFLEUR	WATERVILLE	NO
WISCASSET	WISCASSET	WISCASSET	NO

SOURCE: WSA
NOTE: Data collected Fall 2001

TABLE 2-9
AIRPORT/AVIATION SERVICES (FREQUENCY)

CITY NAME	FACILITY NAME	RECR. FLYING	AGRI-CULTURAL SPRAYING	CORPORATE/ BUSINESS ACTIVITY	AERIAL INSPECTION	JUST-IN-TIME SHIPPING	GATEWAY FOR RESORT VISITORS	STAGING FOR COMM. EVENTS	POLICE/ LAW ENFORCE	PRISONER TRANSPORT	LOCATION FOR COMM.	CAREER TRAIN/ED.	SEARCH RESCUE (CAP)	ENVIRN. PATROL
AUBURN	AUBURN/LEWISTON MUNICIPAL	HIGH		MEDIUM	LOW	MEDIUM	MEDIUM	LOW			HIGH	MEDIUM	LOW	
AUGUSTA	AUGUSTA STATE	HIGH	LOW	MEDIUM	LOW	LOW	LOW	LOW	MEDIUM	LOW	LOW	LOW	MEDIUM	LOW
BANGOR	BANGOR INTERNATIONAL	MEDIUM		HIGH			HIGH		HIGH					
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	HIGH	LOW	HIGH	LOW	LOW							MEDIUM	
BELFAST	BELFAST MUNICIPAL	HIGH	LOW	LOW	LOW	LOW	MEDIUM	LOW	LOW	LOW	LOW	HIGH	LOW	LOW
BETHEL	BETHEL REGIONAL	HIGH	LOW	MEDIUM	LOW	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	LOW	LOW
BIDDEFORD	BIDDEFORD MUNICIPAL	HIGH	LOW	MEDIUM	MEDIUM	MEDIUM	HIGH	LOW	LOW	LOW	LOW	MEDIUM	LOW	LOW
CARIBOU	CARIBOU MUNICIPAL	HIGH	LOW	LOW	LOW	LOW	LOW	LOW	LOW				LOW	
CARRABASSETT	SUGARLOAF REGIONAL	HIGH		MEDIUM	LOW		HIGH							
DEBLOIS	DEBLOIS FLIGHT STRIP													
DEXTER	DEXTER REGIONAL	MEDIUM	LOW	MEDIUM			MEDIUM		LOW					
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	HIGH	LOW	LOW	LOW		LOW		LOW				LOW	LOW
EASTPORT	EASTPORT MUNICIPAL	HIGH	LOW	HIGH	MEDIUM	LOW	MEDIUM	LOW	MEDIUM	LOW	LOW	LOW	LOW	LOW
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	LOW	LOW	MEDIUM	LOW		MEDIUM	LOW	LOW		LOW	LOW	LOW	MEDIUM
FRYEBURG	EASTERN SLOPES REGIONAL	HIGH	LOW	MEDIUM			HIGH	LOW	LOW				LOW	
GREENVILLE	GREENVILLE MUNICIPAL	HIGH		MEDIUM			HIGH							
HOULTON	HOULTON INTERNATIONAL	MEDIUM		MEDIUM			LOW	LOW	MEDIUM	LOW		HIGH	LOW	HIGH
ISLESBORO	ISLESBORO					LOW	HIGH							
JACKMAN	NEWTON FIELD	HIGH	LOW	LOW	LOW		HIGH	MEDIUM	LOW	LOW	LOW	LOW	MEDIUM	MEDIUM
LINCOLN	LINCOLN REGIONAL	HIGH		MEDIUM			LOW	LOW				LOW	LOW	
LUBEC	LUBEC MUNICIPAL	LOW	LOW				LOW							
MACHIAS	MACHIAS VALLEY	MEDIUM	HIGH	MEDIUM		MEDIUM		LOW	LOW				LOW	
MILLINOCKET	MILLINOCKET MUNICIPAL	HIGH	MEDIUM		LOW		MEDIUM						LOW	LOW
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	HIGH	LOW	MEDIUM	LOW	LOW	HIGH	MEDIUM	HIGH	LOW	LOW	HIGH	MEDIUM	MEDIUM
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	MEDIUM	LOW	LOW					MEDIUM				LOW	
OXFORD	OXFORD COUNTY REGIONAL	LOW		LOW			LOW		MEDIUM			LOW		
PITTSFIELD	PITTSFIELD MUNICIPAL	HIGH	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	LOW	LOW		LOW	LOW
PORTLAND	PORTLAND INTL JETPORT	MEDIUM		MEDIUM	LOW	MEDIUM	HIGH		LOW	LOW	MEDIUM	LOW	LOW	LOW
PRESQUE ISLE	NORTHERN MAINE REGIONAL	MEDIUM	MEDIUM	MEDIUM	LOW	LOW	LOW	LOW	LOW	LOW	MEDIUM	LOW	MEDIUM	MEDIUM
PRINCETON	PRINCETON MUNICIPAL	HIGH	LOW	MEDIUM	MEDIUM	LOW	MEDIUM	LOW	MEDIUM	LOW	LOW	LOW	MEDIUM	MEDIUM
RANGELEY	RANGELEY MUNICIPAL	HIGH	LOW	MEDIUM	LOW	LOW	HIGH	LOW	LOW			LOW	LOW	LOW
ROCKLAND	KNOX COUNTY REGIONAL	HIGH	LOW	HIGH	LOW	MEDIUM	LOW						LOW	LOW
SANFORD	SANFORD REGIONAL	HIGH	MEDIUM			LOW	MEDIUM							
STONINGTON	STONINGTON MUNICIPAL	HIGH		LOW		LOW	MEDIUM						LOW	
WATERVILLE	WATERVILLE ROBERT LAFLEUR	LOW		LOW	LOW	LOW	LOW	LOW	LOW		MEDIUM	HIGH	MEDIUM	LOW
WISCASSET	WISCASSET	HIGH		LOW	LOW		HIGH	LOW	LOW			LOW	LOW	LOW

SOURCE: WSA
NOTE: Data collected Fall 2001

TABLE 2-10
AIRPORT/AVIATION SERVICES (FREQUENCY)

CITY NAME	FACILITY NAME	EMERG. MED. EVACUATION	MED. SHIP/ PATIENT TRANS	FOREST FIRE FIGHTING	AERIAL PHOTO/ SURVEY	REAL ESTATE TOURS	AERIAL ADVERTISING	TRAFFIC/ NEWS	AVIATION CLUBS	AIR SHOWS	BALLOONS	ULTRA-LIGHTS	EXPERIMENT AIRCRAFT	MODEL AIRCRAFT
AUBURN	AUBURN/LEWISTON MUNICIPAL	MEDIUM	MEDIUM		MEDIUM			LOW			LOW	MEDIUM	MEDIUM	
AUGUSTA	AUGUSTA STATE	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW
BANGOR	BANGOR INTERNATIONAL	MEDIUM	MEDIUM											
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	LOW	LOW		LOW							LOW	LOW	
BELFAST	BELFAST MUNICIPAL	MEDIUM	MEDIUM	LOW	HIGH	LOW	LOW	LOW	LOW	LOW	LOW	MEDIUM	MEDIUM	LOW
BETHEL	BETHEL REGIONAL	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW
BIDDEFORD	BIDDEFORD MUNICIPAL	LOW	LOW	LOW	LOW	MEDIUM	HIGH	LOW	LOW	MEDIUM	LOW	LOW	LOW	MEDIUM
CARIBOU	CARIBOU MUNICIPAL	LOW	LOW	HIGH	MEDIUM	MEDIUM						LOW		LOW
CARRABASSETT	SUGARLOAF REGIONAL	LOW		LOW	LOW	MEDIUM							LOW	
DEBLOIS	DEBLOIS FLIGHT STRIP													
DEXTER	DEXTER REGIONAL	LOW	LOW						MEDIUM			LOW	LOW	
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD				LOW				LOW			LOW	LOW	LOW
EASTPORT	EASTPORT MUNICIPAL	LOW	LOW	LOW	MEDIUM	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	MEDIUM	MEDIUM	MEDIUM	MEDIUM	MEDIUM						LOW		
FRYEBURG	EASTERN SLOPES REGIONAL	LOW		LOW	LOW	LOW				LOW	LOW	LOW		
GREENVILLE	GREENVILLE MUNICIPAL			MEDIUM	MEDIUM	MEDIUM				LOW		LOW	LOW	LOW
HOULTON	HOULTON INTERNATIONAL	MEDIUM		LOW	MEDIUM	LOW			LOW	LOW		MEDIUM		LOW
ISLESBORO	ISLESBORO											LOW		
JACKMAN	NEWTON FIELD	MEDIUM	MEDIUM	LOW	MEDIUM	LOW							HIGH	LOW
LINCOLN	LINCOLN REGIONAL	LOW	LOW	LOW					LOW			LOW	LOW	LOW
LUBEC	LUBEC MUNICIPAL		LOW	LOW	LOW	LOW						LOW	LOW	LOW
MACHIAS	MACHIAS VALLEY	MEDIUM		LOW	LOW				LOW					
MILLINOCKET	MILLINOCKET MUNICIPAL	LOW	LOW	LOW	LOW	LOW					LOW	LOW		LOW
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	MEDIUM	MEDIUM	LOW	MEDIUM	LOW	LOW	LOW	LOW	MEDIUM	LOW	MEDIUM	MEDIUM	LOW
OLD TOWN	DEWITT FLD,OLD TOWN MUNICIPAL			HIGH	HIGH							LOW	LOW	MEDIUM
OXFORD	OXFORD COUNTY REGIONAL			MEDIUM	LOW	LOW	LOW					LOW	LOW	
PITTSFIELD	PITTSFIELD MUNICIPAL		LOW	LOW	MEDIUM	LOW			LOW	LOW		LOW	LOW	LOW
PORTLAND	PORTLAND INTL JETPORT	LOW	LOW	LOW	LOW				LOW					
PRESQUE ISLE	NORTHERN MAINE REGIONAL	MEDIUM	MEDIUM	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW	LOW
PRINCETON	PRINCETON MUNICIPAL	MEDIUM	MEDIUM	MEDIUM	MEDIUM	LOW	LOW		LOW	LOW		MEDIUM	LOW	MEDIUM
RANGELEY	RANGELEY MUNICIPAL	MEDIUM	MEDIUM	MEDIUM	LOW	LOW			LOW	LOW	LOW	LOW		LOW
ROCKLAND	KNOX COUNTY REGIONAL	MEDIUM	LOW		MEDIUM	LOW			HIGH	MEDIUM		MEDIUM	MEDIUM	MEDIUM
SANFORD	SANFORD REGIONAL	LOW	LOW		LOW							LOW	LOW	
STONINGTON	STONINGTON MUNICIPAL	MEDIUM												
WATERVILLE	WATERVILLE ROBERT LAFLEUR	LOW	LOW		LOW	LOW							LOW	
WISCASSET	WISCASSET				LOW		LOW		LOW			LOW	LOW	

SOURCE: WSA
NOTE: Data collected Fall 2001

TABLE 2-11
AIRPORT DEVELOPMENT ISSUES

CITY NAME	FACILITY NAME	OUTREACH PROGRAM	TRAINING PROGRAM	INCLUDED IN COMP. PLAN	ANNUAL SAFETY SEMINAR	FAV. PUBLIC SUPPORT	SUPPORT LIFE FOR FLIGHT	LAND USE/ ZONING	HEIGHT ZONING	REGIONAL COMP. PLAN	LAWS INHIBITING GROWTH
AUBURN	AUBURN/LEWISTON MUNICIPAL	YES	YES	YES	YES	YES	YES	COMMERCIAL RESIDENTIAL INDUSTRIAL	YES	YES	NO
AUGUSTA	AUGUSTA STATE	YES	NO	YES	NO	YES	YES	RESIDENTIAL COMMERCIAL INDUSTRIAL	YES	YES	YES
BANGOR	BANGOR INTERNATIONAL	YES	YES	YES	YES	YES	YES	INDUSTRIAL, COMMERCIAL	YES	YES	NO
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO	NO	NO	YES	NO	YES	RESIDENTIAL COMMERCIAL	YES	NO	NO
BELFAST	BELFAST MUNICIPAL	NO	NO	YES	NO	YES	YES	INDUSTRIAL	YES	YES	NO
BETHEL	BETHEL REGIONAL	NO	NO	YES	NO	YES	YES	INDUSTRIAL COMMERCIAL RESIDENTIAL	NO	YES	NO
BIDDEFORD	BIDDEFORD MUNICIPAL	YES	NO	YES	YES	NO	YES	INDUSTRIAL COMMERCIAL RESIDENTIAL	NO	YES	NO
CARIBOU	CARIBOU MUNICIPAL	NO	NO	YES	NO	YES	YES	INDUSTRIAL	YES	YES	NO
CARRABASSETT	SUGARLOAF REGIONAL	YES	NO	YES	NO	YES	YES	INDIAN NATION RESIDENTIAL	YES	YES	NO
DEBLOIS	DEBLOIS FLIGHT STRIP	NO	NO	NO	NO	NO	NO	RURAL	NO	NO	NO
DEXTER	DEXTER REGIONAL	NO	NO	YES	NO	YES	YES	RURAL	NO	YES	YES
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	YES	NO	NO	NO	YES	NO	RURAL	NO	NO	NO
EASTPORT	EASTPORT MUNICIPAL	YES	NO	YES	NO	YES	YES	INDUSTRIAL	YES	YES	NO
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES	NO	YES	NO	YES	YES	RURAL	NO	YES	NO
FRYEBURG	EASTERN SLOPES REGIONAL	NO	NO	NO	NO	YES	YES	RURAL RESIDENTIAL	YES	NO	NO
GREENVILLE	GREENVILLE MUNICIPAL	NO	NO	YES	NO	YES	YES	RESIDENTIAL	YES	YES	NO
HOULTON	HOULTON INTERNATIONAL	YES	YES	YES	YES	YES	YES	RESIDENTIAL INDUSTRIAL COMMERCIAL	YES	YES	YES
ISLESBORO	ISLESBORO	NO	NO	NO	NO	NO	YES	RESIDENTIAL WOODLANDS	YES	NO	NO

TABLE 2-11
AIRPORT DEVELOPMENT ISSUES (CONTINUED)

CITY NAME	FACILITY NAME	OUTREACH PROGRAM	TRAINING PROGRAM	INCLUDED IN COMP. PLAN	ANNUAL SAFETY SEMINAR	FAV. PUBLIC SUPPORT	SUPPORT LIFE FOR FLIGHT	LAND USE/ ZONING	HEIGHT ZONING	REGIONAL COMP. PLAN	LAWS INHIBITING GROWTH
JACKMAN	NEWTON FIELD	NO	NO	NO	NO	YES	YES	RURAL WOODLANDS	NO	NO	NO
LINCOLN	LINCOLN REGIONAL	YES	NO	YES	NO	YES	YES	INDUSTRIAL	YES	YES	NO
LUBEC	LUBEC MUNICIPAL	NO	NO	YES	NO	NO	YES	RESIDENTIAL	YES	YES	NO
MACHIAS	MACHIAS VALLEY	YES	NO	YES	NO	NO	YES	RESIDENTIAL	NO	YES	NO
MILLINOCKET	MILLINOCKET MUNICIPAL	NO	NO	YES	NO	YES	YES	RESIDENTIAL INDUSTRIAL	YES	YES	NO
NORRIDGEWOCK	CENTRAL MAINE REGIONAL AIRPORT	YES	NO	YES	NO	YES	YES	RESIDENTIAL	YES	YES	NO
OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	NO	NO	YES	YES	YES	NO	INDUSTRIAL	NO	YES	NO
OXFORD	OXFORD COUNTY REGIONAL	NO	YES	NO	NO	YES	YES	RESIDENTIAL	NO	NO	NO
PITTSFIELD	PITTSFIELD MUNICIPAL	NO	NO	YES	NO	NO	YES	INDUSTRIAL CEMETERY	YES	YES	NO
PORTLAND	PORTLAND INTL JETPORT	YES	NO	YES	NO	NO	YES	INDUSTRIAL RESIDENTIAL	YES	YES	YES
PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES	NO	YES	YES	YES	YES	COMMERCIAL INDUSTRIAL	YES	YES	NO
PRINCETON	PRINCETON MUNICIPAL	NO	NO	NO	NO	NO	YES	WOODLAND	NO	NO	NO
RANGELEY	RANGELEY MUNICIPAL	NO	YES	YES	NO	NO	YES	INDUSTRIAL RURAL	YES	YES	NO
ROCKLAND	KNOX COUNTY REGIONAL	YES	NO	YES	YES	YES	YES	COMMERCIAL RESIDENTIAL	YES	YES	NO
SANFORD	SANFORD REGIONAL	YES	NO	YES	YES	YES	YES	INDUSTRIAL COMMERCIAL	YES	YES	NO
STONINGTON	STONINGTON MUNICIPAL	NO	NO	YES	NO	YES	NO	RESIDENTIAL COMMERCIAL	NO	YES	NO
WATERVILLE	WATERVILLE ROBERT LAFLEUR	NO	NO	YES	NO	NO	YES	RESIDENTIAL COMMERCIAL	NO	YES	NO
WISCASSET	WISCASSET	YES	NO	NO	YES	NO	NO	RESIDENTIAL COMMERCIAL	NO	NO	NO

SOURCE: WSA
NOTE: Data collected Fall 2001

CHAPTER THREE
ROLES FOR SYSTEM AIRPORTS AND FACILITY AND SERVICE OBJECTIVES

Within any transportation system, airports within that system contribute to meeting air transportation and economic needs at different and varying levels. While each airport within a system contributes in some way, airports do fill different roles. Some airports in a system are essential to meeting transportation and economic needs, while other airports play a supporting role. Because airports in the Maine system play different roles, their needs for facilities and services they provide also vary accordingly.

For the Maine Aviation Systems Plan Update (MASPU), it is important to determine how each of the airports in the system is contributing. Determining how airports in the system are currently functioning is an important step when identifying how certain airports may need to be upgraded in the future to fill shortfalls or voids in the system. These voids or deficiencies in Maine's Aviation System will be subsequently identified in the systems adequacy analysis.

FACTORS INFLUENCING AIRPORT ROLES

How each airport contributes or what role it plays within any given system is dependent upon a variety of factors. For this analysis, factors that were considered to determine the role each airport plays are summarized below. These factors are consistent with those identified by the United States Department of Transportation (USDOT) for determining an airport's role.

- **Accessibility** – Airports that are easily accessible often tend to be more highly utilized. As a result of their greater degree of accessibility, some airports in the system may capture a greater portion of the State's aviation demand and, as a result, play a more elevated role in the system.

- **Population** – Airports within a system that are in proximity to greater concentrations of population often play a more significant role within that airport system. Demand for both aviation and aviation-related services is often correlated with this socioeconomic/demographic indicator.

- **Consumer Retail Sales** – Taxable sales within the State provide a good representation of the areas of Maine that are consistent economic generators and centers of employment. These areas often correlate well to demand for aviation-related services.

- **Tourism** – Tourism and visitor spending is a key component of Maine's economy. Airports in the system that serve tourism play an important role. Seasonal consumer retail sales by quarter within each airport's market area served are the proxy to measure contribution for this factor.

- **Surrounding Development** – Airports are often magnets for commercial and industrial development that is aviation-related or aviation reliant. Airports whose surrounding land use falls into one of these categories (industrial/commercial) typically play a more significant role in the system because there is a higher degree of business dependence on these airports.

- **Facilities** – Airports in systems that have more advanced levels of facility development in place often have a heightened role of importance within that system. This is particularly true for the runway length and the type of approach that are available. Airports with longer runways and more precise approach capabilities, precision or non-precision, tend to play more essential roles within any airport system.

- **Services** – Services, much like facilities, provided at system airports are keys to attracting both locally based and visiting (transient) aviation demand. Services provided at an airport often influence the role that the airport plays within the aviation system. Services that bear upon an airport's role within a particular system include fuel, maintenance/repair, flight training, and other aircraft services such as rental and charter.

Considering each of these factors, airports included in the MASPU were reviewed and assigned to one of four categories or levels of contribution. Airports being studied in the MASPU were designated as a Level I, Level II, Level III, or Level IV airport. These assignments are based on the role that each of the system airports now plays in meeting the State's aviation needs. Whether or not an airport's future system role is consistent with its current system role will hinge on the results of the system evaluation, to be completed later in the MASPU. A general description of the types of activity and aircraft accommodated by airports in each of these four levels follows:

- Level I - Accommodates some commercial/all general aviation aircraft

- Level II - Accommodates primarily twin- and single-engine general aviation aircraft

- Level III - Accommodates small, single-engine aviation aircraft

- Level IV - Accommodates only small, single-engine aviation aircraft

SYSTEM STRATIFICATION

To stratify study airports by role level, based on their current contribution to meeting Maine's transportation and economic needs, information from a geographic information system (GIS) mapping analysis was used. In addition, information on study airports that was collected as part of the MASPU's inventory effort was used in this process. To conduct the GIS analysis and to contrast and compare study airports for various service level evaluation factors, a 30-minute drive time was used. This type of service area is consistent with FAA guidelines for general aviation airports, as defined by the FAA in the National Plan for Integrated Airport Systems (NPIAS).

ACCESSIBILITY

The role that each system airport plays varies based on its distance from a four-lane highway. GIS mapping was used to determine each airport's proximity to a four-lane highway. **Table 3-1** shows the results of this mapping exercise.

TABLE 3-1
ACCESSIBILITY
DISTANCE TO FOUR-LANE HIGHWAY

CITY NAME	FACILITY NAME	DISTANCE TO 4-LANE HIGHWAY
WATERVILLE	WATERVILLE ROBERT LAFLEUR	0.4
AUGUSTA	AUGUSTA STATE	0.8
BANGOR	BANGOR INTERNATIONAL	1.3
PORTLAND	PORTLAND INTERNATIONAL JETPORT	1.3
HOULTON	HOULTON INTERNATIONAL	1.8
OLD TOWN	DEWITT FIELD, OLD TOWN MUNICIPAL	1.8
PITTSFIELD	PITTSFIELD MUNICIPAL	1.9
AUBURN	AUBURN/LEWISTON MUNICIPAL	2.4
BIDDEFORD	BIDDEFORD MUNICIPAL	2.9
LINCOLN	LINCOLN REGIONAL	3.8
WISCASSET	WISCASSET	6.6
SANFORD	SANFORD REGIONAL	7.2
MILLINOCKET	MILLINOCKET MUNICIPAL	10.8
DEXTER	DEXTER REGIONAL AIRPORT	13.3
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	15.7
OXFORD	OXFORD COUNTY REGIONAL	20.0
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	25.6
BELFAST	BELFAST MUNICIPAL	32.4
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	33.2
FRYEBURG	EASTERN SLOPES REGIONAL	39.7
PRESQUE ISLE	NORTHERN MAINE REGIONAL	39.8
ROCKLAND	KNOX COUNTY REGIONAL	42.3
ISLESBORO	ISLESBORO MUNICIPAL	42.6
DEBLOIS	DEBLOIS FLIGHT STRIP	46.3
CARIBOU	CARIBOU MUNICIPAL	49.0
BETHEL	BETHEL REGIONAL	49.6
GREENVILLE	GREENVILLE MUNICIPAL	57.7
PRINCETON	PRINCETON MUNICIPAL	58.3
STONINGTON	STONINGTON MUNICIPAL	58.5
CARRABASSETT	SUGARLOAF REGIONAL	62.3
RANGELEY	RANGELEY MUNICIPAL	64.0
JACKMAN	NEWTON FIELD	76.4
MACHIAS	MACHIAS VALLEY	81.2
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	91.2
EASTPORT	EASTPORT MUNICIPAL	99.3
LUBEC	LUBEC MUNICIPAL	103.3

SOURCE: WSA/OEST Associates

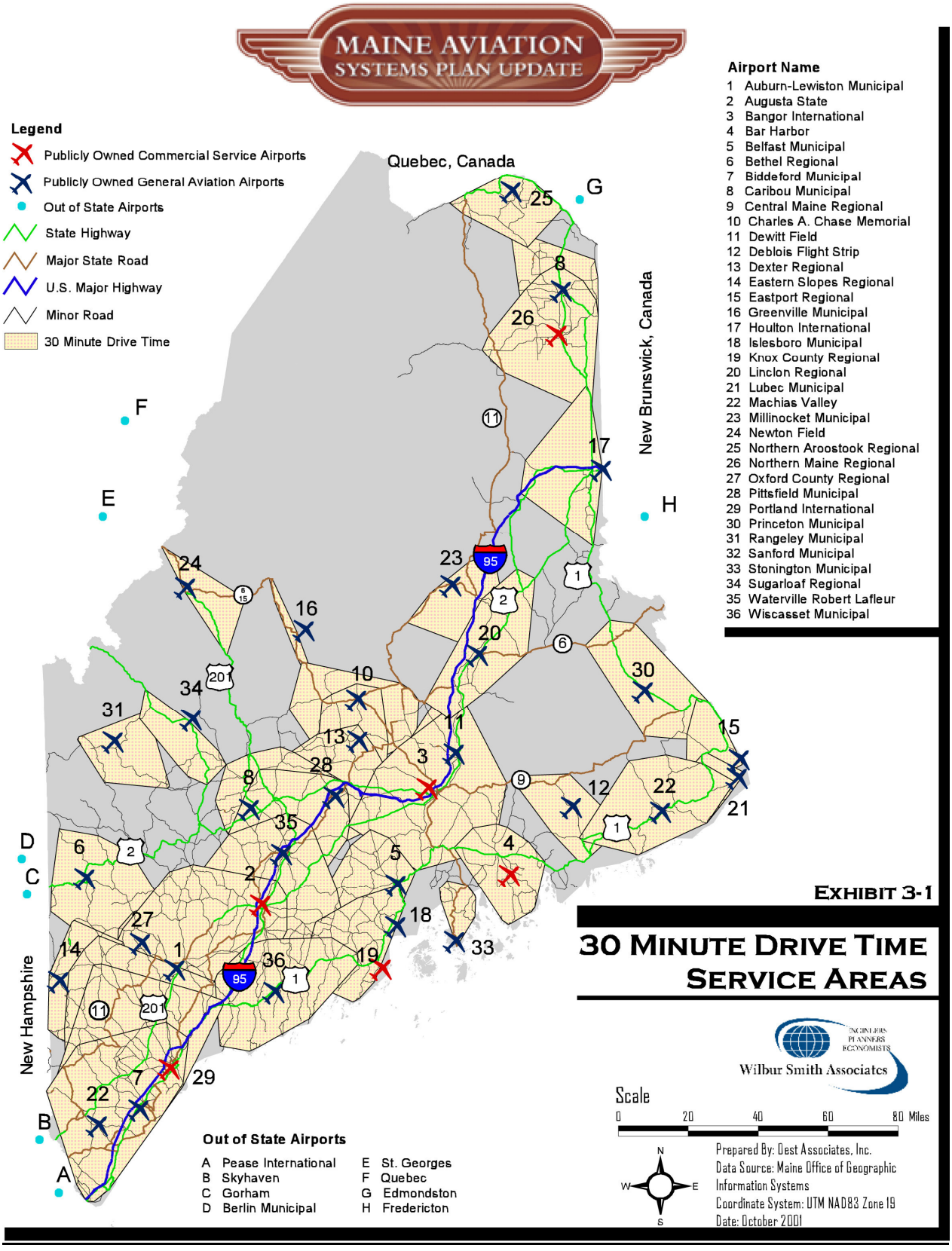
In addition to determining each airport's proximity to a four-lane highway, GIS analysis was also used to identify and then rank the study airports for the area that each airport's 30-minute service area encompasses. This factor helps to determine how accessible each of the airports is. The results of the mapping for this accessibility factor are shown in **Table 3-2**.

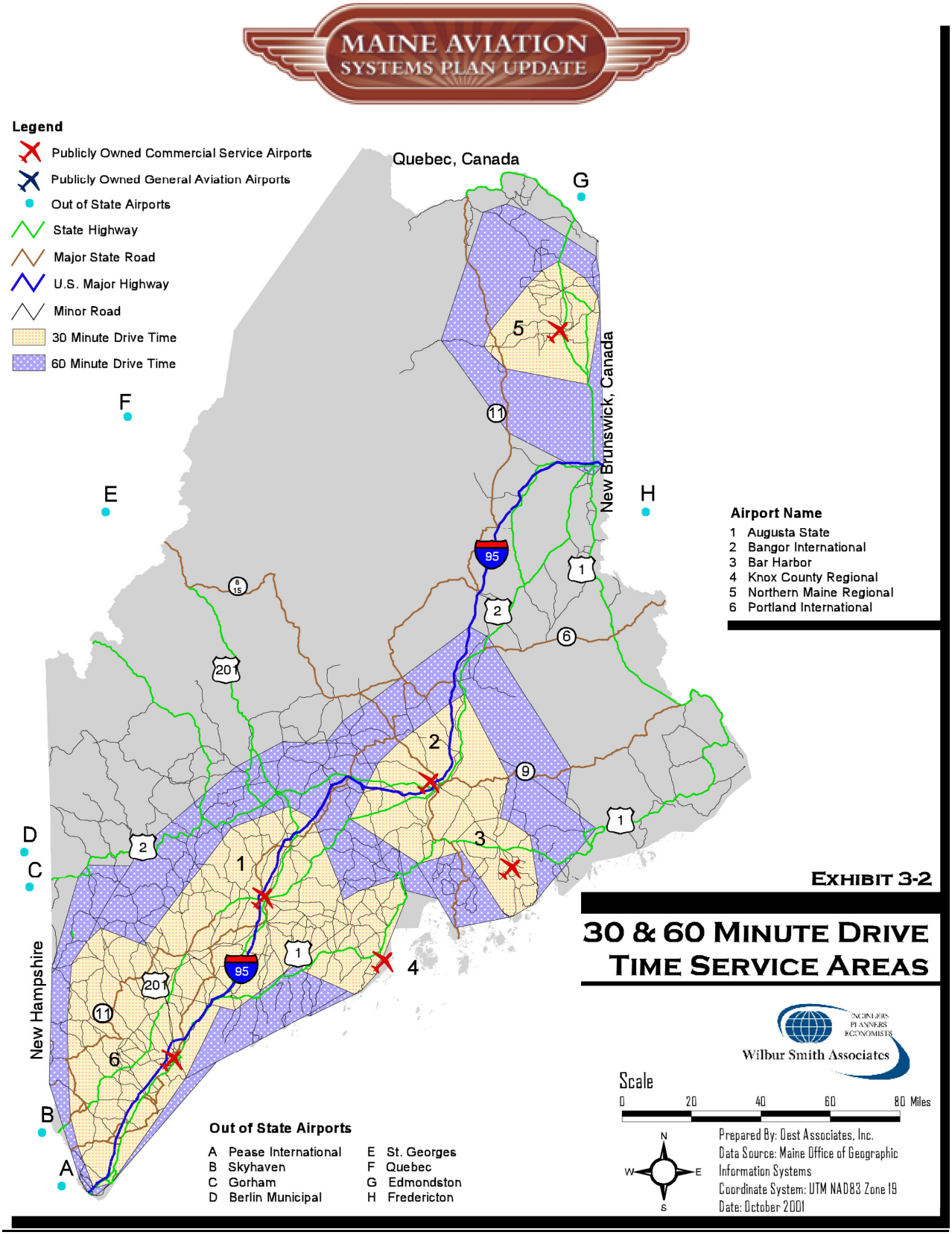
TABLE 3-2
ACCESSIBILITY
AREA COVERED

CITY NAME	FACILITY NAME	SQUARE MILES WITHIN 30 MINUTE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	2,145
AUGUSTA	AUGUSTA STATE	2,115
AUBURN	AUBURN-LEWISTON MUNICIPAL	1,921
BIDDEFORD	BIDDEFORD MUNICIPAL	1,903
BANGOR	BANGOR INTERNATIONAL	1,367
WATERVILLE	WATERVILLE ROBERT LAFLEUR	1,289
SANFORD	SANFORD MUNICIPAL	1,257
PITTSFIELD	PITTSFIELD MUNICIPAL	1,125
OXFORD	OXFORD COUNTY REGIONAL	1,024
WISCASSET	WISCASSET	896
PRESQUE ISLE	NORTHERN MAINE REGIONAL	881
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	878
OLD TOWN	DEWITT FIELD	859
DOVER-FOXCROFT	CHARLES CHASE MEMORIAL FIELD	795
FRYEBURG	EASTERN SLOPES REGIONAL	784
MACHIAS	MACHIAS VALLEY	773
BETHEL	BETHEL REGIONAL	758
PRINCETON	PRINCETON MUNICIPAL	692
CARIBOU	CARIBOU MUNICIPAL	666
LINCOLN	LINCOLN REGIONAL	641
DEXTER	DEXTER REGIONAL	640
HOULTON	HOULTON INTERNATIONAL	619
ROCKLAND	KNOX COUNTY REGIONAL	596
BELFAST	BELFAST MUNICIPAL	481
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	458
MILLINOCKET	MILLINOCKET MUNICIPAL	420
ISLESBORO	ISLESBORO MUNICIPAL	416
DEBLOIS	DEBLOIS FLIGHT STRIP	404
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	370
RANGELEY	RANGELEY MUNICIPAL	365
CARRABASSETT	SUGARLOAF REGIONAL	290
LUBEC	LUBEC MUNICIPAL	258
JACKMAN	NEWTON FIELD	251
EASTPORT	EASTPORT MUNICIPAL	237
STONINGTON	STONINGTON MUNICIPAL	122
GREENVILLE	GREENVILLE MUNICIPAL	75

SOURCE: WSA/OEST Associates

For this factor, the number of square miles served by each study airport varied based on several factors. Airports that have less developed ground access systems tend to serve a lower percentage of Maine's geographic area. **Exhibit 3-1** depicts the 30-minute drive time (service area) for both commercial service and general aviation airports. Commercial service airports tend to draw people from further distances **Exhibit 3-2** represents the 30- and 60-minute drive times for commercial service airports within the State. It is important to note that, in the analysis of airport roles for the MASPU, only the 30-minute service areas were considered.


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Belfast Municipal
6 Bethel Regional
7 Biddeford Municipal
8 Caribou Municipal
9 Central Maine Regional
10 Charles A. Chase Memorial
11 Dewitt Field
12 Deblois Flight Strip
13 Dexter Regional
14 Eastern Slopes Regional
15 Eastport Regional
16 Greenville Municipal
17 Houlton International
18 Islesboro Municipal
19 Knox County Regional
20 Linclon Regional
21 Lubec Municipal
22 Machias Valley
23 Millinocket Municipal
24 Newton Field
25 Northern Aroostook Regional
26 Northern Maine Regional
27 Oxford County Regional
28 Pittsfield Municipal
29 Portland International
30 Princeton Municipal
31 Rangeley Municipal
32 Sanford Municipal
33 Stonington Municipal
34 Sugarloaf Regional
35 Waterville Robert Lafleur
36 Wiscasset Municipal
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 3-1
30 MINUTE DRIVE TIME SERVICE AREAS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
60 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Augusta State
2 Bangor International
3 Bar Harbor
4 Knox County Regional
5 Northern Maine Regional
6 Portland International
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 3-2
30 & 60 MINUTE DRIVE TIME SERVICE AREAS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

POPULATION SERVED

As with accessibility, this factor was evaluated using GIS mapping/analysis. GIS mapping was used to determine the resident population of the State of Maine within each airport's 30-minute drive time. For airports that bordered other states and Canada, a percentage relative to the areas population was added to that airports population served. To conduct the GIS mapping analysis, Maine's existing model network was imported into TransCAD, a GIS-based Transportation Demand Model. The mapping analysis for this factor produced the results shown in **Table 3-3.**

TABLE 3-3
POPULATION SERVED
COVERAGE OF RESIDENTS

CITY NAME	FACILITY NAME	POPULATION SERVED
PORTLAND	PORTLAND INTERNATIONAL JETPORT	614,679
BIDDEFORD	BIDDEFORD MUNICIPAL	541,552
SANFORD	SANFORD MUNICIPAL	481,925
AUBURN	AUBURN-LEWISTON MUNICIPAL	439,422
AUGUSTA	AUGUSTA STATE	357,227
OXFORD	OXFORD COUNTY REGIONAL	200,298
WATERVILLE	WATERVILLE ROBERT LAFLEUR	165,929
BANGOR	BANGOR INTERNATIONAL	146,945
WISCASSET	WISCASSET	133,090
OLD TOWN	DEWITT FIELD	129,767
PITTSFIELD	PITTSFIELD MUNICIPAL	115,016
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	97,454
FRYEBURG	EASTERN SLOPES REGIONAL	96,586
ROCKLAND	KNOX COUNTY REGIONAL	67,805
ISLESBORO	ISLESBORO MUNICIPAL	52,560
DEXTER	DEXTER REGIONAL	45,704
PRESQUE ISLE	NORTHERN MAINE REGIONAL	45,316
BETHEL	BETHEL REGIONAL	42,357
CARIBOU	CARIBOU MUNICIPAL	39,724
BELFAST	BELFAST MUNICIPAL	37,850
DOVER-FOXCROFT	CHARLES CHASE MEMORIAL FIELD	36,859
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	36,858
HOULTON	HOULTON INTERNATIONAL	18,192
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	18,091
MACHIAS	MACHIAS VALLEY	18,028
LINCOLN	LINCOLN REGIONAL	17,394
JACKMAN	NEWTON FIELD	14,559
EASTPORT	EASTPORT MUNICIPAL	13,384
MILLINOCKET	MILLINOCKET MUNICIPAL	12,035
LUBEC	LUBEC MUNICIPAL	9,976
PRINCETON	PRINCETON	9,856
STONINGTON	STONINGTON MUNICIPAL	9,616
DEBLOIS	DEBLOIS FLIGHT STRIP	8,199
CARRABASSETT	SUGARLOAF REGIONAL	6,950
RANGELEY	RANGELEY MUNICIPAL	3,904
GREENVILLE	GREENVILLE MUNICIPAL	3,615

SOURCE: WSA/OEST Associates

CONSUMER RETAIL SALES

Determining what areas of the State are responsible for the highest percentage of consumer retail sales provides understanding of where aviation-related service should be provided. The State of Maine produces Retail Sales Quarterly Report that breaks the State into several different regions. These regions correspond in general to the service areas for the system airports. Some regions are not represented at all because they lack an airport, other regions were represented twice or more because one then one airport was located there. In order to determine the total retail sales per airport the annual state total was used to calculate an airport's percentage to avoid double counting regions. The percentage total subsequently does not equal 100 percent Results are shown in **Table 3-4.**

TABLE 3-4
CONSUMER RETAIL SALES
PERCENTAGE OF STATE TOTAL

CITY NAME	FACILITY NAME	CONSUMER RETAIL SALES – % OF STATE TOTAL
PORTLAND	PORTLAND INTERNATIONAL JETPORT	15.52%
BANGOR	BANGOR INTERNATIONAL	8.97%
OLD TOWN	DEWITT FIELD	8.97%
AUGUSTA	AUGUSTA STATE	6.11%
AUBURN	AUBURN-LEWISTON MUNICIPAL	5.94%
BIDDEFORD	BIDDEFORD MUNICIPAL	3.60%
WATERVILLE	WATERVILLE ROBERT LAFLEUR	3.55%
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	2.60%
WISCASSET	WISCASSET	2.47%
CARIBOU	CARIBOU MUNICIPAL	2.22%
PRESQUE ISLE	NORTHERN MAINE REGIONAL	2.22%
SANFORD	SANFORD MUNICIPAL	2.12%
ROCKLAND	KNOX COUNTY REGIONAL	2.06%
OXFORD	OXFORD COUNTY REGIONAL	1.41%
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	1.39%
BELFAST	BELFAST MUNICIPAL	1.15%
ISLESBORO	ISLESBORO MUNICIPAL	1.07%
DOVER/FOXCROFT	CHARLES CHASE MEMORIAL FIELD	1.00%
DEXTER	DEXTER REGIONAL	1.00%
GREENVILLE	GREENVILLE MUNICIPAL	1.00%
BETHEL	BETHEL REGIONAL	0.86%
HOULTON	HOULTON INTERNATIONAL	0.68%
PRINCETON	PRINCETON	0.67%
LINCOLN	LINCOLN REGIONAL	0.64%
CARRABASSETT	SUGARLOAF REGIONAL	0.47%
RANGELEY	RANGELEY MUNICIPAL	0.47%
PITTSFIELD	PITTSFIELD MUNICIPAL	0.46%
STONINGTON	STONINGTON MUNICIPAL	0.45%
MILLINOCKET	MILLINOCKET MUNICIPAL	0.41%
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	0.39%
FRYEBURG	EASTERN SLOPES REGIONAL	0.36%
MACHIAS	MACHIAS VALLEY	0.29%
DEBLOIS	DEBLOIS FLIGHT STRIP	0.29%
JACKMAN	NEWTON FIELD	0.20%
EASTPORT	EASTPORT MUNICIPAL	0.13%
LUBEC	LUBEC MUNICIPAL	0.13%

SOURCE: Maine DOT

TOURISM

In addition to considering each airport service area's percent of total statewide consumer spending in 2000, the seasonality of this spending was also considered in assigning an airport-specific ranking for this factor. Tourism and related seasonal spending is vital to Maine's economy. For some airport service areas, peak spending occurs in relationship to winter tourism, and for other service areas, summer and fall constitute the peaking visitor-related spending periods. For some service areas, especially in the State's larger urban

areas, spending is more uniform throughout the year, with little or no seasonality. In addition, there are also some more rural and undeveloped areas of Maine that reflect no distinct patterns in seasonal spending. **Table 3-5** shows how airports in Maine rank for seasonal/visitor-related spending based on a seasonality index. It does not necessarily reflect an airport's contribution to spending but it takes into account the amount of tourism in each airport's area.

TABLE 3-5
TOURISM RETAIL SALES
BUSIEST SEASON

CITY NAME	FACILITY NAME	SEASONALITY INDEX
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	2.11
STONINGTON	STONINGTON MUNICIPAL	1.68
ISLESBORO	ISLESBORO MUNICIPAL	1.58
WISCASSET	WISCASSET	1.44
JACKMAN	NEWTON FIELD	1.40
EASTPORT	EASTPORT MUNICIPAL	1.29
LUBEC	LUBEC MUNICIPAL	1.29
BIDDEFORD	BIDDEFORD MUNICIPAL	1.26
DEBLOIS	DEBLOIS FLIGHT STRIP	1.24
BETHEL	BETHEL REGIONAL	1.21
FRYEBURG	EASTERN SLOPES REGIONAL	1.21
MACHIAS	MACHIAS VALLEY	1.20
ROCKLAND	KNOX COUNTY REGIONAL	1.19
BELFAST	BELFAST MUNICIPAL	1.18
RANGELEY	RANGELEY MUNICIPAL	1.16
CARRABASSETT	SUGARLOAF REGIONAL	1.16
DOVER/FOXCROFT	CHARLES CHASE MEMORIAL FIELD	1.16
DEXTER	DEXTER REGIONAL	1.16
GREENVILLE	GREENVILLE MUNICIPAL	1.16
MILLINOCKET	MILLINOCKET MUNICIPAL	1.15
AUBURN	AUBURN-LEWISTON MUNICIPAL	1.15
PITTSFIELD	PITTSFIELD MUNICIPAL	1.13
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	1.13
LINCOLN	LINCOLN REGIONAL	1.10
OXFORD	OXFORD COUNTY REGIONAL	1.10
PORTLAND	PORTLAND INTERNATIONAL JETPORT	1.10
BANGOR	BANGOR INTERNATIONAL	1.09
OLD TOWN	DEWITT FIELD	1.09
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	1.09
PRINCETON	PRINCETON	1.09
SANFORD	SANFORD MUNICIPAL	1.09
HOULTON	HOULTON INTERNATIONAL	1.09
CARIBOU	CARIBOU MUNICIPAL	1.09
PRESQUE ISLE	NORTHERN MAINE REGIONAL	1.09
WATERVILLE	WATERVILLE ROBERT LAFLEUR	1.07
AUGUSTA	AUGUSTA STATE	1.07

SOURCE: Maine DOT

SURROUNDING DEVELOPMENT

Airports that are in developed, versus undeveloped, areas typically serve a higher level of aviation-dependent users and needs. When an airport is located in a developed area, this generally indicates that there are multiple users who most likely use or are dependent upon the facility. Further, when an airport is in an area that is characterized by business and commercial development, aviation dependence typically increases and the airport's role in the system is elevated.

Land use surrounding airports included in the MASPU varies considerably. To help stratify system airports in terms of their relative role in the aviation system, land use around system airports was categorized as follows:

- Commercial/Industrial/Residential
- Commercial/Residential
- Commercial/Industrial
- Industrial/Cemetery
- Rural
- Woodland
- Industrial/Residential
- Industrial/Rural
- Industrial
- Residential/Indian Nation
- Residential/Rural
- Residential
- Woodlands/Rural

For this analysis, it was assumed that airports characterized by some type of business/commercial development have a more significant role in the system, as measured by this particular factor. Also, it should be noted that this analysis only considered existing land uses, not planned uses; planned uses will be analyzed in the system evaluation portion of the plan. For the surrounding land use factor, system airports were ranked in **Table 3-6.**

TABLE 3-6
SURROUNDING DEVELOPMENT
ADJACENT LAND USE CHARACTERISTICS

CITY NAME	FACILITY NAME	SURROUNDING DEVELOPMENT
AUBURN	AUBURN/LEWISTON MUNICIPAL	COMMERCIAL, INDUSTRIAL, RESIDENTIAL
BIDDEFORD	BIDDEFORD MUNICIPAL	COMMERCIAL, INDUSTRIAL, RESIDENTIAL
AUGUSTA	AUGUSTA STATE	COMMERCIAL, INDUSTRIAL, RESIDENTIAL
HOULTON	HOULTON INTERNATIONAL	COMMERCIAL, INDUSTRIAL, RESIDENTIAL
PORTLAND	PORTLAND INTERNATIONAL JETPORT	COMMERCIAL, INDUSTRIAL, RESIDENTIAL
STONINGTON	STONINGTON MUNICIPAL	COMMERCIAL, RESIDENTIAL
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	COMMERCIAL, RESIDENTIAL
WATERVILLE	WATERVILLE ROBERT LAFLEUR	COMMERCIAL, RESIDENTIAL
WISCASSET	WISCASSET	COMMERCIAL, RESIDENTIAL
BANGOR	BANGOR INTERNATIONAL	COMMERCIAL, INDUSTRIAL
SANFORD	SANFORD REGIONAL	COMMERCIAL, INDUSTRIAL
PRESQUE ISLE	NORTHERN MAINE REGIONAL	COMMERCIAL, INDUSTRIAL
MILLINOCKET	MILLINOCKET MUNICIPAL	INDUSTRIAL, RESIDENTIAL
PITTSFIELD	PITTSFIELD MUNICIPAL	INDUSTRIAL, CEMETERY
RANGELEY	RANGELEY MUNICIPAL	INDUSTRIAL, RURAL
BELFAST	BELFAST MUNICIPAL	INDUSTRIAL
CARIBOU	CARIBOU MUNICIPAL	INDUSTRIAL
LINCOLN	LINCOLN REGIONAL	INDUSTRIAL
OLD TOWN	DEWITT FIELD, OLD TOWN MUNICIPAL	INDUSTRIAL
ROCKLAND	KNOX COUNTY REGIONAL	INDUSTRIAL
CARRABASSETT	SUGARLOAF REGIONAL	RESIDENTIAL, INDIAN NATION
ISLESBORO	ISLESBORO	RESIDENTIAL, RURAL
BETHEL	BETHEL REGIONAL	RESIDENTIAL, RURAL
FRYEBURG	EASTERN SLOPES REGIONAL	RESIDENTIAL, RURAL
EASTPORT	EASTPORT MUNICIPAL	RESIDENTIAL
GREENVILLE	GREENVILLE MUNICIPAL	RESIDENTIAL
LUBEC	LUBEC MUNICIPAL	RESIDENTIAL
MACHIAS	MACHIAS VALLEY	RESIDENTIAL
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	RESIDENTIAL
OXFORD	OXFORD COUNTY REGIONAL	RESIDENTIAL
DEBLOIS	DEBLOIS FLIGHT STRIP	RURAL
DEXTER	DEXTER REGIONAL	RURAL
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	RURAL
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	RURAL
PRINCETON	PRINCETON MUNICIPAL	WOODLAND
JACKMAN	NEWTON FIELD	WOODLANDS, RURAL

SOURCE : WSA - MASPU Inventory

AIRPORT FACILITIES

As would be expected, as the level of facilities provided by airports in any given system increases, typically the usage of that facility and its corresponding role in that airport system also increases. For airports in any system, the facilities that are most important to determining an airport's usage include its runway length and its approach type. For this analysis, the presence, or lack thereof, of a parallel taxiway system and onsite weather-

reporting capabilities were also considered. Using these facilities, as derived from this study's inventory analysis, system airports were reviewed. Following this review, the system airports were ranked (see **Table 3-7**) for the ability of their existing facilities to contribute to their role in the aviation system.

TABLE 3-7
FACILITIES PROVIDED
MAJOR FACILITIES AT SYSTEM AIRPORTS

CITY NAME	FACILITY NAME	RUNWAY LENGTH (ft.)	APPROACH	TAXIWAY	AWOS/ ASOS
BANGOR	BANGOR INTERNATIONAL	11,441	PRECISION	PARALLEL	YES
PRESQUE ISLE	NORTHERN MAINE REGIONAL	7,440	PRECISION	PARALLEL	YES
PORTLAND	PORTLAND INTL JETPORT	6,800	PRECISION	PARALLEL	YES
WATERVILLE	WATERVILLE ROBERT LAFLEUR	5,500	PRECISION	PARALLEL	YES
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	5,200	PRECISION	PARALLEL	YES
AUGUSTA	AUGUSTA STATE	5,001	PRECISION	PARALLEL	YES
SANFORD	SANFORD REGIONAL	6,000	PRECISION	PARTIAL	YES
ROCKLAND	KNOX COUNTY REGIONAL	5,007	PRECISION	-	YES
AUBURN	AUBURN/LEWISTON MUNICIPAL	5,001	PRECISION	-	YES
HOULTON	HOULTON INTERNATIONAL	5,001	NONPRECISION	PARTIAL	YES
FRYEBURG	EASTERN SLOPES REGIONAL	4,200	NONPRECISION	PARTIAL	YES
CARIBOU	CARIBOU MUNICIPAL	4,003	NONPRECISION	PARTIAL	YES
WISCASSET	WISCASSET	3,397	NONPRECISION	PARTIAL	YES
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	4,601	NONPRECISION	STUB	YES
EASTPORT	EASTPORT MUNICIPAL	4,000	NONPRECISION	STUB	YES
GREENVILLE	GREENVILLE MUNICIPAL	3,999	NONPRECISION	STUB	YES
MILLINOCKET	MILLINOCKET MUNICIPAL	4,713	NONPRECISION	-	YES
RANGELEY	RANGELEY MUNICIPAL	3,200	NONPRECISION	STUB	-
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	3,998	NONPRECISION	PARTIAL	-
OLD TOWN	DEWITT FIELD, OLD TOWN MUNICIPAL	3,999	NONPRECISION	-	-
PRINCETON	PRINCETON MUNICIPAL	4,004	NONPRECISION	-	-
PITTSFIELD	PITTSFIELD MUNICIPAL	3,998	NONPRECISION	-	-
DEXTER	DEXTER REGIONAL	3,000	NONPRECISION	-	-
MACHIAS	MACHIAS VALLEY	2,909	NONPRECISION	-	-
LINCOLN	LINCOLN REGIONAL	2,804	NONPRECISION	-	-
BIDDEFORD	BIDDEFORD MUNICIPAL	3,011	VISUAL	-	YES
OXFORD	OXFORD COUNTY REGIONAL	3,000	VISUAL	STUB	-
STONINGTON	STONINGTON MUNICIPAL	2,100	VISUAL	STUB	-
BELFAST	BELFAST MUNICIPAL	4,002	VISUAL	PARTIAL	-
CARRABASSETT	SUGARLOAF REGIONAL	2,800	VISUAL	PARTIAL	-
DEBLOIS	DEBLOIS FLIGHT STRIP	4,000	VISUAL	-	-
BETHEL	BETHEL REGIONAL	3,150	VISUAL	-	-
JACKMAN	NEWTON FIELD	2,900	VISUAL	-	-
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	2,400	VISUAL	-	-
ISLESBORO	ISLESBORO	2,400	VISUAL	-	-
LUBEC	LUBEC MUNICIPAL	2,032	VISUAL	-	-

SOURCE : WSA - MASPU Inventory

AIRPORT SERVICES

In addition to facilities, the services that an airport provides also contribute to its utilization and to its role in an airport system. For this factor, using data from the MASPU inventory effort, each system airport was reviewed to identify the presence or absence of these services (see **Table 3-8**).

TABLE 3-8
SERVICES PROVIDED
SERVICES AVAILABLE AT SYSTEM AIRPORTS

CITY NAME	FACILITY NAME	JETA	AVGAS	FBO	AIRCRAFT REPAIRS	FLIGHT TRAINING	CHARTER
AUBURN	AUBURN/LEWISTON MUNICIPAL	YES	YES	YES	YES	YES	YES
AUGUSTA	AUGUSTA STATE	YES	YES	YES	YES	YES	YES
BANGOR	BANGOR INTERNATIONAL	YES	YES	YES	YES	YES	YES
OLD TOWN	DEWITT FIELD, OLD TOWN MUNICIPAL	YES	YES	YES	YES	YES	YES
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	YES	YES	YES	YES	YES	YES
HOULTON	HOULTON INTERNATIONAL	YES	YES	YES	YES	YES	YES
PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES	YES	YES	YES	YES	YES
PITTSFIELD	PITTSFIELD MUNICIPAL	YES	YES	YES	YES	YES	YES
PORTLAND	PORTLAND INTL JETPORT	YES	YES	YES	YES	YES	YES
SANFORD	SANFORD REGIONAL	YES	YES	YES	YES	YES	YES
ROCKLAND	KNOX COUNTY REGIONAL	YES	YES	YES	YES	YES	YES
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES	YES	YES	-	YES	YES
OXFORD	OXFORD COUNTY REGIONAL	YES	YES	YES	YES	YES	-
WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES	YES	YES	YES	YES	YES
WISCASSET	WISCASSET	YES	YES	YES	YES	-	-
RANGELEY	RANGELEY MUNICIPAL	YES	YES	-	YES	YES	-
BIDDEFORD	BIDDEFORD MUNICIPAL	-	YES	YES	YES	YES	YES
CARIBOU	CARIBOU MUNICIPAL	-	YES	YES	YES	YES	-
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	-	YES	YES	YES	YES	-
FRYEBURG	EASTERN SLOPES REGIONAL	-	YES	YES	YES	YES	-
GREENVILLE	GREENVILLE MUNICIPAL	-	YES	YES	-	YES	YES
LINCOLN	LINCOLN REGIONAL	-	YES	YES	YES	-	-
MILLINOCKET	MILLINOCKET MUNICIPAL	-	YES	YES	-	-	-
JACKMAN	NEWTON FIELD	-	YES	-	-	YES	YES
BELFAST	BELFAST MUNICIPAL	-	-	YES	YES	YES	-
EASTPORT	EASTPORT MUNICIPAL	-	-	YES	-	YES	YES
DEXTER	DEXTER REGIONAL	-	-	-	-	YES	-
MACHIAS	MACHIAS VALLEY	-	-	-	-	YES	-
BETHEL	BETHEL REGIONAL	-	-	-	-	-	-
DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	-	-	-	-	-	-
DEBLOIS	DEBLOIS FLIGHT STRIP	-	-	-	-	-	-
ISLESBORO	ISLESBORO	-	-	-	-	-	-
LUBEC	LUBEC MUNICIPAL	-	-	-	-	-	-
PRINCETON	PRINCETON MUNICIPAL	-	-	-	-	-	-
STONINGTON	STONINGTON MUNICIPAL	-	-	-	-	-	-
CARRABASSETT	SUGARLOAF REGIONAL	-	-	-	-	-	-

SOURCE : WSA - MASPU Inventory

For this analysis, training is only for civilian aircraft training and not for military training that may be accommodated by study airports.

RANKING AND STRATIFICATION OF SYSTEM AIRPORTS

As discussed in this chapter of the MASPU, airports in the State aviation system contribute at varying levels toward meeting the State's air transportation and economic needs. As a result of these different levels of contribution, the current role played by each airport in the system also varies. This chapter of the MASPU has identified and discussed those factors that most frequently influence each airport's contribution to the system and, thus, its role or system level. For each airport, the preceding sections of this chapter have discussed how system airports are currently characterized by the factors that help to establish the airport's system role. Airports in the system have been ranked comparatively to one another as to how they are characterized by each of these factors. **Table 3-9** summarizes the results of this process.

For each of the factors analyzed in this chapter, system airports were ranked from high to low in terms of their ability to exhibit the influencing characteristics analyzed in this portion of the MASPU. Based on these rankings, airports were sorted into similar mathematical cohorts and then scored for their ability to meet each factor considered in the system stratification analysis. Scores were then summed and the airports in the system were ranked from high to low for their current contribution in the Maine Aviation System. General rankings, high, medium, and low, for each airport for each factor reviewed in the system stratification analysis are presented in Table 3-9.

TABLE 3-9
MASPU SYSTEM STRATIFICATION

'ITY NAME	FACILITY NAME	DISTANCE TO 4-LANE HIGHWAY RANK	ACCESSIBILITY RANK	POPULATION SERVED RANK	CONSUMER RETAIL SALES - % OF STATE TOTAL RANK	TOURISM BUSIEST SEASON RANK	SURROUNDING DEVELOPMENT RANK	MAJOR FACILITIES RANK	SERVICES PROVIDED RANK
AUBURN	AUBURN-LEWISTON MUNICIPAL	H	H	H	M	L	H	M	H
AUGUSTA	AUGUSTA STATE	H	H	M	M	L	H	H	H
BANGOR	BANGOR INTERNATIONAL	H	H	M	H	L	H	H	H
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	M	M	L	M	H	M	H	H
BELFAST	BELFAST MUNICIPAL	H	M	L	L	M	H	L	L
BETHEL	BETHEL REGIONAL	M	M	L	L	M	H	L	L
BIDDEFORD	BIDDEFORD MUNICIPAL	H	H	H	M	M	H	L	M
CARIBOU	CARIBOU MUNICIPAL	M	M	L	M	L	H	M	M
CARRABASSETT	SUGARLOAF REGIONAL	M	L	L	L	L	M	L	L
DEBLOIS	DEBLOIS FLIGHT STRIP	M	M	L	L	M	L	L	L
DEXTER	DEXTER REGIONAL	H	M	L	L	L	L	L	L
DOVER/FOXCROFT	CHARLES CHASE MEMORIAL FIELD	H	M	L	L	L	L	L	L
EASTPORT	EASTPORT MUNICIPAL	L	L	L	L	M	H	M	L
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	L	M	L	L	L	L	M	H
FRYEBURG	EASTERN SLOPES REGIONAL	M	M	M	L	M	L	M	M
GREENVILLE	GREENVILLE MUNICIPAL	M	L	L	L	L	M	M	M
HOULTON	HOULTON INTERNATIONAL	H	M	L	L	L	H	M	H
ISLESBORO	ISLESBORO MUNICIPAL	M	M	L	L	H	L	L	L
JACKMAN	NEWTON FIELD	M	L	L	L	M	L	L	M
LINCOLN	LINCOLN REGIONAL	H	M	L	L	L	H	L	M
LUBEC	LUBEC MUNICIPAL	L	L	L	L	M	M	L	L
MACHIAS	MACHIAS VALLEY	M	M	L	L	M	M	L	L
MILLINOCKET	MILLINOCKET MUNICIPAL	H	M	L	L	L	M	M	M
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	H	M	M	L	L	M	M	M
OLD TOWN	DEWITT FIELD	H	M	M	H	L	H	L	H
OXFORD	OXFORD COUNTY REGIONAL	H	M	M	L	L	M	L	H
PITTSFIELD	PITTSFIELD MUNICIPAL	H	M	M	L	L	M	L	H
PORTLAND	PORTLAND INTERNATIONAL JETPORT	H	H	H	H	L	H	H	H
PRESQUE ISLE	NORTHERN MAINE REGIONAL	M	M	L	M	L	H	H	H
PRINCETON	PRINCETON	M	M	L	L	L	L	L	L
RANGELEY	RANGELEY MUNICIPAL	M	M	L	L	L	M	M	M
ROCKLAND	KNOX COUNTY REGIONAL	M	M	L	M	M	H	M	H
SANFORD	SANFORD MUNICIPAL	H	M	H	M	L	H	H	H
STONINGTON	STONINGTON MUNICIPAL	M	L	L	L	H	M	L	L
WATERVILLE	WATERVILLE ROBERT LAFLEUR	H	M	M	M	L	M	H	H
WISCASSET	WISCASSET	H	M	M	M	M	M	M	H

SOURCE : WSA - MASPU Inventory

Once system airports were sorted into similar cohorts and ranked, each of the factors considered in the system stratification was reviewed and assigned an overall importance weighting. These weightings were developed by OPT. Relative importance weightings assigned to each factor considered in the system stratification process are as follows:

- Accessibility – 5%
- Population – 10%
- Consumer Sales – 10%
- Tourism – 10%
- Surrounding Development – 5%
- Facilities – 25%
- Services – 30%
- Distance to 4-Lane Highway – 5%

Each airport's rank for the factors considered in the stratification process was then multiplied by the importance rating for that factor. Each airport's final weighted score for all system stratifications factors was then summed again. Mathematical cohort groupings were used to assign each system airport to its current role or level within the system. **Table 3-10** shows the level to which each airport has been assigned.

TABLE 3-10
AIRPORT STRATIFICATION LEVEL

CITY NAME	FACILTY NAME	CURRENT AIRPORT LEVEL
AUBURN	AUBURN/LEWISTON MUNICIPAL	1
AUGUSTA	AUGUSTA STATE	1
BANGOR	BANGOR INTERNATIONAL	1
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	1
BELFAST	BELFAST MUNICIPAL	3
BETHEL	BETHEL REGIONAL	3
BIDDEFORD	BIDDEFORD MUNICIPAL	2
CARRABASSETT	SUGARLOAF REGIONAL	4
CARIBOU	CARIBOU MUNICIPAL	3
DEBLOIS	DEBLOIS FLIGHT STRIP	4
DEXTER	DEXTER REGIONAL	3
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	4
EASTPORT	EASTPORT MUNICIPAL	3
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	2
FRYEBURG	EASTERN SLOPES REGIONAL	3
GREENVILLE	GREENVILLE MUNICIPAL	3
HOULTON	HOULTON INTERNATIONAL	2
ISLESBORO	ISLESBORO	4
JACKMAN	NEWTON FIELD	3
LINCOLN	LINCOLN REGIONAL	3
LUBEC	LUBEC MUNICIPAL	4
MACHIAS	MACHIAS VALLEY	4
MILLINOCKET	MILLINOCKET MUNICIPAL	3
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	3
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	2
OXFORD	OXFORD COUNTY REGIONAL	2
PITTSFIELD	PITTSFIELD MUNICIPAL	2
PORTLAND	PORTLAND INTERNATIONAL JETPORT	1
PRESQUE ISLE	NORTHERN MAINE REGIONAL	1
PRINCETON	PRINCETON MUNICIPAL	4
RANGELEY	RANGELEY MUNICIPAL	3
ROCKLAND	KNOX COUNTY REGIONAL	1
SANFORD	SANFORD REGIONAL	1
STONINGTON	STONINGTON MUNICIPAL	4
WATERVILLE	WATERVILLE ROBERT LAFLEUR	1
WISCASSET	WISCASSET	2

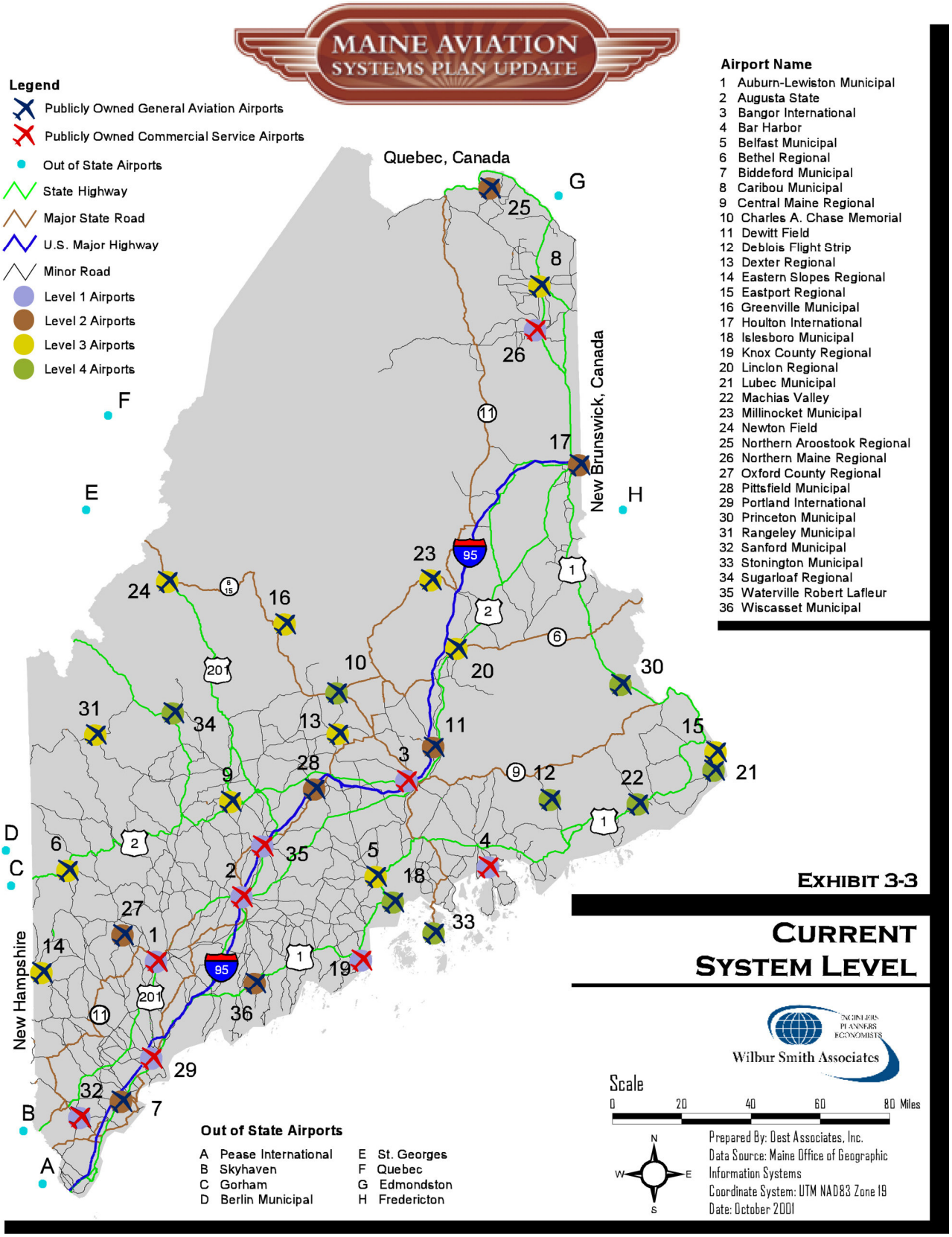
SOURCE : WSA - MASPU Inventory

Based on the analysis completed in this phase of the MASPU, system airports have been segregated into the following four levels:

- Level I
- Level II
- Level III
- Level IV (Table 3-9 and Exhibit 3-3)

Exhibit 3-3 depicts each airport's current system level.

It is important to note that, as the aviation system is evaluated and analyzed in subsequent portions of the MASPU, it is possible that reassignment of airports between levels could occur. Based on the evaluation of the system, voids or deficiencies will be identified that may result in the need to elevate an airport to a higher level within the system stratification. Conversely, if the system adequacy analysis reveals that there are surpluses, duplications, or overlaps in the existing system, airports could also be reclassified.


MAINE AVIATION SYSTEMS PLAN UPDATE
Legend
Publicly Owned General Aviation Airports
Publicly Owned Commercial Service Airports
Out of State Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
Level 1 Airports
Level 2 Airports
Level 3 Airports
Level 4 Airports
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Belfast Municipal
6 Bethel Regional
7 Biddeford Municipal
8 Caribou Municipal
9 Central Maine Regional
10 Charles A. Chase Memorial
11 Dewitt Field
12 Deblois Flight Strip
13 Dexter Regional
14 Eastern Slopes Regional
15 Eastport Regional
16 Greenville Municipal
17 Houlton International
18 Islesboro Municipal
19 Knox County Regional
20 Linclon Regional
21 Lubec Municipal
22 Machias Valley
23 Millinocket Municipal
24 Newton Field
25 Northern Aroostook Regional
26 Northern Maine Regional
27 Oxford County Regional
28 Pittsfield Municipal
29 Portland International
30 Princeton Municipal
31 Rangeley Municipal
32 Sanford Municipal
33 Stonington Municipal
34 Sugarloaf Regional
35 Waterville Robert Lafleur
36 Wiscasset Municipal
Quebec, Canada
New Brunswick, Canada
New Hampshire
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 3-3
CURRENT SYSTEM LEVEL
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N W E S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

FACILITY AND SERVICE OBJECTIVES

With the system stratification completed, the next step in the MASPU was to identify facility and service objectives for airports in each of the system levels. These facility and service objectives are guides for a variety and range of developments that ideally should be in place at each airport to enable that airport to fulfill its role in the system.

Generally speaking, Level I airports within the system should be able to accommodate some commercial and all general aviation aircraft. Level II airports should be able to accommodate primarily twin- and single-engine general aviation aircraft. Level III airports should be able to accommodate small, single-engine aviation aircraft, and Level IV airports should be able to accommodate only small, single-engine aviation aircraft.

Facility and service objectives for Level I, Level II, Level III, and Level IV airports are provided below. It is important to note that the airports assigned to Level I, Level II, Level III, or Level IV do not necessarily currently have, or provide, the facilities and services below. Assuming that the airports remain in their current levels, following the evaluation of the Maine Aviation System, these facilities and services should be viewed as objectives that system airports should strive to meet or provide as they plan their future development.

In the next phase of the MASPU, which includes an evaluation of the existing system to identify its adequacies, deficiencies, and surpluses, these facility and service objectives will be one of the "measuring sticks" that will be used to evaluate the adequacy of the aviation system.

LEVEL I AIRPORTS

Level I airports accommodate commercial airline activities and a full range of general aviation aircraft. Based on their system roles, some general aviation airports may also be classified as Level I airports. Additional requirements to meet commercial aircraft and commercial enplanements are airport-specific; terminal, aircraft parking, and auto parking requirements to meet commercial needs are derived from airport-specific master plans. Commercial service related facility and service needs are not the focus of the MASPU; for commercial airports in the Maine System, these needs should be addressed in, and derived from, airport-specific master plans.

Airside Facilities – Level I

Aircraft Design Group – B or C category aircraft
Runway Length – 5,000 feet or greater
Runway Width – 100 feet
Taxiway – Full Parallel

Approach – Precision
Lighting – HIRL and MITL
Visual Aids – Rotating Beacon
Lighted Wind Cone/Segmented Circle
REILS
VGSI (VASIs/PAPIs)
Weather – ASOS or AWOS

General Aviation Landside Facilities – Level I

Hangars Based – 75% of based fleet
Hangars Transient – 25% of overnight aircraft
Apron – 25% of based; 50% of transient
Terminal/Administration – 2,000 square feet minimum
Operations/Maintenance Hangar – 10,000 square feet
Auto Parking – Equal to the number of based aircraft

Services – Level I

FBO – Full service
Maintenance – Full service/Maintenance Hangar
Fuel – Jet A and 100LL
Terminal/Pilot – Phone, Restrooms, Flight Planning/Lounge
Food – Full Service Restaurant
Ground Transportation Services – On-site rental car
Others – Snow Removal and De-Icing
Security – Full Perimeter Fencing, Controlled Access, Night Guard,
Utilities – All

LEVEL II AIRPORTS

These airports should be capable of accommodating all business and personal use single- and twin-engine general aviation aircraft. Scheduled commercial airline operations are not accommodated at Level II airports.

Airside Facilities – Level II

Aircraft Design Group – B category aircraft
Runway Length – Greater than 3,500 feet and less than 5,000 feet
Runway Width – 75 feet
Taxiway – Partial Parallel
Approach – Non-Precision
Lighting – MIRL and LITL

Visual Aids – Rotating Beacon
Lighted Wind Cone/Segmented Circle
REILS
VGSI (VASIs/PAPIs)
Weather – Not an objective for Level II

General Aviation Landside Facilities – Level II

Hangars Based – 50% of based fleet
Hangars Transient – 25% of overnight aircraft
Apron – 50% of based; 25% of transient
Terminal/Administration – 1,000 square feet
Operations/Maintenance Hangar – 5,000 square feet
Auto Parking – Equal to 75% of the number of based aircraft

Services – Level II

FBO – Full or limited service
Maintenance – Full or limited service
Fuel – 100LL
Terminal/Pilot – Phone, Restrooms, Flight Planning/Lounge
Food – Limited service
Ground Transportation Services – On-site courtesy car
Security – Full Perimeter Fencing
Utilities – All

LEVEL III AIRPORTS

These airports should be capable of accommodating all single-engine and some small twin-engine general aviation aircraft. Scheduled commercial airline operations are not accommodated at Level III airports.

Airside Facilities – Level III

Aircraft Design Group – B and A category aircraft
Runway Length – 2,500 to 3,500 feet
Runway Width – 60 feet
Taxiway – Turnaround
Approach – Visual
Lighting – LIRL and Taxiway reflectors
Visual Aids – Lighted Wind Cone/Segmented Circle
Weather – Not an objective for Level III

General Aviation Landside Facilities – Level III

Hangars Based – 50% of based fleet
Hangars Transient – Not an objective for Level III
Apron – 50% of based; 25% of transient
Terminal/Administration – 500 square feet
Operations/Maintenance Hangar – Not an objective for Level III
Auto Parking – Equal to 25% of the number of based aircraft

Services – Level III

FBO – Limited Service
Maintenance – Not an objective for Level III
Fuel – 100LL
Terminal/Pilot – Phone and Restrooms
Food – Vending service
Ground Transportation Services – Not an objective for Level III
Security – Full Perimeter Fencing
Utilities – All

LEVEL IV AIRPORTS

These airports should be capable of accommodating single-engine general aviation aircraft. Level IV airports may also accommodate "special use" aviation activities. Level IV airports are the most "basic" system airports. Scheduled commercial airline operations are not accommodated at Level IV airports.

Airside Facilities – Level IV

Aircraft Design Group – A category aircraft
Runway Length – 2,500 feet or less
Runway Width – 60 feet or less
Taxiway – None
Approach – Visual
Lighting – Reflectors
Visual Aids – Wind sock
Weather – Not an objective for Level IV

General Aviation Landside Facilities – Level IV

Hangars Based – Not an objective for Level IV
Hangars Transient – Not an objective for Level IV
Apron – No specific requirement

Terminal/Administration – Not an objective for Level IV
Operations/Maintenance Hangar – Not an objective for Level IV
Auto Parking – No specific requirement

Services – Level IV

FBO – Not an objective for Level IV
Maintenance – Not an objective for Level IV
Fuel – No requirement
Terminal/Pilot – Phone (recommended) and Restrooms (optional)
Food – Not an objective for Level IV
Ground Transportation Services – Not an objective for Level IV
Security – Appropriate Access Restrictions
Utilities – Not an objective for Level IV

The ability of system airports to meet their appropriate facility and service objectives for their assigned system level will be addressed in the next step of the MASPU.

CHAPTER FOUR
PROJECTIONS OF AVIATION DEMAND

The development of aviation projections for the airports included in Maine's aviation system is an essential step in assessing the need for and phasing of future development. These activity projections are one factor used in evaluating the ability of the system to accommodate future activity levels, and the projections are used to plan future airside and landside facilities for the system. This chapter was developed in Spring 2002. For this analysis, projections were developed for a 20-year period; 2000 or 2001 served as the base year for the analysis.

The assumptions and methodologies used to prepare aviation demand projections for the airports included in the Maine Aviation Systems Plan Update are discussed in the following sections:

- Industry Trends
- Forecast Approach and Considerations
- General Aviation
  - Based Aircraft Projections
  - Based Aircraft Fleet Mix
  - General Aviation Operations Projections
- Commercial Service Activity
  - Passenger Enplanement Projections
  - Commercial Service Operations Projections
- Military
- Summary

INDUSTRY TRENDS

In preparing a comprehensive systems plan for the public use airports in Maine, it is important to have a general understanding of recent and anticipated trends in the aviation industry as a whole. National trends provide insight for the development of aviation activity projections for the airports in the Maine Aviation System. Some trends in the aviation industry will undoubtedly have a greater impact on Maine than others, so it is possible that some trends that are anticipated and discussed in this chapter may have no pronounced impact on the State's aviation environment.

TRENDS AFFECTING GENERAL AVIATION

General aviation aircraft are defined as all aircraft that are not flown by airlines or the military. The decline in general aviation that began in 1978 resulted in the loss of 100,000 manufacturing jobs; in addition, aircraft production dropped from 18,000 aircraft to only 928 aircraft in 1994. Following this decline that lasted throughout most of the 1980s and into the mid-1990s, the general aviation industry and general aviation activity appeared to be revitalized.

The enactment of the General Aviation Revitalization Act of 1994, which established an 18-year Statute of Repose on all general aviation aircraft and components, in terms of liability to the manufacturer, signaled a significant change in the industry. This Act spurred manufacturers such as Cessna and Piper Aircraft to reenter the single-engine piston-manufacturing sector. In January 1997, Cessna produced its first new single-engine aircraft since 1986. Lancer International, Diamond Aircraft, and Mooney also produced new piston aircraft.

The positive impacts that the Act had on the general aviation industry since its passage are reflected in recent statistics. Since 1994, statistics indicate an increase in general aviation activity, an increase in the active general aviation aircraft fleet, and an increase in shipments of fixed-wing general aviation aircraft. These recent positive trends in the general aviation industry were dampened due to the impacts of events that occurred on September 11, 2001. New security measures went into effect immediately. Many general aviation aircraft were grounded for weeks, even months at airports in high security areas, due to the FAA's "no-fly zone" restrictions.

At the time this chapter was developed, it was difficult to assess the long-term impacts of the terrorist attacks and the current economic downturn on general aviation. With new restrictions on pilot training and leisure flying, these segments of the general aviation industry were impacted. Business and corporate general aviation appear to be well-positioned for recovery. New security measures at commercial service airports have peaked corporate interest in general aviation. Because of safety concerns and time savings, businesses and corporations have become increasingly interested in how corporate or fractional aircraft ownership and charter service can better serve their air travel needs.

Specific trends related to general aviation activity, as identified in the *FAA Aerospace Forecasts, Fiscal Years 2001-2012* are discussed in following sections.

Aircraft Shipments and Billings

The General Aviation Manufacturers Association (GAMA) tracks and reports total shipments and billings of general aviation aircraft. GAMA statistics for 2001 indicate a decline in airplane shipments from 2000. During 2001, U.S. general aviation aircraft shipments totaled 2,634 aircraft, a decrease of approximately of 6.6 percent from 2000; 2001 represents the first year of decreased demand for general aviation aircraft since 1994. The economic recession beginning in 2001 and events of September 11th led to the overall decline in general aviation airplane shipments. All sectors of the general aviation aircraft market, except business jets, experienced a decline.

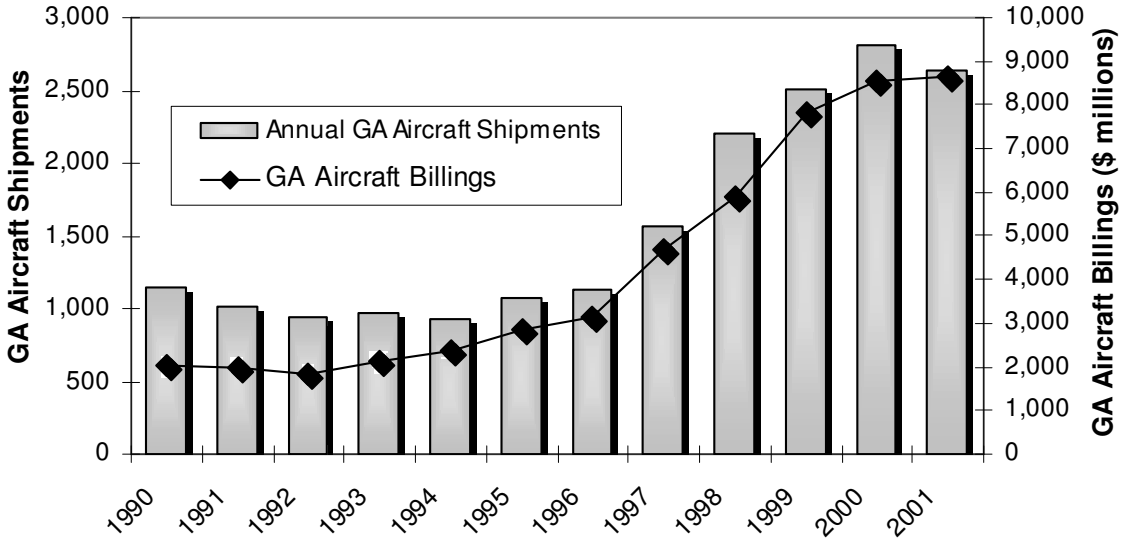
Statistics indicate that growth did occur in general aviation business jet shipments. A number of factors contributed to the increase in business jet shipments, including the increase in the number of fractional ownership arrangements and increase in the number of traditional corporate flight departments. The growth in this segment can be attributed

to increased business use of aircraft and the desire of corporate users to operate safe, efficient, and high-performance aircraft. These high-performance aircraft require airport facilities to be developed to a relatively higher and more demanding standard, a factor that will be considered as system development plans are identified in this analysis.

In addition, GAMA tracks total billings of general aviation aircraft, for both domestic and international customers. During 2001, U.S. aircraft billings totaled over approximately $8.65 billion, an increase of approximately 0.8 percent over U.S. billings in 2000. Total billings have nearly quadrupled since the early 1990s.

Exhibit 4-1 presents U.S. general aviation aircraft shipments and billings, on an annual basis, between 1990 through 2001.

EXHIBIT 4-1
HISTORIC U.S. GENERAL AVIATION AIRCRAFT SHIPMENTS AND BILLINGS



SOURCE: General Aviation Manufacturers Association

Aircraft Fleet

The FAA annually tracks the number of active general aviation aircraft in the U.S. Active aircraft are those aircraft that are currently registered and fly at least one hour during the year. By tracking this information, the FAA is able to identify trends in the total number of active aircraft, as well as the types of aircraft operating in the active fleet. Based on estimates in the *FAA Aerospace Forecasts, Fiscal Years 2001-2012*, the active general aviation aircraft fleet was anticipated to increase from 221,213 aircraft in 2000 to 245,965 in 2012, representing an average annual growth rate of approximately 0.9 percent. FAA forecasts for the total active aircraft fleet, as well as each major type of aircraft, are summarized in **Table 4-1**.

TABLE 4-1
PROJECTED U.S. ACTIVE GENERAL AVIATION AIRCRAFT FLEET

AIRCRAFT TYPE	2000	2012	AVERAGE ANNUAL GROWTH RATE
SINGLE-ENGINE PISTON	151,640	164,800	**0.7%**
MULTIENGINE PISTON	21,143	21,200	**0.0%**
TURBOPROP	5,736	6,600	**1.2%**
JET	7,440	12,280	**4.3%**
ROTORCRAFT	7,649	9,460	**1.8%**
OTHER 1/	27,605	31,625	**1.1%**
TOTAL	**221,213**	**245,965**	**0.9%**

SOURCE: *FAA Aerospace Forecasts, Fiscal Years 2001-2012*
NOTE: 1/ Includes aircraft classified by FAA as experimental and other

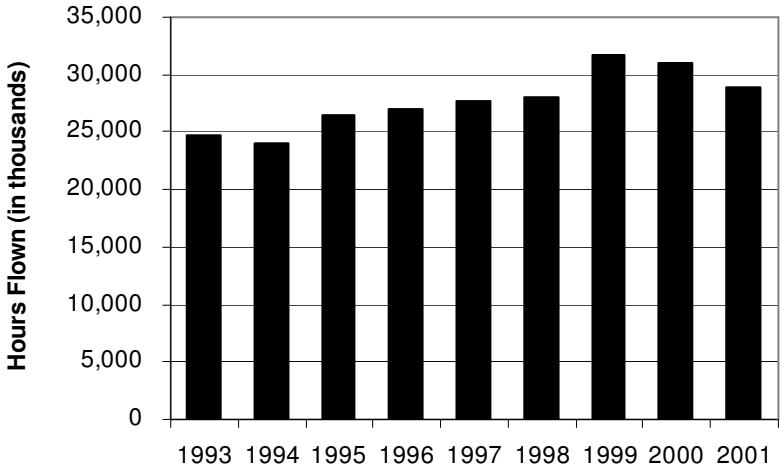
As shown in Table 4-1, the total active aircraft fleet is projected to experience an average annual growth rate of less than one percent between 2000 and 2012. One of the most important trends identified by the FAA in these forecasts is the relatively strong growth anticipated in active general aviation jet aircraft. This trend illustrates a movement in the general aviation community towards higher-performing, more demanding aircraft. Growth in jet aircraft is projected to significantly outpace growth in all other segments of the general aviation aircraft fleet. Turboprop, rotorcraft, and other aircraft are projected to experience an average annual growth rate of over one percent per year over the forecast period, while the number of active multi-engine piston aircraft is anticipated to remain stable over the forecast period.

In its most recent projections (March 2002), the FAA projected less growth than shown in Table 4-1 over the forecast period, averaging 0.3 percent per year between 2001 and 2013. This lower rate of growth is due to the downturn in the economy and the events of September 11, 2001. Jet aircraft continue to be the fastest growing segment of active general aviation aircraft.

Hours Flown

Hours flown in general aviation aircraft were at a 16-year low in 1994. Hours flown experienced a strong increase between 1994 and 1999. Hours flown fell slightly over the last two years. **Exhibit 4-2** diagrams general aviation hours flown from 1993 to 2001. According to the FAA, the active general aviation fleet is forecast to grow by 0.3 percent annually over the next 12 years, and the projected average annual rate of growth in hours flown is forecast at 1.1 percent. By 2013, hours flown by general aviation aircraft are estimated at 32.9 million, compared to 29.0 million in 2001.

EXHIBIT 4-2
TOTAL U.S. GENERAL AVIATION HOURS FLOWN



SOURCE: *FAA Aerospace Forecasts, Fiscal Years 2002-2013*

Business Use of General Aviation Aircraft

Many businesses throughout the U.S. depend on scheduled commercial service airlines, as well as on general aviation aircraft, to add to their productivity and efficiency. The Maine Aviation System is essential to businesses throughout the State. Without an efficient airport system, the State would be hampered in its ability to participate in an increasingly global community and marketplace. There is often no practical alternative to air transportation in today's marketplace.

Many of the nation's leading employers that use general aviation as a business tool are members of the National Business Aircraft Association (NBAA). Data from NBAA shows that many of the top U.S. businesses use general aviation aircraft. The NBAA's Business Aviation Fact Book 2001 indicates that approximately 69 percent of all businesses included in the Fortune 500 operate general aviation aircraft. In addition, 89 of the Fortune 100 companies operate general aviation aircraft.

Business use of general aviation aircraft ranges from the rental of small, single-engine aircraft to multiple aircraft corporate fleets that are supported by dedicated flight crews and mechanics. The use of general aviation aircraft allows employers to efficiently transport priority personnel and air cargo. Businesses use general aviation aircraft to link multiple office locations and to reach existing and potential customers. The use of business aircraft by smaller companies escalated as various chartering, leasing, time-sharing, interchange agreements, partnerships, and management contracts have emerged.

NBAA statistics support this claim by indicating that the number of companies operating business aircraft increased from 6,584 in 1991 to 9,317 in 2000, an increase of

approximately 40 percent. Fractional ownership arrangements have also experienced a recent trend of rapid growth. In 1999, NBAA estimated that 2,591 companies used fractional ownership arrangements; by 2000 that number had grown to 3,694 companies, a growth of over 40 percent in a single year.

TRENDS AFFECTING COMMERCIAL AIRLINE SERVICE

The commercial airline industry operates in a perpetual state of adjustment and change. During the last 20 years, the industry experienced unprecedented change. Where competition sparred by low fare carriers prevailed, air passengers reaped the rewards. At single-carrier dominated hubs and smaller local airports, passengers have paid, on average, much higher fares.

The 1990s was a period for mergers, global alliances, and joint marketing agreements, as well as domestic alliances between major and regional carriers. There have been significant structural changes in the way airlines conduct business. The airlines have examined every aspect of their operations to reduce costs. The regional carriers, with lower labor costs, came into their own, as shorter haul service to hub airports was turned over to the regional carriers. The major carriers re-entered this segment of the airline business through acquisition of the regional carriers and by replacement of turboprops with regional jets. This process left many smaller cities with few options for air service.

Several major factors have shaped the commercial airline industry at the time this chapter was developed; they include the following:

- A robust, but cyclical economy – trends in commercial passenger boardings, when compared to the U.S. Gross Domestic Product, indicate a direct relationship between periods of GDP growth and decline to periods of increases and decreases in the total number of U.S. commercial passenger boardings. These trends clearly indicate that the airline industry and commercial passenger traffic are significantly impacted by upturns and downturns in the U.S. economy.

- Over-expansion of the airline industry in the late 1980s – The over-expansion of the airline industry experienced in the late 1980s was a major factor in causing airlines to lose over $13 billion during the early 1990s, some of the largest losses ever experienced. As a result of these losses, airlines were forced to reevaluate their systems and make changes.

- Widespread adoption of similar, successful strategies by each of the major carriers – The three- to five-year planning horizons, under which most airlines operate, allow them to observe and quickly emulate the successful strategies of their competitors. This copycat approach to providing air service resulted in several episodic waves of strategic changes by the airlines.

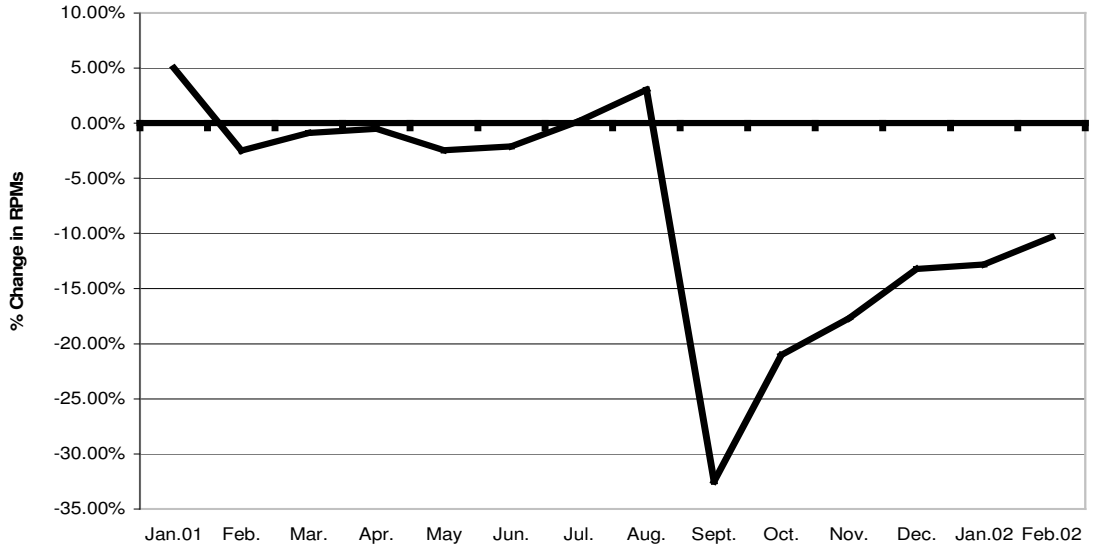
- Information Technology and E-Commerce – The evolution and use of information technology has had an impact on commercial air service industry in terms of operations management, ticket pricing and distribution, and marketing. More advanced yield management systems have allowed carriers to constantly track prices, bookings, and fare data. Computerized systems allow airlines to have up-to-the-minute information about passenger demand and fares, which in turn allows them to continually adjust the number of seats offered at certain fares to maximize load factors and revenue. In addition, the growth in the use of electronic and paperless tickets, as well as the direct purchase of tickets from the airlines (as opposed to the traditional travel agent process), has also significantly impacted the industry. Recently, many airlines have also stopped paying travel agent commissions. With the introduction of e-commerce through electronic ticketing and the use of the Internet for product distribution, and the deletion of travel agent commissions, the commercial air service industry estimates it is saving over $3.5 billion annually.

September 11th and Other 2001 Trends

Starting in early 2001, the U.S. economy began a downward trend that impacted the commercial aviation activity. The impact of the economic downturn resulted in a reduction in business travel, which had a tremendous impact on commercial airline profitability. It is estimated that in 2001, business travelers accounted for 43 percent of the passenger volume, but were responsible for 65 to 70 percent of the airlines' revenues and profits. Airline yields decline at a more rapid rate when business travel declines, since higher fares paid by business travelers account for a high percentage of airline profitability. For the first two quarters of 2001, U.S. airlines were faced with significant losses, similar to those experienced in the early 1980s. With these losses, plans were already in place to reduce airline service to help the airlines return to profitability.

While economic downturn was already bringing airline industry changes, a more significant impact was on the horizon. On September 11, 2001, terrorists hijacked four U.S. airliners that ultimately crashed. This terrorist act resulted in complete closure of the U.S. aviation system for two days. When the system re-opened, airline passenger traffic did not immediately rebound. The security and operating costs incurred by the airlines as a result of September 11th increased, but with fewer passengers, significant financial losses were experienced by almost all airlines. **Exhibit 4-3** presents the downturn in revenue passenger miles due to both the economic downturn and the fallout from the events of September 11th.

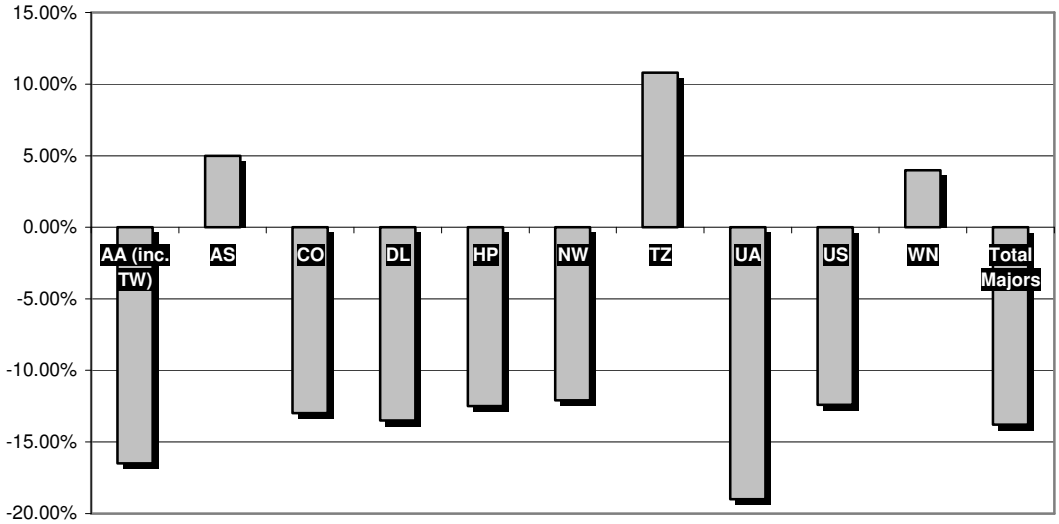
EXHIBIT 4-3
YEAR-OVER-YEAR CHANGE IN TOTAL U.S. REVENUE PASSENGER MILES



SOURCE: Air Transport Association, Monthly Traffic Report

In the short term, many of the airlines reduced their schedules by as much as 20 percent. As shown in **Exhibit 4-4**, in February 2002, five months after the terrorist attacks, most of the major airlines including American, Continental, Delta, Northwest, United, and US Airways continued to operate reduced schedules, compared to one year earlier. On average, the major carriers offered 14 percent fewer departing seats at airports across the U.S. Only Alaska Airlines (AS), American Trans Air (TZ), and Southwest Airlines (WN) offered more departing seats in February 2002 than in February 2001.

EXHIBIT 4-4
PERCENT CHANGE IN SCHEDULED DEPARTING SEATS, BY CARRIER
February 2001 vs. February 2002

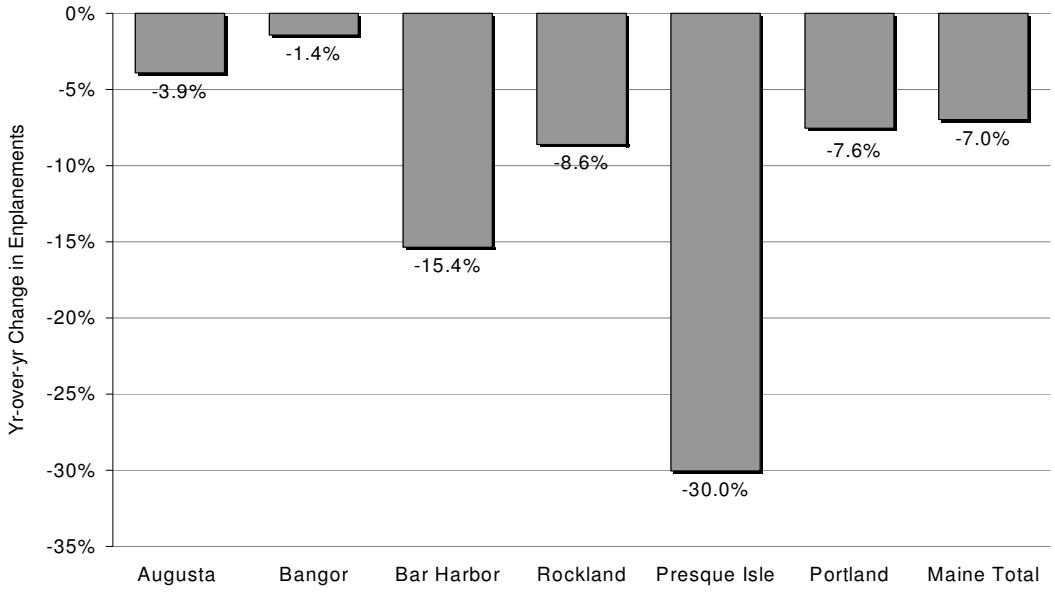


SOURCE: *Official Airline Guide*

Reductions in service have impacted the number of actual aircraft operated. The airlines received a financial package from the federal government to help offset their losses, but for some airlines, the financial package may not be sufficient to keep them solvent. The only airlines that achieved profitability in 2001 were low-cost carriers such as Southwest, AirTran, and JetBlue. The profits of these airlines are also down, but they continue to make money and are considering expansion.

Exhibit 4-5 shows how the reductions in schedules, coupled with the economic recession, impacted airports in Maine in 2001. Between 2000 and 2001, enplanements at all Maine airports fell 7 percent. Presque Isle and Bar Harbor experienced the largest declines, down 30 percent and 15 percent, respectively.

EXHIBIT 4-5
2000-2001 YEAR-OVER-YEAR CHANGE IN ENPLANEMENTS AT MAINE AIRPORTS



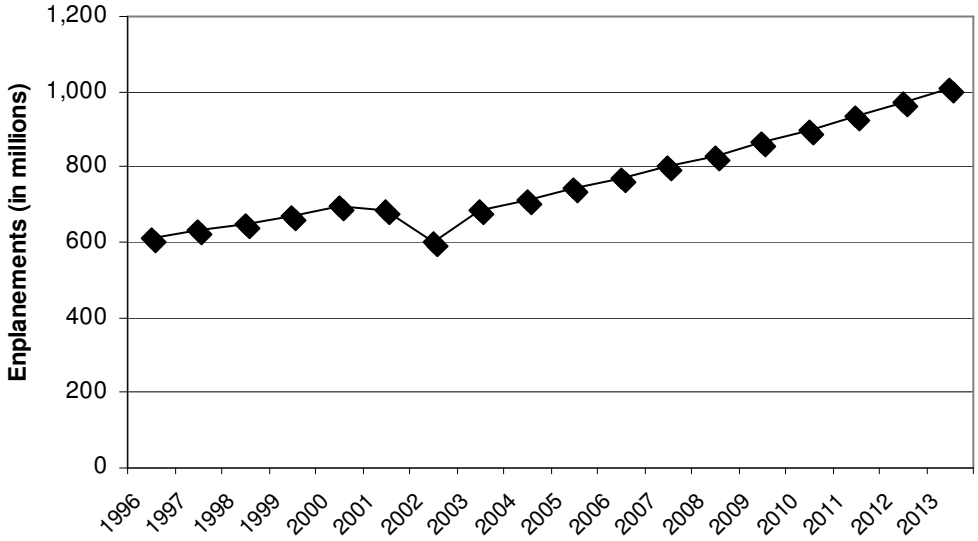
SOURCE: Airport Records

Anticipated Commercial Trends

The Federal Aviation Administration (FAA) develops forecasts of future levels of commercial passenger activity from past commercial airline trends. The most recent forecasts of commercial passenger activity available, released by the FAA in *FAA Aerospace Forecasts, Fiscal Years 2002-2013,* present both a near term forecast in light of the September 11th attacks and the economic downturn in 2001 and a longer term forecast.

Historic and projected U.S. total passenger enplanement data is depicted in **Exhibit 4-6**. U.S. scheduled carriers enplaned 683 million passenger in 2001, down 1.8 percent from 2000. FAA forecasts for commercial passenger activity reflect a continued downward trend in passenger traffic in 2002. By 2003 enplanements are projected to experience relatively strong growth, up 14.8 percent from 2002. For the remainder of the forecast period, total passenger enplanements are projected to increase at an average annual rate of approximately 4.0 percent through 2013. Over the 12-year forecast period, total enplanements are projected to increase 3.3 percent per year on average, reaching over 1 billion by 2013.

EXHIBIT 4-6
PROJECTION OF TOTAL U.S. ENPLANEMENTS



SOURCE: *FAA Aerospace Forecasts, Fiscal Years 2002 – 2013*

The FAA projects that total domestic passenger enplanements on large U.S. carriers and regional/commuter carriers, combined, will increase from approximately 595 million in 2001 to approximately 856 million in 2013, representing an average annual growth rate of approximately 3.1 percent. International passenger enplanements are projected to increase from approximately 55 million in 2001 to approximately 95 million in 2013. This growth represents a relatively robust forecasted average annual growth rate of approximately 4.7 percent.

According to *FAA Aerospace Forecasts, Fiscal Years 2002-2013*, between 2001 and 2013 trends for large U.S. carriers will include:

- Air carrier aircraft domestic operations are projected to increase from 14.8 million to 18.4 million;
- Average passenger trip length is expected to increase from 839 to 883 miles;
- Average seats per aircraft departure will increase from 136.5 to 147.0; and
- Average load factor is expected to increase from 69.7 percent to 73.2 percent.

The FAA also forecasts that for regional/commuter carriers:

- Aircraft operations will increase from 10.9 million to 14.7 million between 2001 and 2013;
- Average passenger trip length is expected to increase from 301.3 to 361.6 miles;
- Average seats per aircraft departure will increase from 39.9 to 48.4; and
- Average load factor is expected to increase from 58.6 percent to 63.0 percent.

SUMMARY

The trends analysis sets a stage for understanding how aviation activity in Maine compares to aviation in the U.S., and it establishes a basis for predicting how aviation may be expected to grow and change in the future. Having this frame of reference is essential to developing realistic projections of aviation demand and to identifying viable alternatives for improving Maine's Airport System.

FORECAST APPROACH AND CONSIDERATIONS

Demand projections fall into two distinct categories, commercial service and general aviation. Significant differences in these two sectors of the aviation industry often make it necessary to modify the general approach or methodology used in forecasting to reflect the availability of data or airport or industry conditions. The general approach often used to develop aviation forecasts is to identify historic relationships between state-specific aviation elements and U.S. aviation activity. Actual trends in demand experienced on an airport, state, regional, and national basis are also considered.

GENERAL AVIATION CONSIDERATIONS

For the Maine Aviation Systems Plan Update, reliable historical general aviation data for each airport in the system is not readily available for all activity indicators. All general aviation airports in Maine are non-towered. As a result, annual operations for these airports are the operator's "best estimate" of the takeoffs and landings that their airport serves each year. Typically, greater confidence can be placed in the historic based aircraft data; based aircraft can be more easily counted than operations. However, in Maine, due to the seasonal influx of residents and visitors during the summer, based aircraft counts can also vary at each airport, depending on what time of the year they are taken. Because of these factors, it was difficult to derive statistically valid historic trends at Maine airports. The greatest confidence in this analysis is placed in the data collected in conjunction with the State Aviation Systems Plan inventory effort.

Table 1 of **Appendix A** presents historic based aircraft and the sources from which the data were obtained. **Table 4-2** presents 2001 based aircraft at Maine's airports collected during the inventory phase of this study. In addition to the 908 general aviation aircraft based at the 36 public airports in Maine, 219 aircraft are also based at privately-owned airports throughout the State. The focus of the Maine Aviation Systems Plan Update is on the State's 36 public airports. While private airports in Maine do play a role in meeting the State's aviation needs, they are not the focus of the Systems Plan, and specific projections of demand were not developed for these airports. As Maine's Aviation System is evaluated in subsequent portions of this study, it will be important to determine the ability of the public airport system to absorb additional demand, should private airports not be available to meet the State's longer term aviation needs.

TABLE 4-2
2001 BASED AIRCRAFT IN MAINE

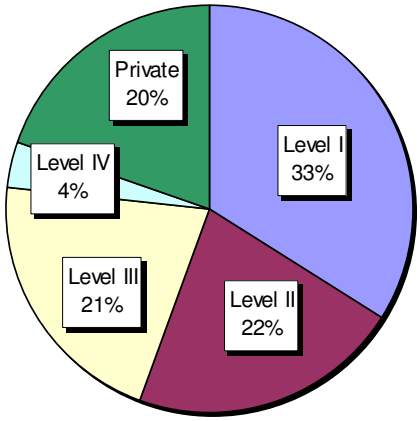
CITY NAME	FACILITY NAME	BASED AIRCRAFT
AUBURN	AUBURN/LEWISTON MUNICIPAL	71
AUGUSTA	AUGUSTA STATE	46
BANGOR	BANGOR INTERNATIONAL	67
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	44
BELFAST	BELFAST MUNICIPAL	24
BETHEL	BETHEL REGIONAL	9
BIDDEFORD	BIDDEFORD MUNICIPAL	41
CARIBOU	CARIBOU MUNICIPAL	11
CARABASSET	SUGARLOAF REGIONAL	8
DEBLOIS	DEBLOIS FLIGHT STRIP	1
DEXTER	DEXTER REGIONAL	17
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	2
EASTPORT	EASTPORT MUNICIPAL	5
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8
FRYEBURG	EASTERN SLOPES REGIONAL	27
GREENVILLE	GREENVILLE MUNICIPAL	21
HOULTON	HOULTON INTERNATIONAL	29
ISLESBORO	ISLESBORO	4
JACKMAN	NEWTON FIELD	9
LINCOLN	LINCOLN REGIONAL	26
LUBEC	LUBEC MUNICIPAL	1
MACHIAS	MACHIAS VALLEY	8
MILLINOCKET	MILLINOCKET MUNICIPAL	13
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	59
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	22
OXFORD	OXFORD COUNTY REGIONAL	10
PITTSFIELD	PITTSFIELD MUNICIPAL	38
PORTLAND	PORTLAND INTERNATIONAL JETPORT	56
PRESQUE ISLE	NORTHERN MAINE REGIONAL	23
PRINCETON	PRINCETON MUNICIPAL	8
RANGELEY	RANGELEY MUNICIPAL	12
ROCKLAND	KNOX COUNTY REGIONAL	55
SANFORD	SANFORD REGIONAL	67
STONINGTON	STONINGTON MUNICIPAL	8
WATERVILLE	WATERVILLE ROBERT LAFLEUR	15
WISCASSET	WISCASSET	43
TOTAL BASED AIRCRAFT—PUBLIC AIRPORTS		**908**
TOTAL BASED AIRCRAFT—PRIVATE AIRPORTS		**219**

SOURCE: Airport Management

Based aircraft at public airports in Maine made up 80 percent of the total statewide based aircraft. Aircraft based at private airports comprised the remaining 20 percent of statewide based aircraft. In Chapter Three, each public airport in Maine was stratified into one of four different levels based on its current role in the Maine Aviation System. **Exhibit 4-7** presents each level's share of the statewide 2001 based aircraft. The eight airports in Level I base 33 percent of the statewide aircraft. About 22 percent of the based aircraft in Maine are located at Level II airports and 21 percent were based at Level

III airports. Only Four percent of the based aircraft in Maine are located at Level IV airports.

EXHIBIT 4-7
SHARE OF MAINE 2001 BASED AIRCRAFT, BY AIRPORT LEVEL



SOURCE: Airport Management; WSA

Several methodologies were tested for each airport prior to selecting a preferred projection of based aircraft. For this study, based aircraft were ultimately projected using a combination of two methodologies. The first methodology used a top down methodology, examining the State's share of the nation's projected general aviation fleet. The second methodology used a socioeconomic approach based on county employment projections developed by the Maine State Planning Office. A ratio of county employment to based aircraft was used to project based aircraft through 2021.

As noted, unless an airport has an air traffic control tower, general aviation operations data often represents estimates made by airport managers/operators. In many instances, these estimates are subjective. Historic general aviation operations data for Maine airports are presented in **Table 2** of **Appendix A**. It can be noted from this table that operations can vary significantly by source.

For system planning purposes only, estimates of operations per based aircraft (OPBA) have been used to develop estimates of activity levels at many of the system airports. As shown below, each of Maine's airports was assigned to different OPBA levels, depending on services and facilities offered and historic levels of activity. Airports were assigned to one of these OPBA levels: 750, 625, and 500. For some airports, historic operational activity, as reported, was used to project future operations. These airports are shown below in the "as reported" category. It is recognized that this methodology may overstate or understate some airport's operational levels. Airports should derive their own estimates of operations during the master planning process. Based on the limited amount of data available on airport operations, the Systems Plan recommends that all system airports have a process in place to maintain, update, and report activity to OPT. This will be discussed in greater detail in subsequent chapters.

AS REPORTED	750 OPBA	625 OPBA	500 OPBA
AUBURN/LEWISTON	BIDDEFORD	BELFAST	BETHEL
AUGUSTA STATE	CARIBOU	EASTPORT	DEBLOIS
BANGOR	LINCOLN	NORTHERN	DEXTER
EASTERN SLOPES REGIONAL	CENTRAL MAINE	AROOSTOOK	DOVER-
HANCOCK COUNTY-BAR	DEWITT FIELD/OLD	GREENVILLE	FOXCROFT
HARBOR	TOWN	HOULTON	ISLESBORO
PORTLAND INTERNATIONAL	RANGELEY	NEWTON FIELD	LUBEC
NORTHERN MAINE	WISCASSET	MILLINOCKET	MACHIAS
ROCKLAND		OXFORD	PRINCETON
SANFORD		PITTSFIELD	STONINGTON
			SUGARLOAF
			WATERVILLE

For some airports, the selected OPBA was multiplied by 2001 based aircraft in order to develop new estimates of 2001 operational activity. **Table 4-3** presents the estimated 2001 general aviation operations that occurred at each of the 36 study airports. In 2001, an estimated 646,000 operations occurred at System airports. An additional 102,000 general aviation takeoffs and landings occurred at private airports throughout the State.

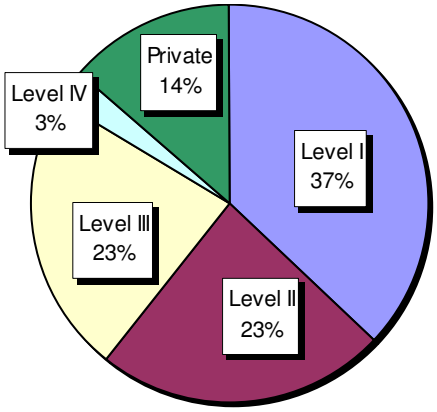
TABLE 4-3
2001 GENERAL AVIATION OPERATIONS

CITY NAME	FACILITY NAME	GA OPERATIONS
AUBURN	AUBURN/LEWISTON MUNICIPAL	30,100
AUGUSTA	AUGUSTA STATE	27,500
BANGOR	BANGOR INTERNATIONAL	34,831
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	40,000
BELFAST	BELFAST MUNICIPAL	15,000
BETHEL	BETHEL REGIONAL	4,500
BIDDEFORD	BIDDEFORD MUNICIPAL	30,750
CARIBOU	CARIBOU MUNICIPAL	8,250
CARABASSET	SUGARLOAF REGIONAL	4,000
DEBLOIS	DEBLOIS FLIGHT STRIP	100
DEXTER	DEXTER REGIONAL	8,500
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	1,000
EASTPORT	EASTPORT MUNICIPAL	3,125
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	5,000
FRYEBURG	EASTERN SLOPES REGIONAL	33,350
GREENVILLE	GREENVILLE MUNICIPAL	13,125
HOULTON	HOULTON INTERNATIONAL	18,125
ISLESBORO	ISLESBORO	2,000
JACKMAN	NEWTON FIELD	5,625
LINCOLN	LINCOLN REGIONAL	19,500
LUBEC	LUBEC MUNICIPAL	500
MACHIAS	MACHIAS VALLEY	4,000
MILLINOCKET	MILLINOCKET MUNICIPAL	8,125
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	44,250
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	16,500
OXFORD	OXFORD COUNTY REGIONAL	6,250
PITTSFIELD	PITTSFIELD MUNICIPAL	23,750
PORTLAND	PORTLAND INTERNATIONAL JETPORT	59,188
PRESQUE ISLE	NORTHERN MAINE REGIONAL	5,600
PRINCETON	PRINCETON MUNICIPAL	4,000
RANGELEY	RANGELEY MUNICIPAL	9,000
ROCKLAND	KNOX COUNTY REGIONAL	48,069
SANFORD	SANFORD REGIONAL	68,945
STONINGTON	STONINGTON MUNICIPAL	4,000
WATERVILLE	WATERVILLE ROBERT LAFLEUR	7,500
WISCASSET	WISCASSET	32,250
TOTAL GENERAL AVIATION OPERATIONS- PUBLIC AIRPORTS		**646,308**
TOTAL GENERAL AVIATION OPERATIONS- PRIVATE AIRPORTS		**102,000**

SOURCE: WSA

About 86 percent of all of total statewide general aviation operations occurred at Maine's public airports in 2001. The remaining general aviation operations occurred at private airports throughout the State. As shown in **Exhibit 4-8**, in 2001, about 37 percent of statewide general aviation operations take off and land at Level I airports. About 23 percent of statewide general aviation operations take place at both Level II and Level III airports. Only 3 percent of the operations are performed at Level IV airports.

EXHIBIT 4-8
SHARE OF MAINE 2001 GENERAL AVIATION OPERATIONS, BY AIRPORT LEVEL



SOURCE: Airport Management; WSA

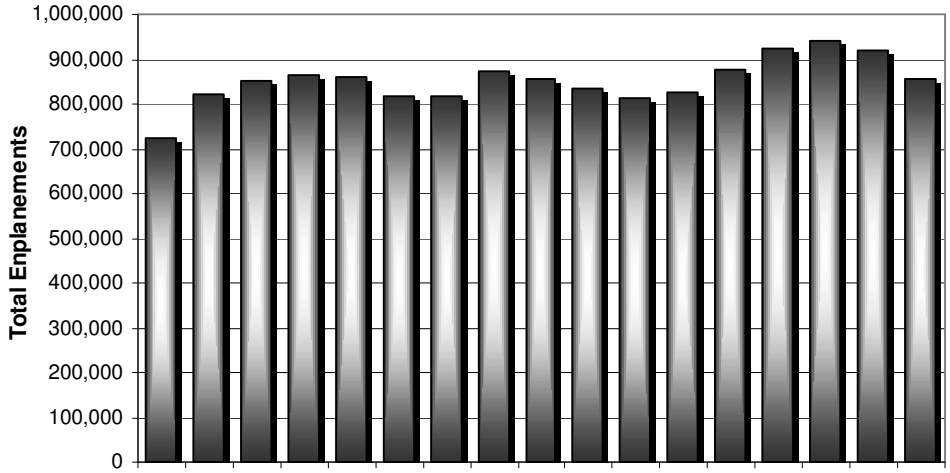
The preferred approach used to project general aviation operations at Maine airports used a combination of two forecasting methodologies. The first methodology used to project preferred operations was a market share methodology. The second methodology used to develop preferred projections of total annual general aviation operations is the operations per based aircraft (OPBA) methodology. This methodology uses each airport's projected number of based aircraft and multiplies the number by an appropriate OPBA ratio to yield projected total annual general aviation aircraft operations.

COMMERCIAL SERVICE CONSIDERATIONS

Exhibit 4-9 provides a summary of historic enplanements at Maine's commercial service airports. Scheduled commercial service carriers are required to report passengers and activity to the U.S. Department of Transportation. As a result of the downturn of commercial service activity in 2001, 2000 will be used as the base year from which to project enplanements and commercial service operations at the Maine airports.

In 2000, 917,000 passengers enplaned scheduled flights at Maine airports, up from 724,000 enplanements in 1985. This represents an average annual growth rate of 1.5 percent between 1985 and 2000. Commercial service enplanement projections are prepared to provide a basis for determining the general adequacy of the commercial airport system to meet the State's needs for scheduled air travel. For this study, some projections were developed using a market share approach in which airport specific trends and conditions in aviation were compared to national trends and conditions in aviation during the same historical period. This approach allows the use of the approved national forecasts published by the FAA, but also takes into account historical trends in activity at each system airport.

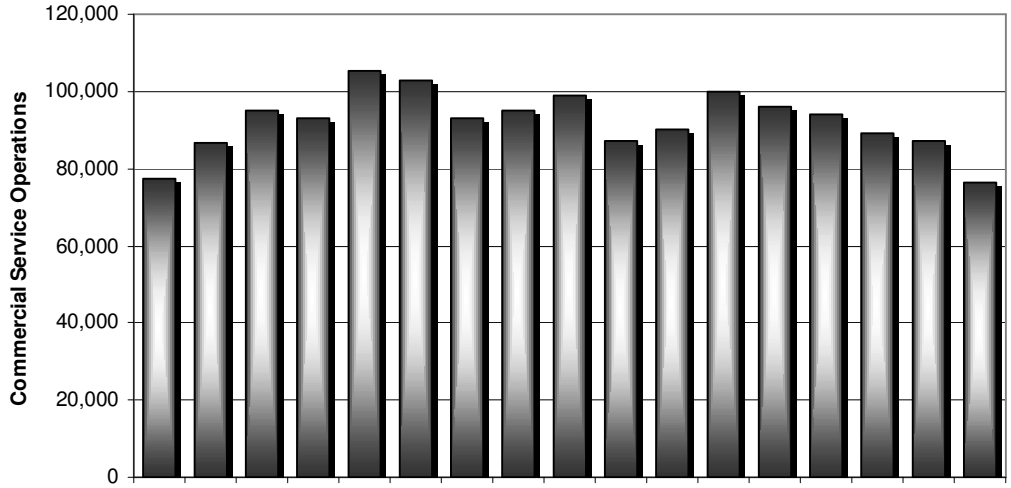
EXHIBIT 4-9
SCHEDULED PASSENGER ENPLANEMENTS AT ALL MAINE AIRPORTS



SOURCE: Airport Management records

Historic trends in commercial service operations at all Maine airports are provided in **Exhibit 4-10**. Scheduled carriers provide their schedule of operations to the *Official Airline Guide* (OAG). In 2000, over 87,000 commercial service operations were scheduled at Maine airports. Scheduled commercial service operations peaked in 1989 with over 105,000 operations annually. Two methodologies were used to project commercial service operations. A market share methodology was chosen as the preferred methodology for projecting commercial service operations through 2021.

EXHIBIT 4-10
SCHEDULED COMMERCIAL SERVICE OPERATIONS AT ALL MAINE AIRPORTS



SOURCE: *Official Airline Guide*

GENERAL AVIATION PROJECTIONS

General aviation activity represents all facets of civil aviation, except activity by certificated route air carriers and commuters. Projections of based aircraft, fleet mix, and general aviation operations were prepared for the system airports in the State of Maine. These terms are defined as follows:

- Based aircraft - The total number of active general aviation aircraft that are either hangared or tied down at the airport.

- Fleet Mix - The type of aircraft that operate or are based at an airport (i.e. single-engine, multi-engine, jet, etc.)

- Operations - An operation is defined as a landing or a takeoff; both a landing and a takeoff, such as a touch-and-go, accounts for two operations.

GENERAL AVIATION BASED AIRCRAFT PROJECTIONS AT SYSTEM AIRPORTS

Three methodologies were initially explored as possible tools to project based aircraft at each system airport. The first methodology used to project based aircraft was a top down methodology. This methodology projected statewide based aircraft using a market share approach. The second methodology used a socioeconomic approach based on projected county population growth. The third methodology also used a socioeconomic approach based on county employment estimates. Each of these methodologies, their resultant projections, and the preferred based aircraft projections are discussed in the following sections.

Market Share Methodology: Based on Share of U.S. Total Active General Aviation Aircraft

The first methodology used to project based aircraft used a top down approach. (See **Table 4-4**.) For this methodology, Maine's share of total U.S. active general aviation aircraft in 2001 was assumed to remain constant throughout the forecast period. Based on this assumption and using the *FAA Aerospace Forecasts Fiscal Years 2001-2012*, national forecast of general aviation aircraft, a statewide projection of based aircraft for Maine was developed. Using this approach, statewide based aircraft are projected to increase from 908 in 2001 to 1,066 in 2021, an average annual growth rate of 0.8 percent. By applying each airport's share of statewide based aircraft in 2001 to the projection of statewide based aircraft over the planning period, individual airport projections were produced.

TABLE 4-4
PROJECTIONS OF BASED AIRCRAFT
MARKET SHARE METHODOLOGY

CITY NAME	FACILITY NAME	2001 BASED AC	% OF TOTAL	PROJECTED BASED AIRCRAFT 2006	2011	2021
AUBURN	AUBURN/LEWISTON MUNICIPAL	71	7.8%	75	78	83
AUGUSTA	AUGUSTA STATE	46	5.1%	48	50	54
BANGOR	BANGOR INTERNATIONAL	67	7.4%	70	73	79
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	44	4.8%	46	48	52
BELFAST	BELFAST MUNICIPAL	24	2.6%	25	26	28
BETHEL	BETHEL REGIONAL	9	1.0%	9	10	11
BIDDEFORD	BIDDEFORD MUNICIPAL	41	4.5%	43	45	48
CARIBOU	CARIBOU MUNICIPAL	11	1.2%	12	12	13
CARRABASSETT	SUGARLOAF REGIONAL	8	0.9%	8	9	9
DEBLOIS	DEBLOIS FLIGHT STRIP	1	0.1%	1	1	1
DEXTER	DEXTER REGIONAL	17	1.9%	18	19	20
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	2	0.2%	2	2	2
EASTPORT	EASTPORT MUNICIPAL	5	0.6%	5	5	6
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8	0.9%	8	9	9
FRYEBURG	EASTERN SLOPES REGIONAL	27	3.0%	28	30	32
GREENVILLE	GREENVILLE MUNICIPAL	21	2.3%	22	23	25
HOULTON	HOULTON INTERNATIONAL	29	3.2%	30	32	34
ISLESBORO	ISLESBORO	4	0.4%	4	4	5
JACKMAN	NEWTON FIELD	9	1.0%	9	10	11
LINCOLN	LINCOLN REGIONAL	26	2.9%	27	28	31
LUBEC	LUBEC MUNICIPAL	1	0.1%	1	1	1
MACHIAS	MACHIAS VALLEY	8	0.9%	8	9	9
MILLINOCKET	MILLINOCKET MUNICIPAL	13	1.4%	14	14	15
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	59	6.5%	62	65	69
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	22	2.4%	23	24	26
OXFORD	OXFORD COUNTY REGIONAL	10	1.1%	11	11	12
PITTSFIELD	PITTSFIELD MUNICIPAL	38	4.2%	40	42	45
PORTLAND	PORTLAND INTERNATIONAL JETPORT	56	6.2%	59	61	66
PRESQUE ISLE	NORTHERN MAINE REGIONAL	23	2.5%	24	25	27
PRINCETON	PRINCETON MUNICIPAL	8	0.9%	8	9	9
RANGELEY	RANGELEY MUNICIPAL	12	1.3%	13	13	14
ROCKLAND	KNOX COUNTY REGIONAL	55	6.1%	58	60	65
SANFORD	SANFORD REGIONAL	67	7.4%	70	73	79
STONINGTON	STONINGTON MUNICIPAL	8	0.9%	8	9	9
WATERVILLE	WATERVILLE ROBERT LAFLEUR	15	1.7%	16	16	18
WISCASSET	WISCASSET	43	4.7%	45	47	50
TOTAL		**908**	**100.0%**	**954**	**995**	**1,066**
FAA U.S. ACTIVE AIRCRAFT FLEET		**221,213**		**232,485**	**242,325**	**259,675**
ME % OF TOTAL U.S.		**0.41%**				

SOURCES: *FAA Aerospace Forecasts Fiscal Years 2000-2012*; WSA

Socioeconomic Methodology: Based on County Population Projections

The second methodology used to project based aircraft applied an approach based on Maine's projected population growth. Developed from population projections supplied by the Maine State Planning Office, a ratio of population per based aircraft was calculated for each Maine county. This methodology assumes that each county's ratio will remain the same over the forecast period. The Maine State Planning Office projects population through 2015. A population projection for 2021 was extrapolated from the growth implied in the state projections prepared by State Planning between 2010 and 2015. The projected county specific based aircraft were then applied back to the airports located in each county. This was accomplished using each airport's current share of the county's based aircraft. If a county's population was projected to decline over the forecast period, the based aircraft for each of the airports located in that county were expected to remain constant through 2021.

The results of this methodology can be found in **Table 4-5**. Statewide based aircraft are projected, using this methodology, to reach 1,041 by 2021, up from a current level of 908. This represents an average annual growth of 0.7 percent.

Socioeconomic Methodology: Based on County Employment Projections

The third methodology examined to project based aircraft applied the same approach as described above, however, the ratio of employment per based aircraft was used instead of population per based aircraft. The projected county based aircraft were applied back to the airports located in each county, using each airport's current share of the county's based aircraft. The results of this methodology can be found in **Table 4-6**. As shown, using this methodology, statewide based aircraft are projected to increase from 908 to 1,199 in 2021, an average annual growth rate of 1.4 percent.

Preferred Based Aircraft Projections

The results from the three based aircraft projection methodologies in the systems plan were compared for each airport. For this study, a combination of two methodologies was selected as the preferred approach for forecasting based aircraft. **Exhibit 4-11** presents the results of the three methodologies and the preferred approach. The projection produced by the either market share methodology or the socioeconomic methodology, based on projected county employment, was chosen to develop a preferred projection. This choice was based on how each projection was determined to best fit the airport's actual historic growth. **Table 4-7** presents the combination of these two approaches and each airport's preferred based aircraft projection. This combined methodology produced a 2021 projection of 1,128 based aircraft, up from 908 in 2001. This represents an average annual growth rate of 1.1 percent.

TABLE 4-5
PROJECTIONS OF BASED AIRCRAFT, BASED ON PROJECTED STATEWIDE POPULATION GROWTH

COUNTY / CITY NAME	FACILITY NAME	ACTUAL POPULATION 1998	POPULATION PROJECTIONS 2005	2010	1998-2010 AAG	2001 BASED AC	POP PER BASED AC	PROJECTED BASED AC 2006	2011	2021
ANDROSCOGGIN		**101,931**	**104,196**	**105,177**	**0.26%**	**71**	**1,435.6**	**73**	**73**	**75**
AUBURN	AUBURN/LEWISTON MUNICIPAL					71		73	73	75
AROOSTOOK		**76,574**	**74,755**	**73,136**	**-0.38%**	**71**	**1,078.5**	**71**	**71**	**71**
CARIBOU	CARIBOU MUNICIPAL					11		11	11	11
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL					8		8	8	8
HOULTON	HOULTON INTERNATIONAL					28		28	28	28
PRESQUE ISLE	NORTHERN MAINE REGIONAL					23		23	23	23
CUMBERLAND		**255,212**	**270,585**	**280,117**	**0.78%**	**56**	**4557.4**	**59**	**61**	**66**
PORTLAND	PORTLAND INTERNATIONAL JETPORT					56		59	61	66
FRANKLIN		**29,119**	**30,094**	**30,606**	**0.42%**	**20**	**1,456.0**	**21**	**21**	**22**
CARRABASSETT	SUGARLOAF REGIONAL					8		8	8	9
RANGELEY	RANGELEY MUNICIPAL					12		12	13	13
HANCOCK		**50,253**	**54,061**	**56,564**	**0.99%**	**52**	**966.4**	**56**	**59**	**64**
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR					44		47	50	54
STONINGTON	STONINGTON MUNICIPAL					8		9	9	10
KENNEBEC		**115,948**	**119,011**	**120,540**	**0.32%**	**61**	**1,900.8**	**63**	**63**	**65**
AUGUSTA	AUGUSTA STATE					46		47	48	49
WATERVILLE	WATERVILLE ROBERT LAFLEUR					15		15	16	16
KNOX		**38,090**	**40,853**	**42,575**	**0.93%**	**55**	**692.5**	**59**	**61**	**67**
ROCKLAND	KNOX COUNTY REGIONAL					55		59	61	67
LINCOLN		**32,020**	**35,011**	**36,987**	**1.21%**	**43**	**744.7**	**47**	**50**	**55**
WISCASSET	WISCASSET					43		47	50	55
OXFORD		**54,018**	**57,460**	**59,627**	**0.83%**	**46**	**1,174.3**	**49**	**51**	**55**
BETHEL	BETHEL REGIONAL					9		10	10	11
FRYEBURG	EASTERN SLOPES REGIONAL					27		29	30	32
OXFORD	OXFORD COUNTY REGIONAL					10		11	11	12
PENOBSCOT		**143,238**	**145,491**	**146,642**	**0.20%**	**145**	**987.8**	**147**	**148**	**151**
BANGOR	BANGOR INTERNATIONAL					67		68	69	70
DEXTER	DEXTER REGIONAL					17		17	17	18
LINCOLN	LINCOLN REGIONAL					26		26	27	27
MILLINOCKET	MILLINOCKET MUNICIPAL					13		13	13	14
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL					22		22	23	23

TABLE 4-5
PROJECTIONS OF BASED AIRCRAFT, BASED ON PROJECTED STATEWIDE POPULATION GROWTH (CONTINUED)

COUNTY / CITY NAME	FACILITY NAME	ACTUAL POPULATION 1998	POPULATION PROJECTIONS 2005	2010	1998-2010 AAG	2001 BASED AC	POP PER BASED AC	PROJECTED BASED AC 2006	2011	2021
PISCATAQUIS		**18,400**	**18,586**	**18,693**	**0.13%**	**23**	**800.0**	**23**	**23**	**24**
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD					2		2	2	2
GREENVILLE	GREENVILLE MUNICIPAL					21		21	21	22
SOMERSET		**52,717**	**56,749**	**59,361**	**0.99%**	**106**	**497.3**	**114**	**119**	**131**
JACKMAN	NEWTON FIELD					9		10	10	11
NORRIDGEWOCK	CENTRAL MAINE REGIONAL					59		64	66	73
PITTSFIELD	PITTSFIELD MUNICIPAL					38		41	43	47
WALDO		**36,699**	**40,821**	**43,570**	**1.44%**	**28**	**1,310.7**	**31**	**33**	**38**
BELFAST	BELFAST MUNICIPAL					24		27	28	32
ISLESBORO	ISLESBORO					4		4	5	5
WASHINGTON		**35,730**	**38,298**	**39,856**	**0.91%**	**22**	**1,624.1**	**24**	**25**	**27**
DEBLOIS	DEBLOIS FLIGHT STRIP					0		0	0	0
EASTPORT	EASTPORT MUNICIPAL					5		5	6	6
LUBEC	LUBEC MUNICIPAL					1		1	1	1
MACHIAS	MACHIAS VALLEY					8		9	9	10
PRINCETON	PRINCETON MUNICIPAL					8		9	9	10
YORK		**176,291**	**188,993**	**196,743**	**0.92%**	**108**	**1,632.3**	**116**	**121**	**131**
BIDDEFORD	BIDDEFORD MUNICIPAL					41		44	46	50
SANFORD	SANFORD REGIONAL					67		72	75	81
TOTAL—ALL MAINE AIRPORTS		**1,216,240**	**1,274,964**	**1,310,194**	**0.63%**	**908**	**1339.5**	**953**	**981**	**1,041**

SOURCES: Maine State Planning Office, WSA

NOTES: AAG=Average Annual Growth Rate

TABLE 4-6
PROJECTIONS OF BASED AIRCRAFT, BASED ON PROJECTED STATEWIDE EMPLOYMENT GROWTH

COUNTY / CITY NAME	FACILITY NAME	ACTUAL EMPLOYMENT 1997	EMPLOYMENT PROJECTIONS 2005	2010	1997-2010 AAG	2001 BASED AC	EMPLOY PER BA	PROJECTED BASED AC 2006	2011	2021
ANDROSCOGGIN		**55,935**	**57,586**	**58,136**	**0.30%**	**71**	**787.8**	**73**	**74**	**75**
AUBURN	AUBURN/LEWISTON MUNICIPAL					71		73	74	75
AROOSTOOK		**40,158**	**39,314**	**38,373**	**-0.35%**	**71**	**565.6**	**71**	**71**	**71**
CARIBOU	CARIBOU MUNICIPAL					11		11	11	11
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL					8		8	8	8
HOULTON	HOULTON INTERNATIONAL					29		29	29	29
PRESQUE ISLE	NORTHERN MAINE REGIONAL					23		23	23	23
CUMBERLAND		**204,066**	**242,997**	**263,976**	**2.00%**	**56**	**3644.0**	**67**	**72**	**85**
PORTLAND	PORTLAND INTERNATIONAL JETPORT					56		67	72	85
FRANKLIN		**16,686**	**17,468**	**17,890**	**0.54%**	**20**	**834.3**	**21**	**21**	**22**
CARRABASSETT	SUGARLOAF REGIONAL					8		8	9	9
RANGELEY	RANGELEY MUNICIPAL					12		13	13	13
HANCOCK		**33,051**	**39,825**	**44,260**	**2.27%**	**52**	**635.6**	**63**	**70**	**86**
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR					44		53	59	73
STONINGTON	STONINGTON MUNICIPAL					8		10	11	13
KENNEBEC		**73,030**	**78,457**	**82,051**	**0.90%**	**61**	**1,197.2**	**66**	**69**	**75**
AUGUSTA	AUGUSTA STATE					46		49	52	57
WATERVILLE	WATERVILLE ROBERT LAFLEUR					15		16	17	18
KNOX		**26,030**	**31,157**	**34,869**	**2.27%**	**55**	**473.3**	**66**	**74**	**92**
ROCKLAND	KNOX COUNTY REGIONAL					55		66	74	92
LINCOLN		**17,732**	**21,713**	**24,525**	**2.53%**	**43**	**412.4**	**53**	**59**	**76**
WISCASSET	WISCASSET					43		53	59	76
OXFORD		**24,559**	**26,887**	**28,514**	**1.16%**	**46**	**533.9**	**50**	**53**	**60**
BETHEL	BETHEL REGIONAL					9		10	10	12
FRYEBURG	EASTERN SLOPES REGIONAL					27		30	31	35
OXFORD	OXFORD COUNTY REGIONAL					10		11	12	13
PENOBSCOT		**85,886**	**92,268**	**96,496**	**0.90%**	**145**	**592.3**	**156**	**163**	**178**
BANGOR	BANGOR INTERNATIONAL					67		72	75	82
DEXTER	DEXTER REGIONAL					17		18	19	21
LINCOLN	LINCOLN REGIONAL					26		28	29	32
MILLINOCKET	MILLINOCKET MUNICIPAL					13		14	15	16
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL					22		24	25	27

TABLE 4-6
PROJECTIONS OF BASED AIRCRAFT, BASED ON PROJECTED STATEWIDE EMPLOYMENT GROWTH (CONTINUED)

COUNTY / CITY NAME	FACILITY NAME	ACTUAL EMPLOYMENT 1997	EMPLOYMENT PROJECTIONS 2005	2010	1997-2010 AAG	2001 BASED AC	EMPLOY PER BA	PROJECTED BASED AC 2006	2011	2021
PISCATAQUIS		**8,797**	**9,228**	**9,508**	**0.60%**	**23**	**382.5**	**24**	**25**	**26**
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD					2		2	2	2
GREENVILLE	GREENVILLE MUNICIPAL					21		22	23	24
SOMERSET		**26,328**	**29,798**	**31,906**	**1.49%**	**106**	**248.4**	**120**	**128**	**147**
JACKMAN	NEWTON FIELD					9		10	11	13
NORRIDGEWOCK	CENTRAL MAINE REGIONAL					59		67	72	82
PITTSFIELD	PITTSFIELD MUNICIPAL					38		43	46	53
WALDO		**14,059**	**16,677**	**18,387**	**2.09%**	**28**	**502.1**	**33**	**37**	**45**
BELFAST	BELFAST MUNICIPAL					24		28	31	38
ISLESBORO	ISLESBORO					4		5	5	6
WASHINGTON		**17,845**	**18,825**	**19,416**	**0.65%**	**22**	**811.1**	**23**	**24**	**25**
DEBLOIS	DEBLOIS FLIGHT STRIP					0		0	0	0
EASTPORT	EASTPORT MUNICIPAL					5		5	5	6
LUBEC	LUBEC MUNICIPAL					1		1	1	1
MACHIAS	MACHIAS VALLEY					8		8	9	9
PRINCETON	PRINCETON MUNICIPAL					8		8	9	9
YORK		**83,393**	**92,854**	**95,920**	**1.08%**	**108**	**772.2**	**120**	**124**	**133**
BIDDEFORD	BIDDEFORD MUNICIPAL					41		46	47	50
SANFORD	SANFORD REGIONAL					67		75	77	82
TOTAL—ALL MAINE AIRPORTS		**727,555**	**815,054**	**864,227**	**1.33%**	**908**	**801.3**	**1,006**	**1,066**	**1,199**

SOURCES: Maine State Planning Office, WSA

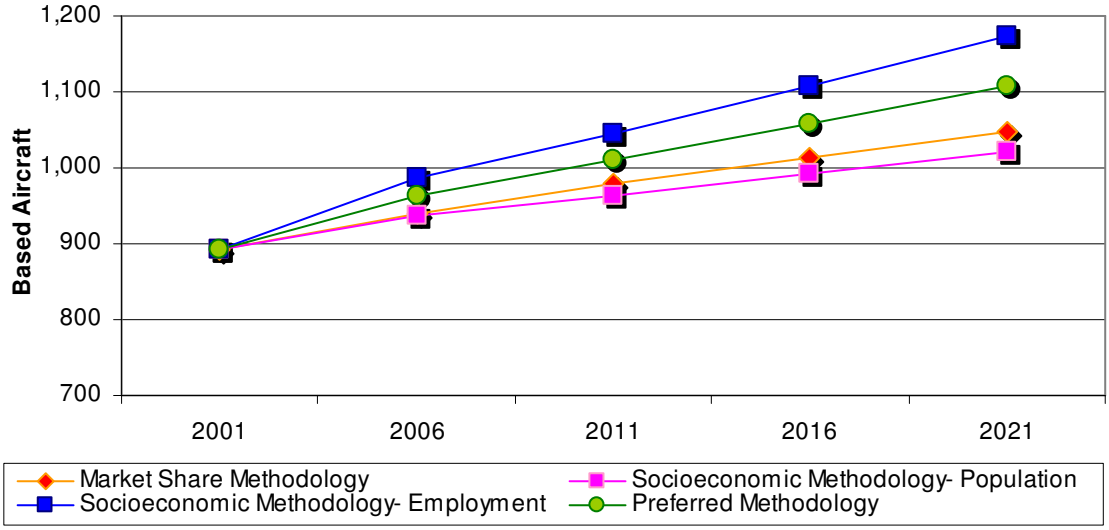
NOTES: AAG=Average Annual Growth Rate

TABLE 4-7
PROJECTIONS OF SYSTEM BASED AIRCRAFT
PREFERRED METHODOLOGY

CITY NAME	FACILITY NAME	2001 BASED AIRCRAFT	% OF TOTAL	PROJECTED BASED AIRCRAFT 2006	2011	2021
AUBURN	AUBURN/LEWISTON MUNICIPAL	71	7.8%	75	78	83
AUGUSTA	AUGUSTA STATE	46	5.1%	48	50	54
BANGOR	BANGOR INTERNATIONAL	67	7.4%	72	75	82
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	44	4.8%	46	48	52
BELFAST	BELFAST MUNICIPAL	24	2.6%	28	31	38
BETHEL	BETHEL REGIONAL	9	1.0%	10	10	12
BIDDEFORD	BIDDEFORD MUNICIPAL	41	4.5%	46	47	50
CARRABASSETT	SUGARLOAF REGIONAL	8	0.9%	8	9	9
CARIBOU	CARIBOU MUNICIPAL	11	1.2%	12	12	13
DEBLOIS	DEBLOIS FLIGHT STRIP	1	0.1%	1	1	1
DEXTER	DEXTER REGIONAL	17	1.9%	18	19	21
DOVER-FOXCROFT	CHAS A. CHASE JR. MEMORIAL FIELD	2	0.2%	2	2	2
EASTPORT	EASTPORT MUNICIPAL	5	0.6%	5	5	6
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8	0.9%	8	8	8
FRYEBURG	EASTERN SLOPES REGIONAL	27	3.0%	30	31	35
GREENVILLE	GREENVILLE MUNICIPAL	21	2.3%	22	23	25
HOULTON	HOULTON INTERNATIONAL	29	3.2%	30	32	34
ISLESBORO	ISLESBORO	4	0.4%	5	5	6
JACKMAN	NEWTON FIELD	9	1.0%	10	11	12
LINCOLN	LINCOLN REGIONAL	26	2.9%	28	29	32
LUBEC	LUBEC MUNICIPAL	1	0.1%	1	1	1
MACHIAS	MACHIAS VALLEY	8	0.9%	8	9	9
MILLINOCKET	MILLINOCKET MUNICIPAL	13	1.4%	14	15	16
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	59	6.5%	62	65	69
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	22	2.4%	24	25	27
OXFORD	OXFORD COUNTY REGIONAL	10	1.1%	11	12	13
PITTSFIELD	PITTSFIELD MUNICIPAL	38	4.2%	43	46	53
PORTLAND	PORTLAND INTERNATIONAL JETPORT	56	6.2%	67	72	85
PRESQUE ISLE	NORTHERN MAINE REGIONAL	23	2.5%	24	25	27
PRINCETON	PRINCETON MUNICIPAL	8	0.9%	11	11	12
RANGELEY	RANGELEY MUNICIPAL	12	1.3%	13	13	14
ROCKLAND	KNOX COUNTY REGIONAL	55	6.1%	58	60	65
SANFORD	SANFORD REGIONAL	67	7.4%	70	73	79
STONINGTON	STONINGTON MUNICIPAL	8	0.9%	10	11	13
WATERVILLE	WATERVILLE ROBERT LAFLEUR	15	1.7%	16	17	18
WISCASSET	WISCASSET	43	4.7%	45	47	50
TOTAL		**908**	**100.0%**	**981**	**1,030**	**1,128**

SOURCE: WSA

EXHIBIT 4-11
PROJECTIONS OF BASED AIRCRAFT AT MAINE SYSTEM AIRPORTS

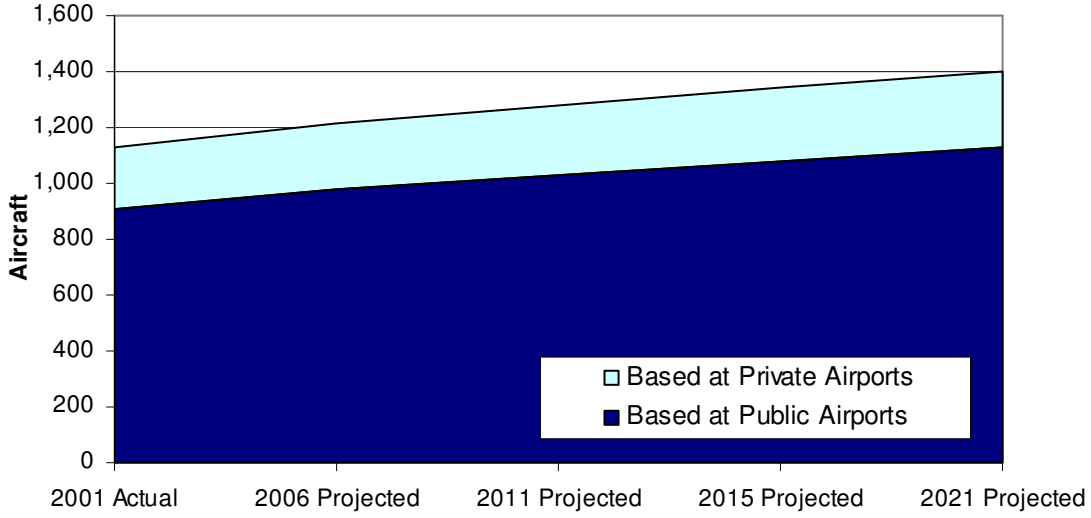


SOURCE: WSA

GENERAL AVIATION BASED AIRCRAFT PROJECTIONS AT ALL MAINE AIRPORTS

In 2001, 908 aircraft were based at public airports in Maine. An additional 219 aircraft were based at private airports throughout the State. For the purpose of the systems plan, based aircraft at private airports are projected to grow at the same average annual growth rate as preferred projection of based aircraft discussed above. Based on an average annual growth rate of 1.1 percent, an additional 53 aircraft are projected to be based at private airports in the State by 2021. As shown in **Exhibit 4-12**, 1,400 aircraft are projected to be based at all airports (public and private) in the State in 2021, including 1,128 aircraft based at public airports in Maine. Potential implications on the system from this projection of "total" statewide based aircraft demand will be considered as Maine's Aviation System is evaluated in subsequent portions of this study.

EXHIBIT 4-12
PROJECTION OF TOTAL BASED AIRCRAFT IN MAINE

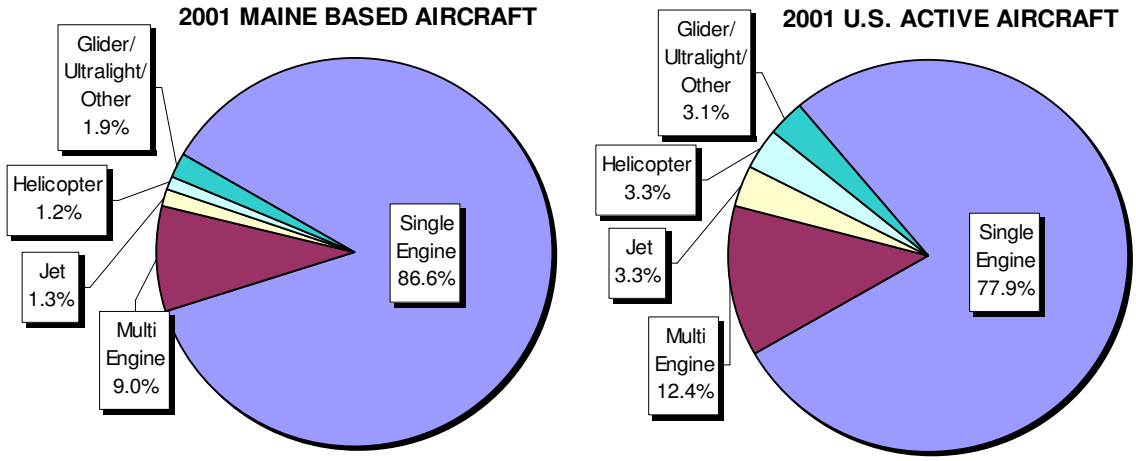


SOURCE: WSA

BASED AIRCRAFT FLEET MIX

In projecting the statewide based aircraft fleet mix for Maine, consideration was given to the continually changing national active general aviation aircraft fleet and the existing fleet mix in the State. **Exhibit 4-13** presents the based aircraft fleet mix for Maine and the active general aviation aircraft fleet in the U.S. In 2001, single-engine aircraft accounted for 86.6 percent of the based aircraft fleet at all public airports in Maine, compared to 77.9 percent of the total U.S. fleet. The share of multi-engine, jet helicopter, and other aircraft of the total fleet at all U.S. airports was higher than the share at Maine airports.

EXHIBIT 4-13
COMPARISON OF 2001 MAINE AND U.S. BASED AIRCRAFT BY EQUIPMENT TYPE



SOURCES: WSA; *FAA Aerospace Forecasts Fiscal Years 2002-2013*

The FAA asserts in the FAA Aerospace Forecasts FY 2002-2013 that there will be strong growth in active general aviation jet aircraft. This trend illustrates a movement in the general aviation community toward more sophisticated, higher performing, and more demanding aircraft. This trend will impact the types of activity occurring at general aviation airports and the types of facilities required at those airports. The FAA projects that the percentage increase in jet aircraft will significantly outpace growth in other components of the aircraft fleet. Single engine and multi-engine aircraft are projected to experience an average annual growth rate of less than 0.5 percent per year over the forecast period.

For this analysis, statewide based aircraft fleet mix was projected for 2006, 2011, and 2021. **Table 4-8** presents the based aircraft fleet mix for Maine for these years. It is projected that, in 2021, single-engine aircraft will account for 84.1 percent of the total based aircraft. Jet aircraft will experience the largest increase, comprising 3.4 percent of Maine's total based aircraft in 2021, compared to 1.3 percent in 2001.

TABLE 4-8
PROJECTIONS OF BASED AIRCRAFT FLEET MIX

	2001		2006		2011		2021	
EQUIPMENT TYPE	BASED AIRCRAFT	% OF TOTAL	BASED AIRCRAFT	% OF TOTAL	BASED AIRCRAFT	% OF TOTAL	BASED AIRCRAFT	% OF TOTAL
SINGLE ENGINE	786	86.6%	844	86.0%	879	85.3%	949	84.1%
MULTI ENGINE	82	9.0%	85	8.7%	88	8.5%	94	8.3%
JET	12	1.3%	19	1.9%	26	2.5%	38	3.4%
HELICOPTER	11	1.2%	14	1.4%	16	1.6%	21	1.9%
GLIDER/ULTRALIGHT/OTHER	17	1.9%	20	2.0%	22	2.1%	26	2.3%
TOTAL	**908**	**100.0%**	**981**	**100.0%**	**1,030**	**100.0%**	**1,128**	**100.0%**

SOURCE: WSA

GENERAL AVIATION OPERATIONS PROJECTIONS

The projection of operational demand at an airport determines the need for airside improvements. Total annual operational demand can consist of several types of activity including air carrier, military, air taxi, and general aviation. For those airports with scheduled commercial air service, air carrier activity was projected separately in a subsequent section. For those airports with annual military operations, the military operations were subtracted from the total operational estimate, as were commercial operations, to arrive at a total annual general aviation activity level for each system airport. Air taxi operations are included in the general aviation operations projections.

Due to the inherent limitations in the historic data for general aviation operations data as discussed previously, it was not possible to develop projections based on historic general aviation operational growth. Three methodologies were investigated to project general aviation operations for 2006, 2011, and 2021. These methodologies include a market share methodology, a socioeconomic methodology, and an operations per based aircraft (OPBA) methodology. These three methodologies are discussed in detail in the following sections. Similar to the preferred based aircraft projections, two methodologies were combined to produce the preferred projection of general aviation operations.

Market Share Methodology: Based on Average Master Plan Growth Rate

The first approach used to project general aviation operations was the market share methodology. Seventeen airports in Maine have prepared recent projections of general aviation operations in conjunction with master plans. The total average growth rate implied in these projections is 2.0 percent per year. This growth rate was applied to Maine's current total general aviation operations to develop statewide projections of

general aviation operations for 2006, 2011, and 2021. By applying each airport's current market share of statewide general aviation operations, individual airport projections were developed. The results of this methodology are shown in **Table 4-9**. By 2021, nearly 955,000 general aviation operations are projected to take place at Maine airports (using this approach), up from 646,308.

Socioeconomic Methodology: Based on County Employment Projections

The second methodology used projected statewide employment. The Maine State Planning Office projects statewide employment by county through 2015. County employment was extrapolated to 2021 in order to projected general aviation operations through 2021. The ratio of operations to employment was developed for each county. This ratio was applied to projected employment to produce projections of general aviation operations by county. As shown in **Table 4-10**, each airport was assigned a portion of these projected operations based on its current reported share of total county general aviation operations. Using this methodology, statewide general aviation operations are projected to reach nearly 874,000 by 2021, up 1.5 percent per year on average.

Operations Per Based Aircraft (OPBA) Methodology

The third methodology, the OPBA methodology, used each airport's preferred projected number of based aircraft and multiplied the number by an appropriate OPBA ratio (see page 4-12) to yield projected total annual general aviation aircraft operations. The preferred based aircraft projections (Table 4-7) previously presented were used for this projection technique. Each airport's 2001 OPBA was held constant to develop projections of annual operations. **Table 4-11** presents the results of this methodology. As shown, current statewide general aviation operations are estimated at 646,000. The OPBA methodology produced a projection of nearly 807,000 general aviation operations by 2021. Using the OPBA methodology, statewide annual general aviation operations are projected to grow at an average annual rate of 1.1 percent over the planning period.

TABLE 4-9
PROJECTIONS OF GENERAL AVIATION OPERATIONS,
TOP DOWN METHODOLOGY, MASTER PLAN GROWTH

CITY NAME	FACILITY NAME	2001 OPS	% OF TOTAL	PROJECTED GA OPERATIONS 2006	2011	2021
AUBURN	AUBURN/LEWISTON MUNICIPAL	30,100	4.7%	33,180	36,580	44,460
AUGUSTA	AUGUSTA STATE	27,500	4.3%	30,320	33,420	40,620
BANGOR	BANGOR INTERNATIONAL	34,831	5.4%	38,400	42,330	51,450
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	40,000	6.2%	44,100	48,620	59,090
BELFAST	BELFAST MUNICIPAL	15,000	2.3%	16,540	18,230	22,160
BETHEL	BETHEL REGIONAL	4,500	0.7%	4,960	5,470	6,650
BIDDEFORD	BIDDEFORD MUNICIPAL	30,750	4.8%	33,900	37,370	45,430
CARIBOU	CARIBOU MUNICIPAL	8,250	1.3%	9,100	10,030	12,190
CARRABASSETT	SUGARLOAF REGIONAL	4,000	0.6%	4,410	4,860	5,910
DEBLOIS	DEBLOIS FLIGHT STRIP	100	0.0%	110	120	150
DEXTER	DEXTER REGIONAL	8,500	1.3%	9,370	10,330	12,560
DOVER-FOXCROFT	CHAS A. CHASE JR. MEMORIAL FIELD	1,000	0.2%	1,100	1,220	1,480
EASTPORT	EASTPORT MUNICIPAL	3,125	0.5%	3,450	3,800	4,620
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	5,000	0.8%	5,510	6,080	7,390
FRYEBURG	EASTERN SLOPES REGIONAL	33,350	5.2%	36,770	40,530	49,270
GREENVILLE	GREENVILLE MUNICIPAL	13,125	2.0%	14,470	15,950	19,390
HOULTON	HOULTON INTERNATIONAL	18,125	2.8%	19,980	22,030	26,770
ISLESBORO	ISLESBORO	2,000	0.3%	2,200	2,430	2,950
JACKMAN	NEWTON FIELD	5,625	0.9%	6,200	6,840	8,310
LINCOLN	LINCOLN REGIONAL	19,500	3.0%	21,500	23,700	28,810
LUBEC	LUBEC MUNICIPAL	500	0.1%	550	610	740
MACHIAS	MACHIAS VALLEY	4,000	0.6%	4,410	4,860	5,910
MILLINOCKET	MILLINOCKET MUNICIPAL	8,125	1.3%	8,960	9,880	12,000
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	44,250	6.8%	48,780	53,780	65,370
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	16,500	2.6%	18,190	20,050	24,370
OXFORD	OXFORD COUNTY REGIONAL	6,250	1.0%	6,890	7,600	9,230
PITTSFIELD	PITTSFIELD MUNICIPAL	23,750	3.7%	26,180	28,870	35,080
PORTLAND	PORTLAND INTERNATIONAL JETPORT	59,188	9.2%	65,250	71,940	87,430
PRESQUE ISLE	NORTHERN MAINE REGIONAL	5,600	0.9%	6,170	6,810	8,270
PRINCETON	PRINCETON MUNICIPAL	4,000	0.6%	4,410	4,860	5,910
RANGELEY	RANGELEY MUNICIPAL	9,000	1.4%	9,920	10,940	13,300
ROCKLAND	KNOX COUNTY REGIONAL	48,069	7.4%	52,990	58,420	71,010
SANFORD	SANFORD REGIONAL	68,945	10.7%	76,010	83,800	101,850
STONINGTON	STONINGTON MUNICIPAL	4,000	0.6%	4,410	4,860	5,910
WATERVILLE	WATERVILLE ROBERT LAFLEUR	7,500	1.2%	8,270	9,120	11,080
WISCASSET	WISCASSET	32,250	5.0%	35,550	39,200	47,640
TOTAL		**646,308**	**100.0%**	**712,530**	**785,530**	**954,750**

SOURCE: WSA

TABLE 4-10
PROJECTIONS OF GENERAL AVIATION OPERATIONS, BASED ON PROJECTED STATEWIDE EMPLOYMENT GROWTH

COUNTY / CITY NAME	FACILITY NAME	ACTUAL EMPLOY 1997	EMPLOYMENT PROJECTIONS 2005	2010	1998-2010 AAG	2001 OPERATIONS OPS	OPS PER EMPLOY	PROJECTED OPERATIONS 2006	2011	2021
ANDROSCOGGIN		**55,935**	**57,586**	**58,136**	**0.30%**	**30,100**	**0.54**	**30,990**	**31,280**	**31,870**
AUBURN	AUBURN/LEWISTON MUNICIPAL					30,100		30,990	31,280	31,870
AROOSTOOK		**40,158**	**39,314**	**38,373**	**-0.35%**	**36,975**	**0.92**	**36,975**	**36,975**	**36,975**
CARIBOU	CARIBOU MUNICIPAL					8,250		8,250	8,250	8,250
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL					5,000		5,000	5,000	5,000
HOULTON	HOULTON INTERNATIONAL					18,125		18,125	18,125	18,125
PRESQUE ISLE	NORTHERN MAINE REGIONAL					5,600		5,600	5,600	5,600
CUMBERLAND		**204,066**	**242,997**	**263,976**	**2.00%**	**59,188**	**0.29**	**70,480**	**76,560**	**90,340**
PORTLAND	PORTLAND INTERNATIONAL JETPORT					59,188		70,480	76,560	90,340
FRANKLIN		**16,686**	**17,468**	**17,890**	**0.54%**	**13,000**	**0.78**	**13,610**	**13,940**	**14,620**
CARRABASSETT	SUGARLOAF REGIONAL					4,000		4,190	4,290	4,500
RANGELEY	RANGELEY MUNICIPAL					9,000		9,420	9,650	10,120
HANCOCK		**33,051**	**39,825**	**44,260**	**2.27%**	**44,000**	**1.33**	**53,020**	**58,920**	**72,760**
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR					40,000		48,200	53,560	66,150
STONINGTON	STONINGTON MUNICIPAL					4,000		4,820	5,360	6,610
KENNEBEC		**73,030**	**78,457**	**82,051**	**0.90%**	**35,000**	**0.48**	**41,630**	**43,540**	**47,630**
AUGUSTA	AUGUSTA STATE					27,500		29,540	30,900	33,800
WATERVILLE	WATERVILLE ROBERT LAFLEUR					7,500		12,090	12,640	13,830
KNOX		**26,030**	**31,157**	**34,869**	**2.27%**	**48,069**	**1.85**	**57,540**	**64,390**	**80,630**
ROCKLAND	KNOX COUNTY REGIONAL					48,069		57,540	64,390	80,630
LINCOLN		**17,732**	**21,713**	**24,525**	**2.53%**	**32,250**	**1.82**	**39,490**	**44,600**	**56,890**
WISCASSET	WISCASSET					32,250		39,490	44,600	56,890
OXFORD		**24,559**	**26,887**	**28,514**	**1.16%**	**44,100**	**1.80**	**48,280**	**51,200**	**57,580**
BETHEL	BETHEL REGIONAL					4,500		4,930	5,220	5,880
FRYEBURG	EASTERN SLOPES REGIONAL					33,350		36,510	38,720	43,540
OXFORD	OXFORD COUNTY REGIONAL					6,250		6,840	7,260	8,160
PENOBSCOT		**85,886**	**92,268**	**96,496**	**0.90%**	**87,456**	**1.02**	**93,950**	**98,260**	**107,480**
BANGOR	BANGOR INTERNATIONAL					34,831		37,420	39,130	42,810
DEXTER	DEXTER REGIONAL					8,500		9,130	9,550	10,450
LINCOLN	LINCOLN REGIONAL					19,500		20,950	21,910	23,960
MILLINOCKET	MILLINOCKET MUNICIPAL					8,125		8,730	9,130	9,990
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL					16,500		17,730	18,540	20,280
PISCATAQUIS		**8,797**	**9,228**	**9,508**	**0.60%**	**14,125**	**1.61**	**14,820**	**15,270**	**16,210**
DOVER-FOXCROFT	CHAS A. CHASE JR. MEMORIAL FIELD					1,000		1,050	1,080	1,150
GREENVILLE	GREENVILLE MUNICIPAL					13,125		13,770	14,190	15,060

TABLE 4-10

PROJECTIONS OF GENERAL AVIATION OPERATIONS, BASED ON PROJECTED STATEWIDE EMPLOYMENT GROWTH (CONTINUED)

COUNTY / CITY NAME	FACILITY NAME	ACTUAL EMPLOY 1997	EMPLOYMENT PROJECTIONS 2005	2010	1998-2010 AAG	2001 OPERATIONS OPS	OPS PER EMPLOY	PROJECTED OPERATIONS 2006	2011	2021
SOMERSET		**26,328**	**29,798**	**31,906**	**1.49%**	**73,625**	**2.80**	**83,330**	**89,220**	**102,280**
JACKMAN	NEWTON FIELD					5,625		6,370	6,820	7,810
NORRIDGEWOCK	CENTRAL MAINE REGIONAL					44,250		50,080	53,620	61,470
PITTSFIELD	PITTSFIELD MUNICIPAL					23,750		26,880	28,780	32,990
WALDO		**14,059**	**16,677**	**18,387**	**2.09%**	**17,000**	**1.21**	**20,170**	**22,230**	**27,000**
BELFAST	BELFAST MUNICIPAL					15,000		17,800	19,610	23,820
ISLESBORO	ISLESBORO					2,000		2,370	2,620	3,180
WASHINGTON		**17,845**	**18,825**	**19,416**	**0.65%**	**11,725**	**0.66**	**12,370**	**12,760**	**13,580**
DEBLOIS	DEBLOIS FLIGHT STRIP					100		110	110	120
EASTPORT	EASTPORT MUNICIPAL					3,125		3,300	3,400	3,620
LUBEC	LUBEC MUNICIPAL					500		530	540	580
MACHIAS	MACHIAS VALLEY					4,000		4,300	4,490	4,920
PRINCETON	PRINCETON MUNICIPAL					4,000		4,300	4,490	4,920
YORK		**83,393**	**92,854**	**95,920**	**1.08%**	**99,695**	**1.20**	**111,010**	**114,670**	**122,360**
BIDDEFORD	BIDDEFORD MUNICIPAL					30,750		34,240	35,370	37,740
SANFORD	SANFORD REGIONAL					68,945		76,770	79,300	84,620
TOTAL—ALL MAINE AIRPORTS		**727,555**	**815,054**	**864,227**	**1.33%**	**646,308**	**0.89**	**723,815**	**769,865**	**874,155**

SOURCES: Maine State Planning Office, WSA

NOTES: Projected operations may not sum to totals due to rounding; AAG=Average Annual Growth Rate.

TABLE 4-11
PROJECTIONS OF GENERAL AVIATION OPERATIONS, OPBA METHODOLOGY

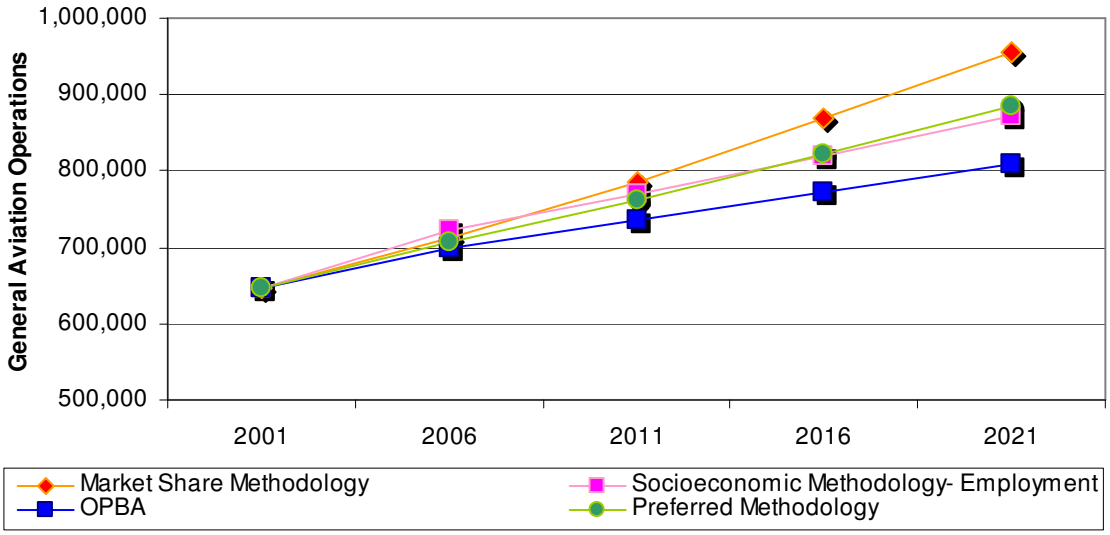
		HISTORIC		2006		2011		2021	
CITY NAME	**FACILITY NAME**	**BASED AC**	**OPERATIONS**	**BASED AC**	**OPERATIONS**	**BASED AC**	**OPERATIONS**	**BASED AC**	**OPERATIONS**
AUBURN	AUBURN/LEWISTON MUNICIPAL	71	30,100	75	31,630	78	32,970	83	35,330
AUGUSTA	AUGUSTA STATE	46	27,500	48	28,900	50	30,120	54	32,280
BANGOR	BANGOR INTERNATIONAL	67	34,831	72	37,420	75	39,130	82	42,800
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	44	40,000	46	42,040	48	43,820	52	46,950
BELFAST	BELFAST MUNICIPAL	24	15,000	28	17,790	31	19,620	38	23,850
BETHEL	BETHEL REGIONAL	9	4,500	10	4,930	10	5,220	12	5,880
BIDDEFORD	BIDDEFORD MUNICIPAL	41	30,750	46	34,240	47	35,370	50	37,740
CARIBOU	CARIBOU MUNICIPAL	11	8,250	12	8,670	12	9,040	13	9,680
CARRABASSETT	SUGARLOAF REGIONAL	8	4,000	8	4,190	9	4,290	9	4,500
DEBLOIS	DEBLOIS FLIGHT STRIP	1	100	1	100	1	100	1	100
DEXTER	DEXTER REGIONAL	17	8,500	18	9,130	19	9,550	21	10,450
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	2	1,000	2	1,050	2	1,080	2	1,150
EASTPORT	EASTPORT MUNICIPAL	5	3,125	5	3,300	5	3,400	6	3,620
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8	5,000	8	5,000	8	5,000	8	5,000
FRYEBURG	EASTERN SLOPES REGIONAL	27	33,350	30	36,510	31	38,720	35	43,550
GREENVILLE	GREENVILLE MUNICIPAL	21	13,125	22	13,790	23	14,380	25	15,410
HOULTON	HOULTON INTERNATIONAL	29	18,125	30	19,050	32	19,850	34	21,280
ISLESBORO	ISLESBORO	4	2,000	5	2,370	5	2,620	6	3,180
JACKMAN	NEWTON FIELD	9	5,625	10	6,250	11	6,880	12	7,500
LINCOLN	LINCOLN REGIONAL	26	19,500	28	20,950	29	21,910	32	23,960
LUBEC	LUBEC MUNICIPAL	1	500	1	530	1	540	1	580
MACHIAS	MACHIAS VALLEY	8	4,000	8	4,220	9	4,350	9	4,630
MILLINOCKET	MILLINOCKET MUNICIPAL	13	8,125	14	8,730	15	9,130	16	9,980
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	59	44,250	62	46,500	65	48,470	69	51,940
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	22	16,500	24	17,730	25	18,540	27	20,280
OXFORD	OXFORD COUNTY REGIONAL	10	6,250	11	6,840	12	7,260	13	8,160
PITTSFIELD	PITTSFIELD MUNICIPAL	38	23,750	43	26,880	46	28,780	53	33,000
PORTLAND	PORTLAND INTERNATIONAL JETPORT	56	59,188	67	70,480	72	76,560	85	90,360
PRESQUE ISLE	NORTHERN MAINE REGIONAL	23	5,600	24	5,890	25	6,130	27	6,570
PRINCETON	PRINCETON MUNICIPAL	8	4,000	11	5,250	11	5,500	12	6,000
RANGELEY	RANGELEY MUNICIPAL	12	9,000	13	9,460	13	9,860	14	10,560
ROCKLAND	KNOX COUNTY REGIONAL	55	48,069	58	50,520	60	52,660	65	56,430
SANFORD	SANFORD REGIONAL	67	68,945	70	72,460	73	75,520	79	80,930
STONINGTON	STONINGTON MUNICIPAL	8	4,000	10	4,820	11	5,360	13	6,620
WATERVILLE	WATERVILLE ROBERT LAFLEUR	15	7,500	16	8,060	17	8,430	18	9,220
WISCASSET	WISCASSET	43	32,250	45	33,890	47	35,330	50	37,860
TOTAL—ALL MAINE AIRPORTS		**908**	**646,308**	**981**	**699,570**	**1,030**	**735,490**	**1,128**	**807,330**

SOURCE: WSA

Preferred General Aviation Operations Projection Methodology

Three methodologies were tested to project general aviation operations at system airports. **Exhibit 4-14** presents the projections based on each methodology. Similar to the based aircraft projections, two of these methodologies (market share methodology and OPBA methodology) were combined to produce a preferred general aviation operations projection for each airport. The market share methodology used each airport's share of current statewide operations to project general aviation operations through 2021. Statewide operations were projected based on the combined average growth rate for total general aviation operations implied in all current Maine airport master plans. The second methodology determined the operations per based aircraft (OPBA) ratio for each airport and projected operations based on this ratio. The result of one of these two methodologies was selected to project future annual general aviation operations. As shown in **Table 4-12** using the combined methodology, statewide general aviation operations are projected to reach over 884,000 annually by 2021; up from 646,000, this represents an average annual growth rate of 1.6 percent.

EXHIBIT 4-14
PROJECTIONS OF GENERAL AVIATION OPERATIONS AT MAINE SYSTEM AIRPORTS



SOURCE: WSA

GENERAL AVIATION OPERATIONS PROJECTION AT ALL MAINE AIRPORTS

In 2001, over 646,000 general aviation operations occurred at public airports in Maine. An additional 102,000 general aviation operations occurred at private airports throughout the State. For the purpose of the systems plan, general aviation operations at private airports are projected to grow at the same average annual growth rate as the preferred projection of general aviation operations. By 2021, an additional 140,000 general aviation operations are projected to occur at private airports in the State. This is based on an average annual growth rate of 1.6 percent. As shown in **Exhibit 4-15**, just over 1.0 million general aviation operations are projected to occur at all airports (public and

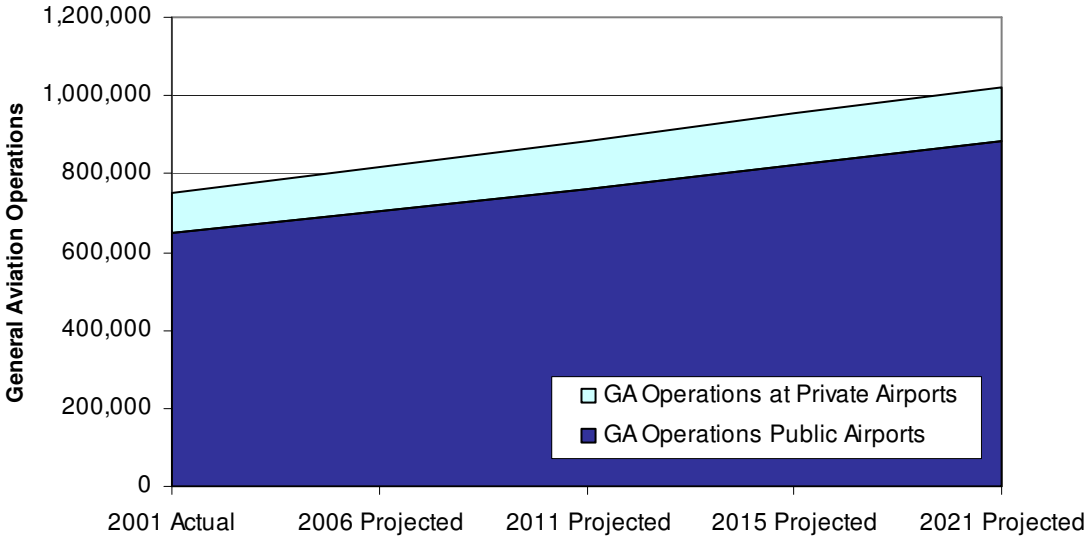
private) in the State in 2021. This includes the 884,000 operations projected at public airports in Maine in 2021. Potential implications on the system from this projection of "total" statewide general aviation operational demand will be considered as Maine's Aviation System is evaluated in subsequent portions of this study.

TABLE 4-12
PROJECTIONS OF ANNUAL GENERAL AVIATION OPERATIONS
PREFERRED METHODOLOGY

CITY NAME	FACILITY NAME	HISTORIC	PROJECTED GENERAL AVIATION OPERATIONS		
		2001	2006	2011	2021
AUBURN	AUBURN/LEWISTON MUNICIPAL	30,100	33,180	36,580	44,460
AUGUSTA	AUGUSTA STATE	27,500	30,320	33,420	40,620
BANGOR	BANGOR INTERNATIONAL	34,831	38,400	42,330	51,450
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	40,000	44,100	48,620	59,090
BELFAST	BELFAST MUNICIPAL	15,000	17,790	19,620	23,850
BETHEL	BETHEL REGIONAL	4,500	4,930	5,220	5,880
BIDDEFORD	BIDDEFORD MUNICIPAL	30,750	34,240	35,370	37,740
CARIBOU	CARIBOU MUNICIPAL	8,250	8,670	9,040	9,680
CARRABASSETT	SUGARLOAF REGIONAL	4,000	4,190	4,290	4,500
DEBLOIS	DEBLOIS FLIGHT STRIP	100	110	120	150
DEXTER	DEXTER REGIONAL	8,500	9,130	9,550	10,450
DOVER-FOXCROFT	CHAS A. CHASE JR. MEMORIAL FIELD	1,000	1,050	1,080	1,150
EASTPORT	EASTPORT MUNICIPAL	3,125	3,300	3,400	3,620
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	5,000	5,000	5,000	5,000
FRYEBURG	EASTERN SLOPES REGIONAL	33,350	36,770	40,530	49,270
GREENVILLE	GREENVILLE MUNICIPAL	13,125	13,790	14,380	15,410
HOULTON	HOULTON INTERNATIONAL	18,125	19,050	19,850	21,280
ISLESBORO	ISLESBORO	2,000	2,370	2,620	3,180
JACKMAN	NEWTON FIELD	5,625	6,250	6,880	7,500
LINCOLN	LINCOLN REGIONAL	19,500	20,950	21,910	23,960
LUBEC	LUBEC MUNICIPAL	500	530	540	580
MACHIAS	MACHIAS VALLEY	4,000	4,220	4,350	4,630
MILLINOCKET	MILLINOCKET MUNICIPAL	8,125	8,730	9,130	9,980
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	44,250	46,500	48,470	51,940
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	16,500	17,730	18,540	20,280
OXFORD	OXFORD COUNTY REGIONAL	6,250	6,840	7,260	8,160
PITTSFIELD	PITTSFIELD MUNICIPAL	23,750	26,880	28,780	33,000
PORTLAND	PORTLAND INTERNATIONAL JETPORT	59,188	65,250	71,940	87,430
PRESQUE ISLE	NORTHERN MAINE REGIONAL	5,600	5,890	6,130	6,570
PRINCETON	PRINCETON MUNICIPAL	4,000	5,250	5,500	6,000
RANGELEY	RANGELEY MUNICIPAL	9,000	9,460	9,860	10,560
ROCKLAND	KNOX COUNTY REGIONAL	48,069	52,990	58,420	71,010
SANFORD	SANFORD REGIONAL	68,945	76,010	83,800	101,850
STONINGTON	STONINGTON MUNICIPAL	4,000	4,820	5,360	6,620
WATERVILLE	WATERVILLE ROBERT LAFLEUR	7,500	8,060	8,430	9,220
WISCASSET	WISCASSET	32,250	33,890	35,330	37,860
TOTAL—ALL MAINE AIRPORTS		**646,433**	**706,640**	**761,650**	**883,930**

SOURCE: WSA

EXHIBIT 4-15
PROJECTIONS OF GENERAL AVIATION OPERATIONS AT ALL MAINE AIRPORTS



SOURCE: WSA

COMMERCIAL SERVICE ACTIVITY PROJECTIONS

Commercial service activity projections were developed for both passenger enplanements and annual airline operations. Calendar year 2000 was used as the base year for these projections, with *FAA Aerospace Forecasts, FY 2001-2012* used as both a reference and a projection tool. For this portion of the analysis, 2000 was selected as the base year because of the atypical behavior of activity in 2001 that resulted from the events of September 11th. Information from the FAA's Terminal Area Forecast (TAF) was also used in this analysis.

Projections of commercial activity were prepared for Maine's commercial service airports. These airports include:

- Augusta State Airport
- Bangor International Airport
- Hancock County-Bar Harbor Airport
- Knox County Regional Airport
- Northern Maine Regional Airport
- Portland International Jetport

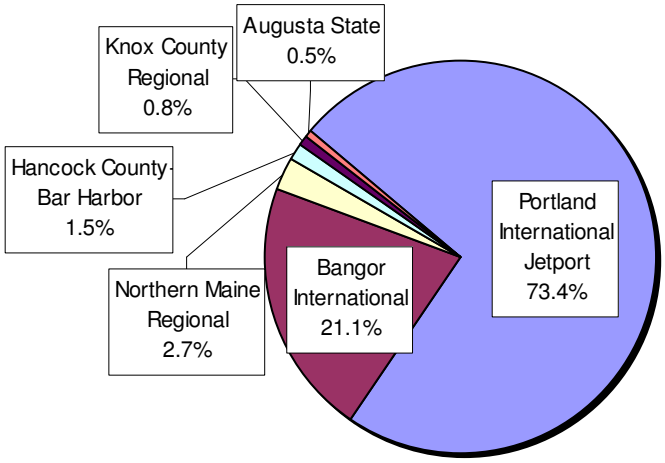
STATEWIDE PASSENGER ENPLANEMENTS

The individual commercial service airports in Maine provided historic enplanement data for this study. Between 1985 and 2000, Maine's total statewide enplanements, increased from 724,000 to 917,000. This represents an average annual rate of growth of 1.5 percent. This average annual rate of growth was below the U.S. average for all

commercial airports for the same period. Nationally, between 1985 and 2000, total U.S. enplanements increased at an average annual rate of approximately 3.9 percent. Based on this knowledge, enplanements at most Maine's commercial service airports are projected to grow at a lesser rate than the national enplanement forecasts.

As shown in **Exhibit 4-16**, Portland accounted for 73 percent of all passengers enplaned at study airports in 2000. Bangor International accounted for an additional 21 percent of the State's enplanements. The four other commercial service airports in Maine accounted for the remainder of all statewide enplanements.

EXHIBIT 4-16
AIRPORT SHARE OF 2000 MAINE ENPLANEMENTS



SOURCE: Airport Management Records

Summaries of the preferred enplanement levels that may be anticipated at each of the study airports over the forecast period are presented in **Tables 4-13 through 4-19**. A number of methodologies were used to project enplanements. Preferred projections were developed mainly using a market share approach which examined each airport's share of total U.S. enplanements between 1985 and 2000 and made assumptions about how the individual airport's market share will either increase, decrease, or remain constant over the forecast period. A growth rate methodology was also used to project enplanements for one market, Knox County. Three growth scenarios (baseline, medium, and high growth) were prepared for Portland International.

Augusta State Airport

As shown in **Table 4-13**, over the 15-year period from 1985 to 2000, Augusta State Airport experienced a decline in its reported passenger enplanements. Total annual enplanements for this airport were reported at 4,361 in 2000. US Airways Express currently serves Augusta State with daily flights to Boston, some of which are via an intermediate stop at Knox County Airport in Rockland. The lack of historic enplanement growth at Augusta can be attributed to a number of factors including the airport's

geographic proximity to larger airports in Maine, namely Bangor and Portland, as well as small equipment type used to serve the airport (Beechcraft 1900) and limited nonstop service options.

Augusta State's market share of total U.S. enplanements decreased steadily between 1985 and 1996, as the market's total annual enplanements fell. The market share remained relatively unchanged between 1996 and 2000. In order to project enplanements at Augusta State, an increasing, decreasing, and constant market share of projected U.S. enplanements were considered. The preferred projection used a decreasing market share approach of U.S. enplanements through the 20-year forecast period. If the market falls slightly from its current market share (0.0006%) of total U.S. enplaned commercial passengers, this airport could expect its total annual enplanements to increase to 5,700 by the end of the twenty year planning period (see Table 4-13).

The projected level of annual enplaned demand at Augusta State is fairly consistent with levels reported in the early 1990s. The most recent TAF prepared for this airport shows total annual enplanements declining to 3,500 by 2015. The constant market share approach is higher than the TAF projection for this airport.

Bangor International Airport

Overall, between 1985 and 2000, enplanements at Bangor increased 2.1 percent per year on average. In 2000, 193,000 passengers enplaned scheduled flights at Bangor International. Enplanements at Bangor International peaked in 1998, with nearly 227,000 boarding passengers. In 2000, Bangor offered area passengers nonstop service on four carriers, namely, Delta Connection, US Airways Express, American Eagle, and Pan American. These carriers provided a combination of turboprop, regional jet, and mainline jet service.

As shown in **Table 4-14**, Bangor International's market share of total U.S. enplanements increased between 1985 and 1992. However, the airport's share of U.S. enplanements has declined since 1992. Three methodologies were tested to in order to develop a preferred enplanement projection for Bangor International. A constant and decreasing market share methodology, based on Bangor's share of national enplanements were analyzed, as was a growth rate approach which was based on the airport's reported historic growth in enplanements.

TABLE 4-13
ENPLANED PASSENGER PROJECTIONS
AT AUGUSTA STATE AIRPORT

YEAR	ENPLANEMENTS		ENPLANEMENTS AS PERCENT OF U.S. TOTAL
	AUGUSTA STATE AIRPORT	ALL U.S. AIRPORTS	
1985	10,490	399,560,366	0.0026%
1986	8,933	431,453,438	0.0021%
1987	10,968	470,290,896	0.0023%
1988	10,875	481,832,808	0.0023%
1989	7,447	481,138,115	0.0015%
1990	9,277	495,399,518	0.0019%
1991	7,105	489,154,786	0.0015%
1992	7,227	510,598,097	0.0014%
1993	5,496	520,038,158	0.0011%
1994	2,548	562,059,193	0.0005%
1995	5,019	582,042,553	0.0009%
1996	3,473	613,637,402	0.0006%
1997	3,190	637,497,675	0.0005%
1998	4,290	649,125,618	0.0007%
1999	3,284	674,139,713	0.0005%
2000	4,361	706,106,262	0.0006%
2001	4,190	682,458,267	0.0006%
AVERAGE ANNUAL GROWTH RATE			
1985-2000	-5.7%	3.9%	
1995-2000	-2.8%	3.9%	
PREFERRED PROJECTION			
2006	4,800	897,417,732	0.0005%
2011	5,200	1,022,142,524	0.0005%
2021	5,700	1,334,184,505	0.0004%
AVERAGE ANNUAL GROWTH RATE			
2000-2006	1.9%	4.9%	
2006-2011	1.6%	2.6%	
2011-2021	0.9%	2.7%	
2000-2021	1.3%	3.2%	

TAF FORECAST			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
2005	3,967	-1.9%	2000-2005
2010	3,733	-1.2%	2005-2010
2015	3,499	-1.3%	2010-2015
2020E	3,280	-1.3%	2015-2020

SOURCES: WSA; Airport Management Records; *FAA Aerospace Forecasts Fiscal Years 2001-2012; Terminal Area Forecasts.*

TABLE 4-14
ENPLANED PASSENGER PROJECTIONS
AT BANGOR INTERNATIONAL AIRPORT

YEAR	ENPLANEMENTS		ENPLANEMENTS AS PERCENT OF U.S. TOTAL
	BANGOR INTERNATIONAL AIRPORT	ALL U.S. AIRPORTS	
1985	141,960	399,560,366	0.0355%
1986	163,958	431,453,438	0.0380%
1987	182,883	470,290,896	0.0389%
1988	182,986	481,832,808	0.0380%
1989	201,854	481,138,115	0.0420%
1990	196,755	495,399,518	0.0397%
1991	212,266	489,154,786	0.0434%
1992	221,274	510,598,097	0.0433%
1993	219,550	520,038,158	0.0422%
1994	223,509	562,059,193	0.0398%
1995	208,659	582,042,553	0.0358%
1996	215,250	613,637,402	0.0351%
1997	224,336	637,497,675	0.0352%
1998	226,983	649,125,618	0.0350%
1999	209,419	674,139,713	0.0311%
2000	193,156	706,106,262	0.0274%
2001	190,369	682,458,267	0.0279%
AVERAGE ANNUAL GROWTH RATE			
1985-2000	2.1%	3.9%	
1990-2000	-0.2%	3.6%	
1995-2000	-1.5%	3.9%	

PREFERRED PROJECTION			
2006	240,100	897,417,732	0.0268%
2011	271,400	1,022,142,524	0.0266%
2021	350,300	1,334,184,505	0.0263%
AVERAGE ANNUAL GROWTH RATE			
2000-2006	4.4%	4.9%	
2006-2011	2.5%	2.6%	
2011-2021	2.6%	2.7%	
2000-2021	3.0%	3.2%	

TAF FORECAST			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
2005	228,156	3.4%	2000-2005
2010	275,386	3.8%	2005-2010
2015	322,631	3.2%	2010-2015
2020E	377,981	3.2%	2015-2020

MASTER PLAN FORECAST (2001)			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
2005	234,800	4.0%	2000-2005
2010	262,500	2.3%	2005-2010
2020E	328,089	2.3%	2005-2011

SOURCES: WSA; Airport Management Records; Airport Master Plan; *FAA Terminal Area Forecasts*

The preferred projection is based on the decreasing market share approach. If the airport has a slight decline in its market share of national enplanements from 2000 levels, it could expect its total annual enplanements to increase to 350,300 by the end of the 20 year planning period. Between 2000 and 2021, enplanements at Bangor International are projected to grow at 3.0 percent per year on average. The preferred forecast is consistent with the forecasts contained in the airport's most recent master plan and the FAA's Terminal Area Forecasts.

Besides scheduled commercial service, Bangor has another type of enplanements that are not common at most airports: international transit passengers. As shown in **Table 4-15**, in 1999, over 160,000 transit passengers cleared U.S. Customs at Bangor International. These passengers often are enplaned on scheduled or chartered jet aircraft flown by European carriers such as Finnair, Monarch, and Caledonian. The most frequently flown route was from the United Kingdom to Bangor International and on to Orlando-Sanford Airport. Although many of the carriers are buying new equipment capable of flying nonstop to Orlando without the technical stop in Bangor, other opportunities are available for increased transit passengers. A technical stop will still be required for charter flights between Europe and Mexico, Central America, and South America, which are becoming increasingly popular with European leisure travelers.

TABLE 4-15
INTERNATIONAL TRANSIT PASSENGER PROJECTION
AT BANGOR INTERNATIONAL AIRPORT

YEAR	INTERNATIONAL TRANSIT PASSENGERS
1985	214,450
1986	142,543
1987	457,057
1988	275,915
1989	694,688
1990	863,835
1991	911,999
1992	835,105
1993	686,718
1994	395,821
1995	211,738
1996	285,288
1997	283,944
1998	209,832
1999	160,293
2000	165,000
PROJECTION	
2006	195,000
2011	210,000
2021	225,000

SOURCES: Airport Management; Bangor International Airport Master Plan

According to the Bangor International Airport's Master Plan completed in 2001, international transit passengers are projected to increase from just over 165,000 in 2000 to approximately 210,000 in 2011 (see Table 4-15). This represents an average annual growth rate of 2.5 percent per year on average. For the systems plan, the growth of transit passengers projected in the Master Plan between 2005 and 2010 has been extrapolated to produce a projection of 225,000 transit passengers for 2021.

Hancock County-Bar Harbor Airport

After showing a steady decline in its share of U.S. enplanements until 1992, Hancock County-Bar Harbor experienced a notable increase over the last eight years (see **Table 4-16**). By 2000, annual enplanements reached nearly 14,000 passengers. Between 1985 and 2000, the growth in enplanements at Hancock County-Bar Harbor averaged 2.8 percent per year. In 2000, US Airways Express offered area passengers a combination of nonstop and one-stop service to Boston on 19-seat Beechcraft 1900 aircraft.

Three methodologies were tested in order to develop a preferred projection of enplanements for Hancock County-Bar Harbor Airport. The methodologies included two market share methodologies: one approach based on a constant market share of total U.S. enplanements and another based on a decreasing share of national enplanements. The preferred projection of enplanements for this airport relied on a third approach, a growth rate methodology. Between 1985 and 2000, enplanements in this market grew at an average annual rate of 2.8 percent. If this rate of average annual growth is applied to the airport's 2000 enplanements, by 2021 the airport could anticipate approximately 24,350 annual enplanements. The results of this methodology can be found in Table 4-16. The most recent TAF for this airport projected enplanements at Hancock County-Bar Harbor increasing to 17,875 in 2015. This FAA projection appears conservative based on the actual growth in enplanements that this airport experienced in recent years.

Knox County Regional Airport

As shown in **Table 4-17**, after decreasing in the late 1980s and early 1990s, total annual enplanements at Knox County Regional have steadily increased since 1992. In 2000, about 7,600 passengers enplaned scheduled flights at Knox County Regional. US Airways Express provided nonstop and one-stop service to Boston in 2000.

Three methodologies were tested in order to develop a preferred projection of enplanements for Knox County Regional. The first methodology tested was a constant market share approach, based on Knox County maintaining its current share of U.S. enplanements throughout the forecast period. The second methodology projected enplanements at the airport based on the airport obtaining an increasing share of national enplanements. The final approach applied a growth rate methodology, based on the airport's actual historic average annual growth rate of 5.3 percent between 1990 and 2000.

TABLE 4-16
ENPLANED PASSENGER PROJECTIONS
AT HANCOCK COUNTY-BAR HARBOR AIRPORT

YEAR	ENPLANEMENTS		ENPLANEMENTS AS PERCENT OF U.S. TOTAL
	HANCOCK COUNTY-BAR HARBOR AIRPORT	ALL U.S. AIRPORTS	
1985	9,240	399,560,366	0.0023%
1986	9,904	431,453,438	0.0023%
1987	9,103	470,290,896	0.0019%
1988	8,004	481,832,808	0.0017%
1989	5,745	481,138,115	0.0012%
1990	6,151	495,399,518	0.0012%
1991	4,965	489,154,786	0.0010%
1992	4,233	510,598,097	0.0008%
1993	4,821	520,038,158	0.0009%
1994	5,231	562,059,193	0.0009%
1995	6,562	582,042,553	0.0011%
1996	7,580	613,637,402	0.0012%
1997	8,417	637,497,675	0.0013%
1998	9,672	649,125,618	0.0015%
1999	10,207	674,139,713	0.0015%
2000	13,996	706,106,262	0.0020%
2001	11,906	682,458,267	0.0017%
AVERAGE ANNUAL GROWTH RATE			
1985-2000	2.8%	3.9%	
1995-2000	16.4%	3.9%	

PREFERRED PROJECTION		
2006	16,100	
2011	18,500	
2021	24,300	
AVERAGE ANNUAL GROWTH RATE		
2000-2006	2.8%	
2006-2011	2.8%	
2011-2021	2.8%	
2000-2021	2.8%	

TAF FORECAST			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
2005	14,813	1.1%	2000-2005
2010	16,344	1.6%	2005-2010
2015	17,875	1.6%	2010-2015
2020E	19,394	1.6%	2015-2020

SOURCES: WSA; Airport Management Records; *FAA Aerospace Forecasts Fiscal Years 2001-2012; FAA Terminal Area Forecasts.*

TABLE 4-17
ENPLANED PASSENGER PROJECTIONS
AT KNOX COUNTY REGIONAL AIRPORT

YEAR	ENPLANEMENTS		ENPLANEMENTS AS PERCENT OF U.S. TOTAL
	KNOX COUNTY REGIONAL AIRPORT	ALL U.S. AIRPORTS	
1985	6,921	399,560,366	0.0017%
1986	6,490	431,453,438	0.0015%
1987	5,075	470,290,896	0.0011%
1988	4,562	481,832,808	0.0009%
1989	2,366	481,138,115	0.0005%
1990	3,494	495,399,518	0.0007%
1991	3,185	489,154,786	0.0007%
1992	2,380	510,598,097	0.0005%
1993	2,955	520,038,158	0.0006%
1994	3,805	562,059,193	0.0007%
1995	5,270	582,042,553	0.0009%
1996	4,266	613,637,402	0.0007%
1997	5,603	637,497,675	0.0009%
1998	6,143	649,125,618	0.0009%
1999	6,752	674,139,713	0.0010%
2000	7,599	706,106,262	0.0011%
2001	6,944	682,458,267	0.0010%
AVERAGE ANNUAL GROWTH RATE			
1985-2000	0.6%	3.9%	
1990-2000	5.3%	3.6%	
1995-2000	7.6%	3.9%	
PREFERRED PROJECTION			
2006	9,600	897,417,732	0.0011%
2011	11,000	1,022,142,524	0.0011%
2021	14,400	1,334,184,505	0.0011%
AVERAGE ANNUAL GROWTH RATE			
2000-2006	4.8%	4.9%	
2006-2011	2.8%	2.6%	
2011-2021	2.7%	2.7%	
2000-2021	3.2%	3.2%	

TAF FORECAST			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
2005	7,535	-0.2%	2000-2005
2010	7,564	0.1%	2005-2010
2015	7,593	0.1%	2010-2015
2020E	7,716	0.1%	2015-2020

MASTER PLAN FORECAST (1997-includes air taxi)			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
1997	15,192		
2002	21,300	7.0%	1997-2002
2007	28,500	6.0%	2002-2007
2017	46,400	5.0%	2007-2017

SOURCES: WSA; Airport Management Records; Airport Master Plan;
FAA Aerospace Forecasts Fiscal Years 2001-2012; FAA Terminal Area Forecasts

The preferred projection applied the constant market share methodology. If the airport is able to maintain its 2000 market share of total U.S. enplaned commercial passengers (0.0011 percent), this airport could expect its total annual enplanements to increase to 14,358 by the end of the planning period. The most recent TAF prepared for this airport shows total annual enplanements increasing to 7,593 by 2015. The most recent TAF has an implied average annual rate of growth for enplanements at Knox County Regional of 0.1 percent. Over the last 10 years, annual enplanements in this market have grown at an average annual rate of 5.3 percent. Given this airport's historic growth in annual enplanements, the preferred projection of enplanements shown in Table 4-17 appears reasonable, even though it is more aggressive than the most recent TAF for this airport.

In addition to the passengers enplaned on scheduled commercial flights operated by U.S. Airway Express, Knox County Regional Airport also enplaned 9,700 passengers on air taxi flights. Telford Aviation, the fixed base operator at the Airport in 2001, flew many passengers between the Rockland area and the outlying islands. Telford Aviation estimates strong growth in passengers throughout the systems plan's 20-year forecast period in conjunction with strong tourism-related growth. The Master Plan completed for Knox County Regional Airport in 1998, projects long term enplanements to increase at 5.0 percent per year on average. For the Systems Plan, this growth rate has been applied to air taxi enplanements at the airport. As shown in **Table 4-18**, air taxi enplanements a projected to reach 25,700 by 2021.

TABLE 4-18
AIR TAXI ENPLANEMENT PROJECTION
AT KNOX COUNTY REGIONAL AIRPORT

YEAR	AIR TAXI ENPLANEMENTS
1997	2,900
2001	9,700
PROJECTION	
2006	12,400
2011	15,800
2021	25,700

SOURCES: Telford Aviation; WSA

Northern Maine Regional Airport

As shown in **Table 4-19**, annual enplaned passengers at Northern Maine Regional Airport peaked in the late 1980s and early 1990s. In 2000, 25,100 passengers enplaned scheduled flights at the airport. The airport's market share of total U.S. enplanements fell steadily between 1985 and 2000. American Eagle and US Airways Express provided nonstop service to Boston on turboprop aircraft in 2000.

TABLE 4-19
ENPLANED PASSENGER PROJECTIONS
AT NORTHERN MAINE REGIONAL AIRPORT

YEAR	ENPLANEMENTS		ENPLANEMENTS AS PERCENT OF U.S. TOTAL
	NORTHERN MAINE REGIONAL AIRPORT	ALL U.S. AIRPORTS	
1985	28,376	399,560,366	0.0071%
1986	29,883	431,453,438	0.0069%
1987	34,881	470,290,896	0.0074%
1988	35,439	481,832,808	0.0074%
1989	34,731	481,138,115	0.0072%
1990	35,250	495,399,518	0.0071%
1991	35,703	489,154,786	0.0073%
1992	30,084	510,598,097	0.0059%
1993	28,174	520,038,158	0.0054%
1994	26,807	562,059,193	0.0048%
1995	25,999	582,042,553	0.0045%
1996	25,152	613,637,402	0.0041%
1997	24,380	637,497,675	0.0038%
1998	24,401	649,125,618	0.0038%
1999	28,911	674,139,713	0.0043%
2000	25,095	706,106,262	0.0036%
2001	17,556	682,458,267	0.0026%
AVERAGE ANNUAL GROWTH RATE			
1985-2000	-0.8%	3.9%	
1990-2000	-2.2%	3.6%	
1995-2000	-0.7%	3.9%	
PREFERRED PROJECTION			
2006	28,500	897,417,732	0.0032%
2011	30,500	1,022,142,524	0.0030%
2021	36,300	1,334,184,505	0.0027%
AVERAGE ANNUAL GROWTH RATE			
2000-2006	2.6%	4.9%	
2006-2011	1.4%	2.6%	
2011-2021	1.8%	2.7%	
2000-2021	1.9%	3.5%	

TAF FORECAST			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
2005	26,891	1.4%	2000-2005
2010	27,514	0.5%	2005-2010
2015	28,137	0.4%	2010-2015
2020E	28,774	0.4%	2015-2020

MASTER PLAN FORECAST (1997-Base Case Forecast-HNTB)			
	PROJECTED ENPLANEMENTS	AVG. ANNUAL GROWTH RATE	
2000	28,200	5.0%	1997-2000
2005	33,600	3.6%	2000-2005
2010	39,300	3.2%	2005-2010
2020	51,500	2.7%	2010-2020

SOURCES: WSA; Airport Management Records; *Airport Master Plan; FAA Aerospace Forecasts Fiscal Years 2001-2012; FAA Terminal Area Forecasts.*

The preferred projection of enplanements at Northern Maine Regional was chosen after three methodologies were tested. The three methodologies were each based on a market share approach. The methodologies included a constant decreasing and increasing market share of national enplanements.

Based on historic enplanements trends, a decreasing market share approach was chosen as the preferred methodology to project this airport's future enplanements. By applying this methodology, the airport's enplanements are expected to increase at 2.0 percent per year on average over the planning period, reaching 37,616 annual enplanements in 2021. The preferred projection is presented in Table 4-19. The preferred growth in enplanements is higher than the growth projected for this airport in the TAF. It is worth noting that the enplanements for this airport projected by the SASP are similar to those recorded by the airport between 1987 and 1991. The FAA TAF for Northern Maine Regional projects enplanements to increase at an average annual growth rate of 0.4 percent between 2000 and 2015. The master plan prepared for Northern Maine Regional is more aggressive than the SASP forecast, projecting over 51,000 annual enplanements by 2020.

Portland International Jetport

Portland International Jetport, the largest airport in the State, recorded an increasing trend in enplaned passengers since 1985. In 2000, 673,000 passengers enplaned scheduled flights at the airport. Seven scheduled carriers provided nonstop service at Portland International Jetport using a combination of jet, regional jet, and turboprop aircraft. Portland International had nonstop service to 13 destinations, including 8 hub airports: Atlanta, Chicago, Cincinnati, Cleveland, Detroit, Newark, Philadelphia, Pittsburgh, and Washington-Dulles. Despite increasing enplanements, the airport's share of total U.S. enplanements declined over the last 15 years (see **Table 4-20**).

Three forecast scenarios were developed for Portland International. A baseline forecast was developed, along with two scenarios that took into consideration the possibility of the entrance of a low fare carrier. Due to its historic decline in U.S. market share, the preferred baseline enplanements projection for the airport uses a decreasing market share approach. Using this approach, enplanements at Portland International are projected to reach 1.18 million by 2021; an average annual growth rate of 2.8 percent between 2000 and 2021. Between 1995 and 2000, total annual enplanements at the airport increased at an average annual rate of 3.7 percent. Even using this decreasing market share approach, the resultant growth in enplanements is slightly higher than the most recent TAF projection. The FAA projects 949,000 enplanements by 2015.

TABLE 4-20
ENPLANED PASSENGER PROJECTIONS
AT PORTLAND INTERNATIONAL JETPORT REGIONAL AIRPORT

YEAR	ENPLANEMENTS		ENPLANEMENTS AS PERCENT OF U.S. TOTAL
	PORTLAND INTERNATIONAL JETPORT	ALL U.S. AIRPORTS	
1985	525,489	399,560,366	0.132%
1986	602,933	431,453,438	0.140%
1987	604,628	470,290,896	0.129%
1988	619,934	481,832,808	0.129%
1989	604,066	481,138,115	0.126%
1990	565,180	495,399,518	0.114%
1991	555,488	489,154,786	0.114%
1992	607,157	510,598,097	0.119%
1993	595,648	520,038,158	0.115%
1994	573,389	562,059,193	0.102%
1995	561,760	582,042,553	0.097%
1996	570,395	613,637,402	0.093%
1997	610,545	637,497,675	0.096%
1998	653,193	649,125,618	0.101%
1999	681,122	674,139,713	0.101%
2000	673,153	706,106,262	0.095%
2001	622,312	682,458,267	0.091%
AVERAGE ANNUAL GROWTH RATE			
1985-2000	1.7%	3.9%	
1990-2000	1.2%	3.6%	
1995-2000	3.7%	3.9%	
BASELINE SCENARIO: DECREASING MARKET SHARE			
2006	831,700	897,417,732	0.093%
2011	931,700	1,022,142,524	0.091%
2021	1,180,600	1,334,184,505	0.088%
AVERAGE ANNUAL GROWTH RATE			
2000-2006	4.3%	4.9%	
2006-2011	2.3%	2.6%	
2011-2021	2.4%	2.7%	
2000-2021	2.8%	3.2%	
LOW FARE CARRIER MODERATE GROWTH SCENARIO			
2006	940,800	897,417,732	0.105%
2011	1,111,800	1,022,142,524	0.109%
2021	1,508,000	1,334,184,505	0.113%
AVERAGE ANNUAL GROWTH RATE			
2000-2006	6.9%	4.9%	
2006-2011	3.4%	2.6%	
2011-2021	3.1%	2.7%	
2000-2021	4.1%	3.2%	
LOW FARE CARRIER HIGH GROWTH SCENARIO			
2006	1,104,600	897,417,732	0.123%
2011	1,409,800	1,022,142,524	0.138%
2021	1,988,600	1,334,184,505	0.149%
AVERAGE ANNUAL GROWTH RATE			
2000-2006	10.4%	4.9%	
2006-2011	5.0%	2.6%	
2011-2021	3.5%	2.7%	
2000-2021	5.6%	3.2%	

SOURCES: WSA; Airport Management Records; *FAA Terminal Area Forecasts*

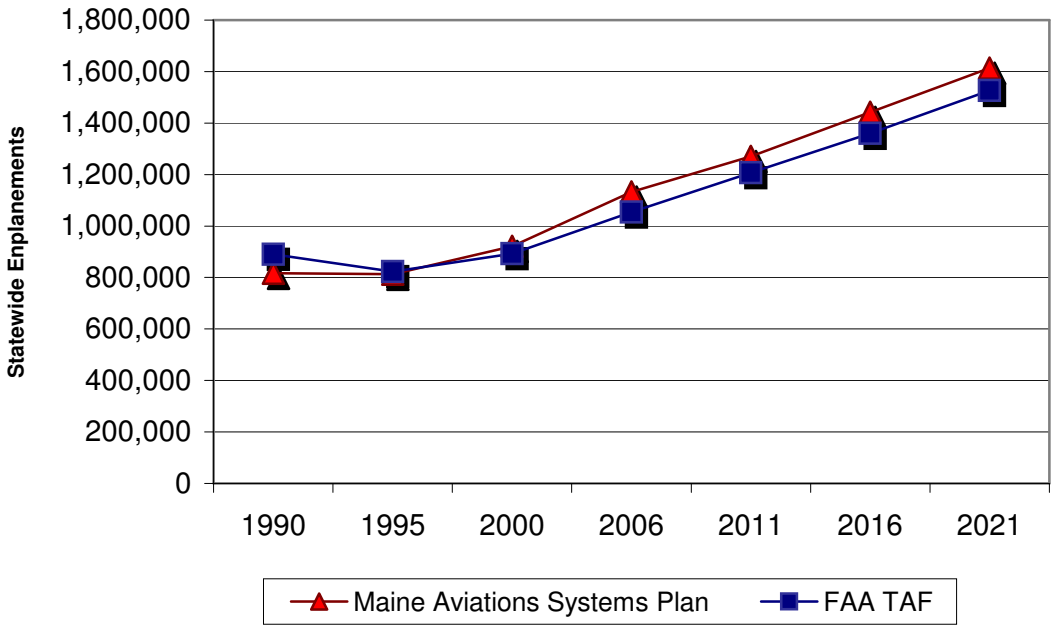
The second scenario is dependent on the entrance of a low fare carrier, providing two to three jet flights a day by 2006. Under this scenario, enplanements could reach 1.51 million passengers annually by 2021. This represents an average annual growth rate of 4.1 percent over the forecast period. The third scenario, the high growth scenario assumes the entrance of low fare carrier, providing six to seven jet flights per day by 2006. Enplanements could reach 1.99 million by 2021 under this scenario, up 5.6 percent per year on average.

Table 4-20 presents the projections of enplanements at Portland International Jetport based on results of the three forecast scenarios. The baseline projection, which projects that annual enplanements will reach approximately 1.2 million by the end of the forecast period, was selected for use in the Systems Plan Update. The results of the other two scenarios will however be considered in subsequent portions of the Maine Aviation Systems Plan Update as the system's ability to serve future demand is reviewed.

Statewide Enplanements

Statewide enplanements at all commercial service airports in Maine are projected to reach 1,613,600 by 2021. Total enplanements are projected to grow 2.7 percent per year on average over the forecast period. This rate is considered to be in line with national projections of enplanement activity. **Exhibit 4-17** presents a comparison of the Systems Plan projection and the FAA's Terminal Area Forecast projection. The FAA's most recent projection forecasts enplanements through 2015. The TAF enplanements for 2016 through 2021 have been extrapolated for comparison. The FAA projects Maine enplanements to grow at 2.6 percent per year on average between 2000 and 2021. The MASPU projects a statewide average annual rate of growth for commercial enplanements of 2.7 percent.

EXHIBIT 4-17
COMPARISON OF STATEWIDE ENPLANEMENTS PROJECTIONS



SOURCE: WSA; *FAA Terminal Area Forecasts*

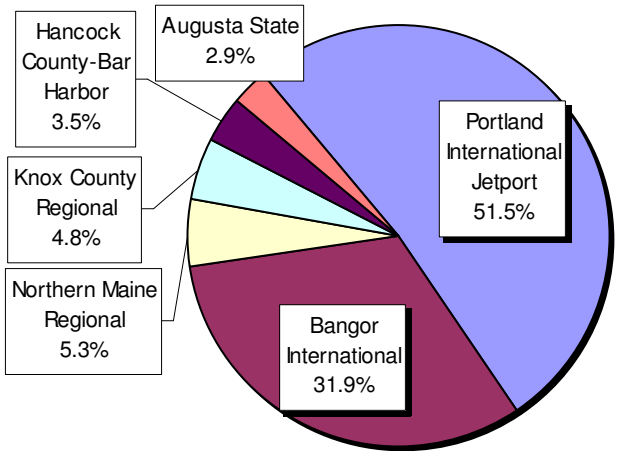
COMMERCIAL SERVICE OPERATIONS

Commercial service operations for all system airports peaked in 1989, reaching over 105,000 operations annually. In 2000, just over 87,000 scheduled commercial service operations departed and landed at airports in Maine. In 2001, commercial service operations dropped to 76,450 annual scheduled operations. This decline is due largely to the events of September 11, 2001. Because of this anomaly in 2001, 2000 is used as the base year from which commercial service operations projections were made.

As shown in **Exhibit 4-18**, nearly 52 percent of statewide commercial service operations took place at Portland International in 2000. An additional 32 percent of the operations occurred at Bangor International.

Two methodologies were used to project commercial service operations at airports in Maine. The first methodology used a market share approach, while the second methodology used variations of the projected growth rates published in airport specific master plans and the FAA's Terminal Area Forecasts. These methodologies are discussed below.

EXHIBIT 4-18
AIRPORT SHARE OF 2000 MAINE COMMERCIAL SERVICE OPERATIONS



SOURCE*: Official Airline Guide*

Market Share Methodology

Table 4-21 presents projected commercial service operations for Maine using the top down, market share methodology. As shown, between 1985 and 2000, commercial service operations at all Maine airports grew 0.8 percent per year on average. This growth rate was used to project commercial service operations at all Maine airports for 2006, 2011, and 2021. Individual airport forecasts of operations were then based on each airport's 2000 share of statewide total commercial service operations. Using this approach, nearly 103,000 commercial service operations are projected to occur at all Maine airports by 2021, up from 87,000 annual operations in 2000.

TABLE 4-21
COMMERICAL SERVICE OPERATIONS PROJECTIONS
MARKET SHARE METHODOLOGY

CITY NAME	FACILITY NAME	2000	MARKET SHARE	AAG 1985-2000	PROJECTION 2006	2011	2021
AUGUSTA	AUGUSTA STATE	2,542	2.9%	-8.3%	2,647	2,757	2,989
BANGOR	BANGOR INTERNATIONAL	27,888	31.9%	4.1%	29,041	30,243	32,796
TRENTON	HANCOCK COUNTY-BAR HARBOR	3,020	3.5%	-1.6%	3,145	3,275	3,552
ROCKLAND	KNOX COUNTY REGIONAL	4,204	4.8%	7.2%	4,378	4,559	4,944
PRESQUE ISLE	NORTHERN MAINE REGIONAL	4,648	5.3%	-2.8%	4,840	5,040	5,466
PORTLAND	PORTLAND INTERNATIONAL JETPORT	44,992	51.5%	1.0%	46,853	48,791	52,910
TOTAL-COMMERCIAL SERVICE OPERATIONS		**87,294**	**100.0%**	**0.8%**	**90,905**	**94,665**	**102,658**

SOURCE: WSA
NOTE: AAG=Average Annual Growth Rate

Growth Rate Methodology Based on Projected Master Plan Growth

The second approach applied a bottom up, growth rate methodology for each of the system airports. Three of the six commercial service airports in Maine (Bangor International, Northern Maine International, and Knox County Regional) have completed master plan forecasts in the last five years. When all projections are averaged, the projected average annual growth rate for commercial service operations is 1.1 percent. This is the same average annual growth rate projected for commercial service operations (including air taxi) at Maine airports implied in the FAA's most recent Terminal Area Forecast.

Variations of this growth rate were used to project each airport's commercial service operations for 2006, 2011, and 2021. If an airport experienced declining historic operations, half of the growth rate was applied (0.6 percent). If an airport experienced little or no growth, 1.1 percent was applied to the 2000 operations level. If an airport historically witnessed growth in operations, one and a half times the average growth rate (1.7 percent) was applied. The resultant average annual growth rate for all Maine's commercial service airports combined, using this methodology, is 1.6 percent.

Table 4-22 presents the results of this commercial service operations projection methodology. As shown, statewide operations are projected to increase from approximately 87,000 in 2000 to just under 120,000 in 2021. This represents an average annual growth rate of 1.6 percent.

TABLE 4-22
PROJECTIONS OF COMMERCIAL SERVICE OPERATIONS
GROWTH RATE METHODOLOGY (PREFERRED PROJECTION)

			AAG	PROJECTION			AAG
CITY NAME	FACILITY NAME	2000	1985-2000	2006	2011	2021	2000-2021
AUGUSTA	AUGUSTA STATE	2,542	-8.3%	2,620	2,700	2,870	0.6%
BANGOR	BANGOR INTERNATIONAL	27,888	4.1%	30,340	33,010	39,070	1.7%
TRENTON	HANCOCK COUNTY-BAR HARBOR	3,020	-1.6%	3,200	3,380	3,780	1.1%
ROCKLAND	KNOX COUNTY REGIONAL	4,204	7.2%	4,570	4,980	5,890	1.7%
PRESQUE ISLE	NORTHERN MAINE REGIONAL	4,648	-2.8%	4,790	4,940	5,240	0.6%
PORTLAND	PORTLAND INTERNATIONAL JETPORT	44,992	1.0%	48,950	53,250	63,030	1.7%
TOTAL-COMMERCIAL SERVICE OPERATIONS		**87,294**	**0.8%**	**94,470**	**102,250**	**119,880**	**1.6%**

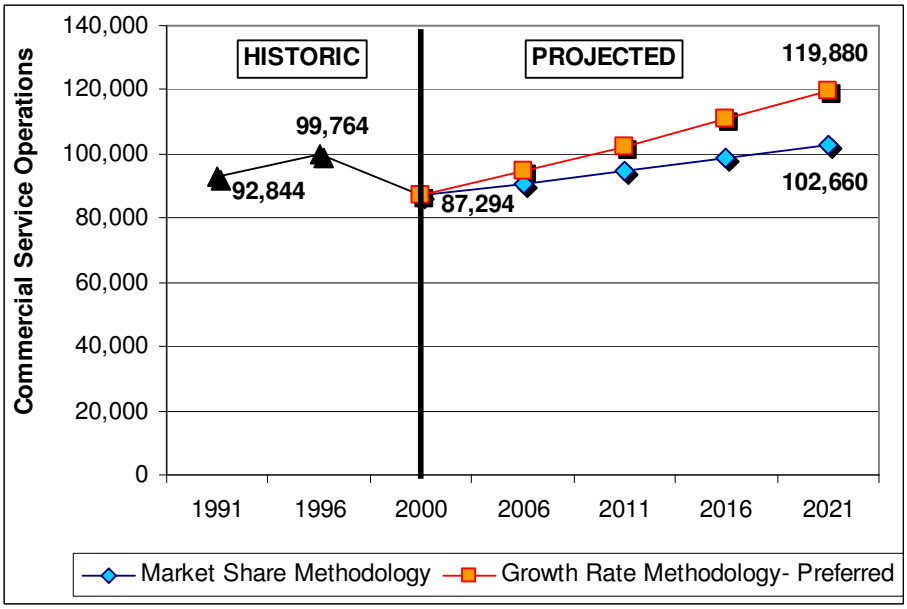
SOURCES: *Official Airline Guide*; WSA
NOTE: AAG=Average Annual Growth Rate

Preferred Projection of Commercial Service Operations

The results from the two commercial service operations forecasts developed in the Systems Plan were compared for each commercial service airport in Maine. The market share methodology produced a 2021 projection of 103,000 annual commercial service operations, up from 87,000 in 2000. The growth rate methodology produced a 2021 projection of 120,000 commercial service operations, up 1.6 percent per year on average over the forecast period. The results of the two methodologies are depicted in **Exhibit 4-19**. Based on the actual growth in commercial airline operations that has been reported

by Maine's commercial service airports, the bottom up, growth rate methodology was selected as the preferred projection methodology to develop a forecast of commercial service operations. (Table 4-22.)

EXHIBIT 4-19
COMMERCIAL SERVICE OPERATIONS PROJECTIONS



SOURCE: WSA

Portland International Jetport Projections of Commercial Service Operations

The baseline scenario presented above for Portland International Jetport produced a 2021 projection of approximately 63,000 annual commercial service operations, up from 45,000 in 2000. In addition to the baseline scenario, two other scenarios were examined for Portland International Jetport, based on the entrance of a low fare carrier. A medium growth scenario and high growth low fare carrier scenario were developed.

Under the medium growth scenario, if a low fare carrier began providing limited scheduled nonstop service to Portland International by 2006, it is projected that commercial service operations would reach over 73,000 by 2021. Under the high growth scenario, a low fare carrier would provide more daily flights at Portland International. Nearly 86,000 annual commercial service operations are projected by 2021 under this scenario. A comparison of the result of the three growth scenarios for the Portland International can be found in **Table 4-23**. The Systems Plan Update will consider the potential operational capacity implications of each of these projections.

TABLE 4-23
COMMERCIAL SERVICE OPERATIONS PROJECTIONS
PORTLAND INTERNATIONAL JETPORT

Year	BASELINE SCENARIO	MODERATE GROWTH SCENARIO	HIGH GROWTH SCENARIO
2000	44,992	44,992	44,992
2006	48,950	54,629	60,767
2011	53,250	60,611	69,594
2021	63,030	73,163	86,513
AVERAGE ANNUAL GROWTH RATE			
2000-2006	1.7%	4.0%	6.2%
2006-2011	1.7%	2.1%	2.8%
2011-2021	1.7%	1.9%	2.2%
2000-2021	1.7%	2.5%	3.3%

SOURCES: Airport Management Records, WSA

MILITARY ACTIVITY PROJECTIONS

Table 4-24 presents projected military activity for the airports in Maine. In 2001, military operations occurred at 15 public use airports in Maine. Military activity varies with the political climate and variation in government funding of the military. It is projected that the 2001 level of military operations will remain constant throughout the planning period at each airport.

SUMMARY

Table 4-25 presents a summary of the forecasts for each airport in Maine over the planning period. These projections will be used in the next step of the Systems Plan Update to determine the ability of public airports in the Maine System to meet current and future demand.

TABLE 4-24
PROJECTED ANNUAL MILITARY OPERATIONS

		HISTORIC	PROJECTIONS		
CITY NAME	**FACILITY NAME**	**2001**	**2006**	**2011**	**2021**
AUBURN	AUBURN/LEWISTON MUNICIPAL	50	50	50	50
AUGUSTA	AUGUSTA STATE	3,000	3,000	3,000	3,000
BANGOR	BANGOR INTERNATIONAL	26,500	26,500	26,500	26,500
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	400	400	400	400
BELFAST	BELFAST MUNICIPAL	0	0	0	0
BETHEL	COLONEL DYKE FIELD	0	0	0	0
BIDDEFORD	BIDDEFORD MUNICIPAL	0	0	0	0
CARIBOU	CARIBOU MUNICIPAL	150	150	150	150
CARRABASSETT	SUGARLOAF REGIONAL	0	0	0	0
DEBLOIS	DEBLOIS FLIGHT STRIP	0	0	0	0
DEXTER	DEXTER REGIONAL	0	0	0	0
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	0	0	0	0
EASTPORT	EASTPORT MUNICIPAL	0	0	0	0
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	200	200	200	200
FRYEBURG	EASTERN SLOPES REGIONAL	20	20	20	20
GREENVILLE	GREENVILLE MUNICIPAL	0	0	0	0
HOULTON	HOULTON INTERNATIONAL	700	700	700	700
ISLESBORO	ISLESBORO	0	0	0	0
JACKMAN	NEWTON FIELD	0	0	0	0
LINCOLN	LINCOLN REGIONAL	0	0	0	0
LUBEC	LUBEC MUNICIPAL	0	0	0	0
MACHIAS	MACHIAS VALLEY	0	0	0	0
MILLINOCKET	MILLINOCKET MUNICIPAL	1,000	1,000	1,000	1,000
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	150	150	150	150
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	900	900	900	900
OXFORD	OXFORD COUNTY REGIONAL	0	0	0	0
PITTSFIELD	PITTSFIELD MUNICIPAL	0	0	0	0
PORTLAND	PORTLAND INTERNATIONAL JETPORT	125	125	125	125
PRESQUE ISLE	NORTHERN MAINE REGIONAL	100	100	100	100
PRINCETON	PRINCETON MUNICIPAL	0	0	0	0
RANGELEY	RANGELEY MUNICIPAL	0	0	0	0
ROCKLAND	KNOX COUNTY REGIONAL	125	125	125	125
SANFORD	SANFORD REGIONAL	0	0	0	0
STONINGTON	STONINGTON MUNICIPAL	0	0	0	0
WATERVILLE	WATERVILLE ROBERT LAFLEUR	10,000	10,000	10,000	10,000
WISCASSET	WISCASSET	0	0	0	0
TOTAL— GENERAL AVIATION OPERATIONS		**43,420**	**43,420**	**43,420**	**43,420**

SOURCE: Airport Management Records; WSA

TABLE 4-25
PREFERRED PROJECTIONS OF AVIATION DEMAND

CITY NAME	FACILITY NAME		BASED AIRCRAFT	GA OPERATIONS	COMMERCIAL OPERATIONS	MILITARY OPERATIONS	TOTAL OPERATIONS
AUBURN	AUBURN/LEWISTON MUNICIPAL						
		2001	71	30,100	0	50	30,150
		2006	75	33,180	0	50	33,230
		2011	78	36,580	0	50	36,630
		2021	83	44,460	0	50	44,510
AUGUSTA	AUGUSTA STATE						
		2001	46	27,500	2,542	3,000	33,042
		2006	48	30,320	2,620	3,000	35,940
		2011	50	33,420	2,700	3,000	39,120
		2021	54	40,620	2,870	3,000	46,490
BANGOR	BANGOR INTERNATIONAL						
		2001	67	34,831	27,888	26,500	89,219
		2006	72	38,400	30,340	26,500	95,240
		2011	75	42,330	33,010	26,500	101,840
		2021	82	51,450	39,070	26,500	117,020
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR						
		2001	44	40,000	3,828	400	44,228
		2006	46	44,100	3,190	400	47,690
		2011	48	48,620	3,380	400	52,400
		2021	52	59,090	3,780	400	63,270
BELFAST	BELFAST MUNICIPAL						
		2001	24	15,000	0	0	15,000
		2006	28	17,790	0	0	17,790
		2011	31	19,620	0	0	19,620
		2021	38	23,850	0	0	23,850
BETHEL	BETHEL REGIONAL						
		2001	9	4,500	0	0	4,500
		2006	10	4,930	0	0	4,930
		2011	10	5,220	0	0	5,220
		2021	12	5,880	0	0	5,880
BIDDEFORD	BIDDEFORD MUNICIPAL						
		2001	41	30,750	0	0	30,750
		2006	46	34,240	0	0	34,240
		2011	47	35,370	0	0	35,370
		2021	50	37,740	0	0	37,740
CARIBOU	CARIBOU MUNICIPAL						
		2001	11	8,250	0	150	8,400
		2006	12	8,670	0	150	8,820
		2011	12	9,040	0	150	9,190
		2021	13	9,680	0	150	9,830
CARRABASSETT	SUGARLOAF REGIONAL						
		2001	8	4,000	0	0	4,000
		2006	8	4,190	0	0	4,190
		2011	9	4,290	0	0	4,290
		2021	9	4,500	0	0	4,500

TABLE 4-25
PREFERRED PROJECTIONS OF AVIATION DEMAND (CONTINUED)

CITY NAME	FACILITY NAME		BASED AIRCRAFT	GA OPERATIONS	COMMERCIAL OPERATIONS	MILITARY OPERATIONS	TOTAL OPERATIONS
DEBLOIS	DEBLOIS FLIGHT STRIP						
		2001	1	100	0	0	100
		2006	1	110	0	0	110
		2011	1	120	0	0	120
		2021	1	150	0	0	150

TABLE 4-25
PREFERRED PROJECTIONS OF AVIATION DEMAND

DEXTER	DEXTER REGIONAL						
		2001	17	8,500	0	0	8,500
		2006	18	9,130	0	0	9,130
		2011	19	9,550	0	0	9,550
		2021	21	10,450	0	0	10,450
DOVER-FOXCROFT	CHAS. A. CHASE JR. MEMORIAL FIELD						
		2001	2	1,000	0	0	1,000
		2006	2	1,050	0	0	1,050
		2011	2	1,080	0	0	1,080
		2021	2	1,150	0	0	1,150
EASTPORT	EASTPORT MUNICIPAL						
		2001	5	3,125	0	0	3,125
		2006	5	3,300	0	0	3,300
		2011	5	3,400	0	0	3,400
		2021	6	3,620	0	0	3,620
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL						
		2001	8	5,000	0	200	5,200
		2006	8	5,000	0	200	5,200
		2011	8	5,000	0	200	5,200
		2021	8	5,000	0	200	5,200
FRYEBURG	EASTERN SLOPES REGIONAL						
		2001	27	33,350	0	20	33,370
		2006	30	36,770	0	20	36,790
		2011	31	40,530	0	20	40,550
		2021	35	49,270	0	20	49,290
GREENVILLE	GREENVILLE MUNICIPAL						
		2001	21	13,125	0	0	13,125
		2006	22	13,790	0	0	13,790
		2011	23	14,380	0	0	14,380
		2021	25	15,410	0	0	15,410
HOULTON	HOULTON INTERNATIONAL						
		2001	29	18,125	0	700	18,825
		2006	30	19,050	0	700	19,750
		2011	32	19,850	0	700	20,550
		2021	34	21,280	0	700	21,980
ISLESBORO	ISLESBORO						
		2001	4	2,000	0	0	2,000
		2006	5	2,370	0	0	2,370
		2011	5	2,620	0	0	2,620
		2021	6	3,180	0	0	3,180

TABLE 4-25
PREFERRED PROJECTIONS OF AVIATION DEMAND (CONTINUED)

CITY NAME	FACILITY NAME		BASED AIRCRAFT	GA OPERATIONS	COMMERCIAL OPERATIONS	MILITARY OPERATIONS	TOTAL OPERATIONS
JACKMAN	NEWTON FIELD						
		2001	9	5,625	0	0	5,625
		2006	10	6,250	0	0	6,250
		2011	11	6,880	0	0	6,880
		2021	12	7,500	0	0	7,500
LINCOLN	LINCOLN REGIONAL						
		2001	26	19,500	0	0	19,500
		2006	28	20,950	0	0	20,950
		2011	29	21,910	0	0	21,910
		2021	32	23,960	0	0	23,960
LUBEC	LUBEC MUNICIPAL						
		2001	1	500	0	0	500
		2006	1	530	0	0	530
		2011	1	540	0	0	540
		2021	1	580	0	0	580
MACHIAS	MACHIAS VALLEY						
		2001	8	4,000	0	0	4,000
		2006	8	4,220	0	0	4,220
		2011	9	4,350	0	0	4,350
		2021	9	4,630	0	0	4,630
MILLINOCKET	MILLINOCKET MUNICIPAL						
		2001	13	8,125	0	1,000	9,125
		2006	14	8,730	0	1,000	9,730
		2011	15	9,130	0	1,000	10,130
		2021	16	9,980	0	1,000	10,980
NORRIDGEWOCK	CENTRAL MAINE REGIONAL						
		2001	59	44,250	0	150	44,400
		2006	62	46,500	0	150	46,650
		2011	65	48,470	0	150	48,620
		2021	69	51,940	0	150	52,090
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL						
		2001	22	16,500	0	900	17,400
		2006	24	17,730	0	900	18,630
		2011	25	18,540	0	900	19,440
		2021	27	20,280	0	900	21,180
OXFORD	OXFORD COUNTY REGIONAL						
		2001	10	6,250	0	0	6,250
		2006	11	6,840	0	0	6,840
		2011	12	7,260	0	0	7,260
		2021	13	8,160	0	0	8,160
PITTSFIELD	PITTSFIELD MUNICIPAL						
		2001	38	23,750	0	0	23,750
		2006	43	26,880	0	0	26,880
		2011	46	28,780	0	0	28,780
		2021	53	33,000	0	0	33,000
PORTLAND	PORTLAND INTERNATIONAL JETPORT						
		2001	56	59,188	44,992	125	104,305
		2006	67	65,250	48,950	125	114,325
		2011	72	71,940	53,250	125	125,315
		2021	85	87,430	63,030	125	150,585

TABLE 4-25
PREFERRED PROJECTIONS OF AVIATION DEMAND (CONTINUED)

CITY NAME	FACILITY NAME		BASED AIRCRAFT	GA OPERATIONS	COMMERCIAL OPERATIONS	MILITARY OPERATIONS	TOTAL OPERATIONS
PRESQUE ISLE	NORTHERN MAINE REGIONAL						
		2001	23	5,600	4,648	100	10,348
		2006	24	5,890	4,790	100	10,780
		2011	25	6,130	4,930	100	11,160
		2021	27	6,570	5,240	100	11,910
PRINCETON	PRINCETON MUNICIPAL						
		2001	8	4,000	0	0	4,000
		2006	11	5,250	0	0	5,250
		2011	11	5,500	0	0	5,500
		2021	12	6,000	0	0	6,000
RANGELEY	RANGELEY MUNICIPAL						
		2001	12	9,000	0	0	9,000
		2006	13	9,460	0	0	9,460
		2011	13	9,860	0	0	9,860
		2021	14	10,560	0	0	10,560
ROCKLAND	KNOX COUNTY REGIONAL						
		2001	55	48,069	4,204	125	52,398
		2006	58	52,990	4,570	125	57,685
		2011	60	58,420	4,980	125	63,525
		2021	65	71,010	5,890	125	77,025
SANFORD	SANFORD REGIONAL						
		2001	67	68,945	0	0	68,945
		2006	70	76,010	0	0	76,010
		2011	73	83,800	0	0	83,800
		2021	79	101,850	0	0	101,850
STONINGTON	STONINGTON MUNICIPAL						
		2001	8	4,000	0	0	4,000
		2006	10	4,820	0	0	4,820
		2011	11	5,360	0	0	5,360
		2021	13	6,620	0	0	6,620
WATERVILLE	WATERVILLE ROBERT LAFLEUR						
		2001	15	7,500	0	10,000	17,500
		2006	16	8,060	0	10,000	18,060
		2011	17	8,430	0	10,000	18,430
		2021	18	9,220	0	10,000	19,220
WISCASSET	WISCASSET						
		2001	43	32,250	0	0	32,250
		2006	45	33,890	0	0	33,890
		2011	47	35,330	0	0	35,330
		2021	50	37,860	0	0	37,860
MAINE TOTAL							
		2001	**908**	**646,308**	**88,102**	**43,420**	**777,830**
		2006	**981**	**706,640**	**94,460**	**43,420**	**844,520**
		2011	**1,030**	**761,650**	**102,250**	**43,420**	**907,320**
		2021	**1,128**	**883,930**	**119,880**	**43,420**	**1,047,230**

SOURCE: WSA

CHAPTER FIVE
SYSTEM EVALUATION

Stratification of the airports within Maine's Aviation System, which was discussed in a previous chapter, provides a baseline for evaluating the existing airport system. Within the MASPU, performance measures, with specific benchmarks for each measure, are used to evaluate the system. This analysis provides an indication of where the aviation system is adequate to meet the State's near- and long-term aviation needs. Specific airport or system deficiencies are also noted. In some cases, the system evaluation or benchmarking may show that there are actually surpluses or duplications in the system. This evaluation provides the foundation for subsequent recommendations for study airports and for the State's system of public-use airports.

It is important to note that some benchmarks used to evaluate Maine's Aviation System are action-oriented, while others are more informational in nature. The seven performance measures evaluated in this chapter include the following:

- **Quality of Life** – Ability to enhance activities that improve the quality of life in Maine.

- **Capacity** – Ability to provide airside and landside facilities to meet existing and future needs.

- **Aviation Outreach** – Ability to allow the general public to understand and support the role that airports play in the transportation and economic systems of Maine.

- **Standard Safety** – Ability to meet applicable design standards and to operate in a safe and efficient manner.

- **Economic Support** – Ability to support Maine's economy.

- **Flexibility** – Ability for airports to be compatible with the needs of the local communities they serve.

- **Accessibility** – Ability of Maine's airports to be accessible from both the air and the ground.

From the analysis completed in this chapter, the ability of all public-use airports in the system to meet each of the study benchmarks was determined. The following sections of this chapter use each of the previously established system performance measures and their associated benchmarks to evaluate Maine's existing airport system.

PERFORMANCE MEASURE: QUALITY OF LIFE

Airports often play critical health, welfare, and safety roles. For states such as Maine, the ways in which airports in the state system contribute to the state's quality of life can be ranked as being equally important to the economic benefits that stem from the airport system. Given Maine's expansive geography, with many areas that are relatively unpopulated, airports in Maine play important safety, emergency, and medical roles. Airports are often used to transport injured or critically ill persons to hospitals in urban areas. Airports are also often used by medical personnel to hold clinics or visit patients in rural and less densely populated areas of the State.

Aviation provides the only means of quick access to Maine's island areas. Aviation also plays an important environmental role in the State. Aircraft are used in forest firefighting, in spraying Maine's timberlands to protect them from insects and disease, and for performing other types of environmental patrols.

Airports in the Maine system that help to support the State's quality of life by accommodating these and other related activities are important. A Geographic Information System (GIS) was used for this performance measure in order to determine the system's ability to meet each of the quality of life benchmarks. To evaluate certain facets of Maine's Airport System using GIS, it was first necessary to identify service areas for each airport. With the airport as the centroid, GIS was used to map a service area for each airport based on actual 30-minute drive times. It is important to note that the GIS program used to establish each airport's 30-minute service area considers primary, paved roadways.

Once airport-specific service areas were determined, it was then possible to use GIS to determine the percent of the State, its population, and other descriptors that lie within these service areas. Along with area and population served, the MASPU considers coverage of the State's established service centers. The system evaluation incorporates information on Maine's 69 regional service centers from the State Planning Office. Though these 69 service centers vary in size, they all have three things in common. First, they are job centers, second, they are retail centers, and third, they offer social activities. A service center may act like a city, but it does not necessarily have to be a city. Through GIS analysis, the MASPU is able to show the relationship between established service centers and the airport system. **Table 5-1** lists the cities or towns that comprise the 69 primary and secondary service centers.

TABLE 5-1
SERVICE CENTERS

MAJOR/PRIMARY	SECONDARY	
AUBURN	MADAWASKA	ASHLAND
LEWISTON	MARS HILL	ISLAND FALLS
CARIBOU	VAN BUREN	BRIDGTON
FORT KENT	FALMOUTH	FREEPORT
HOULTON	SOUTH PORTLAND	BUCKSPORT
PRESQUE ISLE	WESTBROOK	HALLOWELL
BRUNSWICK	RANGELEY	WINTHROP
PORTLAND	THOMASTON	RUMFORD
FARMINGTON	NORWAY	BREWER
BAR HARBOR	DEXTER	MILLINOCKET
BLUE HILL	NEWPORT	GUILFORD
ELLSWORTH	ORONO	MILO
AUGUSTA	BATH	EASTPORT
GARDINER	BINGHAM	PRINCETON
WATERVILLE	JACKMAN	KENNEBUNK
CAMDEN	PITTSFIELD	BETHEL
ROCKLAND	UNITY	SACO
BOOTHBAY HARBOR	LUBEC	KINGFIELD
DAMARISCOTTA	BIDDEFORD	KITTERY
PARIS	SANFORD	WISCASSET
BANGOR		
LINCOLN		
DOVER-FOXCROFT		
GREENVILLE		
SKOWHEGAN		
BELFAST		
CALAIS		
MACHIAS		
MILBRIDGE		

SOURCE: State Planning Office, Maine 2002

The following benchmarks were used to determine how Maine's airports are presently contributing to the State's quality of life:

- Percent of state's remote areas that are served by a system airport.
- Percent of island areas that are served by fixed wing aviation facilities.
- Percent of the state, its population, and service centers that are within 30 minutes of a system airport which supports forest fire spotting activities.
- Percent of the state, its population, and service centers that are within 30 minutes of a system airport that supports flights by emergency/medical aircraft (LifeFlight).

Much of Maine's population is located near Portland, near Bangor, or along the coast. In this analysis, a remote area is defined as one that is 30 miles or more from one of Maine's established service centers. As shown in **Exhibit 5-1A** and **5-1B,** the majority of the State's population is within 30 minutes or 30 miles of a system airport. The remote areas not covered are in the northwest portion of the State.

The information that is visually depicted in **Exhibits 5-2** (Island Airports)**, Exhibit 5-3** (Forest Fire Spotting), and **5-4** (LifeFlight) is shown numerically in **Table 5-2.**

TABLE 5-2
INFORMATION FOR QUALITY FOR LIFE PERFORMANCE MEASURE

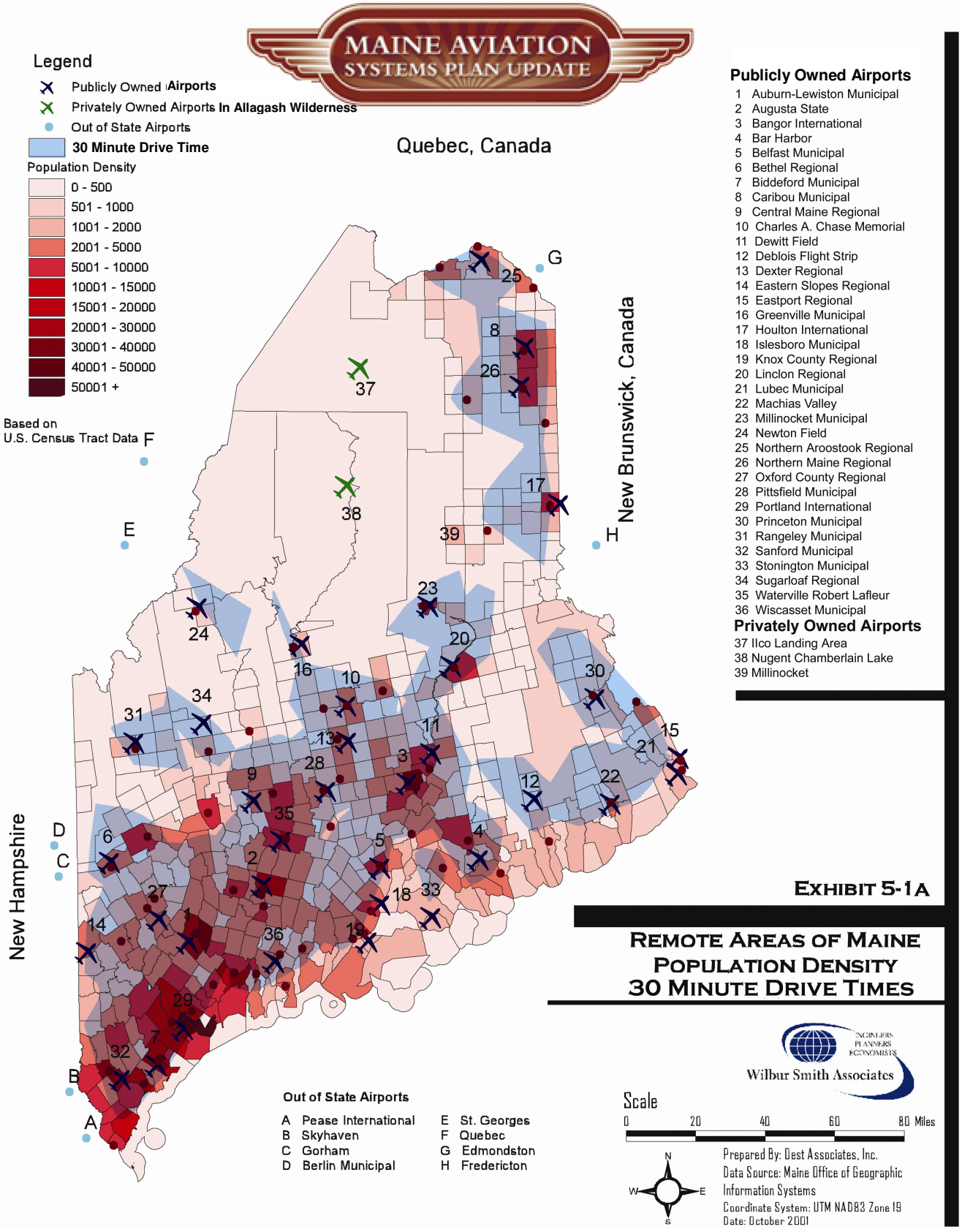
	AREA COVERED (SQ MILES)	% OF STATE COVERED	POPULATION WITHIN AREA	% OF POPULATION WITHIN AREA	SERVICE CENTERS WITHIN AREA	% OF SERVICE CENTERS WITHIN AREA
REMOTE AREA	NA	NA	NA	NA	NA	NA
ISLAND AREAS	416	1%	55,140	4%	3	4%
FOREST FIRE SPOTTING	14,286	40%	1,184,4554	93%	53	77%
LIFEFLIGHT	12,603	36%	1,177,699	93%	51	74%

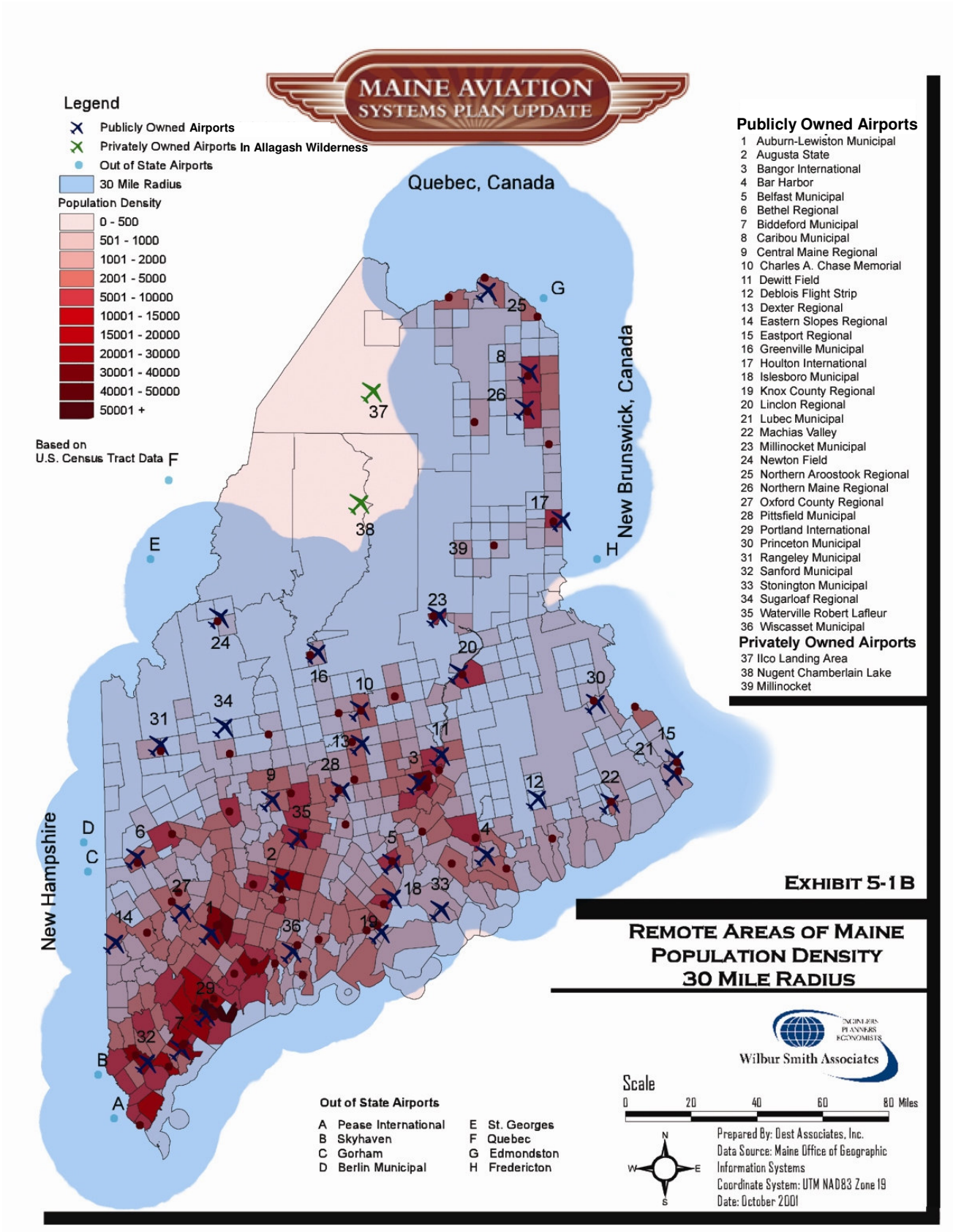
SOURCE: WSA/Oest Associates
NOTE: N/A = Not Applicable

Benchmark: Percent of State's remote areas that are served by a system airport.

As shown in Exhibit 5-1A, most of Maine's more densely populated areas are within a 30-minute drive of one or more system airports. The information portrayed in this exhibit indicates that Maine's existing airport system is providing convenient access to most of Maine's residents. It is also important, however, for airports in any system to occasionally play an emergency role.

As shown in Exhibit 5-1B, when a 30-mile radius, as opposed to a 30-minute drive time, is used to depict the coverage of the existing system, the portion of Maine that is within this radius increases dramatically. What this exhibit indicates is that when air or flight time from the State's system of publicly owned airports is considered, most of Maine's vast geography is encompassed by the public airport system. The only area of the State that falls beyond the immediate service area for the existing public airport system is the Allagash Wilderness area, an area of the State that is very sparsely populated. While this area of the State cannot be easily accessed by the State's fixed-wing public airport facilities, it is possible, when emergency needs dictate, to reach this area of the State by helicopter, via smaller private airports and via seaplane bases that support the public system. The population densities in the areas of the State that are beyond the service areas of the existing airport system most likely do not have sufficient resident population to warrant the investment for a fixed-wing publicly supported airport. The need to improve the coverage that the existing system provides to remote areas will be determined in Phase II of the Maine Aviation Systems Plan Update.


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Airports
Privately Owned Airports In Allagash Wilderness
Out of State Airports
30 Minute Drive Time
Population Density
0 - 500
501 - 1000
1001 - 2000
2001 - 5000
5001 - 10000
10001 - 15000
15001 - 20000
20001 - 30000
30001 - 40000
40001 - 50000
50001 +
Based on
U.S. Census Tract Data
Quebec, Canada
New Brunswick, Canada
New Hampshire
Publicly Owned Airports
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Belfast Municipal
6 Bethel Regional
7 Biddeford Municipal
8 Caribou Municipal
9 Central Maine Regional
10 Charles A. Chase Memorial
11 Dewitt Field
12 Deblois Flight Strip
13 Dexter Regional
14 Eastern Slopes Regional
15 Eastport Regional
16 Greenville Municipal
17 Houlton International
18 Islesboro Municipal
19 Knox County Regional
20 Linclon Regional
21 Lubec Municipal
22 Machias Valley
23 Millinocket Municipal
24 Newton Field
25 Northern Aroostook Regional
26 Northern Maine Regional
27 Oxford County Regional
28 Pittsfield Municipal
29 Portland International
30 Princeton Municipal
31 Rangeley Municipal
32 Sanford Municipal
33 Stonington Municipal
34 Sugarloaf Regional
35 Waterville Robert Lafleur
36 Wiscasset Municipal
Privately Owned Airports
37 Ilco Landing Area
38 Nugent Chamberlain Lake
39 Millinocket
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-1A
REMOTE AREAS OF MAINE
POPULATION DENSITY
30 MINUTE DRIVE TIMES
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Airports
Privately Owned Airports In Allagash Wilderness
Out of State Airports
30 Mile Radius
Population Density
0 - 500
501 - 1000
1001 - 2000
2001 - 5000
5001 - 10000
10001 - 15000
15001 - 20000
20001 - 30000
30001 - 40000
40001 - 50000
50001 +
Based on
U.S. Census Tract Data
Quebec, Canada
New Brunswick, Canada
New Hampshire
Publicly Owned Airports
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Belfast Municipal
6 Bethel Regional
7 Biddeford Municipal
8 Caribou Municipal
9 Central Maine Regional
10 Charles A. Chase Memorial
11 Dewitt Field
12 Deblois Flight Strip
13 Dexter Regional
14 Eastern Slopes Regional
15 Eastport Regional
16 Greenville Municipal
17 Houlton International
18 Islesboro Municipal
19 Knox County Regional
20 Linclon Regional
21 Lubec Municipal
22 Machias Valley
23 Millinocket Municipal
24 Newton Field
25 Northern Aroostook Regional
26 Northern Maine Regional
27 Oxford County Regional
28 Pittsfield Municipal
29 Portland International
30 Princeton Municipal
31 Rangeley Municipal
32 Sanford Municipal
33 Stonington Municipal
34 Sugarloaf Regional
35 Waterville Robert Lafleur
36 Wiscasset Municipal
Privately Owned Airports
37 Ilco Landing Area
38 Nugent Chamberlain Lake
39 Millinocket
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-1B
REMOTE AREAS OF MAINE
POPULATION DENSITY
30 MILE RADIUS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

Benchmark: Percent of island areas that are served by airports.

At the on-set of the MASPU, the Project Advisory Committee for the study identified a benchmark to consider the coverage that Maine's vast island area has from the existing public airport system. Currently, as shown on **Exhibit 5-2**, Maine's hundreds of islands are served by seven fixed-wing airports. Air travel to Maine's islands is facilitated by both public and private airports.

When the Project Advisory Committee identified this benchmark, the rationale was that the public airport system might be called upon to provide emergency access to these areas of the State. As the preparation of the MASPU has progressed, Committee discussion has indicated that emergency transport to and from the island areas is generally handled by boat or by helicopter. Given the environmental sensitivity and cost of expanding Maine's public airport system on one or more of these island areas, the alternative means of transportation may be desirable. The need to expand the coverage of public fixed-wing airports to additional island areas will be determined in a later phase of the MASPU.

Maine's Office of Passenger Transportation recognizes the unique role that the island airports play in Maine's aviation system, and wishes to enhance and preserve this important transportation resource. The physical and environmental limitations of the settings of the airports that serve Maine's island communities make it difficult for these facilities to meet planning and design standards that are established by the FAA. OPT is interested in establishing a program that would secure and enhance the safety of these airports, to a level that is reasonably feasible.

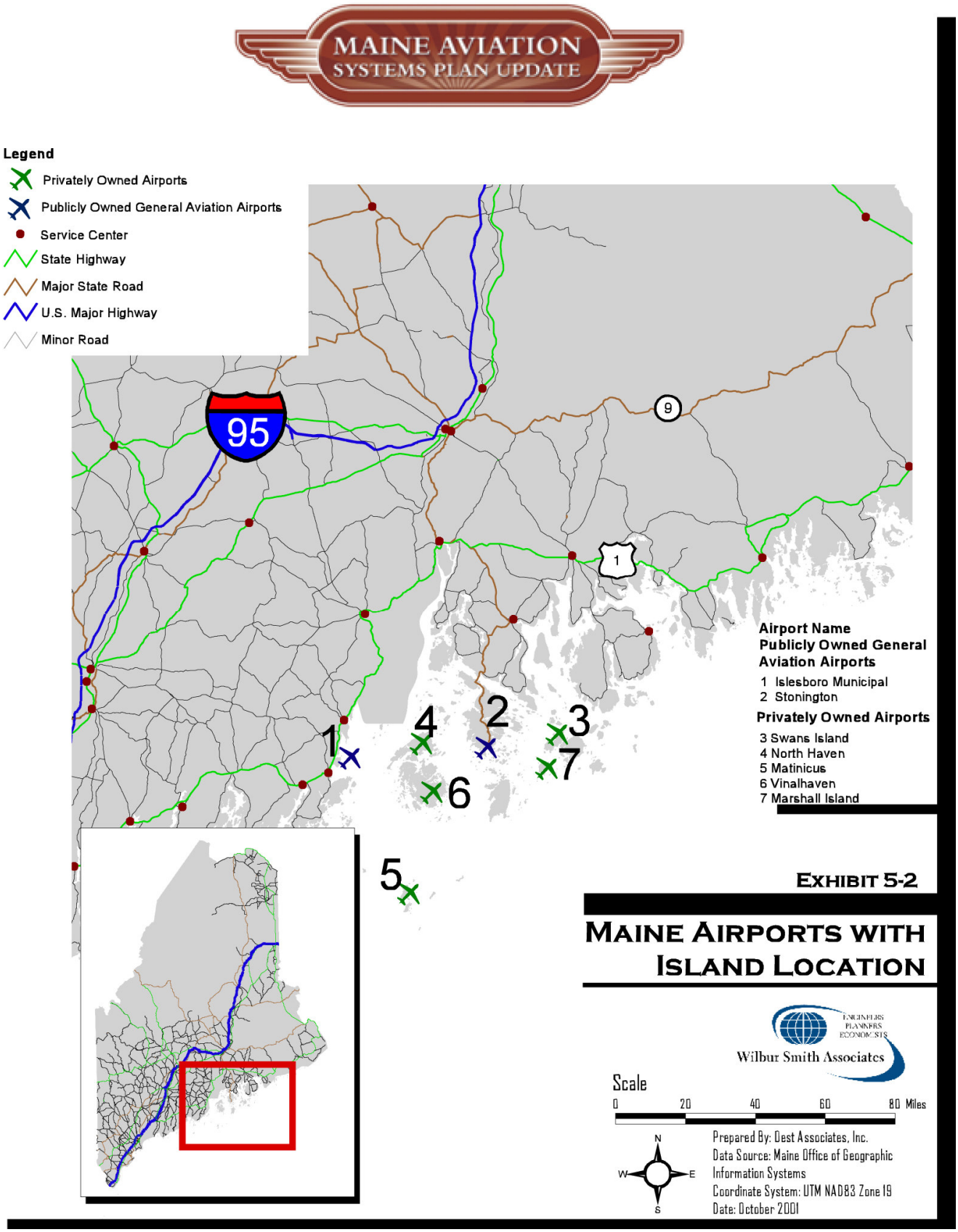
Any program for the island airports would be contingent upon separate and additional funding from the State Legislature. This funding would either be through a general fund allocation or through inclusion in the transportation bond package. Funding would be contingent upon the airports meeting minimum standards described below. It is important to note these standards are considered both draft and preliminary, and are presented here to provide a general idea of type of program that OPT would like to establish for the island airports. Minimum requirements could be as follows:

- The primary surface should be cleared to a width of 120 feet on either side of the runway centerline. This would include removing brush, terrain and other objects that penetrate this surface at the same height as the nearest point on the runway.

- A graded runway surface of 60 feet, with proper drainage, should be available. The surface could be gravel or crushed stone; a stone dust or turf covering may be desirable to reduce possible damage to aircraft from loose sand and stone. A marking system to delineate runway edges should be available.

- Runway thresholds should be displaced to provide clear approach surfaces at a minimum 15:1 slope. Displacements could still be available on the opposite runway end for takeoffs or landings.

As Phase II of the MASPU is undertaken, OPT will work with the Project Advisory Committee to set realistic objectives for providing improvements to Maine's island airports.

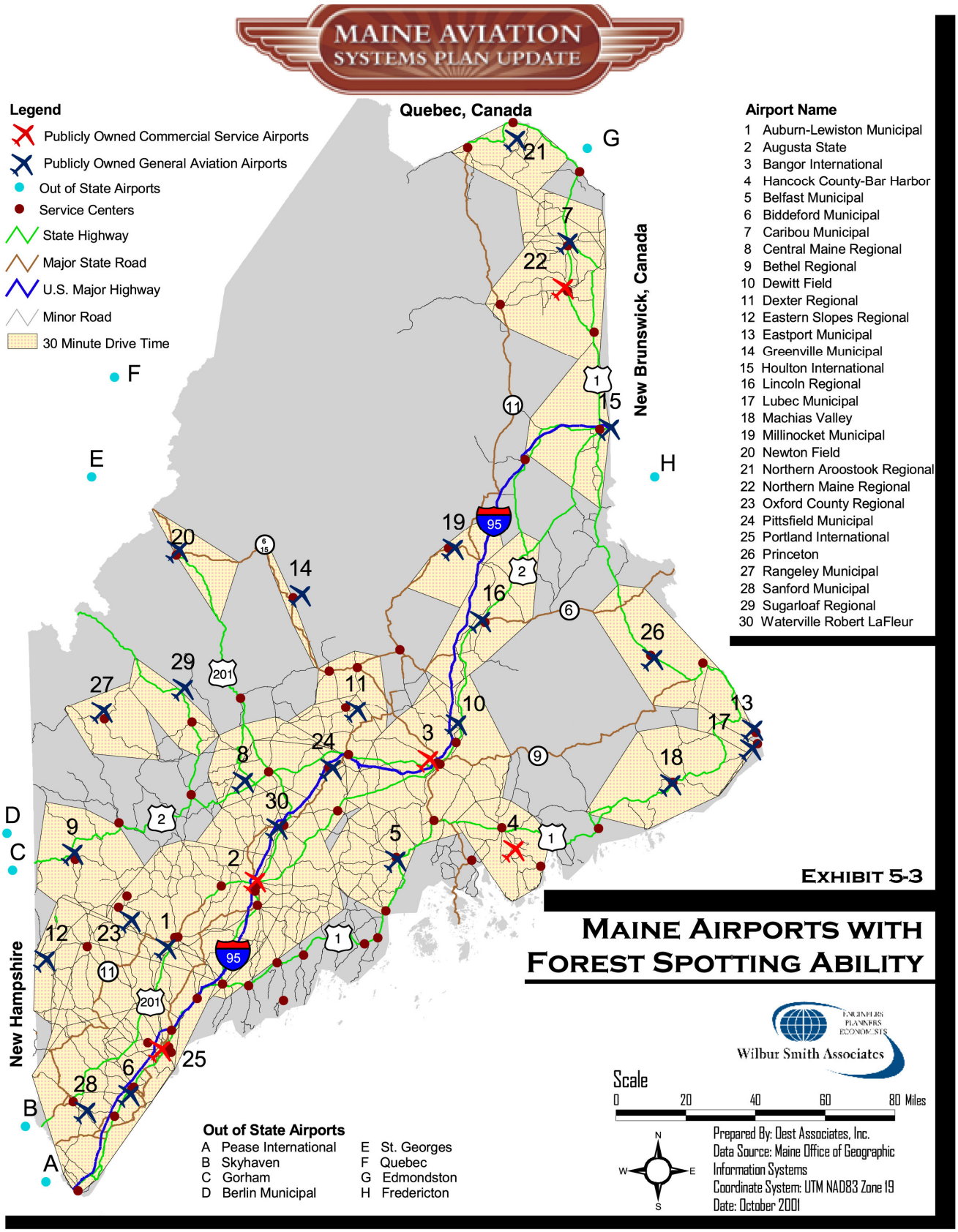

MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Privately Owned Airports
Publicly Owned General Aviation Airports
Service Center
State Highway
Major State Road
U.S. Major Highway
Minor Road
95
9
1
Airport Name
Publicly Owned General Aviation Airports
1 Islesboro Municipal
2 Stonington
Privately Owned Airports
3 Swans Island
4 North Haven
5 Matinicus
6 Vinalhaven
7 Marshall Island
EXHIBIT 5-2
MAINE AIRPORTS WITH ISLAND LOCATION
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

Benchmark: Percent of the State, its population, and service centers that are within 30 minutes of a system airport which supports forest fire spotting activities.

When the benchmarks for the MASPU were identified by the Project Advisory Committee at the onset of the study, it was clearly understood that aviation in Maine plays an important role in protecting the State's vast forest resources. One of the ways that aviation protects Maine's forest resources is through forest fire fighting and forest fire spotting. In many states, forest fires are fought with fixed-wing aircraft. In Maine, forest fire fighting is done with helicopters.

At the onset of the MASPU, a benchmark to determine the percent of the State that is within 30 minutes of a system airport that supports forest fire fighting activities was established. This benchmark geographically determines the coverage that Maine currently has from those airports that are supporting forest firefighting. As the MASPU progressed, it was determined that in Maine, while aviation plays a critical role in supporting forest firefighting, only helicopters are used for this activity. When fires are spotted by fixed wing aircraft, the Forest Service then transports helicopters and the necessary crew to the general location of the fire. The Forest Service has mobile fuel tanks that make this type of activity possible from all locations around the State.

Based on this information, this benchmark was altered. The Maine Forest Service contracts with various airports throughout Maine to provide forest fire spotting activities. This spotting is done primarily with fixed-wing aircraft. The airports in the Maine System where operators hold contracts to provide forest fire spotting activities are depicted in **Exhibit 5-3**. As shown in this exhibit, the geographic coverage for these contracted services is fairly widespread. Approximately 40 percent of the State and 93 percent of its population are within the 30-minute service area for one of the airports that currently supports this type of activity. If the flight range of the aircraft that provide the forest firefighting spotting activities were considered, most of the State would be covered.


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Belfast Municipal
6 Biddeford Municipal
7 Caribou Municipal
8 Central Maine Regional
9 Bethel Regional
10 Dewitt Field
11 Dexter Regional
12 Eastern Slopes Regional
13 Eastport Municipal
14 Greenville Municipal
15 Houlton International
16 Lincoln Regional
17 Lubec Municipal
18 Machias Valley
19 Millinocket Municipal
20 Newton Field
21 Northern Aroostook Regional
22 Northern Maine Regional
23 Oxford County Regional
24 Pittsfield Municipal
25 Portland International
26 Princeton
27 Rangeley Municipal
28 Sanford Municipal
29 Sugarloaf Regional
30 Waterville Robert LaFleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-3
MAINE AIRPORTS WITH FOREST SPOTTING ABILITY
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

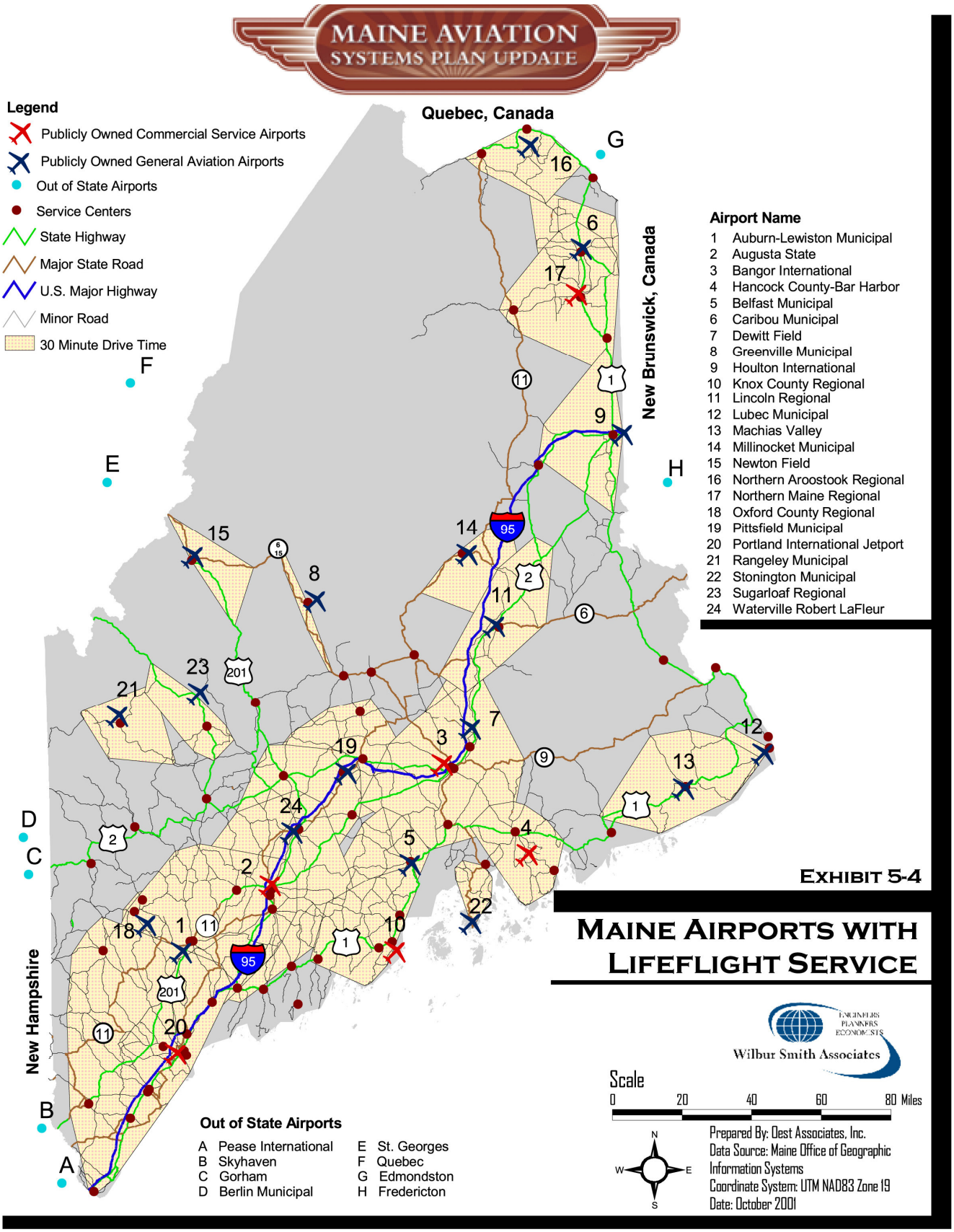
Benchmark: Percent of the State, its population, and service centers that are within 30- minutes of a system airport that supports flights by emergency/medical aircraft (LifeFlight).

Airports in the Maine Aviation System play an important role in supporting life flight activities. Because of the vastness of Maine and the rural character of many areas of the State, these activities are important to the State's quality of life. Many of the State's smaller cities and towns lack the trauma and advanced medical staff and equipment that is needed to deal with critically injured patients. In such instances, these patients are often air lifted to larger hospitals in Maine and in some instances even flown to hospitals outside the State.

For this benchmark, the flight for life provider in Maine was contacted. LifeFlight of Maine conducts most of the flight for life operations. As part of the MASPU, LifeFlight was asked to describe its needs. According to LifeFlight, almost all operations are conducted by helicopter; approximately 100 flights per year are flown by fixed-wing aircraft. LifeFlight bases their helicopters at two hospitals, Eastern Maine and Central Maine. They currently have a maintenance facility in Bangor. LifeFlight stated that their top priority was JetA fuel at remote airports or in remote areas, followed by AWOS/ASOS and IFR approaches.

Other private operators in the State, support non-life-threatening emergency flights. Other operators provide air taxi service if there is a non-life-threatening emergency. The State of Maine's licensing requirements prohibit private operators from providing flights if the injured are life-threatened. LifeFlight is the only state licensed air ambulance provider in Maine. It may be appropriate to re-visit current licensing restrictions and requirements, if LifeFlight can not meet the emergency needs of Maine.

As previously noted, for the hundreds of island area off the coast of Maine, boats and helicopters most often provide these types of emergency services. **Exhibit 5-4** depicts the location of those airports around the State which, according to completed inventory forms from the MASPU, are accommodating or have accommodated life flight activities. The information shown in Exhibit 5-4 indicates that approximately 36 percent of Maine and 93 percent of its population lie within the 30-minute service area of an airport that accommodates Life flight activities. Based on the desire by LifeFlight to use helicopters, Phase II of the MASPU will determine the need to have or upgrade airports in the system so that they can support thier activities.


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Belfast Municipal
6 Caribou Municipal
7 Dewitt Field
8 Greenville Municipal
9 Houlton International
10 Knox County Regional
11 Lincoln Regional
12 Lubec Municipal
13 Machias Valley
14 Millinocket Municipal
15 Newton Field
16 Northern Aroostook Regional
17 Northern Maine Regional
18 Oxford County Regional
19 Pittsfield Municipal
20 Portland International Jetport
21 Rangeley Municipal
22 Stonington Municipal
23 Sugarloaf Regional
24 Waterville Robert LaFleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-4
MAINE AIRPORTS WITH LIFEFLIGHT SERVICE
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

PERFORMANCE MEASURE: CAPACITY

One of the most important facets of a good airport system is its ability to accommodate both existing and future aviation demand. Each airport's means to provide adequate capacity is determined by the capability of its airside and landside facilities to meet user demand. Benchmarks chosen to measure the adequacy of Maine's Aviation System, as it relates to capacity, focus on the ability of system airports to provide ample operational capacity and to meet other basic user needs. Benchmarks used for the capacity performance measure include the following:

- Percent of system airports operating above 60 and 80 percent of operational capacity (current and 2021).
- Percent of state, its population, and service centers that are within a 30-minute drive time of a system airport exceeding either the 60 or 80 percent demand/capacity threshold (current and 2021).
- Percent of system airports whose hangar facilities meet MASPU facility/service objectives.
- Percent of system airports whose terminal/administration facilities meet MASPU facility/service objectives.
- Percent of system airports whose auto parking facilities meet MASPU facility/service objectives.

AIRSIDE CAPACITY

Operational delays are undesirable within any airport system. Air travel is chosen as a transportation mode because of the timesavings that it offers. When aircraft encounter operational delays because of insufficient operational capacity, efficiencies gained through air transportation are diminished. In addition, when aircraft are forced to idle on the ground or circle in the air as a result of inadequate operational capacity, the likelihood of negative impacts on the environment increases.

For benchmarks related to operational capacity, an annual service volume (ASV) was obtained or calculated for all system airports. According to the FAA definition of annual operating capacity, ASV is reflective of an estimate of the total number of annual takeoffs and landings that an airport can process when there is always an aircraft ready to land or depart.

There are a number of factors that influence each airport's ability to process annual operations; these factors are used to determine each airport's specific ASV. Each airport's ability to process operational demand is influenced by factors such as the "mix" of the aircraft that operate at the airport. When large and small aircraft operate or are mixed in the same traffic pattern, the spacing between aircraft must be increased. This

need for increased spacing, when an airport's fleet mix is diverse, reduces operational capacity. In addition to fleet mix, other factors that determine an airport's ASV include the lack or presence of a taxiway system. Runways that are served by full parallel taxiways with appropriately spaced taxiway exits have higher operational capacities. Airports that support high percentages of aircraft training also have higher ASVs.

The FAA has determined that when annual operations (takeoffs plus landings) at an airport utilize about 60 percent of an airport's calculated annual operating capacity (ASV), some operational delays can be encountered. By the time an airport's demand versus capacity ratio reaches 80 percent, noticeable delays to operations can be anticipated. An airport can operate even when its annual operations consume 100 percent of its annual capacity, but delays are significant and frequent at this demand/capacity ratio.

For long-range planning, the FAA recommends that plans should be formulated to either increase capacity or to manage demand when operations at an airport reach 60 percent of the facility's annual operating capacity. When operations reach 80 percent of an airport's annual operational capacity, plans to address capacity shortfalls should be implemented.

Benchmark: Percent of system airports, by category, that operate at 60/80 percent or more of their annual operational capacity (ASV) (current and 2021).

For this benchmark, each airport's ASV was either calculated or obtained from a recent airport-specific planning document, such as an airport master plan. Each airport's specific ASV was then compared to its 2001 and 2021 operational demand levels. The results of this exercise are presented in **Table 5-3**. Results of the analysis completed in association with this capacity benchmark yielded the following information:

- In 2001, all system airports were operating below the 60 percent demand/capacity ratio. This finding indicates that no significant operational delays are being experienced at system airports.

- By 2021, all system airports, except for Portland International Jetport, are expected to still be operating well below the 60 percent demand/capacity ratio. Portland International Jetport is Maine's largest commercial service airport. Portland is expected to reach 60 percent of its ASV, based on the MASPU forecast, in 2010.

- For all system airports, current demand is estimated to be utilizing approximately 12 percent of all available systemwide operational capacity. Maine's demand/capacity ratio for all study airports is expected to increase to 16 percent by 2021.

TABLE 5-3
OPERATIONAL CAPACITY/DEMAND

	CITY NAME	FACILITY NAME	DEMAND 2001	DEMAND 2021	ASV	PERCENT OF 2001	PERCENT OF 2021
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	30,150	44,510	200,000	15.08%	22.26%
	AUGUSTA	AUGUSTA STATE	33,042	46,490	204,100	16.19%	22.78%
	BANGOR	BANGOR INTERNATIONAL	89,219	117,020	205,000	43.52%	57.08%
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	44,228	63,270	200,000	22.11%	31.64%
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	104,305	150,585	202,300	51.56%	74.44%
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	10,348	11,910	200,000	5.17%	5.96%
	ROCKLAND	KNOX COUNTY REGIONAL	52,398	77,025	190,000	27.58%	40.54%
	SANFORD	SANFORD REGIONAL	68,945	101,850	190,000	36.29%	53.61%
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	17,500	19,220	185,250	9.45%	10.38%
			% OF CAPACITY TOTAL BY LEVEL			**25.22%**	**35.41%**
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	30,750	37,740	175,500	17.52%	21.50%
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	5,200	5,200	175,500	2.96%	2.96%
	HOULTON	HOULTON INTERNATIONAL	18,825	21,980	185,250	10.16%	11.87%
	OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	17,400	21,180	200,000	8.70%	10.59%
	OXFORD	OXFORD COUNTY REGIONAL	6,250	8,160	175,500	3.56%	4.65%
	PITTSFIELD	PITTSFIELD MUNICIPAL	23,750	33,000	175,500	13.53%	18.80%
	WISCASSET	WISCASSET	32,250	37,860	200,000	16.13%	18.93%
			% OF CAPACITY TOTAL BY LEVEL			**10.37%**	**12.76%**
LEVEL III	BELFAST	BELFAST MUNICIPAL	15,000	23,850	190,000	7.89%	12.55%
	BETHEL	BETHEL REGIONAL	4,500	5,880	175,500	2.56%	3.35%
	CARIBOU	CARIBOU MUNICIPAL	8,400	9,830	190,000	4.42%	5.17%
	DEXTER	DEXTER REGIONAL	8,500	10,450	175,500	4.84%	5.95%
	EASTPORT	EASTPORT MUNICIPAL	3,125	3,620	175,500	1.78%	2.06%
	FRYEBURG	EASTERN SLOPES REGIONAL	33,370	49,290	175,500	19.01%	28.09%
	GREENVILLE	GREENVILLE MUNICIPAL	13,125	15,410	190,000	6.91%	8.11%
	JACKMAN	NEWTON FIELD	5,625	7,500	175,500	3.21%	4.27%
	LINCOLN	LINCOLN REGIONAL	19,500	23,960	175,500	11.11%	13.65%
	MILLINOCKET	MILLINOCKET MUNICIPAL	9,125	10,980	190,000	4.80%	5.78%
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	44,400	52,090	200,000	22.20%	26.05%
	RANGELEY	RANGELEY MUNICIPAL	9,000	10,560	175,500	5.13%	6.02%
			% OF CAPACITY TOTAL BY LEVEL			**7.82%**	**10.09%**
LEVEL IV	CARABASSET	SUGARLOAF REGIONAL	4,000	4,500	175,500	2.28%	2.56%
	DEBLOIS	DEBLOIS FLIGHT STRIP	100	150	175,000	0.06%	0.10%
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	1,000	1,150	156,000	0.64%	0.74%
	ISLESBORO	ISLESBORO	2,000	3,180	175,500	1.14%	1.81%
	LUBEC	LUBEC MUNICIPAL	500	580	156,000	0.32%	0.37%
	MACHIAS	MACHIAS VALLEY	4,000	4,630	175,500	2.28%	2.64%
	PRINCETON	PRINCETON MUNICIPAL	4,000	6,000	175,500	2.28%	3.42%
	STONINGTON	STONINGTON MUNICIPAL	4,000	6,620	175,500	2.28%	3.77%
			% OF CAPACITY TOTAL BY LEVEL			**1.41%**	**1.92%**
		TOTAL	**777,830**	**1,047,230**	**6,597,900**		
		% OF TOTAL CAPACITY				**11.79%**	**15.87%**

SOURCES: Airport Operators/Managers; MASPU Inventory Form; WSA

Benchmark: Percent of State, its population, and service centers that are within a 30-minute drive time of a system airport exceeding 60/80 percent demand/capacity, (current and 2021).

As noted, Portland International Jetport is Maine's busiest commercial service airport. The airport accommodates 73 percent of Maine's annual commercial enplanements and 52 percent of the State's commercial aircraft operations. Population that is within the immediate service area of Portland International Jetport totals approximately 556,000 persons. Portland International serves not only the majority of Maine's residents' needs for commercial airline travel, but this airport also serves as the primary commercial access point for visitors who fly commercially to Maine. Portland International's pivotal role in the State system indicates that it is essential for this airport to have adequate operational capacity.

In recent years, Portland International Jetport has undertaken aggressive development programs to increase the capacity of its landside facilities. The passenger terminal has been expanded, auto parking facilities are in the process of being increased, and the airport has completed significant upgrades to the highway system that provide access to this important aviation center. The airport's constrained land envelope makes future runway improvements difficult. The airport's airfield expansion potential is limited by both natural and manmade constraints.

There are several opportunities for addressing noted operational capacity constraints at Portland International Jetport. They include promoting activities which maintain and enhance commercial air service at other airports in Maine, useing larger aircraft to serve the airport, and to managing the volume of general aviation demand that is accommodated at the airport. A significant number of the passengers who board or who deplane from commercial airline flights at Portland International Jetport are actually bound for other parts of Maine where there are smaller, less active commercial airports. Examples include the airports serving Augusta, Rockland, and Bar Harbor. If residents of and visitors to these areas of the State would use the "local" commercial service airport, a slight demand reduction could be experienced at Portland International Jetport. While better utilization of the other commercial airports in Maine would not increase the operational capacity of Portland International Jetport, this could lead to more efficient use of the airport's airfield facilities.

Over recent years, Portland International Jetport has witnessed an increase in the average seating capacity of the commercial aircraft that serve the airport. In many instances, 19- and 30-seat aircraft have been replaced by 50-seat regional jets, and the percent of large commercial aircraft serving the airport has increased. It is worth noting that smaller turboprop commercial aircraft still make up over 50 percent of the commercial aircraft operation fleet at Portland International. Many of these smaller aircraft fly from Portland International to Boston Logan. These flights are important to Maine's economy, but add to operational capacity problems at Boston Logan. Over time, if the average seating capacity of the commercial aircraft serving Portland International Jetport continues to

increase, the airport will be able to accommodate growing passenger volumes without experiencing similar percentage increases in airline operations. Improved air service to Portland International that bypasses Boston Logan has the potential to benefit both airports. Currently, the average number of seats on commercial aircraft departing the Jetport is almost 60 (larger commercial jet aircraft such as the Boeing 737 and the MD 80 seat in excess of 110 passengers). If the airport is successful over time in attracting larger commercial aircraft with higher seating capacities, potential shortfalls in operational capacity can be minimized.

The final option for addressing future shortfalls in the airfield operating capacity at Portland International Jetport also includes a demand management strategy. According to information from the Systems Plan, an estimated 57 percent of airport's annual operations fall into the general aviation category. While it will be important for the Jetport to continue to serve commercial, air cargo, and large general aviation aircraft, there are some segments of general aviation demand that could logically be served by other airports in the Portland area. The FAA has formalized this type of demand management through the creation of "reliever" airports.

In the nation's larger metropolitan areas, reliever airports are general aviation airports that have been designated by the FAA as alternative landing sites for busy, congested commercial service airports. According to the National Plan for Integrated Airport Systems (NPIAS), the FAA currently designates Sanford Municipal and Biddeford Municipal as general aviation reliever airports for Portland International Jetport. Given its multi-modal attributes and other characteristics, consideration should be given to making Auburn-Lewiston a reliever airport. This designation could be in addition to the existing relievers or as a replacement to Biddeford Municipal. In their role as reliever facilities, airports should be equipped to accommodate general aviation aircraft that might otherwise choose to operate at Portland International; these reliever airports are not designed to accommodate either commercial traffic. By decreasing general aviation demand, which now accounts for almost 57 percent of the annual operations at Portland International Jetport, additional space could be "freed up" to accommodate new operations by commercial or air cargo operators.

As shown in Table 5-3, existing and potential reliever airports have additional operational capacity. These airports, if properly promoted and developed, should be able to play an effective role in addressing potential shortfalls in operational capacity at Portland International Jetport. It is worth noting, as is shown in Table 5-3, that near the end of the 20-year planning period, Bangor International is projected to approach the 60 percent demand/capacity ratio. As part of the FAA's reliever program, DeWitt Field was at one time designated as a general aviation reliever for Bangor International. Should Bangor International reach critical demand/capacity triggers in the future, the FAA would most likely reinstate the reliever status of this airport.

LANDSIDE CAPACITY

For an airport system to be efficient, its facilities must be able to effectively process not only operational demand, but also meet other needs of airport users. Aviation system plans, such as the MASPU, are not intended to take the place of individually prepared airport master plans. Consequently, the level of facility analysis contained in the MASPU will not be comparable to that conducted in an airport-specific master plan.

To determine the adequacy of the landside facilities at system airports, three factors were examined. Benchmarks considered in this part of the system evaluation included the adequacy of existing storage (hangar) space at study airports, the adequacy of current auto parking facilities, and the adequacy of terminal/administration facilities.

Benchmark: Percent of system airports whose hangar facilities meet MASPU facility/service objectives. MASPU hangar facility objectives are as follows:

- *Level I - 75% of based fleet; 25% of transient hangared*
- *Level II - 50% of based fleet; 25% of transient hangared*
- *Level III - 50% of based fleet hangared*
- *Level IV – No specific objective*

The need to provide additional covered storage for based aircraft varies by airport. However, given climate, cost, security, and other considerations, nationally, there is a growing trend for owners of general aviation aircraft to seek covered storage. Since hangar development typically does not qualify for Federal or State grants, the need for hangar development can sometimes lag behind an airport's ability to provide such facilities. Third-party developers, such as an airport's fixed base operator (FBO), often finance hangar development. A FBO is a person or a business that provides on-site airport services such as fueling, maintenance, repair, and aircraft storage. Most general aviation airports are unable to provide additional hangar storage until demand is substantiated, often in the form of an "upfront" deposit. It is also not uncommon, in a given geographic area, for aircraft owners to have their names on hangar waiting lists at more than one airport, indicating that they are interested in occupying the first available hangar space.

To provide a general assessment of the adequacy of existing hangar space at system airports, a comparison of current based aircraft at all system airports to the number of covered parking spaces, reported as part of the MASPU inventory effort, was developed. This information is summarized in **Table 5-4**. Table 5-4 presents several key pieces of information on the system's covered storage capacity. This table shows each airport's reported number of based aircraft and hangar storage spaces. It also indicates the percent of each airport's based aircraft that are currently hangared. Finally, Table 5-4 indicates, by level, whether or not each airport now meets MASPU facility objectives for hangar storage.

TABLE 5-4
BASED AIRCRAFT HANGAR FACILITY OBJECTIVES

	CITY NAME	FACILITY NAME	BASED AIRCRAFT	# OF HANGARS	% OF BASED AIRCRAFT IN HANGARS	MEETS OBJECTIVE (SURPLUS/ DEFICIENT)
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	71	62	88%	YES(+9)
	AUGUSTA	AUGUSTA STATE	46	28	61%	NO(-7)
	BANGOR	BANGOR INTERNATIONAL	67	25	37%	NO(-25)
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	44	25	57%	NO(-8)
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	56	17	30%	NO(-25)
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	23	18	79%	YES(+1)
	ROCKLAND	KNOX COUNTY REGIONAL	55	41	75%	YES(0)
	SANFORD	SANFORD REGIONAL	67	56	84%	YES(+6)
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	15	11	75%	YES(0)
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	41	20	49%	NO(-1)
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8	8	100%	YES(+4)
	HOULTON	HOULTON INTERNATIONAL	29	40	138%	YES(+25)
	OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	22	17	77%	YES(6)
	OXFORD	OXFORD COUNTY REGIONAL	10	3	30%	NO(-2)
	PITTSFIELD	PITTSFIELD MUNICIPAL	38	20	53%	YES(+1)
	WISCASSET	WISCASSET	43	14	33%	NO(-18)
LEVEL III	BELFAST	BELFAST MUNICIPAL	24	15	63%	YES(+3)
	BETHEL	BETHEL REGIONAL	9	7	78%	YES(+2)
	CARIBOU	CARIBOU MUNICIPAL	11	5	45%	NO(-1)
	DEXTER	DEXTER REGIONAL	17	17	100%	YES(+8)
	EASTPORT	EASTPORT MUNICIPAL	5	6	120%	YES(+3)
	FRYEBURG	EASTERN SLOPES REGIONAL	27	32	118%	YES(+18)
	GREENVILLE	GREENVILLE MUNICIPAL	25	13	52%	YES(0)
	JACKMAN	NEWTON FIELD	9	3	33%	NO(-2)
	LINCOLN	LINCOLN REGIONAL	26	26	100%	YES(+13)
	MILLINOCKET	MILLINOCKET MUNICIPAL	13	8	62%	YES(+1)
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	59	54	92%	YES(+24)
	RANGELEY	RANGELEY MUNICIPAL	12	9	75%	YES(+3)
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	8	9	113%	NA
	DEBLOIS	DEBLOIS FLIGHT STRIP	0	0	NA	NA
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	2	2	100%	NA
	ISLESBORO	ISLESBORO	4	2	50%	NA
	LUBEC	LUBEC MUNICIPAL	1	2	200%	NA
	MACHIAS	MACHIAS VALLEY	8	0	0%	NA
	PRINCETON	PRINCETON MUNICIPAL	8	6	75%	NA
	STONINGTON	STONINGTON MUNICIPAL	8	8	100%	NA

SOURCES: Airport Operators/Managers MASPU Inventory Form; WSA
NOTES: Prepared June 2002: NA=Not Applicable

Table 5-5 shows the transient aircraft covered storage requirements, as applicable, by level and airport. A brief description on how the transient aircraft hangar units were calculated for each airport has been provided. First, the number of transient operations per airport was divided by 365 (the number of days per year). This number was then divided by the transient aircraft hangar requirement based on the airport service level. The number of aircraft hangar spaces available at each airport was reviewed to see if the airport could provide transient aircraft storage space; existing hangar availability was attained from the inventory forms completed by airport management. As can be seen from Table 5-5, Northern Maine Regional and Houlton International are the only airports that meet the hangar requirements for transient aircraft.

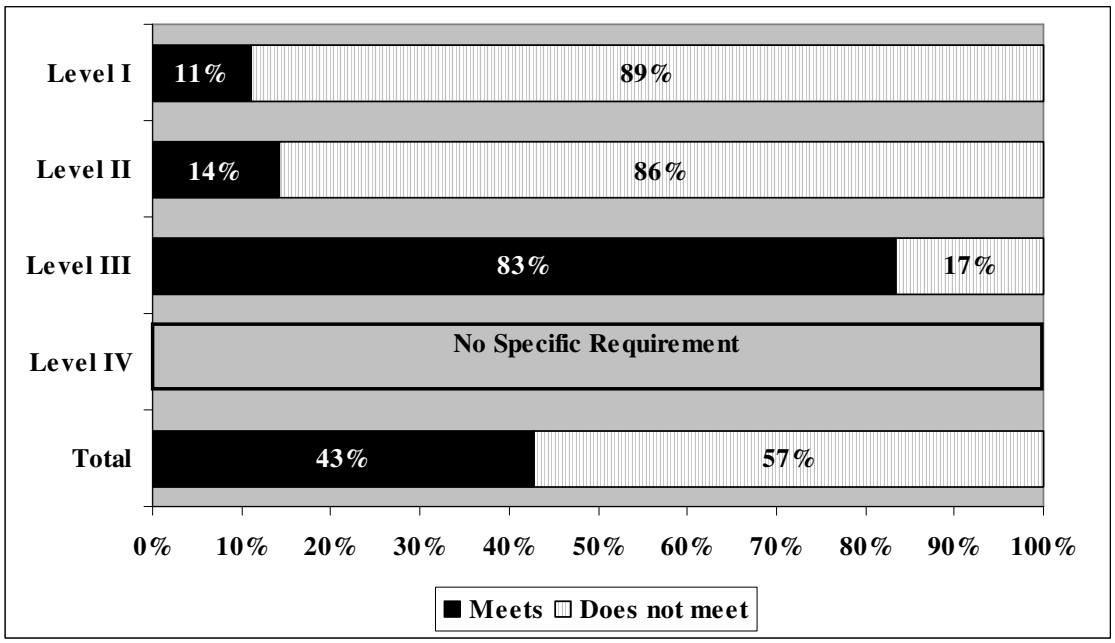
TABLE 5-5
TRANSIENT AIRCRAFT HANGAR OBJECTIVES

	CITY NAME	FACILITY NAME	TRANSIENT AIRCRAFT OPERATIONS	FACILITY OBJECTIVES	AVAILABLE HANGARS	MEETS CRITERIA
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	10,000	7	0	NO
	AUGUSTA	AUGUSTA STATE	5,000	3	0	NO
	BANGOR	BANGOR INTERNATIONAL	22,255	15	0	NO
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	22,000	15	0	NO
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	38,070	26	0	NO
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	500	1	1	YES
	ROCKLAND	KNOX COUNTY REGIONAL	27,000	18	0	NO
	SANFORD	SANFORD REGIONAL	24,675	17	0	NO
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	6,680	5	0	NO
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	8,069	6	0	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	1,176	1	0	YES
	HOULTON	HOULTON INTERNATIONAL	6,631	5	25	YES
	OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	1,110	1	0	YES
	OXFORD	OXFORD COUNTY REGIONAL	1,949	1	0	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	7,250	5	0	NO
	WISCASSET	WISCASSET	12,900	9	0	NO
LEVEL III	BELFAST	BELFAST MUNICIPAL	NA	NA	NA	NA
	BETHEL	BETHEL REGIONAL	NA	NA	NA	NA
	CARIBOU	CARIBOU MUNICIPAL	NA	NA	NA	NA
	DEXTER	DEXTER REGIONAL	NA	NA	NA	NA
	EASTPORT	EASTPORT MUNICIPAL	NA	NA	NA	NA
	FRYEBURG	EASTERN SLOPES REGIONAL	NA	NA	NA	NA
	GREENVILLE	GREENVILLE MUNICIPAL	NA	NA	NA	NA
	JACKMAN	NEWTON FIELD	NA	NA	NA	NA
	LINCOLN	LINCOLN REGIONAL	NA	NA	NA	NA
	MILLINOCKET	MILLINOCKET MUNICIPAL	NA	NA	NA	NA
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NA	NA	NA	NA
	RANGELEY	RANGELEY MUNICIPAL	NA	NA	NA	NA
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NA	NA	NA	NA
	DEBLOIS	DEBLOIS FLIGHT STRIP	NA	NA	NA	NA
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NA	NA	NA	NA
	ISLESBORO	ISLESBORO	NA	NA	NA	NA
	LUBEC	LUBEC MUNICIPAL	NA	NA	NA	NA
	MACHIAS	MACHIAS VALLEY	NA	NA	NA	NA
	PRINCETON	PRINCETON MUNICIPAL	NA	NA	NA	NA
	STONINGTON	STONINGTON MUNICIPAL	NA	NA	NA	NA

SOURCES: Airport Operators/Managers MASPU Inventory Form; WSA
NOTE: Table prepared June 2002

Chart 5-1 shows that for the hangar objectives benchmark, 11 percent of Level I, 14 percent of Level II, and 83 percent of Level III airports meet the MASPU hangars objectives. Level IV airports do not have an objective for this benchmark.

CHART 5-1
HANGAR REQUIREMENTS BENCHMARK



As indicated in Chart 5-1, many of Maine's busier airports are not meeting hangar storage objectives set by MASPU. Facilities needed to address these shortfalls will be identified in Phase II of the MASPU. Aside from aircraft that are currently based at public airports in Maine, private airports also play a role in accommodating the storage needs of based aircraft in the State.

Table 5-6 shows the privately owned/public-use airports located in Maine, along with the number of based aircraft at each private airport in 2001. **Exhibit 5-5** shows the publicly owned/public-use airports, the privately owned/public-use airports, and the number of based aircraft at each of the privately owned/public-use airports in the State. As can be seen in Exhibit 5-5, if either Limington-Harden Airport or Twitchell Airport closed, there would be an influx of planes in areas of Maine that currently do not meet MASPU objectives for providing covered aircraft storage.

Privately owned airports are playing a role in meeting Maine's hangar storage needs. Operators of the State's larger privately owned airports indicate that during the summer months, when weather conditions are good, they have unoccupied hangars. During the winter months, however, all the hangars are full, as aircraft that have been tied down at public or other private airports seek shelter from the elements. This same type of

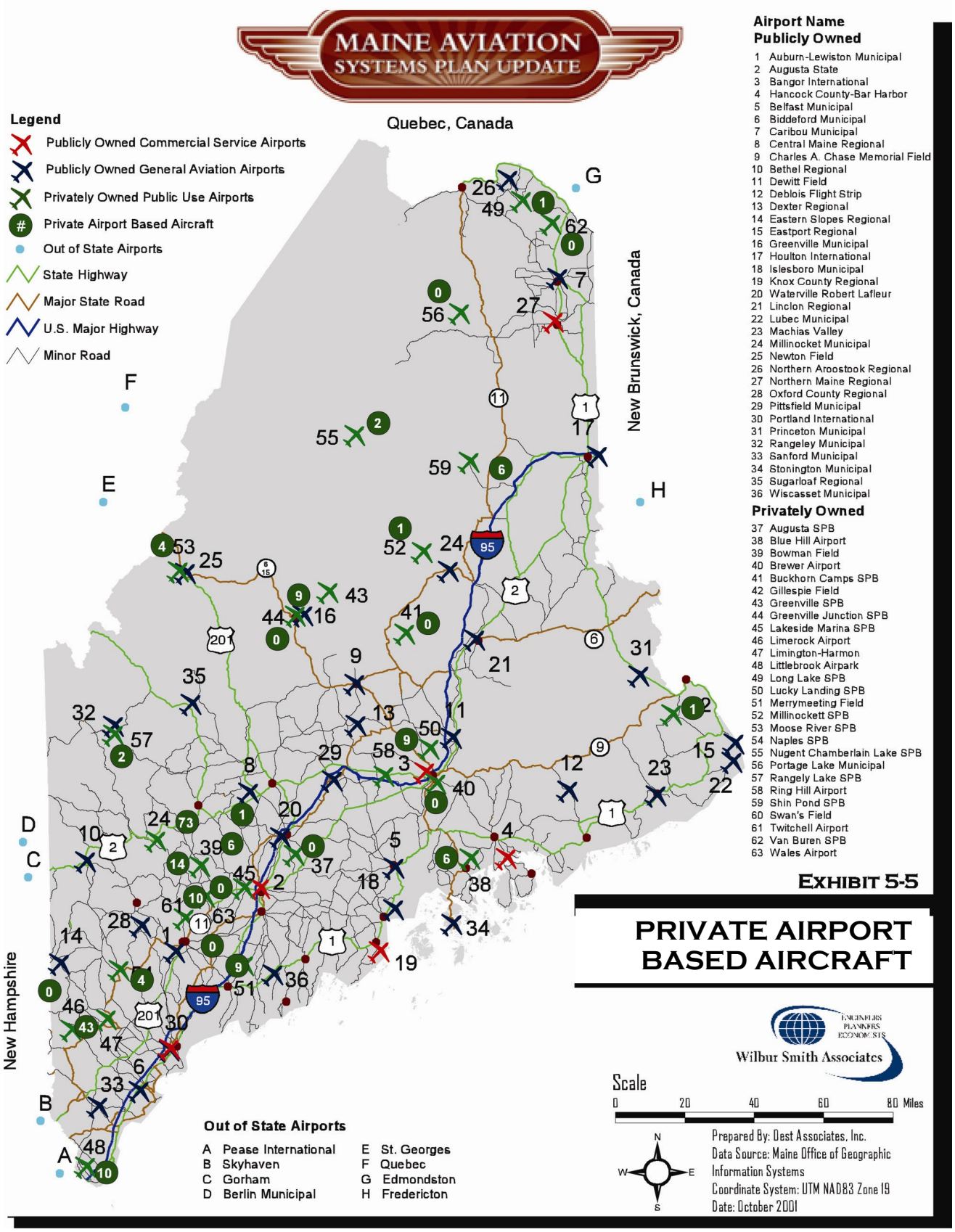
migration pattern from the tie down areas in the summer to hangars in the winter most likely impacts Maine's entire airport system, both private and public airports

The results from Chart 5-1 and Table 5-6 and the visual representation from Exhibit 5-5 show that actions to provide storage for based and transient aircraft at Maine's publicly owned airports over the planning period will be needed if MASPU facility objectives.

TABLE 5-6
PRIVATE OWNED/PUBLIC USE BASED AIRCRAFT

CITY	AIRPORT	BASED AIRCRAFT			
		SINGLE	MULTI	OTHER	TOTAL
AUGUSTA	AUGUSTA SPB	0	0	0	**0**
BLUE HILL	BLUE HILL	6	0	0	**6**
LIVERMORE FALLS	BOWMAN FIELD	13	0	1	**14**
BREWER	BREWER	18	0	0	**18**
NORCROSS/MILLINOCKET	BUCKHORN CAMPS	0	0	0	**0**
MEDDYBEMPS	GILLESPIE FIELD	1	0	0	**1**
GREENVILLE	GREENVILLE	9	0	0	**9**
GREENVILLE JUNCTION	GREENVILLE JUNCTION SPB	0	0	0	**0**
EAST WINTHROP	LAKESIDE MARINA	0	0	0	**0**
LIMINGTON	LIMERICK AIRPORT	0	0	0	**0**
LIMINGTON	LIMINGTON-HARMON	43	0	0	**43**
ELIOT	LITTLEBROOK AIRPARK	10	0	0	**10**
SINCLAIR	LONG LAKE	1	0	0	**1**
BANGOR	LUCKY LANDING MARINA AND SPB	9	0	0	**9**
BOWDOINHAM	MERRYMEETING FIELD	9	0	0	**9**
MILLINOCKET	MILLINOCKET	1	0	0	**1**
OAKLAND	MOODY SNOW POND	2	0	0	**2**
JACKMAN	MOOSE RIVER SPB	1	0	0	**1**
CHESUNCOOK	NUGENT CHAMBERLAIN LAKE	0	0	0	**0**
NAPLES	NAPLES	4	0	0	**4**
PORTAGE LAKE	PORTAGE LAKE SPB	0	0	0	**0**
RANGELEY	RANGELEY LAKE	2	0	0	**2**
CARMEL	RING HILL	0	0	0	**0**
PATTEN	SHIN POND	6	0	0	**6**
DIXFIELD	SWANS FIELD	10	0	0	**10**
TURNER	TWITCHELL	72	0	1	**73**
VAN BUREN	VAN BUREN SPB	0	0	0	**0**
WALES	WALES	0	0	0	**0**
	TOTAL	**217**	**0**	**2**	**219**

SOURCES: FAA 5010 form; WSA


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Privately Owned Public Use Airports
Private Airport Based Aircraft
Out of State Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
Publicly Owned
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Belfast Municipal
6 Biddeford Municipal
7 Caribou Municipal
8 Central Maine Regional
9 Charles A. Chase Memorial Field
10 Bethel Regional
11 Dewitt Field
12 Deblois Flight Strip
13 Dexter Regional
14 Eastern Slopes Regional
15 Eastport Regional
16 Greenville Municipal
17 Houlton International
18 Islesboro Municipal
19 Knox County Regional
20 Waterville Robert Lafleur
21 Linclon Regional
22 Lubec Municipal
23 Machias Valley
24 Millinocket Municipal
25 Newton Field
26 Northern Aroostook Regional
27 Northern Maine Regional
28 Oxford County Regional
29 Pittsfield Municipal
30 Portland International
31 Princeton Municipal
32 Rangeley Municipal
33 Sanford Municipal
34 Stonington Municipal
35 Sugarloaf Regional
36 Wiscasset Municipal
Privately Owned
37 Augusta SPB
38 Blue Hill Airport
39 Bowman Field
40 Brewer Airport
41 Buckhorn Camps SPB
42 Gillespie Field
43 Greenville SPB
44 Greenville Junction SPB
45 Lakeside Marina SPB
46 Limerock Airport
47 Limington-Harmon
48 Littlebrook Airpark
49 Long Lake SPB
50 Lucky Landing SPB
51 Merrymeeting Field
52 Millinockett SPB
53 Moose River SPB
54 Naples SPB
55 Nugent Chamberlain Lake SPB
56 Portage Lake Municipal
57 Rangely Lake SPB
58 Ring Hill Airport
59 Shin Pond SPB
60 Swan's Field
61 Twitchell Airport
62 Van Buren SPB
63 Wales Airport
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-5
PRIVATE AIRPORT BASED AIRCRAFT
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

Benchmark: Percent of system airports, by category, whose auto parking facilities meet MASPU facility/service objectives.

Table 5-7 shows the commercial service airports with air carrier automobile parking needs. The facility/service objective for commercial airline automobile parking is that the airport should have automobile parking spaces to meet resident-passenger demand. Demand was determined by attaining the enplanements for each airport (2001) and multiplying that number by 80 percent; it was assumed that 80 percent of resident travelers arriving at each airport would be parking an automobile. Then the amount of rental car parking and employee parking needs were factored in using industry standard ratios. Parking requirements were added together to attain the commercial auto parking facility needs. As can be seen from Table 5-7, none of the commercial service airports currently meet the facility objective for MASPU commercial auto parking.

TABLE 5-7
AIR CARRIER AUTOMOBILE PARKING FOR 2001

CITY NAME	FACILITY NAME	AIR CARRIER AUTO SPACES	FACILITY OBJECTIVE	MEETS OBJECTIVE
AUGUSTA	AUGUSTA STATE	20	29	NO
BANGOR	BANGOR INTERNATIONAL	1,062	1,271	NO
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	89	91	NO
PORTLAND	PORTLAND INTERNATIONAL JETPORT	2,752	4,427	NO
PRESQUE ISLE	NORTHERN MAINE REGIONAL	159	166	NO
ROCKLAND	KNOX COUNTY REGIONAL	25	49	NO

SOURCES: Airport Operators/Managers MASPU Inventory Form; WSA
NOTE: Table prepared June 2002

Auto parking needs for general aviation are most often tied to the number of based aircraft. In addition, at busier general aviation facilities, there may be a need to provide parking for employees, visitors, and other on airport business such as rental cars. Based on their role in the system, the MASPU has identified different auto parking objectives for Level I, Level II, Level III, and Level IV airports. These objectives are as follows:

General aviation automobile parking objectives:

- *Level I – Equal to the number of based aircraft*
- *Level II - Equal to 75% of the number of based aircraft*
- *Level III - Equal to 25% of the number of based aircraft*
- *Level IV – No specific objective*

It is often difficult to accurately identify the number of "actual" spaces available for general aviation-related auto parking. Many smaller general aviation airports often have unpaved auto-parking areas. At some airports, it is not uncommon for aircraft owners to park their car in their hangar when they are flying their plane. Autos are also often parked in non-paved areas near hangar storage facilities. With the events of September 11th, new security guidelines on both the state and Federal levels for commercial and

general aviation airports have been and are being formulated. As a result, it is possible that auto parking in aircraft movement areas may become restricted, or at least more restricted, in the future. As a result, airports should plan to provide auto parking in designated areas away from hangars and other areas of aircraft movement.

Using the facility objectives developed in the MASPU, each study airport was reviewed to determine the ability of current auto parking facilities to meet study objectives. The results are depicted in **Table 5-8**. As demand at system airports grows over the next 20 years, it is possible that some study airports that are now meeting the auto parking objectives may find themselves unable to comply with this objective unless additional auto parking facilities are provided. Based on Table 5-8, several airports are currently not meeting their current MASPU general aviation auto parking objectives.

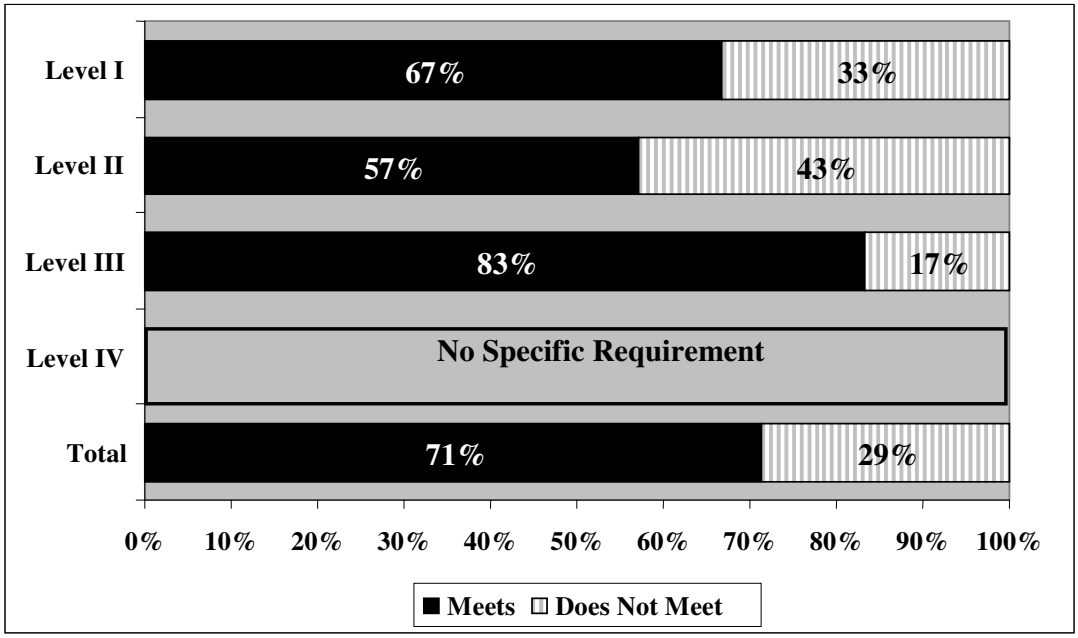
TABLE 5-8
GENERAL AUTOMOBILE PARKING REQUIREMENTS

	CITY NAME	FACILITY NAME	GA AUTO PARKING SPACES	BASED AIRCRAFT	FACILITY OBJ	MEETS OBJ
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	132	71	71	YES
	AUGUSTA	AUGUSTA STATE	81	46	46	YES
	BANGOR	BANGOR INTERNATIONAL	150	67	67	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	100	44	44	YES
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	148	56	56	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	12	23	23	NO
	SANFORD	SANFORD REGIONAL	36	67	67	NO
	ROCKLAND	KNOX COUNTY REGIONAL	25	55	55	NO
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	37	15	15	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	200	41	31	YES
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	70	8	6	YES
	HOULTON	HOULTON INTERNATIONAL	15	29	22	NO
	OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	90	22	17	YES
	OXFORD	OXFORD COUNTY REGIONAL	45	10	8	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	16	38	29	NO
	WISCASSET	WISCASSET	24	43	33	NO
LEVEL III	BELFAST	BELFAST MUNICIPAL	15	24	12	NO
	BETHEL	BETHEL REGIONAL	15	9	5	YES
	CARIBOU	CARIBOU MUNICIPAL	40	11	6	YES
	DEXTER	DEXTER REGIONAL	18	17	9	YES
	EASTPORT	EASTPORT MUNICIPAL	10	5	3	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	30	27	14	YES
	GREENVILLE	GREENVILLE MUNICIPAL	10	25	13	NO
	JACKMAN	NEWTON FIELD	10	9	5	YES
	LINCOLN	LINCOLN REGIONAL	80	26	13	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	7	13	7	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	20	59	30	NO
	RANGELEY	RANGELEY MUNICIPAL	12	12	6	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	10	8	NONE	NA
	DEBLOIS	DEBLOIS FLIGHT STRIP	0	0	NONE	NA
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	20	2	NONE	NA
	ISLESBORO	ISLESBORO	7	4	NONE	NA
	LUBEC	LUBEC MUNICIPAL	20	1	NONE	NA
	MACHIAS	MACHIAS VALLEY	10	8	NONE	NA
	PRINCETON	PRINCETON MUNICIPAL	5	8	NONE	NA
	STONINGTON	STONINGTON MUNICIPAL	10	8	NONE	NA

SOURCES: Airport Operators/Managers MASPU Inventory Form; WSA
NOTE: Table prepared June 2002
N/A = Not Applicable

Chart 5-2 shows that 67 percent of Level I, 57 percent of Level II, and 83 percent of Level III airports meet the objectives set by the benchmark. There are no objectives for Level IV airports for the automobile parking benchmark.

CHART 5-2
GENERAL AVIATION AUTOMOBILE PARKING BENCHMARK



Benchmark: Percent of system airports, by category, whose general aviation terminal/administration facilities meet MASPU facility objectives.

Typically, general aviation terminal/administration buildings are planned to serve the total number of peak hour operations and passengers. General aviation buildings may serve many different roles, depending on the complexity of the airport. At many of the Level I and II airports, the general aviation terminal/administration building may house a fixed base operator (FBO), pilot lounge, weather information area, showers, and observation area. The FBO often provides services such as fuel, hangar and tiedown rental, flight school, oxygen, courtesy cars, and aircraft maintenance. At Level III airports, terminal/administrative buildings usually consist of a pilot lounge, restrooms, and a telephone. The administrative needs at a Level IV airport usually consists of a telephone and a place where the pilot can plan his/her trip. Based on roles in the system, the MASPU has identified different terminal/administration building facility objectives for Level I, Level II, Level III, and Level IV airports.

General aviation terminal/administration building objectives:

- *Level I – At a minimum, 2,000 square feet of terminal/administrative building*
- *Level II – At a minimum, 1,000 square feet of terminal/administrative building*
- *Level III – Phone and Restroom; not specific building objective*
- *Level IV – No specific objective*

Each study airport was reviewed to determine the ability of its general aviation terminal/administration building to meet these objectives. The results are depicted in **Table 5-9**. As shown, several airports are not currently meeting their general aviation terminal/administration building facility objectives.

TABLE 5-9
GENERAL AVIATION TERMINAL /ADMINISTRATION BUILDING

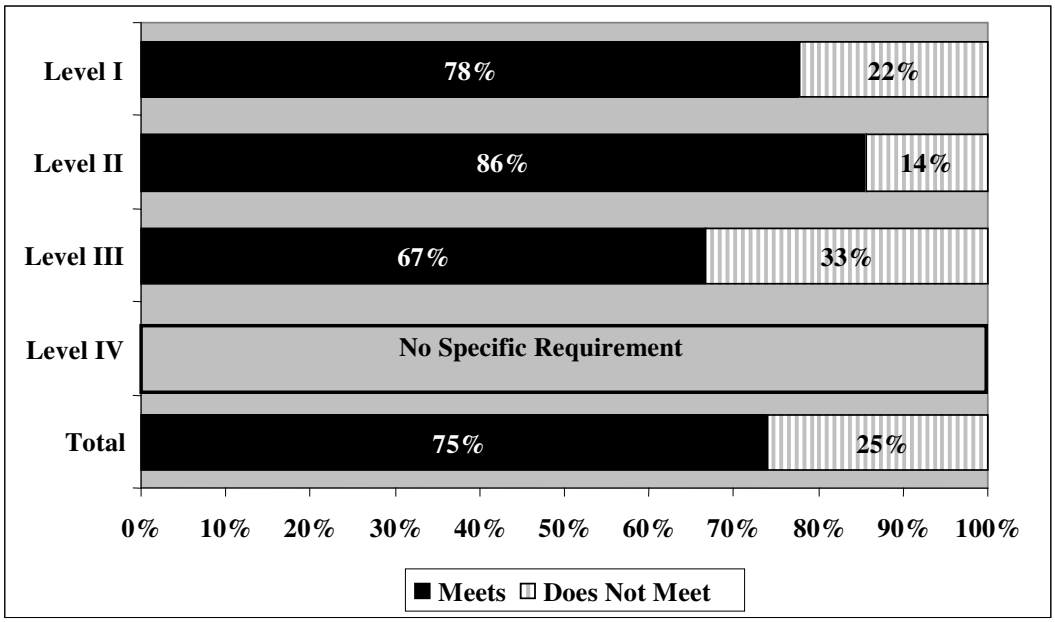
	CITY NAME	FACILITY NAME	TERMINAL/ADMIN BUILDINGS	MEETS CRITERIA
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	2,250	YES
	AUGUSTA	AUGUSTA STATE	9,775	YES
	BANGOR	BANGOR INTERNATIONAL	7,904	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	3,220	YES
	SANFORD	SANFORD REGIONAL	1,500	NO
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	3,390	YES
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	5,000	YES
	ROCKLAND	KNOX COUNTY REGIONAL	700	NO
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	16,400	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	650	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	1,906	YES
	HOULTON	HOULTON INTERNATIONAL	1,400	YES
	OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	5,000	YES
	OXFORD	OXFORD COUNTY REGIONAL	1,000	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	2,400	YES
	WISCASSET	WISCASSET	4,900	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	PHONE/RESTROOM	YES
	BETHEL	BETHEL REGIONAL	PHONE/RESTROOM	NO
	CARIBOU	CARIBOU MUNICIPAL	PHONE/RESTROOM	YES
	DEXTER	DEXTER REGIONAL	PHONE/RESTROOM	YES
	EASTPORT	EASTPORT MUNICIPAL	PHONE/RESTROOM	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	PHONE/RESTROOM	YES
	GREENVILLE	GREENVILLE MUNICIPAL	PHONE/RESTROOM	NO
	JACKMAN	NEWTON FIELD	PHONE/RESTROOM	YES
	LINCOLN	LINCOLN REGIONAL	PHONE/RESTROOM	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	PHONE/RESTROOM	NO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	PHONE/RESTROOM	YES
	RANGELEY	RANGELEY MUNICIPAL	PHONE/RESTROOM	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NA	NA
	DEBLOIS	DEBLOIS FLIGHT STRIP	NA	NA
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NA	NA
	ISLESBORO	ISLESBORO	NA	NA
	LUBEC	LUBEC MUNICIPAL	NA	NA
	MACHIAS	MACHIAS VALLEY	NA	NA
	PRINCETON	PRINCETON MUNICIPAL	NA	NA
	STONINGTON	STONINGTON MUNICIPAL	NA	NA

SOURCES: Airport Operators/Managers MASPU Inventory Form

NOTES NA=Not Applicable;
MASPU facility and objectives call for Level III airports to provide phones and restrooms; an objective for terminal/administration space was not established for either Level III or Level IV airports.

Chart 5-3 shows that 78 percent of Level I, 86 percent of Level II, and 67 percent of Level III airports meet their objective for the general aviation terminal/administration building. There was not an objective for Level IV airports for this benchmark. Phase II of the MASPU will set future compliance targets for this benchmark.

CHART 5-3
GENERAL AVIATION TERMINAL/ADMINISTRATION BUILDING BENCHMARK



PERFORMANCE MEASURE: AVIATION OUTREACH

Airports in Maine are important resources. Sometimes, however, the benefits that all residents of Maine receive from the airport system are not apparent. System airports can be valuable learning resources and centers. There are many careers in the aviation industry. Traditional education programs and curricula typically do not prepare students for the wide variety of careers that exist in the field of aviation.

Maine recognizes that its system airports are in fact aviation "classrooms." As more people learn about and understand airports and aviation, as well as the role that each plays in the State's transportation and economic infrastructures, the more equipped these individuals will be to understand the development and expansion needs of airports throughout the State.

By using a performance measure associated with aviation outreach and education to evaluate the Maine Airport System, OPT will have a better understanding of the role that they can play in the future to work with system airports to promote educational

opportunities. To evaluate the aviation outreach performance measure, the following benchmarks were used:

- Percent of the State, its population, and service centers that are within 30 minutes of a system airport with a full/part-time flight school/flight instructor.
- Percent of system airports that have aviation maintenance and repair.
- Percent of system airports that have established public outreach or community educational programs.
- Percent of system airports that have educational programs that are affiliated with local elementary/secondary schools, community colleges, or technical/vocational schools.

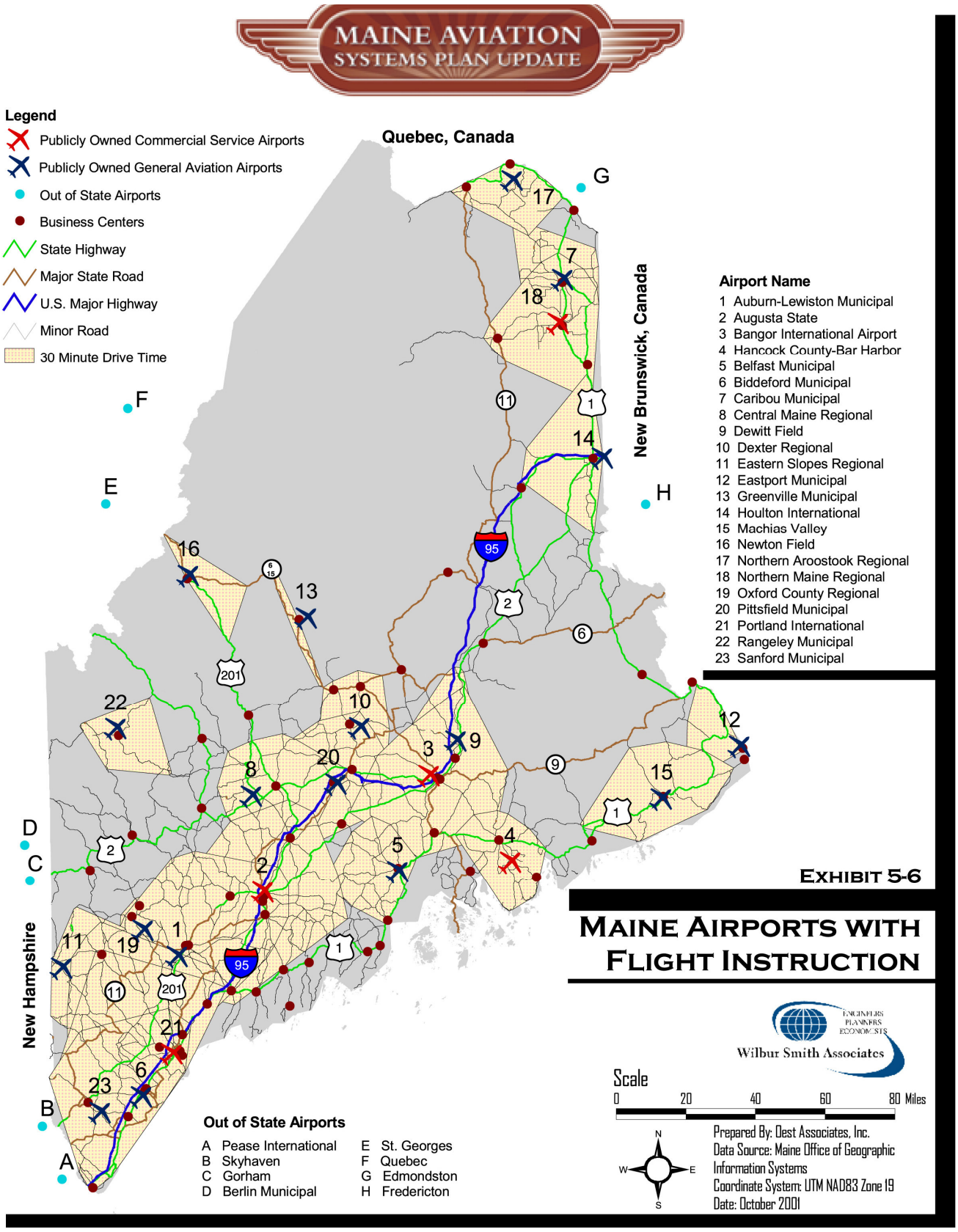
Benchmark: Percent of the State, its population, and service centers that are within 30 minutes of a system airport with a full/part-time flight school/flight instructor.

Airports with flight instruction add pilots to the aviation system. They also provide outlets for people who are interested in aviation. Flight instructors are always willing to discuss flight principles with those who are interested. Another way that flight instruction is beneficial is through introductory flights (that are often free) to those attracted to aviation. For someone who has never flown before, this introduction flight could spark further interest. **Table 5-10** shows the percentage of the State, its population and service centers that are within 30 minutes of a system airport with a full/part-time flight school/flight instructor. **Exhibit 5-6** shows all of the airports that have full or part time flight instruction. As can be seen, 23 of the 36 public use airports in Maine provide flight instruction. The need to increase statewide coverage shown on Exhibit 5-6 will be determined in Phase II.

TABLE 5-10
FLIGHT SCHOOL/FLIGHT INSTRUCTOR

	AREA COVERED (SQ MILES)	PERCENT OF STATE COVERED	POPULATION WITHIN AREA	PERCENT OF POPULATION WITHIN AREA	SERVICE CENTERS WITHIN AREA	PERCENT OF SERVICE CENTERS WITHIN AREA
FLIGHT SCHOOLS/ INSTRUCTORS	11,837	33%	1,143,420	90%	46	67%

SOURCES: WSA/Oest Associates


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Business Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International Airport
4 Hancock County-Bar Harbor
5 Belfast Municipal
6 Biddeford Municipal
7 Caribou Municipal
8 Central Maine Regional
9 Dewitt Field
10 Dexter Regional
11 Eastern Slopes Regional
12 Eastport Municipal
13 Greenville Municipal
14 Houlton International
15 Machias Valley
16 Newton Field
17 Northern Aroostook Regional
18 Northern Maine Regional
19 Oxford County Regional
20 Pittsfield Municipal
21 Portland International
22 Rangeley Municipal
23 Sanford Municipal
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-6
MAINE AIRPORTS WITH FLIGHT INSTRUCTION
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

Benchmark: Percent of system airports that have aviation maintenance and repair.

On-the-job training is one means by which airports in Maine can support aviation related education and employment. Many airports in Maine have on-airport businesses that provide some type of maintenance and/or repair service. Information on system airports with maintenance and repair services is shown on **Table 5-11.**

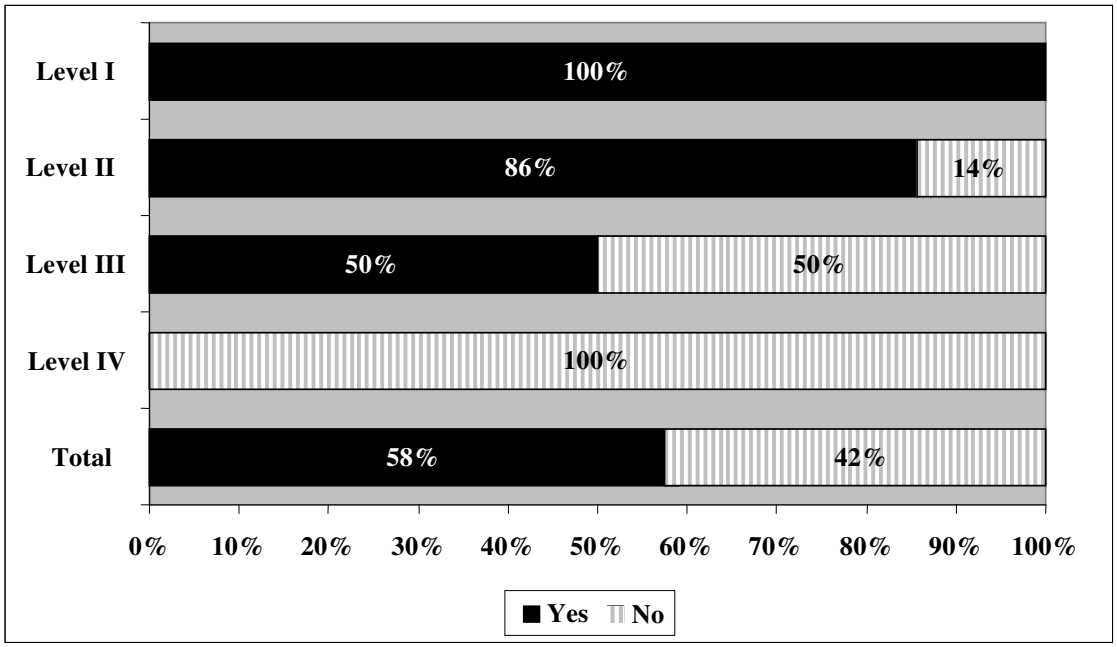
TABLE 5-11
AVIATION MAINTENANCE AND REPAIR

	CITY NAME	FACILITY NAME	AIRCRAFT REPAIRS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	PORTLAND	PORTLAND INTL JETPORT	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	YES
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	NO
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	YES
	OXFORD	OXFORD COUNTY REGIONAL	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	YES
	WISCASSET	WISCASSET	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	YES
	BETHEL	BETHEL REGIONAL	NO
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	NO
	EASTPORT	EASTPORT MUNICIPAL	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	YES
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	YES
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	NO
	MACHIAS	MACHIAS VALLEY	NO
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers MASPU Inventory Form

Chart 5-4 shows that all Level I airports have aviation maintenance and repair, while no airports in Level IV have this type of activity. Airports in Level II and III rank 86 and 50 percent, respectively, for providing aviation maintenance and repair services. What is seen in the Maine system of airports is common throughout the country. Larger airports with more operations have aviation maintenance and repair, while smaller airports do not often provide these services. Phase II of the MASPU will determine if higher compliance ratings for this benchmark are needed.

CHART 5-4
AVIATION MAINTENANCE AND REPAIR BENCHMARK



Benchmark: Percent of system airports that have established public outreach or community educational programs.

Airports often need to expand their existing facilities or to build new facilities. These changes are sometimes necessitated in order to meet growing demand levels, or they may be required to meet changing FAA standards and development guidelines. Airports that have proactive and positive relationships with their host and adjacent communities have a much better opportunity to affect change, when change becomes necessary. Many of Maine's airports recognize the benefit of having public outreach and educational programs. When the time comes, these programs can be important agents for gaining community acceptance for airport improvement and expansion.

As part of the inventory effort for the MAPSU, information was solicited from the airports to identify those airports that have standing mechanisms and programs for public outreach and education. **Table 5-12** shows the findings from the MASPU as they related to this benchmark.

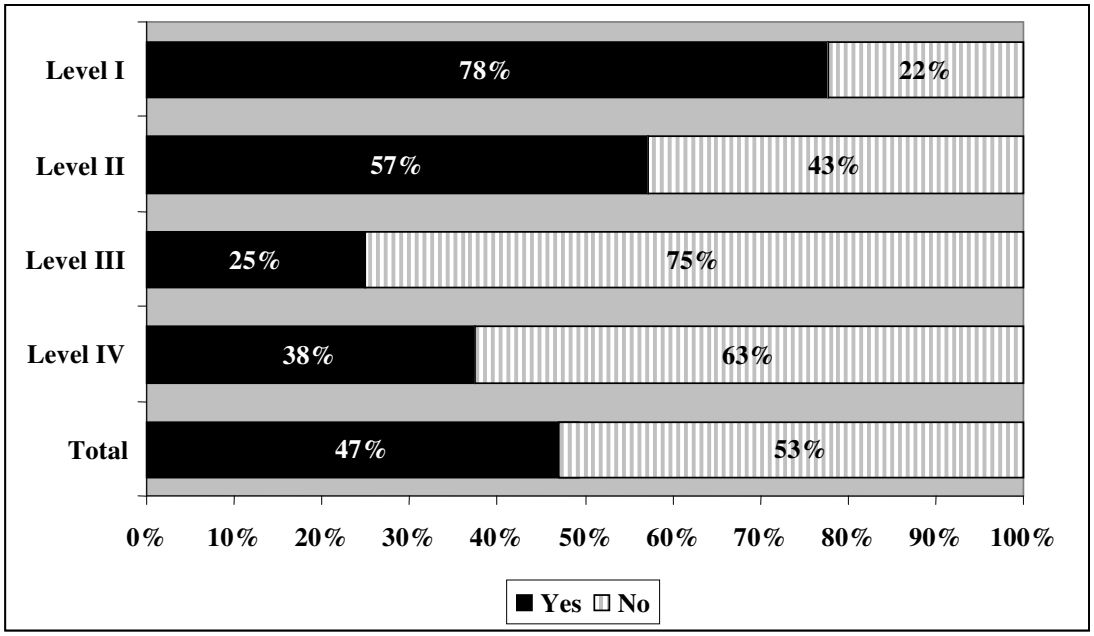
TABLE 5-12
PUBLIC OUTREACH PROGRAMS

	CITY NAME	FACILITY NAME	OUTREACH PROGRAM
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	NO
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	YES
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD,OLD TOWN MUNICIPAL	NO
	OXFORD	OXFORD COUNTY REGIONAL	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO
	BETHEL	BETHEL REGIONAL	NO
	CARIBOU	CARIBOU MUNICIPAL	NO
	DEXTER	DEXTER REGIONAL	NO
	EASTPORT	EASTPORT MUNICIPAL	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	YES
	RANGELEY	RANGELEY MUNICIPAL	NO
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	YES
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	YES
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	NO
	MACHIAS	MACHIAS VALLEY	YES
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers MASPU Inventory Form

As reflected in **Chart 5-5**, results for the inventory show that almost 50 percent of all airports in the State have recognized the benefit of having an established outreach/educational program and have established a program. The need to increase this current compliance rating will be determined during Phase II of the MASPU.

CHART 5-5
PUBLIC OUTREACH PROGRAMS BENCHMARK



Benchmark: Percent of system airports that have educational programs that are affiliated with local elementary/secondary schools, community colleges, or technical/vocational schools.

Airports can be important educational and training centers. There are many aviation-related careers, and around the country, there are numerous examples of colleges and technical schools that have partnered with airports to provide aviation-related curricula. This benchmark of the MASPU is primarily informational in nature. It was structured to provide OPT with insight into those airports in the system that are now hosting this type of activity. With this information in hand, OPT will be able to publicize the success stories of system airports and encourage other airports in Maine to host similar types of activities. **Appendix B** provides insight into educational efforts that now take place at system airports. This information can be used by other airports in Maine to either initiate or enhance their ties with educational facilities in their area. Educational programs with local colleges, universities, and technical schools can increase activity and airport revenue streams.

As shown in **Table 5-13**, very few of the system airports report that they currently have educational programs for aviation-related career training.

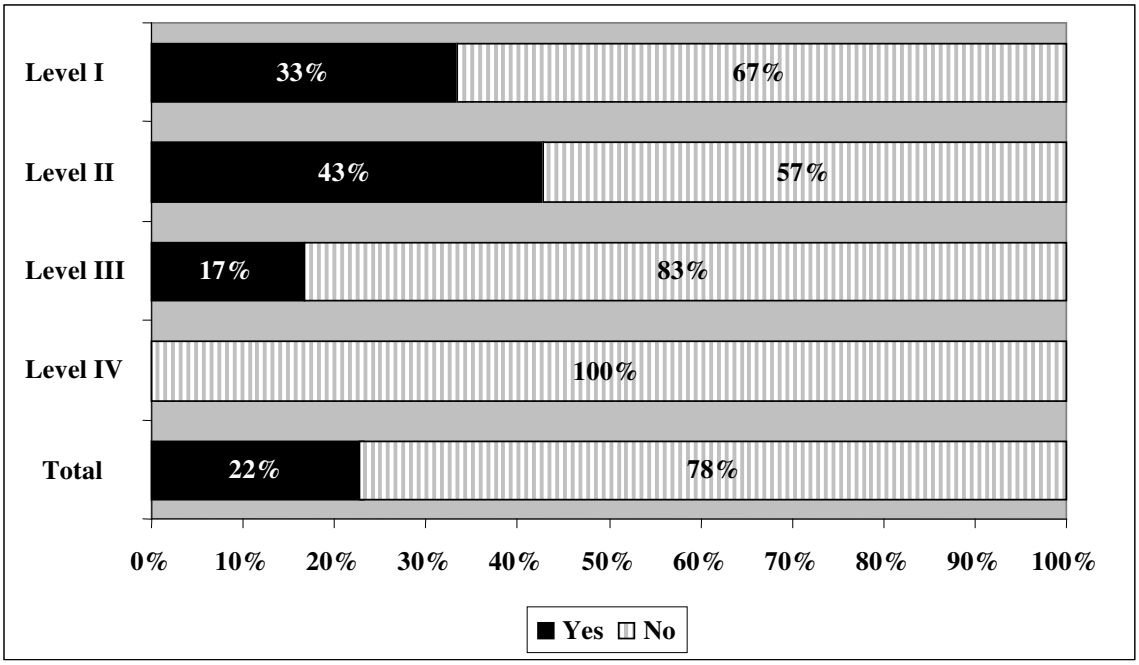
TABLE 5-13
EDUCATIONAL PROGRAMS

	CITY NAME	FACILITY NAME	EDUCATIONAL PROGRAMS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES
	AUGUSTA	AUGUSTA STATE	NO
	BANGOR	BANGOR INTERNATIONAL	NO
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	NO
	ROCKLAND	KNOX COUNTY REGIONAL	NO
	SANFORD	SANFORD REGIONAL	NO
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	NO
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	NO
	OXFORD	OXFORD COUNTY REGIONAL	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO
	BETHEL	BETHEL REGIONAL	NO
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	NO
	EASTPORT	EASTPORT MUNICIPAL	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	NO
	MACHIAS	MACHIAS VALLEY	NO
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers MASPU Inventory Form

As reflected in **Chart 5-6**, 22 percent of the airports in the system now report this type of activity. During Phase II of the study, the OPT and the Project Advisory Committee (PAC) will work together to establish a target objective and a future compliance rating for this benchmark.

CHART 5-6
EDUCATIONAL PROGRAMS BENCHMARK



PERFORMANCE MEASURE: STANDARDS/SAFETY

One of the most important characteristics of a good airport system is the system's ability to meet applicable design standards. Generally speaking, when airports in any system comply with such standards, this helps to promote a system of safe and efficient airports. While each airport's ability to meet standards is primarily a master planning issue, it is important for the MASPU to provide at least a general overview of the system's ability to conform to appropriate standards.

Benchmarks used to evaluate the system for this performance measure include the following:

- Percent of system airports that have clear approaches.
- Percent of system airports that have active programs (including vegetation management plans) to clear obstructions from their approaches.
- Percent of system airports that meet runway/taxiway separation criteria for their current ARC.
- Percent of system airports that have RSAs on the primary runway that meet the standard for their current ARC.

- Percent of system airports that have achieved a PCI of 70 or greater on their primary runway.

- Percent of system airports that have established procedures, within an operations manual, for accident reporting.[1]

- Percent of system airports that have a written emergency response plan.

- Percent of system airports that have a wildlife management plan.

- Percent of system airports that have procedures in place to conduct self-inspections on a regular basis.

- Percent of system airports that have fuel farms that comply with NFPA guidelines.

The results of the system evaluation for these benchmarks related to the standards/safety performance measure are discussed in the following sections.

Benchmark: Percent of system airports that have clear approaches.

To protect the safety of aircraft operations, the FAA defines and regulates the airspace surrounding airports. This is done through Federal Aviation Regulation (FAR) Part 77, (*Objects Affecting Navigable Airspace)*. Each airport's airspace is defined and delineated by a set of geometric surfaces, referred to as "imaginary surfaces," which extend outward and upward from airport runways. These "imaginary surfaces" identify the maximum acceptable height of objects beneath and within their boundaries. The height and dimensions of the imaginary surfaces are determined by the airfield elevation, the size of the aircraft using the facility, and the type of approaches to the runways. The FAA 5010 forms were used as the basis for determining whether or not each airport has clear approaches. A detailed study of runway approaches was not conducted in association with this benchmark. The results are depicted in **Table 5-14**.

[1] Note airports that have reported incidents that have resulted in injury or damage.

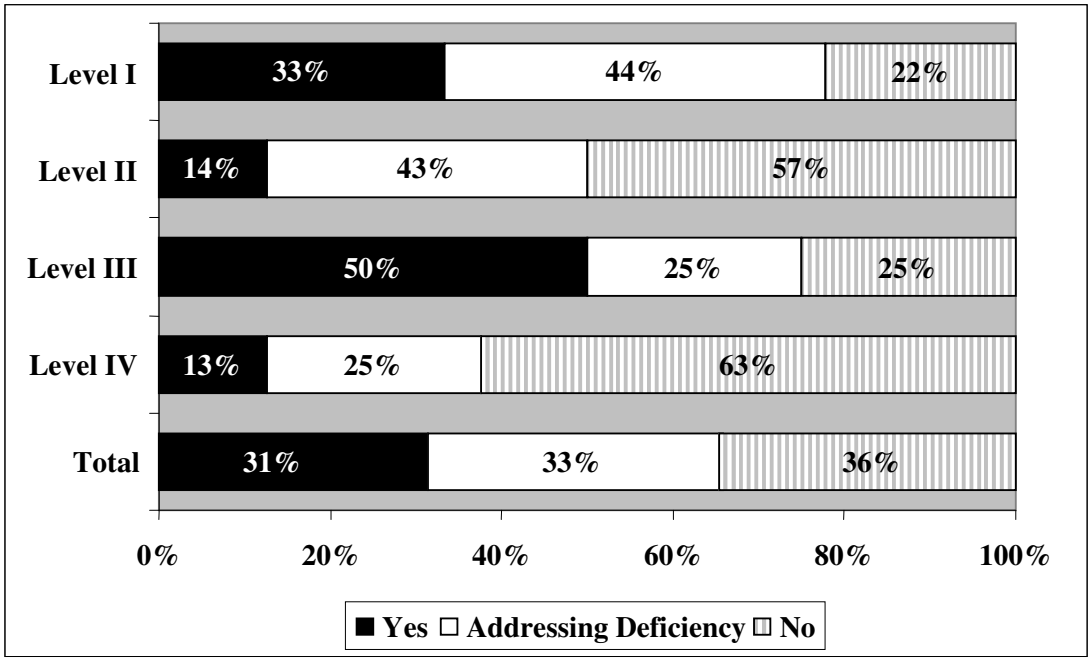
TABLE 5-14
CLEAR RUNWAY APPROACHES

	CITY NAME	FACILITY NAME	RUNWAY APPROACHES CLEAR	ADDRESSING DEFICIENCY
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	NO	YES
	AUGUSTA	AUGUSTA STATE	NO	NO
	BANGOR	BANGOR INTERNATIONAL	YES	
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO	YES
	PORTLAND	PORTLAND INTL JETPORT	YES	
	PREQUE ISLE	NORTHERN MAINE REGIONAL	YES	
	ROCKLAND	KNOX COUNTY REGIONAL	NO	NO
	SANFORD	SANFORD REGIONAL	NO	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	NO	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO	YES
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES	
	HOULTON	HOULTON INTERNATIONAL	NO	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	NO	NO
	OXFORD	OXFORD COUNTY REGIONAL	NO	NO
	PITTSFIELD	PITTSFIELD MUNI	NO	NO
	WISCASSET	WISCASSET	NO	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	YES	
	BETHEL	BETHEL REGIONAL	YES	
	CARIBOU	CARIBOU MUNICIPAL	YES	
	DEXTER	DEXTER REGIONAL	NO	YES
	EASTPORT	EASTPORT MUNICIPAL	YES	
	FRYEBURG	EASTERN SLOPES REGIONAL	NO	YES
	GREENVILLE	GREENVILLE MUNICIPAL	NO	NO
	JACKMAN	NEWTON FIELD	YES	
	LINCOLN	LINCOLN REGIONAL	NO	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO	NO
	RANGELEY	RANGELEY MUNICIPAL	YES	
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NO	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	YES	
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO	NO
	ISLESBORO	ISLESBORO	NO	NO
	LUBEC	LUBEC MUNICIPAL	NO	YES
	MACHIAS	MACHIAS VALLEY	NO	NO
	PRINCETON	PRINCETON MUNICIPAL	NO	YES
	STONINGTON	STONINGTON MUNICIPAL	NO	NO

SOURCE: FAA 5010 form

Chart 5-7 shows that 33 percent of Level I, 14 percent of Level II, 50 percent of Level III, and 13 percent of Level IV airports report clear approaches. 44 percent of Level I, 43 percent of Level II, 25 percent of Level III, and 25 percent of the Level IV airports report they are addressing current obstructions in the approaches to their runways. By combining the airports that have clear approaches and those that are addressing the deficiency, Level I airports have 77 percent, Level II airports have 43 percent, Level III airports have 75 percent, and Level IV have 38 percent clear of their airports that now meet the approach benchmark. Target compliance ratings for all levels and the system as a whole will be established in Phase II. This is one benchmark that may warrant a target objective beyond the current rate of compliance.

CHART 5-7
CLEAR RUNWAY APPROACH ZONES BENCHMARK



Benchmark: Percent of system airports that have active programs (including vegetation management plans) to clear obstructions from their approaches.

This benchmark also deals with clear approaches. This benchmark considers the percentage of airports that have programs/plans in place to remove or keep vegetation from becoming a problem in the runway approach. As stated above, airspace is defined and delineated by a set of geometric surfaces referred to as "imaginary surfaces." These surfaces extend outward and upward from airport runways. Imaginary surfaces identify the maximum acceptable height of objects beneath and within surface boundaries. While manmade and terrain obstruction cannot always be removed, obstructions in runway approaches related to vegetation (particularly trees) can usually be resolved if the airport has and adheres to a vegetation management plan. The MASPU inventory forms that

were completed by airport personnel served as the basis for whether or not each airport has vegetation management programs or plans in place to keep runways clear of obstructions. This information is shown in **Table 5-15**.

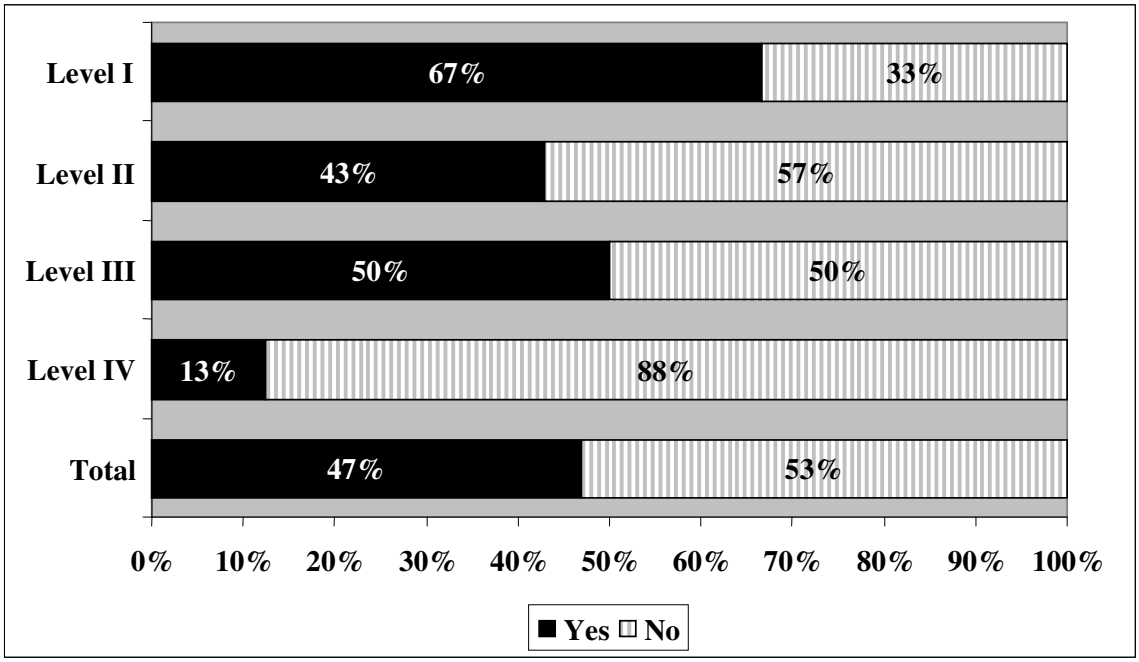
TABLE 5-15
PLANS FOR CLEAR APPROACHES BY USING VEGETATION MANAGEMENT OR OBSTRUCTION REMOVAL PLANS

	CITY NAME	FACILITY NAME	VEGETATION MANAGEMENT PLAN	OBSTRUCTION REMOVAL PLAN	MEET BOTH STANDARDS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES	YES	YES
	AUGUSTA	AUGUSTA STATE	NO	NO	NO
	BANGOR	BANGOR INTERNATIONAL	NO	NO	NO
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO	NO	NO
	PORTLAND	PORTLAND INTL JETPORT	YES	YES	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	NO	YES	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES	YES	YES
	SANFORD	SANFORD REGIONAL	YES	YES	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES	NO	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO	NO	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	NO	NO	NO
	HOULTON	HOULTON INTERNATIONAL	NO	YES	YES
	OLD TOWN	DEWITT FLD,OLD TOWN MUNICIPAL	NO	YES	YES
	OXFORD	OXFORD COUNTY REGIONAL	NO	NO	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO	NO	NO
	WISCASSET	WISCASSET	YES	YES	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO	YES	YES
	BETHEL	BETHEL REGIONAL	YES	YES	YES
	CARIBOU	CARIBOU MUNICIPAL	NO	YES	YES
	DEXTER	DEXTER REGIONAL	NO	NO	NO
	EASTPORT	EASTPORT MUNICIPAL	NO	NO	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	NO	NO	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO	YES	YES
	JACKMAN	NEWTON FIELD	NO	NO	NO
	LINCOLN	LINCOLN REGIONAL	NO	NO	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO	YES	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO	YES	YES
	RANGELEY	RANGELEY MUNICIPAL	YES	NO	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NO	NO	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO	NO	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO	NO	NO
	ISLESBORO	ISLESBORO	NO	NO	NO
	LUBEC	LUBEC MUNICIPAL	NO	NO	NO
	MACHIAS	MACHIAS VALLEY	NO	YES	YES
	PRINCETON	PRINCETON MUNICIPAL	NO	NO	NO
	STONINGTON	STONINGTON MUNICIPAL	NO	NO	NO

SOURCE: Airport Operators/Managers MASPU Inventory Form

Chart 5-8 shows that 67 percent of Level I, 43 percent of Level II, 50 percent of Level III, and 13 percent of Level IV airports have a strategy for clear approaches with vegetation management or obstruction removal plans**.**

CHART 5-8
STRATEGY FOR CLEAR APPROACHES BY USING VEGETATION MANAGEMENT OR OBSTRUCTION REMOVAL PLANS BENCHMARK



Benchmark: Percent of System airports with runway/taxiway separations that meet their current FAA airport reference code (ARC).

Each airport in the Federal System[2] is encouraged by the FAA to meet all applicable design and development standards. In its advisory circulars, the FAA provides specific guidance on which standards are applicable to each airport. The most demanding aircraft that operates at the airport on a regular basis determines each airport's individual design standards. This aircraft is known as the design or critical aircraft. The design aircraft is the most demanding aircraft that performs at least 500 takeoffs and landings at the airport during the year.

Once an airport's design aircraft is established during the development of an airport-specific master plan or airport layout plan (ALP), applicable design standards can then be identified. Each airport's design standards are related to the approach speed and the wingspan of its design aircraft. Within FAA's planning guidelines, these two parameters are used to determine each airport's airport reference code (ARC). A letter and a Roman

[2] All airports included in the FAA's National Plan of Integrated Airport Systems (NPIAS) document are included in the Federal System

numeral define the ARC for each airport. The letter A, B, C, or D is defined by the approach speed of the design aircraft, while the Roman numeral I, II, III, IV, or V is based on the wingspan of the design aircraft. Current ARCs for study airports, as derived from other source documents, are shown in **Table 5-16**.

TABLE 5-16
RUNWAY-TAXIWAY CENTERLINE SEPARATION

	CITY NAME	FACILITY NAME	SEPARATION	ALP/ PHOTO	ARC	COMPLIANCE
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	240	300	B-II	YES
	AUGUSTA	AUGUSTA STATE	300	300	C-II	YES
	BANGOR	BANGOR INTERNATIONAL	400	400	D-V	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	300	400	C-II	YES
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	400	400	C-III	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	400	400	C-III	YES
	ROCKLAND	KNOX COUNTY REGIONAL	240	NA	B-II	NA
	SANFORD	SANFORD REGIONAL	240	400	B-II	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	300	400	C-II	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	150	NA	A-I	NA
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	225	NA	A-I	NA
	HOULTON	HOULTON INTERNATIONAL	240	240	B-II	YES
	OLD TOWN	DEWITT FIELD,OLD TOWN MUNICIPAL	240	NA	B-II	NA
	OXFORD	OXFORD COUNTY REGIONAL	150	NA	B-I	NA
	PITTSFIELD	PITTSFIELD MUNICIPAL	240	NA	B-II	NA
	WISCASSET	WISCASSET	225	225	B-I	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	150	150	A-I	YES
	BETHEL	BETHEL REGIONAL	150	NA	A-I	NA
	CARIBOU	CARIBOU MUNICIPAL	240	240	A-II	YES
	DEXTER	DEXTER REGIONAL	150	NA	A-I	NA
	EASTPORT	EASTPORT MUNICIPAL	225	NA	B-I	NA
	FRYEBURG	EASTERN SLOPES REGIONAL	240	240	B-II	YES
	GREENVILLE	GREENVILLE MUNICIPAL	225	NA	B-I	NA
	JACKMAN	NEWTON FIELD	225	NA	B-I	NA
	LINCOLN	LINCOLN REGIONAL	225	NA	B-I	NA
	MILLINOCKET	MILLINOCKET MUNICIPAL	225	NA	B-II	NA
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	240	240	B-II	YES
	RANGELEY	RANGELEY MUNICIPAL	225	NA	B-I	NA
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	150	NA	A-I	NA
	DEBLOIS	DEBLOIS FLIGHT STRIP	150	NA	A-I	NA
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	150	NA	A-I	NA
	ISLESBORO	ISLESBORO	150	NA	A-I	NA
	LUBEC	LUBEC MUNICIPAL	150	NA	A-I	NA
	MACHIAS	MACHIAS VALLEY	150	NA	A-I	NA
	PRINCETON	PRINCETON MUNICIPAL	150	NA	B-I	NA
	STONINGTON	STONINGTON MUNICIPAL	150	NA	A-I	NA

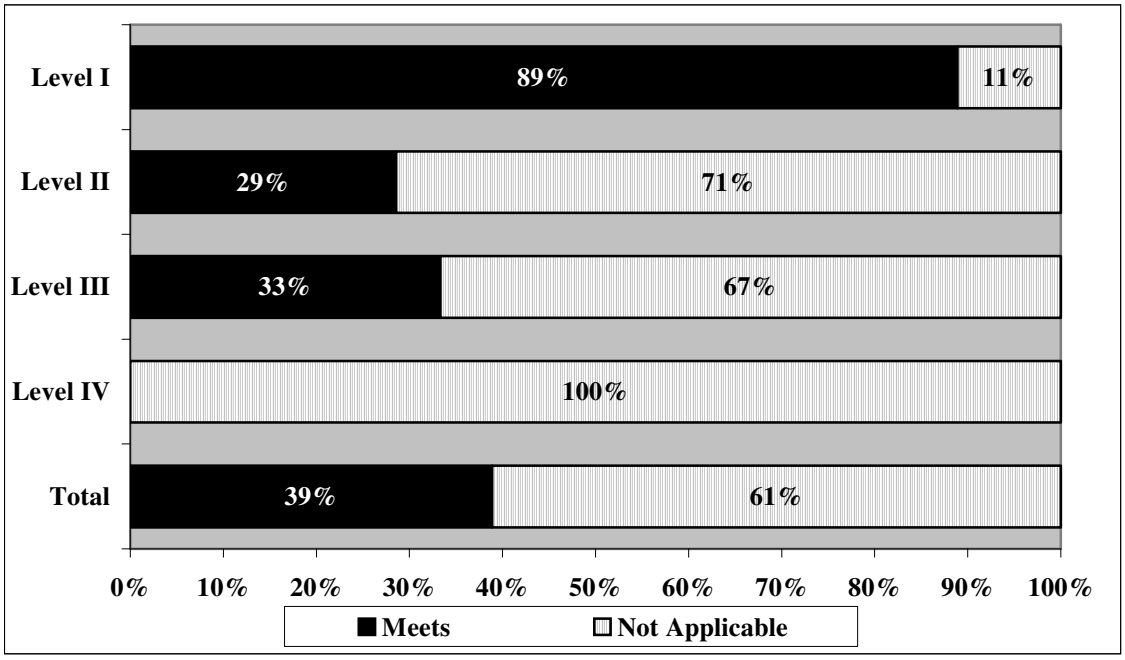
SOURCE: Airport Operators/Managers MASPU Inventory Form
NOTES: NA= This airport does not presently have a full or partial parallel taxiway; therefore, this benchmark is not applicable to those airports. MASPU facility and service objective call for Level I airports to have full parallel taxiways and for Level II airports to have partial parallel taxiways.

For this analysis, the ARC for all system airports was derived, when possible, from each airport's most recent master plan or ALP. If an existing ARC was not available, information from the MASPU inventory effort was used to establish an appropriate reference code. The appropriate distance from the runway centerline to the taxiway centerline (assuming that a parallel or partial parallel taxiway is available) is determined by each airport's individual ARC. The required separation distance varies by ARC.

To determine if system airports currently meet their appropriate runway to taxiway separation, information from current master plans, ALPs, aerial photos, and on-site inspections was used. It is important to note in evaluating this benchmark that not all system airports have a parallel or partial parallel taxiway; therefore, this benchmark is not applicable to those airports.

As shown in **Chart 5-9**, all but one Level I airport (89 percent) have taxiways and all comply with the FAA distance standards, based on their respective ARCs. Conversely, no Level IV airports have parallel taxiways, so there were no standards to be met. Level II has 29 percent of its airports that meet the standard, while 71 percent of the airports in Level II are not applicable for this benchmark because they do not have a taxiway. Level III airports had similar results, having 33 percent complying with applicable standards and 67 percent not being applicable.

CHART 5-9
RUNWAY/TAXIWAY SEPARATION BENCHMARK



Benchmark: Percent of system airports having primary runways with runway safety areas (RSAs) that meet the current ARC.

As with the separation from runway to taxiway centerline, the dimensions for the runway safety area (RSA) are determined by the individual ARC of each airport. The RSA is the area off each runway end that, in accordance with FAA standards, should be free and clear of any obstructions. The RSA should also be graded. The dimensions of the RSA vary based on applicable design standards. The RSA is designed to promote and increase airport safety.

As with all FAA planning standards and guidelines, only federally eligible airports are required to meet FAA standards. Airports are federally eligible when they are included in the NPIAS. All the airports in the MASPU are in the NPIAS except Lubec Municipal, Deblois Flight Strip, and Charles A. Chase Jr. Memorial Field. With the exception of these airports, all other airports in the Maine System should meet applicable Federal guidelines; this information is shown in **Table 5-17**.

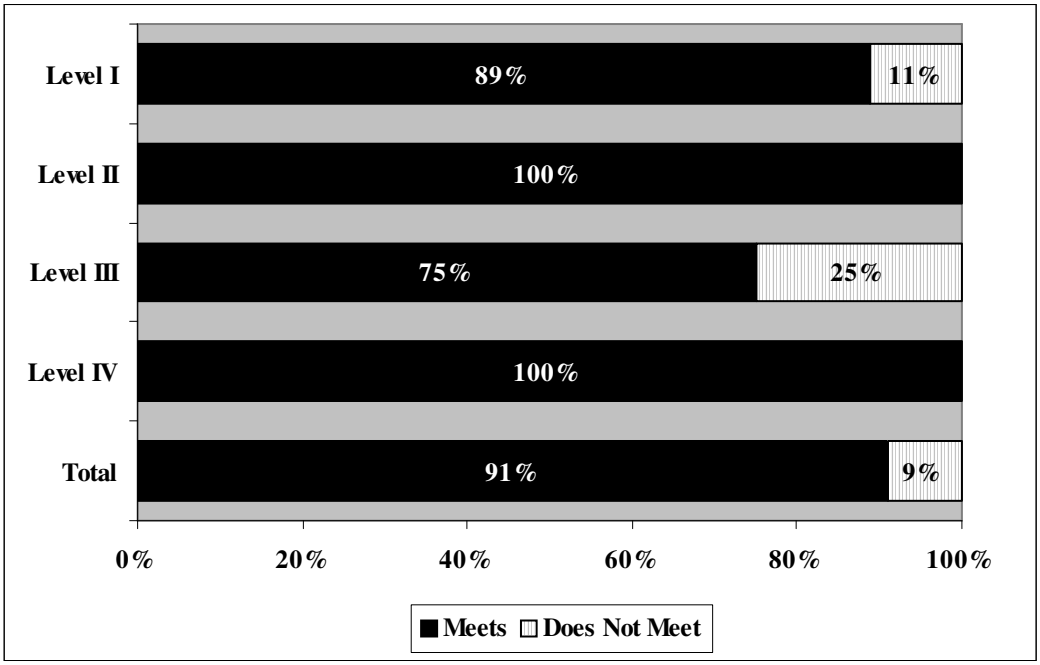
TABLE 5-17
RUNWAY SAFETY AREA CRITERIA

				FAA REQUIREMENT		AIRPORT DESIGN		MEETS	
	CITY NAME	FACILITY NAME	ARC	RSA LENGTH	RSA WIDTH	RSA LENGTH	RSA WIDTH	STANDARD	SOURCE
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	B-II	600’	300’	600’	500’	YES	ALP
	AUGUSTA	AUGUSTA STATE	C-II	1,000’	500’	187’	400’	NO	ALP
	BANGOR	BANGOR INTERNATIONAL	D-V	1,000’	500’	1,000’	500’	YES	MP
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	C-II	1,000’	500’	1,000’	500’	YES	ALP
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	C-III	1,000’	500’	1,000’	500’	YES	ALP
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	C-III	1,000’	500’	1,000’	500’	YES	ALP
	ROCKLAND	KNOX COUNTY REGIONAL	B-II	1,000’	500’	1,000’	500’	YES	PHOTO
	SANFORD	SANFORD REGIONAL	B-II	1,000’	500’	1,000’	500’	YES	ALP
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	C-II	1,000’	500’	1,000’	500’	YES	ALP
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	A-I	240’	120’	240’	120’	YES	PHOTO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	A-I	240’	120’	240’	120’	YES	MP
	HOULTON	HOULTON INTERNATIONAL	B-II	600’	300’	600’	300’	YES	PHOTO
	OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	B-II	600’	300’	600’	300’	YES	PHOTO
	OXFORD	OXFORD COUNTY REGIONAL	B-I	240’	120’	240’	120’	YES	ALP+MP
	PITTSFIELD	PITTSFIELD MUNICIPAL	B-II	300’	150’	300’	150’	YES	ALP+MP
	WISCASSET	WISCASSET	B-I	300’	150’	300’	150’	YES	ALP+MP
LEVEL III	BELFAST	BELFAST MUNICIPAL	A-I	240’	120’	240’	120’	YES	PHOTO
	BETHEL	BETHEL REGIONAL	A-I	240’	120’	240’	120’	YES	PHOTO
	CARIBOU	CARIBOU MUNICIPAL	A-II	600’	300’	600’	300’	YES	PHOTO
	DEXTER	DEXTER REGIONAL	A-I	240’	120’	300’	150’	YES	ALP
	EASTPORT	EASTPORT MUNICIPAL	B-I	600’	300’	600’	300’	YES	ALP
	FRYEBURG	EASTERN SLOPES REGIONAL	B-II	300’	150’	300’	150’	YES	ALP
	GREENVILLE	GREENVILLE MUNICIPAL	B-I	600’	300’	400’	100’	NO	MP
	JACKMAN	NEWTON FIELD	B-I	240’	120’	200’	120’	NO	MP
	LINCOLN	LINCOLN REGIONAL	B-I	300’	150’	200’	150’	NO	PHOTO
	MILLINOCKET	MILLINOCKET MUNICIPAL	B-II	300’	150’	300’	150’	YES	PHOTO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	B-II	600’	300’	600’	300’	YES	PHOTO
	RANGELEY	RANGELEY MUNICIPAL	B-I	300’	150’	300’	150’	YES	PHOTO
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	A-I	240’	120’	240’	120’	YES	PHOTO
	DEBLOIS	DEBLOIS FLIGHT STRIP	A-I	240’	120’	240’	120’	YES	PHOTO
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	A-I	240’	120’	240’	120’	YES	PHOTO
	ISLESBORO	ISLESBORO	A-I	240’	120’	240’	120’	YES	PHOTO
	LUBEC	LUBEC MUNICIPAL	A-I	240’	120’	240’	120’	YES	PHOTO
	MACHIAS	MACHIAS VALLEY	A-I	240’	120’	240’	120’	YES	PHOTO
	PRINCETON	PRINCETON MUNICIPAL	B-I	240’	120’	240’	120’	NO	MP
	STONINGTON	STONINGTON MUNICIPAL	A-I	240’	120’	240’	120’	YES	PHOTO

SOURCES: Airport Operators/Managers; MASPU Inventory Form; Airport Master Plans (MP) & Airport Layout Plans (ALP)

All Level I airports, excluding Augusta State, meet their applicable RSA standards. All Level II airports meet applicable FAA/RSA standards. (See **Chart 5-10**) Three Level III airports do not comply with their current RSA standards; they are Newton Field, Lincoln Regional, and Greenville Municipal. Only one Level IV airport, Princeton Municipal, does not meet RSA standards due to the location of wetlands inside the RSA. Prudent planning dictates that all system airports should strive to comply with RSA requirements on the ends of their primary runway. Therefore, as future planning and development takes place at all system airports, there should be an emphasis on projects that enable system airports to be compliant with their respective RSA standards. As shown in Chart 5-10, over 90 percent of all system airports have RSAs on their primary runway that currently comply with the applicable FAA guidelines.

CHART 5-10
RUNWAY SAFETY AREA COMPLIANCE BENCHMARK



Benchmark: Percent of system airports that meet OPT objectives for having a pavement condition index (PCI) of 70 or greater on the primary runway.

The development and maintenance of paved surfaces at all system airports requires a significant level of investment each year. On a statewide basis, OPT has undertaken a program to evaluate the condition of pavement at most public airports in Maine. Through its statewide efforts on pavement management, OPT has determined that maintaining runway pavements to a certain standard or condition helps to prevent major, costly reconstruction projects.

As part of OPT's pavement management programs, the condition of pavements on the primary runway at all of the airports in Maine rated as good. OPT has set a target for primary runways at Maine airports to have a pavement condition index (PCI) of 70 or greater. With the exception of the following airports, all airports have a primary runway with a PCI of 70 or greater: Portland International Jetport, Pittsfield Municipal, Belfast Municipal, Greenville Municipal, and Sugarloaf Regional. This information is shown in **Table 5-18.**

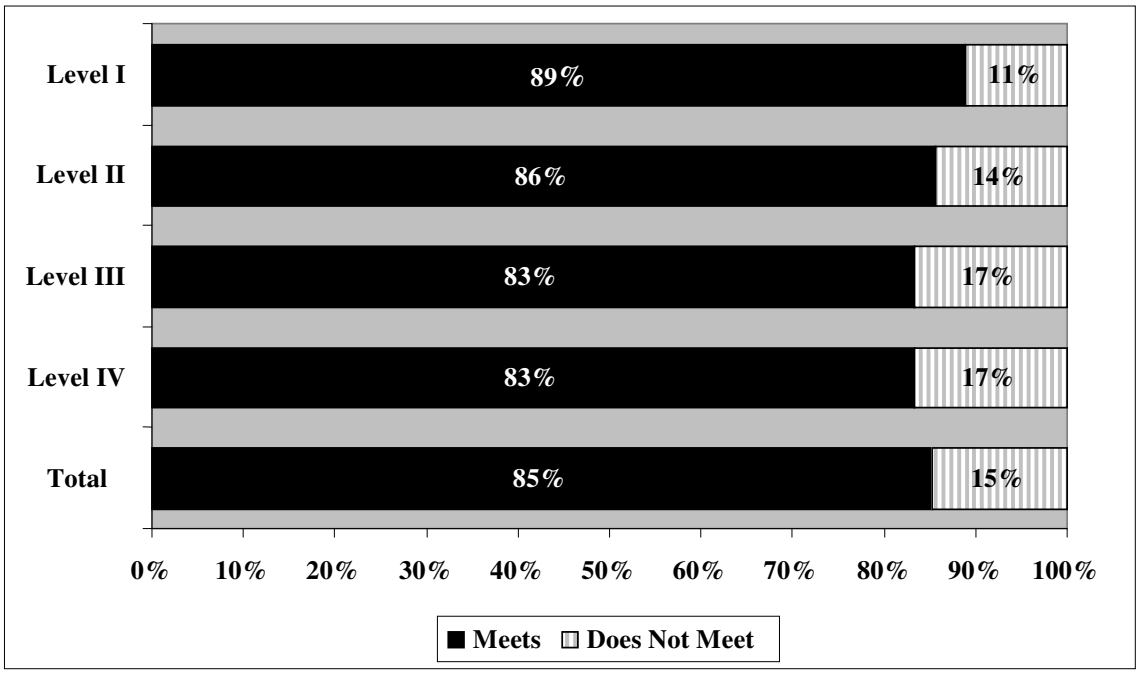
TABLE 5-18
PAVEMENT CONDITION INDEX ON PRIMARY RUNWAY

	CITY NAME	FACILITY NAME	PCI	>70
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	95	YES
	AUGUSTA	AUGUSTA STATE	80	YES
	BANGOR	BANGOR INTERNATIONAL	74	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	98	YES
	PORTLAND	PORTLAND INTERNATIONAL JETPORT	69	NO
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	100	YES
	ROCKLAND	KNOX COUNTY REGIONAL	99	YES
	SANFORD	SANFORD REGIONAL	85	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	84	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	70	YES
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	80	YES
	HOULTON	HOULTON INTERNATIONAL	79	YES
	OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	100	YES
	OXFORD	OXFORD COUNTY REGIONAL	79	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	34	NO
	WISCASSET	WISCASSET	99	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	65	NO
	BETHEL	BETHEL REGIONAL	100	YES
	CARIBOU	CARIBOU MUNICIPAL	88	YES
	DEXTER	DEXTER REGIONAL	94	YES
	EASTPORT	EASTPORT MUNICIPAL	98	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	99	YES
	GREENVILLE	GREENVILLE MUNICIPAL	61	NO
	JACKMAN	NEWTON FIELD	74	YES
	LINCOLN	LINCOLN REGIONAL	93	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	98	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	91	YES
	RANGELEY	RANGELEY MUNICIPAL	99	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	53	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	100	YES
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NP	NP
	ISLESBORO	ISLESBORO	79	YES
	LUBEC	LUBEC MUNICIPAL	NP	NP
	MACHIAS	MACHIAS VALLEY	85	YES
	PRINCETON	PRINCETON MUNICIPAL	95	YES
	STONINGTON	STONINGTON MUNICIPAL	95	YES

SOURCE: WSA, Maine OPT
NOTE: NP = Not Paved

As shown in **Chart 5-11**, airports in all levels have a fairly high compliance with this benchmark. In recent years, OPT has made considerable investment in maintaining and improving the condition of pavement at airports throughout the system. As shown 85 percent of all system airports have primary runways that meet the PCI benchmark. The need to increase this current rate of compliance will be determined in Phase II.

CHART 5-11
PAVEMENT CONDITION INDEX BENCHMARK



Benchmark: Percent of system airports that have established procedures with an operations manual for accident reporting.

An essential part of any airport is an operations manual that has procedures established for accident reporting. All airports that have Part 139 operations are required to have accident reporting procedures. According to information collected during this study's inventory effort, both Auburn/Lewiston Municipal and Augusta State are reportedly currently without an operations manual, more specifically, a manual that has established procedures for accident reporting. All Level I airports should have an operations manual. As can be seen from **Table 5-19,** many system airports do not currently have an operations manual.

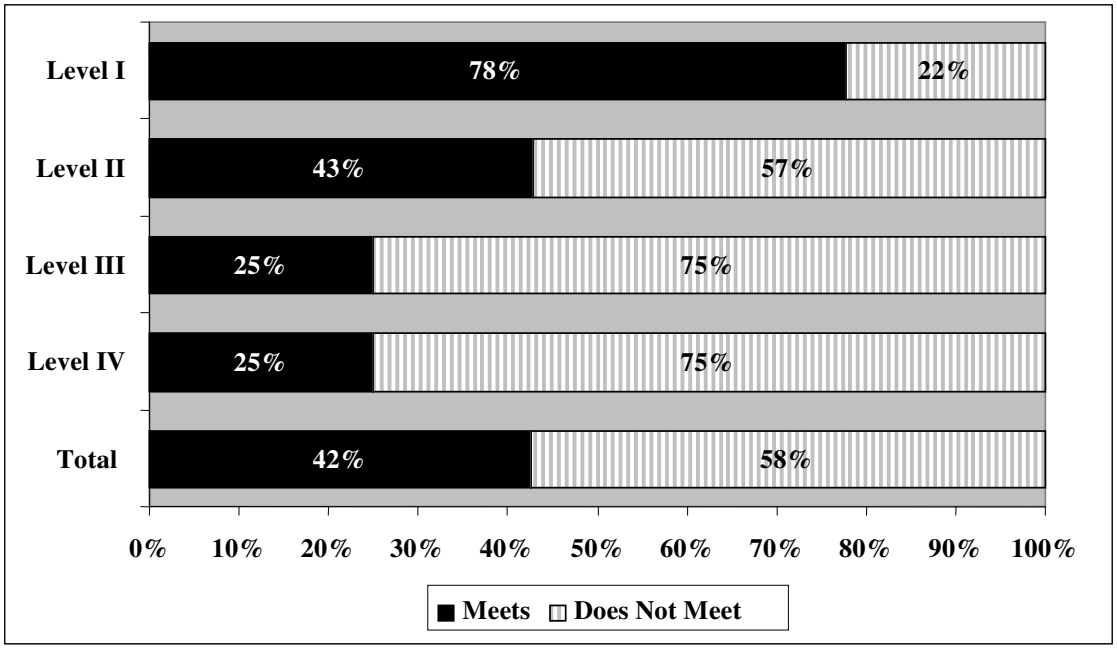
TABLE 5-19
OPERATIONS MANUAL

	CITY NAME	FACILITY NAME	OPERATIONS MANUAL
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	NO
	AUGUSTA	AUGUSTA STATE	NO
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	YES
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	NO
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD,OLD TOWN MUNICIPAL	YES
	OXFORD	OXFORD COUNTY REGIONAL	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO
	BETHEL	BETHEL REGIONAL	NO
	CARIBOU	CARIBOU MUNICIPAL	NO
	DEXTER	DEXTER REGIONAL	NO
	EASTPORT	EASTPORT MUNICIPAL	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	YES
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	YES
	LUBEC	LUBEC MUNICIPAL	YES
	MACHIAS	MACHIAS VALLEY	NO
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers MASPU Inventory Form

As shown in **Chart 5-12**, while 78 percent of the Level I airports report having an operations manual. Systemwide, only 42 percent of all airports currently comply with the operations manual benchmark. During Phase II of the MASPU, OPT and the Project Advisory Committee (PAC) will work together to set targets for future system compliance for this benchmark.

CHART 5-12
OPERATIONS MANUAL BENCHMARK



Benchmark: Percent of system airports that have a written emergency response plan.

At the on-set of the MASPU, OPT and the Project Advisory Committee set a benchmark to measure the number of system airports with an emergency response plan. The events of September 11th have increased the need for and the importance of having such a plan. Data collected during the MASPU inventory on those airports currently with an emergency response plan is shown in **Table 5-20**.

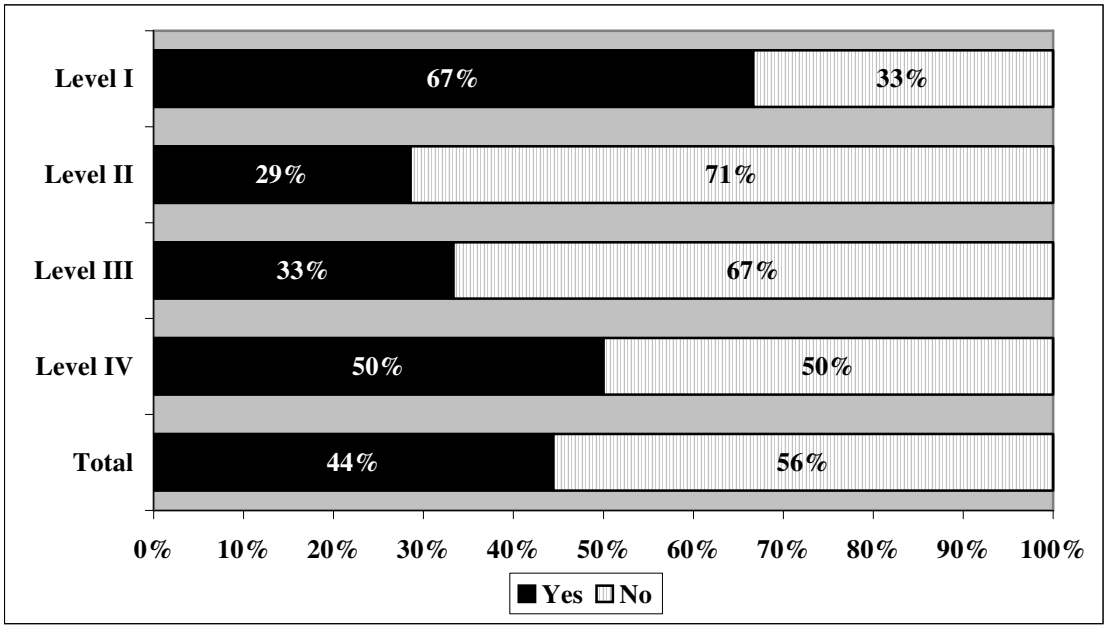
TABLE 5-20
EMERGENCY RESPONSE PLAN

	CITY NAME	FACILITY NAME	EMERGENCY RESPONSE PLAN
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	NO
	AUGUSTA	AUGUSTA STATE	NO
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	NO
	OXFORD	OXFORD COUNTY REGIONAL	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	NO
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO
	BETHEL	BETHEL REGIONAL	YES
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	YES
	EASTPORT	EASTPORT MUNICIPAL	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	NO
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	YES
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	YES
	ISLESBORO	ISLESBORO	YES
	LUBEC	LUBEC MUNICIPAL	NO
	MACHIAS	MACHIAS VALLEY	YES
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers MASPU Inventory Form

As shown in Chart 5-13, over 67 percent of the Level I airports report having such a plan, but only 29 percent of the Level II and 33 percent of the Level III airports report that they have an emergency response plan. Systemwide, 44 percent of the airports have this plan. The need to increase this rate of compliance will be determined in Phase II.

CHART 5-13
EMERGENCY RESPONSE PLAN BENCHMARK



Benchmark: Percent of system airports that have a wildlife management plan.

Birds, deer, and other animals can often appear on active runways, endangering active aircraft and their occupants. Given the character and location of many of Maine's public airports, this is a frequent problem. While its not possible to preclude the presence of all wildlife in the airport environment, an up-to-date and effective wildlife management plan can decrease the likelihood of wildlife and aircraft incidents.

Data collected during the inventory on airports with and without wildlife management plans are shown in **Table 5-21** and are summarized in **Chart 5-14**.

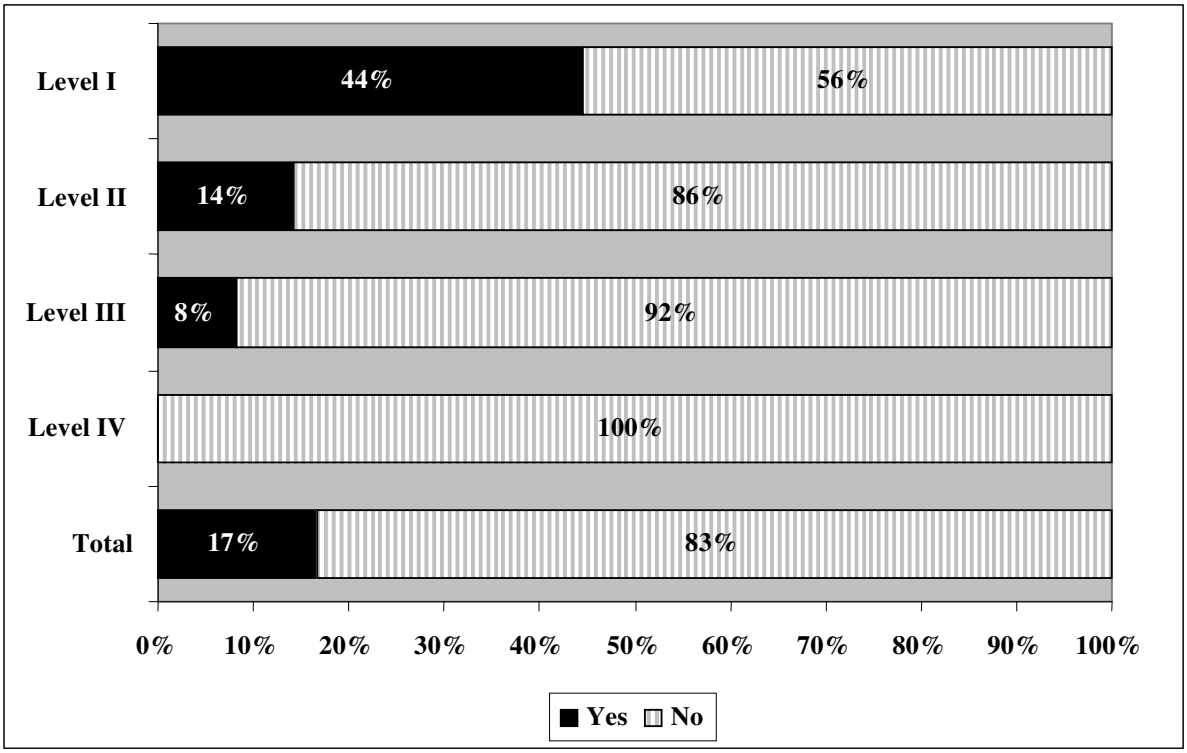
TABLE 5-21
WILDLIFE MANAGEMENT PLAN

	CITY NAME	FACILITY NAME	WILDLIFE MANAGEMENT PLAN
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	NO
	AUGUSTA	AUGUSTA STATE	NO
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	NO
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	NO
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	NO
	HOULTON	HOULTON INTERNATIONAL	NO
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	YES
	OXFORD	OXFORD COUNTY REGIONAL	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	NO
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO
	BETHEL	BETHEL REGIONAL	YES
	CARIBOU	CARIBOU MUNICIPAL	NO
	DEXTER	DEXTER REGIONAL	NO
	EASTPORT	EASTPORT MUNICIPAL	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	NO
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	STONINGTON	STONINGTON MUNICIPAL	NO
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	NO
	MACHIAS	MACHIAS VALLEY	NO
	PRINCETON	PRINCETON MUNICIPAL	NO

SOURCE: Airport Operators/Managers MASPU Inventory Form

As shown in **Chart 5-14**, surprisingly low percentages of the system airports report that they have wildlife management plans. Even at Maine's most active and most highly developed Level I airports, only 44 percent of the airports report they have a wildlife management plan. Systemwide, less than 17 percent of all airports have this plan. During Phase II of the MASPU, target compliance objectives for increasing the system's rating will be established for this benchmark.

CHART 5-14
WILDLIFE MANAGEMENT PLAN BENCHMARK



Benchmark: Percent of system airports that have procedures in place to regularly conduct self- inspections.

For airports to operate in a safe and efficient manner, it is recommended that they have set and regular routines of self-inspection. By so doing, airports can identify any circumstances or conditions that could jeopardize the safety of aircraft operations. In its advisory circulars, the FAA provides guidance on how to conduct these inspections. **Table 5-22** provides information on those airports that now report conducting such inspections.

For this particular benchmark, it is OPT's goal to develop a program, checklist, and reporting form to assist Maine airports in conducting self-inspections. This program will be an output of the overall process to improve the performance of Maine's Airport System. When this process is in place, it is assumed that the number of system airports shown in Table 5-22 as conducting routine self-inspections will increase markedly.

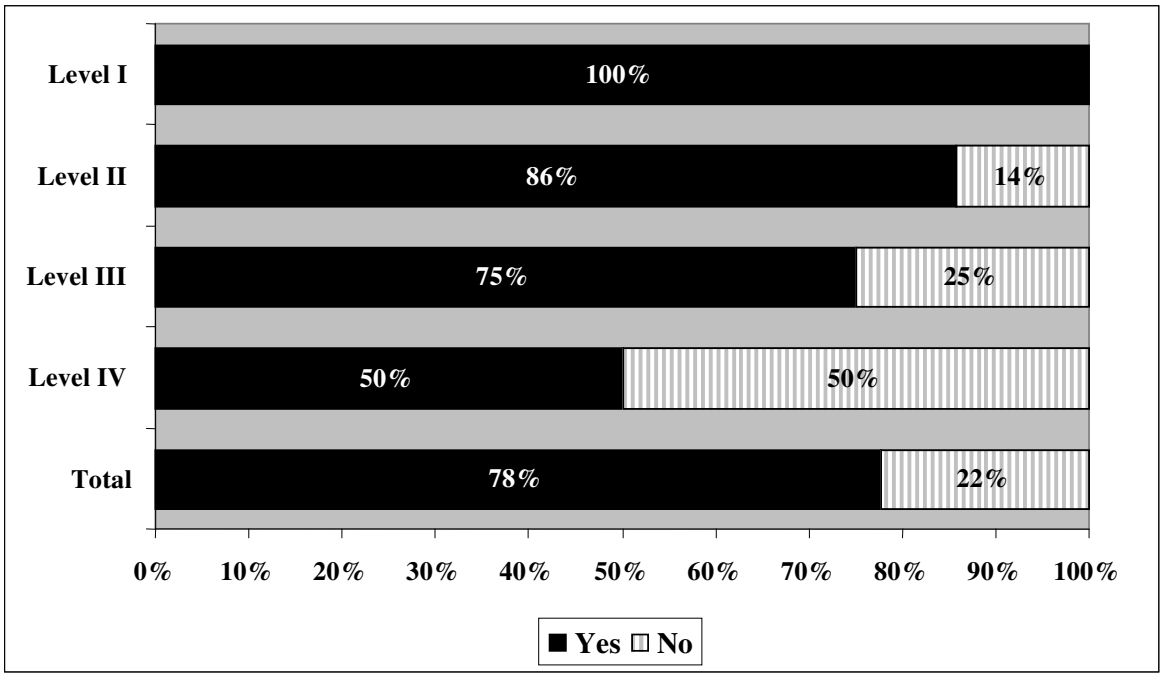
TABLE 5-22
CONDUCT SELF-INSPECTIONS

	CITY NAME	FACILITY NAME	CONDUCT SELF-INSPECTIONS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	YES
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	YES
	OXFORD	OXFORD COUNTY REGIONAL	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	YES
	WISCASSET	WISCASSET	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	YES
	BETHEL	BETHEL REGIONAL	NO
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	YES
	EASTPORT	EASTPORT MUNICIPAL	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	YES
	GREENVILLE	GREENVILLE MUNICIPAL	YES
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	YES
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	YES
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	YES
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	YES
	MACHIAS	MACHIAS VALLEY	NO
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	YES

SOURCE: Airport Operators/Managers MASPU Inventory Form

As shown in **Chart 5-15**, all Level I and over 85 percent of the Level II airports report they have procedures in place to conduct self-inspections. Systemwide, 78 percent of all airports meet this benchmark. With new security concerns at all airports, a target for achieving higher compliance with this benchmark may be established during Phase II of the MASPU.

CHART 5-15
CONDUCT SELF-INSPECTIONS BENCHMARK



Benchmark: Percent of system airports that have fuel farms that comply with NFPA guidelines.

It is important for airports in Maine's public system of airports to take all appropriate actions to be compatible with both the human and the natural environment. One of the ways that airports can work toward this objective is for them to have fuel farms that comply with appropriate State and Federal guidelines. During the inventory effort for the MASPU, data were collected from system airports concerning their current compliance with appropriate fuel farm guidelines. The information in **Table 5-23** presents the results of this portion of the inventory effort.

As shown in Table 5-23, one airport, Dewitt Field-Old Town Municipal, was unsure of its status concerning its current compliance for the fuel farms benchmark. In other instances, this benchmark is not applicable (shown in Table 5-23 as being NA) because these airports currently do not have on-site fuel farms.

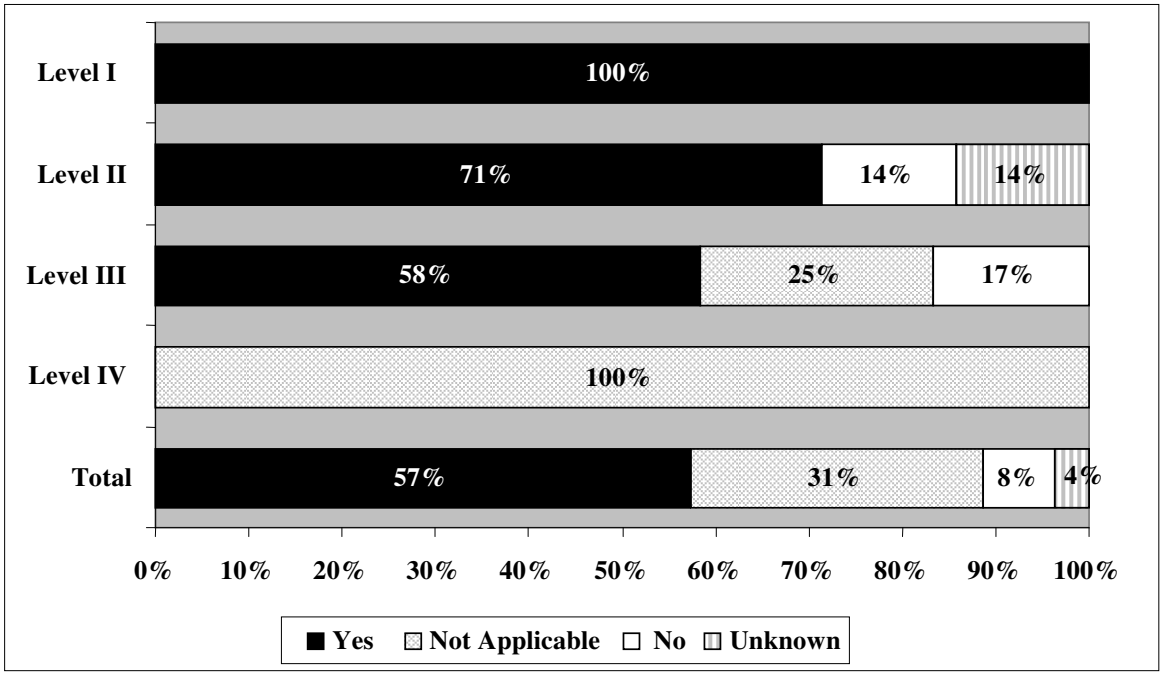
TABLE 5-23
FUEL FARM COMPLIANCE WITH NFPA

	CITY NAME	FACILITY NAME	NFPA COMPLIANCE
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	YES
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	YES
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	UNKNOWN
	OXFORD	OXFORD COUNTY REGIONAL	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	YES
	BETHEL	BETHEL REGIONAL	NA
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	NA
	EASTPORT	EASTPORT MUNICIPAL	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	YES
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	YES
	LINCOLN	LINCOLN REGIONAL	NA
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NA
	DEBLOIS	DEBLOIS FLIGHT STRIP	NA
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NA
	ISLESBORO	ISLESBORO	NA
	LUBEC	LUBEC MUNICIPAL	NA
	MACHIAS	MACHIAS VALLEY	NA
	PRINCETON	PRINCETON MUNICIPAL	NA
	STONINGTON	STONINGTON MUNICIPAL	NA

SOURCE: Airport Operators/Managers MASPU Inventory Form
NOTE: NA = Not Applicable

As shown in **Chart 5-16**, all Level I airports currently meet their applicable fuel farm guidelines. Over 50 percent of Level II and Level III airports also currently meet this benchmark. When Level III and Level IV airports that do not have fuel are taken out of the compliance calculation, over 80 percent of the airports now comply with this benchmark. Phase II of the MASPU will identify future target compliance objectives for all system airports for this particular benchmark.

CHART 5-16
COMPLY WITH NFPA BENCHMARK



PERFORMANCE MEASURE: ECONOMIC SUPPORT

Air transportation is important to Maine's economic infrastructure. Employers throughout the State consider the existence and efficiency of air transportation facilities when expanding or developing in a given geographic area. But airports in and of themselves do not necessarily spur economic growth and diversification. In addition to adequate airport facilities, market areas that airports serve must possess other characteristics that make them candidates for the retention and attraction of various economic and development activities.

Within the Maine Aviation Systems Plan Update, this performance measure provides information that will enable OPT to identify those areas of the State that possess characteristics that make the areas potential candidates for economic growth and diversification. Market areas that are characterized by economic factors, analyzed in this performance measure, signal a higher potential for economic return from investment.

This performance measure also enables OPT to determine if airport facilities at each system airport are matched, overmatched, or under-matched to the economic characteristics of the market area that the airport serves. This determination is made by comparing each airport's economic rating to its current system role (Chapter Three).

Benchmarks used in the Aviation Systems Plan Update to evaluate the system for its ability to adequately support economic growth and diversification are as follows:

- 30-minute airport service areas that have the highest concentrations of hotel/motel rooms.
- 30-minute airport service areas that have the highest concentrations of employment.
- 30-minute airport service areas that have the highest rates of population growth projected for the 20-year forecast period or the highest concentrations of population.
- 30-minute airport service areas that are in closest proximity to four-lane highways.
- 30-minute airport service areas that have the highest concentrations of post-secondary enrollment.
- 30-minute airport service areas that are in closest proximity to intermodal transfer facilities (ports or rail).
- 30-minute airport service areas that are in proximity to one of Maine's 69 service centers.

For this performance measure, all of the airports were ranked from 1 to 36, with 1 being the lowest ranking an airport could receive and 36 being the highest ranking the airport could receive. The information for each benchmark was obtained by using a GIS database and GIS mapping. The information obtained from GIS analysis was sorted and then ranked. Each airport's 30-minute service area served as the basis for this analysis and comparison of benchmark rankings. For example, Portland had the highest number of hotel/motel rooms within its 30-minute drive time; therefore, it received a 36 for the hotel/motel benchmark.

After all the airports were ranked for each benchmark, their scores were totaled. **Table 5-24** shows the results of this process. After the rankings for each of the various economic benchmarks were summed, the scores were sorted into four similar mathematical cohorts. The number of airports assigned to each of the four cohorts was established by grouping a similar number of airports as was assigned to each of the four airport levels identified in Chapter Three of the MASPU.

Table 5-24 shows both the airport's current system role or level (Level I-IV) and its resulting economic rank. The results of this process will be used in the next phase of the MASPU to determine if facilities at airports in the system are matched, overmatched or under matched to the economic characteristics of the market area they serve. As can be seen from reviewing the information, most of the airports have similar system and economic rankings. If an airport's system level is comparable to its economic rank, this indicates that airport facilities are reasonably well-matched to the service area's economic characteristics. If the economic rank for the service area is higher than the airport's system level, this could signal the need to consider upgrading the airport and its facilities and services to a higher system level. In cases where the airport's system level is higher than the economic rank for its service area, this most likely indicates that this airport is playing an important role in meeting the State's air transportation needs. Downgrading system levels in these instances could be detrimental to the system's viability.

It is likely that economic development objectives in Maine may target certain areas of the State that are "under performing" economically. One mechanism for enhancing an area's economic performance is through adequate transportation facilities, including airports. Phase II of the MASPU will use this information to determine if changes in system roles/levels are warranted based on the economic characteristics of the market area each airport serves. Phase II will determine how well Maine's 69 service centers are served by the Maine Airport System. Objectives for having Level I and Level II airports in proximity to both primary and secondary service centers will be established in Phase II of the MASPU.

TABLE 5-24
ECONOMIC SUPPORT BENCHMARKS

CITY NAME	FACILITY NAME	HOTEL/ MOTEL	POPULATION GROWTH	EMPLOY. GROWTH	4-LANE HIGHWAY	RAIL/ FRIEGHT	POST SEC SCHOOL	SERVICE CENTERS	TOTAL SCORE	CURRENT LEVEL	ECONOMIC RANK
AUBURN	AUBURN/LEWISTON MUNICIPAL	33	25	26	29	20	31	35	199	I	I
AUGUSTA	AUGUSTA STATE	30	17	18	35	32	30	34	196	I	I
BANGOR	BANGOR INTERNATIONAL	29	24	13	33	31	32	26	188	I	I
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	32	34	12	18	11	18	15	140	I	III
PORTLAND	PORTLAND INTERNATIONAL JETPORT	36	28	32	34	35	36	36	237	I	I
PRESQUE ISLE	NORTHERN MAINE REGIONAL	17	8	8	16	27	23	22	121	I	III
ROCKLAND	KNOX COUNTY REGIONAL	27	30	34	15	19	4	23	152	I	II
SANFORD	SANFORD REGIONAL	34	32	30	25	33	34	30	218	I	I
WATERVILLE	WATERVILLE ROBERT LAFLEUR	24	14	19	36	28	29	31	181	I	I
BIDDEFORD	BIDDEFORD MUNICIPAL	35	1	31	28	34	35	33	197	II	I
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	7	7	1	3	18	19	13	68	II	IV
HOULTON	HOULTON INTERNATIONAL	6	9	7	32	22	15	12	103	II	III
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	28	20	14	31	29	33	24	179	II	I
OXFORD	OXFORD COUNTY REGIONAL	23	23	27	21	30	25	29	178	II	II
PITTSFIELD	PITTSFIELD MUNICIPAL	22	18	21	30	25	27	27	170	II	II
WISCASSET	WISCASSET	31	26	33	26	21	22	28	187	II	I
BELFAST	BELFAST MUNICIPAL	25	31	35	19	17	5	14	146	III	II
BETHEL	BETHEL REGIONAL	19	21	28	11	23	3	20	125	III	III
CARIBOU	CARIBOU MUNICIPAL	13	10	9	12	26	24	19	113	III	III
DEXTER	DEXTER REGIONAL	16	16	22	23	12	10	25	124	III	III
EASTPORT	EASTPORT MUNICIPAL	20	36	25	2	36	28	9	156	III	II
FRYEBURG	EASTERN SLOPES REGIONAL	18	5	5	17	15	16	17	93	III	III
GREENVILLE	GREENVILLE MUNICIPAL	11	3	16	10	4	12	6	62	III	IV
JACKMAN	NEWTON FIELD	10	4	23	5	7	14	8	71	III	IV
LINCOLN	LINCOLN REGIONAL	3	35	10	27	14	1	1	91	III	III
MILLINOCKET	MILLINOCKET MUNICIPAL	9	2	17	24	8	13	7	80	III	III
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	21	15	20	22	24	26	18	146	III	II
RANGELEY	RANGELEY MUNICIPAL	4	19	29	6	2	9	5	74	III	III
CARRABASSETT	SUGARLOAF REGIONAL	2	27	24	7	10	2	2	74	IV	IV
DEBLOIS	DEBLOIS FLIGHT STRIP	1	22	3	13	3	8	4	54	IV	IV
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	8	13	15	20	9	11	32	108	IV	III
ISLESBORO	ISLESBORO	26	29	36	14	16	7	21	149	IV	II
LUBEC	LUBEC MUNICIPAL	15	12	4	1	6	21	10	69	IV	IV
MACHIAS	MACHIAS VALLEY	14	11	2	4	5	20	16	72	IV	IV
PRINCETON	PRINCETON MUNICIPAL	12	6	6	9	13	17	11	74	IV	III
STONINGTON	STONINGTON MUNICIPAL	5	33	11	8	1	6	3	67	IV	IV

SOURCES: Airport Operators/ Managers; MASPU Inventory Form; Oest Associates GIS Analysis
NOTE: Please refer to the discussion on Page 5-73 for details on how to interpret the information presented in this table

PERFORMANCE MEASURE: FLEXIBILITY

The FAA recognizes and stresses the importance of planning to increase the long-term flexibility of the nation's airport system. The identification of future airport development needs is important to ensuring that the Maine Airport System is adequate to meet future demand levels. It is important for airports to understand and identify local issues and to maintain good relationships with their host communities in order to enhance their opportunities for growth and expansion. Proactive land use planning provides one mechanism for minimizing adverse airport-related impacts in the airport environs, thereby increasing long-term flexibility.

Airports that are protected from the encroachment of activities or land uses which are not compatible with their day-to-day operations and activities generally have a greater potential for future expansion. Proper planning on and around system airports generally increases the flexibility of that system to respond to both foreseen and unforeseen development needs.

Airports that maintain financial and aviation activity records and practice some level of financial planning also increase their longevity, and thereby their flexibility to respond to changing conditions over an extended planning horizon.

Specific benchmarks used to evaluate the adequacy of the aviation system as it relates to the flexibility performance measure include the following:

- Percent of system airports that have current (past five years) airport master plans/ALPs.
- Percent of system airports with surrounding municipalities that have adopted controls/zoning to make land use in the airport environs compatible with airport operations and development.
- Percent of system airports that are recognized in a local comprehensive plan.
- Percent of system airports with financial/accounting records and/or a business plan.
- Percent of system airports that have a system in place to maintain, update, and report annual aviation activity statistics to OPT.

Benchmark: Percent of system airports that have current (past five years) airport master plans/ALPs.

As with many of the other benchmarks used to grade the Maine Aviation System in this analysis, data to determine airport and system compliance for this benchmark was derived from information collected during the inventory effort of the MASPU. **Table 5-**

25 presents this information. For this particular benchmark, master plans and/or airport layout plans (ALPs) were considered recent if they were completed within the past 5 years underway, or planned.

TABLE 5-25
CURRENT ALP/MASTER PLANS

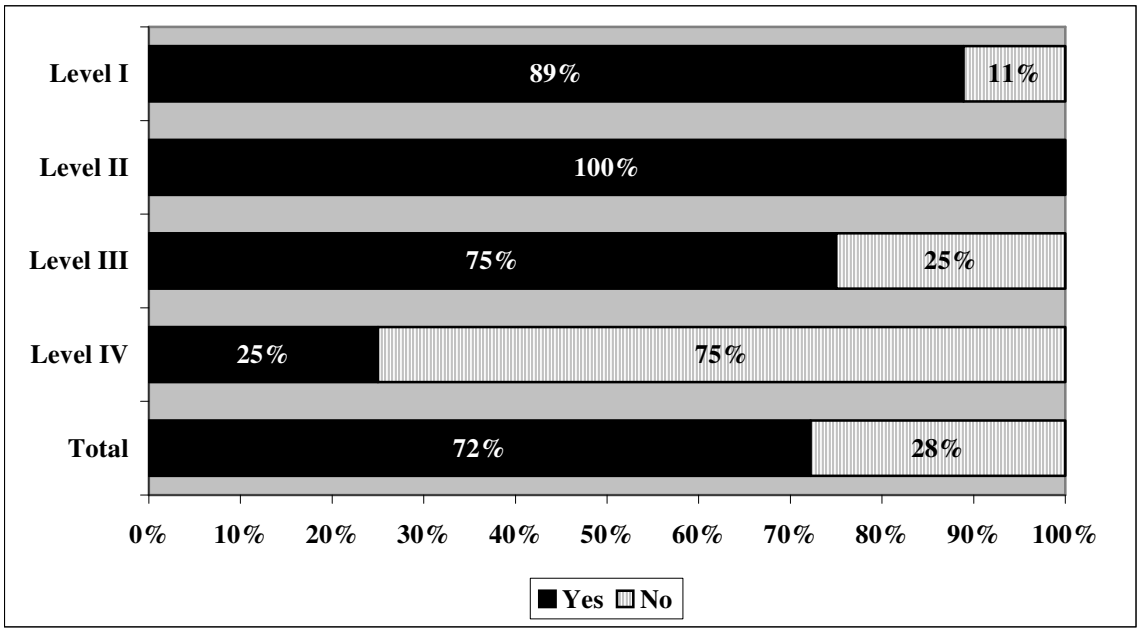
	CITY NAME	FACILITY NAME	CURRENT ALP/MASTER PLAN	DATE OF ALP/MASTER PLAN
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES	1997
	AUGUSTA	AUGUSTA STATE	YES	1999
	BANGOR	BANGOR INTERNATIONAL	YES	2000
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO	1993
	PORTLAND	PORTLAND INTL JETPORT	YES	1999
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES	2000
	ROCKLAND	KNOX COUNTY REGIONAL	YES	1997
	SANFORD	SANFORD REGIONAL	YES	2002 (ONGOING)
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES	2002
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	YES	2003 (ONGOING)
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES	2000
	HOULTON	HOULTON INTERNATIONAL	YES	2002
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	YES	2002
	OXFORD	OXFORD COUNTY REGIONAL	YES	2003 (ONGOING)
	PITTSFIELD	PITTSFIELD MUNICIPAL	YES	1999
	WISCASSET	WISCASSET	YES	2000
LEVEL III	BELFAST	BELFAST MUNICIPAL	YES	1999
	BETHEL	BETHEL REGIONAL	YES	1998
	CARIBOU	CARIBOU MUNICIPAL	YES	1998
	DEXTER	DEXTER REGIONAL	YES	2002
	EASTPORT	EASTPORT MUNICIPAL	YES	2003 (ONGOING)
	FRYEBURG	EASTERN SLOPES REGIONAL	NO	1992
	GREENVILLE	GREENVILLE MUNICIPAL	YES	2000
	JACKMAN	NEWTON FIELD	YES	2002
	LINCOLN	LINCOLN REGIONAL	YES	2002
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES	1997
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO	1995
	RANGELEY	RANGELEY MUNICIPAL	NO	1987
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	YES	2003 (ONGOING)
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO	DOES NOT HAVE
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO	1986
	ISLESBORO	ISLESBORO	NO	DOES NOT HAVE
	LUBEC	LUBEC MUNICIPAL	NO	DOES NOT HAVE
	MACHIAS	MACHIAS VALLEY	NO	1993
	PRINCETON	PRINCETON MUNICIPAL	YES	2002 (ONGOING)
	STONINGTON	STONINGTON MUNICIPAL	NO	1980

SOURCE: Airport Operators/Managers; MASPU Inventory Form; Airport Master Plans
NOTE: Table Prepared June 2002

Chart 5-17 summarizes the information presented in Table 5-25. As shown, systemwide, a reported 72 percent of all public airports in Maine have a master plan or an ALP that has been completed within the past five years underway, or planned. As might be expected, Level I and Level II airports have the highest compliance rating for this benchmark. For less active airports in the Maine System, it may not be necessary to have master plans an/or ALPs that are updated every five years. During Phase II of the

MASPU, OPT and the Project Advisory Committee will work together to establish appropriate time frames for master plan and/or ALP updates for each of the four airport levels.

CHART 5-17
CURRENT ALP/MASTER PLANS



Benchmark: Percent of system airports with surrounding municipalities that have adopted controls/zoning to make land use in the airport environs compatible with airport operations and development.

The long-term viability of airports in most systems can be threatened or endangered by encroachment from land uses or activities that are incompatible with an airport and its operation. Recognizing this fact, OPT developed guidelines for compatible land use planning in the airport environs. For many airports, their zone of influence and potential impact can extend beyond property that is actually owned or controlled by the airport. In these instances, it is desirable for the airport to work with surrounding municipalities to implement land use controls or zoning that recognize the presence of the airport and its potential areas of impact.

Areas around an airport that are most likely to experience impact from daily takeoffs and landings are typically confined to the flight pattern of the aircraft that operate at the airport and to any noise related contours that may be generated by aircraft operating at the airport. It is important to note that given the low level of operations at many of the airports in the Maine System, a high percentage of the system airports most likely do not generate noise impacts that extend beyond immediate airport property.

Many of the airports, according to data collected during the MASPU inventory effort, have taken steps to work with their host and surrounding communities to adopt land use and/or height zoning controls. It is worth noting that meeting this particular benchmark is often beyond the airport's control. Actions to make land use compatible with the operation of each airport is at the discretion of the effected municipality. Airports that report that surrounding municipalities have taken steps to adopt various types of compatible land use controls are shown in **Table 5-26**.

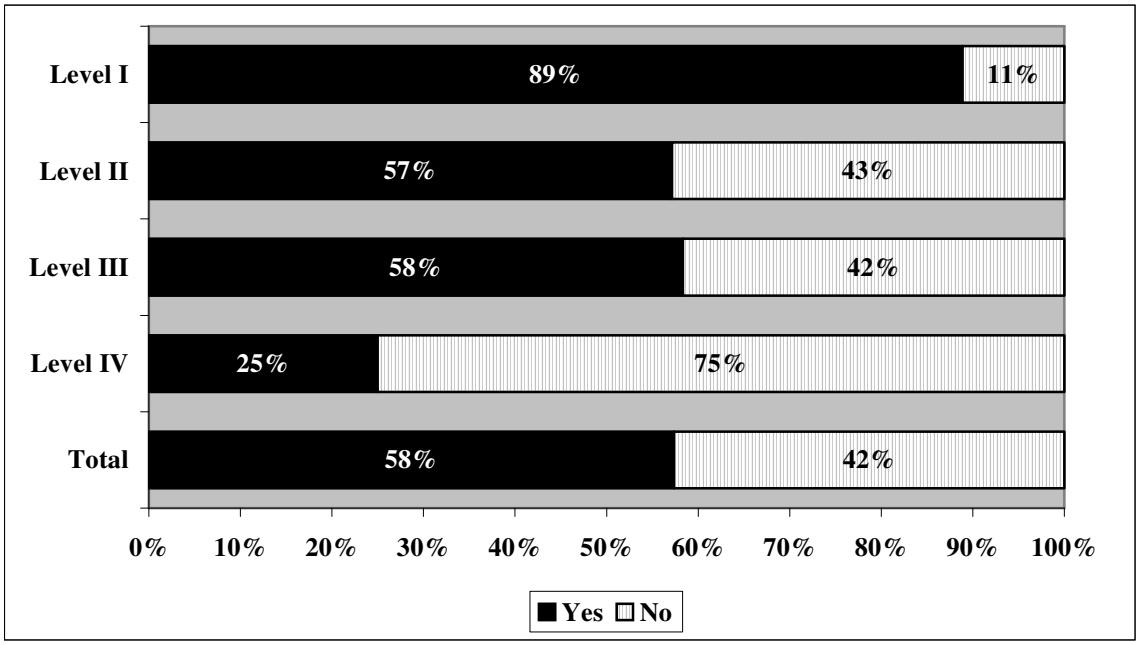
TABLE 5-26
LAND USE COMPATIBLE WITH AIRPORT

	CITY NAME	FACILITY NAME	LAND USE COMPATIBILITY
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	NO
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	YES
	OXFORD	OXFORD COUNTY REGIONAL	YES
	PITTSFIELD	PITTSFIELD MUNICIPAL	YES
	WISCASSET	WISCASSET	NO
LEVEL III	BELFAST	BELFAST MUNICIPAL	YES
	BETHEL	BETHEL REGIONAL	NO
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	NO
	EASTPORT	EASTPORT MUNICIPAL	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	YES
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	YES
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	NO
	MACHIAS	MACHIAS VALLEY	YES
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers; MASPU Inventory Form
NOTE: The information presented in this table was gathered from the airports and not from the municipalities that surround each airport.

As shown in **Chart 5-18**, almost 90 percent of the Level I airports report that surrounding municipalities have taken steps toward adopting compatible land use controls. Level II and Level III airports report similar compliance ratings for this benchmark at 57 percent and 58 percent, respectively. Systemwide for all airports, the current compliance rating for the land use compatibility benchmark is 58 percent. In the next phase of the MASPU, steps will be taken to target a future compliance rating for this benchmark.

CHART 5-18
LAND USE COMPATIBLE WITH AIRPORT BENCHMARK



Benchmark: Percent of system airports that are recognized in local comprehensive plan

Another indication of a host community's support and compatibility with its respective airports can be found in local comprehensive plans. If the airport is identified and approved in the local comprehensive plan, this tends to increase the airport's long-term flexibility and its ability to expand, if needed. Data collected during the inventory effort on those airports that are now recognized in local comprehensive plans are shown in **Table 5-27**.

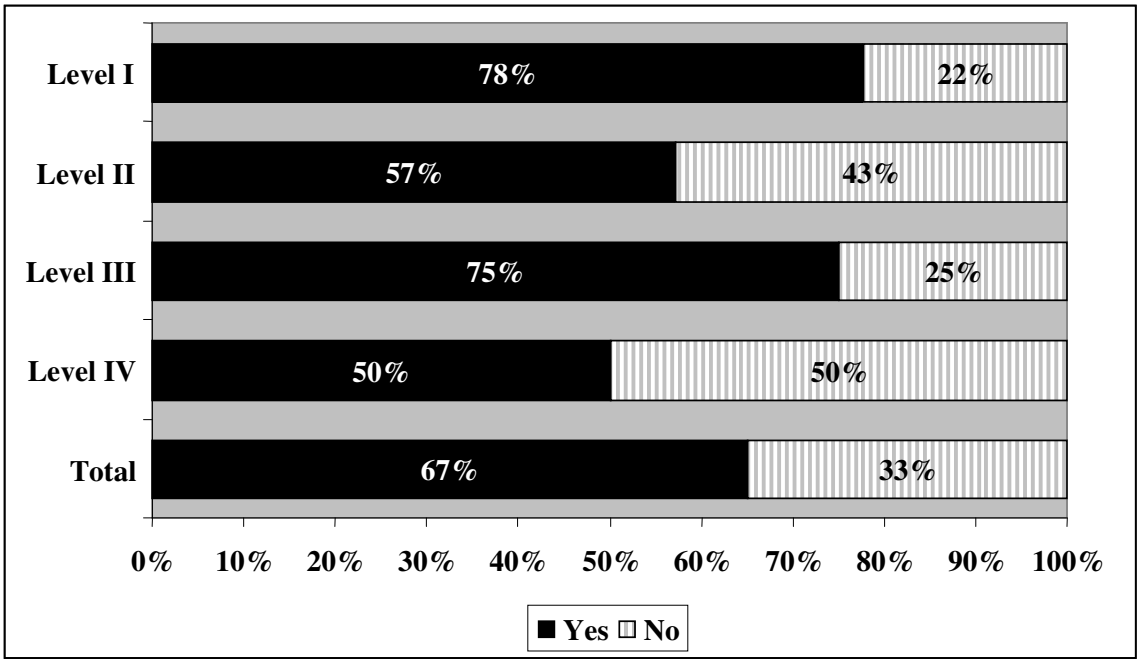
TABLE 5-27
RECOGNIZED IN LOCAL COMPREHENSIVE PLAN

	CITY NAME	FACILITY NAME	LOCAL COMPREHENSIVE PLAN
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	YES
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	NO
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	NO
	OXFORD	OXFORD COUNTY REGIONAL	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	YES
	WISCASSET	WISCASSET	YES
LEVEL III	BELFAST	BELFAST MUNICIPAL	YES
	BETHEL	BETHEL REGIONAL	YES
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	YES
	EASTPORT	EASTPORT MUNICIPAL	YES
	FRYEBURG	EASTERN SLOPES REGIONAL	YES
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	YES
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	YES
	LUBEC	LUBEC MUNICIPAL	YES
	MACHIAS	MACHIAS VALLEY	YES
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers; MASPU Inventory Form

As shown in **Chart 5-19**, 67 percent of all public airports in Maine indicate that they are recognized in their community's local comprehensive plan. Each of the four airport levels has a current rating of at least 50 percent for this benchmark. As part of the Phase II of this study, target objectives for future compliance ratings for airports in each of the four airport levels, as well as a target compliance objective for the system as a whole, will be set for this benchmark.

CHART 5-19
AIRPORT INCLUDED IN LOCAL COMPREHENSIVE PLAN BENCHMARK



Benchmark: Percent of system airports with financial/accounting records and/or a business plan.

Another means by which the long-term viability of an airport can be increased is through proper and prudent financial and business planning. Airports in reality are businesses that should be run in a manner that increases the propensity for operating revenues to meet or exceed operating expenses. Airports can increase their flexibility and viability through proper financial planning and/or accounting, as well as through the development of an actual business plan. As shown in **Table 5-28** most of Maine's larger and more active airports included in Level I have these types of products and tools to direct their day-to-day activities and decision-making processes.

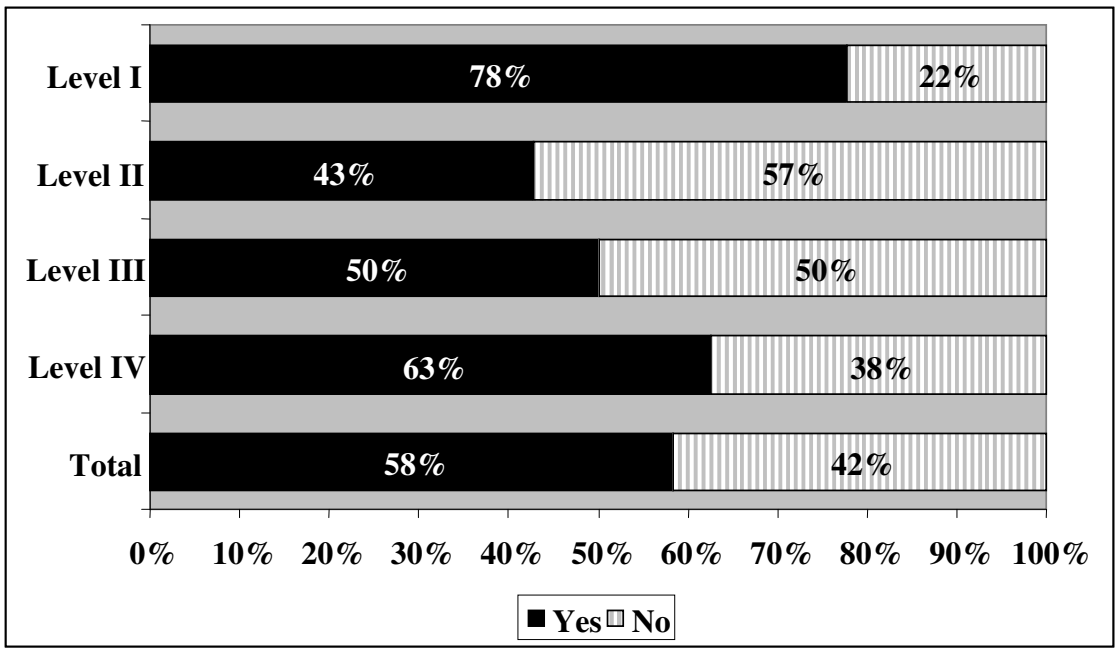
TABLE 5-28
BUSINESS/FINANCIAL PLAN

	CITY NAME	FACILITY NAME	BUSINESS/FINANCIAL PLAN
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	NO
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	YES
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	YES
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	YES
	HOULTON	HOULTON INTERNATIONAL	YES
	OLD TOWN	DEWITT FLD,OLD TOWN MUNICIPAL	NO
	OXFORD	OXFORD COUNTY REGIONAL	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	NO
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO
	BETHEL	BETHEL REGIONAL	YES
	CARIBOU	CARIBOU MUNICIPAL	YES
	DEXTER	DEXTER REGIONAL	YES
	EASTPORT	EASTPORT MUNICIPAL	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	YES
	LINCOLN	LINCOLN REGIONAL	YES
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	YES
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	YES
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	YES
	LUBEC	LUBEC MUNICIPAL	YES
	MACHIAS	MACHIAS VALLEY	NO
	PRINCETON	PRINCETON MUNICIPAL	YES
	STONINGTON	STONINGTON MUNICIPAL	YES

SOURCE: Airport Operators/Managers; MASPU Inventory Form

As shown in **Chart 5-20**, 78 percent of the Level I airports now report that they have mechanisms in place that help them make airport-related financial decisions. For the Level II airports, 43 percent have reported financial and business-planning procedures in place, while 50 percent of the Level III and 63 percent of the Level IV airports report that they have these types of business tools. Systemwide, 58 percent of Maine's airports report that they are doing financial and business planning. Future objectives for the system for this benchmark will be set in Phase II of the MASPU. In addition, guidelines for determining what constitutes adequate and appropriate financial planning for airports in each of the four system levels will be set.

CHART 5-20
AIRPORTS WITH BUSINESS/FINANCIAL PLANS BENCHMARK



Benchmark: Percent of system airports that have a system in place to maintain, update, and report annual aviation activity statistics to OPT.

As the State agency charted with monitoring, planning for, and funding Maine's system of public use airports, it is important for the Office of Passenger Transportation (OPT) to have current information and statistics on levels of activity that are being accommodated at each airport. Having current information on annual activity statistics enables OPT to identify changes that may be taking place in the system. Identifying such changes facilitates the process that is undertaken by OPT each year to ensure that funding is being directed to airports and to projects that are of greatest priority and importance to the Maine System. During the Inventory phase of the MASPU, information from system airports was collected to identify airports that currently have mechanisms in place to report their annual activity statistics to OPT. The results are presented in **Table 5-29**.

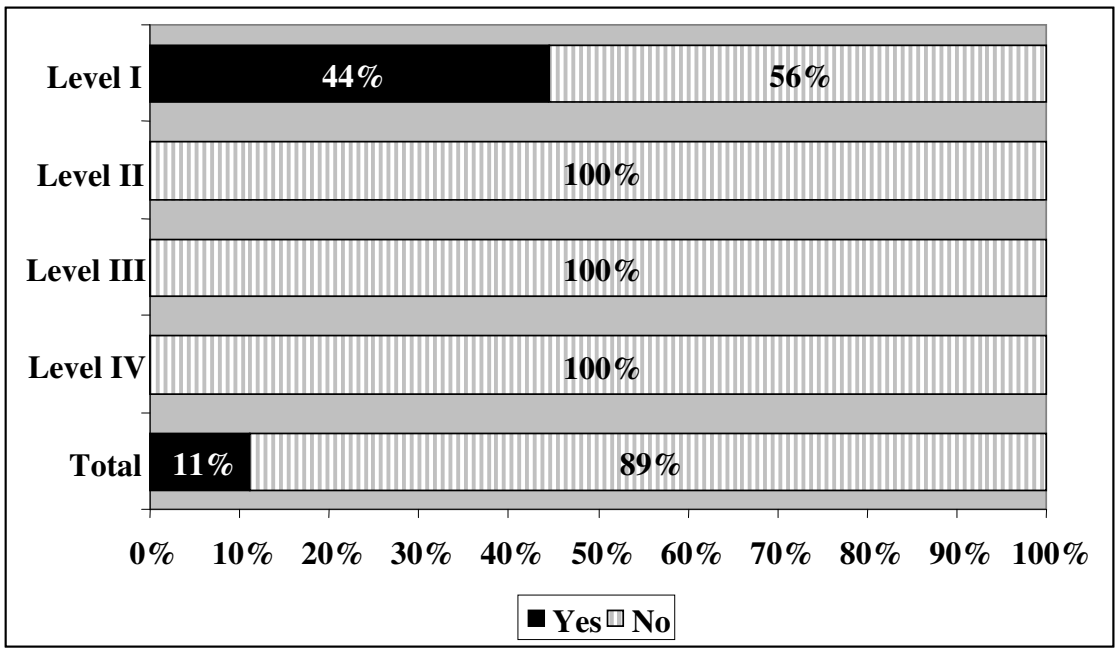
TABLE 5-29
AIRPORTS REPORT ANNUAL ACTIVITY TO OPT

	CITY NAME	FACILITY NAME	AVIATION ACTIVITY STATISTICS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL	NO
	AUGUSTA	AUGUSTA STATE	YES
	BANGOR	BANGOR INTERNATIONAL	YES
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	NO
	PORTLAND	PORTLAND INTL JETPORT	NO
	PRESQUE ISLE	NORTHERN MAINE REGIONAL	YES
	ROCKLAND	KNOX COUNTY REGIONAL	NO
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	NO
LEVEL II	BIDDEFORD	BIDDEFORD MUNICIPAL	NO
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	NO
	HOULTON	HOULTON INTERNATIONAL	NO
	OLD TOWN	DEWITT FLD, OLD TOWN MUNICIPAL	NO
	OXFORD	OXFORD COUNTY REGIONAL	NO
	PITTSFIELD	PITTSFIELD MUNICIPAL	NO
	WISCASSET	WISCASSET	NO
LEVEL III	BELFAST	BELFAST MUNICIPAL	NO
	BETHEL	BETHEL REGIONAL	NO
	CARIBOU	CARIBOU MUNICIPAL	NO
	DEXTER	DEXTER REGIONAL	NO
	EASTPORT	EASTPORT MUNICIPAL	NO
	FRYEBURG	EASTERN SLOPES REGIONAL	NO
	GREENVILLE	GREENVILLE MUNICIPAL	NO
	JACKMAN	NEWTON FIELD	NO
	LINCOLN	LINCOLN REGIONAL	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	NO
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	RANGELEY	RANGELEY MUNICIPAL	NO
LEVEL IV	CARRABASSETT	SUGARLOAF REGIONAL	NO
	DEBLOIS	DEBLOIS FLIGHT STRIP	NO
	DOVER/FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	NO
	MACHIAS	MACHIAS VALLEY	NO
	PRINCETON	PRINCETON MUNICIPAL	NO
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: Airport Operators/Managers; MASPU Inventory Form
NOTE: It is important to note for the information reported in this table, that while commercial and towered airports may report activity data to the FAA, this same information is not necessarily reported to the OPT.

As reflected in the information presented in Table 5-29, and as graphically reflected in **Chart 5-21**, a small percent of the system airports now have procedures in place to report their annual activity statistics to OPT. There are no Level II, III, or IV airports that are currently reporting their activity to the OPT, and only 44 percent of the Level I airports now report. Systemwide, this translates into a current compliance rating of only 11 percent for this benchmark. As Phase II of the MASPU is undertaken, higher objectives for future compliance will be set. OPT would ultimately like to have a process in place by which airports report directly to OPT on an annual basis information on based aircraft, annual operations, and enplaned passengers.

CHART 5-21
AIRPORTS REPORT ANNUAL ACTIVITY TO OPT BENCHMARK



PERFORMANCE MEASURE: ACCESSIBILITY

For an airport system to adequately serve a state, it should provide convenient and reasonable access from both the ground and the air. The ability of any airport system to meet the accessibility performance measure can be determined in one of several ways. One of these is the quality and quantity of scheduled airline service that is available at system airports. Scheduled airline service to most markets in the U.S. has undergone a variety of complex and continued changes since the deregulation of the U.S. carriers in the late 1970s. More recently, the events of September 11, 2001 led to changes, of which the full impact on commercial aviation may not be fully comprehended for some time. To understand how accessibility to Maine as expressed by commercial airline service has changed, service histories for all commercial airports in the Maine Airport System were indexed.

An airport system's ability to provide access can also be determined, in part, based on the number of airports in the system that have Part 135 operators who provide on-demand charter service. In recent years, corporate use of general aviation for business travel has seen a resurgence. Programs such as fractional ownership have been largely responsible for general aviation's renewed role in meeting the travel needs of corporate America.

To meet this particular performance measure, airports in the Maine system should be accessible from both the ground and the air. Ground accessibility can be measured by determining the coverage that system airports provide to all geographic areas of the State, and by determining the percentages of the State's population and service centers that are within established drive times of system airports. System accessibility can also be determined by measuring the effective coverage provided by airports that accommodate special use aviation activities.

Air accessibility is also an important factor in measuring system performance. Air accessibility is influenced by factors such as the airport's type of approach (precision, non-precision, or visual) and the presence, or lack thereof, of on-site weather-reporting equipment. Airports that are equipped and capable of operating in all weather conditions also help to determine a system's air accessibility.

Benchmarks that will be used to evaluate the system's ability to provide adequate access have been divided between ground and air access and will be discussed below.

GROUND ACCESSIBILITY

The following benchmarks are used to determine the system's ground accessibility:

- Percent of the State, its population, and service centers that are within 30 minutes of public-use heliports/helistop (**Exhibit 5-7**). The information presented on this exhibit is for heliports only; it does not include additional coverage for landing opportunities provided to helicopters at private and public airports in Maine.

- Percent of the State, its population, and service centers that are within 30 minutes of an attended seaplane base with facilities (**Exhibit 5-8**).

- Percent of the State, its population, and service centers that are within 30 minutes of an airport serving special use aviation activities (balloons, ultralights, model airplanes, others) (**Exhibit 5-9**).

- Percent of the State, its population, and service centers that are within 60 minutes of an airport with scheduled commercial airline service (**Exhibit 5-10**).

- Percent of the State, its population, and service centers that are within 30 minutes of any system airport (**Exhibit 5-11**).

- Percent of the State that is within 30 minutes of a system airport that has a Part 135 Certified air taxi/charter operator (**Exhibit 5-12**).

- Airport-specific commercial air service characteristics, 1991, 1996, and 2001 (number of carriers, top O&D points, average fares, non-stop hubs served, and equipment types).

Table 5-30 shows the percent of the State, its population, and service centers for all of the ground accessibility benchmarks except for the airport specific commercial air service benchmark.

TABLE 5-30
GROUND ACCESSIBILTY BENCHMARKS

BENCHMARK PERCENT OF THE STATE WITHIN 30 MINUTES OF PUBLIC USE HELIPORTS/HELISTOPS*	**EXHIBIT 5-7** STATE 26 % POPULATION 84 % SERVICE CENTERS 59%
BENCHMARK PERCENT OF THE STATE WITHIN 30 MINUTES OF A SEAPLANE BASE, WITH FACILITIES	**EXHIBIT 5-8** STATE 29 % POPULATION 86 % SERVICE CENTERS 58 %
BENCHMARK PERCENT OF THE STATE WITHIN 30 MINUTES OF AN AIRPORT SERVING SPECIAL USE AVIATION ACTIVITIES (BALLOONS, ULTRALIGHTS, MODEL AIRPLANES, OTHERS)	**EXHIBIT 5-9** STATE 41 % POPULATION 96 % SERVICE CENTERS 84%
BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 60 MINUTES OF AN AIRPORT WITH SCHEDULED COMMERCIAL AIRLINE SERVICE	**EXHIBIT 5-10** STATE 39 % POPULATION 94 % SERVICE CENTERS 71 %
BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 30 MINUTES ANY SYSTEM AIRPORT	**EXHIBIT 5-11** STATE 45 % POPULATION 98 % SERVICE CENTERS 87 %
BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 30 MINUTES OF A SYSTEM AIRPORT THAT HAS A PART 135 CERTIFIED AIR TAXI/CHARTER OPERATOR	**EXHIBIT 5-12** STATE 31 % POPULATION 90 % SERVICE CENTERS 68%

*Information for heliports only
SOURCE: WSA/Oest Associates

The information presented in Table 5-30 on the ground accessibility benchmarks yields the following conclusions:

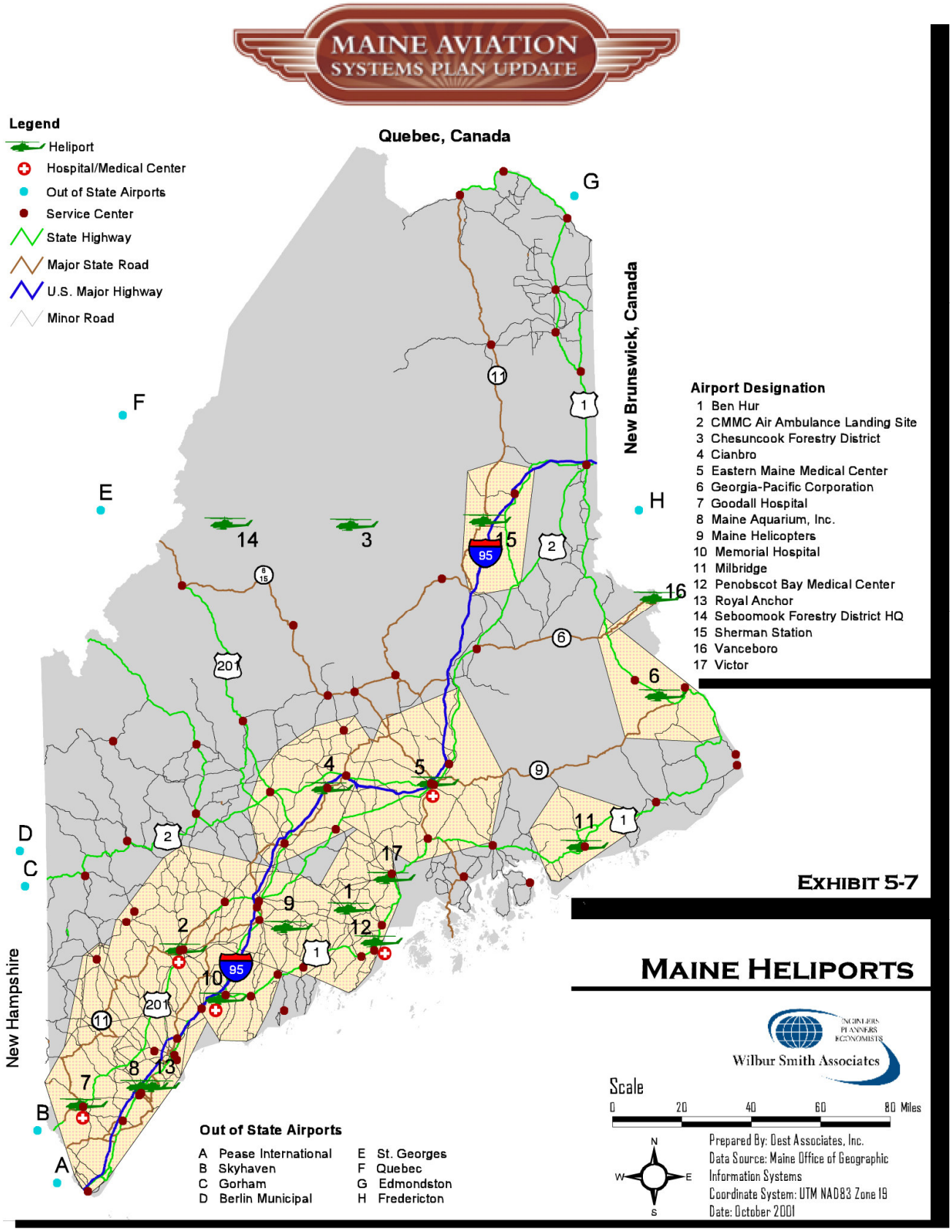
- From a geographic perspective (percent of the State covered), when all ground accessibility benchmarks are considered, roughly 35 percent (on average) of the State is currently accessible within a 30-minute drive time of a public airport. This cumulative percentage rating for the combined coverage being provided by all ground accessibility benchmarks is heavily influenced by the fact that large expanses of northern and western Maine are outside the public airport system's current coverage, as measured by the 30-minute drive times. It is also worth noting that these areas of the State are relatively unpopulated. This indicates that

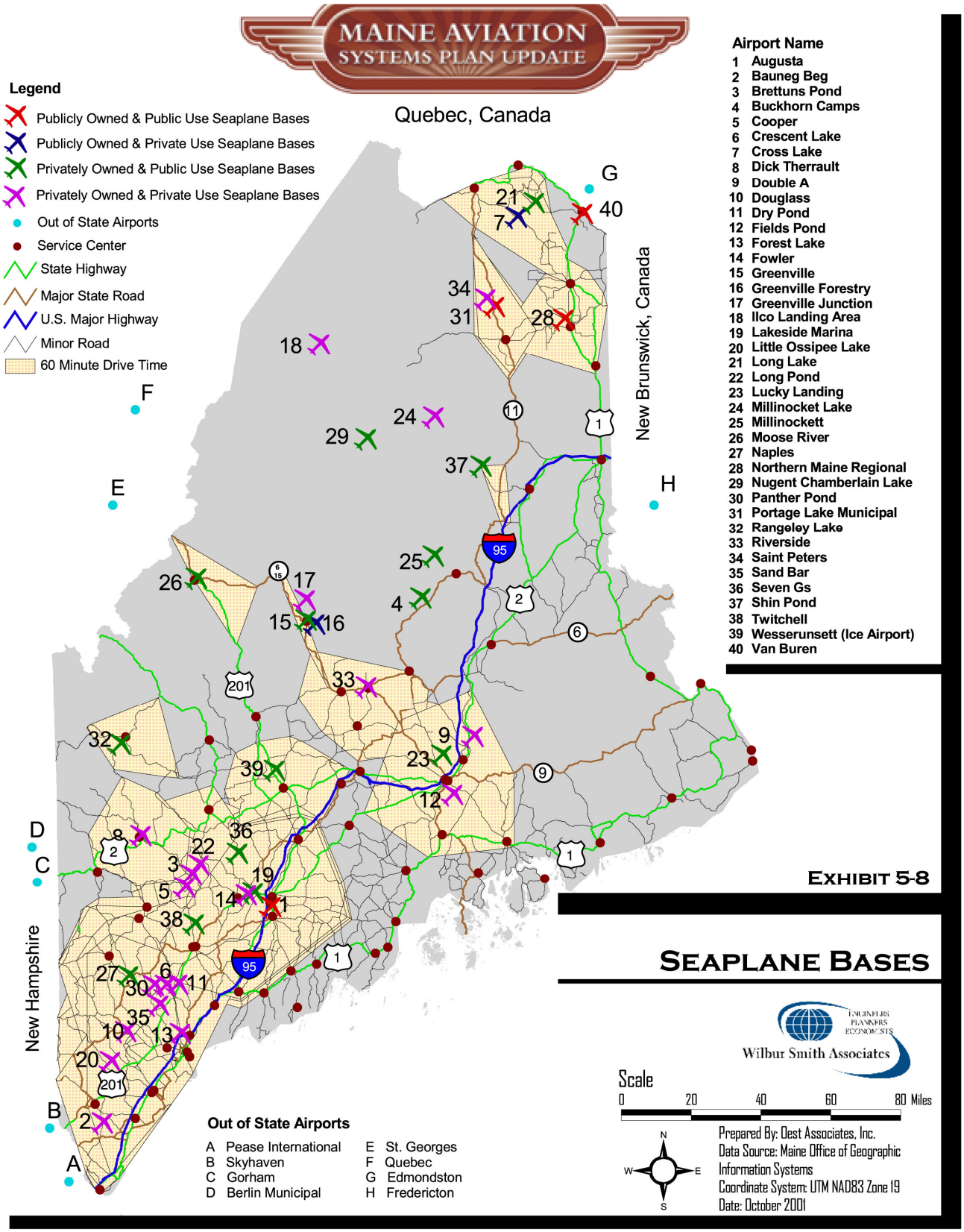
the 35 percent cumulative area coverage may not necessarily represent a serious system shortfall or deficiency.

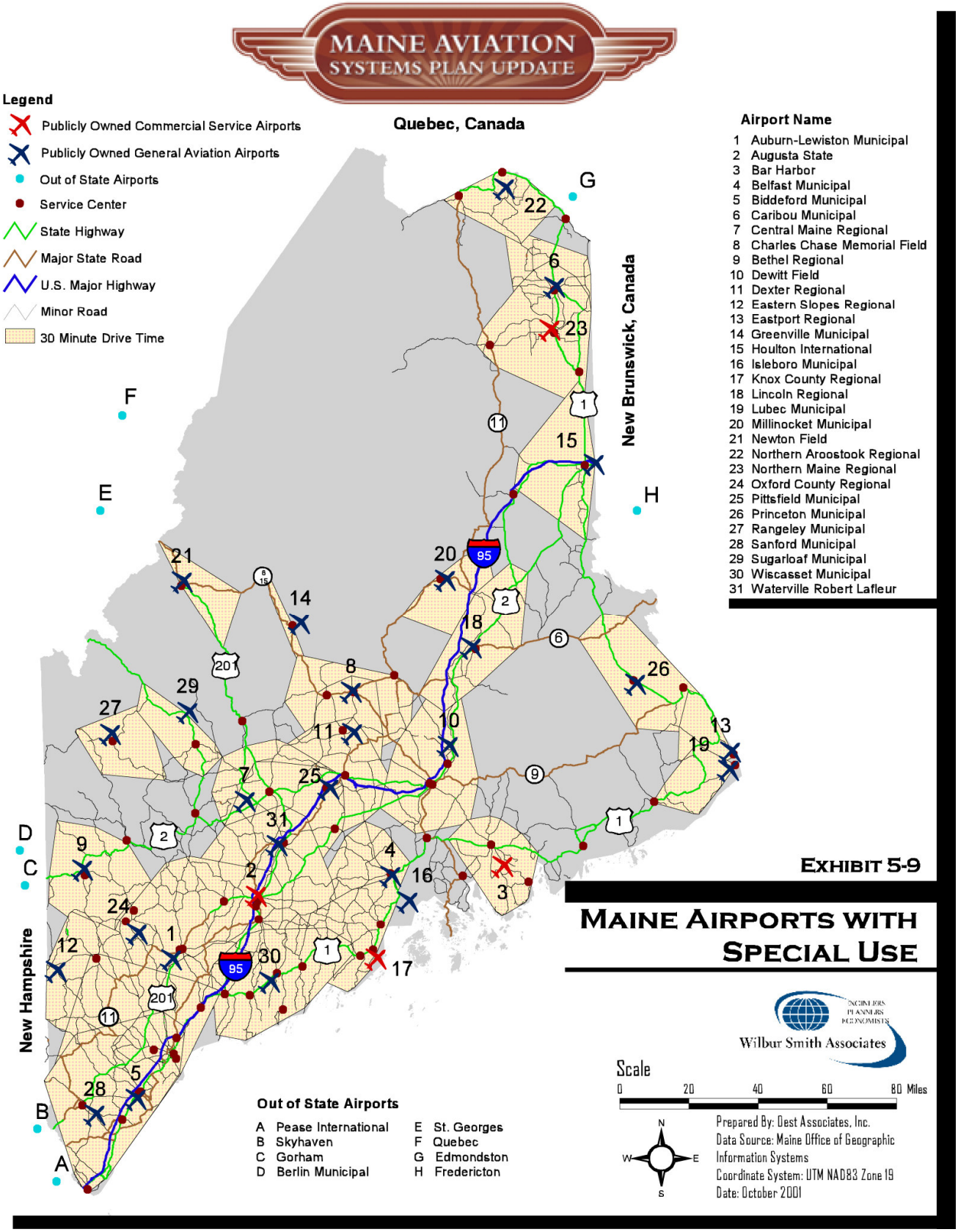
- When the proximity of Maine's 69 established service centers are considered under the ground accessibility performance measure, in relationship to the public airport system, the average percentage coverage rating is 71 percent. This average coverage for the State's service centers is influenced by the fact that more than 40 percent of the service centers are beyond a 30-minute drive time of an attended seaplane base or heliport. Since many of Maine's seaplane bases are unattended, it is important for users to know where they can locate attended facilities. When only the remaining benchmarks for the ground accessibility measure are considered, the current coverage (as measured by the 30 minute service areas) for the State's service centers increases to 78 percent.

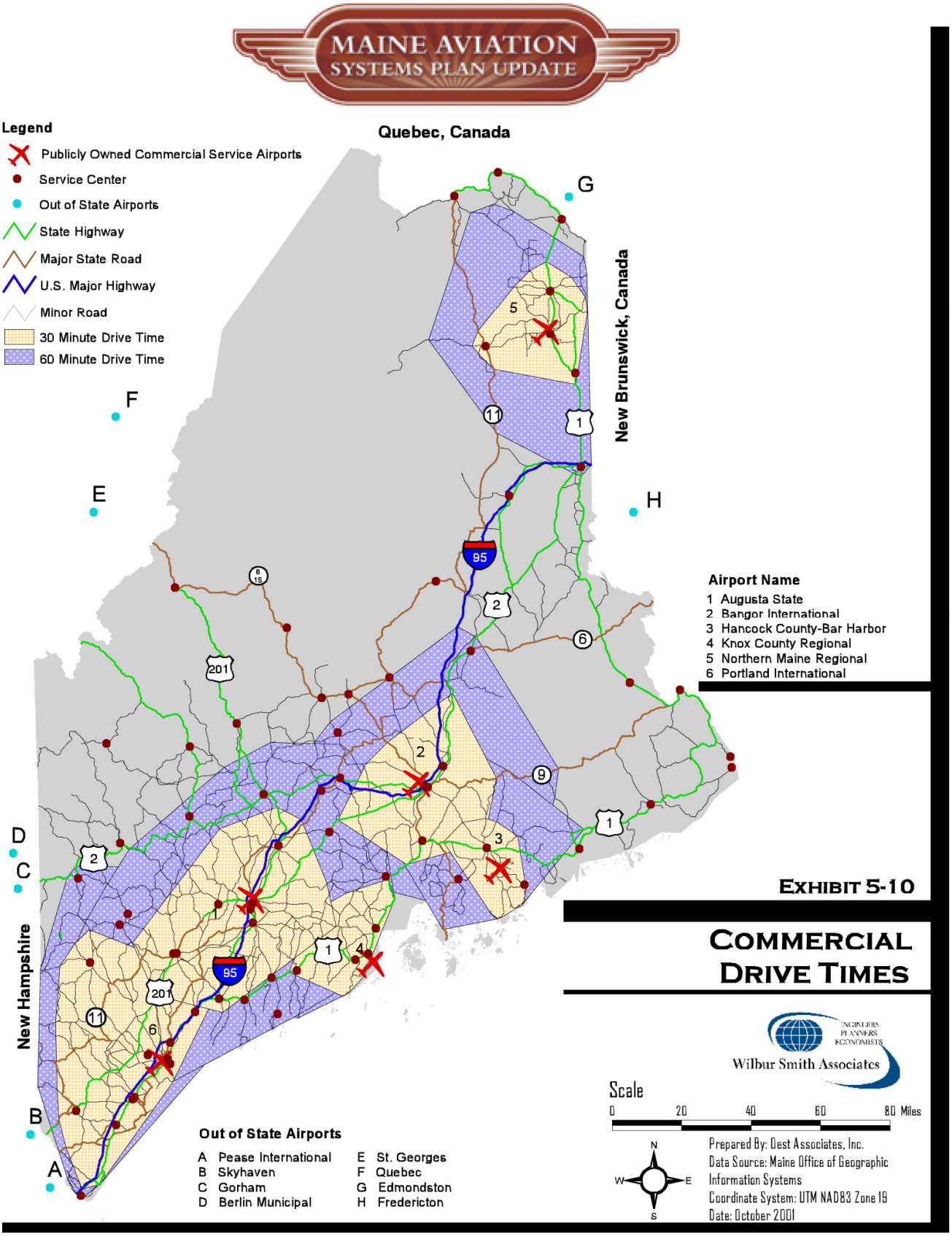
- The information presented in Table 5-30 shows that Maine's population is receiving good coverage from the public airport system. For all ground accessibility benchmarks, on average, 91 percent of the State's population is within a 30-minute drive of a system airport.

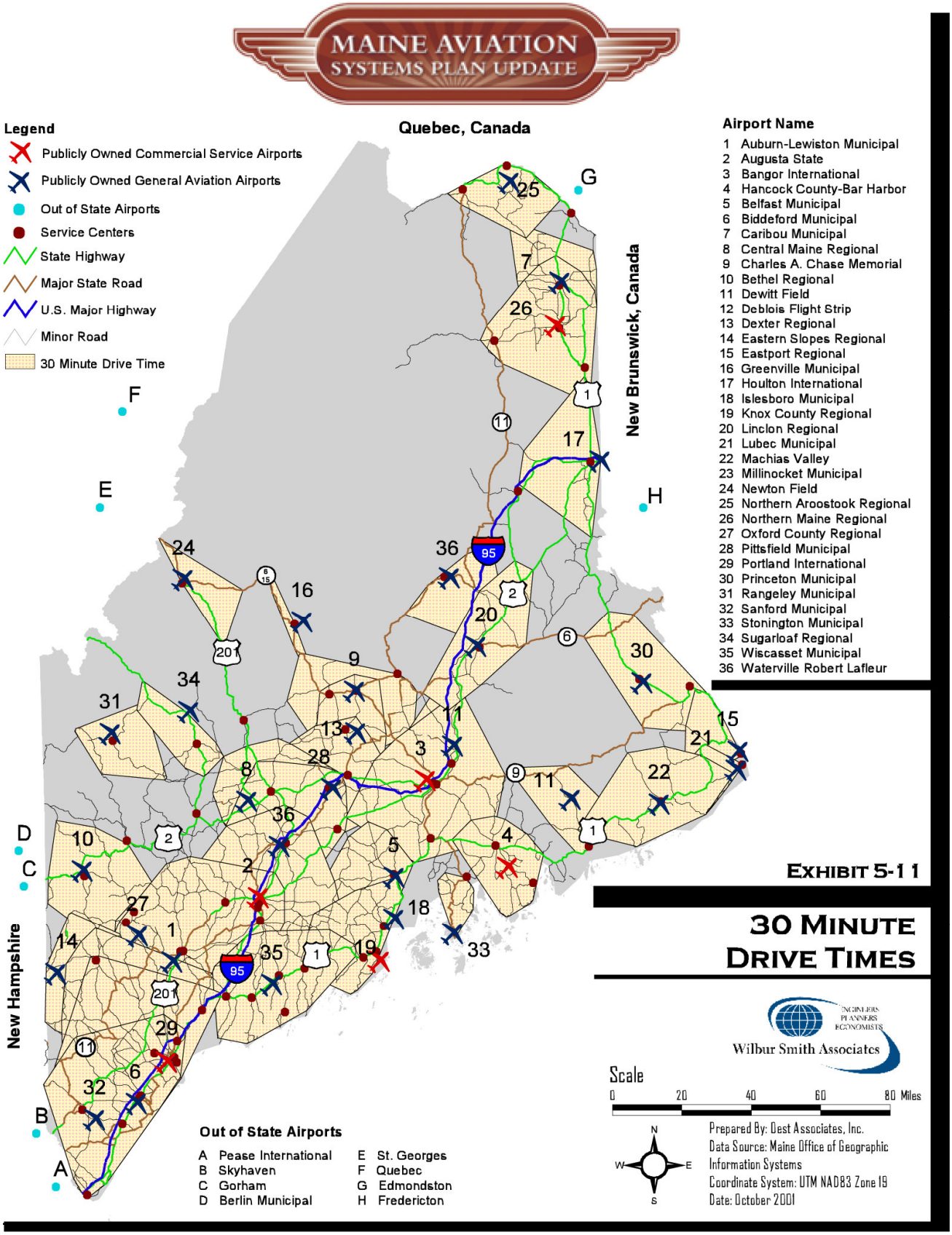
During Phase II of the MASPU, OPT and the Project Advisory Committee will work together to determine if current coverage for each of the ground accessibility benchmarks is adequate. If existing coverage (as shown in Table 5-30) is determined to be inadequate, targets for future coverage will be set, and the projects/actions needed to reach these targets will be identified.

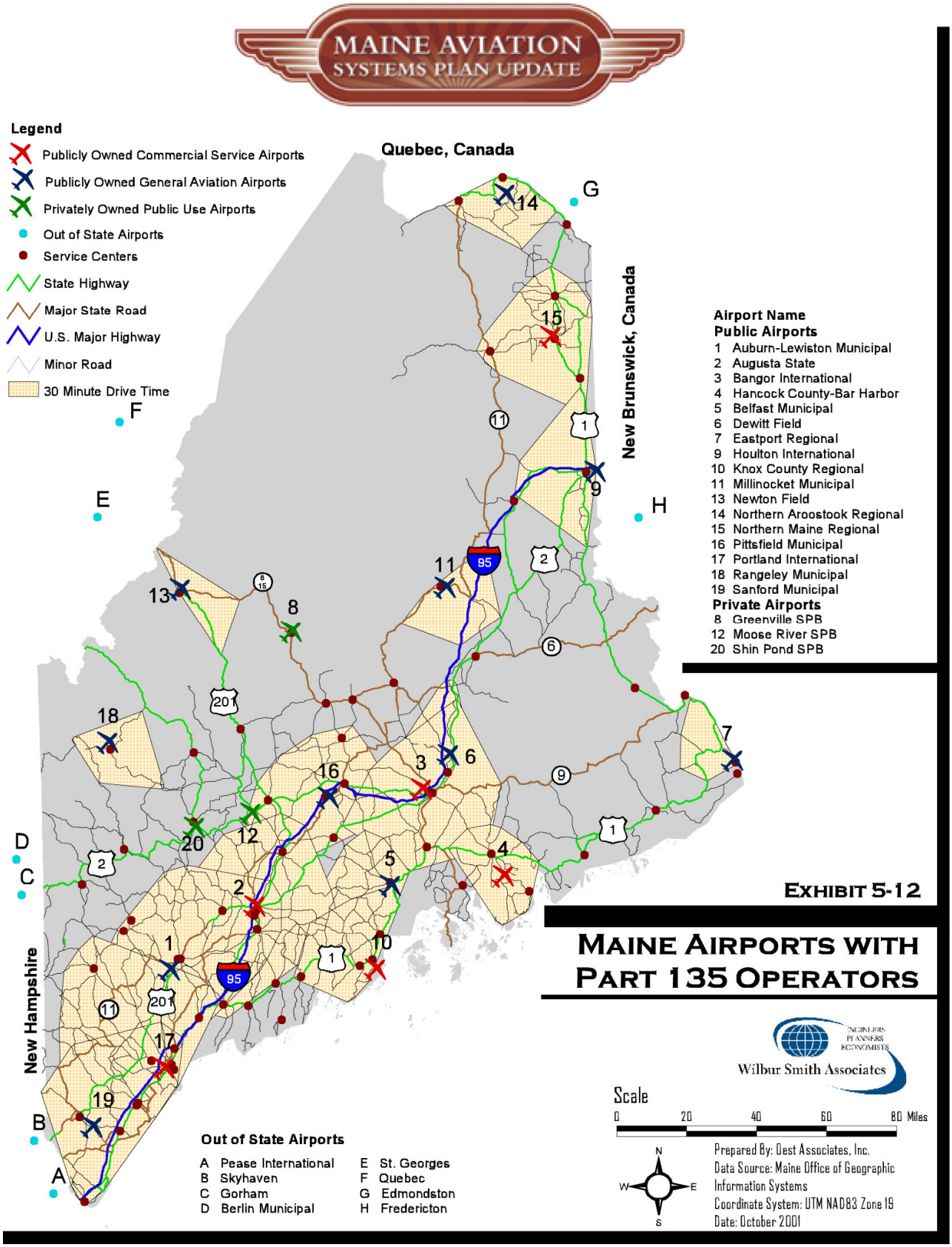

MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Heliport
Hospital/Medical Center
Out of State Airports
Service Center
State Highway
Major State Road
U.S. Major Highway
Minor Road
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Designation
1 Ben Hur
2 CMMC Air Ambulance Landing Site
3 Chesuncook Forestry District
4 Cianbro
5 Eastern Maine Medical Center
6 Georgia-Pacific Corporation
7 Goodall Hospital
8 Maine Aquarium, Inc.
9 Maine Helicopters
10 Memorial Hospital
11 Milbridge
12 Penobscot Bay Medical Center
13 Royal Anchor
14 Seboomook Forestry District HQ
15 Sherman Station
16 Vanceboro
17 Victor
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-7
MAINE HELIPORTS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned & Public Use Seaplane Bases
Publicly Owned & Private Use Seaplane Bases
Privately Owned & Public Use Seaplane Bases
Privately Owned & Private Use Seaplane Bases
Out of State Airports
Service Center
State Highway
Major State Road
U.S. Major Highway
Minor Road
60 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Augusta
2 Bauneg Beg
3 Brettuns Pond
4 Buckhorn Camps
5 Cooper
6 Crescent Lake
7 Cross Lake
8 Dick Therrault
9 Double A
10 Douglass
11 Dry Pond
12 Fields Pond
13 Forest Lake
14 Fowler
15 Greenville
16 Greenville Forestry
17 Greenville Junction
18 Ilco Landing Area
19 Lakeside Marina
20 Little Ossipee Lake
21 Long Lake
22 Long Pond
23 Lucky Landing
24 Millinocket Lake
25 Millinockett
26 Moose River
27 Naples
28 Northern Maine Regional
29 Nugent Chamberlain Lake
30 Panther Pond
31 Portage Lake Municipal
32 Rangeley Lake
33 Riverside
34 Saint Peters
35 Sand Bar
36 Seven Gs
37 Shin Pond
38 Twitchell
39 Wesserunsett (Ice Airport)
40 Van Buren
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-8
SEAPLANE BASES
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Center
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bar Harbor
4 Belfast Municipal
5 Biddeford Municipal
6 Caribou Municipal
7 Central Maine Regional
8 Charles Chase Memorial Field
9 Bethel Regional
10 Dewitt Field
11 Dexter Regional
12 Eastern Slopes Regional
13 Eastport Regional
14 Greenville Municipal
15 Houlton International
16 Isleboro Municipal
17 Knox County Regional
18 Lincoln Regional
19 Lubec Municipal
20 Millinocket Municipal
21 Newton Field
22 Northern Aroostook Regional
23 Northern Maine Regional
24 Oxford County Regional
25 Pittsfield Municipal
26 Princeton Municipal
27 Rangeley Municipal
28 Sanford Municipal
29 Sugarloaf Municipal
30 Wiscasset Municipal
31 Waterville Robert Lafleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-9
MAINE AIRPORTS WITH SPECIAL USE
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Service Center
Out of State Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
60 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Augusta State
2 Bangor International
3 Hancock County-Bar Harbor
4 Knox County Regional
5 Northern Maine Regional
6 Portland International
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-10
COMMERCIAL DRIVE TIMES
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Belfast Municipal
6 Biddeford Municipal
7 Caribou Municipal
8 Central Maine Regional
9 Charles A. Chase Memorial
10 Bethel Regional
11 Dewitt Field
12 Deblois Flight Strip
13 Dexter Regional
14 Eastern Slopes Regional
15 Eastport Regional
16 Greenville Municipal
17 Houlton International
18 Islesboro Municipal
19 Knox County Regional
20 Linclon Regional
21 Lubec Municipal
22 Machias Valley
23 Millinocket Municipal
24 Newton Field
25 Northern Aroostook Regional
26 Northern Maine Regional
27 Oxford County Regional
28 Pittsfield Municipal
29 Portland International
30 Princeton Municipal
31 Rangeley Municipal
32 Sanford Municipal
33 Stonington Municipal
34 Sugarloaf Regional
35 Wiscasset Municipal
36 Waterville Robert Lafleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-11
30 MINUTE DRIVE TIMES
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Privately Owned Public Use Airports
Out of State Airports
Service Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
Public Airports
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Belfast Municipal
6 Dewitt Field
7 Eastport Regional
9 Houlton International
10 Knox County Regional
11 Millinocket Municipal
13 Newton Field
14 Northern Aroostook Regional
15 Northern Maine Regional
16 Pittsfield Municipal
17 Portland International
18 Rangeley Municipal
19 Sanford Municipal
Private Airports
8 Greenville SPB
12 Moose River SPB
20 Shin Pond SPB
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-12
MAINE AIRPORTS WITH PART 135 OPERATORS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

Benchmark: Airport-specific commercial air service characteristics, 1991, 1996, and 2001 (number of carriers, top O&D points, average fares, non-stop hubs served, and equipment types).

Commercial Airline Service

Commercial airline service is very important to Maine's economy. Not only do businesses that are located in the State rely upon the commercial airline industry to support their day-to-day activities, but Maine's vast tourist industry is also heavily reliant on commercial airline service. There is no national standard for what constitutes good or even acceptable commercial airline service. Such standards vary considerably by community. However, convenient access to the national air system is a top priority for many businesses and tourists across the U.S. It is important that a commercial carrier serves Maine's major service centers and tourism destinations in order to serve the commercial needs of the State. As shown in Table 5-30, 94 percent of Maine's population and 71 percent of its service centers are within 60 minutes of a commercial service airport.

All areas in Maine have some inherent need or demand for commercial airline service. The volume of this demand is determined by factors such as population, employment, income, and tourism. Where each community's demand for commercial airline service is actually served is a more complex equation. In the deregulated airline environment, it is not uncommon to find travelers who leave the market area of their local commercial service airport to drive two to three hours to a more distant, larger competing airport. The airport that travelers choose for their commercial airline trips is influenced by a myriad of factors. With the help of the Internet, which is rapidly becoming the number one method for airline ticket purchases, travelers can compare fares, airlines, and schedules among several competing airports.

With airline deregulation, travelers from smaller commercial airport markets around the U.S. have abandoned air travel from their local airport in favor of beginning their trips from larger, more distant competing airports. This pattern is especially applicable to leisure or vacation travelers who are more price-sensitive than they are time-sensitive. Business travelers, on the other hand, are more time-sensitive. Business travelers are often more willing to pay the higher fares that characterize many small commercial service markets if it results in significant time savings.

This portion of the system benchmarking analysis is not designed to determine or conclude the adequacy or the inadequacy of Maine's commercial airline service. This benchmark has been included primarily to show how Maine's commercial airline service has changed over the past ten years. Information gathered for this benchmark is applicable only to those Maine airports that are presently served by scheduled commercial carriers. These airports are shown in **Table 5-31**.

Average One-Way Fares

Table 5-31 provides comparative one-way average fare data for all of Maine's commercial airports. As shown in this table, Maine's statewide average fare has exceeded the national average for fare since 1991. The data presented in Table 5-31 shows that in 1991, three of Maine's commercial airports (serving Augusta, Bar Harbor, and Rockland) actually recorded one-way commercial airline fares that were below the national average. By 2001, the average one-way fare to and from all of Maine's commercial airports exceeded the national average. In 1991, Maine's average one-way fare was 8 percent higher than the national average. By 2001, the statewide average fare was 20 percent higher than the national average. Maine's one way commercial airline fare is higher than the U.S. average one-way commercial airline due in large part to the State's lack of low fare carrier service.

TABLE 5-31
ONE-WAY AVERAGE FARE

					% CHANGE		
CITY NAME	**FACILITY NAME**	**1991**	**1996**	**2001**	**1991-1996**	**1996-2001**	**1991-2001**
AUGUSTA	AUGUSTA STATE	$125.03	$156.28	$167.04	25.0%	6.9%	33.6%
BANGOR	BANGOR INTERNATIONAL	$156.76	$157.10	$178.50	0.2%	13.6%	13.9%
BAR HARBOR	HANCOCK COUNTY- BAR HARBOR	$129.73	$133.99	$183.87	3.3%	37.2%	41.7%
PRESQUE ISLE	NORTHERN MAINE REGIONAL	$165.83	$178.26	$172.16	7.5%	-3.4%	3.8%
PORTLAND	PORTLAND INTERNATIONAL	$152.91	$175.62	$176.09	14.9%	0.3%	15.2%
ROCKLAND	KNOX COUNTY REGIONAL	$136.12	$153.29	$173.73	12.6%	13.3%	27.6%
	MAINE TOTAL	**$154.04**	**$170.30**	**$176.57**	**10.6%**	**3.7%**	**14.6%**
	US TOTAL	**$143.89**	**$142.24**	**$146.82**	**-1.1%**	**3.2%**	**2.0%**

SOURCES: *U.S. DOT, Origin-Destination Survey, reconciled to Schedules T-100 and 298C T-1*
NOTE: Table Prepared June 2002

Annual Departures and Destinations Served

Table 5-32 presents other comparative data for Maine's commercial service markets. This table shows, on an airport-by-airport basis, the nonstop destinations served and the number of annual airline departures scheduled to these destinations. This information is presented for 1991, 1996, and 2001. As shown Maine's total number of scheduled airline departures increased between 1991 and 1996, but then fell between 1996 and 2001. On a market by market basis, the following conclusions can be drawn from the data presented in Table 5-32:

- Augusta – The number of scheduled commercial airline departures from this market in 2001 was almost less than half what it was in 1991. The nonstop destinations served from Augusta have remained similar over time.

- Bar Harbor – Between 1991 and 2001, the Bar Harbor market is the only Maine market that has seen steady increases in its scheduled commercial airline departures. Nonstop destinations served from Bar Harbor have varied little.

- Bangor – Between 1991 and 2001, this market has exhibited a downward trend in its number of scheduled departing commercial airline flights. It is worth noting that some of the decrease recorded for 2001 was directly linked to airline cuts that were made following 9/11. Historically, much of Bangor's commercial airline service was routed through Portland or other Maine airports; this is no longer the case. Bangor has new nonstop service to Cincinnati and improved flight frequency to Philadelphia. Service to Newark, however, was discontinued.

- Portland – This market's annual departures increased between 1991 and 1996 but fell between 1996 and 2001. Again, part of the 2001 decline in scheduled service was related to the events of September 11th. By 2001, Portland had new nonstop scheduled departures to Detroit, Atlanta, and Cleveland. Historically, a notable number of Portland's departures were "tagged" with other Maine markets, but by 2001, this pattern had all but ceased.

- Presque Isle – This market's scheduled airline departures were cut in half between 1991 and 2001. Historically, much of Presque Isle's service was tagged with other Maine markets, but by 2001, Portland was the only Maine market linked by commercial airline service to Presque Isle. Presque Isle entered the U.S. DOT's Essential Air Service program in February 2001. It is worth noting that Presque Isle was recently (June 2002) selected by the USDOT as one of 40 cities in the U.S. to receive a grant from the Small Community Air Service Program. This grant will be used to fund programs to improve commercial airline service to the Presque Isle market.

- Rockland – The number of scheduled commercial airline departures from this market peaked in 1996. It is likely that the decline in scheduled departures reported in 2001 was a result of airline service cuts instituted as a result of 9/11. Destinations served have remained similar for this market.

TABLE 5-32
ANNUAL NONSTOP SCHEDULED DEPARTURES

CITY NAME	FACILITY NAME	1991	1996	2001
	NONSTOP DESTINATION			
AUGUSTA	**AUGUSTA STATE**			
	BOSTON	1,350	1,145	807
	PORTLAND	0	528	90
	OTHER MAINE	936	775	383
	TOTAL	**2,286**	**2,448**	**1,280**
BAR HARBOR	**HANCOCK COUNTY-BAR HARBOR**			
	BOSTON	256	620	994
	OTHER MAINE	746	771	514
	TOTAL	**1,002**	**1,391**	**1,508**
BANGOR	**BANGOR INTERNATIONAL**			
	BOSTON	6,510	7,393	5,765
	CINCINNATI	0	0	1,081
	PHILADELPHIA	0	82	596
	LA GUARDIA	0	884	405
	PORTLAND	0	1,535	249
	NEWARK	1,441	1,433	0
	OTHER MAINE	1,386	42	0
	ALL OTHER	1,906	448	712
	TOTAL	**11,243**	**11,817**	**8,808**
PORTLAND	**PORTLAND INTERNATIONAL JETPORT**			
	BOSTON	9,748	8,560	6,831
	LA GUARDIA	2,254	4,267	3,614
	PHILADELPHIA	1,237	835	1,460
	NEWARK	1,841	2,505	1,397
	CHICAGO-O'HARE	1,194	1,096	1,229
	PITTSBURGH	851	973	1,089
	WASHINGTON D.C.-DULLES	1,250	511	982
	CINCINNATI	17	1,096	907
	WASHINGTON D.C.-NATIONAL	0	517	875
	DETROIT	0	0	808
	ATLANTA	0	0	725
	CLEVELAND	0	0	554
	ALBANY	484	1,027	551
	OTHER MAINE	1,700	2,089	290
	ALL OTHER	0	877	588
	TOTAL	**20,576**	**24,353**	**21,900**
PRESQUE ISLE	**NORTHERN MAINE REGIONAL**			
	BOSTON	1,187	2,230	1,525
	PORTLAND	976	0	116
	OTHER MAINE	1,644	1,140	0
	TOTAL	**3,807**	**3,370**	**1,641**
ROCKLAND	**KNOX COUNTY REGIONAL**			
	BOSTON	1,002	708	1,038
	PORTLAND	0	217	0
	OTHER MAINE	765	1,308	1,028
	TOTAL	**1,767**	**2,233**	**2,066**
OTHER AIRPORTS IN MAINE WITH DEPARTURES		0	698	0
	MAINE TOTAL	**40,681**	**46,310**	**37,203**

SOURCE: *Official Airline Guide*

Carriers and Equipment Types

Table 5-33 provides information that traces the history of the types of aircraft that have been used to serve Maine's commercial service airports. Like many markets throughout the U.S., Maine markets have experienced a general decline in the number of carriers providing service and an overall downsizing of the seating capacity of the aircraft that serve the state. The following paragraphs summarize changes that each market has experienced over the past 10 years:

- Augusta – For the Augusta market, the 19-seat Beechcraft 1900 has historically been the primary commercial aircraft serving the market. The number of airlines serving this market peaked in 1996. Currently, the Augusta market is served only by US Airways Express carrier, Colgan Air.

- Bangor – The Bangor market has witnessed considerable change in both the airlines and the aircraft types serving the market. In 1991, Bangor was served by mainline Delta, Continental, and United. By 1996, two of these mainline carriers had departed the Bangor market, and by 2001, none of the three were operating at Bangor. The number of airlines serving Bangor has fallen from eight in 1991 to six in 2001. Pan American is the only carrier using large commercial jet aircraft to serve the Bangor market. Three regional carriers began serving the Bangor market with regional jets by 2001 as well.

- Bar Harbor – Commercial airline service in the Bar Harbor market, in terms of aircraft type and number of carriers, has remained relatively unchanged.

- Portland – Portland has seen improvements in its commercial airline service, with the number of carriers serving the market increasing from 10 to 13. Historically, there were a number of small (30-seat or less) commercial aircraft that served this market, but by 2001, Portland was served almost exclusively by mainline or regional jets.

- Presque Isle – Presque Isle was served by five different carriers in 1991; today, they have only one carrier. The type of aircraft serving this market has not changed substantially over time. Historically, the Presque Isle market has been served by commercial aircraft that seat between 19 and 30 passengers.

- Rockland – As shown in Table 5-33, commercial airline service to the Rockland market has experienced little change over the past 10 years.

TABLE 5-33
CARRIERS PROVIDING NONSTOP SCHEDULED SERVICE,
BY EQUIPMENT TYPE

CITY NAME	FACILITY NAME	CODE	1991	1996	2001
	CARRIER				
AUGUSTA	**AUGUSTA STATE**				
	US AIRWAYS EXPRESS	US*	-	BEECH 1900	BEECH 1900
	EXPRESS AIRLINES II	E7	-	CESSNA	-
	PINE STATE AIRLINES	PE	-	CESSNA	-
	NE EXPRESS REGIONAL	2V	BEECH1900/ SWEARINGEN METRO	-	-
	BAR HARBOR AIRLINES	QO	BEECH 1900	-	-
	NO. OF CARRIERS		**2**	**3**	**1**
BANGOR	**BANGOR INTERNATIONAL**				
	US AIRWAYS EXPRESS	US*	DORNIER 228/ SWEARINGEN METRO	BEECH 1900	BEECH 1900/ DORNIER 328/ DASH-8/ SF 340
	COMAIR	DL*	-	-	CRJ
	ATLANTIC COAST	DL*	-	-	FRJ
	AMERICAN EAGLE	AA*	-	-	SF 340/ ERJ
	AMERICAN	AA	-	-	SF 340
	PAN AMERICAN	PN	-	-	B727
	CONTINENTAL EXPRESS	CO*	ATR	ATR	
	EXPRESS AIRLINES II	E7	-	BEECH 1900/ PIPER	-
	PINE STATE AIRLINES	PE	-	CESSNA	-
	US AIRWAYS	US	-	F-100	-
	DELTA	DL	B727/MD-80	B727/B737/MD-80	
	BUSINESS EXPRESS	HQ	SF 340/BEECH1900	SF 340	
	NE EXPRESS REGIONAL	2V	BEECHCRAFT/ SWEARINGEN METRO	-	-
	BAR HARBOR AIRLINES	QO	BEECHCRAFT	-	-
	UNITED	UA*	B727/B737	-	-
	CONTINENTAL	CO	B737/MD-80	-	-
	NO. OF CARRIERS		**8**	**7**	**6**
BAR HARBOR	**HANCOCK COUNTY-BAR HARBOR**				
	US AIRWAYS EXPRESS	US*	-	BEECH 1900	BEECH 1900
	CONTINENTAL EXPRESS	CO*	BEECH 1900/99	-	-
	BAR HARBOR AIRLINES	QO	-	-	-
	NO. OF CARRIERS		**1**	**1**	**1**

TABLE 5-33 (CONTINUED)
CARRIERS PROVIDING NONSTOP SCHEDULED SERVICE,
BY EQUIPMENT TYPE

CITY NAME	FACILITY NAME	CODE	1991	1996	2001
PORTLAND	**PORTLAND INTERNATIONAL**				
	US AIRWAYS EXPRESS	US*	BEECH 1900/ SHORTS 600	DORNIER 228/ BEECH 1900	BEECH 1900/ ERJ/ DORNIER 328/ DASH-8/ SF 340
	UNITED	UA*	B727/B737	B727/B737	B727/B737
	US AIRWAYS	US	B737/ DC-9/ F-28/ MD-80	F-100/ B737/ DC-9/ MD-80	F100/ B737
	ATLANTIC COAST	UA*	BRASILIA	JETSTREAM 41/31	CRJ
	AMERICAN EAGLE	AA*	-	-	SF 340/ ERJ
	CONTINENTAL EXPRESS	CO*	ATR/ BEECH 1900	ATR	ATR/ ERJ
	AMERICAN	AA	-	-	SF 340
	DELTA	DL	B727/B757	B727/B737/MD-80	MD-80
	AC JET	DL*	-	-	FRJ
	NORTHWEST	NW	-	-	DC-9
	COMAIR	DL*	-	-	CRJ
	MESABA	NW*	-	-	ARJ
	AIR NOVA	QK	-	-	BEECH 1900
	CONTINENTAL	CO	B737/B727/MD-80	B737/B727/MD-80	-
	EXPRESS AIRLINES II	E7	-	BEECH 1900/ PIPER	-
	BUSINESS EXPRESS	HQ	SF 340/BEECH1900/ SHORTS 600	SF 340/ BEECH1900	
	PINE STATE AIRLINES	PE	-	CESSNA	-
	NE EXPRESS REGIONAL	2V	BEECHCRAFT/ SWEARINGEN METRO	-	-
	NO. OF CARRIERS		**10**	**10**	**13**
PRESQUE ISLE	**NORTHERN MAINE REGIONAL**				
	US AIRWAYS EXPRESS	US*	-	BEECH 1900	BEECH 1900/SF 340
	EXPRESS AIRLINES II	E7	-	CESSNA	-
	CONTINENTAL EXPRESS	CO*	ATR	CESSNA	-
	BUSINESS EXPRESS	HQ	SF 340/BEECH1900	SF 340/BEECH1900	-
	PINE STATE AIRLINES	PE	-	CESSNA	-
	NE EXPRESS REGIONAL	2V	SWEARINGEN METRO	-	-
	BAR HARBOR AIRLINES	QO	SF 340/BEECH1900	-	-
	NO. OF CARRIERS		**4**	**5**	**1**
ROCKLAND	**KNOX COUNTY**				
	US AIRWAYS EXPRESS	US*	-	BEECH 1900	BEECH 1900
	CONTINENTAL EXPRESS	CO*	BEECH 1900/99	-	-
	NO. OF CARRIERS		**1**	**1**	**1**

SOURCE: *Official Airline Guide*

The information summarized in Tables 5-31, 5-32, and 5-33 shows that changes have occurred in Maine's schedule commercial airline service over the last decade. While some markets have seen relatively minor changes, others have experienced notable change. If Maine markets were compared to other similar markets around the U.S., it is likely that changes experienced by Maine markets would be similar to the changes in air service that have occurred at comparable markets. The information presented for this benchmark provides a general understanding of changes in Maine's accessibility to commercial airline service, as a result of changes, either increases or decreases, in the level of nonstop service and fares offered by commercial carriers. Actions needed to

address commercial air service in Maine will be subsequently addressed in Phase II of the MASPU.

AIR ACCESSIBILITY

The benchmarks on which Maine's air accessibility was rated are listed below:

- Percent of the State, its population, and service centers that are within 30 minutes of a system airport that has on-site weather-reporting equipment (AWOS or ASOS) (**Exhibit 5-13**).

- Percent of the State, its population, and service centers that are within 30 minutes of a system airport that has a precision approach (**Exhibit 5-14**).

- Percent of the State, its population, and service centers that are within 30 minutes of a system airport that has a non-precision approach (**Exhibit 5-15**).

- Percent of the State that is within 30 minutes of a system airport (paved, snow removal, and de-icing) that is open year round (**Exhibit 5-16**).

- Percent of the State that is within 30 minutes of a 5,000-foot runway (**Exhibit 5-17**).

Table 5-34 shows the percent of the State, its population, and service centers for all of the air accessibility benchmarks.

TABLE 5-34
AIR ACCESSIBILTY BENCHMARKS

BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 30 MINUTES OF A SYSTEM AIRPORT THAT HAS ON-SITE WEATHER REPORTING EQUIPMENT (AWOS OR ASOS)	**EXHIBIT 5-13** STATE 30% POPULATION 90% SERVICE CENTERS 65%
BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 30 MINUTES OF A SYSTEM AIRPORT THAT HAS A PRECISION APPROACH	**EXHIBIT 5-14** STATE 23% POPULATION 84% SERVICE CENTERS 55%
BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 30 MINUTES OF A SYSTEM AIRPORT THAT HAS A NON-PRECISION APPROACH	**EXHIBIT 5-15** STATE 37% POPULATION 95% SERVICE CENTERS 78%
BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 30 MINUTES OF A SYSTEM AIRPORT (PAVED, SNOW REMOVAL, AND DE-ICING) THAT IS OPEN YEAR ROUND	**EXHIBIT 5-16** STATE 21% POPULATION 80% SERVICE CENTERS 49%
BENCHMARK PERCENT OF THE STATE THAT IS WITHIN 30 MINUTES OF A 5,000-FOOT RUNWAY	**EXHIBIT 5-17** STATE 23% POPULATION 81% SERVICE CENTERS 51%

As noted previously, airports must be accessible from both the ground and the air. Information summarized in Table 5-34 shows the air accessibility benchmarks and reflects the percentage of the State, its population and its service centers that lie within a 30-minute drive time of one of Maine's 36 public airports. It is worth noting that for consistency, these air accessibility benchmarks have been measured using the same 30-minute drive time criteria as was used for other benchmarks. In reality, the coverage afforded to the State, if air as opposed to ground travel time were considered, would be markedly increased. However, different aircraft have different cruise rates that would result in a varying coverage for each airport that would be dependent upon aircraft type. For comparative purposes, the decision was made to measure system coverage using established ground travel time.

The following conclusions can be drawn from the information presented in Table 5-34:

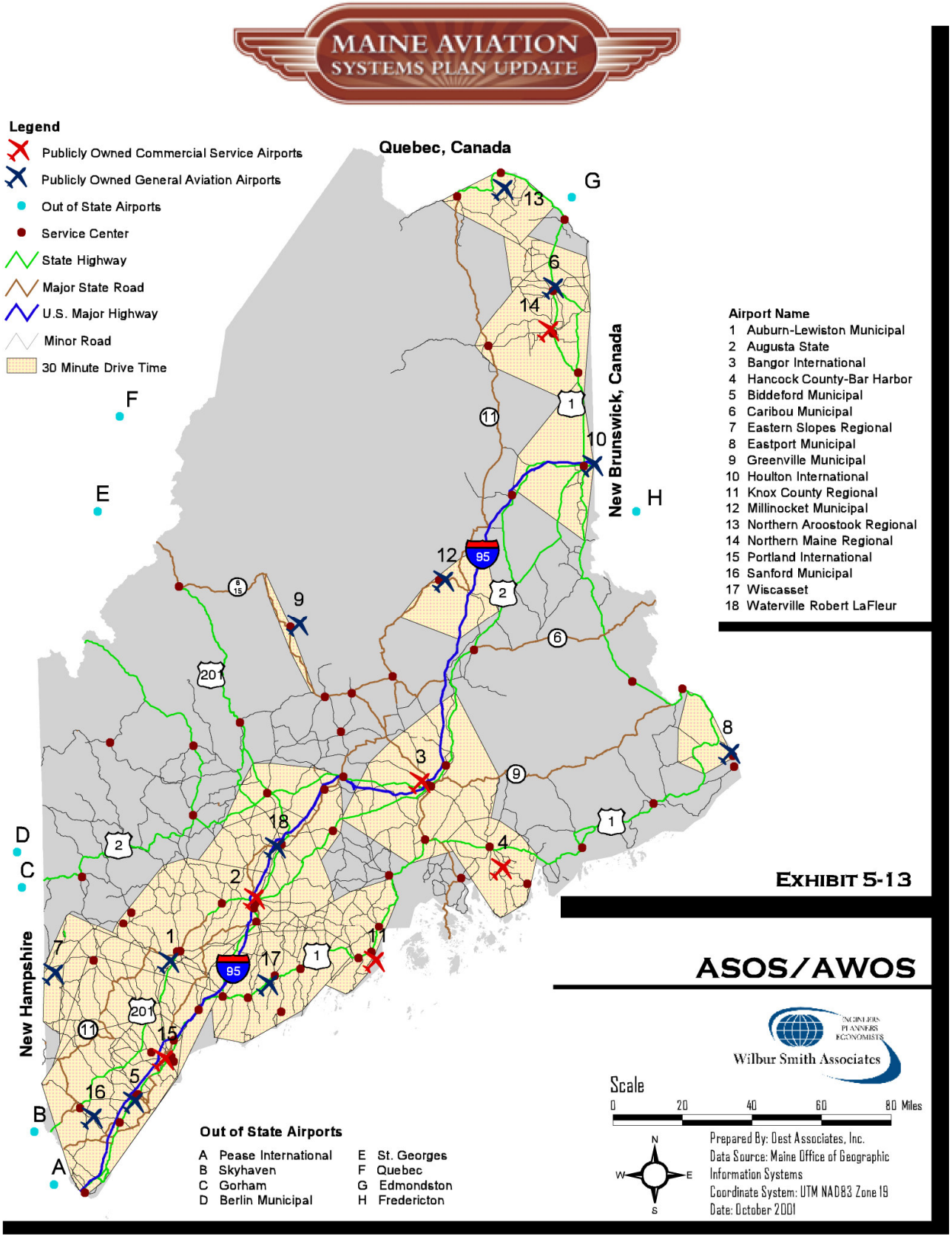
- Similar to the ground accessibility benchmarks, many unpopulated and more remote areas of Maine are beyond a 30-minute drive from any of the 36 public airports. Therefore, for the percent of the State's geographic area covered, the average for all five of the air accessibility benchmarks is a relatively low, 26 percent.

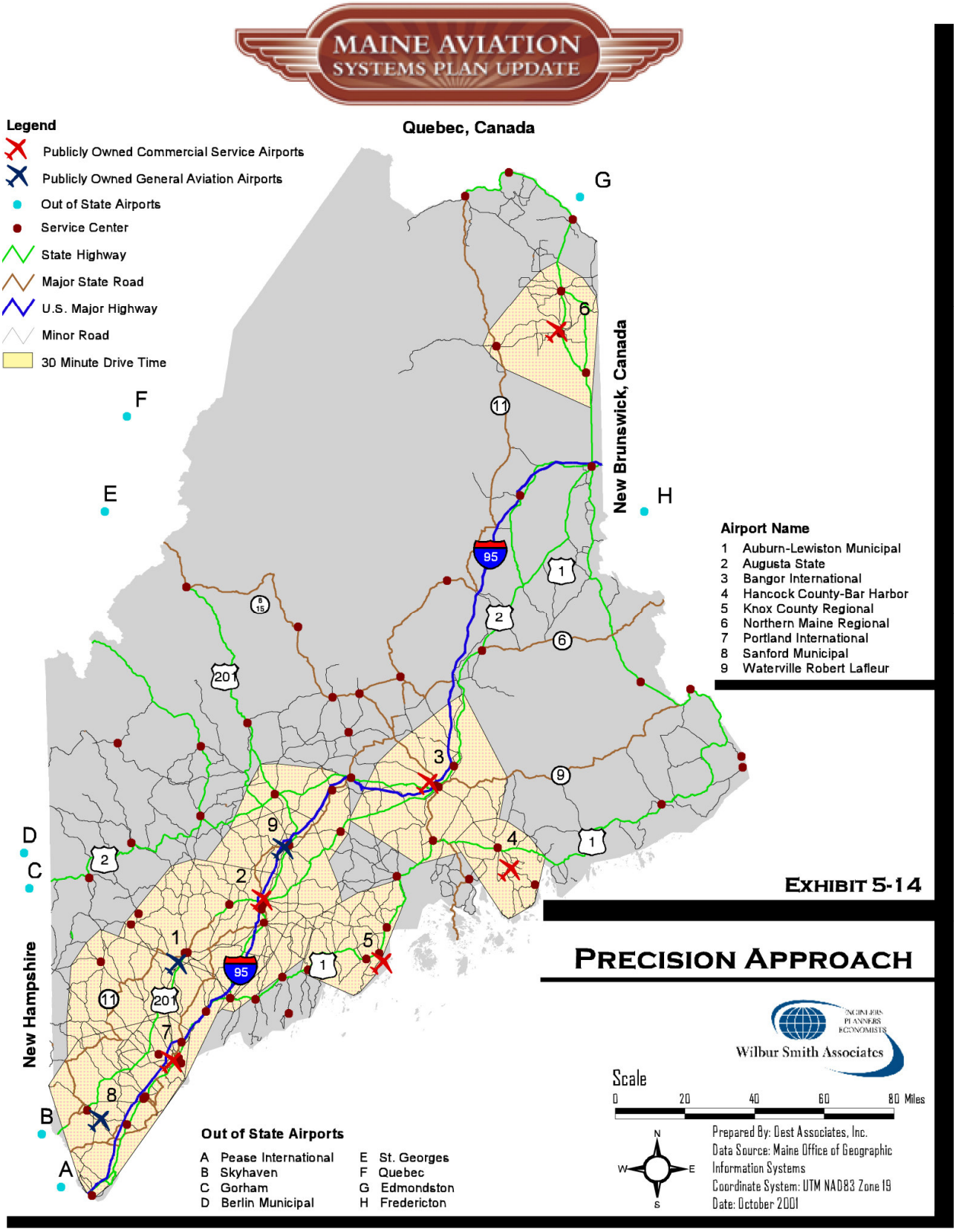
- When the average coverage afforded to Maine's 69 service centers is considered, the system's air accessibility rating increases. As reflected in Table 5-34, when all air accessibility benchmarks are considered, on average, 60 percent of the State's service centers are within a 30-minute drive of Maine's existing airport system. It is worth noting that for the non-precision approach benchmark (a

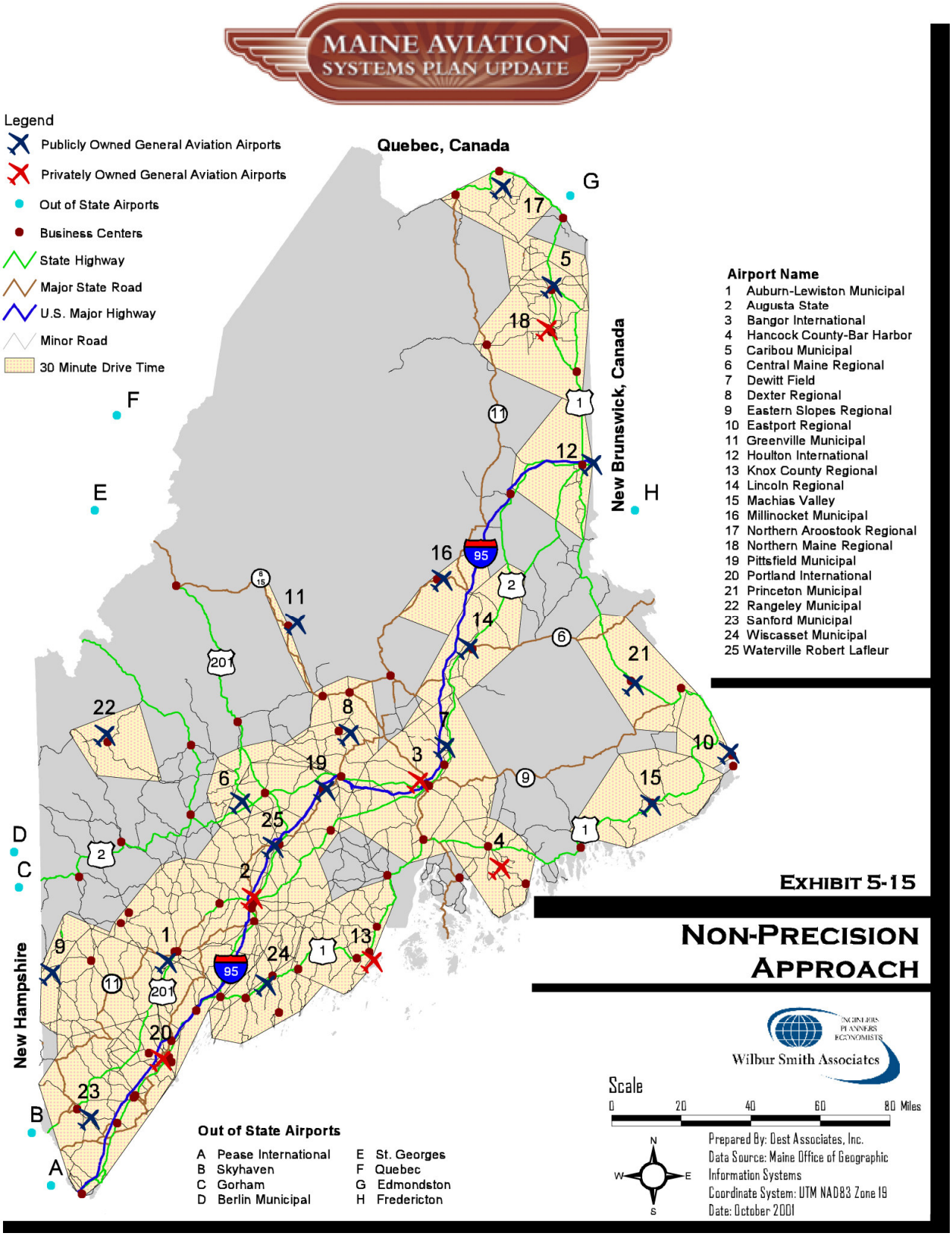
benchmark that would be particularly important to business users), the coverage of the established service centers is almost 80 percent.

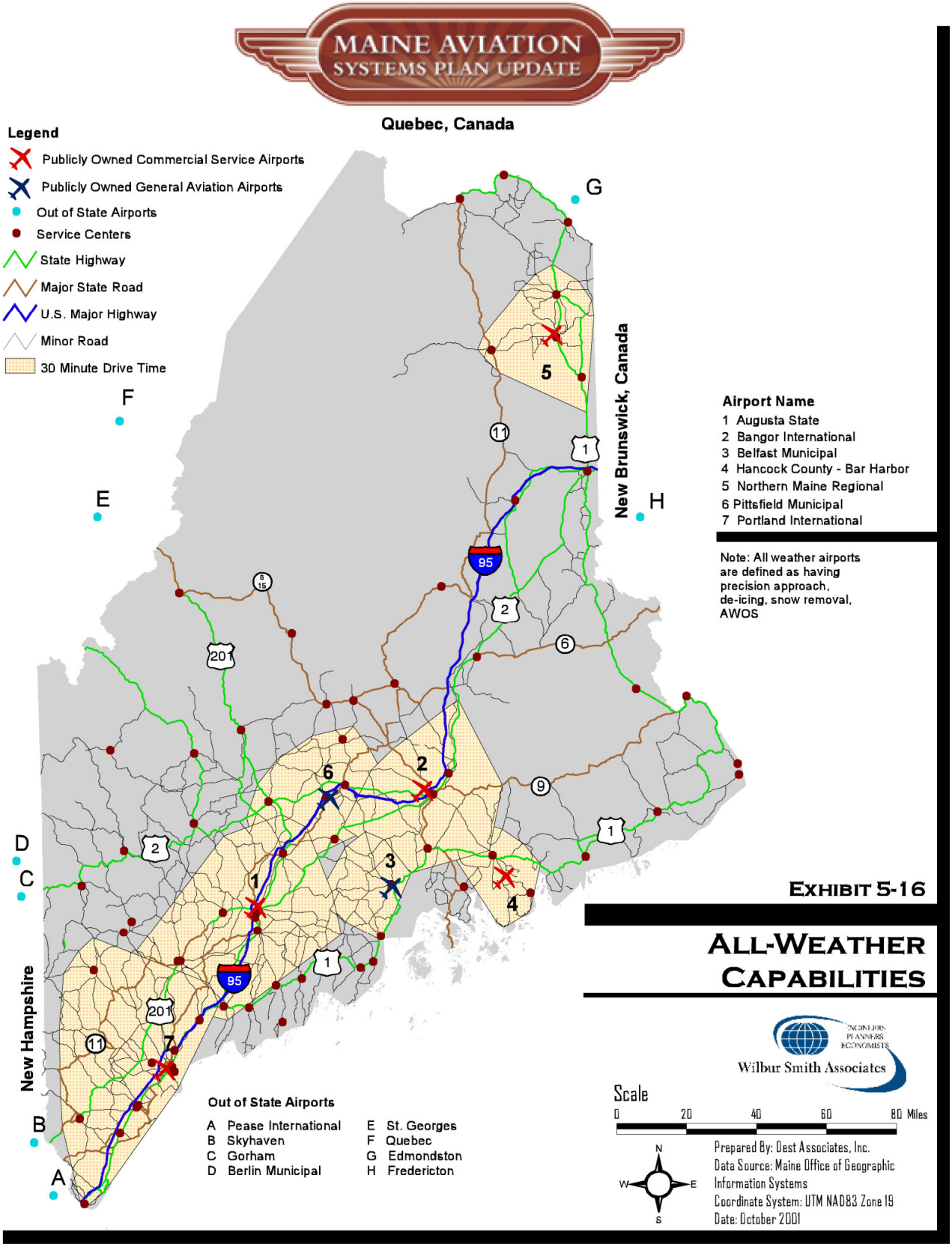
- For the population covered, as with the ground accessibility benchmarks, the system rating increases. For all five of the air accessibility benchmarks the average coverage for the State's population from the 36 system airports is 86 percent.

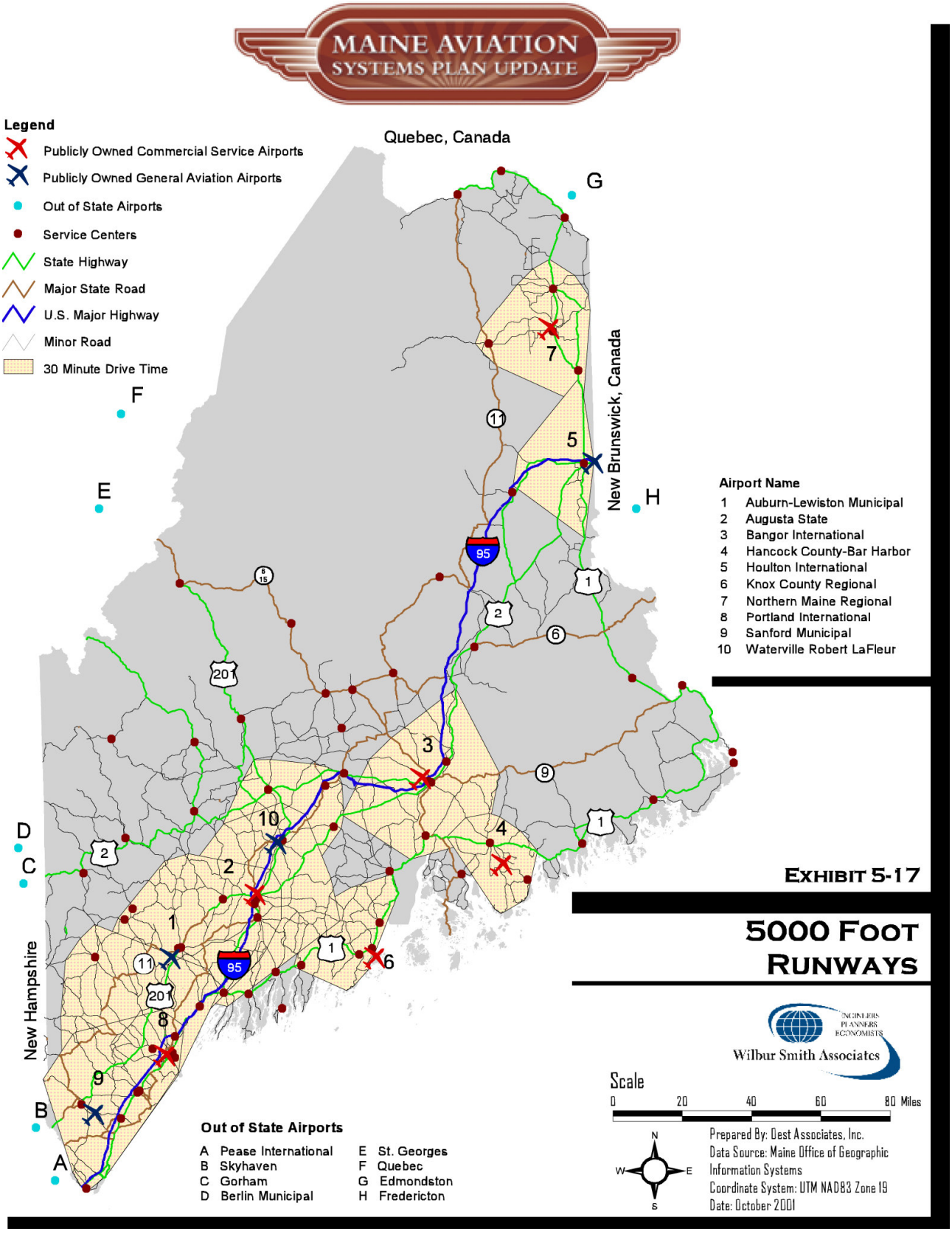
As noted, the coverage rating discussed in the section for the air accessibility ratings are understated if air versus ground travel time is considered. Phase II of the MASPU will determine the need to increase these coverage ratings and will identify the actions that would be necessary to reach any target objectives that are established by OPT and the Project Advisory Committee.


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Center
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Biddeford Municipal
6 Caribou Municipal
7 Eastern Slopes Regional
8 Eastport Municipal
9 Greenville Municipal
10 Houlton International
11 Knox County Regional
12 Millinocket Municipal
13 Northern Aroostook Regional
14 Northern Maine Regional
15 Portland International
16 Sanford Municipal
17 Wiscasset
18 Waterville Robert LaFleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-13
ASOS/AWOS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Center
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Knox County Regional
6 Northern Maine Regional
7 Portland International
8 Sanford Municipal
9 Waterville Robert Lafleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-14
PRECISION APPROACH
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION SYSTEMS PLAN UPDATE
Legend
Publicly Owned General Aviation Airports
Privately Owned General Aviation Airports
Out of State Airports
Business Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Caribou Municipal
6 Central Maine Regional
7 Dewitt Field
8 Dexter Regional
9 Eastern Slopes Regional
10 Eastport Regional
11 Greenville Municipal
12 Houlton International
13 Knox County Regional
14 Lincoln Regional
15 Machias Valley
16 Millinocket Municipal
17 Northern Aroostook Regional
18 Northern Maine Regional
19 Pittsfield Municipal
20 Portland International
21 Princeton Municipal
22 Rangeley Municipal
23 Sanford Municipal
24 Wiscasset Municipal
25 Waterville Robert Lafleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-15
NON-PRECISION APPROACH
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Quebec, Canada
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
New Brunswick, Canada
New Hampshire
Airport Name
1 Augusta State
2 Bangor International
3 Belfast Municipal
4 Hancock County - Bar Harbor
5 Northern Maine Regional
6 Pittsfield Municipal
7 Portland International
Note: All weather airports are defined as having precision approach, de-icing, snow removal, AWOS
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-16
ALL-WEATHER CAPABILITIES
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
Publicly Owned Commercial Service Airports
Publicly Owned General Aviation Airports
Out of State Airports
Service Centers
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn-Lewiston Municipal
2 Augusta State
3 Bangor International
4 Hancock County-Bar Harbor
5 Houlton International
6 Knox County Regional
7 Northern Maine Regional
8 Portland International
9 Sanford Municipal
10 Waterville Robert LaFleur
Out of State Airports
A Pease International
B Skyhaven
C Gorham
D Berlin Municipal
E St. Georges
F Quebec
G Edmondston
H Fredericton
EXHIBIT 5-17
5000 FOOT RUNWAYS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

SUMMARY

Table 5-35 summarizes the results of the system evaluation and benchmarking process for Phase I of the MASPU. This table recaps system performance measures and their respective benchmarks. Benchmark ratings in this table are expressed, for the most part, in one of two ways. Benchmarks are reflected as either a percent of the State, its population, and service centers that are covered, or the benchmark is expressed in terms of the percent of airports in each level and the total system that currently comply with or meet each of the respective benchmarks.

This system evaluation and benchmarking exercise concludes Phase I of the Maine Aviation Systems Plan Update. It provides OPT, FAA, and individual system airports with information on how well airports in Maine are currently performing in terms of meeting the goals and the associated performance measures that were established for Maine's Airport System at the onset of the MASPU.

This "report card" for the system will be examined in Phase II of the MASPU to identify those benchmarks for which higher system compliance, percentage ratings, and coverage should be sought. In some cases it is possible that the system's current compliance for selected benchmarks may be determined to be sufficient. Ultimately, the MASPU will identify projects and actions that are required to increase the system's performance to reach target compliance objectives that will be subsequently identified in Phase II and III of the study.

TABLE 5-35
SUMMARY OF PERFORMANCE MEASURES

	PERCENT			PERCENT				
	STATE	**POPULATION**	**SERVICE CENTERS**	**LEVEL I**	**LEVEL II**	**LEVEL III**	**LEVEL IV**	**TOTAL**
QUALITY OF LIFE								
REMOTE AREAS	SEE PAGE 5-5							
ISLAND AREAS	1	4	4					
FOREST FIRE SPOTTING	40	93	77					
FLIGHT FOR LIFE	36	93	74					
CAPACITY								
EXCEEDING 60% CURRENT AND 2020				11	0	0	0	3
EXCEEDING 60% CURRENT AND 2020 (30 MINUTE DRIVE TIME)	7	15	9					
EXCEEDING 80% CURRENT AND 2020				0	0	0	0	0
EXCEEDING 80% CURRENT AND 2020 (30 MINUTE DRIVE TIME)	0	0	0					
HANGAR FACILITIES				11	14	83	NA	43
AUTO PARKING FACILITIES				67	57	83	NA	71
TERMINAL/ADMINISTRATION FACILITIES				78	86	67	NA	75
AVIATION OUTREACH								
FLIGHT SCHOOLS/FLIGHT INSTRUCTORS	33	90	67					
AVIATION MAINTENANCE AND REPAIR				100	86	50	0	58
PUBLIC OUTREACH PROGRAMS				78	57	25	37	47
EDUCATIONAL PROGRAMS				33	43	17	0	22
SYSTEM STANDARDS								
CLEAR RUNWAY APPROACHES/				33	14	50	13	31
STRATEGY FOR CLEAR APPROACHES BY USING VEGETATION MANAGEMENT OR OBSTRUCTION REMOVAL PLANS				67	43	50	13	47
RUNWAY/TAXIWAY SEPARATION*				100	29	33	0	39
RSA CRITERIA				100	100	75	100	91
PAVEMENT CONDITION INDEX				89	86	83	83	85
OPERATIONS MANUAL				78	43	25	25	42
EMERGENCY RESPONSE PLAN				67	29	33	50	44
WILDLIFE MANAGEMENT PLAN				44	14	8	0	17
CONDUCT DAILY SELF INSPECTION				100	86	75	50	78
NFPA^				100	57	58	NA	57

TABLE 5-35 (CONTINUED)
SUMMARY OF PERFORMANCE MEASURES

	PERCENT			PERCENT				
	STATE	**POPULATION**	**SERVICE CENTERS**	**LEVEL I**	**LEVEL II**	**LEVEL III**	**LEVEL IV**	**TOTAL**
ECONOMIC SUPPORT	SEE PAGE 75							
FLEXIBILITY								
CURRENT ALP/MASTER PLANS				89	100	75	25	72
LAND USE COMPATIBLE WITH AIRPORT				89	57	58	25	58
AIRPORT INCLUDED IN LOCAL COMPREHENSIVE PLAN				78	57	75	50	67
BUSINESS/FINANCIAL PLAN				78	43	50	63	58
AIRPORTS REPORT ANNUAL ACTIVITY TO OPT				44	0	0	0	11
GROUND ACCESSIBLITY								
MAINE HELIPORTS	26	84	59					
SEAPLANE BASES	29	86	58					
MAINE AIRPORTS WITH SPECIAL USES	41	96	84					
COMMERICAL 60 MINUTE DRIVE TIMES	39	94	71					
MAINE AVIAITON 30 MINUTE DRIVE TIMES	45	98	87					
MAINE AIRPORTS WITH PART 135 OPERATORS	31	90	68					
MARKET SPECIFIC AIR SERVICE CHARACTERISTICS	STATE AVERAGE FARE $154 (1991) $170 (1996) $176 (2001)							
	STATE NONSTOP ANNUAL DEPARTURES 40,681 (1991) 46,310 (1996) 37,203 (2001)							
AIR ACCESSIBILITY								
MAINE AIRPORTS WITH ASOS/AWOS	30	90	65					
MAINE AIRPORTS WITH PRECISION APPROACH	23	84	55					
MAINE AIRPORTS WITH NON-PRECISION APPROACH	37	95	78					
MAINE AIRPORTS WITH ALL WEATHER CAPABILITIES	21	80	49					
MAINE AIRPORTS WITH 5,000 FT.RUNWAYS	21	81	51					

SOURCE: WSA

NOTES: Some airports are addressing the deficiencies with their approaches. Level I has 77 percent, Level II has 43 percent, Level III has 25 percent and Level IV has 31 percent if the airports that are addressing the deficient approaches is added to airports that clear approaches.

* All airports complied with FAA design standards, some airports did not have taxiways; therefore, the total percent complying with the FAA standard is low

^ Many airports do not provide fuel at this time; therefore, the total is lower than if all airports provided fuel

CHAPTER SIX
TARGET SYSTEM PERFORMANCE

The prior chapter of the Maine Aviation Systems Plan Update determined and rated current performance of Maine's airport system using a set of performance measures and benchmarks adopted specifically for this study. Once current system performance was established, it was then possible to set "targets" for how the system should ideally perform in the future. It setting targets for future system performance, it is recognized that funding, environmental, political, and other constraints could deter the system from reaching its target performance objectives. Nevertheless, it is important to set these objectives to guide the future development of Maine's Airport System. Working with OPT and the Project Advisory Committee, targets for future system performance were established. Target compliance objectives are discussed in this chapter.

TARGET PERFORMANCE: QUALITY OF LIFE

In setting target objectives for this measure, it is important to recognize that populated areas of Maine are well served by the existing public airport system. It is also worth recognizing that private airports and out of state airports play a role in serving remote areas of Northern Maine. Maine is well served when 30-mile service areas for the public airport system are considered. Additional public investment for airports to serve remote areas is not required.

The emergency needs of island areas are most frequently served by sea or by helicopters. Cost and environmental constraints limit the feasibility of additional or expanded fixed wing airport facilities to serve the islands. As targets for future system compliance are set, it is important that they support OPT's desire to obtain separate State funding to provide improvements to existing island airports. These funds would be used to enhance the margin of safety at island airports. Additional public airports to serve the island areas should be supported in the event there are locally based initiatives for such facilities. Existing airports should be preserved, protected, and enhanced when demand dictates and local conditions permit.

Maine's forest firefighting activities are provided by helicopters, as opposed to fixed wing aircraft. Maine Forest Service, in cooperation with LifeFlight of Maine, has identified where system improvements (i.e. fuel and approaches) may be desirable to support their activities. These needs should be incorporated into the Systems Plan's final recommendations.

"Flight for life" operations in Maine are provided exclusively by helicopters. It may be worth investigating the feasibility of other operators applying for State certification to provide support for this vital service for non-life threatening emergencies. LifeFlight has identified airport specific needs for improved fuel, approach, and lighting facilities; these needs should be incorporated into the Systems Plan.

TARGET PERFORMANCE: CAPACITY

The Maine Airport System as a whole provides ample operational capacity. Portland International Jetport, Maine's busiest commercial service airport, is the only system airport that may face an operational capacity deficiency during the next ten years. Options that are available to address potential operational capacity shortfalls for Portland International (facility enhancements, air service improvements at other Maine airports, larger commercial aircraft, demand management/reliever airports) should be incorporated into Systems Plan recommendations.

Currently 43 percent of all system airports meet their MASPU objective for providing covered aircraft storage. In formulating target objectives for Maine's future airport system, it is important to recognize the role that private airports play in meeting Maine's needs for hangar storage. Systems Plan forecasts and MASPU objectives for hangar storage determine each airport's need for current and future hangar storage. An objective to have all airports 100 percent with their applicable hangar storage objectives has been adopted by this plan. Resultant aircraft storage/hangar needs should be incorporated into the recommendations for the MASPU.

Currently, 71 percent of all system airports meet their MASPU objective for providing general aviation related automobile parking. Using Systems Plan forecasts and MASPU objectives for auto parking, each airport's need for current and future auto parking can be determined. A target to have 100 percent of all applicable auto parking objectives met by system airports has been adopted. These identified needs should be incorporated into the recommendations for the MASPU.

As discussed in Chapter Five, under the current system stratification, 75 percent of all system airports meet their MASPU objective for providing general aviation-related terminal/administration buildings. Level I airports should have at least 2,000 square feet of terminal/administration space. Level II airports should have at least 1,000 square feet of terminal/administration space. Level III airports should provide a public phone and restroom. There was no objective for airports in Level IV related to terminal/administration building space. It is recommended that 100 percent of all applicable terminal/administration building objectives be met by system airports.

TARGET PERFORMANCE: AVIATION OUTREACH

Currently, 33 percent of the State, 90 percent of its population, and 67 percent of the service centers are within 30 minutes of an airport with a flight instructor. It is important to recognize that flight instruction will most likely be provided if demand warrants. Service objectives adopted for the Systems Plan call for Level I and Level II airports to have full service FBOs and for Level III airports to have limited service FBOs. Based on this objective, flight instruction should be provided, as demand warrants, at Level I and Level II airports and possibly at some Level III airports.

Maine currently has no A&P schools. Systemwide, 58 percent of all Maine's public airports now have aviation maintenance and repair services. To meet service objectives established in the Systems Plan, Level I and Level II airports should provide some level of aircraft maintenance or repair.

Airports that have some type of formalized and on-going public outreach or educational program usually enhance their long-term compatibility with their host communities. In addition, these types of programs help airports to implement expansion and development plans when demand warrants. Currently, 47 percent of all system airports have such programs. A target has been established to have 100 percent of all system airports develop and implement such plans.

When airports partner with local educational institutions to provide aviation-related educational training or courses, this often helps to promote aviation, aviation awareness, and airport acceptance. In addition, such programs can increase demand and help to diversify airport revenue. Currently, only 22 percent of all system airports report having such programs. While this is an informational benchmark, airports should be encouraged to foster such programs where possible; no specific Systems Plan target for raising system performance for this benchmark was adopted.

TARGET PERFORMANCE: STANDARDS/SAFETY

To promote safety and to adhere to FAA standards, all system airports should have clear approaches. Approach standards are established by each airport's type of approach (visual, non-precision, and precision) and by the airport's specific descent minimums. In the MASPU, information to determine current system compliance for this benchmark was furnished by the airports themselves or was obtained from current FAA 5010 inspection forms. Data from the Systems Plan presented in Chapter Five shows that 77 percent of the original Level I airports now report clear approaches or plans to provide clear approaches on their primary runway. For the original Level II airports, 57 percent report clear approaches or plans to clear primary runway approaches. For the original Level III airports, 75 percent report having clear approaches or plans to provide clear approaches to their primary runways. For the original Level IV airports, 38 percent have or are planning to have clear approaches to their primary runways. Systemwide, current compliance ratings are as follows: clear approaches 31 percent, plans to clear primary runway approaches 33 percent, and lacking clear primary runway approaches 36 percent. To provide Maine with a safe airport system, the Systems Plan adopted a target to have 100 percent of all system airports have clear approaches to their primary runways. To the extent that existing data permits, the Systems Plan will identify individual airports needing action to resolve current deficiencies for this benchmark.

Vegetation (primarily trees) is the leading obstruction at all airports. Even if airports presently report clear approaches, over time vegetation can grow causing future penetrations to approach and other safety surfaces that should be clear of obstructions. To resolve existing obstructions and to prevent future obstructions, vegetation

management and/or other similar obstruction removal plans are ideal. Currently, 47 percent of all system airports report having obstruction removal/vegetation management plans. At a minimum, the Systems Plan has adopted a target to have all Level I and Level II airports develop and implement vegetation management plans. Funding may be a consideration for adopting a 100 percent compliance for the Level III and the Level IV airports. The Systems Plan has adopted at target to encourage Level III and Level IV airports to also meet this benchmark, but from a funding standpoint, priority will be given to making Level I and Level II airports compliant with this benchmark.

The facility and service objectives established in the MASPU call for Level I and Level II airports to provide full or partial parallel taxiways. The Systems Plan adopted a target to have 100 percent of all applicable airports meet this benchmark. Currently, all system airports with a full or partial parallel taxiway reportedly comply with this benchmark. As airports in the Maine system develop and expand to meet statewide or local objectives, is will be important for individual airport master plans and airport layout plans (ALPs) to insure that future parallel taxiways are developed in accordance with each airport's applicable FAA airport reference code (ARC).

OPT has a separate pavement management plan for the Maine airports. In that plan, an objective for having a Pavement Condition Index (PCI) rating of 70 or greater on each airport's primary runway has been set. The Systems Plan adopted a target to have 100 percent of all system airports comply with this benchmark. Currently, 85 percent of all system airports have a PCI of 70 or greater on their primary runway.

For Maine's airports to operate in the safest and most efficient manner, system airports should meet all applicable FAA design and development standards. A target has been established in the Systems Plan to have 100 percent of all system airports provide runway safety areas (RSAs) on their primary runway that comply with the airport's applicable ARC. Currently, 91 percent of all system airports now meet this benchmark, according to data that was supplied by each airport during the initial inventory effort for the Systems Plan.

Ideally, all system airports should have operations manuals; in developing target compliance objectives, it is recognized that at the smaller system airports (Level IV), resources and personnel may not be available to support such manuals. The Systems Plan set a target for all (100 percent) Level I, Level II, and Level III airports to have operations manuals.

With threats for aviation related terrorism in the U.S., a target was established to provide at least all Level I and Level II airports in the Maine system with emergency response plans; 100 percent compliance for Level I and Level II airports has been established as a target. Emergency response plans for Level III and Level IV airports based on their lower assessed risk for the type of aircraft that they accommodate are not needed but are nevertheless desirable.

The possibility of wildlife incursions exists at all system airports. A target was adopted to have 100 percent of all system airports have a wildlife management plan. A follow on part of the Systems Plan could include a "model" wildlife management plan that would be developed and distributed to all system airports. Currently, only 17 percent of all system airports report that they have a wildlife management plan.

For Maine to have and to promote a system of safe airports, all system airports should conduct routine self-inspections on a regular basis. A target was set to have 100 percent of the system airports comply with this benchmark. As a follow on to the MASPU, FAA guidelines could be used to develop information that could be distributed to system airports to help them comply with this benchmark. Currently, 78 percent of the system airports report that they conduct regular self-inspections.

For Maine to have a safe airport system and one that is compatible with the human and natural environment, all (100 percent) airports with fuel storage should have fuel facilities that meet NFPA guidelines. Currently, for the system 57 percent of the airports meet this benchmark, 31 percent of the airports currently have no on-site fuel, 8 percent of the airports do not meet the benchmark, and the remaining 4 percent of the airports are uncertain as to whether or not their current fuel storage is in compliance with NFPA guidelines.

TARGET PERFORMANCE: ECONOMIC SUPPORT

For Maine's airport system to support and sustain the State's economy, it should ideally have airport facilities that are well matched to the economic needs. Good airport/aviation facilities are an important part of an area's economic infrastructure. The 69 primary and secondary Service Centers that have been established by The Maine Office of Statewide Planning should be well served by Maine's Airport System. In order to promote an airport system that supports Maine's air transportation and economic needs, each of the 69 Service Centers should ideally be within 10 miles of a Level I or a Level II airport.

TARGET PERFORMANCE: FLEXIBILITY

Airports that plan for their long-term needs have a greater ability to respond to unforeseen growth and to implement needed development projects. The Systems Plan established an objective for Level I airports have a master plan that is current every 5 years. Level II airports should have master plans that are current every 5-10 years, or as demand or local conditions warrant. Level III airports should have a master plan every 10 years or as local conditions or demand warrants. Level IV airports should have a master plan every 15 years or as local conditions or demand warrants. Currently, 72 percent of all system airports report that they have a master plan or ALP that is current within the past 5 years.

System airports should ideally have surrounding municipalities that have adopted land use controls to make the land use in the airport environs compatible with the airport and

its operation. Within the context of the system evaluation presented in the previous chapter, the current compliance rating for this benchmark was based on data supplied by the airports and not by the municipalities that surround each airport. According to airport reported data, 58 percent of all system airports have municipalities that have adopted compatible land use guidelines. The System Plan set a target to have 100 percent of the municipalities in Maine that host airports adopt compatible land use guidelines for their airports. While Maine has guidelines for compatible land use planning in the airport environs, these compatible land use guidelines should be updated and distributed to impacted municipalities as a follow on to the MASPU. Statewide workshops on airports and land use planning should be in support of increasing the system's compliance with this objective.

Ideally, all system airports should be recognized in their local comprehensive plans. Current compliance with this benchmark is based on data supplied by the airports rather than by the municipalities. According to the data supplied by the airports, 67 percent of all airports are now included or recognized in a local comprehensive plan. A target to have 100 percent of all system airports included in any local comprehensive plan that is developed for their area was adopted as part of the Systems Plan. An example airport/aviation section for a local comprehensive plan should be developed; OPT should work with Maine Statewide Planning to develop this model/example. The example could be distributed to all municipalities in Maine who have the responsibility for preparing a local comprehensive plan and to each of the public and private airports in the State.

It is in the State's best interest to have an airport system that is fiscally responsible. Operations of airports in Maine should be supported with business/financial plans. Currently, 58 percent of the system airport report that they have some type of financial, accounting, or business planning practices in place. The Systems Plan set a target that all (100 percent) Level I, Level II, and Level III airports have established financial/business planning procedures in place. Developing business/financial plans could become an element in all future master plans for Maine's airports: As resources are available or as circumstances dictate, Level IV airports should also meet this benchmark.

The best ways for OPT to recognize and to track system changes is through the prompt and accurate reporting of annual activity statistics from all system airports. Currently, only some airports in Level I routinely report activity statistics to OPT; 44 percent of the Level I airports report statistics regularly. This translates into an 11 percent system compliance rating. A target was established to have 100 percent of all system airports comply with this benchmark on an annual basis.

TARGET PERFORMANCE: ACCESSIBILITY

Helicopter landings can be accommodated at both designated helicopter landing sites and at the State's public and private airports. Accessibility to helicopter landing sites should be considered as an informational benchmark. The State's designated heliports and public

and private airports provide ample opportunities for these types of operators in Maine. A target to increase coverage for this benchmark was not adopted.

It is important for pilots to know where they can get services at the State's many seaplane bases; therefore, it is important to know where attended seaplane bases exist. This is an informational benchmark. The Systems Plan does not have any specific recommendations for increasing coverage for this benchmark.

System airports should be available to accommodate "special use" aviation activities; this is an informational benchmark. The Systems Plan noted current coverage from existing public airports that support these types of aviation-related activities. In addition, coverage provided by private airports in Maine is also important. Private airports most often support the needs of special use aviation activities. No targets were set for increasing or decreasing coverage for this benchmark.

Over the past 10 years, smaller commercial airports in Maine have recorded declining levels of enplanements and the likelihood of additional airports obtaining commercial airline service is very limited. While a 60 minute drive time is often regarded as a typically service area for a commercial airport, for both Bangor International and the Portland Jetport, it is not uncommon to find their passengers driving two or more hours to reach the airport. Scheduled commercial airline service to airports in Maine, aside from those serving Portland and Bangor, is already supported by Federal operating subsidies either through the Essential Air Service (EAS) program or the Small Community Air Service Grant program. There is little that OPT can do in a deregulated airline environment to change or improve the State's scheduled commercial airline service. Understanding passenger dynamics and changes in commercial airline service is, however, important to Maine's economy which is heavily dependent upon tourism. A target has been established for OPT to work with commercial airports to monitor passenger demand levels and changes in commercial airline service.

Ideally, a high percent of the State and most of its population should be within 30 minutes of at least one system airport. This is, again, primarily an informational benchmark. The feasibility of the need to build new airports for the sole purpose of providing additional coverage is very limited. "Replacement" airports for system airports whose future development is constrained to the point where the airport's role cannot be met may be necessary.

Following 9/11, the U.S. witnessed a decline in commercial airline service and increase in the use on on-demand (charter or air taxi) general aviation service. Monitoring those airports that support a certified Part 135 operator who provides on-demand general aviation flights is another benchmark for determining overall system accessibility. Coverage provided by this benchmark was derived from information that was supplied by the FAA; this is an informational benchmark. There is no mechanism for increasing system coverage for this benchmark. Level I and Level II airports are the airports in the system that have the highest potential to attract/support this type of activity in the future,

and these airports, according to service objectives set by the MASPU, should have the most advanced levels of FBO services. No specific target was set for this benchmark.

The State of Maine and the commercial airports in the Maine system have limited ability to affect changes in the level of commercial airline service that carriers provide to Maine. In general, the following targets were established for Maine's scheduled commercial airline service: decrease the State's average one-way airline fare as a percent of the national average one-way fare; maintain service at existing commercial airports; secure nonstop service to additional hubs; and encourage passenger use of "local" commercial airport. OPT has the ability to monitor each of these objectives by comparing data and information gathered as part of the MASPU to market/airport specific conditions for each of these factors as they exist in future planning periods.

Thirty percent of the State, 90 percent of its population, and 65 percent of all established service centers are now within 30 minutes of an airport with on-site weather reporting capabilities. Facility and service objectives established by the MASPU call for Level I airports to have on-site weather reporting equipment. All Level I airports should meet this target.

Currently, 23 percent of the State, 84 percent of its population, and 55 percent of the established Service Centers are within a 30-minute drive time of a system airport with a precision approach. The MASPU facility and service objectives call for all Level I airports to have a precision approach. A target was adopted to have precision approaches to all Level I airports in the Maine system.

Currently, 37 percent of the State, 95 percent of its population, and 78 percent of all established service centers are within 30 minutes of an airport with a non-precision approach. According to MASPU facility and service objectives, all (100 percent) Level I and Level II airports should have a non-precision approach. This target was adopted for future system compliance for this benchmark.

Currently, 21 percent of the State, 80 percent of its population, and 49 percent of the established service centers are within 30-minutes of an all weather airport. For the MASPU, all weather airports are considered to be those that have on-site weather reporting, a precision approach, de-icing services, and snow removal. For this benchmark, all Level I airports should provide the facilities and services needed to qualify them as an all weather airport. Therefore, a target was adopted to have all Level I airports provide the facilities and services needed to increase system coverage for this benchmark.

The typical minimum runway length needed to accommodate business jet traffic in Maine is 5,000 feet. Only Level I airports have a facility objective for a runway length of 5,000 feet or greater. Currently 23 percent of the State, 81 percent of its population, and 51 percent of the established service centers are within a 30 minute drive time of an airport with a runway length of 5,000 feet or greater. It is important to note when establishing

targets for this benchmark that some airports currently assigned to Level I do not meet the 5,000-foot runway length objective. It is also worth noting that to address other target objectives for the system that additional airports may be assigned to Level I. By setting and meeting a target to have all Level I airports have a minimum runway length of 5,000 feet, compliance with this benchmark will increase in the future.

SUMMARY

This chapter of the Maine Aviation Systems Plan Update provides guidance on how Maine's system of airports should ideally perform in the future. Subsequent chapters of this Phase of the MASPU will identify actions that are needed to enable the airport system to reach the target performance objectives outlined in this chapter.

CHAPTER SEVEN
FUTURE SYSTEM ROLES

In planning for Maine's future airport system, it is essential that a strategy be identified that will provide the State with a system of public airports that can support Maine's current as well as its longer-term air transportation and economic needs. The underpinning of such a strategy includes the identification of the system of airports that is desirable to serve the State's 69 economic service centers. These primary and secondary service centers have been identified by Maine's Office of Statewide Planning.

Another component of this type of long term planning strategy includes the identification of airports in the system that may be providing duplicative or redundant services and facilities. One of the desired outcomes of the system planning process is a blueprint for funding those airports and those projects that are of highest priority to the State's aviation needs. By identifying airports that are playing competing or duplicative system roles, funds that are available to develop and enhance the Maine airport system can be maximized.

As part of Phase I of the Maine Aviation Systems Plan Update, all public airports were assigned to one of four functional levels or roles. Current roles for all public airports were determined based on a series of criteria and factors that included accessibility, support of tourism, economic contribution, current demand, and historic investment. In identifying current roles for all public airports in Maine, it was a foregone conclusion that current roles and future roles for all system airports could vary.

AIRPORTS AND PRIMARY SERVICE CENTERS

The process to establish future roles for all system airports began with a comparison of the location of currently designated Level I airports and the location of the 29 primary service centers in the State. **Exhibit 7-1** shows the location of each of the *current* Level I airports, as this location relates to the cities/towns in Maine that have been designated by Statewide Planning as primary service centers. Current Level I airports and Maine's 29 primary service centers are shown in **Table 7-1**.

As shown in Exhibit 7-1, most of the existing Level I airports are located along the Interstate 95 or Route 1 corridors. While the location of many of the State's primary service centers parallels these two major transportation corridors, there are other primary service centers in the State that are now beyond a 30-minute drive of a Level I airport; these service centers are identified in Table 7-1.

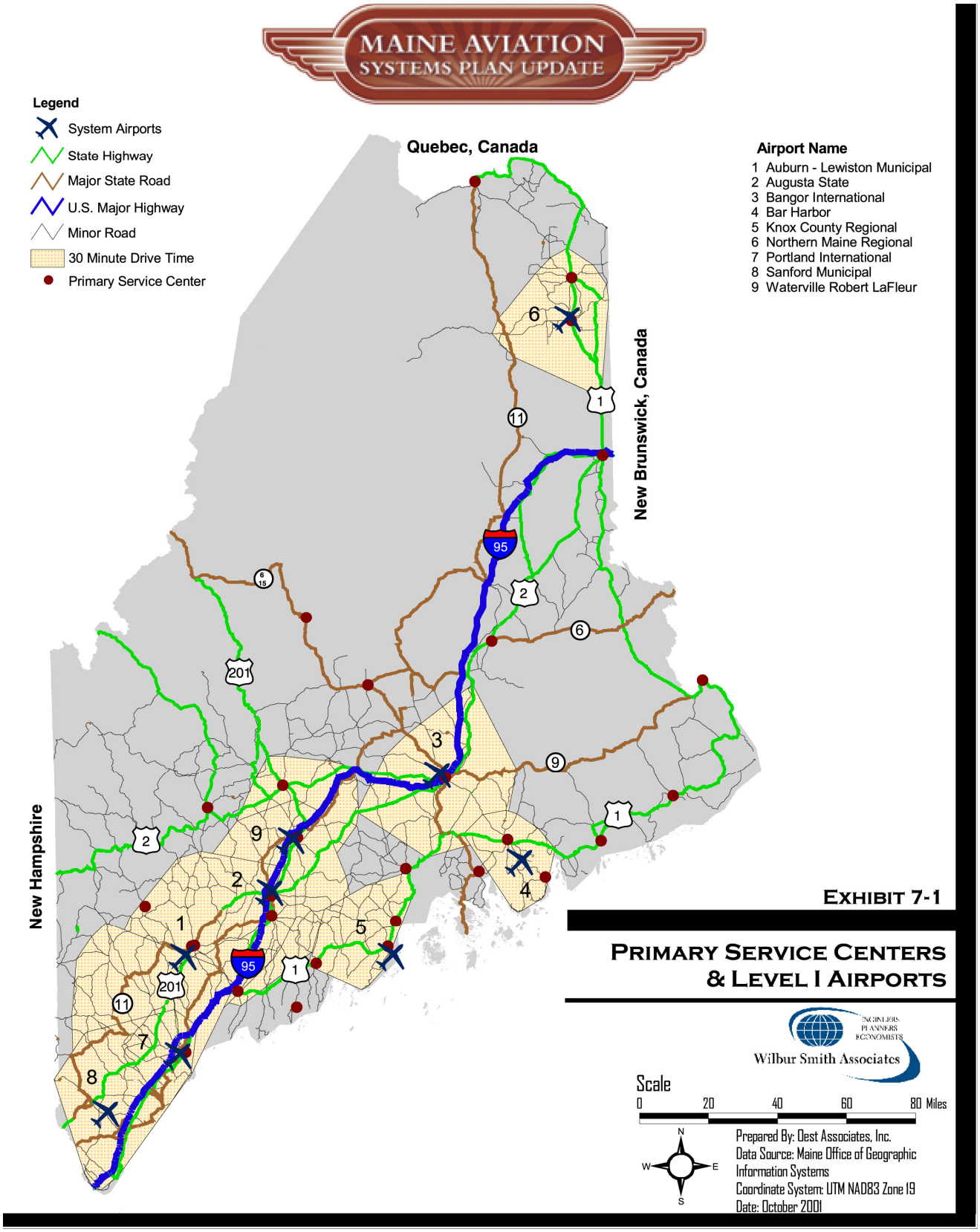

MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
System Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Primary Service Center
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
1 Auburn - Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Knox County Regional
6 Northern Maine Regional
7 Portland International
8 Sanford Municipal
9 Waterville Robert LaFleur
EXHIBIT 7-1
PRIMARY SERVICE CENTERS
& LEVEL I AIRPORTS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Dest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

TABLE 7-1
EXISTING COVERAGE OF PRIMARY SERVICE AREAS BY LEVEL I AIRPORTS

EXISTING LEVEL I AIRPORTS	PRIMARY SERVICE AREAS COVERED
AUBURN/LEWISTON MUNICIPAL	AUBURN
	LEWISTON
	PARIS
AUGUSTA STATE	AUGUSTA
	BRUNSWICK
	GARDINER
BANGOR INTERNATIONAL	BANGOR
HANCOCK COUNTY-BAR HARBOR	BAR HARBOR
	BLUE HILL
	ELLSWORTH
PORTLAND INTERNATIONAL	PORTLAND
NORTHERN MAINE REGIONAL	CARIBOU
	PRESQUE ISLE
KNOX COUNTY REGIONAL	CAMDEN
	ROCKLAND
	DAMARISCOTTA
	BELFAST
SANFORD REGIONAL	NO PRIMARY SERVICE AREAS COVERED
WATERVILLE ROBERT LAFLEUR	WATERVILLE
	SKOWHEGAN
NO LEVEL I AIRPORT COVERAGE	FORT KENT
	HOULTON
	CALAIS
	MACHIAS
	MILBRIDGE
	BOOTHBAY HARBOR
	LINCOLN
	DOVER-FOXCROFT
	GREENVILLE
	FARMINGTON

Working with the Project Advisory Committee (PAC) for the Maine Aviation Systems Plan and the Maine Department of Transportation's Office of Passenger Transportation, (OPT) an objective was established as part of Phase II of the Maine Aviation Systems Plan Update to ideally have each of Maine's 29 primary service centers within a 30-minute drive of a Level I airport. While this objective was established to guide the process to identify future system roles, it was also recognized that need, feasibility, and other circumstances could preclude the State from achieving 100 percent compliance with this objective. In setting this objective, it was the goal of the PAC and OPT to

provide Maine with a system of airports whose diversity and distribution complements the State's identified economic nodes.

According to facility and service objectives established in the Maine Aviation Systems Plan Update, facility objectives for Level I airports include a runway at least 5,000 feet in length with a precision approach. In some instances, providing each of the primary service centers with this type of airport may not be prudent or necessary; in such cases Level II airports (with objectives for a runway length of 3,500 to 5,000 feet and a non-precision approach) may be deemed adequate to meet anticipated air transportation and economic needs.

Exhibit 7-2 depicts the location of primary service centers in Maine that are now beyond the 30-minute service area of a Level I airport. These "voids" in coverage include the primary service centers at Fort Kent, Houlton, Lincoln, Calais, Machias, Milbridge, Boothbay Harbor, Farmington, Dover-Foxcroft, and Greenville. Once these primary service center coverage voids were identified, it was then possible to review existing system airports for their potential to be elevated to a Level I functional role. It is important to note that in a few instances more than one system airport is located within a coverage void for the primary service centers listed above. In these instances, existing and/or planned facilities at system airports were used to identify those airports that can most logically support an upgraded role in the Maine Airport System.

To address the coverage voids for the primary service centers depicted on Exhibit 7-2, Phase II of the MASPU identified six airports that should be elevated to Level I and three airports that should be elevated to Level II. These recommended role changes are summarized in **Table 7-2**. As noted, in some instances after analyzing local conditions and/or available airport alternatives, the decision was made to upgrade airports but to less than Level I facility and service objectives. In one particular instance, analysis and input from the Project Advisory Committee led to the conclusion that a role change was not desirable; this was for the Deblois Airport located near Milbridge.

To serve Maine's primary service centers, Northern Aroostock Regional, Houlton International, Millinocket Municipal, Machias Valley, Wiscasset Municipal, and Central Maine Regional should be upgraded to Level I. Princeton Municipal, Greenville Municipal, and Dexter Regional should also be upgraded, but only to Level II, to serve the needs of one or more of Maine's primary service centers that are now beyond the 30-minute drive time of a system airport providing a more advanced level of facilities and services.

While the Milbridge primary service center is also beyond the 30-minute service area for an airport with more advanced facilities and services, this primary service center is in close proximity to the Hancock County-Bar Harbor Airport and the Machias Valley Airport which has been recommended for a Level I upgrade. As a result, with system analysis and input from OPT and the PAC, the decision was made to keep the Deblois Flight Strip in Level IV.

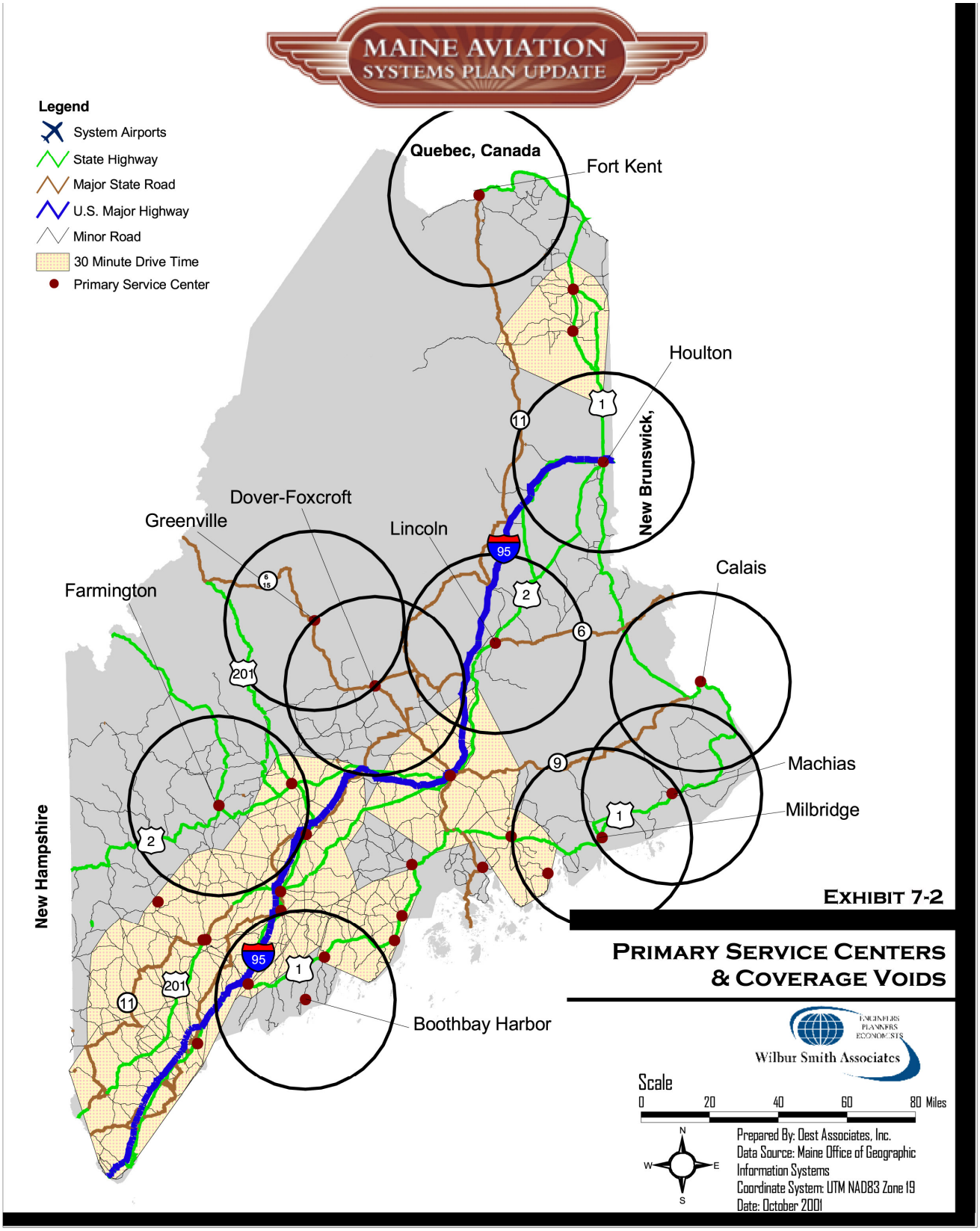

MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
System Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Primary Service Center
Quebec, Canada
Fort Kent
Houlton
New Brunswick,
Dover-Foxcroft
Greenville
Lincoln
Farmington
Calais
Machias
Milbridge
Boothbay Harbor
New Hampshire
EXHIBIT 7-2
PRIMARY SERVICE CENTERS
& COVERAGE VOIDS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Dest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

TABLE 7-2
RECOMMENDED ROLE CHANGES
PRIMARY SERVICE CENTERS

PRIMARY SERVICE CENTER	AIRPORT COVERING PRIMARY SERVICE CENTER	CURRENT ROLE/LEVEL	FUTURE ROLE/LEVEL
FORT KENT	NORTHERN AROOSTOOK REGIONAL	II	I
HOULTON	HOULTON INTERNATIONAL	II	I
CALAIS	PRINCETON MUNICIPAL	III	II
MACHIAS	MACHIAS VALLEY	IV	I
MILBRIDGE	DEBLOIS	IV	IV
BOOTHBAY HARBOR	WISCASSET	II	I
LINCOLN	MILLINOCKET MUNICIPAL	III	I
DOVER-FOXCROFT	DEXTER REGIONAL	III	II
GREENVILLE	GREENVILLE MUNICIPAL	III	II
FARMINGTON	CENTRAL MAINE REGIONAL	III	I

Exhibit 7-3 depicts how the service areas for these airports will help to fill the previously identified voids.

AIRPORTS AND SECONDARY SERVICE CENTERS

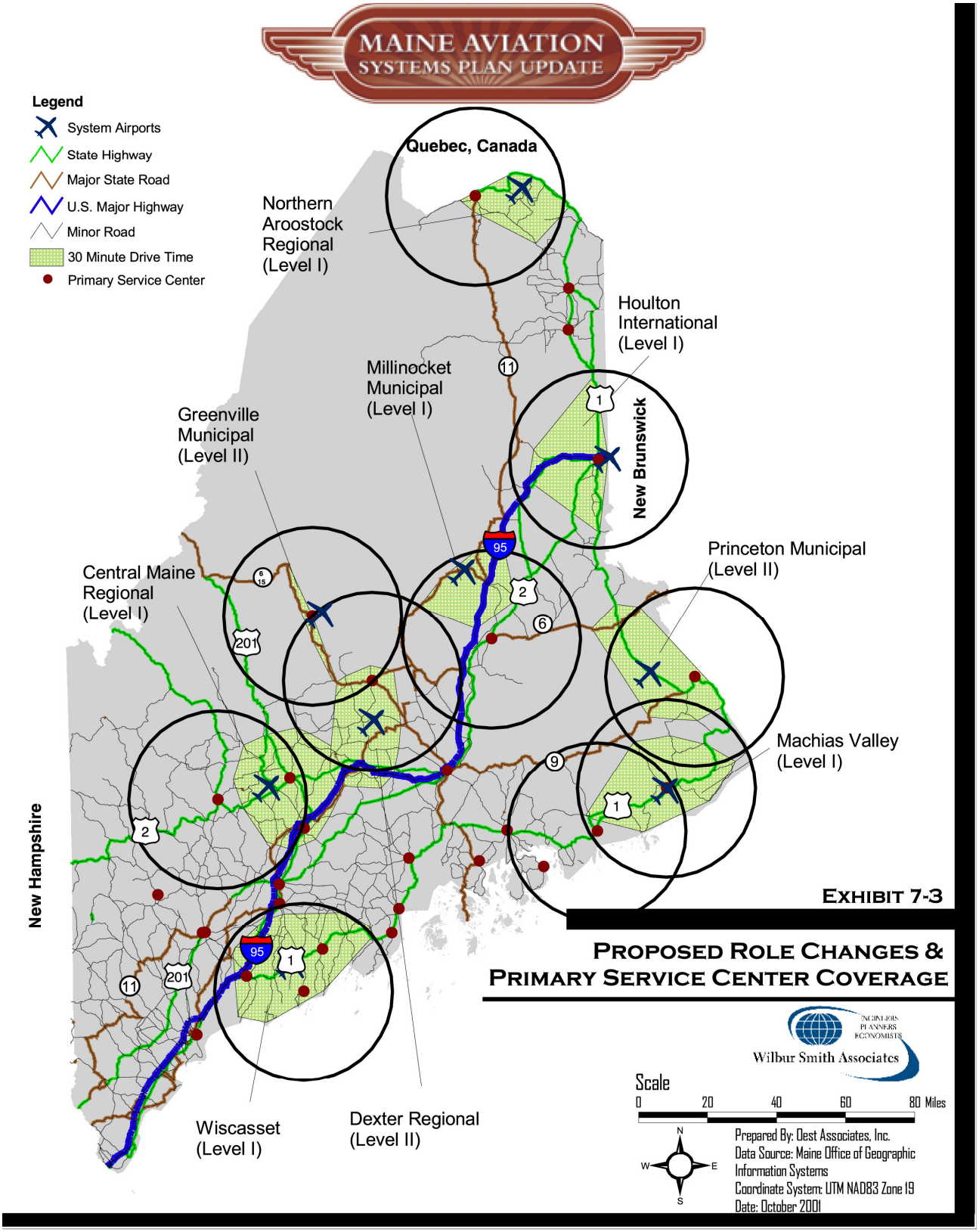
In addition to the 29 primary service centers that have been identified by Maine's Office of Statewide Planning, there are 40 additional secondary service centers located throughout the State. Most of these secondary service centers are located in close proximity to the previously discussed primary service centers.

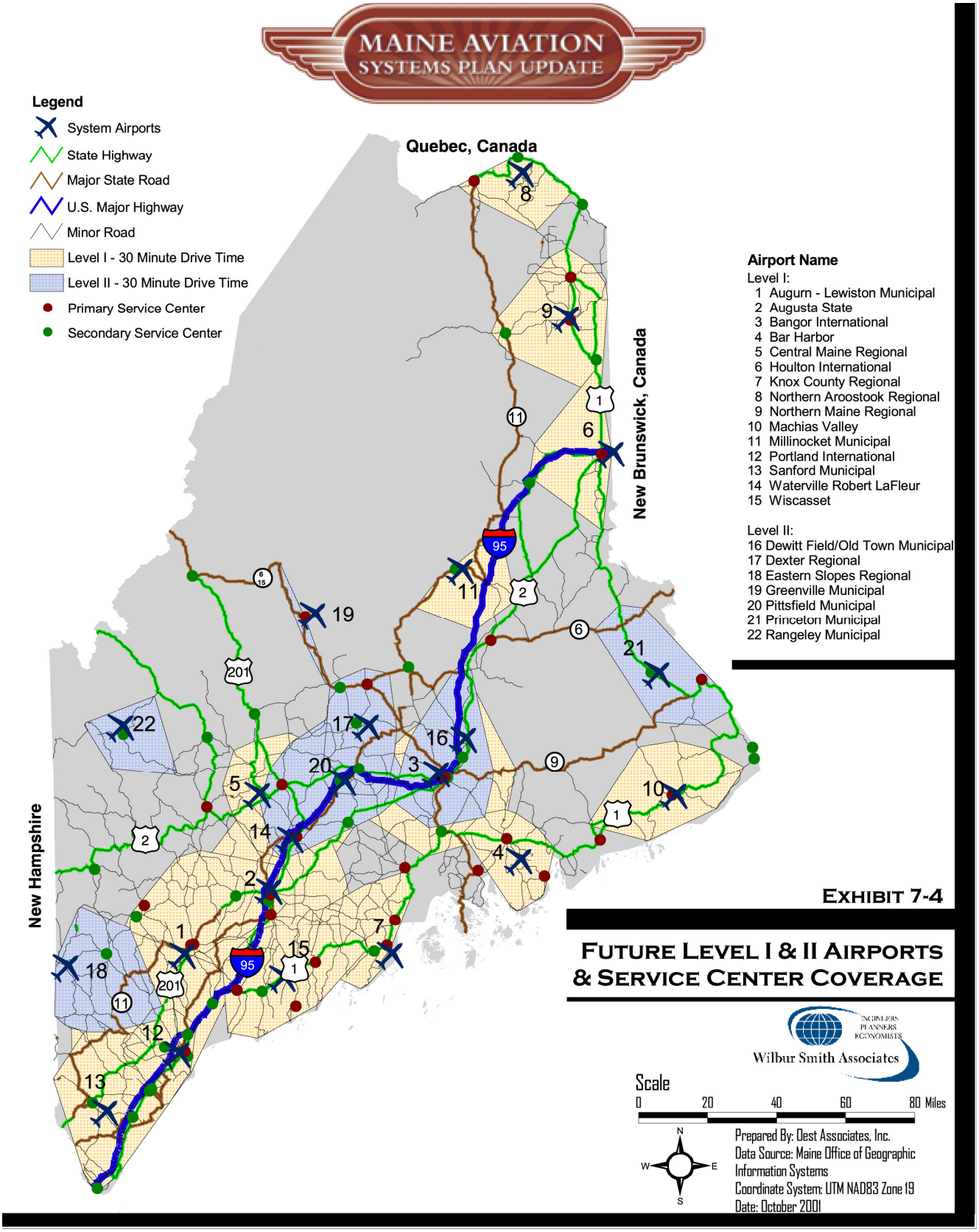
Exhibit 7-4 depicts the primary and secondary service centers and coverage that is afforded to these service centers by the future Level I and Level II airports. As this exhibit shows, most of the primary and secondary service centers are within the 30-minute drive time of the future Level I and Level II airport system. There are, however, as shown in this exhibit, a few service centers in Western Maine that are still beyond the 30-minute drive time of the recommended Level I and Level II airports.

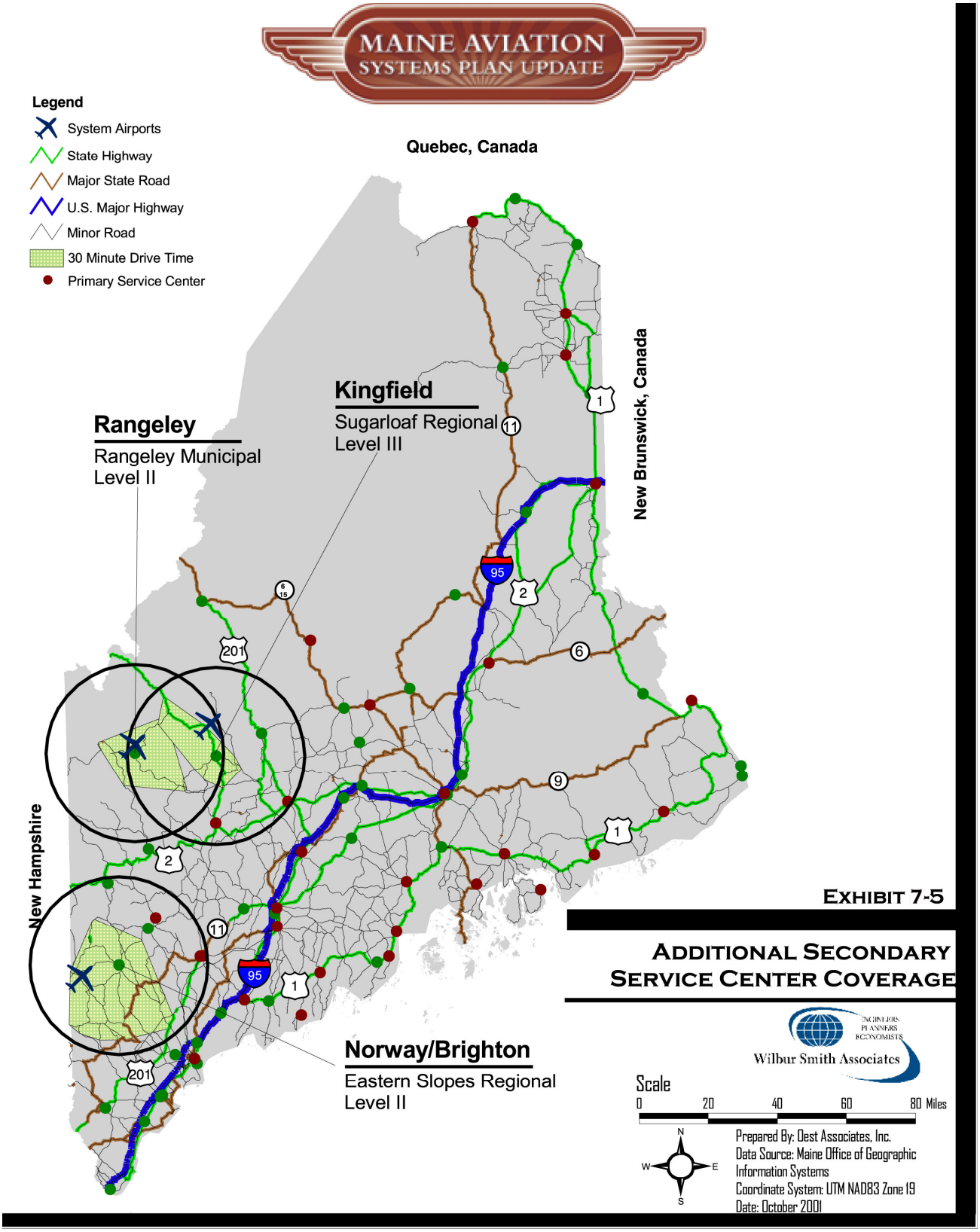
To address the remaining coverage voids for secondary service centers and to provide Maine with the diverse yet balanced airport system that it seeks, the following additional changes in airport roles/functional levels are recommended:

- Eastern Slopes Regional (Fryeburg) – upgrade from Level III to Level II
- Rangeley Municipal (Rangeley) – upgrade from Level III to Level II
- Sugarloaf Regional (Carrabassett) – upgrade from Level IV to Level III

Exhibit 7-5 reflects these additional system upgrades.


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
System Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Primary Service Center
Quebec, Canada
Northern Aroostock Regional (Level I)
Houlton International (Level I)
Millinocket Municipal (Level I)
Greenville Municipal (Level II)
New Brunswick
Princeton Municipal (Level II)
Central Maine Regional (Level I)
Machias Valley (Level I)
New Hampshire
Wiscasset (Level I)
Dexter Regional (Level II)
EXHIBIT 7-3
PROPOSED ROLE CHANGES & PRIMARY SERVICE CENTER COVERAGE
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
Prepared By: Oest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
System Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
Level I - 30 Minute Drive Time
Level II - 30 Minute Drive Time
Primary Service Center
Secondary Service Center
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
Level I:
1 Augurn - Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Central Maine Regional
6 Houlton International
7 Knox County Regional
8 Northern Aroostook Regional
9 Northern Maine Regional
10 Machias Valley
11 Millinocket Municipal
12 Portland International
13 Sanford Municipal
14 Waterville Robert LaFleur
15 Wiscasset
Level II:
16 Dewitt Field/Old Town Municipal
17 Dexter Regional
18 Eastern Slopes Regional
19 Greenville Municipal
20 Pittsfield Municipal
21 Princeton Municipal
22 Rangeley Municipal
EXHIBIT 7-4
FUTURE LEVEL I & II AIRPORTS & SERVICE CENTER COVERAGE
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Dest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
System Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
30 Minute Drive Time
Primary Service Center
Quebec, Canada
New Brunswick, Canada
New Hampshire
Rangeley
Rangeley Municipal
Level II
Kingfield
Sugarloaf Regional
Level III
Norway/Brighton
Eastern Slopes Regional
Level II
EXHIBIT 7-5
ADDITIONAL SECONDARY SERVICE CENTER COVERAGE
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Dest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

DUPLICATIVE/REDUNDANT SERVICE CENTERS

In addition to insuring that coverage voids in the system are filled, it was also important to review the system to identify areas within the system that could be subject to overlapping or duplicative airport service areas. For the most part, airports in the Maine Airport System are well distributed. There are, however, some airport service areas that are overlapping. Within any airport system, when demand is sufficient, the ability to support multiple airports within close proximity to one another is enhanced. When demand is more limited, having airports within close proximity to each other that are economically viable is more problematic.

Using GIS mapping and information from the inventory and forecast efforts from Phase I of the MASPU, system airports were reviewed to identify areas within the state where reductions in functional levels/system roles should be considered. Based on demand, current facilities, potential development constraints, the presence of other system airports, and other considerations, the following changes in system roles were recommended to reduce areas of system redundancy or duplication:

- Biddeford Municipal (Biddeford) – move from Level II to Level III
- Oxford County Regional (Oxford) – move from Level II to Level III
- Caribou Municipal (Caribou) – move from Level III to Level IV

SUMMARY OF FUTURE AIRPORT ROLES

Table 7-3 provides a summary of the role/functional level changes recommended to insure that Maine has a balanced and diversified system of public airports to meet its air transportation and economic needs. The recommended airport system is depicted on **Exhibit 7-6**. These recommended airport roles/levels will guide the development of Maine's airport system over the next 20 years.

The next step in Phase II of the MASPU examines the ability of each system airport to comply with the facility and service objectives identified for its respective system role/level.

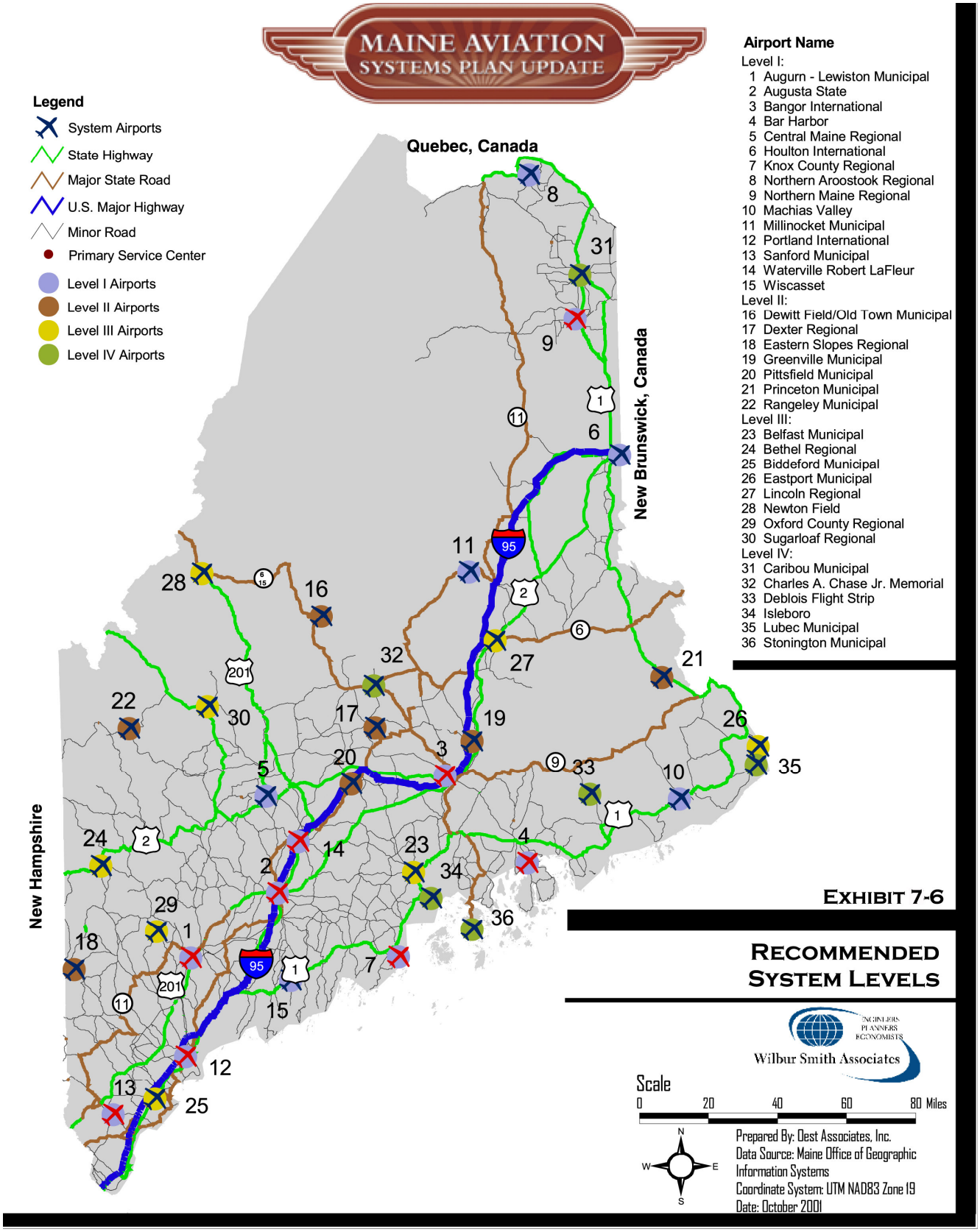
The Maine Department of Transportation is charged with long range planning for all modes of transportation. Unlike most of the other modes for which Maine DOT plans, the State does not own and/or operate most airports in the system. The Maine Aviation Systems Plan Update is a top down analysis that still must be implemented from the bottom up. Airports in Maine are most often owned and operated by a collection of cities, towns, counties, and authorities. In order for recommendations contained in this plan to be implemented, recommendations should ideally be consistent with local plans, goals, and objectives that airport sponsors have for their individual airports. Local goals and objectives were determined as part of Phase III of the MASPU.

TABLE 7-3
RECOMMENDED AIRPORT STRATIFICATION LEVELS

RECOMMENDED LEVEL CITY NAME	FACILITY NAME	CURRENT AIRPORT LEVEL
LEVEL I AIRPORTS		
AUBURN	AUBURN/LEWISTON MUNICIPAL	I
AUGUSTA	AUGUSTA STATE	I
BANGOR	BANGOR INTERNATIONAL	I
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	I
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	II
HOULTON	HOULTON INTERNATIONAL	II
MACHIAS	MACHIAS VALLEY	IV
MILLINOCKET	MILLINOCKET MUNICIPAL	III
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	III
PORTLAND	PORTLAND INTERNATIONAL JETPORT	I
PRESQUE ISLE	NORTHERN MAINE REGIONAL	I
ROCKLAND	KNOX COUNTY REGIONAL	I
SANFORD	SANFORD REGIONAL	I
WATERVILLE	WATERVILLE ROBERT LAFLEUR	I
WISCASSET	WISCASSET	II
LEVEL II AIRPORTS		
DEXTER	DEXTER REGIONAL	III
FRYEBURG	EASTERN SLOPES REGIONAL	III
GREENVILLE	GREENVILLE MUNICIPAL	III
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	II
PITTSFIELD	PITTSFIELD MUNICIPAL	II
PRINCETON	PRINCETON MUNICIPAL	IV
RANGELEY	RANGELEY MUNICIPAL	III
LEVEL III AIRPORTS		
BELFAST	BELFAST MUNICIPAL	III
BETHEL	BETHEL REGIONAL	III
BIDDEFORD	BIDDEFORD MUNICIPAL	II
CARRABASSETT	SUGARLOAF REGIONAL	IV
EASTPORT	EASTPORT MUNICIPAL	III
JACKMAN	NEWTON FIELD	III
LINCOLN	LINCOLN REGIONAL	III
OXFORD	OXFORD COUNTY REGIONAL	II
LEVEL IV AIRPORTS		
CARIBOU	CARIBOU MUNICIPAL	III
DEBLOIS	DEBLOIS FLIGHT STRIP	IV
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	IV
ISLESBORO	ISLESBORO	IV
LUBEC	LUBEC MUNICIPAL	IV
STONINGTON	STONINGTON MUNICIPAL	IV

As the analysis to compare current facilities and services to each airport's respective future facility and service objectives is completed, additional outreach to airport/sponsors will be undertaken to gain their concurrence on identified facility and service

enhancements. Through this top down and bottom up consensus building process, final recommendations for each system airport will be developed. These recommendations will be presented in a subsequent chapter and phase of the Systems Plan Update.


MAINE AVIATION
SYSTEMS PLAN UPDATE
Legend
System Airports
State Highway
Major State Road
U.S. Major Highway
Minor Road
Primary Service Center
Level I Airports
Level II Airports
Level III Airports
Level IV Airports
Quebec, Canada
New Brunswick, Canada
New Hampshire
Airport Name
Level I:
1 Augurn - Lewiston Municipal
2 Augusta State
3 Bangor International
4 Bar Harbor
5 Central Maine Regional
6 Houlton International
7 Knox County Regional
8 Northern Aroostook Regional
9 Northern Maine Regional
10 Machias Valley
11 Millinocket Municipal
12 Portland International
13 Sanford Municipal
14 Waterville Robert LaFleur
15 Wiscasset
Level II:
16 Dewitt Field/Old Town Municipal
17 Dexter Regional
18 Eastern Slopes Regional
19 Greenville Municipal
20 Pittsfield Municipal
21 Princeton Municipal
22 Rangeley Municipal
Level III:
23 Belfast Municipal
24 Bethel Regional
25 Biddeford Municipal
26 Eastport Municipal
27 Lincoln Regional
28 Newton Field
29 Oxford County Regional
30 Sugarloaf Regional
Level IV:
31 Caribou Municipal
32 Charles A. Chase Jr. Memorial
33 Deblois Flight Strip
34 Isleboro
35 Lubec Municipal
36 Stonington Municipal
EXHIBIT 7-6
RECOMMENDED SYSTEM LEVELS
Wilbur Smith Associates
Scale
0 20 40 60 80 Miles
N
W
E
S
Prepared By: Dest Associates, Inc.
Data Source: Maine Office of Geographic Information Systems
Coordinate System: UTM NAD83 Zone 19
Date: October 2001

CHAPTER EIGHT
FUTURE SYSTEM PERFORMANCE

Previous chapters of the Maine Aviation Systems Plan Update (MASPU) used specific performance measures and benchmarks to determine how well Maine's system of public use airports is currently performing. Based on an assessment of current system adequacies, deficiencies, and redundancies, Chapter Six of the Systems Plan set targets for future system performance and Chapter Seven of the Systems Plan identified future roles for all system airports. Elevated roles are needed for some system airports in order to reach target performance objectives set by the Systems Plan. This chapter of the Systems Plan identifies actions that are desirable to raise the overall level of system performance as it relates to study benchmarks and facility and service objectives. These actions will enhance the overall performance of Maine's Airport System and will enable system airports to better fulfill their designated future system roles.

Maine's Aviation Systems Plan is a top down study that still must be implemented from the bottom up. The responsibility for implementing projects and taking actions identified in the Systems Plan still rests with local airport owners and sponsors. It is possible that local constraints (community, financial, physical, or environmental) may make it impossible for individual airports to meet all objectives outlined in this portion of the Systems Plan. Future systems planning efforts will compare statewide recommendations with local objectives and initiatives for each system airport. Final recommendations from the MASPU will ultimately be formulated from a blend of airport specific goals, objectives, and initiatives and recommendations resulting from the Systems Plan. Final recommendations will be presented in an implementation plan that will be prepared in a Chapter Ten of the MASPU.

The performance of Maine's Aviation System was evaluated using a series of performance measures and benchmarks that were developed specifically for this study. Certain benchmarks are informational and others are action oriented. By monitoring the ability of the Maine Aviation System to comply with, satisfy, or meet each of the study benchmarks, Maine's Office of Passenger Transportation (OPT) will be able to compare current to future system performance. Further, as subsequent Federal, State, and local investments are made in Maine's airports, it will be possible to determine how this investment has raised the overall performance of the system.

Actions needed to elevate the performance of Maine's Aviation System related to performance measures and study benchmarks are discussed in the following sections.

PERFORMANCE MEASURE: QUALITY OF LIFE

The benchmarks used to evaluate the performance of Maine's Aviation System relative to the Quality of Life performance measure are primarily informational in nature. They provide insight into how the public airport system supports certain areas and activities in the State. In most instances, OPT should monitor the system over time related its ability to continue to support factors that contribute to Maine's quality of life.

Benchmark: Remote Areas Served By Airports

The System Evaluation (detailed in Chapter 5 of the MASPU) provided two important conclusions related to the ability of Maine's current airport system to provide ground and air access to the more remote areas of the State. First, the System Evaluation concluded that most of Maine's more densely populated areas are within a 30-minute highway drive time of one or more system airports. When 30 air miles, as opposed to highway miles are considered, this coverage increases.

As was shown on Exhibit 5-1B, with the exception of an area in northwest Maine, all of the State is within 30 air miles of a system airport. Within the "uncovered" remote area, there are two privately owned airports, Clayton Lake Woodland Strip and Red Pine. These privately owned landing areas are already in place and could be used to provide emergency access for vital services to this part of the State.

Helicopters also provide an option/alternative for reaching more remote areas of Maine in an emergency. In fact, almost all LifeFlight operations in Maine are flown using helicopters.

This benchmark is, as was noted, primarily an informational benchmark. No actions have been identified as being needed to increase the coverage for fixed wing air access to remote areas of Maine. OPT should continue to monitor the presence of privately owned landing strips in the more remote portions of northwestern Maine.

Benchmark: Island Areas Served By Airports

Maine's geography is unique. There are hundreds of islands that line its expansive coastline, many with permanent or seasonal inhabitants. While boat and ferry service are the primary transportation modes linking the mainland with the islands, aviation also supports this link. All of the islands are accessible via helicopters, but there are also seven airports serving the islands that support fixed wing aircraft operations. Two of these airports, Islesboro Municipal and Stonington, are publicly-owned airports. The other five island airports, Swans Island, North Haven, Matinicus, Vinalhaven, and Marshall Island, are privately owned. These airports are, however, generally open to the public. A description of each of the airports is provided here.

- Isleboro: The asphalt runway, 01-19, is approximately 2,400 feet long and 60 feet wide. It was repaved in 2005 with new markings and is presently in good condition. Clear approaches exist to both runway ends. There are clear areas of approximately 120 feet on each side of the runway centerline. Due to the lack of perimeter fencing, there are some wildlife issues on the airfield.
- Stonington: The asphalt runway, 07-25, is approximately 2,100 feet long and 60 feet wide. It was repaved in 1995 and is presently in good condition with good markings. Clear approaches exist to both runway ends. There are clear areas of approximately 120 feet on each side of the runway centerline.

- Swans' Island – Banks': The gravel runway, oriented east-west, is approximately 1,500 feet long and 30 feet wide. It is in poor condition and needs compacting and grading. The west runway has a relatively steep downgrade. The asphalt helipad is in good condition. A lighted communications tower, approximately ½ mile southeast of airport, is very noticeable during downwind phase of approach. Fifty foot tall trees surround the airfield on all sides. There are clear areas approximately 60 feet on each side of runway.

- North Haven – Witherspoons': The turf runway, 06-24, is approximately 1,100 feet long and 60 feet wide. It is in fair condition and light grading is required. There is a county road adjacent to landing threshold for Runway 06; flashing lights on road warn drivers of approaching aircraft. There is clear area 300 feet beyond threshold to Runway 24; however, tall trees surround the runway on all sides and several incidents have occurred.

- Mantinicus: The gravel runway, north-south oriented, is approximately 1,700 feet long and 30 feet wide. It is in fair condition and has been well maintained. Runway reflectors are installed each 100 feet with red/green reflectors on thresholds. A clear approach exists to the south runway. On approach to the north runway, there is a 50 foot tall barn approximately ½ mile from threshold. There are clear areas of approximately 80 feet on each side of runway.

- Vinal Haven – Talbots': The runway, 06-24, is approximately 1,500 feet long and 20 feet wide. It is in good condition. Pilot-controlled runway lights are installed, also with reflectors on each 100 feet of runway. There is a road adjacent to the runway 24 threshold and 20 foot tall trees approximately 40 feet from the Runway 06 threshold. There are clear areas of approximately 20 feet on each side of the runway.

- Marshall Island: This airport is seldom used, except in emergencies, and is presently not maintained.

The Systems Plan does not call for the development of any additional publicly owned airports to support access to the islands. The plan does, however, strongly support the continued existence of those fixed wing airports that are in place to support island related transportation needs. In addition to supporting their continuance as a transportation resource, the Systems Plan also supports and encourages the maintenance of all island airports, both public and private, to certain standards. These standards are aimed primarily at improving the safety of operations at the island airports. State suggested guidelines for the island airports are as follows:

- Primary surface of at least 240 feet; this surface should be clear of obstructions, including brush and vegetation.

- A graded and compacted runway surface maintained at a width of at least 60 feet; this surface should have markings to delineate runway edges.

- Approach slopes that provide clear approaches at 15:1; displaced landing thresholds are recommended as necessary to achieve this objective.

Table 8-1 presents the current compliance to the State's guidelines for island airports.

TABLE 8-1
MAINE ISLAND AIRPORTS – SAFETY GUIDELINES

			PRIMARY SURFACE WIDTH AT LEAST 240'	GRADED, COMPACTED RUNWAY OF AT LEAST 60' WIDE	RUNWAY MARKINGS IN GOOD CONDITION	APPROACH SLOPE RATIO OF 15:1
PUBLIC AIRPORTS						
	ISLESBORO	ISLESBORO	X		X	X
	STONINGTON	STONINGTON	X	X	X	X
PRIVATE AIRPORTS						
	SWAN'S ISLAND	BANKS			N/A	
	NORTH HAVEN	WITHERSPOONS'		X	N/A	
	MANTINICUS ISLAND	MANTINICUS ISLAND			X	
	VINALHAVEN	TALBOT MEMORIAL		X	X	
	MARSHALL ISLAND	MARSHALL ISLAND			N/A	

SOURCE: Interview with Kevin Waters, Penobscot Island Air
NOTE: N/A= Not Available

OPT supports funding initiatives with the Maine Legislature that could at some future date make "set aside" funds available to meet these minimum objectives for the island airports. OPT should monitor the ability of the island airports, both public and private, to comply with the objectives noted above. These objectives will be incorporated into the recommendations for the two publicly owned system airports that help to serve Maine's island areas.

Benchmark: Airports Supporting Forest Fire Spotting

Timber resources are an important part of Maine's economy and the mainstay of the economic livelihood of many residents. As a result, forest fire fighting and spotting activities are important. Forest fires in Maine are fought almost exclusively with helicopters. This helps to limit airport facilities that must be in place to support this vital activity.

Maine's Forest Service contracts with individuals around the State at many airports to assist with forest fire spotting. The need to identify, designate, and contract with individuals to provide this service is determined directly by the Forest Service. Fuel is transported, when needed, on a temporary basis to refuel helicopters during forest fire fighting activities.

There are no recommendations for OPT to monitor the coverage or the airports from which forest fire spotting activities are provided. The need to provide such service rests with the Maine Forest Service. It may be important for OPT to share with each community, during the preparation of an airport specific master plan or an environmental assessment, the fact that their airport supports this particular vital service that improves Maine's quality of life. It is usually important for citizens to understand both the quantitative and the qualitative benefits of all system airports. Identifying those airports that support forest fire spotting activities could be a factor in gaining the local support for needed airport improvement or expansion.

Benchmark: Airports Supporting LifeFlight Operations

LifeFlight of Maine is the only licensed air ambulance provider in Maine. Its operations are provided almost exclusively using helicopters. As a result, emergency operations in Maine place fewer physical demands on system airports. In conjunction with the update of the Maine Aviation Systems Plan, LifeFlight of Maine was contacted directly to obtain their input on needed system improvements. In general, to better meet the needs of LifeFlight operations, improved approaches, better weather reporting, and a wider distribution of jet fuel are needed.

At the onset of this study, specific improvements were identified by LifeFlight to enhance the emergency capabilities of the Maine Airport System. In 2003, LifeFlight Foundation was established to provide fundraising and public relations support to LifeFlight of Maine. The Foundation identified over $15 million in capital needs to support LifeFlight operations, including new helicopters, helipads, navigation, weather reporting and communications systems, and refueling facilities. In 2006, LifeFlight received a $900,000 transportation bond to improve aviation infrastructure in the State to support their air needs. **Table 8-2** presents LifeFlight's aviation priorities and which projects have been completed to date with bond funds.

Some of the recommendations obtained from LifeFlight are for non-System locations or airports. In addition to the projects listed in Table 8-2, LifeFlight also noted that several medical centers in the state need upgraded facilities. A top priority is to develop additional Jet-A fuel options to serve Northern Maine Medical Center (Fort Kent), Cary Medical Center (Caribou), and The Aroostook Medical Center (Presque Isle). This might either be on-site fuel or working with the airports in Frenchville and Presque Isle to develop off airport fuel delivery. In addition, it is recommended that GPS Point in Space approaches to helipads at Eastern Maine Medical Center (Bangor); Central Maine Medical Center (Lewiston); and Maine Medical Center (Portland) be developed.

TABLE 8-2
PROJECTS SUPPORTING LIFEFLIGHT OPERATIONS AT MAINE AIRPORTS

CITY NAME	FACILITY NAME	LIFEFLIGHT PROJECT	PRIORITY LEVEL	COMPLETE/ FUNDED
BELFAST	BELFAST MUNICIPAL	AWOS-3	2	X
BETHEL	BETHEL REGIONAL	GPS / PRECISION APPROACH	3	
CARABASSETT	SUGARLOAF REGIONAL	AWOS GPS / PRECISION APPROACH	3 3	
CLAYTON LAKE	CLAYTON LAKE	UPGRADE AWOS TO AWOS-3	1	X
GREENVILLE	GREENVILLE MUNICIPAL	UPGRADE AWOS TO AWOS-3	1	X
JACKMAN	NEWTON FIELD	AWOS-3 GPS / PRECISION APPROACH PERMANENT JET-A FUEL	1 3 1	X X
LINCOLN	LINCOLN REGIONAL	GPS / PRECISION APPROACH	3	
LUBEC	LUBEC MUNCIPAL	GPS / PRECISION APPROACH	3	
MACHIAS	MACHIAS VALLEY	AWOS-3 GPS / PRECISION APPROACH	2 3	
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	AWOS-3	2	X
PRINCETON	PRINCETON MUNICIPAL	AWOS-3	1	X
RANGELEY	RANGELEY MUNICPAL	AWOS-3	2	
STONINGTON STONINGTON	STONINGTON MUNICIPAL STONINGTON MUNICIPAL	AWOS GPS / PRECISION APPROACH	3 3	
WISCASSET	WISCASSET MUNICIPAL	AWOS	3	

SOURCE: LifeFlight of Maine

LifeFlight transports roughly 1,000 patients a year in Maine, primarily from rural hospitals and accident scenes. LifeFlight operates under visual flight rules with minimums in excess of FAA requirements, in part due to lack of real time weather reports. Over time, Maine's system of airports should ideally be improved to build an infrastructure to support operations under instrument flight rules.

Historically, other Part 135 operators in Maine helped to support patient transport. The State's current licensing requirements, however, restrict these operators from carrying patients, even under non-life threatening circumstances. To supplement the services that are available from LifeFlight of Maine, OPT may wish to explore, with appropriate regulatory agencies, the pros and cons of reinstating other forms of patient transport in Maine when conditions are not life threatening.

SUMMARY: QUALITY OF LIFE PERFORMANCE MEASURE

The following summarizes the actions or steps that are considered desirable related to benchmarks that were used to evaluate Maine's Airport System related to this performance measure:

- Continue to monitor the availability of privately owned landing strips in remote areas of northwest Maine to serve emergency roles and needs.

- Support the continued availability of the seven fixed wing airports that are available to meet the transportation needs of the islands; continue to support

efforts with the State Legislature to secure additional funding to help these airports meet minimum safety standards; and encourage island airports to meet minimum safety standards as noted.

- Make information available on those airports that support Maine's vital services by accommodating forest fire spotting activities.

- Work with LifeFlight to continue to promote facilities and services that meet Maine's emergency needs; investigate opportunities for other providers to serve the non-critical air transport needs of patients.

PERFORMANCE MEASURE: CAPACITY

For Maine to have an adequate airport system, airports in the system must have both ample airfield and landside operational capacity. Steps to insure that the system provides adequate capacity are summarized in this section.

Benchmark: Airports Providing Adequate Airside Capacity

According to FAA guidelines, when an airport's annual level of operational demand saturates 60 percent of its available operating capacity (measured by annual service volume (ASV)), that airport should take steps to begin planning for supplemental operational capacity, or it should identify appropriate demand management strategies. When an airport's annual demand to annual capacity ratio exceeds 80 percent, steps should be taken to either provide additional capacity or implement demand management strategies.

Systemwide, Maine's airports provide more than ample operational capacity. Portland International Jetport is the only airport, commercial or general aviation, in the State that is expected to exceed noted FAA demand/capacity guidelines. Planning to provide adequate operational capacity is primarily a master planning as opposed to a system planning issue. Prior master planning studies by the Jetport have shown that providing additional airfield facilities, such a parallel runway that would significantly augment this airport's current annual operating capacity, would be difficult. Recent expansion at the airport has been focused on increasing the capacity of the airport's passenger terminal and its auto parking facilities. Several projects have also improved ground access to the airport.

A master plan is currently underway for Portland International Jetport and is expected to be completed in 2006. This master plan will present actions for addressing the Jetport's operational capacity limitations. According to draft forecasts of the master plan, operations are projected to grow at a lesser rate than the Systems Plan projections. By 2025, annual operations are projected to reach 123,200, compared to over 150,000 annual operations projected in the Systems Plan by 2021. One reason for this difference is the large decline in operations (15,000 annual operations) between the base years used (2001 versus 2004).

OPT, FAA, and the airport should all work together to monitor the airport's demand/capacity ratio. A multi-faceted plan to insure that operational capacity is adequate in the future will most likely be needed for this airport. This plan could include:

- Increase reliance on general aviation reliever airports. The FAA currently recognizes Sanford Municipal and Auburn-Lewiston Municipal airports as relievers to Portland International Jetport. The Systems Plan recommends that FAA may want to designate an additional airport as a reliever for the Jetport.

- Follow through with projects (runway, taxiway, lighting, approach, and others) that will improve the airport's ability to process demand on an efficient basis.

- Work with commercial carriers to increase the size of the aircraft that serve the airport. As the seating capacity of aircraft that serve the airport is increased, the airport can serve the same or increased numbers of passengers with fewer aircraft movements.

- Encourage passengers from other commercial service airports in Maine to utilize their local/most convenient airport. Increasing the number of patrons (both residents and visitors) using local commercial airports in the State has two potential benefits. First, it reduces the load on the Jetport and prolongs the useful life to the airport's airfield capacity. Second, when passengers choose to use their local airport it helps to support, sustain, and possibly grow air service at Maine's other commercial airports, something that benefits both the State and the individual communities in terms of transportation and economic goals.

Benchmark: Airports Providing Adequate Landside Capacity

For public airports in the Maine system to most adequately fulfill their designated system roles, it is desirable for them to provide certain types of facilities and services. As part of the Systems Plan, facility and service objectives were identified for Level I, II, III, and IV airports. Within these objectives are guidelines for providing landside facilities deemed appropriate for each airport category/role. Landside facility objectives for each airport role were identified for aircraft storage, auto parking, and terminal/administration building space. Airports in the Maine system should ideally have landside facilities in each of these three categories to meet current and future demand.

Chapter Nine addresses the ability of each airport to meet facility and service objectives linked to the airport's future system role. Improvements needed in the landside category to insure that Maine's airports provide ample landside capacity will also be identified in Chapter Nine.

SUMMARY: CAPACITY PERFORMANCE MEASURE

The following summarizes the actions or steps that are considered desirable related to benchmarks that were used to evaluate the Maine Airport System related to this measure:

- Provide adequate operational capacity for Portland Jetport: increase reliance on general aviation reliever airports; follow through with projects (runway, taxiway, lighting, approach, and others) that improve operational efficiency; work with commercial carriers to increase the size of aircraft they use to serve the airport; and encourage passengers (residents and visitors) from other commercial service markets in Maine to utilize their local/most convenient airport.

- Encourage airport owners/sponsors to provide aircraft storage meeting study facility objectives for current and future demand.

- Encourage airport owners/sponsors to provide auto parking meeting study facility objectives for current and future demand.

- Encourage airport owners/sponsors to provide terminal/administration building space meeting facility objectives for current and future demand.

PERFORMANCE MEASURE: AVIATION OUTREACH

Maine's airports are in fact aviation classrooms. OPT recognizes the benefits of working with system airport to promote educational opportunities. The benchmarks for this performance measure provide OPT information how public airports currently support educational opportunities, and these benchmarks enable OPT to track changes in this important system characteristic in future planning cycles.

Benchmark: Airports with Flight Instructors

Prior analysis completed as part of the Systems Plan showed that 23 of the 36 public airports in the Maine system provide some level of flight training. As a result, over 90 percent of the State's population is within a 30-minute drive time of one or more system airports that support flight training. According to service objectives adopted as part of this Systems Plan, all Level I and Level II airports in the system should have full service FBOs; flight instruction is a service typically associated with a full service FBO. For Level III airports, an objective to have at least a limited service FBO was established; therefore, some Level III airports may also support flight instruction. FBO services, such as flight instruction, are not included in the service objectives for Level IV airports.

Airports needing enhancements to their FBO service (which could include the provision of flight training if not already provided) are included in **Table 8-3**.

TABLE 8-3
AIRPORTS NEEDING FBO ENHANCEMENTS

LEVEL	OBJECTIVE	CITY	DEFICIENT AIRPORTS
LEVEL I	FULL SERVICE FBO	MACHIAS	MACHIAS VALLEY
		MILLINOCKET	MILLINOCKET MUNICIPAL
		NORRIDGEWOCK	CENTRAL MAINE REGIONAL
LEVEL II	FULL OR LIMITED SERVICE FBO	DEXTER	DEXTER REGIONAL
		PRINCETON	PRINCETON MUNICIPAL
		RANGELEY	RANGELEY MUNICIPAL
LEVEL III	LIMITED SERVICE FBO	BETHEL	BETHEL REGIONAL
		CARRABASSETT	SUGARLOAF REGIONAL
		JACKMAN	NEWTON FIELD

SOURCE: WSA

Benchmark: Airports With Aircraft Repair/Maintenance Service

There are a number of employment avenues in aviation involving aircraft maintenance and repair. As a result, OPT wishes to monitor the number of airports in the system that are providing this type of service. Currently, 21 out of the 36 system airports report that some type of aircraft maintenance or repair service is available at their airport. Service objectives established for the MASPU call for all Level I and Level II airports to have at least some type of aircraft maintenance/repair service available. Based on this objective, airports in **Table 8-4** should ideally have some type of aircraft maintenance/repair service to best meet their future system roles.

TABLE 8-4
AIRPORTS NEEDING AIRCRAFT MAINTENANCE/REPAIR

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	MACHIAS	MACHIAS VALLEY
	MILLINOCKET	MILLINOCKET MUNICIPAL
LEVEL II	DEXTER	DEXTER REGIONAL
	PRINCETON	PRINCETON MUNICIPAL

SOURCE: WSA

Benchmark: Airports With Outreach/Educational Programs

Airports in Maine are transportation, vital services, and economic resources to the State and the communities that the airports serve. Often times, however, the fact that all citizens benefit from the airports is not widely understood. When a community fails to understand all benefits associated with its airport, opposition to airport growth can follow. To optimize the potential for future expansion of airports in Maine, it is important for airports to educate the public concerning the many benefits that stem from the airports and the services they support. Ideally, all public airports in Maine should have some type of formalized, on-going public outreach/educational program. Information from system airports, collected at the time the Systems Plan Update was first initiated, indicated that less than half of all system airports have such a program. For all airports to have a public outreach/educational program, the system airports that need to take steps to implement such a program are found in **Table 8-5**.

TABLE 8-5
AIRPORTS NEEDING PUBLIC OUTREACH PROGRAMS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUGUSTA	AUGUSTA STATE
	BANGOR	BANGOR INTERNATIONAL
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	MACHIAS	MACHIAS VALLEY
	MILLINOCKET	MILLINOCKET MUNICIPAL
	PRESQUE ISLE	NORTHER MAINE REGIONAL
	ROCKLAND	KNOX COUNTY REGIONAL
	SANFORD	SANFORD REGIOONAL
LEVEL II	DEXTER	DEXTER REGIONAL
	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	BELFAST	BELFAST MUNICIPAL
	BETHEL	BETHEL REGIONAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	EASTPORT	EASTPORT MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
	CARRABASSETT	SUGARLOAF REGIONAL
LEVEL IV	DEBLOIS	DEBLOIS FLIGHT STRIP
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD
	ISLESBORO	ISLESBORO
	LUBEC	LUBEC MUNICIPAL
	STONINGTON	STONINGTON MUNICIPAL

SOURCE: WSA

Benchmark: Airports Hosting Educational Programs

Across the U.S., airports often partner with local universities, colleges, and technical schools to offer aviation-related programs/courses. Hosting such programs can provide an opportunity for creating additional revenue streams and sources of demand. In more limited instances, these types of programs also provide an avenue for obtaining creative financing/funding for certain types of airport improvement projects.

No systemwide or airport specific targets were set for attracting this type of activity. Airports that host this type of activity report that it has many positive benefits for them. Systemwide, only 22 percent of all Maine's public airports, according to this study's inventory data, report that they host educational programs. Airports hosting this type of activity reportedly include: Auburn-Lewiston Municipal, Portland Jetport, Waterville Robert LaFleur, Houlton International, Oxford County Regional, Wiscasset, Caribou Municipal, and Rangeley Municipal. As airports in Maine seek to expand and diversify, exploring options for hosting aviation-related educational opportunities should be considered.

SUMMARY: AVIATION OUTREACH PERFORMANCE MEASURE

The following summarizes the actions or steps that are considered desirable related to benchmarks that were used to evaluate the Maine Airport System related to this measure:

- Service objectives established for the Systems Plan call for all Level I, II, and III airports to have full or at least limited service FBOs. Several system airports need to attract this type of service to be fully compliant with the service objectives for their future system role. These airports were noted above and will be identified in a subsequent portion of this chapter addressing airport facility and service objectives.

- Service objectives established for the Systems Plan call for all Level I and II airports to provide some type of aircraft maintenance/repair service. Airports whose future system roles fall into the Level I or II category needing to attract this type of service were noted above and will be identified in a subsequent portion of this chapter.

- All system airports should have some type of a formalized and on-going public outreach and educational program. Many airports need to take action to make the system fully compliant with this benchmark.

- Airports in the Maine system wishing to diversify may seek to partner with local educational institutions to provide aviation-related education training/programs.

PERFORMANCE MEASURE: SAFETY AND STANDARDS

For Maine to have an adequate airport system, airports should adhere to applicable FAA design and development guidelines. In addition, airports should have programs and procedures in place that are deemed appropriate by OPT related to this performance measure. Steps to insure that airports in Maine satisfy the benchmarks related to this performance measure are summarized in this section.

Benchmark: Airports With Clear Approaches

The FAA establishes approach guidelines for all runway ends. These guidelines are established to promote safety. Approach slopes to each runway end vary based on type of approach and decent minima. Airports that have obstacles of any type that penetrate their applicable runway approach surfaces find themselves unable to meet prescribed FAA guidelines. It is important to note that as airports extend their runways or upgrade their approaches, their ability to fully comply with this standard can change. As part of the MASPU, a target to have 100 percent of all system airports have approaches to their primary runways that meet applicable FAA criteria was set. To meet this target, airports that are in need of obstruction removal projects are presented in **Table 8-6**. Since this study was initiated, three airports have improved their approaches, namely, Auburn-Lewiston, Greenville, and Pittsfield.

TABLE 8-6
AIRPORTS NEEDING CLEAR APPROACHES

LEVEL	CITY	DEFICIENT AIRPORTS	PENDING ACTION?
LEVEL I	AUGUSTA	AUGUSTA STATE	NO
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	YES
	HOULTON	HOULTON INTERNATIONAL	YES
	MACHIAS	MACHIAS VALLEY	NO
	MILLINOCKET	MILLINOCKET MUNICIPAL	YES
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL	NO
	SANFORD	SANFORD REGIONAL	YES
	WATERVILLE	WATERVILLE ROBERT LAFLEUR	YES
	WISCASSET	WISCASSET	YES
LEVEL II	DEXTER	DEXTER REGIONAL	YES
	FRYEBURG	EASTERN SLOPES	YES
	OLD TOWN	OLD TOWN/DEWITT FIELD	NO
	PRINCETON	PRINCETON MUNICIPAL	YES
LEVEL III	BIDDEFORD	BIDDEFORD MUNICIPAL	YES
	CARRABASSETT	SUGARLOAF REGIONAL	NO
	LINCOLN	LINCOLN REGIONAL	NO
	OXFORD	OXFORD COUNTY REGIONAL	NO
LEVEL IV	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	NO
	ISLESBORO	ISLESBORO	NO
	LUBEC	LUBEC MUNICIPAL	YES
	STONINGTON	STONINGTON MUNICIPAL	NO

SOURCE: WSA

It is important to note that in some instances, obstructions to approaches cannot realistically be removed or resolved. Therefore, some level of non-conformance for the future airport system for this benchmark is anticipated. The ability of the system to meet this benchmark will need to be re-assessed in future planning cycles as the ability of airports to meet this benchmark can and does change. It is also worth noting that during the inventory phase of the MASPU some airports noted on-going projects to address deficiencies related to this benchmark. Over 60 percent of the future Level I and Level II airports identified as needing obstruction removal projects have reported plans to address noted obstructions to their primary runway approaches. The percentage of Level III and Level IV airports planning such projects is not as great. Nevertheless, as practical, airports in Maine should have clear approaches.

Benchmark: Airports With Obstruction Removal/Vegetation Management Plans

Having plans that provide continuing guidance on vegetation that needs to be removed to enable system airports to remain compatible with FAA safety guidelines is important. Therefore, a target to have vegetation management plans for 100 percent the airports was adopted. Currently, very few of the system airports report having a vegetation management plan. Airports reportedly needing vegetation management plans to reach this target for 100 percent compliance are presented in **Table 8-7**.

TABLE 8-7
AIRPORTS NEEDING VEGETATION MANAGEMENT PLANS (VMPS)

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUGUSTA	AUGUSTA STATE
	BANGOR	BANGOR INTERNATIONAL
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	HOULTON	HOULTON INTERNATIONAL
	MACHIAS	MACHIAS VALLEY
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	PRESQUE ISLE	NORTHERN MAINE REGIONAL
LEVEL II	DEXTER	DEXTER REGIONAL
	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	BELFAST	BELFAST MUNICIPAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	CARRABASSETT	SUGARLOAF REGIONAL
	EASTPORT	EASTPORT MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
	OXFORD	OXFORD COUNTY REGIONAL
LEVEL IV	CARIBOU	CARIBOU MUNICIPAL
	DEBLOIS	DEBLOIS FLIGHT STRIP
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD
	ISLESBORO	ISLESBORO
	LUBEC	LUBEC MUNICIPAL
	STONINGTON	STONINGTON MUNICIPAL

SOURCE: WSA

Benchmark: Airports Meeting Runway/Taxiway Separation Standards

When an airport has a runway that is served by a full or a partial parallel taxiway, the FAA establishes design criteria for the appropriate separation between the runway centerline and the taxiway centerline. The applicable separation standard is dictated by the airport reference code (ARC) for the airport. Each airport's appropriate ARC is in part determined by the wing span of the largest aircraft that operates at the airport on a regular basis.

The MASPU established a target to have 100 percent of all applicable airports meet this benchmark. It is important to note that this benchmark does not apply to those airports in the system that are not served by a full or a partial parallel taxiway system. This benchmark applies to all airports in the Maine system that currently have a runway served by a parallel taxiway, as well as to those airports that should have a full or partial parallel taxiway to meet this study's facility objectives.

Level I airports should ideally have a full parallel taxiway and Level II airports should ideally have at least a partial parallel taxiway system for their primary runway. Currently, all system airports that have a full or a partial parallel taxiway meet their

applicable FAA separation standards. To meet this study's facility objectives, however, additional taxiway development is desirable. The airports presented in **Table 8-8** should have full or partial taxiway development to comply with this study's facility objectives, and this development should be done in accordance with FAA separation standards as dictated by each airport's future ARC objective.

TABLE 8-8
AIRPORTS NEEDING TAXIWAY DEVELOPMENT
TO MEET FAA SEPARATION STANDARDS

LEVEL	OBJECTIVE	CITY	DEFICIENT AIRPORTS	CURRENT ARC
LEVEL I	FULL PARALLEL TAXIWAY (CATEGORY B OR C)			
		AUBURN	AUBURN/LEWISTON MUNICIPAL	B-I
		FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	A-I
		MACHIAS	MACHIAS VALLEY	A-I
		MILLINOCKET	MILLINOCKET REGIONAL	B-II
		ROCKLAND	KNOX COUNTY REGIONAL	B-II
		SANFORD	SANFORD REGIONAL	B-II
LEVEL II	PARTIAL PARALLEL TAXIWAY (CATEGORY B)			
		DEXTER	DEXTER REGIONAL	A-I
		GREENVILLE	GREENVILLE MUNICIAL	B-I
		OLD TOWN	OLD TOWN/DEWITT FIELD	B-II
		PITTSFIELD	PITTSFIELD MUNICIPAL	B-II
		PRINCETON	PRINCETON MUNICIPAL	B-I
		RANGELEY	RANGELEY MUNICIPAL	B-I

SOURCE: WSA

Facility and service objectives adopted for the Systems Plan call for airports in Level I to provide facilities that are in compliance with ARC Category B or C development standards and for airports in Level II to meet ARC Category B standards. Runway and taxiway separation standards change when airports provide facilities that conform to more demanding ARCs. For instance, the runway/taxiway separation for a B-II airport is 240 feet, while the runway/taxiway separation standard for the C-II design category is 300 feet. When airports in the Maine system seek to provide facilities that comply with their suggested ARC, this may trigger the need to increase the separation between their runways and their parallel taxiways. Airports listed above have been identified for taxiway projects for one of two reasons: they either currently lack the recommended taxiway for their system role or their current taxiway meets design standards for a category that is less than that identified in association with the airport's future system role.

Benchmark: Airports Meeting RSA Standards

To promote operational safety, the FAA has designated areas around the ends to each active runway as runway safety areas (RSAs). RSA sizes vary based on the airport's ARC. As airports in the Maine system are improved to fulfill their identified system

roles, upgraded ARCs may be desirable. It is possible that airports may have RSAs that meet their current ARC, but that expanded RSAs may be required to support future airport roles. The systems plan has developed a goal that 100 percent of system airports should meet their FAA RSA requirements.

According to information obtained directly from system airports as part of this study's inventory effort, there are only five airports that do not have RSAs that meet the requirements for their current ARC. The airports needing projects for their RSAs to meet the requirements of their existing ARCs are shown in **Table 8-9**. Greenville is addressing their RSA deficiencies with their runway reconstruction currently underway.

TABLE 8-9
AIRPORTS NEEDING RSA IMPROVEMENTS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUGUSTA	AUGUSTA STATE
LEVEL II	GREENVILLE	GREENVILLE MUNCIPAL
	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL

SOURCE: WSA

As airports in the Maine system are improved so that they can better fulfill their recommended system roles, it may be desirable for several airports to seek to meet standards for a more demanding ARC. It is important to note that without local support and justification, expansion of individual airports in the Maine system will not be feasible. The MASPU set the following objectives for ARCs for Maine's airports:

- Level I – ARC C or B
- Level II – ARC B
- Level III – ARC B or A
- Level IV – ARC A

Based on these ARC objectives, it appears that the airports shown in **Table 8-10** may need projects to expand the size of the RSA on their primary runways if they are expanded to satisfy their recommended system role.

TABLE 8-10
AIRPORTS NEEDING RSA EXPANSIONS

LEVEL	CITY	DEFICIENT AIRPORTS	CURRENT ARC	OBJECTIVE ARC
LEVEL I	FRENCHVILLE	NORTHERN AROOSTOOK	A	C OR B
	MACHIAS	MACHIAS VALLEY	A	C OR B
LEVEL II	DEXTER	DEXTER REGIONAL	A	B

SOURCE: WSA

Benchmark: Airports Meeting PCI Of 70 On Primary Runway

OPT has developed a pavement management/maintenance plan for all system airports. As part of that plan, an objective to have a PCI of 70 or greater on all primary runways has been adopted for the Systems Plan. A target was adopted as part of the MASPU to have 100 percent of all airports meet this benchmark. Only airports with paved surfaces have an objective to meet this benchmark; this benchmark is not applicable to runways that are not paved.

It is important to note that the ability of individual airports in the system to meet this benchmark will change over time. Airport's whose runway pavement is currently rated at a PCI of 70 or above will experience deterioration over time, falling below the PCI rating objective of 70 or greater. As determined by OPT's most recent pavement evaluation, the airports in **Table 8-11** are now in need of projects to increase the PCI rating of their primary runway.

TABLE 8-11
AIRPORTS NEEDING PAVEMENT MAINTENANCE ON PRIMARY RUNWAY

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	PORTLAND	PORTLAND INTERNATIONAL JETPORT
LEVEL II	GREENVILLE	GREENVILLE MUNCIPAL
	PITTSFIELD	PITTSFIELD MUNICIPAL
LEVEL III	BELFAST	BELFAST MUNICIPAL
	CARRABASSETT	SUGARLOAF REGIONAL

Benchmark: Airports With Operations Manual/Accident Reporting Procedures

As part of the MASPU, a target was established for 100 percent of all system airports to have an operations manual which includes procedures for accident reporting. In order to meet this objective, the airports presented in **Table 8-12** should have operations manuals.

TABLE 8-12
AIRPORTS NEEDING OPERATIONS MANUALS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL
	AUGUSTA	AUGUSTA STATE
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	MACHIAS	MACHIAS VALLEY
LEVEL II	DEXTER	DEXTER REGIONAL
	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIAL
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	BELFAST	BELFAST MUNICIPAL
	BETHEL	BETHEL REGIONAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	CARRABASSETT	SUGARLOAF REGIONAL
	EASTPORT	EASTPORT MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
	OXFORD	OXFORD COUNTY REGIONAL
LEVEL IV	CARIBOU	CARIBOU MUNICIPAL
	DEBLOIS	DEBLOIS FLIGHT STRIP
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD
	STONINGTON	STONINGTON MUNICIPAL

SOURCE: WSA

Benchmark: Airports With Emergency Response Plan

An objective was established for this benchmark to have 100 percent of all Level I and all Level II airports have emergency response plans. Ideally, other system airports should also have these plans. To meet the target for 100 percent of all Level I and Level II airports to meet this benchmark, several airports need emergency response plans. These airports are presented in Table 8-13.

TABLE 8-13
AIRPORTS NEEDING EMERGENCY RESPONSE PLANS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL
	AUGUSTA	AUGUSTA STATE
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	MACHIAS	MACHIAS VALLEY
	MILLINOCKET	MILLINOCKET MUNICIPAL
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	WISCASSET	WISCASSET
LEVEL II	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
	RANGELEY	RANGELEY MUNCIPAL

Benchmark: Airports With Wildlife Management Plan

A target of 100 percent compliance was established for this benchmark. In order to meet this target, all airports in the Maine system should ideally have a wildlife management plan. To meet this target, the airports noted in **Table 8-14** need wildlife management plans.

TABLE 8-14
AIRPORTS NEEDING WILDLIFE MANAGEMENT PLANS (WMPS)

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL
	AUGUSTA	AUGUSTA STATE
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	HOULTON	HOULTON INTERNATIONAL
	MACHIAS	MACHIAS VALLEY
	MILLINOCKET	MILLINOCKET MUNICIPAL
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	PRESQUE ISLE	NORTHER MAINE REGIONAL
	SANFORD	SANFORD REGIONAL
	WISCASSET	WISCASSET
LEVEL II	DEXTER	DEXTER REGIONAL
	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIAL
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
	RANGELEY	RANGELEY MUNICIPAL
LEVEL III	BELFAST	BELFAST MUNICIPAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	CARRABASSETT	SUGARLOAF REGIONAL
	EASTPORT	EASTPORT MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
	OXFORD	OXFORD COUNTY REGIONAL
LEVEL IV	CARIBOU	CARIBOU MUNICIPAL
	DEBLOIS	DEBLOIS FLIGHT STRIP
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD
	ISLESBORO	ISLESBORO
	LUBEC	LUBEC MUNICIPAL
	STONINGTON	STONINGTON MUNICIPAL

Benchmark: Airports Conducting Self Inspections

For the MASPU, a target to have 100 percent of all system airports providing procedures for conducting self inspections was set. According to MASPU inventory information, 78 percent of all system airports currently have such procedures in place. To reach the target of 100 percent compliance for this benchmark, the airports presented in **Table 8-15** need procedures for conducting self inspections.

TABLE 8-15
AIRPORTS NEEDING PROCEDURES
FOR CONDUCTING SELF-INSPECTIONS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	MACHIAS	MACHIAS VALLEY
LEVEL II	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	BETHEL	BETHEL REGIONAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
LEVEL IV	DEBLOIS	DEBLOIS FLIGHT STRIP
	ISLESBORO	ISLESBORO

Benchmark: Airports With Fuel Farms Meeting NFPA Guidelines

For the MASPU, a target was established to have 100 percent of all system airports have fuel farms that meet NFPA guidelines. It is worth noting that this particular benchmark applies only to those airports with fuel, there are several airports in the Maine system that currently do not provide any type of fueling facilities. Therefore, this benchmark is not applicable to those airports.

As part of the Systems Plan, an objective was established to have all Level I, Level II and Level III airports have some type of fuel. Most airport-specific actions for meeting this study's objectives for providing various types of fuel are in Chapter Nine. In order to have all airports in the system meet this benchmark and the plan's service objectives, the following actions are needed and presented in **Table 8-16**. As airports in Maine provide new or expanded fuel facilities, these should be provided in accordance with all and the most up to date NFPA guidelines.

TABLE 8-16
AIRPORTS NEEDING FUEL IMPROVEMENTS

ACTION NEEDED	LEVEL	CITY	DEFICIENT AIRPORTS
UPGRADE CURRENT FUEL SYSTEM TO MEET NFPA GUIDELINES			
	LEVEL I	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	LEVEL II	GREENVILLE	GREENVILLE MUNICIAL
		OLD TOWN	OLD TOWN/DEWITT FIELD
		PITTSFIELD	PITTSFIELD MUNICIPAL
OBTAIN FUEL FARM TO MEET SERVICE OBJECTIVE			
	LEVEL I	MACHIAS	MACHIAS VALLEY
	LEVEL II	DEXTER	DEXTER REGIONAL
		PRINCETON	PRINCETON MUNICIPAL
	LEVEL III	CARRABASSETT	SUGARLOAF REGIONAL
		LINCOLN	LINCOLN REGIONAL

SUMMARY: SAFETY AND STANDARDS PERFORMANCE MEASURE

The following should be considered to elevate the performance of public airports in Maine as it relates to the benchmarks used to evaluate this performance measure:

- 100 percent of the system airports should have clear approaches to their primary runway ends. Airports should identify obstructions and develop plans to address needed obstruction removal; this can most logically be accomplished within the context of airport specific master plans/ALPs.

- Vegetation is often a cause of approach related obstructions. 100 percent of the public airports should have vegetation management plan to monitor and address the removal of vegetation related obstructions.

- All Level I and Level II airports should ideally be served by full and partial parallel taxiways. All parallel taxiways at airports in the Maine system should be developed at appropriate separations as dictated by the airport's ARC. Objective established in the Systems Plan call for Level I airport (parallel taxiways) to meet category B or C standards and for Level II airports (partial taxiways) to meet at least category B standards. Local justification and support for these recommendations will be needed.

- All airports should maintain their primary runways so that the Pavement Condition Index (PCI) is at least 70 or higher; compliance with this benchmark will change over time and will need to be monitored on a continuing basis.

- All (100 percent) airports in the Maine system should have RSAs, runway safety areas, that are compliant with their applicable airport reference code (ARC). This is an issue that should be continually monitored as part of locally conducted airport master planning and ALP update studies.

- All airports should have operations manuals; while a target was set to have all Level I and Level II airports have emergency operations manuals. All airports should have wildlife management plans and all should conduct self inspections on a regular basis. Statewide programs to increase the number of airports meeting all of these targets, plus the target to have vegetation management plans at all system should be considered in future system planning and funding cycles.

- Fuel should be provided at most system airports to enable them to meet service objectives established by the MASPU. Level I airports should have both Jet A and 100 LL fuel and Level II and Level III airports should have at least 100 LL fuel. All fuel facilities at Maine airports should be developed and maintained to meet NFPA guidelines.

PERFORMANCE MEASURE: ECONOMIC SUPPORT

It is widely recognized that airports in Maine are not only important transportation resources, but airports are also critical to local, regional, and the statewide economy. As part of the Systems Plan, a target was set to have a least a Level I or a Level II airport within the 30 minute service area for all Primary and Secondary Service Centers, as they have been identified by Maine's Office of Statewide Planning.

The previous chapter of the Systems Plan reviewed the current role and location of all system airports in relationship to this target and identified recommended future roles for all airports. Table 7-3 in the previous chapter identified recommended roles for all system airports.

It is important to note that it may not be possible or in some cases necessarily desirable for all airports to provide the facilities and services that are identified as being "objectives" for the airport's recommended role. The MASPU is a top down study that still must be implemented from the bottom up. Chapter Ten will compare each airport's recommendations stemming from the Systems Plan to locally developed goals, objectives, and initiatives. From the comparison of Systems Plan recommendations to locally-developed airport specific recommendations, final recommendations will be developed for each system airport.

SUMMARY: ECONOMIC SUPPORT PERFORMANCE MEASURE

It is important for funds to be directed to those airports and those projects that are most important to the system's ability to reach targets established in a prior chapter and discussed in this chapter. The Level I and Level II airports represent the State's core airport system, those airports that have the greatest propensity to support Maine's air transportation and economic needs. To meet targets set for economic support, all Level I and Level II airports should be developed to the fullest extent deemed practical and feasible on the local level.

PERFORMANCE MEASURE: FLEXIBILITY

Next to funding shortages, the second most prevalent issue restricting airport growth and development usually relates to improper planning that results in incompatible land uses or activities in the airport environment. Encroachment from incompatible land use can restrict airport operations and/or development. Providing Maine with an airport system that operates in an unrestricted fashion and that can expand as needed is important.

Benchmark: Airports With Current Planning Studies

Generally speaking, airports that take the steps necessary to plan for long-term growth are more likely to be able to expand as demand warrants. As part of the Systems Plan, targets were established for time frames in which it may be appropriate for airports to update their master plans or airport layout plans (ALPs). These planning targets are as

follows: Level I airports every 5 years; Level II airports every 5-10 years; Level III airports every 10 years; and Level IV airports every 15 years.

It is important to note that local conditions may either accelerate or decelerate this suggested schedule. It is also important to note that the system's ability to meet this benchmark will change overtime as master plans that are now considered current age and become out of date. Most airports in Maine have master plans or ALPs that are relatively current. **Table 8-17** presents the date that the most recent master plan was completed for each of the System airports. Each of the airports will require the completion of one or more planning studies through the 20-year planning period. The airports that are overdue for a master plan include Waterville Robert LaFleur, Rangeley Municipal, Deblois Flight Strip, Islesboro, and Lubec Municipal.

TABLE 8-17
MOST RECENT MASTER PLANS AT MAINE AIRPORTS

LEVEL / CITY	FACILITY NAME	UPDATE OBJECTIVE	MOST RECENT MP/ALP
LEVEL I			
AUBURN	AUBURN/LEWISTON MUNICIPAL	5 YRS.	2006
AUGUSTA	AUGUSTA STATE	5 YRS.	2005
BANGOR	BANGOR INTERNATIONAL	5 YRS.	2001
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	5 YRS.	2004
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	5 YRS.	2000
HOULTON	HOULTON INTERNATIONAL	5 YRS.	2002
MACHIAS	MACHIAS VALLEY	5 YRS.	2005
MILLINOCKET	MILLINOCKET MUNICIPAL	5 YRS.	2004
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	5 YRS.	2005
PORTLAND	PORTLAND INTERNATIONAL JETPORT	5 YRS.	2006
PRESQUE ISLE	NORTHERN MAINE REGIONAL	5 YRS.	2000
ROCKLAND	KNOX COUNTY REGIONAL	5 YRS.	2000
SANFORD	SANFORD REGIONAL	5 YRS.	2003
WATERVILLE	WATERVILLE ROBER LAFLEUR	5 YRS.	1996
WISCASSET	WISCASSET	5 YRS.	2001
LEVEL II			
DEXTER	DEXTER REGIONAL	5-10 YRS.	2002
FRYEBURG	EASTERN SLOPES REGIONAL	5-10 YRS.	2005
GREENVILLE	GREENVILLE MUNICIPAL	5-10 YRS.	2000
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	5-10 YRS.	2002
PITTSFIELD	PITTSFIELD MUNICIPAL	5-10 YRS.	1999
PRINCETON	PRINCETON MUNICIPAL	5-10 YRS.	2003
RANGELEY	RANGELEY MUNICIPAL	5-10 YRS.	1993
LEVEL III			
BELFAST	BELFAST MUNICIPAL	10 YRS.	1999
BETHEL	BETHEL REGIONAL	10 YRS.	1998
BIDDEFORD	BIDDEFORD MUNICIPAL	10 YRS.	2004
CARRABASSETT	SUGARLOAF REGIONAL	10 YRS.	2003
EASTPORT	EASTPORT MUNICIPAL	10 YRS.	2003
JACKMAN	NEWTON FIELD	10 YRS.	2003
LINCOLN	LINCOLN REGIONAL	10 YRS.	2002
OXFORD	OXFORD COUNTY REGIONAL	10 YRS.	2003
LEVEL IV			
CARIBOU	CARIBOU MUNICIPAL	15 YRS.	1998
DEBLOIS	DEBLOIS FLIGHT STRIP	15 YRS.	NONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	15 YRS.	1986
ISLESBORO	ISLESBORO	15 YRS.	NONE
LUBEC	LUBEC MUNICIPAL	15 YRS.	NONE
STONINGTON	STONINGTON MUNICIPAL	15 YRS.	1988

SOURCE: WSA
NOTE: Table Prepared September 2005

Benchmark: Airports With Compatible Land Use Planning

Ideally, all municipalities that have land use authority or that border one of Maine's 36 public airports should take steps to insure that actions are taken to promote land use that is "airport friendly". A target of 100 percent compliance was adopted for this benchmark. Information for this benchmark was obtained directly from the airports and not from municipalities that border each of the airports. As a result, follow on actions are needed to verify the system's current compliance with this benchmark. As part of follow on efforts, outreach to all Maine communities/municipalities that border the public airports on the issue of compatible land use planning should be considered. At a minimum, the airports report that they are without compatible land use planning are presented in **Table 8-18**.

TABLE 8-18
AIRPORTS NEEDING COMPATIBLE LAND USE PLANNING

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	WISCASSET	WISCASSET
LEVEL II	DEXTER	DEXTER REGIONAL
	GREENVILLE	GREENVILLE MUNICIAL
	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	BETHEL	BETHEL REGIONAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	JACKMAN	NEWTON FIELD
LEVEL IV	DEBLOIS	DEBLOIS FLIGHT STRIP
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD
	ISLESBORO	ISLESBORO
	LUBEC	LUBEC MUNICIPAL
	STONINGTON	STONINGTON MUNICIPAL

SOURCE: WSA

Benchmark: Airports Recognized In Local Comprehensive Plans

This benchmark is similar to the previous benchmark in that it recognizes the importance of incorporating each airport's needs into other locally based planning efforts. A target was established to have all (100 percent) of Maine's public airports recognized and included in the comprehensive plan of their host community. According to information supplied by the airports during the inventory phase of the Systems Plan, 67 percent of all airports now meet this benchmark. To reach the 100 percent target for this benchmark the airports presented in **Table 8-19** need to be included in applicable local comprehensive planning efforts.

TABLE 8-19
AIRPORTS NEEDING RECOGNITION IN LOCAL COMPREHENSIVE PLANS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	PORTLAND	PORTLAND INTERNATIONAL JETPORT
LEVEL II	GREENVILLE	GREENVILLE MUNICIAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	BIDDEFORD	BIDDEFORD MUNICIPAL
	JACKMAN	NEWTON FIELD
	OXFORD	OXFORD COUNTY REGIONAL
LEVEL IV	DEBLOIS	DEBLOIS FLIGHT STRIP
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD
	STONINGTON	STONINGTON MUNICIPAL

SOURCE: WSA

Benchmark: Airports With Business/Financial Plan

For airports in Maine to have long-term staying power, it is important for them to be as financially self-supporting as possible and as practical. A target was set to have 100 percent of all Level I, II, and III airports meet this benchmark. Ideally, Level IV should also comply with this benchmark. To elevate the performance of the system to meet the established target, the airports shown in **Table 8-20** would need to prepare business/financial plans.

TABLE 8-20
AIRPORTS NEEDING BUSINESS/FINANCIAL PLANS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	MACHIAS	MACHIAS VALLEY
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	WISCASSET	WISCASSET
LEVEL II	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PITTSFIELD	PITTSFIELD MUNICIPAL
LEVEL III	BELFAST	BELFAST MUNICIPAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	EASTPORT	EASTPORT MUNICIPAL
	OXFORD	OXFORD COUNTY REGIONAL

SOURCE: WSA

Benchmark: Airports Reporting Activity Statistics

In order for OPT to appropriately respond to changes in Maine public airport system, it is important for them to understand changes that take place in that system. One way for OPT to monitor the system is to review annual changes or fluctuations in each airport's activity levels. On a systemwide basis, only 11 percent of all airports indicate that they

now report activity information to OPT on an annual basis. For this type of monitoring and review to take place, a target to have 100 percent of all airports report annual activity statistics to OPT was established. To meet this target, the airports listed in **Table 8-21** need to establish procedures for reporting their annual activity statistics to OPT.

TABLE 8-21
AIRPORTS NEEDING TO REPORT ANNUAL ACTIVITY DATA TO OPT

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL
	BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	HOULTON	HOULTON INTERNATIONAL
	MACHIAS	MACHIAS VALLEY
	MILLINOCKET	MILLINOCKET MUNICIPAL
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	PORTLAND	PORTLAND INTERNATIONAL JETPORT
	ROCKLAND	KNOX COUNTY REGIONAL
	WATERVILLE	WATERVILLE ROBERT LAFLEUR
	WISCASSET	WISCASSET
LEVEL II	DEXTER	DEXTER REGIONAL
	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
	RANGELEY	RANGELEY MUNICIPAL
LEVEL III	BELFAST	BELFAST MUNICIPAL
	BETHEL	BETHEL REGIONAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	CARRABASSETT	SUGARLOAF REGIONAL
	EASTPORT	EASTPORT MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
	OXFORD	OXFORD COUNTY REGIONAL
LEVEL IV	CARIBOU	CARIBOU MUNICIPAL
	DEBLOIS	DEBLOIS FLIGHT STRIP
	DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD
	ISLESBORO	ISLESBORO
	LUBEC	LUBEC MUNICIPAL
	STONINGTON	STONINGTON MUNICIPAL

SOURCE: WSA

SUMMARY: FLEXIBILITY PERFORMANCE MEASURE

In order for the system to meet targets established for future performance as it relates to benchmarks for the flexibility performance measure, the following actions are desirable:

- Airport master plans should be updated as follows or as local needs warrant: Level I airports every 5 years, Level II airports every 5-10 years; Level III airports every 10 years, and Level IV airports every 15 years. While a high percentage of system airports now have current plans, the currency of these plans will expire over time, resulting in the need for airports in the system to update

their master plans and/or ALPs. OPT should use the established update targets and monitor the need to provide updated planning studies on a regular basis.

- All airports in the Maine system should be recognized in applicable comprehensive planning efforts and all should have land use guidelines or controls that enhance the compatibility of surrounding land use. Future efforts and follow on activities to increase and to confirm the ability of all airports in the system to meet these targets is needed.

- All Level I, II, and III airports should be supported by some type of business or financial plan. OPT should consider mandating the preparation of a business/financial plan as part of individual airport master plans. Consideration could also be given to crafting a future statewide initiative as part of the MASPU to prepare such plans.

- All public airports in Maine should report activity statistics to OPT on at least an annual basis. OPT should work with the airports and airport managers around the State to determine which activity indicators should be reported, how often reports should be made, and how data should be collected.

PERFORMANCE MEASURE: ACCESSIBILITY

In order for Maine to have an adequate system of public airports, the system should be accessible from both the ground and the air. Chapter Six identified targets for increasing the system's future performance as it relates to this performance measure. Discussed below are actions needed to raise the level of the system's performance for individual benchmarks associated with this performance measure.

Benchmark: Accessibility to Helicopter Landing Areas

Helicopters play a unique role in Maine's Aviation System. Helicopters support access to Maine's island areas, they are used exclusively to conduct LifeFlight operations, and they are used to fight forest fires. These are the three primary uses for helicopters in Maine, but there are also many others.

When only designated heliports are considered, an estimated 84 percent of the State's population is within a 30-minute drive time of such a facility. When determining the accessibility that is afforded by the existing aviation system to this particular type of aircraft, it is important to consider that all public and private airports in the State also support the landing and takeoff needs of these aircraft. When this factor is considered, along with the fact that in emergency situations, helicopters can land in many different locations, an estimated 99 percent of Maine's population is within a 30 minute drive time of a facility that can accommodate helicopter landings and take offs. The Systems Plan has not identified a need to provide any additional designated heliport facilities at this time, and no target for increased future system performance as it relates to this benchmark was established.

Benchmark: Accessibility To Attended Seaplane Facilities

Seaplanes also play a unique role in Maine's Aviation System. While there are some public seaplane bases in the Maine Airport System, the 77 percent of the seaplane facilities are privately owned. The need to provide additional seaplane bases or to increase services provided at existing seaplane bases will be demand driven. **Table 8-22** lists the seaplane bases in Maine and whether or not they are attended and have fuel. Currently, an estimated 86 percent of all Maine's population is within a 30-minute drive of a seaplane base.

TABLE 8-22
SEAPLANE BASE SERVICES

SEAPLANE BASE	CITY	OWNERSHIP	USE	ATTENDED	FUEL
BRADFORD CAMPS	ASHLAND	PRIVATE	PUBLIC	-	-
MILLINOCKET LAKE	ASHLAND	PRIVATE	PRIVATE	YES	YES
AUGUSTA	AUGUSTA	PUBLIC	PUBLIC	-	-
NUGENT CHAMBERLAIN LAKE	CHESUNCOOK	PRIVATE	PUBLIC	YES	-
IICO LANDING AREA	CLAYTON LAKE	PRIVATE	PRIVATE	YES	-
FOREST LAKE	CUMBERLAND	PRIVATE	PRIVATE	-	-
RIVERSIDE	DOVER FOXCROFT	PRIVATE	PRIVATE	YES	-
CRESCENT LAKE	E. RAYMOND	PRIVATE	PRIVATE	-	-
LAKESIDE MARINA	EAST WINTROP	PRIVATE	PUBLIC	YES	MOGAS ONLY
DOUBLE A	GLENBURN	PRIVATE	PRIVATE	YES	-
LUCKY LANDING	GLENBURN	PRIVATE	PUBLIC	YES	YES
DRY POND	GRAY	PRIVATE	PRIVATE	-	-
GREENVILLE	GREENVILLE	PUBLIC	PUBLIC	YES	YES
GREENVILLE FORESTRY	GREENVILLE	PUBLIC	PRIVATE	YES	YES
GREENVILLE JUNCTION	GREENVILLE JUNCTION	PRIVATE	PUBLIC	YES	YES
COOPER	HARTFORD	PRIVATE	PRIVATE	-	-
MOOSE RIVER	JACKMAN	PRIVATE	PUBLIC	-	-
BRETTUNS POND	LIVERMORE	PUBLIC	PRIVATE	-	-
BUCKHORN CAMPS	MILLINOCKET	PRIVATE	PUBLIC	-	-
MILLINOCKET	MILLINOCKET	PRIVATE	PUBLIC	YES	YES
SEVEN GS	MOUNT VERNON	PRIVATE	PUBLIC	-	-
LONG LAKE	NAPLES	PRIVATE	PUBLIC	YES	YES
MAST COVE	NAPLES	PRIVATE	PRIVATE	-	-
BRANDY POND	NAPLES	PRIVATE	PUBLIC	-	-
BAUNEG BEG	NORTH BERWICK	PRIVATE	PRIVATE	-	-
LONG POND	NORTH LIVERMORE	PRIVATE	PRIVATE	-	YES
DEWITT FIELD	OLD TOWN	PUBLIC	PUBLIC	YES	YES
SHIN POND	PATTEN	PRIVATE	PUBLIC	YES	YES
PORTAGE LAKE MUNICIPAL	PORTAGE LAKE	PUBLIC	PUBLIC	-	-
SAINT PETERS	PORTAGE LAKE	PRIVATE	PRIVATE	-	-
NORTHERN MAINE REGIONAL	PRESQUE ISLE	PUBLIC	PUBLIC	YES	-
RANGELEY LAKE	RANGELEY	PRIVATE	PUBLIC	YES	YES
PANTHER POND	RAYMOND	PRIVATE	PRIVATE	-	-
CROSS LAKE	SINCLAIR	PUBLIC	PRIVATE	YES	-
LONG LAKE	SINCLAIR	PRIVATE	PUBLIC	YES	MOGAS ONLY
DOUGLASS	STANDISH	PRIVATE	PRIVATE	-	-
TWITCHELL	TURNER	PRIVATE	PUBLIC	YES	YES
VAN BUREN	VAN BUREN	PUBLIC	PUBLIC	-	-
LITTLE OSSIPEE LAKE	WATERBORO CENTER	PRIVATE	PRIVATE	YES	-

SOURCE: FAA 5010

The Systems Plan has not identified the need to increase the number of these facilities. However, additional efforts to provide an attendant (at least seasonally) and fuel at additional seaplane basses should be undertaken. As future airport directories and other

publications concerning data on Maine's Airport System are prepared, an effort should be made to include in these documents information on which seaplane bases are actually attended. This type of information is considered desirable for both pilots based in Maine as well as those visiting the State. OPT should work with other statewide groups including tourism, recreational services, and commerce to publish information denoting the location of attended seaplane bases.

Only 30 percent of the seaplane bases in Maine currently provide fuel. The availability of fuel continues to be very important concern to seaplane users across the state, especially at the seaplane bases in the remote areas of the Allagash Wilderness. The State recognizes the critical need to provide 100LL fuel at additional seaplane bases in Maine, especially for emergencies. OPT supports funding initiatives with the Maine Legislature that could at some future date make "set aside" funds available to provide fuel at additional seaplane bases. Initial analysis shows the need for fuel at the following seaplane bases based on gaps in coverage: Long Lake in Naples, Moose River, Nugent Chamberlain Lake, Ilco Landing, Long Lake in Sinclair.

Benchmark: Accessibility To Airports Serving Special Use Aviation

As activity by higher performance aircraft at both commercial and general aviation airports increases, the result can be reduced opportunities for special use (balloons, experimental, ultralight, sport) aircraft. At the present time, Maine's airport system appears to be meeting the needs of these users.

According to Systems Plan analysis, 96 percent of the State's population continues to be within a 30 minute drive time of a public airport that accommodates special use aviation. When the fact that Maine has an extensive system of private airports that also supports this type of activity is considered, this coverage increases.

In the coming years as part of the continuous planning process, OPT should monitor how its system of public airports continues to accommodate the needs of special aviation users, especially in Maine's more urban areas. At this time, no other target for increased system performance was adopted for this benchmark.

Benchmark: Accessibility To Airports With Commercial Airline Service

While Portland International Jetport and Bangor International have witnessed some improvements in their scheduled commercial airline service, other commercial airports in Maine (Augusta State, Hancock County-Bar Harbor, Knox County Regional, and Northern Maine Regional) have done well just to sustain service. Airline service to commercial airports in Maine, other than Portland and Bangor, is supported by Federal subsidies.

Currently, 96 percent of Maine's population and 71 percent of the Primary and Secondary Service Centers are within a 60 minute drive of one of Maine's commercial airports. Ideally, increased levels of commercial airline service for all Maine's commercial

airports should be sought. In reality, however, the State may be fortunate just to be able to sustain current levels of service at its smaller commercial airports.

National trends and predictions indicate declining and perhaps even disappearing service at smaller airports throughout the U.S. In the current environment, it is not logical to expect that additional cities in Maine will receive scheduled commercial airline service. At this time, no target for increased system performance was adopted for this benchmark. A target to at least maintain current accessibility to scheduled commercial airline service was adopted. The State should work closely with the airports to ensure this.

Benchmark: Accessibility To Public Airport System

When the Federal Aviation Administration (FAA) formulates the National Plan for Integrated Airport Systems (NPIAS), a goal of having an airport within 30 minutes of all system users serves as a guideline. The Systems Plan determined that currently, an estimated 98 percent of all of Maine's population is within a 30 minute drive time at lease one public airport in the Maine system. In some cases, access to more than one system airport within the 30 minute guideline is afforded by the existing system.

It is important to note that Maine's public airport system is also supported by an extensive system of privately owned airports. When both the public and the private airport systems are considered, ample opportunity to reach an airport is provided to Maine by the existing system. At this time, no other target for increased system performance was adopted for this benchmark.

It is worth nothing, however, that some airports at their existing locations may be limited from fulfilling their future system roles. When this is determined to be the case, "replacement" airport sites may be desirable. It appears that Machias alley cannot meet the Level I airport goals. A replacement airport for Machias is currently being analyzed. Other additional/new airports for the system do not appear warranted at this time.

Benchmark: Accessibility To A Part 135 Operator

Many businesses and others often find it desirable to charter aircraft. On-demand service is often provided by operators who are certified to provide such service under FAR Part 135. Systems analysis determined that currently 90 percent of Maine's population is within a 30 minute drive time of an airport where a Part 135 operator is based. The ability to support a Part 135 operator is market driven. This information enables OPT to understand how its system of airports is underpinning scheduled commercial airline service that is available in the State. In the coming years, OPT should continue to monitor, for informational purposes, the airports where Part 135 operators are based. At this time, no other target for increased system performance was adopted for this benchmark.

Benchmark: Accessibility To Commercial Airline Service

Maine is presently served by six commercial service airports. While two of these airports have seen improvements in their service, the other four have done well just to sustain service. Recognizing that in a deregulated environment both the State and the airports can do little to actually improve scheduled commercial airline service, the following targets were agreed upon for this benchmark:

- Decrease Maine's average one way commercial airline fare as a percent of the national average.
- Maintain at least existing levels of scheduled service at all airports
- Support efforts to secure additional service, as feasible
- Encourage passengers (both residents and visitors) to use their "local" airport
- Encourage passengers (both residents and visitors) to use a Maine airport as opposed to driving to a competing airport in a neighboring state.

As part of the continuous planning effort or a follow on phase of the MASPU, OPT should compare current data for each of the above targets to conditions that exist in future planning cycles. No other actions were identified at this time related to increasing system performance for this benchmark. A follow-up study is planned for the state to have a better understanding of the issues facing commercial service airports and develop recommendations for improved service.

Benchmark: Accessibility To Airports With AWOS or ASOS

According to analysis conducted as part of the Systems Plan, 90 percent of all Maine's population is now within a 30 minute drive time of an airport that has either an AWOS or ASOS. Facility objectives established for the Systems Plan call for all Level I airports to have either an AWOS or ASOS. To meet this objective, two airports (shown in **Table 8-23)** that are designated as future Level I facilities should ideally have an ASOS or AWOS.

TABLE 8-23
AIRPORTS NEEDING ON-SITE ASOS OR AWOS

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	MACHIAS	MACHIAS VALLEY
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL

SOURCE: WSA

If additional ASOS or AWOS facilities as noted above are provided, the percent of Maine's population within a 30 minute drive of this accessibility measure will increase.

Benchmark: Accessibility To Airports With A Precision Approach

The MASPU set an objective for all airports in the Level I category to have a precision approach. Currently, an estimated 84 percent of Maine's of population is within a 30 minute drive time of an airport with an existing precision approach. To meet the objective to have a precision approach to all Level I airports, additional precision approaches will be needed. **Table 8-24** lists the Level I airports should ideally have a precision approach.

TABLE 8-24
AIRPORTS NEEDING A PRECISION APPROACH

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	HOULTON	HOULTON INTERNATIONAL
	MACHIAS	MACHIAS VALLEY
	MILLINOCKET	MILLINOCKET MUNICIPAL
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	ROCKLAND	KNOX COUNTY REGIONAL
	WISCASSET	WISCASSET

SOURCE: WSA

If additional precision approaches as noted above are provided, the percent of Maine's population within a 30 minute drive of this accessibility measure will increase.

Benchmark: Accessibility to Non-Precision Approaches

Facility and service objectives established for the MASPU call for all Level I and Level II airports to have at least one published non-precision approach. Review of the airports assigned to Level I and Level II shows that all presently have some type of published approach. As a result, no further actions are needed to elevate the performance of the system as it relates to this benchmark. An estimated 95 percent of all of Maine's population is already within a 30 minute drive time of an airport that has some type of non-precision approach

Benchmark: Accessibility To All Weather Airports

According to facility and service objectives adopted by the MASPU, all Level I airports should be capable of operating during all weather conditions. To do so, Level I airports should be equipped with on-site weather reporting equipment, a precision approach, timely snow removal capabilities, and de-icing equipment. Level I airports needing on-site weather reporting equipment and a precision approach have been previously identified. To meet the target to have all Level I airports operational during all weather conditions, some Level I airports will need either or both snow removal and de-icing capabilities. Airports needing these improvements are presented in **Table 8-25**.

TABLE 8-25
AIRPORTS NEEDING ALL-WEATHER IMPROVEMENTS

ACTION NEEDED	LEVEL	CITY	DEFICIENT AIRPORTS
SNOW REMOVAL CAPABILITIES			
	LEVEL I	MILLNOCKET	MILLINOCKET
		SANFORD	SANFORD REGIONAL
		WISCASSET	WISCASSET
DE-ICING CAPABILITIES			
	LEVEL I	AUBURN	AUBURN/LEWISTON MUNICIPAL
		BAR HARBOR	HANCOCK COUNTY-BAR HARBOR
		FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
		HOULTON	HOULTON INTERNATIONAL
		MACHIAS	MACHIAS VALLEY
		MILLINOCKET	MILLINOCKET MUNICIPAL
		NORRIDGEWOCK	CENTRAL MAINE REGIONAL
		ROCKLAND	KNOX COUNTY REGIONAL
		SANFORD	SANFORD REGIONAL
		WATERVILLE	WATERVILLE ROBERT LAFLUER
		WISCASSET	WISCASSET

SOURCE: WSA

If additional all weather capabilities are provided as noted above, the percent of Maine's population within a 30 minute drive of this accessibility measure will increase. Currently, 80 percent of Maine's population is within a 30 minute drive time of an all weather airport. With all improvements noted for on-site weather, approach capabilities, snow removal and de-icing, this percentage could approach 95 percent.

Benchmark: Accessibility To A Runway Of 5,000 Feet Or Greater

A target has been established within the MASPU to provide runway lengths of 5,000 or greater at all Level I airports. In order to meet this target, some Level I airports would require runway lengthening projects. These airports are presented in **Table 8-26**.

TABLE 8-26
AIRPORTS NEEDING RUNWAY LENGTH UPGRADES TO 5,000 FEET

LEVEL	CITY	DEFICIENT AIRPORTS
LEVEL I	FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL
	HOULTON	HOULTON INTERNATIONAL
	MILLINOCKET	MILLINOCKET MUNICIPAL
	NORRIDGEWOCK	CENTRAL MAINE REGIONAL
	WISCASSET	WISCASSET

SOURCE: WSA

Currently, 81 percent of Maine's population is within a 30 minute drive time of an airport that has a 5,000-foot or longer runway. With the target upgrades noted above, this percentage would increase to the 90 to 95 percent range.

SUMMARY: ACCESSIBILITY PERFORMANCE MEASURE

Many of the benchmarks for this performance measure are informational in nature. In the future, these types of benchmarks require OPT monitoring as opposed to actual development. To enable the system to meet targets that were set for this performance measure, the following items should be considered:

- Monitor the ability of helicopters to access all areas of the State.
- Publicize the location of seaplane bases in Maine that are attended on a regular basis and provide additional fueling stations.
- Monitor the ability of special use aviation activities to co-exist at public and private airports throughout the State.
- Monitor the continued availability of scheduled commercial airline service in Maine.
- Identify those airports in the system that may not be capable of expanding at their current location to fulfill their designated system role and determine the need for a replacement airport.
- Monitor the continued availability of Part 135 operators in Maine.
- Monitor air service indicators for the State's commercial airports: average one-way fares, annual enplanements, hubs served non-stop, and number of weekly departing seats and flights.
- Provide on-site weather reporting equipment at all Level I airports.
- Provide precision approaches to all Level I airports.
- Provide facilities and services (on-site weather, precision approach, snow removal, and de-icing) at all Level I airports to make these all weather ready facilities.
- Provide, as can be justified and supported on the local level, at least 5,000-foot primary runways at all Level I airports.

CHAPTER NINE
FUTURE AIRPORT PERFORMANCE

Prior chapters of the Maine Aviation Systems Plan Update (MASPU) provided an overview of the current performance of Maine's airports. Chapter Eight focused on those actions that have been targeted to raise the overall level of system performance as it relates to the study specific performance measures and their related benchmarks. For airports in Maine to best fulfill their future system roles, ideally these airports should also provide the facilities and services deemed desirable for that role. This chapter sets the course for future airport performance. This is accomplished by setting targets for how each airport should ideally function in the future to ensure that Maine's airport system supports the state's air transportation and economic needs.

This section of the MASPU identifies each system airport's ability to meet their objectives. If a shortfall exists, the needed action for the airport to meet the objective is noted. The objectives have been divided into the following subheadings:

- **AIRSIDE FACILITIES**- Airside facilities play the most significant role in attracting aircraft to an airport. Airside facility objectives include compliance with the following: Aircraft Design Group, primary runway length and width, taxiway, approach, lighting, visual aids, and weather reporting.

- **LANDSIDE FACILITES**- Landside facilities support local and transient airport users, pilots, and visitors. Landside facilities objectives identified in the MASPU for all level of airports include the following: hangars, apron, terminal/ administration building, operations/ maintenance building, and auto parking.

- **SERVICES**- Services provided at system airports enable each airport to best fulfill its system role. The MASPU service objectives include the following: Fixed Based Operator (FBO), maintenance, fuel, terminal/pilot lounge, ground food, transportation services, all-weather equipment, and security.

Airport-specific tables (**Tables 9-1 through 9-36**) provide three important pieces of information for each airport; these are as follows: current facilities/services; facility/service objectives for the airport's identified system role, and additional facilities and services that are desirable to enable the airport to best fulfill its role in the Maine Aviation System. The airports are presented by recommended level. The facilities and services identified as being needed have been updated since the study was initiated and Phase I completed. Updated data was gathered from airport manager input and information from recent master plans. A summary of the costs to implement these improvements will be provided in Chapter Ten.

Additional facility and service specific reference tables are also provided (**Tables 9-37 through 9-59**). These tables provide information on how well the system is currently

doing as it relates to meeting established facility and service objectives, instead of by airport. These tables enable OPT to track how facility and service improvements at the Maine airports help to elevate performance within a particular level or for the system as a whole.

TABLE 9-1
AUBURN/LEWISTON MUNICIPAL AIRPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I AIRPORTS

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	5,001'	NONE
RUNWAY WIDTH	100 FEET	100'	NONE
TAXIWAY LENGTH	FULL PARALLEL	NONE	FULL PARALLEL TAXIWAY
APPROACH	PRECISION	PRECISION (ILS)	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND T REILS PAPIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	AWOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	100	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	10	ADDITIONAL NEEDED: CURRENT: NONE 2021: 1 SPACE
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	70	NONE
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	2,250 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	2,250 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	132	NONE
SERVICES			
FBO	FULL SERVICE	2- FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	3- AIRCRAFT REPAIR AVIONICS	NONE NONE
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS NONE AT FBO	NONE NONE PILOT LOUNGE NONE
FOOD	FULL SERVICE RESTAURANT	FULL SERVICE RESTAURANT	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	SEASONAL ONLY	ON SITE RENTAL CAR
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	UNKNOWN ACCESS GATE NONE	FULL PERIMETER FENCING NONE NIGHT GUARD

TABLE 9-2
AUGUSTA STATE AIRPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	C-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	5,001'	NONE
RUNWAY WIDTH	100 FEET	150'	NONE
TAXIWAY LENGTH	FULL PARALLEL	PARTIAL PARALLEL	FULL PARALLEL
APPROACH	PRECISION	PRECISION (ILS)	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND SOCK REILS VASIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	ASOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	28	ADDITIONAL NEEDED: CURRENT: 7 SPACES 2021: 6 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 4 SPACES 2021: 2 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	21	ADDITIONAL NEEDED: CURRENT: NONE 2021: 4 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	9,775 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	YES	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	81	NONE
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	JET A 100 LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	RESTAURANT	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	RENTAL CAR	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	UNKNOWN NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-3
BANGOR INTERNATIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	C-III	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	11,441'	NONE
RUNWAY WIDTH	100 FEET	300'	NONE
TAXIWAY LENGTH	FULL PARALLEL	FULL PARALLEL	NONE
APPROACH	PRECISION	PRECISION (ILS)	NONE
LIGHTING- RUNWAY	HIRL	MIRL	HIRL
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE NONE PAPIS	NONE NONE NONE REILS NONE
WEATHER	ASOS OR AWOS	ASOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	25	ADDITIONAL NEEDED: CURRENT: 26 SPACES 2021: 11 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 16 SPACES 2021: 7 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	45	ADDITIONAL NEEDED: CURRENT: 3 SPACES 2021: 19 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	7,904/7,281	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	30,000 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	150	NONE
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	JET A 100 LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	RESTAURANT	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	RENTAL CAR	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	FULL PERIMETER FENCING CONTROLLED ACCESS AIR NATIONAL GUARD	NONE NONE NONE

TABLE 9-4
HANCOCK COUNTY-BAR HARBOR AIRPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	C-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	5,200'	NONE
RUNWAY WIDTH	100 FEET	100'	NONE
TAXIWAY LENGTH	FULL PARALLEL	FULL PARALLEL	NONE
APPROACH	PRECISION	PRECISION (ILS)	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	AWOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	31	ADDITIONAL NEEDED: CURRENT: 26 SPACES 2021: 11 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 16 SPACES 2021: 7 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	63 (UNDER CONSTRUCTION)	ADDITIONAL NEEDED: CURRENT: 3 SPACES 2021: 19 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	11,080 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	YES	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	100	NONE
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR AVIONICS	NONE NONE
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	RENTAL CAR	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	UNKNOWN NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-5
CENTRAL MAINE REGIONAL AIRPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	3,998'	1,002'
RUNWAY WIDTH	100 FEET	100'	NONE
TAXIWAY LENGTH	FULL PARALLEL	PARTIAL	FULL PARALLEL
APPROACH	PRECISION	VOR/DME, GPS	PRECISION
LIGHTING- RUNWAY	HIRL	MIRL	HIRL
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON NONE LIGHTED WIND CONE REILS NONE	NONE SEGMENTED CIRCLE NONE NONE VGSI (VASIS/PAPIS)
WEATHER	ASOS OR AWOS	NONE	ASOS OR AWOS
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	54	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 7 SPACES 2021: 1 SPACE
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	28	ADDITIONAL NEEDED: CURRENT: NONE 2021: 5 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	2,000 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	20	ADDITIONAL NEEDED: CURRENT: 39 SPACES 2021: 10 SPACES
SERVICES			
FBO	FULL SERVICE	PART-TIME	FULL SERVICE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	NONE 100LL	JET A NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	VENDING	FULL SERVICE RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	NONE	ON-SITE RENTAL CAR
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-6
HOULTON INTERNATIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	5,001'	NONE
RUNWAY WIDTH	100 FEET	150'	NONE
TAXIWAY LENGTH	FULL PARALLEL	TAXILANES	FULL PARALLEL
APPROACH	PRECISION	VOR, GPS	GPS/PRECISION
LIGHTING- RUNWAY	HIRL	MIRL	HIRL
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS, VASIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	ASOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	40	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	11	NONE
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	16	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: 2 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	1,400 SQ. FT.	+ 600 SQ. FT
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	15	ADDITIONAL NEEDED: CURRENT: 14 SPACES 2021: 5 SPACES
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NONE NONE NONE FLIGHT PLANNING
FOOD	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	RENTAL CAR	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-7
MACHIAS VALLEY
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	A-I	B OR C CATEGORY AIRCRAFT
RUNWAY LENGTH	5,000 FEET OR GREATER	2,909'	2,091'
RUNWAY WIDTH	100 FEET	60'	40'
TAXIWAY LENGTH	FULL PARALLEL	TAXILANE	FULL PARALLEL
APPROACH	PRECISION	NDB OR GPS	GPS/PRECISION
LIGHTING- RUNWAY	HIRL	MIRL	HIRL
LIGHTING- TAXIWAY	MITL	NONE	MITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS NONE	NONE NONE NONE NONE VGSI (VASIS/PAPIS)
WEATHER	ASOS OR AWOS	NONE	ASOS OR AWOS
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	0	ADDITIONAL NEEDED: CURRENT: 6 SPACES 2021: 1 SPACE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: 1 SPACE
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	9	NONE
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	625 SQ. FT.	+ 1,375 SQ. FT.
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	10	NONE
SERVICES			
FBO	FULL SERVICE	NONE	FULL SERVICE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	NONE NONE	AIRCRAFT REPAIR AVIONICS
FUEL	JET A 100LL	NONE NONE	JET A 100LL
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING
FOOD	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	NONE	ON SITE CAR RENTAL
OTHERS	SNOW REMOVAL DEICING	NONE NONE	SNOW REMOVAL DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-8
MILLINOCKET MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	4,713'	287'
RUNWAY WIDTH	100 FEET	100'	NONE
TAXIWAY LENGTH	FULL PARALLEL	TAXILANES	FULL PARALLEL
APPROACH	PRECISION	LOC	GPS/PRECISION
LIGHTING- RUNWAY	HIRL	MIRL	HIRL
LIGHTING- TAXIWAY	MITL	NONE	MITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON NONE LIGHTED WIND CONE REILS VASIS	NONE SEGMENTED CIRCLE NONE NONE NONE
WEATHER	ASOS OR AWOS	AWOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	8	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: 2 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: NONE
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	13	NONE
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	780 SQ. FT.	+ 1,220 SQ. FT.
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	7	ADDITIONAL NEEDED: CURRENT: 6 SPACES 2021: 3 SPACES
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	NONE NONE	AIRCRAFT REPAIR AVIONICS
FUEL	JET A 100LL	JET A 100 LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	PHONE NONE NONE FLIGHT PLANNING
FOOD	FULL SERVICE RESTAURANT	SNACKS AVAILABLE	FULL SERVICE RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	NONE	ON-SITE RENTAL CAR
OTHERS	SNOW REMOVAL DEICING	NONE NONE	SNOW REMOVAL DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-9
NORTHERN AROOSTOOK REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	A-I	B OR C CATEGORY AIRCRAFT
RUNWAY LENGTH	5,000 FEET OR GREATER	4,601'	399'
RUNWAY WIDTH	100 FEET	75'	25'
TAXIWAY LENGTH	FULL PARALLEL	TAXILANE	FULL PARALLEL
APPROACH	PRECISION	NDB	PRECISION
LIGHTING- RUNWAY	HIRL	MIRL	HIRL
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	ASOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	8	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 1 SPACE 2021: NONE
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	8	NONE
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	1,250 SQ. FT.	ADD AT LEAST 750 SQ. FT.
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	PART OF HANGAR	NEW BUILDING NEEDED
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	30	NONE
SERVICES			
FBO	FULL SERVICE	LIMITED SERVICE	FULL SERVICE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE LAPTOP HOOKUPS	NONE NONE NONE ADD COMPUTER
FOOD	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	RENTAL CAR	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	UNKNOWN BROKEN NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-10
NORTHERN MAINE REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	C-III	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	7,440'	NONE
RUNWAY WIDTH	100 FEET	150'	NONE
TAXIWAY LENGTH	FULL PARALLEL	PARTIAL PARALLEL	FULL PARALLEL
APPROACH	PRECISION	PRECISION	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	NONE	MITL
VISUAL AIDS	ROTATING BEACON	ROTATING BEACON	NONE
	SEGMENTED CIRCLE	SEGMENTED CIRCLE	NONE
	LIGHTED WIND CONE	LIGHTED WIND CONE	NONE
	REILS	REILS	NONE
	VGSI (VASIS/PAPIS)	VASIS	NONE/PAPI ON SECONDARY RUNWAY
WEATHER	ASOS OR AWOS	ASOS, AWOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	18	ADDITIONAL NEEDED: CURRENT: NONE 2021: 3 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 1 SPACE 2021: NONE
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	29	NONE
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	3,390 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	10,000 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	12	ADDITIONAL NEEDED: CURRENT: 11 SPACES 2021: 4 SPACES
SERVICES			
FBO	FULL SERVICE	LIMITED SERVICE	FULL SERVICE
MAINTENANCE	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
	AVIONICS	-	AVIONICS
FUEL	JET A	JET A	NONE
	100LL	100LL	NONE
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	RESTROOMS	NONE
	PILOT LOUNGE	PILOT LOUNGE	NONE
	FLIGHT PLANNING	FLIGHT PLANNING	NONE
FOOD	FULL SERVICE RESTAURANT	RESTAURANT	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	CAR RENTAL	NONE
OTHERS	SNOW REMOVAL	SNOW REMOVAL	NONE
	DEICING	DEICING	NONE
SECURITY	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
	CONTROLLED ACCESS	NONE	CONTROLLED ACCESS
	NIGHT GUARD	NONE	NIGHT GUARD

TABLE 9-11
PORTLAND INTERNATIONAL JETPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	C-III	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	7,200'	NONE
RUNWAY WIDTH	100 FEET	150'	NONE
TAXIWAY LENGTH	FULL PARALLEL	FULL PARALLEL	NONE
APPROACH	PRECISION	PRECISION (ILS)	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS/PAPIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	ASOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	17	ADDITIONAL NEEDED: CURRENT: 25 SPACES 2021: 22 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 27 SPACES 2021: 12 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	60	ADDITIONAL NEEDED: CURRENT: 7 SPACES 2021: 33 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	5,000 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	35,165 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	148	NONE
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR AVIONICS	NONE NONE
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	RESTAURANT	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	CAR RENTAL	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE

TABLE 9-12
KNOX COUNTY REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	5,007'	NONE
RUNWAY WIDTH	100 FEET	100'	NONE
TAXIWAY LENGTH	FULL PARALLEL	TAXILANE	FULL PARALLEL (UNDERWAY)
APPROACH	PRECISION	ILS	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	AWOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	53	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	6	ADDITIONAL NEEDED: CURRENT: 13 SPACES 2021: 9 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	61	ADDITIONAL NEEDED: CURRENT: NONE 2021: 11 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	4,000 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	YES	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	105	NONE
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	VENDING ONLY	RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	RENTAL CAR	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	ONLY ALONG ROADS CONTROLLED ACCESS ROVING PATROL	FULL PERIMETER FENCING NONE NIGHT GUARD

TABLE 9-13
SANFORD REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	6,000'	NONE
RUNWAY WIDTH	100 FEET	150'	NONE
TAXIWAY LENGTH	FULL PARALLEL	PARTIAL ON PRIMARY	FULL PARALLEL
APPROACH	PRECISION	PRECISION (ILS)	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND SOCK REILS VASIS, PAPIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	AWOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	56	ADDITIONAL NEEDED: CURRENT: NONE 2021: 4 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 17 SPACES 2021: 8 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	20	ADDITIONAL NEEDED: CURRENT: 31 SPACES 2021: 19 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	17,050 SQ. FT. (INC. FBOS)	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	3,000 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	60 PAVED + 40 OVERFLOW	NONE
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	JET A 100 LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	RESTAURANT	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	COORDINATE WITH FBO	ON-SITE RENTAL CAR
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	UNKNOWN CONTROLLED ACCESS NONE	FULL PERIMETER FENCING NONE NIGHT GUARD

TABLE 9-14
WATERVILLE ROBERT LAFLEUR
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	C-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	5,500'	NONE
RUNWAY WIDTH	100 FEET	100	NONE
TAXIWAY LENGTH	FULL PARALLEL	FULL PARALLEL	NONE
APPROACH	PRECISION	PRECISION (ILS)	NONE
LIGHTING- RUNWAY	HIRL	HIRL	NONE
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS, VASIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	AWOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	22	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 5 SPACES 2021: 1 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	38	NONE
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	16,400 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	3,200 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	37	NONE
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	NONE NONE	AIRCRAFT REPAIR AVIONICS
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	RESTAURANT	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	CAR RENTAL	NONE
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	FULL PERIMETER FENCING CONTROLLED ACCESS 24 HR. ON CALL	NONE NONE NIGHT GUARD

TABLE 9-15
WISCASSET
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL I

	LEVEL I OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR C CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	5,000 FEET OR GREATER	3,397'	1,603'
RUNWAY WIDTH	100 FEET	75'	25'
TAXIWAY LENGTH	FULL PARALLEL	TAXILANE	FULL PARALLEL
APPROACH	PRECISION	GPS, CIRCLING	PRECISION
LIGHTING- RUNWAY	HIRL	MIRL	HIRL
LIGHTING- TAXIWAY	MITL	MITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS	NONE NONE NONE NONE NONE
WEATHER	ASOS OR AWOS	ASOS	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	75% OF BASED FLEET	31	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: 5 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 9 SPACES 2021: 2 SPACES
APRON TIEDOWN SPACES	25% OF BASED; 50% OF TRANSIENT	33	ADDITIONAL NEEDED: CURRENT: NONE 2021: 1 SPACE
GA TERMINAL/ADMINISTRATION BUILDING	2,000 SQUARE FEET MINIMUM	4,900 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	3,200 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE NUMBER OF BASED AIRCRAFT	24	ADDITIONAL NEEDED: CURRENT: 19 SPACES 2021: 7 SPACES
SERVICES			
FBO	FULL SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
FUEL	JET A 100LL	JET A 100LL	NONE NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
GROUND TRANSPORTATION SERVICES	ON-SITE RENTAL CAR	NONE	ON-SITE RENTAL CAR
OTHERS	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
SECURITY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	UNKNOWN NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-16
DEWITT FIELD/ OLD TOWN MUNICIPAL AIRPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL II

	LEVEL II OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	> 3,500 FEET AND < 5,000 FEET	3,999'	NONE
RUNWAY WIDTH	75 FEET	100'	NONE
TAXIWAY LENGTH	PARTIAL PARALLEL	-	PARTIAL PARALLEL
APPROACH	NON-PRECISION	NBD	NONE
LIGHTING- RUNWAY	MIRL	MIRL	NONE
LIGHTING- TAXIWAY	LITL	NONE	LITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON NONE LIGHTED WIND CONE REILS VASIS	NONE SEGMENTED CIRCLE NONE NONE NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	17	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 1 SPACE 2021: NONE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	35	NONE
GA TERMINAL/ADMIN. BUILDING	1,000 SQUARE FEET	5,000 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	YES	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE 75% OF BASED AIRCRAFT	90	NONE
SERVICES			
FBO	FULL OR LIMITED SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
FUEL	100LL	100 LL, JET A	NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NONE NONE NONE FLIGHT PLANNING
FOOD	VENDING	VENDING	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE COURTESY CAR	ON-SITE COURTESY CAR	NONE
SECURITY	FULL PERIMETER FENCING	YES	NONE

TABLE 9-17
DEXTER REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL II

	LEVEL II OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B CATEGORY AIRCRAFT	A-I	B CATEGORY AIRCRAFT
RUNWAY LENGTH	> 3,500 FEET AND < 5,000 FEET	3,000'	501'
RUNWAY WIDTH	75 FEET	150'	NONE
TAXIWAY LENGTH	PARTIAL PARALLEL	NONE	PARTIAL PARALLEL
APPROACH	NON-PRECISION	GPS, CIRCLING	NONE
LIGHTING- RUNWAY	MIRL	LIRL	MIRL
LIGHTING- TAXIWAY	LITL	NONE	LITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE NONE NONE	NONE NONE NONE REILS VGSI (VASIS/PAPIS)
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	17	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: 1 SPACE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	6	ADDITIONAL NEEDED: CURRENT: 5 SPACES 2021: 3 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	1,000 SQUARE FEET	13,848 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
GENERAL AVIATION AUTO PARKING	EQUAL TO THE 75% OF BASED AIRCRAFT	18	NONE
SERVICES			
FBO	FULL OR LIMITED SERVICE	NONE	FULL OR LIMITED SERVICE
MAINTENANCE	AIRCRAFT REPAIR	NONE	AIRCRAFT REPAIR
FUEL	100LL	NONE	100LL
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	VENDING	NONE	VENDING
GROUND TRANSPORTATION SERVICES	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-18
EASTERN SLOPES REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL II

	LEVEL II OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	> 3,500 FEET AND < 5,000 FEET	4,200'	NONE
RUNWAY WIDTH	75 FEET	75'	NONE
TAXIWAY LENGTH	PARTIAL PARALLEL	PARTIAL PARALLEL	NONE
APPROACH	NON-PRECISION	NDB, GPS, CIRCLING	NONE
LIGHTING- RUNWAY	MIRL	HIRL	NONE
LIGHTING- TAXIWAY	LITL	HITL	NONE
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE NONE REILS VASIS	NONE NONE LIGHTED WIND CONE NONE NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	32	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	5	ADDITIONAL NEEDED: CURRENT: 5 SPACES 2021: 4 SPACES
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	64	NONE
GA TERMINAL/ADMINISTRATION BUILDING	1,000 SQUARE FEET	1,125 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	YES	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE 75% OF BASED AIRCRAFT	30	NONE
SERVICES			
FBO	FULL OR LIMITED SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
FUEL	100LL	100LL	
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NONE NONE NONE FLIGHT PLANNING
FOOD	VENDING	VENDING	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE COURTESY CAR	RENTAL CAR BY APPT.	NONE
SECURITY	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING

TABLE 9-19
GREENVILLE MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL II

	LEVEL II OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	> 3,500 FEET AND < 5,000 FEET	3,999'	NONE
RUNWAY WIDTH	75 FEET	75'	NONE
TAXIWAY LENGTH	PARTIAL PARALLEL	ANGLED TAXIWAY	PARTIAL PARALLEL
APPROACH	NON-PRECISION	GPS, CIRCLING	NONE
LIGHTING- RUNWAY	MIRL	MIRL	NONE
LIGHTING- TAXIWAY	LITL	NONE	LITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS, PAPIS	NONE NONE NONE NONE NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	13	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 4 SPACES 2021: NONE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	20	NONE
GA TERMINAL/ADMINISTRATION BUILDING	1,000 SQUARE FEET	NONE	1,000 SQUARE FEET
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE 75% OF BASED AIRCRAFT	20	NONE
SERVICES			
FBO	FULL OR LIMITED SERVICE	FUEL, REPAIR, INSPECTIONS, BUY/SELL	NONE
MAINTENANCE	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
FUEL	100LL	100LL	NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE NONE NONE NONE	NONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING
FOOD	VENDING	NONE	VENDING
GROUND TRANSPORTATION SERVICES	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-20
PITTSFIELD MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL II

	LEVEL II OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B CATEGORY AIRCRAFT	B-II	NONE
RUNWAY LENGTH	> 3,500 FEET AND < 5,000 FEET	4,001'	NONE
RUNWAY WIDTH	75 FEET	75'	NONE
TAXIWAY LENGTH	PARTIAL PARALLEL	NONE	PARTIAL PARALLEL
APPROACH	NON-PRECISION	GPS, CIRCLING	NONE
LIGHTING- RUNWAY	MIRL	MIRL	NONE
LIGHTING- TAXIWAY	LITL	NONE	LITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE WIND CONE REILS VASIS	NONE NONE NONE NONE NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	20	ADDITIONAL NEEDED: CURRENT: NONE 2021: 7 SPACES
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	1	ADDITIONAL NEEDED: CURRENT: 4 SPACES 2021: 2 SPACES
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	10	ADDITIONAL NEEDED: CURRENT: 14 SPACES 2021: 10 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	1,000 SQUARE FEET	6,400 SQ. FT.	NONE
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	4,800 SQ. FT.	NONE
GENERAL AVIATION AUTO PARKING	EQUAL TO THE 75% OF BASED AIRCRAFT	30	ADDITIONAL NEEDED: CURRENT: NONE 2021: 10 SPACES
SERVICES			
FBO	FULL OR LIMITED SERVICE	FULL SERVICE	NONE
MAINTENANCE	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
FUEL	100LL	100LL, JET A	NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	VENDING	VENDING	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE COURTESY CAR	ON-SITE COURTESY CAR	NONE
SECURITY	FULL PERIMETER FENCING	GATE ONLY	FULL PERIMETER FENCING

TABLE 9-21
PRINCETON MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL II

	LEVEL II OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	> 3,500 FEET AND < 5,000 FEET	4,004'	NONE
RUNWAY WIDTH	75 FEET	100'	NONE
TAXIWAY LENGTH	PARTIAL PARALLEL	TAXILANE	PARTIAL PARALLEL
APPROACH	NON-PRECISION	GPS, CIRCLING	NONE
LIGHTING- RUNWAY	MIRL	MIRL	NONE
LIGHTING- TAXIWAY	LITL	NONE	LITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE NONE VASIS	NONE NONE NONE REILS NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	8	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 1 SPACE 2021: 1 SPACE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	4	ADDITIONAL NEEDED: CURRENT: 1 SPACE 2021: 3 SPACES
GA TERMINAL/ADMINISTRATION BUILDING	1,000 SQUARE FEET	800 SQ. FT.	+ 200 SQ. FT.
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
GENERAL AVIATION AUTO PARKING	EQUAL TO THE 75% OF BASED AIRCRAFT	5	ADDITIONAL NEEDED: CURRENT: 1 SPACES 2021: 3 SPACES
SERVICES			
FBO	FULL OR LIMITED SERVICE	NONE	FULL OR LIMITED SERVICE
MAINTENANCE	AIRCRAFT REPAIR	NONE	AIRCRAFT REPAIR
FUEL	100LL	NONE	100LL
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FOOD	VENDING	NONE	VENDING
GROUND TRANSPORTATION SERVICES	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-22
RANGELEY MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL II

	LEVEL II OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	> 3,500 FEET AND < 5,000 FEET	3,200'	301'
RUNWAY WIDTH	75 FEET	75'	NONE
TAXIWAY LENGTH	PARTIAL PARALLEL	TAXILANE	PARTIAL PARALLEL
APPROACH	NON-PRECISION	NDB CIRCLING	NONE
LIGHTING- RUNWAY	MIRL	MIRL	NONE
LIGHTING- TAXIWAY	LITL	NONE	LITL
VISUAL AIDS	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS NONE	NONE NONE NONE NONE VGSI (VASIS/PAPIS)
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	9	NONE
HANGARS-TRANSIENT AIRCRAFT SPACES	25% OF OVERNIGHT AIRCRAFT	0	ADDITIONAL NEEDED: CURRENT: 3 SPACES 2021: NONE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	14	NONE
GA TERMINAL/ADMINISTRATION BUILDING	1,000 SQUARE FEET	150 SQ. FT.	+ 850 SQ. FT.
AIRPORT MAINTENANCE BUILDING	AIRPORT MAINTENANCE BUILDING	**NONE**	AIRPORT MAINTENANCE BUILDING
GENERAL AVIATION AUTO PARKING	EQUAL TO THE 75% OF BASED AIRCRAFT	12	NONE
SERVICES			
FBO	FULL OR LIMITED SERVICE	NONE	FULL OR LIMITED SERVICE
MAINTENANCE	AIRCRAFT REPAIR	AIRCRAFT SERVICE	NONE
FUEL	100LL	100 LL, JET A	NONE
TERMINAL FACILITIES	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NONE NONE NONE FLIGHT PLANNING
FOOD	VENDING	VENDING	NONE
GROUND TRANSPORTATION SERVICES	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-23
BIDDEFORD MUNICIPAL AIRPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	3,011'	NONE
RUNWAY WIDTH	60 FEET	75'	NONE
TAXIWAY LENGTH	TURNAROUND	NONE	TURNAROUND
APPROACH	VISUAL	GPS	NONE
LIGHTING- RUNWAY	LIRL	MIRL	NONE
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
VISUAL AIDS	LIGHTED WIND CONE	LIGHTED WIND CONE	NONE
	SEGMENTED CIRCLE	NONE	SEGMENTED CIRCLE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	20	ADDITIONAL NEEDED: CURRENT: 1 SPACE 2021: 4 SPACES
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	20	ADDITIONAL NEEDED: CURRENT: 7 SPACES 2021: 5 SPACES
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	650 SQ. FT.	NONE
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	200	NONE
SERVICES			
FBO	LIMITED SERVICE	LIMITED	NONE
FUEL	100LL	100LL	NONE
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	RESTROOMS	NONE
FOOD	VENDING SERVICE	VENDING	NONE
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-24
BELFAST MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	4,002	NONE
RUNWAY WIDTH	60 FEET	100	NONE
TAXIWAY LENGTH	TURNAROUND	TAXILANE	TURNAROUND
APPROACH	VISUAL	GPS, NDB	NONE
LIGHTING- RUNWAY	LIRL	MIRL	NONE
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
VISUAL AIDS	LIGHTED WIND CONE	LIGHTED WIND CONE	NONE
	SEGMENTED CIRCLE	SEGMENTED CIRCLE	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	15	ADDITIONAL NEEDED: CURRENT: NONE 2021: 4 SPACES
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	9	ADDITIONAL NEEDED: CURRENT: 6 SPACES 2021: 9 SPACES
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	600 SQ. FT.	NONE
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	15	ADDITIONAL NEEDED: CURRENT: 6 SPACES 2021: 4 SPACES
SERVICES			
FBO	LIMITED SERVICE	LIMITED SERVICE	NONE
FUEL	100LL	100LL	NONE
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	RESTROOMS	NONE
FOOD	VENDING SERVICE	VENDING SERVICE	NONE
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-25
BETHEL REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	3,818'	NONE
RUNWAY WIDTH	60 FEET	60'	NONE
TAXIWAY LENGTH	TURNAROUND	TURNAROUND	NONE
APPROACH	VISUAL	VISUAL	NONE
LIGHTING- RUNWAY	LIRL	LIRL	NONE
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
VISUAL AIDS	LIGHTED WIND CONE	NONE	LIGHTED WIND CONE
	SEGMENTED CIRCLE	NONE	SEGMENTED CIRCLE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	7	NONE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	4	ADDITIONAL NEEDED: CURRENT: 3 SPACES 2021: 1 SPACE
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	200 SQ. FT.	+ 300 SQ. FT.
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	8	NONE
SERVICES			
FBO	LIMITED SERVICE	NONE	LIMITED SERVICE
FUEL	100LL	100LL	NONE
TERMINAL FACILITIES	PHONE		PHONE
	RESTROOMS	RESTROOMS	NONE
FOOD	VENDING SERVICE	VENDING SERVICE	NONE
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-26
SUGARLOAF REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	2,800	NONE
RUNWAY WIDTH	60 FEET	75	NONE
TAXIWAY LENGTH	TURNAROUND	TAXILANE	TURNAROUND
APPROACH	VISUAL	VISUAL	NONE
LIGHTING- RUNWAY	LIRL	NONE	LIRL
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
VISUAL AIDS	LIGHTED WIND CONE	LIGHTED WIND CONE	NONE
	SEGMENTED CIRCLE	SEGMENTED CIRCLE	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	9	NONE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	7	NONE
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	NONE	500 SQ FT
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	10	NONE
SERVICES			
FBO	LIMITED SERVICE	NONE	LIMITED SERVICE
FUEL	100LL	NONE	100LL
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	NONE	RESTROOMS
FOOD	VENDING SERVICE	NONE	VENDING SERVICE
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-27
EASTPORT MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	4,000'	NONE
RUNWAY WIDTH	60 FEET	75'	NONE
TAXIWAY LENGTH	TURNAROUND	TURNAROUND	NONE
APPROACH	VISUAL	GPS, NDB, CIRCLING	NONE
LIGHTING- RUNWAY	LIRL	MIRL	NONE
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	TAXIWAY REFLECTORS	NONE
VISUAL AIDS	LIGHTED WIND CONE	LIGHTED WIND CONE	NONE
	SEGMENTED CIRCLE	SEGMENTED CIRCLE	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	6	NONE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	10	NONE
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	400 SQ. FT.	+ 100 SQ. FT.
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	10 (CAN HAVE 30)	NONE
SERVICES			
FBO	LIMITED SERVICE	LIMITED SERVICE	NONE
FUEL	100LL	100LL	NONE
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	RESTROOMS	NONE
FOOD	VENDING SERVICE	NONE	VENDING SERVICE
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-28
NEWTON FIELD
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	2,900'	NONE
RUNWAY WIDTH	60 FEET	60'	NONE
TAXIWAY LENGTH	TURNAROUND	TAXILANE	TURNAROUND
APPROACH	VISUAL	VISUAL	NONE
LIGHTING- RUNWAY	LIRL	MIRL	NONE
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	MITL	NONE
VISUAL AIDS	LIGHTED WIND CONE	LIGHTED WIND SOCK	NONE
	SEGMENTED CIRCLE	SEGMENTED CIRCLE	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	3	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: 1 SPACE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	8	NONE
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	640 SQ. FT.	NONE
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	10	NONE
SERVICES			
FBO	LIMITED SERVICE	NONE	LIMITED SERVICE
FUEL	100LL	100LL	NONE
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	RESTROOMS	NONE
FOOD	VENDING SERVICE	VENDING SERVICE	NONE
SECURITY	FULL PERIMETER FENCING	UNKNOWN	FULL PERIMETER FENCING

TABLE 9-29
LINCOLN REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	2,804	NONE
RUNWAY WIDTH	60 FEET	75	NONE
TAXIWAY LENGTH	TURNAROUND	NONE	TURNAROUND
APPROACH	VISUAL	NDB, CIRCLING	NONE
LIGHTING- RUNWAY	LIRL	MIRL	NONE
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
VISUAL AIDS	LIGHTED WIND CONE	LIGHTED WIND CONE	NONE
	SEGMENTED CIRCLE	SEGMENTED CIRCLE	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	26	NONE
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	12	ADDITIONAL NEEDED: CURRENT: 8 SPACES 2021: 5 SPACES
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	NONE	500 SQ. FT. TERMINAL
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	80	NONE
SERVICES			
FBO	LIMITED SERVICE	LIMITED	NONE
FUEL	100LL	100LL (PRIVATE)	NONE
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	NONE	RESTROOMS
FOOD	VENDING SERVICE	NONE	VENDING SERVICE
SECURITY	FULL PERIMETER FENCING	SOME FENCING	FULL PERIMETER FENCING

TABLE 9-30
OXFORD COUNTY REGIONAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL III

	LEVEL III OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	B OR A CATEGORY AIRCRAFT	B-I	NONE
RUNWAY LENGTH	2,500 TO 3,500 FEET	3,000'	NONE
RUNWAY WIDTH	60 FEET	75'	NONE
TAXIWAY LENGTH	TURNAROUND	TAXILANE	TURNAROUND
APPROACH	VISUAL	GPS, CIRCLING	NONE
LIGHTING- RUNWAY	LIRL	MIRL	NONE
LIGHTING- TAXIWAY	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
VISUAL AIDS	LIGHTED WIND CONE	LIGHTED WIND CONE	NONE
	SEGMENTED CIRCLE	SEGMENTED CIRCLE	NONE
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	50% OF BASED FLEET	3	ADDITIONAL NEEDED: CURRENT: 2 SPACES 2021: 2 SPACES
APRON TIEDOWN SPACES	50% OF BASED; 25% OF TRANSIENT	39	NONE
TERMINAL/ADMINISTRATION BUILDING	500 SQUARE FEET	1,000 SQ. FT.	NONE
AUTO PARKING SPACES	EQUAL TO 50% OF THE NUMBER OF BASED AC	39	NONE
SERVICES			
FBO	LIMITED SERVICE	FULL SERVICE	NONE
FUEL	100LL	100LL, JET A	NONE
TERMINAL FACILITIES	PHONE	PHONE	NONE
	RESTROOMS	RESTROOMS	NONE
FOOD	VENDING SERVICE	VENDING SERVICES	NONE
SECURITY	FULL PERIMETER FENCING	FULL PERIMETER FENCING	NONE

TABLE 9-31
ISLESBORO AIRPORT
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL IV

	LEVEL IV OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 FEET OR LESS	2,400'	NONE
RUNWAY WIDTH	60 FEET OR LESS	50'	NONE
APPROACH	VISUAL	VISUAL	NONE
LIGHTING	REFLECTORS	NONE	REFLECTORS
VISUAL AIDS	WIND SOCK	WIND SOCK	NONE
SERVICES			
TERMINAL FACILITIES	PHONE (RECOMMENDED)	NONE	PHONE
	RESTROOMS (OPTIONAL)	NONE	RESTROOMS
SECURITY	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS

TABLE 9-32
DEBLOIS FLIGHT STRIP
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL IV

	LEVEL IV OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 FEET OR LESS	4,000'	NONE
RUNWAY WIDTH	60 FEET OR LESS	150'	NONE
APPROACH	VISUAL	VISUAL	NONE
LIGHTING	REFLECTORS	NONE	REFLECTORS
VISUAL AIDS	WIND SOCK	WIND SOCK	NONE
SERVICES			
TERMINAL FACILITIES	PHONE (RECOMMENDED)	NONE	PHONE
	RESTROOMS (OPTIONAL)	NONE	RESTROOMS
SECURITY	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS

TABLE 9-33
CHARLES A CHASE JR. MEMORIAL FIELD
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL IV

	LEVEL IV OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 FEET OR LESS	2,400'	NONE
RUNWAY WIDTH	60 FEET OR LESS	90'	NONE
APPROACH	VISUAL	VISUAL	NONE
LIGHTING	REFLECTORS	NONE	REFLECTORS
VISUAL AIDS	WIND SOCK	WIND SOCK	NONE
SERVICES			
TERMINAL FACILITIES	PHONE (RECOMMENDED)	PHONE	NONE
	RESTROOMS (OPTIONAL)	RESTROOMS	NONE
SECURITY	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS

TABLE 9-34
CARIBOU MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL IV

	LEVEL IV OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	A CATEGORY AIRCRAFT	A-II	NONE
RUNWAY LENGTH	2,500 FEET OR LESS	4,003	NONE
RUNWAY WIDTH	60 FEET OR LESS	100	NONE
APPROACH	VISUAL	GPS, CIRCLING	NONE
LIGHTING	REFLECTORS	MIRL	NONE
VISUAL AIDS	WIND SOCK	WIND CONE	NONE
SERVICES			
TERMINAL FACILITIES	PHONE (RECOMMENDED)	PHONE	NONE
	RESTROOMS (OPTIONAL)	RESTROOMS	NONE
SECURITY	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS

TABLE 9-35
LUBEC MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL IV

	LEVEL IV OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 FEET OR LESS	2,032'	NONE
RUNWAY WIDTH	60 FEET OR LESS	100'	NONE
APPROACH	VISUAL	CIRCLING	NONE
LIGHTING	REFLECTORS	LIRL	NONE
VISUAL AIDS	WIND SOCK	WIND SOCK	NONE
SERVICES			
TERMINAL FACILITIES	PHONE (RECOMMENDED)	NONE	PHONE
	RESTROOMS (OPTIONAL)	NONE	RESTROOMS
SECURITY	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS

TABLE 9-36
STONINGTON MUNICIPAL
FACILITY AND SERVICE OBJECTIVES FOR RECOMMENDED LEVEL IV

	LEVEL IV OBJECTIVE	EXISTING (ON FILE)	SUGGESTED IMPROVEMENTS
AIRSIDE FACILITIES			
AIRCRAFT DESIGN GROUP	A CATEGORY AIRCRAFT	A-I	NONE
RUNWAY LENGTH	2,500 FEET OR LESS	2100'	NONE
RUNWAY WIDTH	60 FEET OR LESS	60'	NONE
APPROACH	VISUAL	VISUAL	NONE
LIGHTING	REFLECTORS	NONE	REFLECTORS
VISUAL AIDS	WIND SOCK	WIND SOCK	NONE
SERVICES			
TERMINAL FACILITIES	PHONE (RECOMMENDED)	NONE	PHONE
	RESTROOMS (OPTIONAL)	RESTROOMS	NONE
SECURITY	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS

TABLE 9-37
MAINE FACILITY AND SERVICE OBJECTIVES - AIRCRAFT DESIGN GROUP

AIRPORT LEVEL				
AIRPORT NAME		**OBJECTIVE**	**CURRENT**	**NEEDED**
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	B OR C CATEGORY	B-I	NONE
AUGUSTA	AUGUSTA STATE	B OR C CATEGORY	C-II	NONE
BANGOR	BANGOR INTERNATIONAL	B OR C CATEGORY	C-III	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	B OR C CATEGORY	C-II	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	B OR C CATEGORY	A-I	B OR C CATEGORY
HOULTON	HOULTON INTERNATIONAL	B OR C CATEGORY	B-II	NONE
MACHIAS	MACHIAS VALLEY	B OR C CATEGORY	A-I	B OR C CATEGORY
MILLINOCKET	MILLINOCKET MUNICIPAL	B OR C CATEGORY	B-II	NONE
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	B OR C CATEGORY	B-II	NONE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	B OR C CATEGORY	C-III	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	B OR C CATEGORY	C-III	NONE
ROCKLAND	KNOX COUNTY REGIONAL	B OR C CATEGORY	B-II	NONE
SANFORD	SANFORD REGIONAL	B OR C CATEGORY	B-II	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	B OR C CATEGORY	C-II	NONE
WISCASSET	WISCASSET	B OR C CATEGORY	B-I	NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	B CATEGORY	A-I	B CATEGORY
FRYEBURG	EASTERN SLOPES REGIONAL	B CATEGORY	B-II	NONE
GREENVILLE	GREENVILLE MUNICIPAL	B CATEGORY	B-I	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	B CATEGORY	B-II	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	B CATEGORY	B-II	NONE
PRINCETON	PRINCETON MUNICIPAL	B CATEGORY	B-I	NONE
RANGELEY	RANGELEY MUNICIPAL	B CATEGORY	B-I	NONE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	B OR A CATEGORY	A-I	NONE
BETHEL	BETHEL REGIONAL	B OR A CATEGORY	A-I	NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	B OR A CATEGORY	A-I	NONE
CARRABASSETT	SUGARLOAF REGIONAL	B OR A CATEGORY	A-I	NONE
EASTPORT	EASTPORT MUNICIPAL	B OR A CATEGORY	B-I	NONE
JACKMAN	NEWTON FIELD	B OR A CATEGORY	B-I	NONE
LINCOLN	LINCOLN REGIONAL	B OR A CATEGORY	B-I	NONE
OXFORD	OXFORD COUNTY REGIONAL	B OR A CATEGORY	B-I	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	A CATEGORY	A-II	NONE
DEBLOIS	DEBLOIS FLIGHT STRIP	A CATEGORY	A-I	NONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	A CATEGORY	A-I	NONE
ISLESBORO	ISLESBORO	A CATEGORY	A-I	NONE
LUBEC	LUBEC MUNICIPAL	A CATEGORY	A-I	NONE
STONINGTON	STONINGTON MUNICIPAL	A CATEGORY	A-I	NONE

TABLE 9-38
MAINE FACILITY AND SERVICE OBJECTIVES - RUNWAY LENGTH

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	5,000 FEET OR GREATER	5,000'	NONE
AUGUSTA	AUGUSTA STATE	5,000 FEET OR GREATER	5,001'	NONE
BANGOR	BANGOR INTERNATIONAL	5,000 FEET OR GREATER	11,441'	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	5,000 FEET OR GREATER	5,200'	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	5,000 FEET OR GREATER	4,601'	399'
HOULTON	HOULTON INTERNATIONAL	5,000 FEET OR GREATER	5,001'	NONE
MACHIAS	MACHIAS VALLEY	5,000 FEET OR GREATER	2,909'	2,091'
MILLINOCKET	MILLINOCKET MUNICIPAL	5,000 FEET OR GREATER	4,713'	287'
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	5,000 FEET OR GREATER	3,998'	1,002'
PORTLAND	PORTLAND INTERNATIONAL JETPORT	5,000 FEET OR GREATER	6,800'	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	5,000 FEET OR GREATER	7,440'	NONE
ROCKLAND	KNOX COUNTY REGIONAL	5,000 FEET OR GREATER	5,007'	NONE
SANFORD	SANFORD REGIONAL	5,000 FEET OR GREATER	6,000'	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	5,000 FEET OR GREATER	5,500'	NONE
WISCASSET	WISCASSET	5,000 FEET OR GREATER	3,397	1,603'
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	>3,500 FEET AND < THAN 5,000 FEET	3,000'	501'
FRYEBURG	EASTERN SLOPES REGIONAL	>3,500 FEET AND < THAN 5,000 FEET	4,200'	NONE
GREENVILLE	GREENVILLE MUNICIPAL	>3,500 FEET AND < THAN 5,000 FEET	3,999'	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	>3,500 FEET AND < THAN 5,000 FEET	3,999'	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	>3,500 FEET AND < THAN 5,000 FEET	3,998'	NONE
PRINCETON	PRINCETON MUNICIPAL	>3,500 FEET AND < THAN 5,000 FEET	4,004'	NONE
RANGELEY	RANGELEY MUNICIPAL	>3,500 FEET AND < THAN 5,000 FEET	3,200'	301'
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	2,500 TO 3,500 FEET	4,002'	NONE
BETHEL	BETHEL REGIONAL	2,500 TO 3,500 FEET	3,818	NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	2,500 TO 3,500 FEET	3,011'	NONE
CARRABASSETT	SUGARLOAF REGIONAL	2,500 TO 3,500 FEET	2,800'	NONE
EASTPORT	EASTPORT MUNICIPAL	2,500 TO 3,500 FEET	4,000'	NONE
JACKMAN	NEWTON FIELD	2,500 TO 3,500 FEET	2,900'	NONE
LINCOLN	LINCOLN REGIONAL	2,500 TO 3,500 FEET	2,804'	NONE
OXFORD	OXFORD COUNTY REGIONAL	2,500 TO 3,500 FEET	3,000'	NONE
LEVEL IV				
CARIBOU	CARIBOU MUNICIPAL	2,500 FEET OR LESS	4,003'	NONE
DEBLOIS	DEBLOIS FLIGHT STRIP	2,500 FEET OR LESS	4,000'	NONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	2,500 FEET OR LESS	2,400'	NONE
ISLESBORO	ISLESBORO	2,500 FEET OR LESS	2,400'	NONE
LUBEC	LUBEC MUNICIPAL	2,500 FEET OR LESS	2,032'	NONE
STONINGTON	STONINGTON MUNICIPAL	2,500 FEET OR LESS	2100'	NONE

TABLE 9-39
MAINE FACILITY AND SERVICE OBJECTIVES - RUNWAY WIDTH

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	100 FEET	100'	NONE
AUGUSTA	AUGUSTA STATE	100 FEET	150'	NONE
BANGOR	BANGOR INTERNATIONAL	100 FEET	300'	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	100 FEET	100'	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	100 FEET	75'	25'
HOULTON	HOULTON INTERNATIONAL	100 FEET	150'	NONE
MACHIAS	MACHIAS VALLEY	100 FEET	60'	40’
MILLINOCKET	MILLINOCKET MUNICIPAL	100 FEET	100'	NONE
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	100 FEET	100'	NONE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	100 FEET	150'	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	100 FEET	150'	NONE
ROCKLAND	KNOX COUNTY REGIONAL	100 FEET	100'	NONE
SANFORD	SANFORD REGIONAL	100 FEET	150'	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	100 FEET	100'	NONE
WISCASSET	WISCASSET	100 FEET	75'	25'
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	75 FEET	75'	NONE
FRYEBURG	EASTERN SLOPES REGIONAL	75 FEET	75'	NONE
GREENVILLE	GREENVILLE MUNICIPAL	75 FEET	75'	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	75 FEET	100'	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	75 FEET	150'	NONE
PRINCETON	PRINCETON MUNICIPAL	75 FEET	100'	NONE
RANGELEY	RANGELEY MUNICIPAL	75 FEET	75'	NONE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	60 FEET	100'	NONE
BETHEL	BETHEL REGIONAL	60 FEET	75'	NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	60 FEET	75'	NONE
CARRABASSETT	SUGARLOAF REGIONAL	60 FEET	75'	NONE
EASTPORT	EASTPORT MUNICIPAL	60 FEET	75'	NONE
JACKMAN	NEWTON FIELD	60 FEET	60'	NONE
LINCOLN	LINCOLN REGIONAL	60 FEET	75'	NONE
OXFORD	OXFORD COUNTY REGIONAL	60 FEET	75'	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	60 FEET OR LESS	100'	NONE
DEBLOIS	DEBLOIS FLIGHT STRIP	60 FEET OR LESS	150'	NONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	60 FEET OR LESS	90'	NONE
ISLESBORO	ISLESBORO	60 FEET OR LESS	50'	10'
LUBEC	LUBEC MUNICIPAL	60 FEET OR LESS	100'	NONE
STONINGTON	STONINGTON MUNICIPAL	60 FEET OR LESS	60'	NONE

TABLE 9-40
MAINE FACILITY AND SERVICE OBJECTIVES - TAXIWAY LENGTH

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	FULL PARALLEL	NONE	FULL PARALLEL
AUGUSTA	AUGUSTA STATE	FULL PARALLEL	PARTIAL PARALLEL	FULL PARALLEL
BANGOR	BANGOR INTERNATIONAL	FULL PARALLEL	FULL PARALLEL	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	FULL PARALLEL	FULL PARALLEL	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	FULL PARALLEL	TAXILANE	FULL PARALLEL
HOULTON	HOULTON INTERNATIONAL	FULL PARALLEL	TAXILANE	FULL PARALLEL
MACHIAS	MACHIAS VALLEY	FULL PARALLEL	NONE	FULL PARALLEL
MILLINOCKET	MILLINOCKET MUNICIPAL	FULL PARALLEL	TAXILANE	FULL PARALLEL
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	FULL PARALLEL	PARTIAL PARALLEL	FULL PARALLEL
PORTLAND	PORTLAND INTERNATIONAL JETPORT	FULL PARALLEL	FULL PARALLEL	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	FULL PARALLEL	PARTIAL PARALLEL	FULL PARALLEL
ROCKLAND	KNOX COUNTY REGIONAL	FULL PARALLEL	TAXILANE	FULL PARALLEL (UNDERWAY)
SANFORD	SANFORD REGIONAL	FULL PARALLEL	PARTIAL PARALLEL	FULL PARALLEL
WATERVILLE	WATERVILLE ROBERT LAFLEUR	FULL PARALLEL	FULL PARALLEL	NONE
WISCASSET	WISCASSET	FULL PARALLEL	TAXILANE	FULL PARALLEL
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	PARTIAL PARALLEL	NONE	PARTIAL PARALLEL
FRYEBURG	EASTERN SLOPES REGIONAL	PARTIAL PARALLEL	PARTIAL PARALLEL	NONE
GREENVILLE	GREENVILLE MUNICIPAL	PARTIAL PARALLEL	ANGLED TAXIWAY	PARTIAL PARALLEL
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	PARTIAL PARALLEL	NONE	PARTIAL PARALLEL
PITTSFIELD	PITTSFIELD MUNICIPAL	PARTIAL PARALLEL	NONE	PARTIAL PARALLEL
PRINCETON	PRINCETON MUNICIPAL	PARTIAL PARALLEL	TAXILANE	PARTIAL PARALLEL
RANGELEY	RANGELEY MUNICIPAL	PARTIAL PARALLEL	TAXILANE	PARTIAL PARALLEL
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	TURNAROUNDS	TAXILANE	TURNAROUNDS
BETHEL	BETHEL REGIONAL	TURNAROUNDS	TURNAROUNDS	NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	TURNAROUNDS	NONE	TURNAROUNDS
CARRABASSETT	SUGARLOAF REGIONAL	TURNAROUNDS	TAXILANE	TURNAROUNDS
EASTPORT	EASTPORT MUNICIPAL	TURNAROUNDS	TURNAROUNDS	NONE
JACKMAN	NEWTON FIELD	TURNAROUNDS	TAXILANE	TURNAROUNDS
LINCOLN	LINCOLN REGIONAL	TURNAROUNDS	NONE	TURNAROUNDS
OXFORD	OXFORD COUNTY REGIONAL	TURNAROUNDS	TAXILANE	TURNAROUNDS
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-41
MAINE FACILITY AND SERVICE OBJECTIVES - APPROACH

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	PRECISION	PRECISION (ILS)	NONE
AUGUSTA	AUGUSTA STATE	PRECISION	PRECISION (ILS)	NONE
BANGOR	BANGOR INTERNATIONAL	PRECISION	PRECISION (ILS)	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	PRECISION	PRECISION (ILS)	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	PRECISION	CIRCLING	PRECISION
HOULTON	HOULTON INTERNATIONAL	PRECISION	VOR, GPS	PRECISION
MACHIAS	MACHIAS VALLEY	PRECISION	NDB OR GPS	PRECISION
MILLINOCKET	MILLINOCKET MUNICIPAL	PRECISION	VOR, GPS, NDB, OR CIRCLING	PRECISION
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	PRECISION	VOR, DME, GPS	PRECISION
PORTLAND	PORTLAND INTERNATIONAL JETPORT	PRECISION	PRECISION (ILS)	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	PRECISION	PRECISION	NONE
ROCKLAND	KNOX COUNTY REGIONAL	PRECISION	NON-PRECISION	PRECISION
SANFORD	SANFORD REGIONAL	PRECISION	PRECISION (ILS)	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	PRECISION	PRECISION (ILS)	NONE
WISCASSET	WISCASSET	PRECISION	GPS, CIRCLING	PRECISION
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	NON-PRECISION	GPS, CIRCLING	NONE
FRYEBURG	EASTERN SLOPES REGIONAL	NON-PRECISION	NDB, GPS, CIRCLING	NONE
GREENVILLE	GREENVILLE MUNICIPAL	NON-PRECISION	GPS, CIRCLING	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	NON-PRECISION	NDB	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	NON-PRECISION	GPS, CIRCLING	NONE
PRINCETON	PRINCETON MUNICIPAL	NON-PRECISION	GPS, CIRCLING	NONE
RANGELEY	RANGELEY MUNICIPAL	NON-PRECISION	NDB, CIRCLING	NONE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	VISUAL	GPS, NDB	NONE
BETHEL	BETHEL REGIONAL	VISUAL	VISUAL	NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	VISUAL	GPS	NONE
CARRABASSETT	SUGARLOAF REGIONAL	VISUAL	VISUAL	NONE
EASTPORT	EASTPORT MUNICIPAL	VISUAL	GPS, NDB, CIRCLING	NONE
JACKMAN	NEWTON FIELD	VISUAL	VISUAL	NONE
LINCOLN	LINCOLN REGIONAL	VISUAL	NDB, CIRCLING	NONE
OXFORD	OXFORD COUNTY REGIONAL	VISUAL	GPS, CIRCLING	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	VISUAL	GPS, CIRCLING	NONE
DEBLOIS	DEBLOIS FLIGHT STRIP	VISUAL	VISUAL	NONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	VISUAL	VISUAL	NONE
ISLESBORO	ISLESBORO	VISUAL	VISUAL	NONE
LUBEC	LUBEC MUNICIPAL	VISUAL	CIRCLING	NONE
STONINGTON	STONINGTON MUNICIPAL	VISUAL	VISUAL	NONE

TABLE 9-42
MAINE FACILITY AND SERVICE OBJECTIVES - LIGHTING - RUNWAY

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	HIRL	HIRL	HIRL
AUGUSTA	AUGUSTA STATE	HIRL	HIRL	NONE
BANGOR	BANGOR INTERNATIONAL	HIRL	MIRL	HIRL
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	HIRL	HIRL	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	HIRL	MIRL	HIRL
HOULTON	HOULTON INTERNATIONAL	HIRL	MIRL	HIRL
MACHIAS	MACHIAS VALLEY	HIRL	MIRL	HIRL
MILLINOCKET	MILLINOCKET MUNICIPAL	HIRL	MIRL	HIRL
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	HIRL	MIRL	HIRL
PORTLAND	PORTLAND INTERNATIONAL JETPORT	HIRL	HIRL	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	HIRL	HIRL	NONE
ROCKLAND	KNOX COUNTY REGIONAL	HIRL	HIRL	NONE
SANFORD	SANFORD REGIONAL	HIRL	HIRL	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	HIRL	HIRL	NONE
WISCASSET	WISCASSET	HIRL	MIRL	HIRL
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	MIRL	LIRL	MIRL
FRYEBURG	EASTERN SLOPES REGIONAL	MIRL	HIRL	NONE
GREENVILLE	GREENVILLE MUNICIPAL	MIRL	MIRL	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	MIRL	MIRL	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	MIRL	MIRL	NONE
PRINCETON	PRINCETON MUNICIPAL	MIRL	MIRL	NONE
RANGELEY	RANGELEY MUNICIPAL	MIRL	MIRL	NONE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	LIRL	MIRL	NONE
BETHEL	BETHEL REGIONAL	LIRL	NONE	LIRL
BIDDEFORD	BIDDEFORD MUNICIPAL	LIRL	MIRL	NONE
CARRABASSETT	SUGARLOAF REGIONAL	LIRL	NONE	LIRL
EASTPORT	EASTPORT MUNICIPAL	LIRL	MIRL	NONE
JACKMAN	NEWTON FIELD	LIRL	MIRL	NONE
LINCOLN	LINCOLN REGIONAL	LIRL	MIRL	NONE
OXFORD	OXFORD COUNTY REGIONAL	LIRL	MIRL	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	REFLECTORS	MIRL	NONE
DEBLOIS	DEBLOIS FLIGHT STRIP	REFLECTORS	NONE	NONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	REFLECTORS	NONE	NONE
ISLESBORO	ISLESBORO	REFLECTORS	NONE	NONE
LUBEC	LUBEC MUNICIPAL	REFLECTORS	LIRL	NONE
STONINGTON	STONINGTON MUNICIPAL	REFLECTORS	NONE	REFLECTORS

TABLE 9-43
MAINE FACILITY AND SERVICE OBJECTIVES - TAXIWAY LIGHTING

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	MITL	MITL	NONE
AUGUSTA	AUGUSTA STATE	MITL	MITL	NONE
BANGOR	BANGOR INTERNATIONAL	MITL	MITL	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	MITL	MITL	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	MITL	MITL	NONE
HOULTON	HOULTON INTERNATIONAL	MITL	MITL	NONE
MACHIAS	MACHIAS VALLEY	MITL	NONE	MITL
MILLINOCKET	MILLINOCKET MUNICIPAL	MITL	NONE	MITL
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	MITL	MITL	NONE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	MITL	MITL	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	MITL	NONE	MITL
ROCKLAND	KNOX COUNTY REGIONAL	MITL	NONE	MITL
SANFORD	SANFORD REGIONAL	MITL	MITL	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	MITL	MITL	NONE
WISCASSET	WISCASSET	MITL	MITL	NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	LITL	NONE	LITL
FRYEBURG	EASTERN SLOPES REGIONAL	LITL	HITL	NONE
GREENVILLE	GREENVILLE MUNICIPAL	LITL	NONE	LITL
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	LITL	NONE	LITL
PITTSFIELD	PITTSFIELD MUNICIPAL	LITL	NONE	LITL
PRINCETON	PRINCETON MUNICIPAL	LITL	NONE	LITL
RANGELEY	RANGELEY MUNICIPAL	LITL	NONE	LITL
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
BETHEL	BETHEL REGIONAL	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
BIDDEFORD	BIDDEFORD MUNICIPAL	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
CARRABASSETT	SUGARLOAF REGIONAL	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
EASTPORT	EASTPORT MUNICIPAL	TAXIWAY REFLECTORS	TAXIWAY REFLECTORS	NONE
JACKMAN	NEWTON FIELD	TAXIWAY REFLECTORS	MITL	NONE
LINCOLN	LINCOLN REGIONAL	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
OXFORD	OXFORD COUNTY REGIONAL	TAXIWAY REFLECTORS	NONE	TAXIWAY REFLECTORS
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-44
MAINE FACILITY AND SERVICE OBJECTIVES - VISUAL AIDS

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS (VASIS/PAPIS)	NONE NONE NONE NONE NONE
AUGUSTA	AUGUSTA STATE	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS	NONE NONE NONE NONE NONE
BANGOR	BANGOR INTERNATIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE NONE PAPIS	NONE NONE NONE REILS NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS	NONE NONE NONE NONE NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI (VASIS/PAPIS)	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS	NONE NONE NONE NONE NONE
HOULTON	HOULTON INTERNATIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS/VASIS	NONE NONE NONE NONE NONE
MACHIAS	MACHIAS VALLEY	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS NONE	NONE NONE NONE NONE VGSI
MILLINOCKET	MILLINOCKET MUNICIPAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON NONE LIGHTED WIND CONE REILS VASIS	NONE SEGMENTED CIRCLE NONE NONE NONE
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON NONE LIGHTED WIND CONE REILS NONE	NONE SEGMENTED CIRCLE NONE NONE VGSI
PORTLAND	PORTLAND INTERNATIONAL JETPORT	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS	NONE NONE NONE NONE NONE

TABLE 9-44
MAINE FACILITY AND SERVICE OBJECTIVES - VISUAL AIDS
CONTINUED

PRESQUE ISLE	NORTHERN MAINE REGIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPI	NONE NONE NONE NONE NONE
ROCKLAND	KNOX COUNTY REGIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS	NONE NONE NONE NONE NONE
SANFORD	SANFORD REGIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND SOCK REILS VASIS	NONE NONE NONE NONE NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS/VASIS	NONE NONE NONE NONE NONE
WISCASSET	WISCASSET	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS	NONE NONE NONE NONE NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE NONE NONE	NONE NONE NONE REILS VGSI
FRYEBURG	EASTERN SLOPES REGIONAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE NONE REILS VASIS	NONE NONE LIGHTED WIND CONE NONE NONE
GREENVILLE	GREENVILLE MUNICIPAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS PAPIS/VASIS	NONE NONE NONE NONE NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON NONE LIGHTED WIND CONE REILS PAPIS/VASIS	NONE SEGMENTED CIRCLE NONE NONE NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VASIS	NONE NONE NONE NONE NONE

TABLE 9-44
MAINE FACILITY AND SERVICE OBJECTIVES - VISUAL AIDS
CONTINUED

PRINCETON	PRINCETON MUNICIPAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE NONE VASIS	NONE NONE NONE REILS NONE
RANGELEY	RANGELEY MUNICIPAL	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS VGSI	ROTATING BEACON SEGMENTED CIRCLE LIGHTED WIND CONE REILS NONE	NONE NONE NONE NONE VGSI
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	LIGHTED WIND CONE SEGMENTED CIRCLE	LIGHTED WIND CONE SEGMENTED CIRCLE	NONE NONE
BETHEL	BETHEL REGIONAL	LIGHTED WIND CONE SEGMENTED CIRCLE	NONE NONE	LIGHTED WIND CONE SEGMENTED CIRCLE
BIDDEFORD	BIDDEFORD MUNICIPAL	LIGHTED WIND CONE SEGMENTED CIRCLE	LIGHTED WIND CONE NONE	NONE SEGMENTED CIRCLE
CARRABASSETT	SUGARLOAF REGIONAL	LIGHTED WIND CONE SEGMENTED CIRCLE	LIGHTED WIND CONE SEGMENTED CIRCLE	NONE NONE
EASTPORT	EASTPORT MUNICIPAL	LIGHTED WIND CONE SEGMENTED CIRCLE	LIGHTED WIND CONE SEGMENTED CIRCLE	NONE NONE
JACKMAN	NEWTON FIELD	LIGHTED WIND CONE SEGMENTED CIRCLE	LIGHTED WIND CONE SEGMENTED CIRCLE	NONE NONE
LINCOLN	LINCOLN REGIONAL	LIGHTED WIND CONE SEGMENTED CIRCLE	LIGHTED WIND CONE SEGMENTED CIRCLE	NONE NONE
OXFORD	OXFORD COUNTY REGIONAL	LIGHTED WIND CONE SEGMENTED CIRCLE	LIGHTED WIND CONE SEGMENTED CIRCLE	NONE NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	WIND SOCK	WIND CONE	NONE
DEBLOIS	DEBLOIS FLIGHT STRIP	WIND SOCK	NONE	NONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL	WIND SOCK	WIND SOCK	NONE
ISLESBORO	ISLESBORO	WIND SOCK	WIND SOCK	NONE
LUBEC	LUBEC MUNICIPAL	WIND SOCK	WIND SOCK	NONE
STONINGTON	STONINGTON MUNICIPAL	WIND SOCK	WIND SOCK	NONE

TABLE 9-45
MAINE FACILITY AND SERVICE OBJECTIVES – WEATHER REPORTING

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	ASOS OR AWOS	AWOS	NONE
AUGUSTA	AUGUSTA STATE	ASOS OR AWOS	ASOS	NONE
BANGOR	BANGOR INTERNATIONAL	ASOS OR AWOS	ASOS	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	ASOS OR AWOS	AWOS	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	ASOS OR AWOS	ASOS	NONE
HOULTON	HOULTON INTERNATIONAL	ASOS OR AWOS	ASOS	NONE
MACHIAS	MACHIAS VALLEY	ASOS OR AWOS	NONE	ASOS OR AWOS
MILLINOCKET	MILLINOCKET MUNICIPAL	ASOS OR AWOS	ASOS	NONE
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	ASOS OR AWOS	NONE	ASOS OR AWOS
PORTLAND	PORTLAND INTERNATIONAL JETPORT	ASOS OR AWOS	ASOS	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	ASOS OR AWOS	ASOS, AWOS	NONE
ROCKLAND	KNOX COUNTY REGIONAL	ASOS OR AWOS	AWOS	NONE
SANFORD	SANFORD REGIONAL	ASOS OR AWOS	AWOS	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	ASOS OR AWOS	AWOS	NONE
WISCASSET	WISCASSET	ASOS OR AWOS	ASOS	NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	N/A	N/A	N/A
FRYEBURG	EASTERN SLOPES REGIONAL	N/A	N/A	N/A
GREENVILLE	GREENVILLE MUNICIPAL	N/A	N/A	N/A
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	N/A	N/A	N/A
PITTSFIELD	PITTSFIELD MUNICIPAL	N/A	N/A	N/A
PRINCETON	PRINCETON MUNICIPAL	N/A	N/A	N/A
RANGELEY	RANGELEY MUNICIPAL	N/A	N/A	N/A
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	N/A	N/A	N/A
BETHEL	BETHEL REGIONAL	N/A	N/A	N/A
BIDDEFORD	BIDDEFORD MUNICIPAL	N/A	N/A	N/A
CARRABASSETT	SUGARLOAF REGIONAL	N/A	N/A	N/A
EASTPORT	EASTPORT MUNICIPAL	N/A	N/A	N/A
JACKMAN	NEWTON FIELD	N/A	N/A	N/A
LINCOLN	LINCOLN REGIONAL	N/A	N/A	N/A
OXFORD	OXFORD COUNTY REGIONAL	N/A	N/A	N/A
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-46
MAINE FACILITY AND SERVICE OBJECTIVES - HANGARS - BASED AIRCRAFT SPACES

AIRPORT LEVEL		CURRENT	BASED AIRCRAFT				ADD. SPACES RECOMMENDED				
AIRPORT NAME		SPACES	CURRENT	2006	2011	2021	CURRENT	2006	2011	2021	TOTAL
LEVEL I AIRPORTS - 75% OF BASED AC											
AUBURN	AUBURN/LEWISTON MUNICIPAL	100	71	75	78	83	0	0	0	0	0
AUGUSTA	AUGUSTA STATE	28	46	48	50	54	7	1	2	3	13
BANGOR	BANGOR INTERNATIONAL	25	67	72	75	82	26	3	3	5	37
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	25	44	46	48	52	8	2	1	3	14
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8	8	8	8	8	0	0	0	0	0
HOULTON	HOULTON INTERNATIONAL	40	29	30	32	34	0	0	0	0	0
MACHIAS	MACHIAS VALLEY	0	8	8	9	9	6	0	1	0	7
MILLINOCKET	MILLINOCKET MUNICIPAL	8	13	14	15	16	2	1	1	0	4
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	54	59	62	65	69	0	0	0	0	0
PORTLAND	PORTLAND INTERNATIONAL JETPORT	17	56	67	72	85	25	9	3	10	47
PRESQUE ISLE	NORTHERN MAINE REGIONAL	18	23	24	25	27	0	0	1	2	3
ROCKLAND	KNOX COUNTY REGIONAL	53	55	58	60	65	0	0	0	0	0
SANFORD	SANFORD REGIONAL	56	67	70	73	79	0	0	0	4	4
WATERVILLE	WATERVILLE ROBERT LAFLEUR	22	15	16	17	18	0	0	0	0	0
WISCASSET	WISCASSET	31	43	45	47	50	2	1	2	2	7
LEVEL II AIRPORTS -50% OF BASED AC											
DEXTER	DEXTER REGIONAL	17	17	18	19	21	0	0	0	0	0
FRYEBURG	EASTERN SLOPES REGIONAL	32	27	30	31	35	0	0	0	0	0
GREENVILLE	GREENVILLE MUNICIPAL	13	21	22	23	25	0	0	0	0	0
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	17	22	24	25	27	0	0	0	0	0
PITTSFIELD	PITTSFIELD MUNICIPAL	20	38	43	46	53	0	2	1	4	7
PRINCETON	PRINCETON MUNICIPAL	8	8	11	11	12	0	0	0	0	0
RANGELEY	RANGELEY MUNICIPAL	9	12	13	13	14	0	0	0	0	0
LEVEL III AIRPORTS - 50% OF BASED AC											
BELFAST	BELFAST MUNICIPAL	15	24	28	31	38	0	0	1	3	4
BETHEL	BETHEL REGIONAL	7	9	10	10	12	0	0	0	0	0
BIDDEFORD	BIDDEFORD MUNICIPAL	20	41	46	47	50	1	2	1	1	5
CARRABASSETT	SUGARLOAF REGIONAL	9	8	8	9	9	0	0	0	0	0
EASTPORT	EASTPORT MUNICIPAL	6	5	5	5	6	0	0	0	0	0
JACKMAN	NEWTON FIELD	3	9	10	11	12	2	0	1	0	3
LINCOLN	LINCOLN REGIONAL	26	26	28	29	32	0	0	0	0	0
OXFORD	OXFORD COUNTY REGIONAL	3	10	11	12	13	2	1	0	1	4

TABLE 9-46
MAINE FACILITY AND SERVICE OBJECTIVES - HANGARS - BASED AIRCRAFT SPACES
CONTINUED

LEVEL IV AIRPORTS											
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 9-47
MAINE FACILITY AND SERVICE OBJECTIVES - HANGARS - TRANSIENT AIRCRAFT SPACES

AIRPORT LEVEL		CURRENT	TRANSIENT SPACES NEEDED				ADD. SPACES RECOMMENDED				
AIRPORT NAME		SPACES	CURRENT	2006	2011	2021	CURRENT	2006	2011	2021	TOTAL
LEVEL I AIRPORTS - 25% OF TRANSIENT OPS											
AUBURN	AUBURN/LEWISTON MUNICIPAL	10	7	8	9	11	0	0	0	1	1
AUGUSTA	AUGUSTA STATE	0	4	4	5	6	4	0	1	1	6
BANGOR	BANGOR INTERNATIONAL	0	16	17	19	23	16	1	2	4	23
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	0	16	17	19	23	16	1	2	4	23
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	0	1	1	1	1	1	0	0	0	1
HOULTON	HOULTON INTERNATIONAL	11	5	5	5	6	0	0	0	0	0
MACHIAS	MACHIAS VALLEY	0	2	2	2	2	2	0	0	0	2
MILLINOCKET	MILLINOCKET MUNICIPAL	0	2	2	2	2	2	0	0	0	2
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	0	7	7	7	8	7	0	0	1	8
PORTLAND	PORTLAND INTERNATIONAL JETPORT	0	27	29	32	39	27	2	3	7	39
PRESQUE ISLE	NORTHERN MAINE REGIONAL	0	1	1	1	1	1	0	0	0	1
ROCKLAND	KNOX COUNTY REGIONAL	6	19	21	23	28	13	2	2	5	22
SANFORD	SANFORD REGIONAL	0	17	19	21	25	17	2	2	4	25
WATERVILLE	WATERVILLE ROBERT LAFLEUR	0	5	5	6	6	5	0	1	0	6
WISCASSET	WISCASSET	0	9	10	11	11	9	1	1	0	11
LEVEL II AIRPORTS - 25% OF TRANSIENT OPS											
DEXTER	DEXTER REGIONAL	0	2	3	3	3	2	1	0	0	3
FRYEBURG	EASTERN SLOPES REGIONAL	5	10	10	11	14	5	0	1	3	9
GREENVILLE	GREENVILLE MUNICIPAL	0	4	4	4	4	4	0	0	0	4
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	0	1	1	1	1	1	0	0	0	1
PITTSFIELD	PITTSFIELD MUNICIPAL	1	5	6	7	7	4	1	1	0	6
PRINCETON	PRINCETON MUNICIPAL	0	1	1	1	2	1	0	0	1	2
RANGELEY	RANGELEY MUNICIPAL	0	3	3	3	3	3	0	0	0	3
LEVEL III AIRPORTS											
BELFAST	BELFAST MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
BETHEL	BETHEL REGIONAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
BIDDEFORD	BIDDEFORD MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
CARRABASSETT	SUGARLOAF REGIONAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
EASTPORT	EASTPORT MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
JACKMAN	NEWTON FIELD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
LINCOLN	LINCOLN REGIONAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0
OXFORD	OXFORD COUNTY REGIONAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0

TABLE 9-47
MAINE FACILITY AND SERVICE OBJECTIVES - HANGARS - TRANSIENT AIRCRAFT SPACES
CONTINUED

LEVEL IV AIRPORTS											
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 9-48
MAINE FACILITY AND SERVICE OBJECTIVES - APRON TIEDOWN SPACES

AIRPORT LEVEL			TIEDOWN SPACES NEEDED				ADD. SPACES RECOMMENDED				
AIRPORT NAME		CURRENT	CURRENT	2006	2011	2021	CURRENT	2006	2011	2021	TOTAL
LEVEL I AIRPORTS - 25% BASED/50% TRANSIENT											
AUBURN	AUBURN/LEWISTON MUNICIPAL	70	32	34	37	42	0	0	0	0	0
AUGUSTA	AUGUSTA STATE	21	19	20	22	25	0	0	1	3	4
BANGOR	BANGOR INTERNATIONAL	45	48	52	57	67	3	4	5	10	22
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	63	42	46	49	58	0	0	0	0	0
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	8	4	4	4	4	0	0	0	0	0
HOULTON	HOULTON INTERNATIONAL	16	18	18	18	20	2	0	0	2	4
MACHIAS	MACHIAS VALLEY	0	0	0	0	0	0	0	0	0	0
MILLINOCKET	MILLINOCKET MUNICIPAL	13	7	7	7	7	0	0	0	0	0
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	28	28	29	31	33	0	1	2	2	5
PORTLAND	PORTLAND INTERNATIONAL JETPORT	60	67	75	82	100	7	8	7	18	40
PRESQUE ISLE	NORTHERN MAINE REGIONAL	29	7	7	8	8	0	0	0	0	0
ROCKLAND	KNOX COUNTY REGIONAL	61	51	56	60	72	0	0	0	11	11
SANFORD	SANFORD REGIONAL	31	51	56	61	70	20	5	5	9	39
WATERVILLE	WATERVILLE ROBERT LAFLEUR	38	14	14	16	17	0	0	0	0	0
WISCASSET	WISCASSET	33	29	31	33	34	0	0	0	1	1
LEVEL II AIRPORTS - 50% BASED/25% TRANSIENT											
DEXTER	DEXTER REGIONAL	6	11	12	13	14	5	1	1	1	8
FRYEBURG	EASTERN SLOPES REGIONAL	64	24	25	27	32	0	0	0	0	0
GREENVILLE	GREENVILLE MUNICIPAL	20	15	15	16	17	0	0	0	0	0
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	35	12	13	14	15	0	0	0	0	0
PITTSFIELD	PITTSFIELD MUNICIPAL	10	24	28	30	34	14	4	2	4	24
PRINCETON	PRINCETON MUNICIPAL	4	5	7	7	8	1	2	0	1	4
RANGELEY	RANGELEY MUNICIPAL	14	9	10	10	10	0	0	0	0	0
LEVEL III AIRPORTS - 50% BASED/25% TRANSIENT											
BELFAST	BELFAST MUNICIPAL	9	15	18	20	24	6	3	2	4	15
BETHEL	BETHEL REGIONAL	4	7	7	7	8	3	0	0	1	4
BIDDEFORD	BIDDEFORD MUNICIPAL	20	27	30	31	32	7	3	1	1	12
CARRABASSETT	SUGARLOAF REGIONAL	7	6	6	7	7	0	0	0	0	0
EASTPORT	EASTPORT MUNICIPAL	10	4	4	4	4	0	0	0	0	0
JACKMAN	NEWTON FIELD	8	7	7	8	8	0	0	0	0	0

TABLE 9-48
MAINE FACILITY AND SERVICE OBJECTIVES - APRON TIEDOWN SPACES
CONTINUED

LINCOLN	LINCOLN REGIONAL	12	20	22	23	25	8	2	1	2	13
OXFORD	OXFORD COUNTY REGIONAL	39	7	8	8	9	0	0	0	0	0
LEVEL IV AIRPORTS											
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

TABLE 9-49
MAINE FACILITY AND SERVICE OBJECTIVES
GA TERMINAL/ADMINISTRATION BUILDING

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	2,000 SQ. FT.	2,250 SQ. FT.	NONE
AUGUSTA	AUGUSTA STATE	2,000 SQ. FT.	9,775 SQ. FT.	NONE
BANGOR	BANGOR INTERNATIONAL	2,000 SQ. FT.	7,904 SQ. FT.	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	2,000 SQ. FT.	11,080 SQ. FT.	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	2,000 SQ. FT.	1,250 SQ. FT.	2000 SQ. FT.
HOULTON	HOULTON INTERNATIONAL	2,000 SQ. FT.	1,400 SQ. FT.	2000 SQ. FT.
MACHIAS	MACHIAS VALLEY	2,000 SQ. FT.	NONE	2000 SQ. FT.
MILLINOCKET	MILLINOCKET MUNICIPAL	2,000 SQ. FT.	780 SQ. FT.	2000 SQ. FT.
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	2,000 SQ. FT.	2,000 SQ. FT.	NONE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	2,000 SQ. FT.	5,000 SQ. FT.	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	2,000 SQ. FT.	3,390 SQ. FT.	NONE
ROCKLAND	KNOX COUNTY REGIONAL	2,000 SQ. FT.	4,000 SQ. FT.	NONE
SANFORD	SANFORD REGIONAL	2,000 SQ. FT.	17,050 SQ. FT.	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	2,000 SQ. FT.	16,400 SQ. FT.	NONE
WISCASSET	WISCASSET	2,000 SQ. FT.	4,900 SQ. FT.	NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	1,000 SQ. FT.	13,848 SQ. FT.	NONE
FRYEBURG	EASTERN SLOPES REGIONAL	1,000 SQ. FT.	1,125 SQ. FT.	NONE
GREENVILLE	GREENVILLE MUNICIPAL	1,000 SQ. FT.	NONE	1,000 SQ. FT.
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	1,000 SQ. FT.	5,000 SQ. FT.	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	1,000 SQ. FT.	6,400 SQ. FT.	NONE
PRINCETON	PRINCETON MUNICIPAL	1,000 SQ. FT.	800 SQ. FT.	200 SQ. FT.
RANGELEY	RANGELEY MUNICIPAL	1,000 SQ. FT.	150 SQ. FT.	850 SQ. FT.
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	500 SQ. FT.	600 SQ. FT.	NONE
BETHEL	BETHEL REGIONAL	500 SQ. FT.	200 SQ. FT.	300 SQ. FT.
BIDDEFORD	BIDDEFORD MUNICIPAL	500 SQ. FT.	650 SQ. FT.	NONE
CARRABASSETT	SUGARLOAF REGIONAL	500 SQ. FT.	NONE	500 SQ. FT.
EASTPORT	EASTPORT MUNICIPAL	500 SQ. FT.	400 SQ. FT.	100 SQ. FT.
JACKMAN	NEWTON FIELD	500 SQ. FT.	640 SQ. FT.	NONE
LINCOLN	LINCOLN REGIONAL	500 SQ. FT.	NONE	500 SQ. FT.
OXFORD	OXFORD COUNTY REGIONAL	500 SQ. FT.	1,000 SQ. FT.	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-50
MAINE FACILITY AND SERVICE OBJECTIVES –
AIRPORT MAINTENANCE BUILDING

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	AIRPORT MAINTENANCE BUILDING	2,250 SQ. FT.	NONE
AUGUSTA	AUGUSTA STATE	AIRPORT MAINTENANCE BUILDING	YES	NONE
BANGOR	BANGOR INTERNATIONAL	AIRPORT MAINTENANCE BUILDING	30,000 SQ. FT.	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	AIRPORT MAINTENANCE BUILDING	YES	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	AIRPORT MAINTENANCE BUILDING	OLD HANGAR	AIRPORT MAINTENANCE BUILDING
HOULTON	HOULTON INTERNATIONAL	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
MACHIAS	MACHIAS VALLEY	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
MILLINOCKET	MILLINOCKET MUNICIPAL	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
PORTLAND	PORTLAND INTERNATIONAL JETPORT	AIRPORT MAINTENANCE BUILDING	35,615 SQ. FT.	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	AIRPORT MAINTENANCE BUILDING	10,000 SQ. FT.	NONE
ROCKLAND	KNOX COUNTY REGIONAL	AIRPORT MAINTENANCE BUILDING	YES	NONE
SANFORD	SANFORD REGIONAL	AIRPORT MAINTENANCE BUILDING	3,000 SQ. FT.	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	AIRPORT MAINTENANCE BUILDING	3,200 SQ. FT.	NONE
WISCASSET	WISCASSET	AIRPORT MAINTENANCE BUILDING	3,200 SQ. FT.	NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
FRYEBURG	EASTERN SLOPES REGIONAL	AIRPORT MAINTENANCE BUILDING	YES	NONE
GREENVILLE	GREENVILLE MUNICIPAL	AIRPORT MAINTENANCE BUILDING	YES	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	AIRPORT MAINTENANCE BUILDING	YES	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	AIRPORT MAINTENANCE BUILDING	4,800 SQ. FT.	NONE
PRINCETON	PRINCETON MUNICIPAL	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
RANGELEY	RANGELEY MUNICIPAL	AIRPORT MAINTENANCE BUILDING	NONE	AIRPORT MAINTENANCE BUILDING
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	N/A	N/A	N/A
BETHEL	BETHEL REGIONAL	N/A	N/A	N/A
BIDDEFORD	BIDDEFORD MUNICIPAL	N/A	N/A	N/A
CARRABASSETT	SUGARLOAF REGIONAL	N/A	N/A	N/A
EASTPORT	EASTPORT MUNICIPAL	N/A	N/A	N/A
JACKMAN	NEWTON FIELD	N/A	N/A	N/A
LINCOLN	LINCOLN REGIONAL	N/A	N/A	N/A
OXFORD	OXFORD COUNTY REGIONAL	N/A	N/A	N/A
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-51
MAINE FACILITY AND SERVICE OBJECTIVES - GA AUTO PARKING

AIRPORT LEVEL		CURRENT	AUTO PARKING SPACES NEEDED				ADD. SPACES RECOMMENDED				
AIRPORT NAME		SPACES	CURRENT	2006	2011	2021	CURRENT	2006	2011	2021	TOTAL
LEVEL I AIRPORTS											
AUBURN	AUBURN/LEWISTON MUNICIPAL	132	71	75	78	83	0	0	0	0	0
AUGUSTA	AUGUSTA STATE	81	46	48	50	54	0	0	0	0	0
BANGOR	BANGOR INTERNATIONAL	150	67	72	75	82	0	0	0	0	0
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	100	44	46	48	52	0	0	0	0	0
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	30	8	8	8	8	0	0	0	0	0
HOULTON	HOULTON INTERNATIONAL	15	29	30	32	34	14	1	2	2	19
MACHIAS	MACHIAS VALLEY	10	8	8	9	9	0	0	0	0	0
MILLINOCKET	MILLINOCKET MUNICIPAL	7	13	14	15	16	6	1	1	1	9
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	20	59	62	65	69	39	3	3	4	49
PORTLAND	PORTLAND INTERNATIONAL JETPORT	148	56	67	72	85	0	0	0	0	0
PRESQUE ISLE	NORTHERN MAINE REGIONAL	12	23	24	25	27	11	1	1	2	15
ROCKLAND	KNOX COUNTY REGIONAL	105	55	58	60	65	0	0	0	0	0
SANFORD	SANFORD REGIONAL	100	67	70	73	79	0	0	0	0	0
WATERVILLE	WATERVILLE ROBERT LAFLEUR	37	15	16	17	18	0	0	0	0	0
WISCASSET	WISCASSET	24	43	45	47	50	19	2	2	3	26
LEVEL II AIRPORTS											
DEXTER	DEXTER REGIONAL	18	13	14	15	16	0	0	0	0	0
FRYEBURG	EASTERN SLOPES REGIONAL	30	21	23	24	27	0	0	0	0	0
GREENVILLE	GREENVILLE MUNICIPAL	20	16	17	18	19	0	0	0	0	0
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	90	17	18	19	21	0	0	0	0	0
PITTSFIELD	PITTSFIELD MUNICIPAL	30	29	33	35	40	0	2	3	5	10
PRINCETON	PRINCETON MUNICIPAL	5	6	9	9	9	1	3	0	0	4
RANGELEY	RANGELEY MUNICIPAL	12	9	10	10	11	0	0	0	0	0
LEVEL III AIRPORTS											
BELFAST	BELFAST MUNICIPAL	15	12	14	16	19	0	0	1	3	4
BETHEL	BETHEL REGIONAL	8	5	5	5	6	0	0	0	0	0
BIDDEFORD	BIDDEFORD MUNICIPAL	200	21	23	24	25	0	0	0	0	0
CARRABASSETT	SUGARLOAF REGIONAL	10	4	4	5	5	0	0	0	0	0
EASTPORT	EASTPORT MUNICIPAL	10	3	3	3	3	0	0	0	0	0
JACKMAN	NEWTON FIELD	10	5	5	6	6	0	0	0	0	0
LINCOLN	LINCOLN REGIONAL	80	13	14	15	16	0	0	0	0	0
OXFORD	OXFORD COUNTY REGIONAL	39	5	6	6	7	0	0	0	0	0

TABLE 9-51
MAINE FACILITY AND SERVICE OBJECTIVES - GA AUTO PARKING
CONTINUED

LEVEL IV AIRPORTS											
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
ISLESBORO	ISLESBORO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

TABLE 9-52
MAINE FACILITY AND SERVICE OBJECTIVES - FBO

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	FULL SERVICE	FULL SERVICE	NONE
AUGUSTA	AUGUSTA STATE	FULL SERVICE	FULL SERVICE	NONE
BANGOR	BANGOR INTERNATIONAL	FULL SERVICE	FULL SERVICE	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	FULL SERVICE	FULL SERVICE	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	FULL SERVICE	FULL SERVICE	NONE
HOULTON	HOULTON INTERNATIONAL	FULL SERVICE	FULL SERVICE	NONE
MACHIAS	MACHIAS VALLEY	FULL SERVICE	NONE	FULL SERVICE
MILLINOCKET	MILLINOCKET MUNICIPAL	FULL SERVICE	FULL SERVICE	NONE
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	FULL SERVICE	PART-TIME	FULL SERVICE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	FULL SERVICE	FULL SERVICE	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	FULL SERVICE	LIMITED SERVICE	FULL SERVICE
ROCKLAND	KNOX COUNTY REGIONAL	FULL SERVICE	FULL SERVICE	NONE
SANFORD	SANFORD REGIONAL	FULL SERVICE	FULL SERVICE	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	FULL SERVICE	FULL SERVICE	NONE
WISCASSET	WISCASSET	FULL SERVICE	FULL SERVICE	NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	FULL OR LIMITED SERVICE	NONE	FULL OR LIMITED SERVICE
FRYEBURG	EASTERN SLOPES REGIONAL	FULL OR LIMITED SERVICE	FULL SERVICE	NONE
GREENVILLE	GREENVILLE MUNICIPAL	FULL OR LIMITED SERVICE	FUEL, REPAIR, INSPECTIONS, BUY/SELL	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	FULL OR LIMITED SERVICE	FULL SERVICE	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	FULL OR LIMITED SERVICE	FULL SERVICE	NONE
PRINCETON	PRINCETON MUNICIPAL	FULL OR LIMITED SERVICE	NONE	FULL OR LIMITED SERVICE
RANGELEY	RANGELEY MUNICIPAL	FULL OR LIMITED SERVICE	NONE	FULL OR LIMITED SERVICE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	LIMITED SERVICE	LIMITED SERVICE	NONE
BETHEL	BETHEL REGIONAL	LIMITED SERVICE	NONE	LIMITED SERVICE
BIDDEFORD	BIDDEFORD MUNICIPAL	LIMITED SERVICE	LIMITED SERVICE	NONE
CARRABASSET	SUGARLOAF REGIONAL	LIMITED SERVICE	NONE	LIMITED SERVICE
EASTPORT	EASTPORT MUNICIPAL	LIMITED SERVICE	LIMITED SERVICE	NONE
JACKMAN	NEWTON FIELD	LIMITED SERVICE	NONE	LIMITED SERVICE
LINCOLN	LINCOLN REGIONAL	LIMITED SERVICE	LIMITED SERVICE	NONE
OXFORD	OXFORD COUNTY REGIONAL	LIMITED SERVICE	FULL SERVICE	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE MEMORIAL	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-53
MAINE FACILITY AND SERVICE OBJECTIVES - MAINTENANCE

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR AVIONICS	NONE NONE
AUGUSTA	AUGUSTA STATE	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
BANGOR	BANGOR INTERNATIONAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR AVIONICS	NONE NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
HOULTON	HOULTON INTERNATIONAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
MACHIAS	MACHIAS VALLEY	AIRCRAFT REPAIR AVIONICS	NONE NONE	AIRCRAFT REPAIR AVIONICS
MILLINOCKET	MILLINOCKET MUNICIPAL	AIRCRAFT REPAIR AVIONICS	NONE NONE	AIRCRAFT REPAIR AVIONICS
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
PORTLAND	PORTLAND INTERNATIONAL JETPORT	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR AVIONICS	NONE NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
ROCKLAND	KNOX COUNTY REGIONAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR AVIONICS	NONE NONE
SANFORD	SANFORD REGIONAL	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
WATERVILLE	WATERVILLE ROBERT LAFLEUR	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
WISCASSET	WISCASSET	AIRCRAFT REPAIR AVIONICS	AIRCRAFT REPAIR NONE	NONE AVIONICS
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	AIRCRAFT REPAIR	NONE	AIRCRAFT REPAIR
FRYEBURG	EASTERN SLOPES REGIONAL	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
GREENVILLE	GREENVILLE MUNICIPAL	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	AIRCRAFT REPAIR	AIRCRAFT REPAIR	NONE
PRINCETON	PRINCETON MUNICIPAL	AIRCRAFT REPAIR	NONE	AIRCRAFT REPAIR
RANGELEY	RANGELEY MUNICIPAL	AIRCRAFT REPAIR	AIRCRAFT SERVICE	NONE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	N/A	N/A	N/A
BETHEL	BETHEL REGIONAL	N/A	N/A	N/A
BIDDEFORD	BIDDEFORD MUNICIPAL	N/A	N/A	N/A
CARRABASSETT	SUGARLOAF REGIONAL	N/A	N/A	N/A
EASTPORT	EASTPORT MUNICIPAL	N/A	N/A	N/A
JACKMAN	NEWTON FIELD	N/A	N/A	N/A
LINCOLN	LINCOLN REGIONAL	N/A	N/A	N/A
OXFORD	OXFORD COUNTY REGIONAL	N/A	N/A	N/A

TABLE 9-53
MAINE FACILITY AND SERVICE OBJECTIVES – MAINTENANCE
(CONTINUED)

LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE MEMORIAL	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-54
MAINE FACILITY AND SERVICE OBJECTIVES - FUEL

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
AUGUSTA	AUGUSTA STATE	JET A, 100 LL	JET A, 100 LL	NONE, NONE
BANGOR	BANGOR INTERNATIONAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	JET A, 100 LL	JET A, 100 LL	NONE, NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
HOULTON	HOULTON INTERNATIONAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
MACHIAS	MACHIAS VALLEY	JET A, 100 LL	NONE, NONE	JET A, 100 LL
MILLINOCKET	MILLINOCKET MUNICIPAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	JET A, 100 LL	NONE, 100 LL	JET A, NONE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	JET A, 100 LL	JET A, 100 LL	NONE, NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
ROCKLAND	KNOX COUNTY REGIONAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
SANFORD	SANFORD REGIONAL	JET A, 100 LL	JET A, 100 LL	NONE, NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	JET A, 100 LL	JET A, 100 LL	NONE, NONE
WISCASSET	WISCASSET	JET A, 100 LL	JET A, 100 LL	NONE, NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	100 LL	NONE	100 LL
FRYEBURG	EASTERN SLOPES REGIONAL	100 LL	100 LL	NONE
GREENVILLE	GREENVILLE MUNICIPAL	100 LL	100 LL	NONE
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	100 LL	100 LL, JET A	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	100 LL	100 LL, JET A	NONE
PRINCETON	PRINCETON MUNICIPAL	100 LL	NONE	100 LL
RANGELEY	RANGELEY MUNICIPAL	100 LL	100 LL, JET A	NONE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	100 LL	100 LL	NONE
BETHEL	BETHEL REGIONAL	100 LL	100 LL	NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	100 LL	100 LL	NONE
CARRABASSETT	SUGARLOAF REGIONAL	100 LL	NONE	100 LL
EASTPORT	EASTPORT MUNICIPAL	100 LL	100 LL	NONE
JACKMAN	NEWTON FIELD	100 LL	100 LL	NONE
LINCOLN	LINCOLN REGIONAL	100 LL	100 LL (PRIVATE)	FULL SERVICE
OXFORD	OXFORD COUNTY REGIONAL	100 LL	100 LL, JET A	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-55
MAINE FACILITY AND SERVICE OBJECTIVES - TERMINAL FACILITIES

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS NONE FLIGHT PLANNING	NONE NONE PILOT LOUNGE NONE
AUGUSTA	AUGUSTA STATE	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
BANGOR	BANGOR INTERNATIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE LAPTOP HOOKUPS	NONE NONE NONE FLIGHT PLANNING
HOULTON	HOULTON INTERNATIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NONE NONE NONE FLIGHT PLANNING
MACHIAS	MACHIAS VALLEY	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING
MILLINOCKET	MILLINOCKET MUNICIPAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NONE NONE NONE FLIGHT PLANNING
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
PORTLAND	PORTLAND INTERNATIONAL JETPORT	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
ROCKLAND	KNOX COUNTY REGIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE

TABLE 9-55
MAINE FACILITY AND SERVICE OBJECTIVES - TERMINAL FACILITIES
CONTINUED

SANFORD	SANFORD REGIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
WISCASSET	WISCASSET	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
FRYEBURG	EASTERN SLOPES REGIONAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
GREENVILLE	GREENVILLE MUNICIPAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE NONE NONE NONE	NONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NONE NONE NONE FLIGHT PLANNING
PITTSFIELD	PITTSFIELD MUNICIPAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
PRINCETON	PRINCETON MUNICIPAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	NONE NONE NONE NONE
RANGELEY	RANGELEY MUNICIPAL	PHONE RESTROOMS PILOT LOUNGE FLIGHT PLANNING	PHONE RESTROOMS PILOT LOUNGE NONE	NON NONE NONE FLIGHT PLANNING
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	PHONE RESTROOMS	PHONE RESTROOMS	NONE NONE
BETHEL	BETHEL REGIONAL	PHONE RESTROOMS	PHONE RESTROOMS	NONE NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	PHONE RESTROOMS	PHONE RESTROOMS	NONE NONE
CARRABASSETT	SUGARLOAF REGIONAL	PHONE RESTROOMS	PHONE NONE	NONE RESTROOMS
EASTPORT	EASTPORT MUNICIPAL	PHONE RESTROOMS	PHONE RESTROOMS	NONE NONE
JACKMAN	NEWTON FIELD	PHONE RESTROOMS	PHONE RESTROOMS	NONE NONE

TABLE 9-55
MAINE FACILITY AND SERVICE OBJECTIVES - TERMINAL FACILITIES
CONTINUED

LINCOLN	LINCOLN REGIONAL	PHONE RESTROOMS	PHONE NONE	ADDRESSED WITH NEW TERMINAL
OXFORD	OXFORD COUNTY REGIONAL	PHONE RESTROOMS	PHONE RESTROOMS	NONE NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	PHONE (RECOMMENDED) RESTROOMS (OPTIONAL)	NONE	PHONE
DEBLOIS	DEBLOIS FLIGHT STRIP	PHONE (RECOMMENDED) RESTROOMS (OPTIONAL)	NONE	PHONE
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	PHONE (RECOMMENDED) RESTROOMS (OPTIONAL)	PHONE	NONE
ISLESBORO	ISLESBORO	PHONE (RECOMMENDED) RESTROOMS (OPTIONAL)	NONE	PHONE
LUBEC	LUBEC MUNICIPAL	PHONE (RECOMMENDED) RESTROOMS (OPTIONAL)	NONE	PHONE
STONINGTON	STONINGTON MUNICIPAL	PHONE (RECOMMENDED) RESTROOMS (OPTIONAL)	NONE	PHONE

TABLE 9-56
MAINE FACILITY AND SERVICE OBJECTIVES - FOOD

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	FULL SERVICE RESTAURANT	RESTAURANT	NONE
AUGUSTA	AUGUSTA STATE	FULL SERVICE RESTAURANT	RESTAURANT	NONE
BANGOR	BANGOR INTERNATIONAL	FULL SERVICE RESTAURANT	RESTAURANT	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
HOULTON	HOULTON INTERNATIONAL	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
MACHIAS	MACHIAS VALLEY	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
MILLINOCKET	MILLINOCKET MUNICIPAL	FULL SERVICE RESTAURANT	VENDING	FULL SERVICE RESTAURANT
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	FULL SERVICE RESTAURANT	VENDING	FULL SERVICE RESTAURANT
PORTLAND	PORTLAND INTERNATIONAL JETPORT	FULL SERVICE RESTAURANT	RESTAURANT	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	FULL SERVICE RESTAURANT	RESTAURANT	NONE
ROCKLAND	KNOX COUNTY REGIONAL	FULL SERVICE RESTAURANT	VENDING	FULL SERVICE RESTAURANT
SANFORD	SANFORD REGIONAL	FULL SERVICE RESTAURANT	RESTAURANT	NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	FULL SERVICE RESTAURANT	RESTAURANT	NONE
WISCASSET	WISCASSET	FULL SERVICE RESTAURANT	NONE	FULL SERVICE RESTAURANT
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	VENDING	NONE	VENDING
FRYEBURG	EASTERN SLOPES REGIONAL	VENDING	VENDING	NONE
GREENVILLE	GREENVILLE MUNICIPAL	VENDING	NONE	VENDING
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	VENDING	VENDING	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	VENDING	VENDING	NONE
PRINCETON	PRINCETON MUNICIPAL	VENDING	NONE	VENDING
RANGELEY	RANGELEY MUNICIPAL	VENDING	VENDING	NONE
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	VENDING SERVICE	VENDING	NONE
BETHEL	BETHEL REGIONAL	VENDING SERVICE	VENDING	NONE
BIDDEFORD	BIDDEFORD MUNICIPAL	VENDING SERVICE	VENDING	NONE
CARRABASSETT	SUGARLOAF REGIONAL	VENDING SERVICE	NONE	VENDING
EASTPORT	EASTPORT MUNICIPAL	VENDING SERVICE	NONE	VENDING
JACKMAN	NEWTON FIELD	VENDING SERVICE	VENDING	NONE
LINCOLN	LINCOLN REGIONAL	VENDING SERVICE	NONE	VENDING
OXFORD	OXFORD COUNTY REGIONAL	VENDING SERVICE	VENDING	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-57
MAINE FACILITY AND SERVICE OBJECTIVES - GROUND TRANSPORTATION SERVICES

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	ON-SITE RENTAL CAR	SEASONAL	YEAR ROUND RENTAL
AUGUSTA	AUGUSTA STATE	ON-SITE RENTAL CAR	RENTAL CAR	NONE
BANGOR	BANGOR INTERNATIONAL	ON-SITE RENTAL CAR	RENTAL CAR	NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	ON-SITE RENTAL CAR	RENTAL CAR	NONE
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	ON-SITE RENTAL CAR	RENTAL CAR	NONE
HOULTON	HOULTON INTERNATIONAL	ON-SITE RENTAL CAR	RENTAL CAR	NONE
MACHIAS	MACHIAS VALLEY	ON-SITE RENTAL CAR	NONE	ON-SITE RENTAL CAR
MILLINOCKET	MILLINOCKET MUNICIPAL	ON-SITE RENTAL CAR	NONE	ON-SITE RENTAL CAR
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	ON-SITE RENTAL CAR	NONE	ON-SITE RENTAL CAR
PORTLAND	PORTLAND INTERNATIONAL JETPORT	ON-SITE RENTAL CAR	RENTAL CAR	NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	ON-SITE RENTAL CAR	RENTAL CAR	NONE
ROCKLAND	KNOX COUNTY REGIONAL	ON-SITE RENTAL CAR	RENTAL CAR	NONE
SANFORD	SANFORD REGIONAL	ON-SITE RENTAL CAR	COORDINATE WITH FBO	ON-SITE RENTAL CAR
WATERVILLE	WATERVILLE ROBERT LAFLEUR	ON-SITE RENTAL CAR	RENTAL CAR	NONE
WISCASSET	WISCASSET	ON-SITE RENTAL CAR	NONE	ON-SITE RENTAL CAR
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
FRYEBURG	EASTERN SLOPES REGIONAL	ON-SITE COURTESY CAR	RENTAL CAR BY APPT.	NONE
GREENVILLE	GREENVILLE MUNICIPAL	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	ON-SITE COURTESY CAR	ON-SITE COURTESY CAR	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	ON-SITE COURTESY CAR	ON-SITE COURTESY CAR	NONE
PRINCETON	PRINCETON MUNICIPAL	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
RANGELEY	RANGELEY MUNICIPAL	ON-SITE COURTESY CAR	NONE	ON-SITE COURTESY CAR
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	N/A	N/A	N/A
BETHEL	BETHEL REGIONAL	N/A	N/A	N/A
BIDDEFORD	BIDDEFORD MUNICIPAL	N/A	N/A	N/A
CARRABASSETT	SUGARLOAF REGIONAL	N/A	N/A	N/A
EASTPORT	EASTPORT MUNICIPAL	N/A	N/A	N/A
JACKMAN	NEWTON FIELD	N/A	N/A	N/A
LINCOLN	LINCOLN REGIONAL	N/A	N/A	N/A
OXFORD	OXFORD COUNTY REGIONAL	N/A	N/A	N/A
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-58
MAINE FACILITY AND SERVICE OBJECTIVES - OTHERS

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
AUGUSTA	AUGUSTA STATE	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
BANGOR	BANGOR INTERNATIONAL	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
HOULTON	HOULTON INTERNATIONAL	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
MACHIAS	MACHIAS VALLEY	SNOW REMOVAL DEICING	NONE NONE	SNOW REMOVAL DEICING
MILLINOCKET	MILLINOCKET MUNICIPAL	SNOW REMOVAL DEICING	NONE NONE	SNOW REMOVAL DEICING
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
PORTLAND	PORTLAND INTERNATIONAL JETPORT	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
ROCKLAND	KNOX COUNTY REGIONAL	SNOW REMOVAL DEICING	SNOW REMOVAL DEICING	NONE NONE
SANFORD	SANFORD REGIONAL	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
WATERVILLE	WATERVILLE ROBERT LAFLEUR	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
WISCASSET	WISCASSET	SNOW REMOVAL DEICING	SNOW REMOVAL NONE	NONE DEICING
LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	N/A	N/A	N/A
FRYEBURG	EASTERN SLOPES REGIONAL	N/A	N/A	N/A
GREENVILLE	GREENVILLE MUNICIPAL	N/A	N/A	N/A
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	N/A	N/A	N/A
PITTSFIELD	PITTSFIELD MUNICIPAL	N/A	N/A	N/A
PRINCETON	PRINCETON MUNICIPAL	N/A	N/A	N/A
RANGELEY	RANGELEY MUNICIPAL	N/A	N/A	N/A
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	N/A	N/A	N/A
BETHEL	BETHEL REGIONAL	N/A	N/A	N/A
BIDDEFORD	BIDDEFORD MUNICIPAL	N/A	N/A	N/A
CARRABASSETT	SUGARLOAF REGIONAL	N/A	N/A	N/A
EASTPORT	EASTPORT MUNICIPAL	N/A	N/A	N/A
JACKMAN	NEWTON FIELD	N/A	N/A	N/A
LINCOLN	LINCOLN REGIONAL	N/A	N/A	N/A
OXFORD	OXFORD COUNTY REGIONAL	N/A	N/A	N/A

TABLE 9-58
MAINE FACILITY AND SERVICE OBJECTIVES – OTHERS
CONTINUED

LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	N/A	N/A	N/A
DEBLOIS	DEBLOIS FLIGHT STRIP	N/A	N/A	N/A
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL	N/A	N/A	N/A
ISLESBORO	ISLESBORO	N/A	N/A	N/A
LUBEC	LUBEC MUNICIPAL	N/A	N/A	N/A
STONINGTON	STONINGTON MUNICIPAL	N/A	N/A	N/A

TABLE 9-59
MAINE FACILITY AND SERVICE OBJECTIVES - SECURITY

AIRPORT LEVEL AIRPORT NAME		OBJECTIVE	CURRENT	NEEDED
LEVEL I AIRPORTS				
AUBURN	AUBURN/LEWISTON MUNICIPAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE CONTROLLED ACCESS NONE	FULL PERIMETER FENCING NONE NIGHT GUARD
AUGUSTA	AUGUSTA STATE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	FULL PERIMETER FENCING CONTROLLED ACCESS NONE	NONE NONE NIGHT GUARD
BANGOR	BANGOR INTERNATIONAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE CONTROLLED ACCESS NONE	FULL PERIMETER FENCING NONE NIGHT GUARD
BAR HARBOR	HANCOCK COUNTY-BAR HARBOR	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD
FRENCHVILLE	NORTHERN AROOSTOOK REGIONAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD
HOULTON	HOULTON INTERNATIONAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD
MACHIAS	MACHIAS VALLEY	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD
MILLINOCKET	MILLINOCKET MUNICIPAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD
PORTLAND	PORTLAND INTERNATIONAL JETPORT	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE
PRESQUE ISLE	NORTHERN MAINE REGIONAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD
ROCKLAND	KNOX COUNTY REGIONAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	LIMITED FENCING CONTROLLED ACCESS ROVING PATROL	FULL PERIMETER FENCING NONE NIGHT GUARD
SANFORD	SANFORD REGIONAL	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE
WATERVILLE	WATERVILLE ROBERT LAFLEUR	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	LIMITED FENCING CONTROLLED ACCESS ROVING PATROL	FULL PERIMETER FENCING NONE NIGHT GUARD
WISCASSET	WISCASSET	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD	NONE NONE NONE	FULL PERIMETER FENCING CONTROLLED ACCESS NIGHT GUARD

TABLE 9-59
MAINE FACILITY AND SERVICE OBJECTIVES – SECURITY
CONTINUED

LEVEL II AIRPORTS				
DEXTER	DEXTER REGIONAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
FRYEBURG	EASTERN SLOPES REGIONAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
GREENVILLE	GREENVILLE MUNICIPAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
OLD TOWN	DEWITT FIELD/OLD TOWN MUNICIPAL	FULL PERIMETER FENCING	FULL PERIMETER FENCING	NONE
PITTSFIELD	PITTSFIELD MUNICIPAL	FULL PERIMETER FENCING	GATE ONLY	FULL PERIMETER FENCING
PRINCETON	PRINCETON MUNICIPAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
RANGELEY	RANGELEY MUNICIPAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
LEVEL III AIRPORTS				
BELFAST	BELFAST MUNICIPAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
BETHEL	BETHEL REGIONAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
BIDDEFORD	BIDDEFORD MUNICIPAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
CARRABASSETT	SUGARLOAF REGIONAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
EASTPORT	EASTPORT MUNICIPAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
JACKMAN	NEWTON FIELD	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
LINCOLN	LINCOLN REGIONAL	FULL PERIMETER FENCING	NONE	FULL PERIMETER FENCING
OXFORD	OXFORD COUNTY REGIONAL	FULL PERIMETER FENCING	FULL PERIMETER FENCING	NONE
LEVEL IV AIRPORTS				
CARIBOU	CARIBOU MUNICIPAL	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS
DEBLOIS	DEBLOIS FLIGHT STRIP	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS
DOVER-FOXCROFT	CHARLES A. CHASE JR. MEMORIAL FIELD	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS
ISLESBORO	ISLESBORO	APPROPRIATE ACCESS RESTRICTIONS	NONE	APPROPRIATE ACCESS RESTRICTIONS

CHAPTER TEN
IMPLEMENTATION PLAN

Prior chapters of the Maine Aviation Systems Plan Update resulted in a report card for current system performance. This report card shows how the system is currently performing related to the ability of individual airports to meet their respective facility and service objectives. The report card also shows how the system is now performing relative to each of the system performance measures and their individual benchmarks. The report card shows where the Maine Aviation System is adequate or deficient, with airport and system deficiencies revealed.

Development costs were estimated for each system airport by comparing existing facilities and applicable facility/service objectives established by the Systems Plan. Development costs include all projects associated with bringing system airports into compliance with the objectives for their recommended system role. Costs to increase overall system performance related to the Systems Plan's performance measures are also identified.

GOALS COMPARISON

This final chapter of the Maine Aviation Systems Plan provides an opportunity to balance FAA, Maine DOT, OPT, and individual airport goals and objectives. The FAA notes that the main purpose of a state aviation system plan is to determine the type, extent, location, timing, and cost of the airport system that is needed to ensure that Maine has a viable transportation system. This Systems Plan had been developed keeping this factor in mind.

SYSTEMS PLAN GOALS

At the onset of the Aviation Systems Plan Update, goals were established to guide the development of the Plan. These goals are as follows:

- **Quality of Life**. To promote an airport system that improves Maine's quality of life by supporting health, welfare, and safety-related services and activities.

- **Capacity**. To have an airport system that adequately serves current and forecast demand.

- **Outreach**. To encourage and recognize system airports that support aviation programs and outreach opportunities in Maine.

- **Safety/Standards**. To provide for a safe airport system, as measured by compliance with applicable FAA standards.

- **Economic Support**. To advance a system of airports that is supportive of Maine's economy, ensuring that the airport system is matched to Maine's socioeconomic and demographic characteristics.

- **Flexibility**. To protect and support an airport system that maintains the flexibility to respond to changes in future needs in Maine, while considering the environment.

- **Accessibility**. To provide an airport system that is easily accessible from both the ground and the air.

Using these goals, specific benchmarks were identified and used to measure the adequacy of Maine's public-use airport system. Existing system compliance/adequacy rates were reviewed to identify areas where enhancement to Maine's airports would be desirable. In order to support short and longer-term air transportation and economic needs, the Aviation Systems Plan Update identified the system of airports that is needed to serve the state's 69 economic service centers. The projects and actions needed at each system airport were summarized in the previous chapter.

MAINEDOT STRATEGIC PLAN GOALS

The Maine Department of Transportation recently updated its Strategic Plan. It was important to the Office of Passenger Transportation for this Aviation Systems Plan to be compatible and consistent with the goals of the Strategic Plan. The mission of the Strategic Plan is "to provide a safe, efficient, reliable transportation system that supports economic opportunity and quality of life." The following six goals are outlined in the Maine Department of Transportation Strategic Plan:

- **Safety**. Improve the safety of travelers, and the safety and health of MaineDOT's workforce.

- **Asset Management**. Efficiently and effectively preserve and maintain Maine's existing transportation system, and maximize its operational efficiencies.

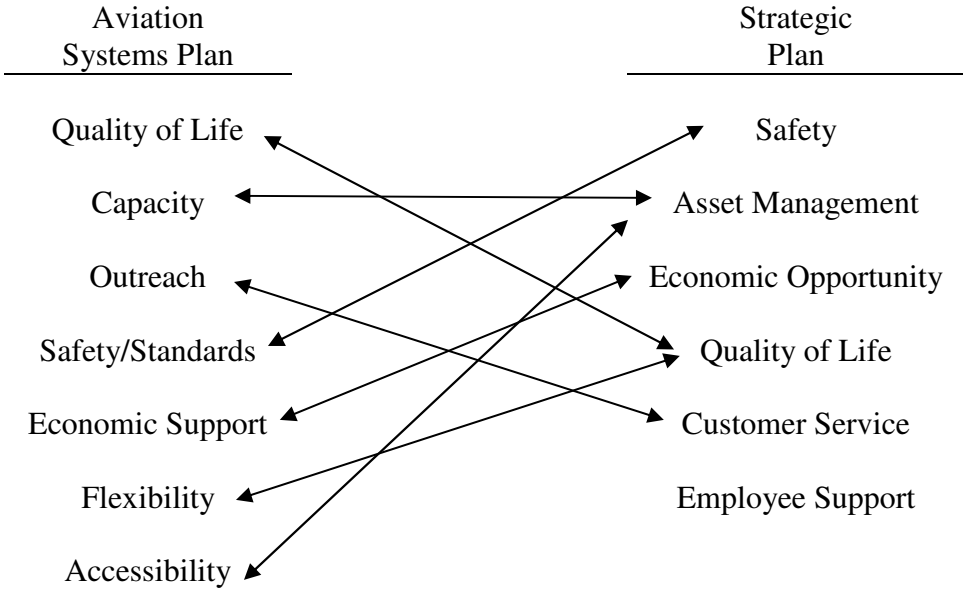
- **Economic Opportunity**. Expand economic opportunity through wise and innovative transportation investment.

- **Quality of Life.** Enhance quality of life by achieving optimal balance between mobility, economic opportunity, natural and cultural resources, and community needs and values.

- **Customer Service**. Enhance MaineDOT's customer service through training and effective external communication with stakeholders and the public.

- **Employee Support**. Enhance the competency and effectiveness of MaineDOT's workforce through effective internal communication, training, and employee development.

When comparing the DOT's Strategic Plan to the Systems Plan, the goals of the Aviation Systems Plan Update are closely aligned with the first four goals of the Strategic Plan. The following graphic reflects the consistency between the goal statements of the two plans.



While not a specific goal of the Aviation Systems Plan, tools resulting from the Systems Plan will help Maine DOT employees be more effective in their jobs.

INDIVIDUAL AIRPORT GOALS AND OBJECTIVES

In developing the Aviation Systems Plan Update, the OPT wanted to have a clearer understanding of how each of the communities in Maine perceives their local airport. It is important to know whether or not system recommendations resulting from this plan are aligned with each community's vision for its airport.

The OPT held airport goals and objectives meetings at most of the public use airports to gauge each community's support for airport growth. Meetings attendees included airport users, airport tenants, city and town leaders, and economic development and chamber of commerce representatives. Each community representative was asked to provide input on:

- Airport background
- Airport issues

- Airport strengths and weaknesses
- Airport opportunities
- Airport development needs

During the meetings, these talking points were then categorized and future projects were prioritized by each group. **Appendix C** presents goals and objectives for each airport that were developed by community representatives. These tables also note whether or not the locally developed objectives for each airport meet or exceed the system objectives, based on the airport's assigned system role.

ROLES AND COMPLIANCE REVIEW

As discussed in prior chapters of this plan, based on current function and future need, roles have been assigned to all public airports in Maine. Roles were developed in conjunction with the Systems Plan Advisory Committee. Many factors, as discussed in Chapter Three, were considered to assign an airport's role. These factors included accessibility, support of tourism, economic contribution, current demand and historic investment. Future roles for airports were based on improved geographic coverage of Maine's primary and secondary service centers. As part of the Systems Plan, airports in Maine are assigned to one of the following roles:

- **Level I** – Level I airports accommodate commercial airline activities and a full range of general aviation aircraft, including business jets. Based on their system roles, some general aviation airports are also classified as Level I airports.

- **Level II** – These airports should be capable of accommodating all business and personal use single- and twin-engine general aviation aircraft. Scheduled commercial airline operations are not accommodated at Level II airports.

- **Level III** – These airports should be capable of accommodating all single-engine and some small twin-engine general aviation aircraft.

- **Level IV** – These airports should be capable of accommodating single-engine general aviation aircraft. Level IV airports may also accommodate "special use" aviation activities. Level IV airports are the most "basic" system airports.

DEVELOPMENT RECOMMENDATIONS

Outcomes from the Maine Aviation Systems Plan Update, as detailed in Chapter Eight and Nine, are actions that would enable the Maine Aviation System to meet established performance measures. Not all recommended projects have associated costs. In some cases, the recommended action has no associated cost. In other instances, costs could not be developed because the full magnitude of the needed project could not be estimated, given the scope of this plan.

Generalized cost estimates associated with moving forward on suggested recommendations for the Maine Aviation System are discussed in this section. Costs identified in this section only associated with meeting established performance measures and facility and service objectives adopted as part of this study. In should be noted that further investigation and justification would be required before many recommendations stemming from the Systems Plan could be implemented. In particular, projects seeking FAA funding would require additional study.

REPLACEMENT AIRPORT

The Systems Plan recognizes the importance of airports as economic development generators. In developing the Systems Plan, improved coverage for Maine's 29 primary and 40 secondary service centers was a key element considered in determining the state's future aviation needs. This process was discussed in Chapter Seven, *Future System Roles*.

The planning process identified several voids, in terms of coverage, for primary service centers. The Project Advisory Committee (PAC) set an objective to have a Level I airport in proximity to all Primary Service Centers. The PAC recommended several changes in current roles to address these voids. Airports recommended to be elevated to Level I, to meet future system needs, include Northern Aroostook Regional, Houlton International, Machias Valley, Wiscasset, Millinocket Municipal, Greenville Municipal, Central Maine Regional, Princeton Municipal and Dexter Regional. There is only one existing airport that appears to be too physically constrained to meet its future Level I airport role. This airport is Machias Valley Airport.

Over the past decade, community leaders in the Central Washington County and Cutler/Machias Valley area have recognized the need for improved airport infrastructure to support economic development. The Machias Valley Airport is too geographically-constrained to meet Level I facility objectives, including a 5,000 foot runway. The *Cutler Comprehensive Airport Study* and *Machias Valley Airport Site Assessment Study* were completed in 2003 and the Environmental Assessment was underway when this chapter was developed. These studies confirm the need for a new airport to serve the Machias Valley area. An airport master plan is currently underway for a replacement airport. The costs for the replacement airport are included in this study's recommended development plan. According to the Environmental Assessment, it will cost approximately $25 million to build the replacement airport. This includes land acquisition, a 5,000 foot long runway, parallel taxiway, apron, fuel, terminal, access road, auto parking, AWOS, MALSR, and t-hangars. There would be additional costs for the airport to meet the recommended objectives for a Level I airport; it is worth noting that the new airport could eventually be upgraded and expanded to meet facilities and services identified as desirable for a Level I Airport.

INDIVIDUAL AIRPORT RECOMMENDATIONS

A summary of the individual airport recommendations to meet MASPU facility and service objectives and actions needed at each airport to more fully fulfill performance measures can be found in **Appendix C**.

COSTS OF THE RECOMMENDED DEVELOPMENT PLAN

The methodology used to develop estimated costs for recommended development included the following:

- Compare existing facilities at each individual airport to facility and service objectives identified for the airport's recommended system level/role.

- Identify specific airport projects and actions needed to reach facility and service objectives.

- Use estimated unit costs identified for the Systems Plan and apply these unit costs to airport needs.

In this process, facility needs and costs were first identified on an airport-by-airport basis. This chapter of the Systems Plan presents a summary of the individual airport cost estimates. Near-term (2005-2013) and long-term (2014-2021) costs were developed for projects stemming from the Systems Plan.

The unit cost estimates used in this analysis reflect actual costs of similar projects recently completed at Maine airports, as well as standard industry averages. Where possible, actual costs from the state's Capital Improvement Plan (CIP) or individual master plans were used. Those unit costs for which recent actual costs were not available were estimated using industry publications such as the Means Cost Guide. System-planning level cost estimates are discussed in this chapter. Given the wide range of airports and airport settings in Maine, actual costs may vary significantly. Costs shown in this chapter are based on constant 2005 dollars; costs have not been increased to show the impact of inflation.

Specific projects costs have been estimated in the following categories:

- Quality of Life
  - Projects needed to support LifeFlight operations.
- Capacity
  - Landside- aircraft storage, auto parking, terminal/administration building
- Aviation Outreach- No costs associated with recommendations
- Safety and Standards
  - Clear approaches
  - Runway/Taxiway separations
  - RSA improvements/expansions

  - Pavement improvements
  - Vegetation Management Plans
  - Operations Manual
  - Emergency Response Plan
  - Wildlife Management Plan
  - Fuel
- Economic Support
- Flexibility
  - Master Plan Updates
  - Business/Financial Plans
- Accessibility
  - Level I airport improvements- weather reporting, snow removal, de-icing, runway length
- Facility and Service Objectives
  - Runway length projects
  - Runway width projects
  - Taxiway length projects
  - Runway lighting projects
  - Taxiway lighting projects
  - Visual Aids (PAPIs, rotating beacon, segmented circle, wind cone)
  - Weather reporting
  - Hangar storage
  - Apron
  - Terminal space
  - Maintenance building
  - Auto parking spaces
  - Fuel
  - Snow removal equipment
  - De-icing equipment

Total estimated costs are presented in the following sections. It is assumed that non-precision GPS approaches and precision GPS approaches will be available in the near future. Since the cost associated with this technology resides in the aircraft, additional equipment cost associated with providing future non-precision and precision approaches has not been estimated. It is possible that airports may incur additional costs to clear approaches or meet other standards. Theses costs have not been estimated, as this would require a master planning level of detail.

Quality of Life

Most of the quality of life benchmarks are informational. OPT would like airports in Maine to support remote areas, island areas, forest fire spotting, and LifeFlight Operations. OPT has worked closely with LifeFlight of Maine to identify airport actions to meet their needs. These include fuel, approaches, and weather-reporting. Many of the airport actions have already been addressed with funding provided from a separate Maine

DOT bond issue, as discussed in Chapter Eight. However, there are several outstanding projects that LifeFlight would like implemented in order to ensure safe operations. The costs associated with the quality of life performance measure are for the installation AWOS to support LifeFlight operations. (See **Table 10-1**.) All fueling recommendations have been addressed prior to completion of this Plan. The costs associated with installing a GPS approaches with precision capabilities are unknown at this time; these costs were not identified by this Plan.

TABLE 10-1
COSTS TO PROMOTE IMPROVED QUALITY OF LIFE

	NEAR TERM	LONG TERM	TOTAL COST
SUPPORT LIFEFLIGHT OPERATIONS			
LEVEL I	$100,000	$100,000	**$200,000**
LEVEL II	$100,000	$0	**$100,000**
LEVEL III	$100,000	$0	**$100,000**
LEVEL IV	$100,000	$0	**$100,000**
SYSTEM TOTAL	$400,000	$100,000	**$500,000**

SOURCE: WSA

Capacity

In order to reach targets established for the Maine Aviation Systems Plan, actions to improve capacity will be needed.

Airfield Capacity

According to Systems Plan projections, nearly all Maine airports have ample airfield capacity. During the planning period, only Portland International Jetport may face operational capacity deficiencies. A master plan for the Jetport is currently underway. According to preliminary findings, the Jetport may not reach the critical demand/capacity ratios during the planning period this airport has experienced a decline in operational levels since the Systems Plan forecast was completed. Facility requirements, alternatives, and recommendations have not yet been developed. OPT should be aware of any capacity improvements that are recommended in the master plan and should monitor operational levels at the Jetport. Brunswick Naval Air Station, located northeast of the Jetport, has recently been included on the Base Reuse and Closure (BRAC) list. Separate follow-on studies will be conducted to determine if there is a role in the public airport system for the airfield facilities at the naval air station. No system costs have currently been assigned to airfield capacity improvements.

Landside Capacity

To meet current and forecast demand, increased capacity for various landside facilities at airports in Level I, Level II, and Level III will be required. **Table 10-2** presents the anticipated costs for airports in each functional level. Costs for the following facility objectives have been estimated:

- **Hangars**. Hangar storage objectives for based and transient aircraft are related to each airport's existing and forecasted based aircraft and transient operations. A flat cost per hangar space was developed for the Systems Plan.

- **Auto Parking**. Auto parking objectives were determined to fulfill general aviation and commercial service needs. General aviation parking requirements are tied to each airport's current and projected based aircraft. Commercial service requirements are related to current and projected enplanements. A flat cost per auto parking space was developed for the Systems Plan.

- **Terminal/ Administration Building**. Each airport's need for terminal/ administration building space increases as its role in the system is elevavated. Square footage objectives for terminal/ administration buildings were established for each airport level/role. Several airports identified by the Systems Plan as needing terminal improvements have terminal building construction projects planned. These costs were extracted from the state CIP or airport master plans and are included in this study. All other terminal/administration building costs are developed using the average cost per square footage of terminal space of other terminal projects in the state.

TABLE 10-2
COSTS TO PROVIDE LANDSIDE CAPACITY

CATEGORY	AIRPORT LEVEL	NEAR TERM	LONG TERM	TOTAL COSTS
HANGARS				
	LEVEL I	$8,435,000	$2,160,000	$10,595,000
	LEVEL II	$945,000	$280,000	$1,225,000
	LEVEL III	$385,000	$175,000	$560,000
	SYSTEM TOTAL	$9,765,000	$2,615,000	$12,380,000
GA AUTO PARKING				
	LEVEL I	$797,000	$24,000	$821,000
	LEVEL II	$18,000	$10,000	$28,000
	LEVEL III	$2,000	$6,000	$8,000
	SYSTEM TOTAL	$817,000	$40,000	$857,000
AIR CARRIER AUTO PARKING				
	LEVEL I- ONLY	$7,466,000	$4,516,000	$11,982,000
TERMINAL/ADMINISTRATION BUILDING				
	LEVEL I	$550,000	$600,000	$1,150,000
	LEVEL II	$75,000	$180,000	$255,000
	LEVEL III	$225,000	$75,000	$300,000
	SYSTEM TOTAL	$850,000	$855,000	$1,705,000
TOTAL- LANDSIDE CAPACITY				
	LEVEL I	**$17,248,000**	**$7,300,000**	**$24,548,000**
	LEVEL II	**$1,038,000**	**$470,000**	**$1,508,000**
	LEVEL III	**$612,000**	**$256,000**	**$868,000**
	SYSTEM TOTAL	**$18,898,000**	**$8,026,000**	**$26,924,000**

SOURCE: WSA

Safety and Standards

Maine's airports were evaluated for their current ability to meet several key safety and design standards. OPT noted that airports should have appropriate programs and procedures in place to meet this performance measure. Estimated costs to enable the airport system to be fully compliant with the following safety and standards performance measure include the following items:

- **Clear Approaches**. The FAA guidelines call for approaches to all airport runways be clear of any obstacles that penetrate their approach surfaces. For the purpose of the Systems Plan, it is difficult to cost the removal of obstructions in each airport's approach. Identifying and developing costs to this level of detail are master planning as opposed to system planning. All costs associated with this performance measure were derived from planned projects contained in the state CIP or individual airport master plans. It is unknown whether or not additional obstruction removal projects are needed to meet the FAA guidelines for clear approaches. However, it is estimated that the cost to meet this objective will be higher than the cost presented in **Table 10-3**.

- **Runway/Taxiway Separation**. Objectives established in the Systems Plan call for all Level I and Level II to have parallel taxiways (full or partial) to support their primary runways. Some system airports do not have proper seperation for their current runway and parallel taxiway systems to meet their existing ARC, as defined by the FAA. Several airports also need taxiway development to meet the study's facility objective. The costs to meet this objective were derived from the state CIP, airport master plans, and Systems Plan estimates.

- **Runway Safety Areas (RSAs)**. There are several system airports whose RSAs on their primary runway do not meet applicable FAA design standards. These standards are determined by each airport's current ARC and approach types. The costs to bring non-conforming RSAs into compliance were derived from state CIP projects. Northern Aroostook Regional, Greenville Municipal, and Newton Field have addressed their RSA deficiencies in the last few years. At Machias Valley, the deficiency will be addressed with the construction of the replacement airport. Planning is underway at Augusta State to improve its RSAs. RSA improvement projects at Augusta will cost approximately $4 million..

- **Pavement**. As part of the Systems Plan, an objective was set for primary runways at all system airports to have a PCI of 70 or greater. Nearly all airports that were noted as being deficient in Chapter Five have implemented projects to improve their runway pavement condition. The only outstanding airport is Belfast Regional. According to their master plan, it will cost approximately $770,000 to rehabilitate their primary runway. The OPT has a program currently underway that monitors pavement condition and prioritizes pavement projects in the state. Historically, investment to maintain pavement infrastructure has been the number

one investment of Maine OPT. Weather, age, usage, and other factors all lead to deterioration of pavement surfaces over time. Primary runways and other paved surfaces at Maine's public airports need to be monitored for their continued ability to meet this benchmark.

- **Plans and Procedures**. In order for system airports to remain compatible with FAA guidelines, the airports should have appropriate plans and procedures in place. These include vegetation management plans, operations manuals/ accident reporting procedures, emergency response plans, and wildlife management plans. Average costs were developed for each of the plans and are reflected in Table 10-3.

- **Fuel**. Airports currently providing fuel should meet NFPA guidelines. In addition, all Level I, II, and III airports should have 100LL fuel. Level I airports should also have Jet A fuel. Several airports have projects currently underway or planned to meet this system objective.

TABLE 10-3
COSTS TO ADDRESS SAFETY AND STANDARD DEFICIENCIES

		NEAR TERM	LONG TERM	TOTAL COST
CLEAR APPROACHES				
	LEVEL I	$3,866,835	$474,700	$4,341,535
	LEVEL II	$940,000	$0	$940,000
	LEVEL III	$1,669,872	$0	$1,669,872
	LEVEL IV	NA	NA	NA
	SYSTEM TOTAL	$6,476,707	$474,700	$6,951,407
RUNWAY/TAXIWAY SEPARATION				
	LEVEL I	$5,728,320	$4,127,771	$9,856,091
	LEVEL II	$4,092,489	$1,323,125	$5,415,614
	SYSTEM TOTAL	$9,820,809	$5,450,896	$15,271,705
RUNWAY SAFETY AREAS				
	LEVEL I	$4,000,000	$0	$4,000,000
	LEVEL II	$125,718	$0	$125,718
	LEVEL III	$260,100	$0	$260,100
	LEVEL IV	$0	$0	$0
	SYSTEM TOTAL	$4,385,818	$0	$4,385,818
PAVEMENT				
	LEVEL I	$0	$0	$0
	LEVEL II	$0	$0	$0
	LEVEL III	$0	$770,000	$770,000
	LEVEL IV	$0	$0	$0
	SYSTEM TOTAL	$0	$770,000	$770,000
PLANS & PROCEDURES				
	LEVEL I	$885,000	$105,000	$990,000
	LEVEL II	$610,000	$0	$610,000
	LEVEL III	$0	$665,000	$665,000
	LEVEL IV	$0	$485,000	$485,000
	SYSTEM TOTAL	$1,495,000	$1,255,000	$2,750,000
FUEL				
	LEVEL I	$250,000	$0	$250,000
	LEVEL II	$159,850	$0	$159,850
	LEVEL III	$163,500	$0	$163,500
	SYSTEM TOTAL	$573,350	$0	$573,350
SAFETY AND STANDARDS- TOTAL				
	LEVEL I	**$14,730,155**	**$4,707,471**	**$19,437,626**
	LEVEL II	**$5,928,057**	**$1,323,125**	**$7,251,182**
	LEVEL III	**$2,093,472**	**$1,435,000**	**$3,528,472**
	LEVEL IV	**$0**	**$485,000**	**$485,000**
	SYSTEM TOTAL	**$22,751,684**	**$7,950,596**	**$30,702,280**

SOURCE: WSA
NOTE: NA=information was not available on the costs to clear approaches at Level IV airports

Economic Support

Maine's airports should support the state economy. This benchmark looked at whether or not Maine's airport facilities are reasonably well-matched to the service areas' economic characteristics. This information was useful in determining where the airport deficiencies in Maine lie. The recommendation associated with the economic support benchmark is to ensure that the airports in the state meet the facility and service objectives for their respective roles.

There are several of the facility and service objectives that are revenue-producing items for an airport, including hangars and fuel. These items can help financially support an airport's operations. It is estimated that the new hangar development needed to meet the landside facility objective for Level I, II, and III airports as developed in the MASPU will cost approximately $12.4 million. Several Level I, II, and III airports need fueling stations to meet their service objectives. It will cost an estimated $516,000 to meet the fuel objectives established for system airports. These costs are included elsewhere in the Systems Plan

Flexibility

Maine airports should be well planned and protected to insure that they can meet future growth. Objectives have been set as part of the Systems Plan for updating Master Plans and ALPs at all airports. In addition, it is suggested that Level I, II, and III airports have business/financial plans that support self-sufficiency. **Table 10-4** presents the costs associated with these planning tools. These costs were developed from the state CIP and Systems Plan estimates, by airport level/role. Costs associated with developing compatible land use planning, having airports included in local comprehensive plans, or reporting activity to OPT have not been estimated.

TABLE 10-4
COSTS TO PROMOTE SYSTEM FLEXIBILITY

	NEAR TERM	LONG TERM	TOTAL COST
MASTER PLANS/ALPS			
LEVEL I	$3,740,689	$7,959,123	$11,699,812
LEVEL II	$1,082,277	$1,225,000	$2,307,277
LEVEL III	$1,050,000	$600,000	$1,650,000
LEVEL IV	$775,000	$625,000	$1,400,000
SYSTEM TOTAL	$6,647,966	$10,409,123	$17,057,089
BUSINESS/FINANCIAL PLANS			
LEVEL I	$180,000	$45,000	$225,000
LEVEL II	$120,000	$0	$120,000
LEVEL III	$80,000	$0	$80,000
SYSTEM TOTAL	$380,000	$45,000	$425,000
FLEXIBILITY TOTAL			
LEVEL I	**$3,920,689**	**$8,004,123**	**$11,924,812**
LEVEL II	**$1,202,277**	**$1,225,000**	**$2,427,277**
LEVEL III	**$1,130,000**	**$600,000**	**$1,730,000**
LEVEL IV	**$775,000**	**$625,000**	**$1,400,000**
SYSTEM TOTAL	**$7,027,966**	**$10,454,123**	**$17,482,089**

SOURCE: WSA

Accessibility

One of the highest priorities for the OPT is to have a public airport system that is easily accessible from both the ground and the air. The Systems Plan set objectives for the state's population and service areas to be accessible to:

- Helicopter landing areas
- Attended seaplane facilities
- Airports with special use aviation
- Airports with commercial airline service
- A public airport system
- A Part 135 operator

No financial cost for meeting these accessibility benchmarks were developed.

The accessibility performance measure calls for all Level I airports to have the following:

- AWOS or ASOS
- Precision approach capabilities
- Snow removal and de-icing equipment
- Runway length of 5,000 feet or greater

Table 10-5 summarizes the costs for Level I airports to meet these objectives.

TABLE 10-5
COSTS TO MEET SYSTEM ACCESSIBILITY TARGETS
FOR LEVEL I AIRPORTS

	NEAR TERM	LONG TERM	**TOTAL COST**
ACCESSIBILITY BENCHMARKS			
AWOS OR ASOS	$0	$100,000	**$100,000**
SNOW REMOVAL EQUIPMENT	$380,000	$290,000	**$670,000**
DE-ICING EQUIPMENT	$0	$7,500,000	**$7,500,000**
5,000' RUNWAY LENGTH	$13,265,000	$4,408,500	**$17,673,500**
ACCESSIBILITY TOTAL	**$13,645,000**	**$12,298,500**	**$25,943,500**

SOURCE: WSA

Facility and Service Objectives

Facilities and services that should ideally be in place at all system airports were identified in Chapter Nine. Facility and service objectives differ by airport role or level. **Tables 10-6 through 10-10** show the costs that could be required at Level, Level II, Level III, Level IV, and all airports combined to make all airports 100 percent compliant with facility and service objectives. It is important to note that in some instances, costs may include more than one project. For example, the cost of taxiway lighting is often included in a taxiway lengthening project.

TABLE 10-6
FACILITY AND SERVICE OBJECTIVES COSTS
FOR LEVEL I AIRPORTS

	NEAR TERM	LONG TERM	TOTAL COST
AIRSIDE FACILITIES			
RUNWAY LENGTH	$13,265,000	$4,408,500	$17,673,500
RUNWAY WIDTH	$0	$2,125,213	$2,125,213
TAXIWAY LENGTH	$9,957,394	$6,060,676	$16,018,070
LIGHTING- RUNWAY	$343,230	$1,100,000	$1,443,230
LIGHTING- TAXIWAY	$0	$0	$0
VISUAL AIDS	$98,000	$0	$98,000
WEATHER	$0	$100,000	$100,000
TOTAL	$23,663,624	$13,794,389	$37,458,013
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	$3,500,000	$1,215,000	$4,715,000
HANGARS-TRANSIENT AIRCRAFT SPACES	$4,935,000	$945,000	$5,880,000
APRON TIEDOWN SPACES	$5,612,960	$1,451,520	$7,064,480
GA TERMINAL/ADMINISTRATION BUILDING	$1,050,000	$300,000	$1,350,000
AIRPORT MAINTENANCE BUILDING	$1,195,260	$0	$1,195,260
GENERAL AVIATION AUTO PARKING	$812,000	$24,000	$836,000
TOTAL	$17,105,220	$3,935,520	$21,040,740
SERVICES			
FUEL	$250,000	$0	$250,000
ALL WEATHER EQUIPMENT	$380,000	$7,790,000	$8,170,000
TOTAL	$630,000	$7,790,000	$8,420,000
GRAND TOTAL	**$41,398,844**	**$25,519,909**	**$66,918,753**

SOURCE: WSA

TABLE 10-7
FACILITY AND SERVICE OBJECTIVES COSTS
FOR LEVEL II AIRPORTS

	NEAR TERM	LONG TERM	TOTAL COST
AIRSIDE FACILITIES			
RUNWAY LENGTH	$0	$2,346,300	$2,346,300
RUNWAY WIDTH	$0	$0	$0
TAXIWAY LENGTH	$4,092,489	$1,323,125	$5,415,614
LIGHTING- RUNWAY	$0	$0	$0
LIGHTING- TAXIWAY	$0	$0	$0
VISUAL AIDS	$29,800	$50,000	$79,800
TOTAL	$4,122,289	$3,719,425	$7,841,714
GENERAL AVIATION LANDSIDE FACILITIES	$0		
HANGARS-BASED AIRCRAFT SPACES	$105,000	$140,000	$245,000
HANGARS-TRANSIENT AIRCRAFT SPACES	$840,000	$140,000	$980,000
APRON TIEDOWN SPACES	$777,600	$155,520	$933,120
GA TERMINAL/ADMINISTRATION BUILDING	$75,000	$180,000	$255,000
AIRPORT MAINTENANCE BUILDING	$767,335	$0	$767,335
GENERAL AVIATION AUTO PARKING	$18,000	$10,000	$28,000
TOTAL	$2,582,935	$625,520	$3,208,455
SERVICES			
FUEL	$103,550	$0	$103,550
TOTAL	$103,550	$0	$103,550
GRAND TOTAL	**$6,808,774**	**$4,344,945**	**$11,153,719**

SOURCE: WSA

TABLE 10-8
FACILITY AND SERVICE OBJECTIVES COSTS
FOR LEVEL III AIRPORTS

	NEAR TERM	LONG TERM	TOTAL COST
AIRSIDE FACILITIES			
RUNWAY LENGTH	$0	$0	$0
RUNWAY WIDTH	$0	$0	$0
TAXIWAY LENGTH	$2,947,249	$475,000	$3,422,249
LIGHTING- RUNWAY	$0	$0	$0
LIGHTING- TAXIWAY	$1,000	$0	$1,000
VISUAL AIDS	$42,000	$0	$42,000
TOTAL	$2,990,249	$475,000	$3,465,249
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	$385,000	$175,000	$560,000
APRON TIEDOWN SPACES	$648,000	$103,680	$751,680
GA TERMINAL/ADMINISTRATION BUILDING	$225,000	$75,000	$300,000
GENERAL AVIATION AUTO PARKING	$2,000	$6,000	$8,000
TOTAL	$1,260,000	$359,680	$1,619,680
SERVICES			
FUEL	$162,500	$0	$162,500
TOTAL	$162,500	$0	$162,500
GRAND TOTAL	**$4,412,749**	**$834,680**	**$5,247,429**

SOURCE: WSA

TABLE 10-9
FACILITY AND SERVICE OBJECTIVES COSTS
FOR LEVEL IV AIRPORTS

	NEAR TERM	LONG TERM	TOTAL COST
AIRSIDE FACILITIES			
RUNWAY LENGTH	$0	$0	$0
RUNWAY WIDTH	$0	$0	$0
LIGHTING- RUNWAY	$16,350	$0	$16,350
VISUAL AIDS	$0	$0	$0
TOTAL	$16,350	$0	$16,350
GRAND TOTAL	**$16,350**	**$0**	**$16,350**

SOURCE: WSA

TABLE 10-10
FACILITY AND SERVICE OBJECTIVES COSTS
FOR ALL AIRPORTS

	NEAR TERM	LONG TERM	TOTAL COST
AIRSIDE FACILITIES			
RUNWAY LENGTH	$13,265,000	$6,754,800	$20,019,800
RUNWAY WIDTH	$0	$2,125,213	$2,125,213
TAXIWAY LENGTH	$16,997,132	$7,858,801	$24,855,933
LIGHTING- RUNWAY	$359,580	$1,100,000	$1,459,580
LIGHTING- TAXIWAY	$1,000	$0	$1,000
VISUAL AIDS	$169,800	$50,000	$219,800
WEATHER	$0	$100,000	$100,000
TOTAL	$30,792,512	$17,988,814	$48,781,326
GENERAL AVIATION LANDSIDE FACILITIES			
HANGARS-BASED AIRCRAFT SPACES	$3,990,000	$1,530,000	$5,520,000
HANGARS-TRANSIENT AIRCRAFT SPACES	$5,775,000	$1,085,000	$6,860,000
APRON TIEDOWN SPACES	$7,038,560	$1,710,720	$8,749,280
GA TERMINAL/ADMINISTRATION BUILDING	$1,350,000	$555,000	$1,905,000
AIRPORT MAINTENANCE BUILDING	$1,962,595	$0	$1,962,595
GENERAL AVIATION AUTO PARKING	$832,000	$40,000	$872,000
TOTAL	$20,948,155	$4,920,720	$25,868,875
SERVICES			
FUEL	$516,050	$0	$516,050
ALL WEATHER EQUIPMENT	$380,000	$7,790,000	$8,170,000
TOTAL	$896,050	$7,790,000	$8,686,050
GRAND TOTAL	**$52,636,717**	**$30,699,534**	**$83,336,251**

SOURCE: WSA

Summary

To fully implement projects identified to meet system performance measures and benchmarks, as well as the facility and service objectives, would take many years and the allocation of at least $115.6 million in federal, state, and local funds. Costs provided in this section have not been developed to the level of detail that would result from master planning, a financial feasibility, or an engineering study. The costs discussed in this section do, nevertheless, provide the Maine DOT and the Office of Passenger Transportation with an understanding of the general cost range that could be associated with achieving higher compliance ratings for each of the system performance measures.

Table 10-11 identifies estimated costs by airport role and the facility and service objectives. Many of the cost estimates for airports used in this analysis were derived from the respective airports' master plan and/or current CIPs. Funding for Maine's Level I airports could approach approximately $87 million.

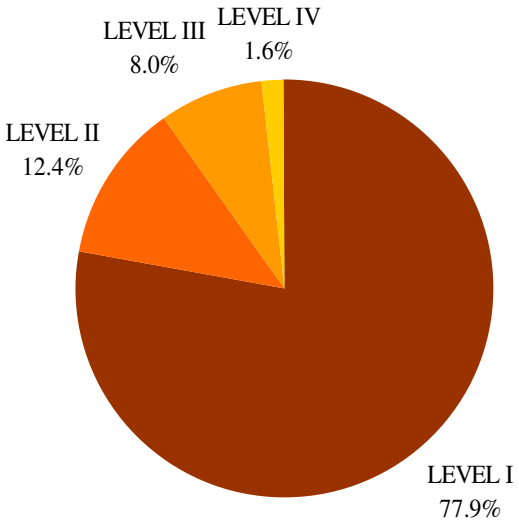
TABLE 10-11
SUMMARY OF TOTAL ESTIMATED SYSTEM PLAN COSTS
BY AIRPORT ROLE

AIRPORT CLASSIFICATION	NEAR TERM COSTS	LONG TERM COSTS	TOTAL ESTIMATED COSTS
LEVEL I	$63,141,080	$37,344,672	$100,485,752
LEVEL II	$10,292,710	$5,744,945	$16,037,655
LEVEL III	$8,809,006	$1,534,680	$10,343,686
LEVEL IV	$1,005,000	$1,096,350	$2,101,350
TOTAL SYSTEM	**$83,247,796**	**$45,720,647**	**$128,968,443**

SOURCE: WSA

The cost section of this final chapter of the Maine Aviation Systems Plan Update indicates that over the next 20-years, at least $115.6 million could be required in order to meet performance measures, benchmarks, and facility/service objectives set in this study. **Exhibit 10-1** summarizes these 20-year costs by airport role. As shown, the majority of these costs, 75 percent, could be incurred to raise the level of performance for the Level I airports in Maine. The remaining 25 percent (14 percent for Level II, 9 percent for Level III, and 2 percent for Level IV airports) would be needed to raise the level of performance of the remaining system airports.

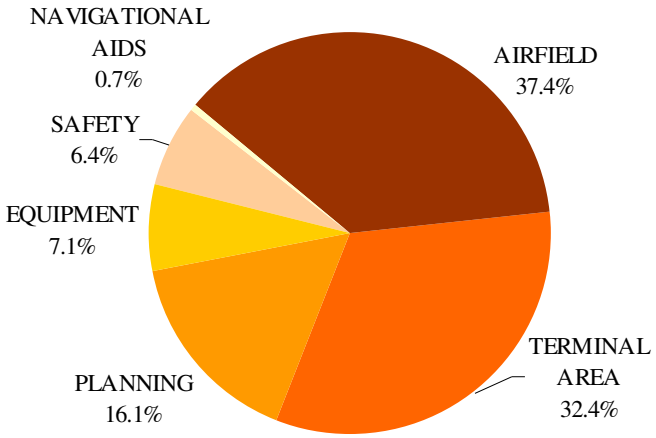
EXHIBIT 10-1
DEVELOPMENT COSTS THROUGH 2021
BY AIRPORT ROLE



SOURCE: WSA

Exhibit 10-2 reflects the development costs through 2021 by project type. Airfield related projects (runway, taxiway, and lighting) would account for 37 percent of the estimated development costs, while terminal area costs (hangars, terminals, apron, auto parking, fuel, maintenance building) could account for 32 percent of the costs.

EXHIBIT 10-2
DEVELOPMENT COSTS THROUGH 2021
BY PROJECT TYPE



SOURCE: WSA

Other Costs

In addition to the projects identified in the Systems Plan, most of the airports in Maine have identified additional needed projects through local planning and goal setting. Airport-specific capital projects and costs are identified in each airport's master plan. Many of the airports in Maine have updated their master plans in the last five years. Many planned projects in airport master plans that will use federal and state funds are identified in the state CIP. The state CIP has estimated project and cost information annually to 2013. **Table 10-12** presents the additional project costs identified in the state CIP and published airport master plans. In addition to the $115.6 million identified to meet Systems Plan recommmendations, an additional $194.7 million could be needed to meet airport needs.

TABLE 10-12
SUMMARY OF ALL PROJECT COSTS

COST CATEGORY	NEAR TERM COSTS	LONG TERM COSTS	TOTAL ESTIMATED COSTS
SYSTEM PLAN COSTS	$83,247,796	$45,720,647	$128,968,443
OTHER CIP COSTS	$120,129,959	$0	$120,129,959
OTHER MASTER PLAN COSTS	$28,212,789	$47,854,143	$76,066,932
TOTAL COSTS	**$231,590,544**	**$93,574,790**	**$325,165,334**

SOURCES: WSA: Airport Master Plans, MaineDOT, OPT

This cost summary is not exhaustive of all the airport projects that could needed through 2021. For example, several airports including, Auburn/Lewiston, Augusta, Central Maine Regional, and Portland International Jetport currently have master plans

underway. Improvement costs that will come from these master plans are not included here. Many airports also do not provide project costs throughout the entire Systems Plan's forecast period (through 2021). Most master plans only provide costs through a 15 or 20 year period. Also, fuel prices in recent years have risen dramatically due to the availability of fuel. These rising fuel costs impact the original project cost estimates developed in the state CIP or the airport master plans including pavement projects, runway and taxiway extensions, and apron projects. The cost estimates provided for these types of projects are now much lower than the costs actually needed to perform the project today.

Summary

Between 2006 and 2021, the approximate annual cost to raise the level of performance of airports to meet Systems Plan objectives would be at least $115.6 million. However, when other desired airport projects are considered, the annual costs are estimated to reach $215.3 million in the near term and an at least an additional $95.0 in the longer term for a total of $310.3 million. On average, this equates to $26.9 per year in the near term and nearly $12 million per year in the long term. In 2005, when federal, state, and local funding sources are all considered $23 million was invested in Maine airports. This amount is below the minimum annual amount that could be needed. The following discussion provides an overview of the funds currently available to Maine's airports.

FUNDING SOURCES

Funding for airport improvement projects is an important issue when considering the future of Maine's aviation system. In order to meet user needs, airports typically rely on funding sources beyond their own revenue. The ability of individual airport sponsors to identify funding sources and to successfully obtain funding, directly impacts development.

There are various sources of funding available to airports in Maine; however, each year, the funding requested far outweighs funding available. In general, funding for capital improvement projects can be secured from the following sources: federal, state, local, or private funds. Implementation of the recommendations presented in the MASPU will require significant effort on the part of all funding agencies. A brief description of each source of funding is presented in the following section.

FEDERAL FUNDING SOURCES AND VISION-100

The FAA, through the Airport Improvement Plan (AIP) grants, distributes federal funds back to the nation's airport system from the Aviation Trust Fund. The Aviation Trust Fund was originally established in 1970 and has since been amended on numerous occasions. The Aviation Trust Fund establishes a source of funds, collected only from the users of the nation's airport system that can be used to fund airport improvements. Only airports included in the National Plan of Integrated Airport Systems (NPIAS) are eligible

to apply for FAA funding. Maine's seven commercial service airports and 28 of the 29 general aviation airports are currently part of the NPIAS and are eligible for federal funding.

Table 10-13 presents total AIP funding for all eligible U.S. airports for the fiscal years 1999-2007.

TABLE 10-13
ALL U.S. HISTORICAL AIP FUNDING (BILLIONS)

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
TOTAL AIP FUNDING	$1.95	$1.85	$3.20	$3.30	$3.40	$3.40	$3.50	$3.60*	$3.70*

*Projected future AIP funding
SOURCE: FAA Airports Financial Assistance Division

VISION-100 was signed into law in December 2003 and reauthorizes the AIP Program Hand through 2007. VISION-100 contains a number of significant changes from previous Airport Improvement Program (AIP) budget authorizations undertaken in conjunction with the development Aviation Trust Fund. The four main changes to the authorization are:

- Non-primary entitlement funds can now be accumulated for up to four years, instead of three.

- Federal portion of AIP eligible projects has increased from 90 percent to 95 percent.

- If no airside improvement projects are needed, AIP funds can be used for items such as fuel farms, aircraft hangars, and general aviation terminals.

- Airports may choose to waive their entitlement funds and FAA can reallocate those funds to airports in same geographical area or state.

Commercial service airports receive entitlement funds based on the number of passengers they enplane during the prior calendar year. Entitlement funding is based on a graduated methodology that provides a lower per enplanements entitlement as total enplanements level increases. This process is used to offset funding disparity that results from the vastly different levels of enplanements occurring at U.S. airports. The minimum passenger entitlement for Primary Airports (those airports enplaning at least 10,000 passengers per year) is $1 million. In Maine, five airports were considered Primary Airports in FY2005 including, Portland International Jetport, Bangor International, Northern Maine Regional, Bar Harbor-Hancock County, and Knox County Regional According to the FAA, these airports received $8.9 million in Primary Entitlements in FY2005. Not all of this money is spent in the year it is recieved. Commercial service airports may also receive cargo funding based on the landed weight of cargo aircraft. Bangor received $88,000 in Cargo Entitlements in FY2005.

General aviation airports (included in the NPIAS) are eligible for State Apportionment funds and Non-Primary Entitlement funds. State Apportionment funds are allocated to states based on a formula using population and geographic size. Those funds are distributed to airports based on FAA prioritization of projects. Maine received $2.0 million in State Apportionment funds in FY2005. General aviation airports are eligible for up to $150,000 in Non-Primary Entitlement funds. To obtain the funds, airports must have a 5-Year CIP with eligible projects that meets AIP funding guidelines. In FY2005, 25 Maine airports received Non-Primary Entitlement funds for a total of $3.7 million.

General aviation and commercial service airports compete for Federal Discretionary funds, which are awarded based on priority ratings given to each potential project by the FAA. The prioritization process ensures that (from the FAA's viewpoint) the most important and most beneficial projects are the first to be completed, given the availability of adequate Discretionary funds. In FY2005, only one Maine airport, Greenville Municipal, received discretionary funds. Greenville received $3.99 million in FAA discretionary funding to rehabilitate Runway 14-32.

Federal funding is limited to development that is justified to meet aviation demand, according to FAA standards. Each airport development project, including those recommended in the Aviation Systems Plan Update, will be subject to eligibility and justification requirements in the normal AIP funding process.

STATE FUNDING

State grants for aviation projects in Maine are administered through the Office of Passenger Transportation (OPT) of the Maine DOT. State funding is available for all publicly-owned airports in Maine. Tax revenue from aviation activities, aircraft registration, fuel tax, and use tax on the sale of aircraft is deposited in Maine's General Fund. However, Maine's aviation funding is "non-dedicated." OPT relies on biennial bond issues from the Legislature. Funding has fluctuated over the last four funding cycles. Between 1999 to 2005, the Maine OPT received a total of $13.0 million in state funding for aviation projects:

- 1999 $4,500,000 (includes $1,500,000 for Loring AFB)
- 2001 $3,250,000
- 2003 $3,600,000 (includes $2,600,000 for Northern Maine Regional Airport and Loring AFB)
- 2005 $1,700,000

Since OPT does not have a dedicated source of revenue each year, programming of aviation capital projects is difficult and funding is subject to change. Historically, needs greatly outweigh available funds, and the unknown financial situation of available money each year makes funding high priority and multi-year projects difficult. Due to rising costs, the funding has grown increasingly scarce in recent years.

Other State Funding

On November 4, 2003, Maine voters overwhelmingly approved a multi-million dollar Transportation Bond, which included $3 million for LifeFlight. Specifically, $2.6 million was granted for helipads and aviation infrastructure. The transportation bond passed by Maine's voters is a public-private initiative to help LifeFlight improve air/medical infrastructure across the state. It will provide more sophisticated weather prediction systems at airports in central, eastern, and northern Maine, on-site refueling at hospitals in Aroostook County, and seed money for a critical care continuing education outreach program. Coupled with in-kind donations and other private contributions, the funds will also help hospitals acquire new or improved helicopter landing pads to improve flight access to health care facilities.

LOCAL FUNDING

Local public airport sponsors such as counties, cities, and airport authorities are responsible for costs associated with airport development projects that remain after federal and state shares have been applied. Historically, in Maine, the local share of federally funded projects has been 5 percent after the 5 percent state share and 90 percent federal share was applied. Beginning in 2004, local match and state match for federal projects is 2.5 percent. For state projects, the local share has varied from 10 percent to 50 percent, depending on the nature of the improvement.

Local government funding of airport development projects is derived from the following sources:

- General Fund Revenues
- Bond Issues
- Airport-Generated Revenues
- Private Funding

Of these, general fund revenues and general obligation bonds are by far the most common funding sources. Revenue bonds supported by airport generated revenues are seldom used because most general aviation airports do not earn enough money to pay operating expenses and the debt service of capital funding requirements.

General Fund Revenues

Capital development expenditures from general fund revenues have been somewhat difficult to obtain in recent years. One reason for this difficulty is the seemingly universal shortfall in local general fund revenues. Budgetary problems have created an environment where local funding is uncertain. The amount of general fund support for airport improvement projects varies by airport and is based upon the local tax base, priority of the development project, historical funding trends, and, of course, local attitudes concerning the importance of aviation.

Bond Issues

Airport authorities can issue bonds without approval from the city or county. However, they must use their own revenue to repay the bonds. Airport revenue and property tax revenue are typically used to repay these bonds.

A city or county can also operate an airport. For these airports, bond issues funding the local share of airport development projects must compete with bond issues for other types of community improvements, such as schools, highways, and sewer systems. As with the general fund apportionment, bond issues supporting airport development depend greatly on the priority assigned to such projects by the local community.

Airport-Generated Revenues

Airport-generated revenues for general aviation airports are those revenues associated with the services that the airport provides. After expenses, net revenues can be used to pay the local share of capital improvement projects. Historically, most general aviation airports have not been able to realize enough revenue to completely cover their expenses and, therefore, often operate at a deficit. As a result, general aviation airports do not typically generate revenues to fund the local share of most development projects.

Commercial service airports, in most cases, do generate enough revenue to cover expenses and realize profits to fund the local share of capital improvement projects. These revenue sources typically come from landing fees, space rentals, auto parking, and fees and commission on gross sales.

Another means for air carrier airports to generate revenue for eligible capital improvement projects is a Passenger Facility Charge (PFC). The PFC program is part of the Aviation Safety and Capacity Expansion Act of 1990, enacted November 5, 1990. The ruling under this act requires the Department of Transportation to issue regulations under which a public agency may be authorized to impose an airport passenger facility charge of up to $4.50/enplaned passenger at a commercial service airport it controls. The proceeds from such PFCs are to be used to finance eligible airport-related projects. PFC-generated revenue can be used to pay all or part of the allowable costs of an approved project. PFCs can be used to pay debt service and financing costs incurred on that portion of a bond issued to carry out approved projects. PFCs may be used in combination with airport grant funds to accomplish an approved project. PFCs can be used to meet the non-federal share of the cost of projects funded under the federal airport grant program.

Private Funds

At publicly owned airports, unless all FAA-required airside improvements have been completed, items such as storage and maintenance hangars, fuel systems, and pay parking lots are not eligible for federal or state grant funding because they are revenue-producing

sources, which can generate rental income for the airport. If a local airport sponsor does not wish to undertake the responsibility of financing, constructing, and managing hangar construction, a fixed-base operator is likely to build these facilities. This is provided that the FBO has the long-term lease agreement and that the financial market allows the project to be economically feasible. Some communities have also worked with local businesses to fund improvements.

FUNDING SUMMARY

Table 10-14 presents a summary provided by the Office of Passenger Transportation of total funding for airports in Maine over the last five years. The funding includes both federal and state funding for this time period. Projects that use 100 percent of local funds or PFC funding are not included. The $2.7 million terminal apron reconstruction at Bangor International in 2005 was funded with PFCs. As shown, five commercial airports accounted for over 73 percent of the state funds between 2002 and 2004. In 2005, Greenville Municipal received $4.0 million in FAA discretionary funds for a runway reconstruction; this single project increased the percentage of funds for general aviation airports.

TABLE 10-14
MAINE AIRPORT HISTORICAL FUNDING

	2001	2002	2003	2004	2005
COMMERCIAL- PRIMARY ENTITLEMENTS					
FEDERAL	$2,681,449	$19,443,894	$13,718,414	$18,962,847	$12,280,462
STATE	$173,128	$1,024,017	$722,606	$2,124,022	$323,670
LOCAL	$154,971	$991,590	$673,989	$499,022	$323,671
TOTAL	**$3,009,548**	**$21,459,501**	**$15,115,009**	**$21,585,891**	**$12,927,802**
% OF TOTAL	42.7%	84.7%	73.5%	73.7%	56.6%
GENERAL AVIATION (INCLUDES AUGUSTA)					
FEDERAL	$2,737,499	$2,964,213	$4,497,711	$5,798,731	$9,003,155
STATE	$794,230	$443,068	$628,802	$1,552,430	$441,516
LOCAL	$233,455	$188,843	$313,702	$231,427	$278,154
TOTAL	**$3,765,184**	**$3,596,124**	**$5,440,215**	**$7,582,588**	**$9,722,825**
% OF TOTAL	53.4%	14.2%	26.5%	25.9%	42.6%
STATEWIDE PLANNING					
FEDERAL	$249,610	$133,029	$0	$125,000	$162,000
STATE	$27,735	$151,338	$0	$13,900	$9,000
TOTAL	**$277,345**	**$284,367**	**$0**	**$138,900**	**$171,000**
% OF TOTAL	3.9%	1.1%	0.0%	0.5%	0.7%
TOTAL					
FEDERAL	$5,668,558	$22,541,136	$18,216,125	$24,886,578	$21,445,617
STATE	$995,093	$1,618,423	$1,351,408	$3,690,352	$774,186
LOCAL	$388,426	$1,180,433	$987,691	$730,449	$601,824
TOTAL	**$7,052,077**	**$25,339,992**	**$20,555,224**	**$29,307,379**	**$22,821,627**

SOURCE: Maine DOT, Office of Passenger Transportation

When compared to the recommended plan costs developed in this Systems Plan, the commercial service airports (excluding Augusta) account for approximately 39 percent of

the total funding needs in the near-term. This points to the growing funding needs of the general aviation airports in the state.

CONSIDERATION FOR MAINE AVIATION FUNDING

The State of Maine recognizes the importance of its system of airports. To support its airport system, a dedicated source of revenue for state development grants should be in place. In 2005, nearly $1.7 million was made available to the Office of Passenger Transportation to fund two years worth of aviation-related projects. However, a review of the recommendations for airport development, as presented in this Study, reveals that the state airport grant program will not adequately support the overall development needs of the Maine aviation system.

Although FAA funds from VISION-100 provide much-needed additional funding to improve the public aviation system, it will not provide OPT enough funding to support the development of projects identified in the state CIP, individual airport CIPs, and through the system planning process.

Between FY2006 and FY2013, OPT estimates that approximately $3.8 million will be requested from the state for funding for Maine Non-Primary Airport projects. (See **Table 10-15**.) OPT estimates that between $1.7 and $2.0 million will be requested by primary airports between 2006 and 2013. Another $47.5 million in Non-Primary Airport CIP needs has already been assigned to an "unfunded" category due to the anticipated shortfall in funding on the Federal, state, and local levels. The unfunded requests for the Primary Airports are not inclusive of all the funds that will be requested during the forecast period. Portland International Jetport and Bangor International do not report funding needs versus programmed projects. It is estimated that the average annual funding requested by Non-Primary Airports in Maine will be in excess of $6.4 million each year. With approximately $850,000 made available each year in state funding, it is obvious that the OPT will not be able to respond to all funding requests during the period.

TABLE 10-15
ESTIMATE OF STATE FUNDING DEFICIENCY FOR NON-PRIMARY AIRPORTS
2006-2013

Non-Primary State Requests (2.5% of Total Request)	$3,764,000
Unfunded Non-Primary Requests (not met by federal, state, and local funds)	$47,467,000
Total Non-Primary Funding Requested 2006-2013	**$51,231,000**
Average State Funds Requested by Non-Primary Airports	$6,403,875
Average Annual State Funds Available (2005/2006)	$850,000
Estimated Annual State Deficit for Non-Primary Airports 2006-2013	**$5,553,875**

SOURCE: WSA

It is apparent that additional funding is critical to Maine's Airport System. Potential sources of additional financial resources for the airport system are limited. Many states set aside aviation fuel taxes, sales tax, other aviation-related monies collected from airport users to help fund airports projects and provide matching funds for airports receiving federal grants. The following section details the revenue that the State of Maine collects from airport users. These taxes are deposited into its Maine's General Fund.

AVIATION TAX REVENUE AND FEES COLLECTED

As part of the Systems Plan, an effort was made to determine the amount of revenue taxes generated by aviation. This gives Maine insight into the revenue that is collected by the state versus the amount that is distributed for airport maintenance and development. Currently, OPT receives funds from biennial bond appropriations as part of voter-approved transportation bonds. In 2005, $1.7 million was appropriated for 2006 and 2007 for aviation.

Tax revenues from aviation activities are remitted to the General Fund. Maine's aviation funding process is "non-dedicated," relying on a portion of transportation bond, where statutory guidance does not provide for proportional allocations to the aviation sector.

Maine assesses the following taxes on aviation activity:

- Jet Fuel Excise Tax
- Aviation Gas Excise Tax and Sales Tax
- Aircraft Sales and Use Tax
- Aircraft Registration Fees

Aviation Fuel Taxes

Maine assesses taxes on aviation fuel sold in the state. Jet fuel is assessed a $0.034 per gallon excise tax. Jet fuel used on international commercial service flights is exempt. Aviation gasoline (AvGas) is assessed a five percent sales tax and an additional $0.22 excise tax per gallon; the tax rate is for all gasoline sold in the state other than jet fuel. For aircraft users, aviation gas taxes can be refunded up to $0.18 per gallon if requests are made to the State Assessor and gasoline invoices are submitted.

Actual sales and excise tax collected on aviation fuel are available from the Maine Revenue Services, Sales, Fuel and Special Tax Division. According to their records, $919,167 in taxes were collected on 27.0 million gallons of jet fuel sold between July 2004 and June 2005. An additional 17.4 million gallons of jet fuel was sold for use by commercial service airlines making international flights; there was no tax on this fuel. 1.2 million gallons of aviation gasoline fuel was also sold between July 2004 and June 2005. The state collected $307,702 in taxes on aviation gasoline during the period. As shown in **Table 10-16**, total annual taxes collected by the state were over $1.2 million.

TABLE 10-16
STATE AVIATION FUEL TAXES COLLECTED JUNE 2004-2005

CATEGORY	GALLONS	TAX
INTERNATIONAL JET FUEL- EXEMPT	17,354,646	$0
TAXABLE JET FUEL	27,037,698	$919,167
TAXABLE AVIATION FUEL	1,225,103	$307,772
TOTAL	**45,617,447**	**$1,226,939**

SOURCE: Maine Revenue Services, Sales, Fuel, and Special Tax Division

Aircraft Sales Tax

Another tax source in Maine is from aircraft and part sales. A 5 percent state sales tax is placed on all aircraft and parts sales. According to Maine Revenue Services (MRS), the state collected a little over $300,000 in taxes from aircraft dealers in 2005 on both aircraft and parts sales. A breakout of the sales tax is not available. In addition, MRS reported an additional $61,000 in tax revenue from aircraft purchased at casual sale or purchased at a retail sale outside of Maine. These aircraft owners must pay tax when registering the aircraft with the state.

Aircraft Registration Fees

Personal property taxes are not levied on aircraft based in Maine. Aircraft owners are, however, required to pay annual registration fees. The annual fee is calculated with the aircraft blue book average price multiplied by a millage rate dependent on aircraft age. For example, the average blue book price is multiplied by 9 mills for aircraft one year old or less; 7 mills for 2nd year; 5 mills for 3rd year; 4 mills for 4th year; and 3 mills for 5th and succeeding years. The fees collected for aircraft registration could not be obtained.

Summary of Aviation-Related Taxes and Fees

At least $1.6 million a year is collected from aviation related taxes:

- Aviation Fuel $1.23 million
- Aircraft and Aircraft Parts Sales $0.36 million
- Aircraft Registration Fees unknown

The Maine Revenue Services receives approximately $1.6 million tax dollars annually from aviation fuel sales, sales tax, and tax on aircraft/repair parts. This does not include annual aircraft registration fees. This compares to the $850,000 that is appropriated to Maine DOT, OPT for aviation projects in 2006.

SPECIAL MAINE FUNDING NEEDS

There are aviation funding needs for Maine's airports that currently do not qualify for typical FAA funding, including projects at privately owned and small publicly owned

airports. OPT supports funding initiatives by the Maine Legislature that could at some future date make "set aside" funds available to meet the needs of these various groups, including rural airports supporting LifeFlight operations, island airports, and private airports.

Emergency Access at Airports (LifeFlight)

As discussed earlier in this chapter, through an organized, politically-driven effort, Life Flight of Maine received additional state funding to support its operations and improve access to the state's rural airports. Jet fuel and AvGas and weather reporting systems were installed at several rural airports in Maine as part of this initiative. Although this $2.6 million in funding was only a one-time occurrence, rural airports may continue to work with LifeFlight of Maine to gain additional funding to improve emergency access, including improved approaches.

Island Airports

As discussed in prior chapters, Maine's unique geography includes many islands. The state has set minimum standard guidelines for the two publicly owned and five privately owned airports providing access to the people on Maine's islands. Recognizing the geographic limitations of the islands, Maine's suggested guidelines for these airports are less demanding than FAA standards. State funding to maintain island airports should be provided in order to improve and maintain access to island airports.

Fuel at Seaplane Bases

Maine's seaplane bases also provide a unique role in the airport system, providing access to the many remote areas and lakes in the State. There is currently a lack of fuel at seaplane bases around the state and many aircraft operators must fly long distances to access fuel for their planes. It is recommended that additional funding be sought to provide fuel at additional seaplane bases in Maine, especially those in the Allagash Wilderness.

Private Airports

There is no FAA or state funding available for private airports to maintain or improve their airfields. OPT recognizes the desirability of providing support to the state's private airports. One state that provides funding for private airports is Pennsylvania. Pennsylvania is able to provide assistance to its private airports through its Aviation Development Program (ADP), funded through jet and avgas taxes collected at state airports. Eligible project costs for projects at airports not eligible for federal funding, but eligible for state funding, are typically be funded up to 75 percent from ADP funds with the remaining 25 percent of funding coming from local or private sources.

SEARCHING FOR ADDITIONAL AIRPORT FUNDING

Federal Funding Sources

The airport funding available from the FAA is based on eligibility, limited to qualifying projects, and only available to publicly owned airports. There are additional funding needs for airports in Maine including:

- Small airport projects that do not rank high enough using the FAA's prioritization process
- Projects at private airports
- Revenue-producing projects such as hangars, parking, terminals, etc. (prior to meeting FAA-required airside improvements)
- Site development for on airport industrial parks
- Projects needed for economic development
- Projects that can help airports be financially self-sustaining

Although additional federal funding for airports from the FAA is limited, there may be other federal sources the Maine airports can tap into for funding airport projects. There are three additional federal agencies that offer funding assistance for certain types of airport projects. These agencies include the Federal Highway Administration (FHWA) of U.S. Department of Transportation; the Economic Development Administration (EDA) of the U.S. Department of Commerce; and the U.S. Department of Agriculture (USDA).

FHWA's Transportation and Community and System Preservation Pilot Program

The FHWA's Transportation and Community and System Preservation Pilot Program (TCSP) was developed in response to the increasing interest in "smart growth" policies that encourage investments in existing infrastructure over new construction, investment in high-growth corridors, and efficient access to jobs and services. The key purpose of this program is to devise neighborhood, local, metropolitan, state, or regional strategies that improve the efficiency of the transportation system, minimize environmental impacts, and reduce the need for costly public infrastructure investments. TCSP funds have been used by communities for several airport-related programs including airport access road improvements and construction, parking projects, and sewer and utilities for on-airport industrial park development. Some specific examples of airport-related projects include:

- Delong Mountain (AK): Undertake a study for an airport facility to serve passenger and cargo traffic to northwest Alaska ($281,230).

- Los Angeles International Airport (CA): Green Airport Initiative - Provide cleaner, more environmentally friendly vehicles available for rental by the general public ($1,982,615).

- Cedar Rapids (IA): Eliminate railroad grade crossing conflicts by constructing the Edgewood Road viaduct near Hwy 30/151/218 and the airport ($2,973,922).

- Jackson (MS): Construct airport connectors to improve traffic flow and transit access and enhance economic development ($871,000).

- Bowling Green (KY): Construct the Transpark Access Road ($1,700,000).

- Dayton (OH) (Huffman Prairie Flying Field): Improve pedestrian, roadway, and transit access to link two aviation-related historic sites; Pedestrian & Multimodal Gateway Entrance ($656,203, $1,486,961).

EDA's Grant Program

Public Works Grants

The EDA provides public works grants to public entities for economic development related projects in economically distressed areas, including transportation facilities and infrastructure improvements, such as sewer and water utilities. These grants require a matching share, usually 20 to 50 percent, and are restricted to infrastructure development. Such public works projects must be necessary to promote long-term, sustainable local economic growth by attracting and encouraging private sector investment and the creation (or at least the retention) of local employment opportunities for area residents.

EDA grants have traditionally been used to support local water and sewer improvements along with access roads serving industrial parks or sites. For example, the City of Alamogordo, New Mexico received a $350,000 EDA grant to provide the first phase of infrastructure improvements to an airport business park adjacent to the White Sands Regional Airport. The infrastructure improvements include curbs, gutters, sewer connections, drainage, and road improvements. EDA grants can also be used to help finance railroad sidings and spurs, vocational training centers, business incubator facilities, airport improvements and tourism facilities, etc. as long as they enhance industrial expansion potentials and assist in creating long-term employment opportunities.

Technical Assistance Grants

Non-profit economic development organizations and general purpose local governments can apply for non-construction grants which can be used to offset up to 75 percent of the total eligible costs for a technical assistance project. Such grants are most commonly associated with the development of information and/or specific data or to secure the expertise necessary (1) to promptly respond to one or more pressing economic development issues of a local or regional nature; (2) to help shape and then implement specific local or regional programs; or (3) foster demonstration programs of possible state or national significance which directly support economic development within the District. The end result of Technical Assistance grants is usually a report or some type of presentation of a strategy for addressing the economic development issues at hand.

Normally, technical assistance grants are completed within 12 months or less of the date of EDA grant award.

Economic Adjustment Grants

Through this EDA program, non-profit economic development organizations and general purpose local governments can apply for non-construction grants which can be used to offset up to 75 percent of the total eligible costs. Eligible costs include those for developing and implementing a viable strategy that addresses major economic adjustment problems. These could be problems resulting from sudden and severe loss of local jobs (such as a plant closing) or the long-term deterioration in the local economy.

Such grants are most commonly utilized to secure the expertise necessary: (1) to promptly respond to one or more pressing economic adjustment problems of a local or regional nature and (2) to help shape and then implement specific local or regional facility marketing or development incentive programs. As such, the end result of Economic Adjustment grants is usually a report or some form of marketing and/or new incentive which collectively represent a local strategy for addressing the economic adjustment problems in question. Normally, these adjustment grants are completed within 12 months or less of the date of EDA grant award.

USDA's Grant Programs

Local governments, special taxing districts, and non-profit public service organizations can utilize the direct loan and the newer loan guarantee provisions administered by the Rural Development Division of the United States Department of Agriculture (USDA).

Community Facility Loans & Guarantees

Under this USDA program, general purpose local governments, special taxing districts, and non-profit organizations are eligible to apply for below-market, fixed-rate, long-term loans which can be used by the applicant to construct, enlarge or improve essential community facilities, including airports and airport hangars. Such projects must be able to document that comparable financing at reasonable rates and terms is not available through other private sector credit sources in order to be considered.

Water & Waste Disposal Grants and Loans

Through this USDA program, special purpose rural water or sewer districts, non-profit public organizations and general purpose governments are eligible to apply for grants and/or below-market, long-term, fixed rate loan funds. Such USDA resources can be used to construct, enlarge or improve essential water and waste disposal facilities (including those for solid waste) provided that comparable credit through private sector sources is not readily available.

Water and waste disposal grants and loans awarded by USDA have been used to help finance municipal or rural water district projects in distressed counties and/or rural communities of less than 10,000 residents. Grants are limited; therefore, they are used

exclusively in combination with USDA loans and then only when necessary to reduce monthly user charges to a level which is more affordable for the project's intended rural beneficiaries.

Programs In Other States

Maine DOT, OPT operates with a small budget compared to other state aviation agencies. OPT has limited resources available to assist in the maintenance and development of airports. With limited funding, it is difficult for the OPT to make significant improvements in the state's aviation system. The majority of the funding for the state's aviation program is used to match federal grants. As previously noted, Maine matches the FAA 95 percent grants with 2.5 percent state money. In addition to federal matching grants, the state also provides matching grants for non-FAA eligible projects.

A review of other funding sources and programs used in other state aviation agencies was conducted and is summarized below. This review should not be considered wholly comprehensive, but it does present information on programs that could be considered to enhance Maine's future airport funding.

Hangar Programs

Several states use a revolving loan program to assist airports with hangar development. These programs provide low interest or interest-free loans to airport sponsors for building new hangars. The loans are paid back into the fund over short periods (five to ten years), and these loans continue to revolve as other airports apply for loans and the loans continue to be repaid. This program usually requires an up front appropriation to initiate the program. Florida's Department of Transportation provides hangar grants up to 50 percent to airport sponsors to propagate the development of hangar facilities. The Iowa General Assembly appropriates $581,000 for landside development such as terminal, hangar and fuel facility construction and/or renovation at public use general aviation airports. The program is a 70 percent state and 30 percent local matching fund program. As previously noted, hangars provide an opportunity for airports to generate revenue as well as additional demand that can help to sustain the operating costs of the airports.

Pavement Programs

Airport pavements represent one of the most significant investments in the aviation system. As such, it is imperative that the pavements be maintained to high standards to prolong the useful life. Alabama implemented a pilot program for pavement maintenance in 1999 that was considered successful. This pilot program could be considered for permanent inclusion in Alabama's airport funding program if sufficient monies were available. Other states use a set-aside for airport pavement preservation wherein a certain percentage of their available funding is dedicated to pavement preservation. In addition to pavement preservation, some state agencies offer marking and/or crack sealing programs for airports. The marking program operated by Nebraska is one in which the

state owns the equipment and actually marks the airports at a lower cost. The airport sponsor pays the Nebraska Department of Aeronautics to complete the marking, but at a significantly reduced rate.

Airport Operation and Maintenance (O&M) Program

Airport sponsors must expend monies to maintain and operate their airports including paying utilities (lighting, buildings, weather system, navigation aids), equipment, staff, and routine maintenance (pavements, buildings, equipment). These O&M costs can be significant to the sponsor depending on the activity at the airport. Minnesota's Department of Transportation offers reimbursement for a portion of these costs depending on the amount of the expense, airport size, and complexity of operation. This reimbursement reduces the burden on the sponsor and ensures the longevity of the airports in the system. This program is especially helpful to small airports that perform important roles in the airport system.

Fuel Storage

Another means for airport revenue generation is fuel sales. To assist airport sponsors with the installation, improvement or increase in fuel storage capacity, some states offer a fuel storage loan program. These programs provide low or interest-free loans to airport sponsors to engineer, purchase, and install fueling systems at up to 50 percent of the cost of the project.

Terminal Buildings

Some states provide a grant programs to aid in the funding of terminal buildings. Alabama's existing state grant program allows for funding of general aviation terminal buildings. Terminal building costs that are for public use or publicly accessible areas are eligible up to a maximum of $150,000. Under the existing priority rating system, terminal buildings receive such a low priority that they typically do not get funded. Other state aviation agencies offer similar programs, but use resource allocation methods wherein a certain percentage is dedicated to terminal building development.

Summary

It is important to note that all of these programs require additional funding. Maine's current funding structure and program application is such that, with the increased level of FAA funding provided as part of VISION-100, much of the state's airport funding has been used to match FAA grants. There has been little remaining to initiate new programs that have large start-up costs

CONTINUOUS PLANNING RECOMMENDATIONS

The final section of this report identifies steps for evaluating progress of the system and providing sustainable planning. Maine DOT, OPT plans to revisit the findings from the Systems Plan at regular intervals. Monitoring performance over time will identify gaps and assist in developing strategies to meet the ongoing needs of the aviation system. As the system is monitored, further refinement to airport roles, as assigned in this plan, may be warranted.

The FAA recognizes that continuous planning is a key to a success of a state airport system. Continuous system planning is typically comprised of the following five elements:

- Surveillance
- Reappraisal
- Service and Coordination
- Special Studies
- Updates

SURVEILLANCE

Aviation is a dynamic and fluid industry, one that is constantly changing. As aviation changes, the system of airports supporting aviation demand will also continue to change. As part of the continuous planning process, surveillance is recommended as it relates to the demand components and to the facilities/services of the airports.

As part of the Maine Aviation Systems Plan Updated, data on a number of demand indicators for system airports have been assembled; these include statistics on the number of aircraft based at each airport in the system and total annual aircraft takeoffs and landings at each airport. As part of the continuous planning effort, the following actions should be considered:

Activity Indicators

As part of the Systems Plan, a benchmark has been developed that all system airports should have a system in place to maintain, update, and report annual aviation activity statistics to OPT. OPT should use and build upon the database of based aircraft, operations, and enplanements information that has been assembled for each airport as part of this Systems Plan. Information on total based aircraft, as well as the mix of these aircraft, should be updated at a minimum on an annual basis. Given the nature of certain airports in the system, tracking seasonal changes in the total number and the types of aircraft based and operating at each airport would also prove useful. To ensure that data on total based aircraft and the based fleet is consistent from year to year, it is recommended that counts of based aircraft (annual and seasonal) should be undertaken in the same month each year and that OPT should develop a procedure for updating and

tracking this type of information for its airports. In order to track operations and based aircraft in the state, it is recommended that airports be required to provide this information to OPT before matching grant funds are awarded.

Similar to most general aviation airports in the United States, nearly all of Maine's airports are non-towered. Therefore, total annual operations for these airports are based on estimates at best, as opposed to actual data or counts. As part of the continuous planning process, it is recommended that OPT work to establish a more formalized procedure for estimating activity at each of the general aviation airports. It is recommended that estimates of total annual operations should be updated annually at a minimum.

Future planning and development of all Maine airports is tied to the most demanding or the critical/design aircraft for each airport. This may be an aircraft that is based at the airport or, in other instances, it may be an aircraft or a "group" of aircraft that visit the airport on a regular basis. The FAA defines "regular basis" as being 250 takeoffs or landings, or 500 total annual operations, each year. Each airport's Airport Reference Code (ARC), which determines its applicable FAA design standards, is determined by this design aircraft. It is possible that over time, Maine airports may be frequented by larger, more demanding aircraft. It will be important to record and document any such change, so as to justify evolving to a more demanding ARC. The FAA often requires documentation on critical aircraft operations to support any runway lengthening, or precision approach establishment. Logs and journals on the types of aircraft that operate at Maine airports, along with the frequency of their operations, is important to establishing future ARCs for all airports. It is recommended that OPT work with on-site operators at each airport to establish mechanisms for identifying and tracking critical aircraft operations.

Facilities/Services

It is likely that over time, Maine airports will improve and expand their facilities. One of the products of the Systems Plan was a facilities-based "report card" showing just how each airport currently provides or does not provide the facilities that the Systems Plan identified as being desirable for each airport's respective system role. As conditions at system airports change and as improvements are realized, it is recommended that OPT update the airport specific facility report cards. This should be done each year to provide OPT with a visual picture of how the system is moving toward its designated targets. Airport specific summaries provided at the end of this chapter provide information on facility improvements that have been identified as being desirable for each airport to best meet its system role.

Another product of the Systems Plan was a services-based "report card" that showed how each airport currently provides or does not provide services that the System Plan identified as being desirable for each airport's respective system role. OPT should establish mechanisms for identifying changes in the services provided at each airport. As

conditions at system airports change and as improvements are realized, it is recommended that OPT also update the airport specific service report cards. This should be done each year to provide OPT with a visual picture of how the system is moving toward its designated targets. Airport specific summaries provided at the end of this chapter provide information on service improvements that have been identified as being desirable for each airport to best meet its system role. Data on each airport's facilities and services should be refreshed annually and airport specific reports cards on facilities and services updated.

REAPPRAISAL

Aviation in Maine will continue to change over time. As demand levels and other facets of the system change, conclusions drawn as part of the Systems Plan may need to be reevaluated. Many of the airport-specific recommendations contained in the Systems Plan are tied to findings from the Systems Plan's demand/capacity analysis. Additionally, each airport's current ARC was an important consideration in many of the study's final recommendations. Should it be necessary to upgrade the ARC for any of the Maine airports or should airports fall short of or exceed demand projects contained in the Systems Plan, the conclusions/ recommendations presented in this plan may warrant reevaluation.

As part of the continuous planning process, it is recommended that OPT compare activity levels projected in the System Plan to actual demand levels at each of the key forecast milestones. Based on this comparison, decisions to slow down or to accelerate projects that are needed to meet anticipated demand can be made.

As was recommended above, OPT should develop a procedure for identifying and tracking demand by each airport's most demanding (critical) aircraft. In this way, it will be possible for OPT to determine if changes in current ARCs at any of the system airports are needed. As part of the Systems Plan's Safety/Standards performance measure, each airport was evaluated for its ability to meet FAA design standards and development guidelines as it relates to the airport's existing ARC. If demand characteristics at any system airport change to support a more demanding ARC, then FAA standards for that airport would also change. As part of the Systems Plan, OPT set an objective to have all airports be totally compliant with all appropriate FAA standards. The Systems Plan identifies projects for each airport that are needed to enable them to be compliant with standards as determined by the current ARC. If more demanding aircraft use Maine airports in the future, upgrades to ARCs may be warranted. These upgrades would in turn lead to revised and most likely more demanding design standards for those airports.

Each airport was reviewed for its ability to provide both adequate airside and landside capacity. This determination was made based on current and projected demand levels for all airports. Most capacity shortfalls identified in the Systems Plan related to aircraft parking and hangar storage. Actual demand for these facilities at each airport should

continue to be monitored by OPT over the planning period to determine the need to act on system recommendations as they pertain to these two types of facilities.

The Systems Plan identified a future shortfall in operational capacity only at Portland International Jetport. Demand at system airports will continue to grow and more general aviation aircraft that historically have operated from the Jetport seek operating alternatives at other airports in the Maine system, demand/capacity ratios could change. The Systems Plan provided an estimate of each airport's ability to process activity on an annual basis. This estimate is presented in the report as each airport's annual service volume (ASV). As demand continues to grow, it is possible that FAA-established triggers could be reached that would require additional airfield operating capacity. Therefore, it is recommended that when OPT annually updates its operations estimates for each airport, they also should compare these estimates to the ASV for each airport presented in this study. When an airport reaches a demand/capacity ratio of 60 percent (as per FAA criteria), the airport sponsor should begin to plan for options to increase the airport's ability to process operational activity. At 80 percent, the airport sponsor should act on those plans.

SERVICE AND COORDINATION

As part of the continuous planning process for Maine, OPT should purse several coordination and communications activities. These activities are focused on coordination between OPT and the airports, OPT and the communities that host the airports, and OPT and other state and federal agencies. Continuous planning efforts in this category include the following:

- **Security Issues** – Following the events of 9/11, the Transportation Security Administration (TSA) was established and a host of new security guidelines, including equipment, and personnel requirements, were put in place at airports in the U.S. serving scheduled commercial airlines. Formal Federal guidelines for appropriate security measures at general aviation airports are still forthcoming. Recognizing that security at general aviation airports should be commensurate with the risk they pose, the Systems Plan identified basic security related facility improvements that should be considered for all Maine airports. OPT, through various organizations such as AAAE, AOPA, NBAA, NASAO, and other should continue to monitor as part of the continuous planning process federally mandated security requirements for general aviation airports. These recommendations should be incorporated into each airport's CIP, as may be appropriate.

- **Airport Advisory Groups** – During the Systems Plan, in order to develop individual airport goals and objectives, meetings were held in each airport community. These meetings are the first step in establishing effective dialog between OPT, host communities and municipalities, economic development groups, airport users, and others. It is a recommendation of this plan that as part of the continuous planning effort, these groups continue to meet on an on-going

and regular basis. Meetings should be held at least once a year to provide an opportunity to discuss aviation and airport issues that are of statewide and /or local importance.

SPECIAL STUDIES

As part of the continuous system planning process, there is often a need for follow on special studies that are desirable to address needs identified during the system planning process. As part of the continuous system planning process, the need for the following special studies have been identified and are recommended:

- **Master Plans** – The Systems Plan concluded that it was desirable for all system airports to have current master plans and ALPs. It is the recommendation of this plan that as part of the continuous system planning process, each of the airports have a master plan and that the master plan include the development of a complete ALP set, including a future ALP. Master plans and ALPs for the OPT airports should be updated every 5-15 years or as conditions warrant.

- **Land Use Compatibility Guidelines** – Incompatible land use in the airport environment has the potential to limit the future growth and development of airports in Maine. Recognizing this fact, follow-on steps should be taken to develop guidelines for land use compatibility. Land use compatibility can generally be described as the compatibility of the area around each airport where the height of objects should be limited so as not to impede safe airport operations, where noise impacts could most logically be expected, and where typical aircraft traffic patterns would occur. These guidelines could be used by all system airports to enable them to better meet the system plan's objectives.

- **Runway Approach Obstruction Study** – One of the objectives for the Maine Aviation System is for all system airports to have clear approaches to both ends of their primary runway. To meet this objective, it is recommended that a follow-on study be conducted. Coordination and meetings with each of the airports and municipalities would be included as part of this follow-on study. The study would include the development of a model height zoning ordinance that would be taken to each municipality. The objective would be to have all municipalities tailor the model zoning ordinance to their particular situation, and for each to adopt a height zoning ordinance, while ensuring unobstructed approaches to each airport's primary runway. Follow-on study is needed to identify where obstructions cannot be resolved and to determine where obstructions have been mitigated through lighting.

- **Vegetation Management Plans/Wildlife Management Plans** – It is a goal for the system to have all airports compliant with applicable regulatory minimums. It is the recommendation of this plan that the currency of all applicable regulatory permits and plans be monitored; and that such documents be updated as needed.

While many airports have ongoing efforts to clear vegetation that penetrates critical safety area at most system airports, many of Maine's general aviation airports do not have Vegetation Management Plans or Wildlife Management Plans. The purpose of these plans is to define vegetative or wildlife management and maintenance practices that would allow airports to prevent future penetrations through FAA-mandated airspace surfaces. As part of the continuous planning process, it is recommended that Vegetation Management Plans and Wildlife Management Plans and be prepared for Level I, II, and III airports, that actions/recommendations of these plans be followed by OPT, and that these plans be updated at appropriate intervals.

- **Pavement Management Plan (Continuous)** – One of the objectives for the Systems Plan is for all airports to have a pavement condition index (PCI) of at least 70 on their primary runways. To meet and maintain this objective, it is a recommendation of the continuous planning process, that pavement management be conducted on a continuous basis for the airports in Maine. This would identify current pavement condition, possible maintenance or rehabilitation projects, and costs attributable to each system airport.

- **Business Plans** – As part of the continuous planning process, it is recommended that actual business plans be prepared for each of the airports. These business plans should include the development and adoption of minimum standards for all airports in the Maine system.

- **Emergency Plans and Operations Manuals** – The Systems Plan also recommends that all airports have an operations manual and Level I and II airports have Emergency Plans.

- **NAVAIDS Study** – It is recommended that a comprehensive navigational aids study be developed to review existing navigational aids, aviation weather collection, and other systems in place that assist pilots and other users in Maine. A study could include an examination of existing facilities, an evaluation of the capability of state airports to support improved or new NAVAIDS, and quantification of the costs associated with the upgrade and improvement of the NAVAIDS in the state

- **Economic Impact Study** –It is a recommendation of the continuous planning process, that a comprehensive economic impact study be conducted for the airports in Maine. This study would identify current jobs, payroll, and annual economic activity attributable to each system airport. Maine DOT, OPT plans to develop an economic impact study in 2006.

- **Passenger Demand/Air Service Potential** – It is a recommendation of the continuous planning process that OPT should undertake an analysis to measure the state's total demand for commercial airline travel. While all six of Maine's

commercial airports can quantify the volume of passengers they serve, most airports can not readily determine their unconstrained passenger demand levels. All airports in Maine experience some degree of passenger "leakage," with much of this leakage going to commercial airports in neighboring states. A study to quantify the economic disbenefit to Maine from out-of-state commercial passenger leakage is needed. The study should also measure the demand for commercial airline travel on a county-by-county basis; it is possible to identify airports/markets in the state that could have the potential to support new or improved scheduled airline service.

UPDATES

The final element of the continuous planning process addressed needed updates. As noted above, once master plans are completed for each of the airports, these should be updated at appropriate intervals. The final section of the this report identifies OPT's plans for preparing master plans and ALPs and for keeping them current in accordance with objectives established by the Systems Plan. In addition to these updates, the following actions are also recommended as part of the continuous planning process.

- **System "Report Card"** – The system "report card" is a tool which allows the OPT to visualize their achievement of target goals over the life span of the Systems Plan. It is recommended that the report card be updated every year to ensure its accuracy and to track the progression of airports in Maine.

- **Plans and Permitting Regulatory Control** – The recommendation to update master plans, ALPS, and other regulatory plans has been previously discussed.

- **Aviation Systems Plan** – The Aviation Systems Plan Update provides OPT with a blueprint for the development of its airport system. As the aviation industry changes over time, as Maine's airports grow, and as the state's socio-economic and demographic characteristics change, the System Plan should again be updated. It is recommended that as part of the continuous planning process that OPT consider updating the System Plan on a five to ten year interval.

SUMMARY

The Maine Aviation Systems Plan has identified costs elevate the overall performance of the state's airport system and to enable individual airports in the system to fulfill their designated roles. The Systems Plan estimates that approximately $6.1 million annually is needed to improve and maintain Maine's Aviation System.

Airports in Maine are critical transportation and economic resources. For communities throughout Maine, airports are important economic catalysts. Employers throughout Maine agree that commercial and general aviation airports are critical to business attraction and retention. By responding to performance measures, benchmarks, and

facility/service objectives outlined in the Maine Aviation Systems Plan Update, Maine will have a flight plan that will take them through the next 20 years.

APPENDIX A

Table 1
HISTORIC BASED AIRCRAFT
MAINE AVIATION SYSTEM PLAN

CITY NAME	FACILITY NAME	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1994	1995	1996	1997	1998	1999	2000	2001	AAG 1994-2001
Auburn	Auburn/Lewiston Municipal	45	48	50	55	57	55	53	50	48	43	59	61	55	53	45	45	55	71	3.2%
Augusta	Augusta State	60	52	53	49	60	60	55	55	50	49	53	53	53	53	53	53	53	46	-0.4%
Bangor	Bangor International	47	50	50	52	54	55	55	26	26	57	87	84	84	81	81	92	92	67	1.0%
Bar Harbor	Hancock County-Bar Harbor	29	33	36	41	47	47	48	47	43	43	48	47	44	44	44	44	44	44	0.1%
Belfast	Belfast Municipal	20	20	22	20	20	19	18	17	18	19	25		22	22	22	15	15	24	1.5%
Bethel	Bethel Regional	4	5	7	9	10	10	9	9	8	8			8	9	9	9	9	9	0.7%
Biddeford	Biddeford Municipal	33	27	31	27	25	28	25	26	27	28	24	21	21	21	21	21	35	41	2.4%
Caribou	Caribou Municipal	19	20	20	21	21	20	19	18	17	16	9	9	9	19	9	9	9	11	-2.3%
Carrabassett	Sugarloaf Regional	3	3	3	3	5	5	5	5	5	5			3	3	3	3	3	8	3.0%
Deblois	Deblois Flight Strip	1	1	1	1	1	1	1	0	0	0								1	n.a.
Dexter	Dexter Regional	11	11	13	14	16	16	17	17	18	18	15	15	15	15	15	15	15	17	-0.4%
Dover-Foxcroft	Charles A. Chase Jr. Memorial Field	2	2	5	9	10	10	10	10	10	10							4	2	-9.6%
Eastport	Eastport Municipal	6	8	8	8	8	8	8	8	8	8					8	5	5	5	-2.9%
Frenchville	Northern Aroostook Regional	15	2	4	6	8	7	6	6	6	6	5	6	6	6	6	5	5	8	1.8%
Fryeburg	Eastern Slopes Regional	35	27	29	30	30	30	29	28	27	27					27	27	27	27	0.0%
Greenville	Greenville Municipal	11	13	13	20	20	18	16	14	13	12	13	13	13	13	13	24	25	21	3.6%
Houlton	Houlton International	29	29	30	31	30	30	30	28	27	26	41	37	35	32	33	29	28	29	0.7%
Islesboro	Islesboro	0	0	0	1	1	1	1	1	1	1			2	2	2	2	2	4	9.1%
Jackman	Newton Field	4	4	4	7	4	4	4	3	3	3			3	2	2	2	2	9	7.1%
Lincoln	Lincoln Regional	6	8	9	10	10	10	11	11	12	12				19	19	26	26	26	5.0%
Lubec	Lubec Municipal	1	1	2	2	2	2	1	1	1	1								1	0.0%
Machias	Machias Valley	12	12	12	15	15	10	11	13	14	15					8	8	8	8	-3.9%
Millinocket	Millinocket Municipal	26	25	25	19	31	31	31	31	31	31	33	25	14	15	15	10	13	13	-5.3%
Norridgewock	Central Maine Regional	36	40	45	51	61	40	44	60	50	58	48	58	59	57	57	57	57	59	0.1%
Old Town	Dewitt Field/Old Town Municipal	42	48	48	48	37	36	35	33	32	30	17	17	17	17	17	17	17	22	-1.9%
Oxford	Oxford County Regional	28	28	30	30	32	35	30	22	16	9	15	10	10	10	10	10	10	10	0.7%
Pittsfield	Pittsfield Municipal	30	23	25	30	25	27	25	25	25	24	26	26	34	38	38	38	38	38	2.9%
Portland	Portland International Jetport	76	76	76	80	87	45	53	43	46	46	52	54	54	44	44	44	44	56	1.2%
Presque Isle	Northern Maine Regional	14	18	25	30	31	30	29	29	28	27	22	21	22	23	22	23	23	23	-1.0%
Princeton	Princeton Municipal	13	13	12	10	8	9	10	10	11	12	10	10	12	10	10	10	10	8	-2.5%
Rangeley	Rangeley Municipal	8	8	10	11	13	13	13	13	13	13	12	12	12	12	12	12	12	12	-0.5%
Rockland	Knox County Regional	52	52	55	57	60	61	62	63	64	65	55	55	55	69	55	55	55	55	-1.0%
Sanford	Sanford Regional	47	52	65	67	69	65	68	62	56	50	53	46	46	46	46	46	46	67	1.8%
Stonington	Stonington Municipal	4	8	4	6	8	8	7	7	6	6			8	8	8	8	8	8	1.8%
Waterville	Waterville Robert LaFleur	41	41	41	43	43	41	38	35	31	28	34	34	34	37	37	24	24	15	-3.8%
Wiscasset	Wiscasset	29	25	40	45	46	40	35	28	21	17					24	33	33	43	6.0%
TOTAL—Based Aircraft		**839**	**833**	**903**	**958**	**1,005**	**927**	**912**	**854**	**812**	**823**	**756**	**714**	**750**	**780**	**815**	**821**	**852**	**908**	**0.62%**

1995 MASP | FAA, Terminal Area Forecasts | Airport Master Plans | 2001 MASP Inventory

Table 2
HISTORIC ANNUAL GENERAL AVIATION OPERATIONS

CITY NAME	FACILITY NAME	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1994	1995	1996	1997	1998	1999	2000	2001	AAG 1994-2000
Auburn	Auburn/Lewiston Municipal	45,000	42,000	51,000	54,000	55,000	60,000	60,000	60,000	60,000	50,000	62,012	62,012	55,240	59,000	59,100	59,100	59,100	30,100	-8.1%
Augusta	Augusta State	35,000	35,000	40,000	41,000	54,128	54,000	54,000	54,000	54,000	54,000	54,516	54,022	43,304	54,006	44,524	56,200	55,958	27,500	-10.6%
Bangor	Bangor International	48,502	56,190	55,595	55,733	54,191	53,000	48,625	44,575	41,956	38,744	38,744	35,877	31,377	35,857	39,342	44,524	36,045	34,831	-1.8%
Bar Harbor	Hancock County-Bar Harbor	32,000	32,000	35,000	41,000	40,000	35,590	37,996	39,064	39,040	40,900	37,978	37,768	37,318	36,908	37,172	37,142	37,480	40,000	-0.4%
Belfast	Belfast Municipal	16,300	16,300	16,300	16,500	16,300	16,000	15,500	15,000	15,500	16,000	17,300	17,300	17,300	17,300	13,000	13,000	13,000	12,050	-4.6%
Bethel	Bethel Regional	2,500	2,500	3,000	4,000	2,500	2,900	3,300	3,800	4,400	5,000			2,504	2,504	2,504	2,504	2,504	2,504	-10.9%
Biddeford	Biddeford Municipal	47,760	44,000	41,000	38,000	35,000	35,000	35,000	35,000	35,000	35,200	35,220	35,220	35,220	35,220	35,220	35,220	35,220	34,300	-0.4%
Caribou	Caribou Municipal	22,000	22,000	23,000	23,000	23,500	16,500	11,600	8,100	5,700	4,000	10,400	10,400	10,400	10,400	10,400	10,400	10,550	10,400	17.3%
Carrabassett	Sugarloaf Regional	1,500	1,500	1,500	1,500	5,000	5,000	5,000	5,000	5,000	5,000			5,000	5,000	5,000	5,000	5,000	5,000	0.0%
Deblois	Deblois Flight Strip	100	100	100	100	100	100	100	100	100	100							100	100	0.0%
Dexter	Dexter Regional	7,800	6,000	6,300	6,500	6,349	6,400	6,500	6,600	6,700	6,700	4,800	5,200	4,760	5,130	6,260	6,760	7,200	7,200	1.2%
Dover-Foxcroft	Charles A. Chase Jr. Memorial Field	500	500	1,500	2,200	3,200	3,000	2,800	2,600	2,400	2,200							900	1,100	-10.9%
Eastport	Eastport Municipal	2,200	3,000	6,100	7,000	7,500	8,200	9,000	9,900	10,900	12,000	7,000	7,200	8,100	9,000	8,800	9,500	10,110	3,825	-17.4%
Frenchville	Northern Aroostook Regional	29,000	3,875	7,750	11,000	15,455	16,600	17,800	19,100	20,500	22,200	22,000	22,000	22,000	22,000	22,000	22,000	22,000	17,000	-4.4%
Fryeburg	Eastern Slopes Regional	30,300	27,000	26,000	25,000	23,670	24,900	26,200	27,500	28,900	30,300					33,330	33,330	33,330	33,350	1.6%
Greenville	Greenville Municipal	4,000	4,000	2,800	2,800	2,810	2,800	2,800	2,800	2,800	2,800	4,100	4,100	4,100	4,100	4,100	4,100	4,380	4,380	7.7%
Houlton	Houlton International	20,500	20,500	21,750	23,000	19,800	18,200	16,700	15,400	14,200	13,000	19,800	19,800	19,800	19,800	19,800	19,800	20,500	20,500	7.9%
Islesboro	Islesboro	500	500	500	2,600	3,000	3,000	3,000	3,000	3,000	2,500			1,400	1,400	1,400	1,400	1,400	1,400	-9.2%
Jackman	Newton Field	2,600	2,700	2,800	2,935	2,935	2,700	2,500	2,300	2,100	2,001	2,935			7,000	7,000	7,000	7,000	7,000	23.2%
Lincoln	Lincoln Regional	1,000	4,000	4,500	5,000	7,000	7,800	8,700	9,700	10,800	12,000					5,700	5,700	5,700	29,120	15.9%
Lubec	Lubec Municipal	600	600	600	600	590	600	600	600	600	500								590	2.8%
Machias	Machias Valley	13,000	14,000	15,000	13,500	13,000	13,000	13,000	13,000	13,000	13,000				33,000	33,000	33,000	33,000	33,000	16.8%
Millinocket	Millinocket Municipal	5,100	5,400	5,700	6,000	7,500	7,700	7,900	8,100	8,300	8,400	35,300	35,300	8,550	35,300	35,300	9,800	9,800	9,800	2.6%
Norridgewock	Central Maine Regional	20,000	20,000	20,000	19,500	18,250	19,700	21,300	23,000	24,900	26,948	26,513	20,000	20,000	20,000	20,000	20,000	20,000	20,000	-4.8%
Old Town	Dewitt Field/Old Town Municipal	60,300	62,500	63,750	65,000	59,360	54,000	49,100	44,700	40,700	37,000	59,360	59,360	59,360	59,360	59,360	59,360	60,260	59,360	8.2%
Oxford	Oxford County Regional	16,000	16,000	14,000	12,000	12,045	11,100	10,200	9,400	8,700	8,086	32,070	32,070	32,070	32,070	32,070	32,070	32,070	8,400	0.6%
Pittsfield	Pittsfield Municipal	17,000	17,500	20,000	20,000	18,221	19,000	19,000	19,000	19,000	20,000	19,000	20,000	20,000	20,000	20,000	20,000	20,000	23,000	2.4%
Portland	Portland International Jetport	64,014	71,061	75,215	71,150	68,325	67,716	69,787	74,452	75,421	83,540	66,608	72,396	64,495	77,415	75,701	76,133	59,188	59,188	-5.6%
Presque Isle	Northern Maine Regional	17,000	17,000	17,000	17,000	16,900	18,200	19,600	21,100	22,700	24,300	7,022	5,698	6,134	6,270	5,598	4,988	5,718	5,600	-21.7%
Princeton	Princeton Municipal	4,800	4,750	4,600	4,500	4,500	4,900	5,300	5,700	6,200	6,600	6,500	4,500	4,500	4,500	4,500	4,500	4,500	4,500	-6.2%
Rangeley	Rangeley Municipal	4,000	4,000	4,600	5,100	11,135	13,600	13,800	13,900	14,100	14,300	8,150	8,150	8,150	8,150	8,150	8,150	8,150	8,150	-8.9%
Rockland	Knox County Regional	40,000	42,000	44,000	45,000	48,549	48,500	48,500	48,500	48,500	48,300	47,250	47,456	45,132	62,000	51,109	51,467	51,490	48,069	-0.1%
Sanford	Sanford Regional	50,200	53,000	54,000	54,000	55,000	54,400	53,800	53,200	52,600	52,000	57,000	57,000	62,700	62,700	62,700	62,700	62,700	68,945	4.8%
Stonington	Stonington Municipal	1,500	2,000	1,400	1,700	1,400	1,400	1,400	1,400	1,400	1,400			1,400	1,400	1,400	1,400	1,400	1,400	0.0%
Waterville	Waterville Robert LaFleur	26,000	26,000	26,000	27,000	28,900	30,300	31,700	33,200	34,800	36,400	22,400	22,400	22,400	22,400	22,400	22,400	26,400	22,400	-7.8%
Wiscasset	Wiscasset	23,000	23,000	35,000	38,000	39,500	39,000	38,500	38,000	37,500	37,000					20,250	20,250	20,250	11,250	-18.0%
TOTAL— General Aviation Operations		**711,576**	**702,476**	**747,360**	**762,918**	**780,613**	**774,806**	**770,608**	**770,791**	**771,417**	**772,419**	**703,978**	**695,229**	**652,714**	**769,190**	**806,190**	**798,898**	**782,403**	**705,312**	**-1.5%**

1995 MASP | FAA, TAF or Tower Counts | Airport Master Plans | 2001 MASP Inventory

APPENDIX B

APPENDIX B
EDUCATIONAL PROGRAMS

Kids in Transportation Program – Portland International Jetport

The Kids in Transportation Program, located at Portland International Jetport, seeks to enhance the public's understanding about aviation as well as aviation-related careers. The "Kids in Transportation" title actually encompasses a variety of smaller programs and educates people of all ages about the aviation industry. While the events of September 11, 2001 have required Portland International Jetport to shift its focus elsewhere and to consequently focus less attention on educational outreach programs, approximately 700 children and 200 adults attended programming or visited Portland International Jetport in 2000 as a result of the Kids in Transportation Program.

Though people of all ages attend these programs, the majority of attendees are either in elementary or middle school. Much of what the program seeks to accomplish is to explain the nature of airports, flights, and how these things work in order to orient passengers and to alleviate or remove some of the fear passengers may have about flying for the first time.

Additionally, the program seeks to educate the general public about a number of careers that are available in the aviation industry. Periodic "Career Days" are scheduled for third graders at participating schools, and in the summer of 2001, 14 children attended an aviation career camp sponsored by the Kids in Transportation Program.

One of the most current and daunting obstacles, according to the coordinator of the program, is that despite concerted efforts to incorporate aviation-related programs (such as occasional "Career Days") in schools, guidance departments within Maine's public school system are not often accessible, supportive, or receptive to the inclusion of such programs. From the perspective of the coordinator, speaking in schools about aviation-related careers is one of the easiest and most evident ways to educate children who would not otherwise have any knowledge about the aviation industry. However, when that objective is hindered by unsupportive school officials, it becomes exceedingly difficult to achieve goals related to the implementation of educational aviation-related outreach programs.

Young Eagle Program – Wiscasset

Occasionally, the EAA coordinates the Young Eagle Program with Wiscasset Airport. Through this program, free airplane rides are provided to children ages 8-17.

APPENDIX C

APPENDIX C

MASPU RECOMMENDED ACTIONS
AUBURN/LEWISTON MUNICIPAL AIRPORT

Key:
MASPU & Airport recommended action
MASPU recommended action only
Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	**Meets all objectives- no actions needed**			
CAPACITY				
Landside				
Build additional T-hangars and corporate hangars				MASPU= 1 add.hangar spaces by 2021
Review and identify opportunity for hangar layout				
OUTREACH				
Utilize tools developed as part of MP process				
Establish a Planning Advisory Committee				
Develop tools that facilitate public involvement				
SAFETY/STANDARDS				
Clear Approaches				Funded- In Progress
Add full parallel taxiway				
Develop operations manual/accident reporting				
Develop emergency response plan				
Develop Wildlife Management Plan				
Review runway approach lighting				
Review ARC and desigh criteria				
Assess RW, TW, and ramp PCI				
Review airport security				
ECONOMIC SUPPORT				
Lease additional airport land/facilities				
Analyze need for multi-modal facility				
Conduct and economic market analysis				
Explore diversity of development scenarios				
Create a ALP that considers above scenarios				
FLEXIBILITY				
Update Airport Master Plan/ALP				Needed 2011/2016/2021
Develop business/financial plan				
Report annual activity data to OPT				
Develop flexible plan for the future				
Conduct airport governance analysis				
ACCESSIBILITY				
Deicing				
Evaluate RW length requirements (1,000' exten.)				
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Full parallel taxiway				
Review RW length requirements				
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces				MASPU= 1 hangar spaces by 2021
Review utilization and condition of terminal				
Review SRE building capacity and condition				
Review capacity and condition of other buildings				
SERVICES				
Pilot Lounge				
Avionics Shop				
On-site Rental Car				
Deicing				
Full Perimiter Fencing				
Night Guard				
Evaluate condition of maintenance equip and SRE				

MASPU RECOMMENDED ACTIONS
AUGUSTA STATE REGIONAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	**Meets all objectives- no actions needed**			
CAPACITY				
Landside				
Build additional T-hangars and corporate hangars	■			MASPU= 19 add.hangar spaces by 2021
Add air carrier auto parking		■		MASPU= 18 add. parking spaces by 2021
OUTREACH				
Develop public outreach/educational program		■		
Develop Conference Center			■	
Advertise Part 141 flight training, charter service, restaurant			■	
SAFETY/STANDARDS				
Clear Approaches		■		State CIP
Develop Vegetation Management Plan/Obstruction Removal		■		
Meet FAA required RSA criteria for existing ARC		■		
Develop Wildlife Management Plan		■		
Develop operations manual/accident reporting	■			Completed
Develop emergency response plan	■			Completed
Comply with all Part 139 rule changes			■	
Comply with TSA guidelines			■	
Continue to meet safety needs of limited land envelope			■	
Comply with 300-foot rule			■	
ECONOMIC SUPPORT				
Identify new on-airport business opportunities			■	
Determine highest/best land use			■	
Analyze rates and charges at comparable markets			■	
Support Augusta's government function			■	
FLEXIBILITY				
Update Airport Master Plan/ALP		■		Updates needed 2011/2016/2021
ACCESSIBILITY				
Explore passenger leakage and analyze air service solutions	■			
Work with airlines to lower fares, upgrade aircraft	■			
Work with state/federal gov't to ensure use of local airport	■			
Consider revenue guarantee to obtain RJ service or lower fares			■	
Support continued full funding of EAS program			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Full parallel taxiway		■		
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 13 hangar spaces by 2021
Hangars-transient aircraft spaces	■			MASPU= 6 hangar spaces by 2021
Apron tie-down spaces		■		MASPU= 4 add. tie downs by 2021
Conference/meeting center			■	
SERVICES				
Avionics Shop		■		
Full Perimeter Fencing		■		
Controlled Access		■		
Night Guard		■		

MASPU RECOMMENDED ACTIONS
BANGOR INTERNATIONAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Build additional hangars		■		MASPU= 59 add.hangar spaces by 2021
Add air carrier auto parking		■		MASPU= 1,242 add. parking spaces by 2021
OUTREACH				
Develop public outreach/educational program		■		
SAFETY/STANDARDS				
Develop Vegetation Management Plan		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan/ALP		■		State CIP: 2010 others needed: 2015/2020
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Install High Intensity Runway Lighting (HIRL)		■		
Install REILS		■		
LANDSIDE FACILITIES				
Hangars- Based Aircraft Spaces		■		MASPU= 37 add. hangar spaces by 2021
Hangars- Transient Aircraft Spaces		■		MASPU= 22 add. hangar spaces by 2021
Apron Tiedown Spaces		■		MASPU= 20 add. spaces by 2021
SERVICES				
Avionics Shop		■		

MASPU RECOMMENDED ACTIONS
BELFAST MUNICIPAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3		■		Completed
CAPACITY				
Landside				
Build hangars	■			MASPU= 4 add. hangar spaces by 2021
Auto parking spaces		■		MASPU= 4 add. auto parking spaces by 2021
OUTREACH				
Develop public outreach program		■		
Promote airport usage to new businesses			■	
Form partnership with chamber to promote airport			■	
Educate the community on benefits to gain additional support and maintain airport friendly community			■	
Work with local chamber to provide shuttle into town			■	
Develop a good neighbor program			■	
Increase student pilot enrollment, identify service area			■	
Host and promote annual fly-in			■	
SAFETY/STANDARDS				
Develop Vegetation Management Plan		■		State CIP
Pavement maintenance to meet >70 PCI		■		Airport MP
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan	■			
Develop airport security plan (fencing/gates/video/signage)			■	
ECONOMIC SUPPORT				
Create development plan for land surrounding airport			■	
Promote airport usage to new businesses			■	
Develop Industrial Park- businesses that rely on general aviation			■	
Work with city to hire an economic development director			■	
Promote Belfast as a multi-modal area with airport, rail, harbor			■	
Administer a freight survey to determine how airport can support local air cargo needs			■	
FLEXIBILITY				
Update Airport Master Plan or ALP	■			Updates needed: 2009/2019
Develop business/financial plan		■		
Report annual activity data to OPT		■		
Build golf course near airport to promote appropriate land use			■	
ACCESSIBILITY				
Make sure that GPS approach in working order			■	
Extend RW to 5,000 ft.			■	
Obtain air taxi service to Islesboro and scenic flights			■	
Provide scheduled commuter service			■	
Improve airport entrance sign			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Taxiway length- turnaround	■			
Taxiway reflectors		■		
Make sure that GPS approach in working order			■	
Extend RW to 5,000 ft.			■	
Add parallel taxiway			■	
Maintain turf runway and promote usage			■	
Install VASIs and PAPIs			■	
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 4 add. hangar spaces by 2021
Apron tiedown spaces		■		MASPU= 15 add. AC parking spaces by 2021
Auto parking spaces		■		MASPU= 4 add. auto parking spaces by 2021
Improve hangar taxiway and repave hangar apron			■	
SERVICES				
Full perimeter fencing	■			
Develop airport security plan (fencing/gates/video/signage)			■	
Provide automated fuel			■	
Provide ground transportation			■	
Expand FBO			■	
Obtain full-time aircraft maintenance			■	
Add restaurant or ice cream shoppe			■	
Provide Jet A fuel and auto fuel			■	

MASPU RECOMMENDED ACTIONS
BETHEL REGIONAL AIRPORT

Key:
MASPU & Airport recommended action
MASPU recommended action only
Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Develop GPS/precision approach to support Life Flight		■		Priority Level 3
CAPACITY				
Landside				
Terminal/administration building		■		New 500 sq. ft. terminal
OUTREACH				
Add limited service FBO		■		
Develop public outreach program		■		
Promote available services			■	
Provide scenic flights			■	
Provide aircraft maintenance			■	
Provide flight instruction/partner with EAA,Gould Academy			■	
Complete and maintain website			■	
Attract EAA chapter			■	
Host annual Columbus Day Fly-In			■	
Host FSDO safety meetings			■	
SAFETY/STANDARDS				
Develop operations manual/accident reporting procedures		■		
Implement procedures for self-inspections		■		
Add 100LL fuel		■		Fuel added 2003; deficiency addressed
ECONOMIC SUPPORT				
Look for profit generating activities at the airport			■	
Install info kiosk, promoting area services			■	
Create vacation packages with chamber/tourism groups			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2007/2017
Develop compatible land use planning		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Provide weather reporting			■	
Provide charter service			■	
Provide a radio deck operated by volunteer group			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Runway lighting-LIRL		■		LIRL added; deficiency addressed
Taxiway reflectors		■		
Visual aids	■			Wind cone, segmented circle
Provide weather reporting			■	
Provide non-standard lighting			■	
LANDSIDE FACILITIES				
Apron tiedown spaces	■			MASPU= 3 add. AC parking spaces by 2021
Terminal/administration building	■			New 500 sq. ft. terminal
Provide affordable hangars and tiedowns			■	
SERVICES				
Limited service FBO		■		
100LL fuel		■		Fuel added 2003; deficiency addressed
Phone		■		Phone added; deficiency addressed
Vending		■		Vending added; deficiency addressed
Full perimeter fencing		■		
Provide Jet A fuel			■	
Provide radio deck operated by volunteers			■	
Ensure gate to airfield is closed to prevent wildlife on airfield			■	
Provide terminal waiting area with pilot lounge, restrooms, phone			■	
Provide training room in terminal to host FSDO meetings			■	

MASPU RECOMMENDED ACTIONS
BIDDEFORD MUNICIPAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars	■			MASPU= 5 add. hangar spaces by 2021
OUTREACH				
Develop public outreach program	■			
Work with EAA			■	
Work with MAA			■	
Provide aviation education opportunities			■	
Develop path around airport for public use			■	
SAFETY/STANDARDS				
Clear Approaches		■		State CIP
Develop Vegetation Management Plan	■			
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan		■		
Develop self-inspection procedures		■		
Investigate security improvements/risk assessment			■	
Prepare a maintenance plan			■	
Use public works resources to remove obstructions			■	
Displace RW threshold 500' from public school			■	
ECONOMIC SUPPORT				
Appoint an airport manager designee			■	
Conduct grant assurances research for the airport			■	
Survey industry users			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		2015
Develop compatible land use planning		■		
Be included in local comprehensive plan		■		
Develop business/financial plan		■		
Report annual activity data to OPT		■		
Prepare flight plan analysis			■	
Develop overlay zoning district			■	
ACCESSIBILITY				
Improve airport access road			■	
Install AWOS			■	
Collect airport wind data			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Taxiway length- turnarounds	■			Both RW ends
Taxiway reflectors		■		
Segmented Circle		■		
Increase RW length to 4,000'			■	
Install AWOS			■	
LANDSIDE FACILITIES				
Hangars-based aircraft spaces		■		MASPU= 5 add. hangar spaces by 2021
Apron tiedown spaces	■			
Repair hangar doors			■	
SERVICES				
Full perimeter fencing	■			
Provide jet fuel			■	
Investigate security improvements			■	

MASPU RECOMMENDED ACTIONS
CARIBOU MUNICIPAL AIRPORT

Key:
MASPU & Airport recommended action
MASPU recommended action only
Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Provide forestry with heliport services			■	
Provide a hangar for air ambulance			■	
Propose airport as a center of operations for Homeland Security			■	
Coordinate with EMA on emergency planning			■	
CAPACITY				
Add t-hangars			■	
OUTREACH				
Develop public outreach program		■		
Foster aviation activities			■	
Host aviation events			■	
Affiliate with aviation associations			■	
Provide flight training			■	
Hold monthly pilot meetings			■	
Install kiosk showing local businesses and other info.			■	
Partner with MDC and ME DOT			■	
Market airport to snowmobile users and ATV tourists			■	
SAFETY/STANDARDS				
Develop Vegetation Management Plan		■		
Develop operations manual/accident reporting procedures		■		Airport MP
Implement procedures for self-inspections		■		
Develop Wildlife Management Plan		■		
Relocate the trailer park			■	
Remove trees in the runway approach			■	
Repair the North/South runway where it is rough			■	
Prepare a security plan/risk assessment			■	
ECONOMIC SUPPORT				
Appoint airport manager designee			■	
Conduct grant assurance research for airport			■	
Survey industry users			■	
Track airport users			■	
Develop marketing studies			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		State CIP
Develop compatible land use planning		■		
Be included in local comprehensive plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Provide charter and scenic flights			■	
Install/provide approach system			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Install VASIs/PAPIs on RW ends			■	
Repaint RW centerline striping			■	
Install/provide approach system			■	
LANDSIDE FACILITIES				
Install ramp lighting			■	
Provide 6 private t-hangars			■	
Maintain existing facilities			■	
SERVICES				
Appropriate access restrictions/electric security gate/cameras	■			Security Fencing- Airport MP
Attract an FBO			■	
Obtain SRE			■	
Provide aircraft maintenance			■	

MASPU RECOMMENDED ACTIONS
CENTRAL MAINE REGIONAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3 to support LifeFlight		■		
CAPACITY				
Landside				
Build additional hangars	■			MASPU= 8 add.hangar spaces by 2021
Add automobile parking		■		MASPU= 49 add. auto parking spaces by 2021
OUTREACH				
Offer full service FBO with flight instruction		■		
Maintain website			■	
Encourage civil air patrol to locate at airport			■	
Advertise to increase recreational use			■	
SAFETY/STANDARDS				
Clear Approaches		■		Airport MP
Develop Vegetation Management Plan/Obstruction Removal		■		
Develop Wildlife Management Plan		■		
Develop emergency response plan		■		
Meet NFPA fuel farm guidelines		■		State CIP
Add signage and gates for airport operating area			■	
ECONOMIC SUPPORT				
Seek camping tourists, offer bicycle & car rental			■	
Create a business-friendly airport			■	
Create a marketing team to seek promotional partnerships			■	
FLEXIBILITY				
Update Airport Master Plan	■			Needs updated 2011/2016/2021
Develop compatible land use planning		■		
Include airport in local comprehensive plan		■		
Develop business/financial plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Install on-site ASOS or AWOS		■		
Install GPS w/ precision capabilities		■		
Add de-icing capabilities		■		
Extend RW to 5,000 feet		■		1,002' extension to RW
Replace broken beacon and connect to obstruction lighting			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Runway extension to 5,000 feet		■		1,002' extension to RW
Full parallel taxiway		■		
HIRLs				
Install GPS precision approach		■		
Install segmented circle		■		
Install VASIs/PAPIs		■		
Install AWOS or ASOS		■		
Reconstruct RW and TW			■	
Shorten RW 3/21 to 2,500', remove approach			■	
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces	■			MASPU= 8 add. hangar spaces by 2021
Apron tie-down spaces	■			MASPU= 5 add. AC parking spaces by 2021
Airport maintenance building		■		
General aviation auto parking		■		MASPU= 49 add. auto parking spaces by 2021
SERVICES				
Full service FBO	■			
Avionics	■			
Jet A Fuel	■			
Full Service restaurant		■		
On-site rental car	■			
Deicing		■		
Full Perimeter Fencing		■		
Controlled Access		■		
Night Guard		■		
Self-service fuel capabilities			■	

MASPU RECOMMENDED ACTIONS
CHARLES A. CHASE JR. MEMORIAL FIELD

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY	Meets all objectives- no actions needed			
OUTREACH				
Develop public outreach program		■		
SAFETY/STANDARDS				
Clear Approaches		■		
Develop Vegetation Management Plan		■		
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP		■		**Updates needed 2006/2021**
Develop compatible land use planning		■		
Be included in local comprehensive plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Reflectors		■		
SERVICES				
Appropriate access restrictions		■		

MASPU RECOMMENDED ACTIONS
DEBLOIS FLIGHT STRIP

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Determine LifeFlight operational needs			■	
CAPACITY				
Increase auto parking			■	
OUTREACH				
Develop public outreach program		■		
SAFETY/STANDARDS				
Develop Vegetation Management Plan		■		
Develop operations manual/accident reporting procedures	■			
Implement procedures for self-inspections	■			
Develop Wildlife Management Plan		■		
Prepare an operation efficiency analysis for the best layout of future pavement improvements			■	
Correct the pavement edge drop off to a safe condition by April 15.			■	
Construct paved apron/operations area to prevent gravel damage/allow the runway to remain clear for aircraft operations			■	
Maintain pavements and safety areas			■	
Prepare a runway sweeping and plowing schedule			■	
Prepare a HAZMAT Plan			■	
ECONOMIC SUPPORT				
Provide a centralized area for bees used in the blueberry industry			■	
Provide local management presence			■	
Provide list of current and future airport users			■	
Prepare site selection for economic zone			■	
Provide acceptable area for non-aeronautical uses			■	
FLEXIBILITY				
Update Airport Master Plan or ALP	■			Updates needed 2006/2021
Develop compatible land use planning		■		
Be included in local comprehensive plan	■			
Report annual activity data to OPT		■		
Prepare long range airport plan to insure airport longevity			■	
Implement height zoning ordinance			■	
ACCESSIBILITY				
Improve airport access road			■	
Provide GPS approach			■	
Provide adequate signage to indicate permissible activities			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Reflectors		■		
Construct a parallel taxiway			■	
Provide GPS approach			■	
LANDSIDE FACILITIES				
Construct aircraft apron			■	
Increase auto parking			■	
Increase ramp lighting			■	
SERVICES				
Phone		■		
Restrooms		■		
Appropriate access restrictions	■			
Create a secure environment for parked agricultural aircraft			■	
Provide adequate fire protection for agricultural activities			■	

MASPU RECOMMENDED ACTIONS
DEWITT FIELD/OLD TOWN MUNICIPAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars	■			MASPU= 1 add. hangar spaces by 2021
Add 10 t-hangars and apron parking			■	
OUTREACH				
Develop public outreach program	■			
Create airport image that supports "Gateway to North" promo			■	
Develop relationship with new potential A&P schools			■	
Attract community activities to airport			■	
Make airport more attractive to users			■	
Promote the airport			■	
SAFETY/STANDARDS				
Clear Approaches	■			State CIP
Develop Vegetation Management Plan		■		
Add partial parallel taxiway		■		State CIP
Develop an Emergency Response Plan		■		
Upgrade fuel system to met NFPA guidelines		■		
Comply with minimum standards			■	
Develop Stormwater Pollution Prevention Plan			■	
Provide signage with seaplane operating guidelines			■	
ECONOMIC SUPPORT				
Pursue the development and promo of seaplane base			■	
Lease additional airport lands			■	
Investigate "environmental banking" by removing pavement			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed: 2009/2016
Be included in local comprehensive plan		■		
Develop business and/or financial plan		■		
Report annual activity data to OPT		■		
Develop noise management/mitigation plan			■	
ACCESSIBILITY				
Provide seaplane access road			■	
Provide improved signage from I-95			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Partial parallel taxiway	■			
LITL		■		
Segmented circle		■		
Provide TW to end of RW 30			■	
Provide full parallel TW on RW 04-22			■	
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces	■			MASPU= 1 add. hangar spaces by 2021
Provide additional aircraft apron parking			■	
Provide 10 T-hangar units			■	
Improve seaplane ramp			■	
SERVICES				
Flight planning		■		
Provide self-service fuel			■	
Provide 80LL			■	

MASPU RECOMMENDED ACTIONS
DEXTER REGIONAL AIRPORT

Key:
MASPU & Airport recommended action
MASPU recommended action only
Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars	■			MASPU= 3 add. hangar spaces by 2021
Add auto parking			■	
Construct new terminal			■	
OUTREACH				
Add full or limited FBO		■		
Add aircraft repair/maintenance		■		
Develop public outreach program		■		
Provide local airport management			■	
SAFETY/STANDARDS				
Clear Approaches		■		Airport MP
Develop Vegetation Management Plan	■			State CIP
Add partial parallel taxiway for Category B ARC objective		■		Airport MP
Expand RSA based on Category B ARC objective		■		Airport MP
Develop operations manual/accident reporting procedures		■		MASPU
Develop Wildlife Management Plan		■		MASPU
Add 100LL fuel to meet service objective		■		MASPU
Provide obstruction removal and obstruction lighting			■	
Improve RSAs, OFAs, RPZs			■	
Remove RW shoulder areas			■	
Upgrade RW pavement markings/signs			■	
Install line of sight signage			■	
Implement airport self-inspection program; FOD inspect.			■	
Prepare RW sweeping and plowing schedule			■	
Prepare HAZMAT plan			■	
Prepare Emergency Response Plan	■			MASPU
ECONOMIC SUPPORT				
Provide future airport industrial park with 3-phased power			■	
Prepare site selection for an economic zone			■	
Develop a list of users- existing and future			■	
FLEXIBILITY				
Update Airport Master Plan or ALP	■			MASPU
Develop compatible land use planning		■		
Report annual activity data to OPT		■		
Integrate airport into comprehensive plan	■			MASPU Records incorrect
Implement height zoning ordinances			■	
Prepare long-range airport plan to insure longevity of airport			■	
ACCESSIBILITY				
Install additional airport directional signage			■	
Install AWOS by 2007			■	
Provide public access road to new terminal			■	
Improve airport access road			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Runway length		■		Add 501'; MASPU
Partial parallel taxiway	■			
MIRL	■			
LITL		■		Airport MP
REILs	■			State CIP
VGSI (VASIs/PAPIs)	■			State CIP
Construct full parallel TW; remove stub TW			■	
Construct run-up/holding area for ends of RW 16-34			■	
Rehabilitate, groove, repaint marking on RW 16-34			■	
Install AWOS by 2007			■	
Decommission RW 07-25			■	
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces	■			MASPU= 3 add. hangar spaces by 2021
Apron tiedown spaces	■			MASPU= 8 add. AC parking spaces by 2021
Airport maintenance building	■			Airport MP
Improve existing aprons			■	
Pave and relocate transient turf tiedowns			■	
Add auto parking			■	
Construct SRE building by 2007			■	
Construct new terminal			■	
SERVICES				
Full or limited FBO		■		
Aircraft repair		■		
100 LL Fuel	■			
Vending		■		
Courtesy car		■		
Full perimeter fencing	■			
Add self-service fueling			■	
Provide fire protection for aviation and agri. activities			■	
Purchase additional SRE			■	

MASPU RECOMMENDED ACTIONS
EASTERN SLOPES REGIONAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars	■			MASPU= 9 add. hangar spaces by 2021
OUTREACH				
Develop public outreach program	■			
Increase visibility of airport to potential new users			■	
Increase visibility of airport to community			■	
SAFETY/STANDARDS				
Clear Approaches		■		State CIP
Develop Vegetation Management Plan		■		
Develop operations manual/accident reporting procedures		■		
Develop Emergency Response Plan		■		
Develop Wildlife Management Plan		■		
Maintain compliance with FAA standards			■	
Develop minimum standards for future building construction			■	
ECONOMIC SUPPORT				
Encourage towns to financially participate in airport budget			■	
Diversify airport revenue sources to stabilized budgeting			■	
Make use of various funding sources for airport improvements			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed: 2012/2019
Develop business/financial plan		■		
Report annual activity data to OPT		■		
Integrate airport into comprehensive plan		■		
ACCESSIBILITY				
Improve access to airport's leased areas			■	
Improve runways			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Lighted wind cone		■		Airport MP
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces	■			MASPU= 9 add. hangar spaces by 2021
Add landscaping near terminal and auto parking areas			■	
SERVICES				
Courtesy car		■		
Full perimeter fencing		■		

MASPU RECOMMENDED ACTIONS
EASTPORT MUNICIPAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Terminal/administration building				New 500 sq. ft. terminal
OUTREACH				
Develop public outreach program				
SAFETY/STANDARDS				
Develop Vegetation Management Plan				
Develop operations manual/accident reporting procedures				
Develop Wildlife Management Plan				
Add 100LL Fuel				STATE CIP
Analyze approaches and lower minimums				
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP				Updates needed 2013
Develop business/financial plan				
Report annual activity data to OPT				
ACCESSIBILITY				
Provide alternative access to area surrounding airport				
Provide info to pilots on local weather, clearances, authorizations				
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Taxiway reflectors				
Recommend add. lighting and visuals aids to lower mins.				
LANDSIDE FACILITIES				
Terminal/administration building				New 500 sq. ft. terminal
Create flexible aircraft storage plan				
SERVICES				
Limited service FBO				
100LL fuel				
Vending				
Full perimeter fencing				
Provide security to prevent wildlife and people onto AOA				

MASPU RECOMMENDED ACTIONS
GREENVILLE MUNICIPAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Upgrade AWOS station to AWOS-3	■			
Support aviation needs of the Dept. of Forestry	■			
Continue regional service center for fire, ambulance, LifeFlight	■			
CAPACITY				
Landside				
Build hangars	■			MASPU= 4 add. hangar spaces by 2021
GA terminal/administration building	■			Add to 800 sq. ft. terminal
OUTREACH				
Develop public outreach program		■		
Work with ME Tourism/ME OPT to promote aviation and community assets			■	
Work with neighboring communities & county to promote airport as a regional asset (Moosehead Lake region)			■	
Promote and increase year round recreational aircraft use			■	
Create marketing campaign for out-of-state airport users			■	
Work with local developers (such as Plum Creek) to promote airport usage			■	
SAFETY/STANDARDS				
Clear Approaches		■		
Develop Vegetation Management Plan		■		
Add partial parallel taxiway for Category B ARC objective		■		STATE CIP
Meet FAA required RSA criteria		■		
Pavement maintenance to meet >70 PCI		■		
Develop operations manual/accident reporting procedures		■		
Develop Emergency Response Plan		■		
Develop Wildlife Management Plan		■		
Upgrade fuel system to meet NFPA guidelines		■		
ECONOMIC SUPPORT				
Provide facilities that will support private corporate aircraft			■	
Pursue charter carriers			■	
Add Part 121 service			■	
Support air taxi service/pursue additional air taxi operators			■	
Support aviation needs of high-end tourists			■	
Explore the development of an airport hotel/conference center/golf course			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed: 2007/2014/2021
Develop compatible land use plan		■		
Be included in local comprehensive plan		■		
Develop business/financial plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Extend RW to 5,000'			■	
Install precision approach			■	
Add weather reporting			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Partial parallel taxiway		■		
LITL		■		
Extend RW to 5,000'			■	
Install precision approach			■	
Repave and light crosswind RW			■	
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces	■			MASPU= 4 add. hangar spaces by 2021
GA terminal/administration building	■			
Airport maintenance building		■		
Add at least 25 additional tie-down spaces			■	
Increase ramp space			■	
SERVICES				
Courtesy car	■			courtesy car or shuttle service
Restrooms		■		
Pilot lounge		■		
Flight planning		■		
Vending		■		
Full perimeter fencing		■		
Provide self-service fuel			■	
Obtain full time FBO			■	

MASPU RECOMMENDED ACTIONS
HANCOCK COUNTY-BAR HARBOR AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build additional hangars for based AC and transient AC	■			MASPU= 37 add.hangar spaces by 2021
Add air carrier auto parking		■		MASPU= 71 add. parking spaces by 2021
OUTREACH				
Develop public outreach/educational program	■			
Advertise airport to local community, boat builders			■	
Support AOPA's airport support group			■	
Provide airport open houses, interest stories to the press			■	
Encourage CAP assistance in airport promotion			■	
Promote airport to neighboring communities			■	
SAFETY/STANDARDS				
Clear Approaches		■		State CIP/Airport MP
Develop Vegetation Management Plan/Obstruction Removal		■		
Develop Wildlife Management Plan		■		
Develop emergency response plan	■			Developed for Part 139 requirements
Comply with all Part 139 rule changes			■	
Comply with TSA guidelines			■	
ECONOMIC SUPPORT				
Provide more revenue-producing terminal space			■	
Work with local B&Bs, etc for promotional partnerships			■	
FLEXIBILITY				
Update Airport Master Plan/ALP		■		Needs update 2009/2014/2019
Develop compatible land use planning		■		
Include airport in local comprehensive plan		■		
Develop business/financial plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Deicing		■		
Explore passenger leakage and analyze air service solutions	■			
Take part in state intersection development			■	
Review traffic light v. stop sign installation in front of airport			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES	Meets all objectives- no actions needed			
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 14 hangar spaces by 2021
Hangars-transient aircraft spaces	■			MASPU= 23 hangar spaces by 2021
Apron tie-down spaces	■			State CIP
Increase FBO space, auto parking, terminal, land			■	
Increase or reconfigure terminal to meet TSA requirements			■	
SERVICES				
Full service restaurant		■		
Deicing		■		
Full Perimeter Fencing		■		
Controlled Access		■		
Night Guard		■		

MASPU RECOMMENDED ACTIONS
HOULTON INTERNATIONAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Add GA terminal building		■		New 2,000' terminal
Add automobile parking		■		19 add. auto parking spaces by 2021
OUTREACH				
Encourage community activities at the airport terminal			■	
Develop relationship between Houlton and Wood			■	
Begin marketing aviation services			■	
Preserve historical facilities			■	
SAFETY/STANDARDS				
Clear Approaches	■			Includes RW reconstruction
Develop Obstruction Removal Plan		■		
Develop Wildlife Management Plan		■		
Develop and comply with minimum standards			■	
Create a stormwater pollution prevention plan			■	
ECONOMIC SUPPORT				
Maintain a realistic CIP			■	
Investigate US Forestry as source of airport revenue			■	
Develop new freight opportunities			■	
Increase corporate traffic and usage			■	
Create strong first impression of the airport			■	
FLEXIBILITY				
Update Airport Master Plan/ALP		■		Needs updated 2008/2013/2018
Report annual activity data to OPT		■		
ACCESSIBILITY				
Install GPS w/ precision capabilities on RW 5	■			
Add de-icing capabilities		■		
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Full parallel taxiway		■		
GPS Precision approach on RW 5		■		
Add HIRL		■		Includes narrowing RW
Upgrade airport beacon			■	
Upgrade tower			■	
LANDSIDE FACILITIES				
Apron tie-down spaces		■		4 add. apron parking spaces by 2021
GA terminal/administration building	■			New 2,000 sq ft. terminal
Airport maintenance building		■		
General aviation auto parking		■		19 add. auto parking spaces by 2021
Reconstruct parking apron			■	
Provide concrete fueling station			■	
Recondition hangars (paint, roof, floors)			■	
SERVICES				
Avionics		■		
Flight planning		■		
Full service restaurant		■		
De-icing		■		
Full perimeter fencing	■			
Controlled access	■			
Night guard		■		

MASPU RECOMMENDED ACTIONS
ISLESBORO AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY	Meets all objectives- no actions needed			
OUTREACH				
Develop public outreach program		■		
SAFETY/STANDARDS				
Clear Approaches		■		Not available
Develop Vegetation Management Plan		■		
Implement procedures for self-inspections		■		
Develop Wildlife Management Plan		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2006/2021
Develop compatible land use planning		■		
Report annual activity data to OPT		■		
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Reflectors		■		
SERVICES				
Phone		■		
Restrooms		■		
Appropriate access restrictions		■		

MASPU RECOMMENDED ACTIONS
KNOX COUNTY REGIONAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURES				
QUALITY OF LIFE				
Support Coast Guard needs			■	
Support island communities' needs and air operations	■			
CAPACITY				
Landside				
Build hangars for transient aircraft		■		MASPU= 19 add. hangar spaces by 2021
Add air carrier auto parking	■			MASPU= 70 add. parking spaces by 2021
Add GA automobile parking	■			parking deficiency addressed
OUTREACH				
Develop public outreach/educational program	■			
Involve citizens in airport decision making	■			
Educate residents on benefits of the airport	■			
Develop recreational opportunities at airport			■	
Improve awareness of the flying club			■	
Work with museum on mutual needs			■	
SAFETY/STANDARDS				
Clear Approaches		■		Airport MP
Full parallel taxiway		■		State CIP
Comply with TSA guidelines			■	
Research all regulations pertaining to airport (TSA, FAA, EPA)			■	
ECONOMIC SUPPORT				
Provide additional tax income for local communities			■	
Encourage use of local contractors			■	
Encourage support for business to develop jobs			■	
Support the national aviation transportation link			■	
Research landing fee feasibility			■	
FLEXIBILITY				
Update Airport Master Plan		■		Updates needed 2006/2011/2016/2021
Report annual activity data to OPT		■		
Maintain airport footprint; do not develop outside prop. lines			■	
Provide solutions to any noise, water, other environmental issues			■	
Provide an aesthetic airport environment			■	
Develop recreational opportunities around the airport			■	
Prepare controlled growth plan			■	
Address jet noise abatement issues			■	
ACCESSIBILITY				
Prepare contingency plan for loss of EAS service			■	
Install PAPIs for all runway ends			■	
Maintain aircraft access to flying club's leased land			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Full parallel taxiway		■		State CIP
Install PAPIs on all RW ends			■	
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces		■		MASPU= 19 add. hangar spaces by 2021
Apron tie-down spaces		■		MASPU= 11 add. AC parking spaces by 2021
GA automobile parking	■			parking deficiency addressed
Provide new terminal			■	
Improve aesthetics of current terminal area			■	
SERVICES				
Avionics		■		
Full service restaurant		■		
Full Perimeter Fencing	■			
Airport port of entry, customs service			■	
Provide evening and weekend support and service			■	

MASPU RECOMMENDED ACTIONS
LINCOLN REGIONAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Develop GPS/precision approach to support Life Flight		■		Priority Level 3
CAPACITY				
Landside				
Add restroom to terminal building		■		
Add conventional or t-hangars			■	
OUTREACH				
Develop public outreach program		■		
SAFETY/STANDARDS				
Clear Approaches		■		Airport MP
Develop Vegetation Management Plan		■		
Meet FAA required RSA criteria for existing ARC		■		State CIP
Develop operations manual/accident reporting procedures	■			
Develop Wildlife Management Plan		■		
Implement procedures for self-inspections	■			
Add public use 100LL		■		Airport MP
Cut trees to resolve obstructions			■	
Develop a stormwater prevention plan			■	
Prepare emergency response plan			■	
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2012
Report annual activity data to OPT	■			
Acquire land around airport			■	
Establish a method for collecting and reporting data			■	
Establish height zoning			■	
ACCESSIBILITY				
Add floatplane signage			■	
Provide better access to RW and TWs			■	
Connect airport and RW ends with public road			■	
Provide public access to seaplane base			■	
Dredge river for SPB TW			■	
Install AWOS			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Taxiway length- turnaround		■		State CIP
Repair/relocate NDB			■	
Install AWOS			■	
LANDSIDE FACILITIES				
Apron tie-down spaces	■			MASPU= 13 add. aircraft parking spaces by 2021
Terminal/admin building	■			no terminal
Construct larger terminal			■	
Add conventional or t-hangars			■	
Build SRE/maintenance building			■	
SERVICES				
Restrooms		■		
Vending service		■		
Full perimeter fencing	■			

MASPU RECOMMENDED ACTIONS
LUBEC MUNICIPAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Develop GPS/precision approach to support LifeFlight		■		Priority Level 3
CAPACITY	Meets all objectives- no actions needed			
OUTREACH				
Develop public outreach program		■		
SAFETY/STANDARDS				
Clear Approaches		■		Action pending
Develop Vegetation Management Plan		■		
Develop Wildlife Management Plan		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2006/2021
Develop compatible land use planning		■		
Report annual activity data to OPT		■		
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES	Meets all objectives- no actions needed			
SERVICES				
Appropriate access restrictions		■		

MASPU RECOMMENDED ACTIONS
MACHIAS VALLEY AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3 to support LifeFlight	■			Priority Level 2
Develop GPS/precision approach to support Life Flight	■			Priority Level 3
CAPACITY				
Landside				
Build conventional and t-hangars	■			Site Assessement Study
Add GA terminal building	■			MASPU
OUTREACH				
Offer full service FBO with flight instruction	■			
Offer aircraft maintenance/repair	■			
Develop public outreach/educational program	■			
Organize annual air show			■	
Develop list and monitor airport users			■	
Provide facilities for Civil Air Patrol			■	
SAFETY/STANDARDS				
Clear Approaches	■			
Develop Vegetation Management Plan/Obstruction Removal	■			MASPU
Add full parallel taxiway for Category B or C ARC objective		■		Site assessment/MASPU
Expand RSA based on Category B or C ARC objective		■		
Develop operations manual/accident reporting procedures		■		MASPU
Develop emergency response plan	■			MASPU
Develop Wildlife Management Plan		■		MASPU
Conduct self-inspections	■			
Provide 100LL and Jet A fuel	■			Site assessment
Prepare stormwater prevention plan			■	
Prepare land use plan for the airport and environs			■	
Prepare minimum standards			■	
ECONOMIC SUPPORT				
Establish an economic zone			■	
Establish a Foreign Trade Zone			■	
Pursue regionalism for the airport			■	
Accommodate the needs of business aviation (local and visiting)			■	
Decrease town subsidy to the airport			■	
FLEXIBILITY				
Update Airport Master Plan/ALP		■		Needs updated 2014/2019
Develop business/financial plan	■			
Report annual activity data to OPT		■		
Establish height zoning to protect airport			■	
ACCESSIBILITY				
Install on-site ASOS or AWOS	■			MASPU
Install GPS w/ precision capabilities		■		
Provide snow removal capabilities		■		State CIP
Add de-icing capabilities		■		MASPU
Extend RW to 5,000 feet		■		Site assessment/MASPU
Reconfigure/relocate runway to accommodate biz jets			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Aircraft design group- support Category C aircraft	■			
Runway length		■		Site assessment/MASPU
Runway width		■		
Full parallel taxiway		■		Site assessment/MASPU
Install GPS precision approach		■		
Lighting-Runway	■			
Lighting- Taxiway		■		
Visual Aids	■			
Weather	■			MASPU
Reconfigure/relocate runway to accommodate biz jets			■	
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			Site Selection Study
Hangars-transient aircraft spaces	■			
Apron tiedown spaces	■			Site Selection Study
GA terminal/administration building	■			MASPU
Airport maintenance building	■			Site Selection Study
GA auto parking		■		Site Selection Study
Provide storage area for agricultural material and cargo			■	
SERVICES				
Full service FBO	■			
Aircraft maintenance/repair	■			
Avionics		■		
Jet A and 100LL Fuel	■			Site Selection Study
Terminal facilities (phone,restroom, pilot lounge, flt plan)	■			
Full Service restaurant	■			
On-site rental car	■			
Snow removal	■			MASPU
Deicing		■		MASPU
Full Perimeter Fencing	■			
Controlled Access		■		MASPU
Night Guard		■		
Offer customs and immigration services			■	
Offer 24-hr self service fuel			■	

MASPU RECOMMENDED ACTIONS
MILLINOCKET MUNICIPAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build conventional and t-hangars		■		MASPU= 5 add. hangar spaces by 2021
Add automobile parking		■		MASPU= 9 add. auto parking spaces by 2021
Add GA terminal building		■		New 2,000 sq. ft. Terminal
OUTREACH				
Offer full service FBO with flight instruction		■		
Offer aircraft maintenance/repair		■		
Develop public outreach/educational program		■		
SAFETY/STANDARDS				
Clear Approaches	■			State CIP
Develop Vegetation Management Plan/Obstruction Removal	■			
Develop emergency response plan		■		
Develop Wildlife Management Plan		■		
Evaluate Part 77, TERPS, and RW visibility zone			■	
ECONOMIC SUPPORT				
Analyze current FBO lease and future lease structures			■	
Examine xwind RW needs and identify property for develop.			■	
FLEXIBILITY				
Update Airport Master Plan		■		Updates needed 2009/2014/2019
Report annual activity data to OPT		■		
ACCESSIBILITY				
Install GPS w/ precision capabilities		■		
Provide snow removal capabilities		■		State CIP
Add de-icing capabilities		■		
Extend RW to 5,000 feet	■			State CIP
Evaluate inoperable MALS			■	
Determine most cost effective method to reduce minimums			■	
Upgrade RW11 end to nonprecision approach			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Aircraft design group- support Category C aircraft		■		
Runway extension to 5,000'	■			287' extension to RW
Full parallel taxiway		■		
Install precision approach		■		
HIRL		■		
MITL		■		
Install segmented circle		■		
LANDSIDE FACILITIES				
Hangars-based aircraft spaces		■		MASPU= 3 add. hangar spaces by 2021
Hangars-transient aircraft spaces		■		MASPU= 2 add. hangar spaces by 2021
GA terminal/administration building		■		New 2,000 sq. ft. Terminal
Airport maintenance building		■		Airport MP
Add automobile parking		■		MASPU= 9 add. auto parking spaces by 2021
SERVICES				
Aircraft maintenance/repair		■		
Avionics		■		
Flight planning		■		
Full Service restaurant		■		
On-site rental car		■		
Snow removal		■		Airport MP
Deicing		■		
Full Perimeter Fencing		■		
Controlled Access		■		
Night Guard		■		

MASPU RECOMMENDED ACTIONS
NEWTON FIELD

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3 at Newton Field	■			Priority Level 1
Develop permanent Jet A fuel option	■			Priority Level 1
Develop GPS/precision approach to support Life Flight	■			Priority Level 3
CAPACITY				
Landside				
Build hangars	■			MASPU= 3 add. hangar spaces by 2021
OUTREACH				
Add limited service FBO	■			
Develop public outreach program		■		
Hold annual aviation events to attract airplanes			■	
Host car shows			■	
Host community events compatible with airport			■	
Promote airport to Canadian users			■	
SAFETY/STANDARDS				
Develop Vegetation Management Plan	■			
Meet FAA required RSA criteria for existing ARC		■		
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan		■		
Implement procedures for self-inspections		■		
Improve drainage in safety areas			■	
Prepare an airport maintenance plan			■	
Prepare emergency response plan			■	
ECONOMIC SUPPORT				
Promote airport to obtain FBO			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2009/2019
Develop compatible land use planning		■		
Be included in local comprehensive plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Acquire SRE equipment			■	
Pursue GPS approach			■	
Install AWOS			■	
Add signs to community to show airport location			■	
Improve airport access road			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Taxiway length- turnaround	■			Airport MP
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 3 add. hangar spaces by 2021
Provide additional apron tie-downs			■	
Increase auto parking			■	
Increase ramp lighting			■	
SERVICES				
Limited service FBO	■			
Full perimeter fencing	■			
SRE equipment			■	
Provide fire hydrants			■	
Install additional telephone line			■	
Provide Jet A fuel or mobile fuel truck			■	
Potable water facilities			■	

MASPU RECOMMENDED ACTIONS
NORTHERN AROOSTOOK REGIONAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars	■			MASPU= 1 add. hangar spaces by 2021
Expand GA terminal/administration building		■		Current estimate is 1,250 sq. ft.
OUTREACH				
Develop public outreach/educational program		■		
Offer flight instruction	■			Started in 9/04
Offer ground school at Ft. Kent			■	
Investigate providing an A&P school			■	
Revive airport pilot group			■	
Offer aviation-related safety programs			■	
Get involved with groups such as Maine Aeronautics Assoc.			■	
Host Corporate Aviation Day and invite MBNA			■	
Have presentations on benefits and costs for GA charters			■	
Encourage additional business use by MBNA, Ft. Kent, Fraser			■	
Partner with Maine Department of Tourism to market airport			■	
SAFETY/STANDARDS				
Develop Vegetation Management Plan/Obstruction Removal		■		
Add full parallel taxiway for Category B or C ARC objective		■		
Expand RSA based on Category B or C ARC objective		■		Included in RW Extension
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan		■		
ECONOMIC SUPPORT				
Review need for Frenchville taxes going to Presque Isle			■	
Tap into corporate aviation market with St. John closing			■	
Provide services for the Falcon 50 and Challenger 500			■	
FLEXIBILITY				
Update Airport Master Plan		■		State CIP-2010/2015/2020
Develop compatible land use planning		■		
Report annual activity data to OPT		■		
Establish height zoning			■	
Review past airport uses and users			■	
ACCESSIBILITY				
Install GPS w/ precision capabilities	■			
Add de-icing capabilities		■		
Extend RW to 5,000 feet	■			Airport MP
Improve snow plowing			■	
Offer Part 135 charter service	■			
Determine feasibility of providing charter/commuter service			■	
Upgrade RW markings and signage			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Aircraft design group- support Category C aircraft		■		
Runway extension to 5,000'	■			Add 399' to RW
Runway width to 100'		■		25' width to RW
Full parallel taxiway		■		
Install precision approach or capabilities	■			
HIRL	■			
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces	■			MASPU= 1 add. hangar spaces by 2021
GA terminal/administration building		■		current estimate is 1,250 sq. ft.
Airport maintenance building		■		Airport MP
Repair hangar apron area			■	
SERVICES				
Avionics		■		
Flight planning		■		Add computer, laptop hookups only
Full Service restaurant		■		
On-site rental car		■		
Deicing		■		
Full Perimeter Fencing	■			
Controlled Access	■			
Night Guard		■		
Ground transportation service			■	
Charter service			■	
Aircraft rental			■	
Install self-service, credit card fueling			■	

MASPU RECOMMENDED ACTIONS
NORTHERN MAINE REGIONAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars		■		MASPU= 4 add. hangar spaces by 2021
Add air carrier auto parking		■		MASPU= 80 add. parking spaces by 2021
Add GA automobile parking		■		MASPU= 15 add. auto parking spaces by 2021
OUTREACH				
Develop public outreach/educational program		■		
SAFETY/STANDARDS				
Develop Vegetation Management Plan		■		
Full parallel taxiway		■		MASPU/State CIP
Develop Wildlife Management Plan		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan/ALP		■		Airport MP
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Full parallel taxiway		■		MASPU/State CIP
MITL		■		
VASIs or PAPIs on primary RW		■		
LANDSIDE FACILITIES				
Hangars-based aircraft spaces		■		MASPU= 3 add. hangar spaces by 2021
Hangars-transient aircraft spaces		■		MASPU= 1 add. hangar spaces by 2021
Add GA automobile parking		■		MASPU= 15 add. auto parking spaces by 2021
SERVICES				
Avionics		■		
Full Perimeter Fencing		■		
Controlled Access		■		
Night Guard		■		

MASPU RECOMMENDED ACTIONS
OXFORD COUNTY REGIONAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars	■			MASPU= 4 add. hangar spaces by 2021
OUTREACH				
Promote access to nearby industrial and business parks			■	
Provide community business reports to airport users			■	
SAFETY/STANDARDS				
Clear Approaches		■		State CIP
Develop Vegetation Management Plan		■		
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan		■		
Determine ARC for airport design criteria			■	
Create airport security manual			■	
ECONOMIC SUPPORT				
Maintain airport grant assurances			■	
Review airport leases			■	
Construct t-hangars and conventional hangars for inc. revenue			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2013
Be included in local comprehensive plan		■		
Develop business/financial plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Extend RW 15-33			■	
Offer self-service fuel			■	
Provide GPS approach to RW 15-33			■	
Upgrade RW and TW visibility by repainting markings			■	
Provide approach light system (ALS) to RW 33			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Taxiway length- turnaround		■		State CIP- parallel TW
Taxiway reflectors		■		
Replace 30-yr old MIRLs			■	
Install REILS at RW ends 15 and 33			■	
Install PAPIs at RW ends 15 and 33			■	
Construct parallel TW for RW 15-33			■	
Reconstruct RW 15-33 pavement			■	
Extend RW 15-33			■	
Provide GPS approach to RW 15-33			■	
Upgrade RW and TW visibility by repainting markings			■	
Provide approach light system (ALS) to RW 33			■	
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 4 add. hangar spaces by 2021
Install auto parking stalls for employees/tenants			■	
Upgrade existing terminal building			■	
Improve airport landscape, signage, lighting			■	
Reconstruct terminal apron pavement			■	
SERVICES				
Full perimeter fencing	■			
Electric key card access gate			■	
Provide aircraft maintenance and avionics facilities			■	
Provide self-service fuel capabilities			■	
Provide ground transportation to business park & tourist attr.			■	
Maintain FBO presence with various aviation services			■	

MASPU RECOMMENDED ACTIONS
PITTSFIELD MUNICIPAL AIRPORT

Key:
MASPU & Airport recommended action
MASPU recommended action only
Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars	■			MASPU= 13 add. hangar spaces by 2021
Add GA automobile parking		■		MASPU= 10 add. auto parking spaces by 2021
OUTREACH				
Develop public outreach program	■			
Develop marketing materials/airport brochure			■	
Hire a flight instructor and market training to new students			■	
SAFETY/STANDARDS				
Clear Approaches		■		
Develop Vegetation Management Plan	■			State CIP
Add partial parallel taxiway for Category B ARC objective		■		MASPU
Pavement maintenance to meet >70 PCI		■		
Develop operations manual/accident reporting procedures		■		
Develop Emergency Response Plan		■		
Develop Wildlife Management Plan	■			
Upgrade fuel system to meet NFPA guidelines		■		
Develop a formal airport maintenance plan			■	
Develop an airport security plan			■	
ECONOMIC SUPPORT				
Develop an Economic Development Plan for airport land			■	
Identify potential business users and promote airport usage			■	
Support corporate aircraft usage (small jet)			■	
FLEXIBILITY				
Update Airport Master Plan or ALP	■			Updates needed 2008/2015
Develop business/financial plan		■		
Report annual activity data to OPT		■		
Develop airspace and property use plans			■	
ACCESSIBILITY				
Extend runway to 5,000 feet			■	
Install VASIs and PAPIs on RW 1/19			■	
Install precision approach			■	
Improve airport signage			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Partial parallel taxiway		■		
LITL		■		**State CIP**
Repair and expand ramp area and improve taxiway drainage			■	
Extend runway to 5,000 feet			■	
Upgrade airport approach lighting system			■	
Remove old runway pavement			■	
Dredge SPB canal			■	
Install precision approach			■	
Install VASIs and PAPIs on RW 1/19			■	
Explore adding turf runway for sport aviation/ultralights			■	
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 7 add. hangar spaces by 2020
Hangars-transient aircraft spaces	■			MASPU= 6 add. hangar spaces by 2021
Apron tiedown spaces		■		MASPU= 24 add. AC parking spaces by 2021
GA auto parking		■		MASPU= 10 add. auto parking spaces by 2021
Improve airport signage			■	
SERVICES				
Full perimeter fencing	■			
Add 24 hour self-service fuel			■	
Add airport restaurant/burger joint			■	
Install security fencing and mechanical gate			■	

MASPU RECOMMENDED ACTIONS
PORTLAND INTERNATIONAL JETPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURES				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Airside				
Monitor demand/capacity ratio		■		
Landside				
Build hangars		■		MASPU= 86 add. hangar spaces by 2021
Add air carrier auto parking		■		MASPU= 5,011 add. parking spaces by 2021
OUTREACH	Meets all objectives- no actions needed			
SAFETY/STANDARDS				
Improve pavement strength on primary runway		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan/ALP		■		Updates needed 2011/2016/2021
Include airport in local comprehensive plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES	Meets all objectives- no actions needed			
LANDSIDE FACILITIES				
Hangars-based aircraft spaces		■		MASPU= 47 add. hangar spaces by 2021
Hangars-transient aircraft spaces		■		MASPU= 39 add. hangar spaces by 2021
Apron tie-down spaces		■		MASPU= 40 add. AC parking spaces by 2021
SERVICES	Meets all objectives- no actions needed			

MASPU RECOMMENDED ACTIONS
PRINCETON MUNICIPAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3	■			Priority 1 project to support LifeFlight
CAPACITY				
Landside				
Build hangars	■			MASPU= 2 add. hangar spaces by 2021
Add GA automobile parking	■			MASPU= 10 add. auto parking spaces by 2021
Build larger terminal building		■		Add at least 200 sq. ft.
OUTREACH				
Add full or limited service FBO	■			
Add aircraft repair/maintenance		■		
Develop public outreach program		■		
Hold annual aviation events to attract airplanes			■	
Host car shows			■	
Promote airport to Canadian airports			■	
Host other events compatible with airport			■	
SAFETY/STANDARDS				
Clear Approaches		■		Airport MP
Develop Vegetation Management Plan	■			
Add partial parallel taxiway for Category B ARC objective		■		
Meet FAA required RSA criteria		■		
Develop operations manual/accident reporting procedures		■		
Develop Emergency Response Plan	■			
Develop Wildlife Management Plan		■		
Develop self-inspection procedures		■		
Add 100LL fuel		■		Airport MP
Improve drainage in safety areas			■	
Prepare airfield maintenance plan			■	
ECONOMIC SUPPORT				
Promote airport to land an FBO			■	
Lower operating and maintenance costs			■	
FLEXIBILITY				
Update Airport Master Plan or ALP	■			Updates needed 2010/2017
Develop compatible land use plan		■		
Be included in local comprehensive plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Acquire SRE			■	
Install AWOS			■	
Pursue GPS approach			■	
Add local signage on area roads to show airport location			■	
Improve airport access road			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Partial parallel taxiway		■		MASPU
LITL		■		
REILS		■		Airport MP
Increase ramp lighting			■	
Install AWOS			■	
Pursue GPS approach			■	
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces	■			MASPU= 2 add. hangar spaces by 2021
Apron tiedown spaces	■			MASPU= 4 add. AC parking spaces by 2021
GA terminal/administration building		■		MASPU
Airport maintenance building	■			State CIP
GA auto parking		■		MASPU= 4 add. auto parking spaces by 2021
SERVICES				
Full or limited FBO	■			
Aircraft repair		■		
100LL fuel		■		Airport MP
Vending		■		
On-site courtesy car		■		
Full perimeter fencing	■			
Buy Jet A fuel or mobile fuel truck			■	
Add a fire hydrant			■	
Add potable water facilities			■	
Acquire snow removal equipment			■	
Install additional phone line			■	

MASPU RECOMMENDED ACTIONS
RANGELEY MUNICIPAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3		■		Priority 2 project to support LifeFlight
CAPACITY				
Landside				
Build hangars		■		MASPU= 3 add. hangar spaces by 2021
Build larger terminal building		■		Airport MP
OUTREACH				
Add full or limited service FBO		■		
Develop public outreach program		■		
SAFETY/STANDARDS				
Add partial parallel taxiway for Category B ARC objective		■		Airport MP
Develop Emergency Response Plan		■		
Develop Wildlife Management Plan		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP		■		2007/2014/2021
Report annual activity data to OPT		■		
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Runway length		■		Extend RW at least 301'
Partial parallel taxiway		■		Airport MP
LITL		■		
VGSI (VASIs/PAPIs)		■		MASPU
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces		■		MASPU= 3 add. hangar spaces by 2021
GA terminal/administration building		■		Airport MP
Airport maintenance building		■		State CIP
SERVICES				
Full or limited FBO		■		
Flight Planning		■		
On-site courtesy car		■		
Full perimeter fencing		■		

MASPU RECOMMENDED ACTIONS
SANFORD REGIONAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars		■		MASPU= 29 add. hangar spaces by 2021
Add automobile parking		■		parking deficiency addressed
OUTREACH				
Develop public outreach/educational program		■		
SAFETY/STANDARDS				
Clear Approaches		■		Actions pending
Full parallel taxiway on RW 7-25	■			State CIP
Develop Wildlife Management Plan		■		
Improve lights on Taxiway Charlie and Delta			■	
Reduce RW width on RW 07-25 to 100'			■	
Improve to RSA on RW 25 (add 100 ft.)			■	
Install fencing to improve security and wildlife control			■	
Make improvements to drainage			■	
Identify possible area to relocate old navy control tower			■	
Create security plan for the airport			■	
Complete Vegetation Management Plan	■			
ECONOMIC SUPPORT				
Complete airport property survey			■	
Examine airport leases			■	
Identify location and security for possible freight service			■	
Analyze revenue and resource constraints			■	
Examine facility upgrades that may attract new services			■	
Create an on-airport land use plan			■	
Identify infield use along Taxiway C, west of C			■	
Look at the purchase of Gallo land, east side of the airport			■	
Analyze GA, corporate, and charter growth			■	
Create a Free Trade Zone on airport			■	
FLEXIBILITY				
Update Airport Master Plan every 5 years		■		Updates needed: 2008/2013/2018
Update Airport Exhibit "A" in Master Plan			■	
Coordinate with communities re: water quality, airport dev.			■	
Examine drainage issues on the airport			■	
Coordinate airport MP with Sanford's Comp. Plan			■	
ACCESSIBILITY				
Add snow removal capabilities		■		Equipment only- Airport MP
Add de-icing capabilities		■		
Update runway lighting			■	
Install MIRLS with runway alignment indicator lights (MALSR)			■	
Analyze need for helicopter landing pad and helicopter parking			■	
Install an emergency generator to run lighting systems			■	
Improve lights on Taxiways C and D			■	
Install MALSR on RW 07			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Full parallel taxiway on RW 7-25	■			State CIP
Extend RW 7-25; reconstruct RW, analyze safety areas			■	
Install MIRLS with runway alignment indicator lights (MALSR)			■	
Reduce RW width on RW 7-25			■	
Improve RW and TW lighting			■	
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 4 add. hangar spaces by 2021
Hangars-transient aircraft spaces	■			MASPU= 25 add. hangar spaces by 2021
Apron tiedown spaces	■			MASPU= 50 add. AC parking spaces by 2021; ACIP project will add tiedowns in 2005/06
Automobile parking		■		parking deficiency addressed 2004
Modify terminal area; purchase abutting property			■	City of Sanford purchased 18 acres since '03
SERVICES				
Avionics		■		
On-site rental car		■		
Deicing		■		
Snow removal		■		Equipment only
Full Perimeter Fencing	■			
Night Guard		■		
Maintain snow removal equipment			■	
Prepare airport maintenance program			■	

MASPU RECOMMENDED ACTIONS
STONINGTON MUNICIPAL AIRPORT

Key: MASPU & Airport recommended action MASPU recommended action only Airport recommended action only	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Develop GPS/precision approach to support LifeFlight		■		Priority Level 3
Provide AWOS-3		■		Priority Level 3
CAPACITY	Meets all objectives- no actions needed			
OUTREACH				
Develop public outreach program		■		
SAFETY/STANDARDS				
Clear Approaches		■		
Develop Vegetation Management Plan		■		
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan		■		
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2006/2021
Develop compatible land use planning		■		
Be included in local comprehensive plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Reflectors		■		
SERVICES				
Phone		■		
Appropriate access restrictions		■		

MASPU RECOMMENDED ACTIONS
SUGARLOAF REGIONAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3		■		Priority 3 project to support LifeFlight
CAPACITY				
Landside				
Terminal/administration building	■			
OUTREACH				
Add limited service FBO		■		
Develop public outreach program		■		
SAFETY/STANDARDS				
Clear Approaches	■			Airport MP
Develop Vegetation Management Plan		■		State CIP
Pavement maintenance to meet >70 PCI		■		
Develop operations manual/accident reporting procedures		■		
Develop Wildlife Management Plan		■		
Add 100LL Fuel		■		Airport MP
Improve safety areas			■	
ECONOMIC SUPPORT	Meets all objectives- no actions needed			
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2013
Report annual activity data to OPT		■		
ACCESSIBILITY	Meets all objectives- no actions needed			
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Taxiway length- turnaround		■		Airport MP
Runway lighting-LIRL	■			
Taxiway reflectors	■			
LANDSIDE FACILITIES				
Terminal/administration building	■			Add at least 500 sq. ft. terminal building
Additional t-hangars			■	
Itinerant tie-down parking			■	
Holding areas			■	
SERVICES				
Limited service FBO		■		
100LL fuel		■		Airpot MP
Vending		■		
Full perimeter fencing	■			
Self-service fuel			■	

MASPU RECOMMENDED ACTIONS
WATERVILLE ROBERT LAFLEUR AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE	Meets all objectives- no actions needed			
CAPACITY				
Landside				
Build hangars		■		MASPU= 6 add. hangar spaces by 2021
OUTREACH				
Regionalize airport support/ownership- communities and			■	
Raise awareness and funding through the hiring of a full-time lobbyist on behalf of all ME airports			■	
Update website with links to local businesses			■	
Market professional image for WVL			■	
Advertise/booth/tradeshows			■	
Develop marketing resources			■	
SAFETY/STANDARDS				
Clear Approaches		■		Data unavailable
ECONOMIC SUPPORT				
Populate access road			■	
Promote land available for hangar development			■	
Attract new businesses to airport business park			■	
Research the possibility of CDBG funding for airport projects			■	
FLEXIBILITY				
Update Airport Master Plan		■		Updates needed 2007/2012/2017
Report annual activity data to OPT		■		
ACCESSIBILITY				
Add deicing capabilities		■		
Improve and clean up signage on street & buildings			■	
Explore commercial service opportunities			■	
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES	Meets all objectives- no actions needed			
LANDSIDE FACILITIES				
Hangars-transient aircraft spaces		■		MASPU= 6 add. hangar spaces by 2021
Airport signage			■	
Rehab terminal buildings			■	
SERVICES				
Aircraft repair	■			
Avionics	■			
Full service restaurant	■			
On-site rental car		■		
Deicing		■		
Night guard		■		
Obtain full-time FBO with flt. training/maintenance			■	
Improve customer ground service			■	

MASPU RECOMMENDED ACTIONS
WISCASSET MUNICIPAL AIRPORT

Key:
- MASPU & Airport recommended action
- MASPU recommended action only
- Airport recommended action only

	MASPU & Airport	MASPU Only	Airport Only	Notes
SYSTEM PERFORMANCE MEASURE				
QUALITY OF LIFE				
Install AWOS-3 to support LifeFlight		■		Priority Level 3
CAPACITY				
Landside				
Build hangars	■			MASPU= 18 add. hangar spaces by 2021
Add GA automobile parking		■		MASPU= 22 add. auto parking spaces by 2021
OUTREACH				
Establish an airport and local info kiosk or directory			■	
Establish reliable complaint/suggestion desk/phone line/box			■	
Publicize complaint/suggestion system			■	
Develop guidelines to respond to complaints/suggestions			■	
Work with community and provide PR contact for Part 77			■	
Promote aviation activities, invite those that have used the complaint/suggestion system to airport			■	
Recruit local visitors, provide a visitor reg., take counts before and after news articles, events, or school field trips			■	
Construct a website to reach target markets			■	
SAFETY/STANDARDS				
Clear Approaches	■			Airport MP
Full parallel taxiway	■			State CIP
Develop an Emergency Response Plan		■		
Develop Wildlife Management Plan		■		
Identify all noncompliance issues, determine waivers			■	
Formulate a 5-yr plan to correct compliance issues			■	
Apply for waivers and funding by initiating a "Request for Assistance" from OPT, to get projects into State CIP			■	
Identify all obstructions, land owners, and property under RPZ and obtain property or easements related to Part 77			■	
Review past accidents/incidents & coordinate reporting system			■	
Host safety programs and identify airport safety officer			■	
ECONOMIC SUPPORT				
Review rates and charges and compare to comparable airports			■	
Identify sources of additional income			■	
Reevaluate existing operating expenses, identify areas of waste and opportunities for improved efficiency.			■	
Research innovative financing, support GA entitlement funds			■	
Review operations and offer additional services				
Set annual goals to be used as financial benchmarks			■	
FLEXIBILITY				
Update Airport Master Plan or ALP		■		Updates needed 2009/2014/2019
Develop compatible land use planning		■		
Develop business and/or financial plan		■		
Report annual activity data to OPT		■		
ACCESSIBILITY				
Install GPS w/ precision capabilities		■		
Add de-icing capabilities		■		
Extend RW to 5,000 feet	■			Add 1,603'
FACILITY AND SERVICE OBJECTIVES				
AIRSIDE FACILITIES				
Runway extension to 5,000'	■			Extend 1,603'
Runway width to 100'		■		Widen 75'
Full parallel taxiway	■			State CIP
Install precision approach or capabilities		■		
HIRL		■		
LANDSIDE FACILITIES				
Hangars-based aircraft spaces	■			MASPU= 7 add. hangar spaces by 2021
Hangars-transient aircraft spaces	■			MASPU= 11 add. hangar spaces by 2021
Apron tiedown spaces	■			MASPU= 17 add. AC parking spaces by 2021
General aviation auto parking		■		MASPU= 26 add. auto parking spaces by 2021
Review all facilities and identify needs			■	
SERVICES				
Avionics		■		
Full Service restaurant		■		
On-site rental car		■		
Deicing		■		
Full Perimeter Fencing		■		
Controlled Access		■		
Night Guard		■		
Offer credit card fuel, cust. service, AC cleaning, catering			■	