

**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	3	
		GPS / PRECISION APPROACH	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	1	X
		GPS / PRECISION APPROACH	3	
		PERMANENT JET-A FUEL	1	X
LINCOLN	LINCOLN REGIONAL	GPS / PRECISION APPROACH	3	
LUBEC	LUBEC MUNICIPAL	GPS / PRECISION APPROACH	3	
MACHIAS	MACHIAS VALLEY	AWOS-3	2	
		GPS / PRECISION APPROACH	3	
NORRIDGEWOCK	CENTRAL MAINE REGIONAL	AWOS-3	2	X
PRINCETON	PRINCETON MUNICIPAL	AWOS-3	1	X
RANGELEY	RANGELEY MUNICIPAL	AWOS-3	2	
STONINGTON	STONINGTON MUNICIPAL	AWOS	3	
STONINGTON	STONINGTON MUNICIPAL	GPS / PRECISION APPROACH	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 REGIONAL
	LEVEL II	DEXTER
FRYEBURG		EASTERN SLOPES
GREENVILLE		GREENVILLE MUNICIPAL
OLD TOWN		OLD TOWN/DEWITT FIELD
PITTSFIELD		PITTSFIELD MUNICIPAL
PRINCETON		PRINCETON MUNICIPAL
LEVEL III		BELFAST
	BETHEL	BETHEL REGIONAL
	BIDDEFORD	BIDDEFORD MUNICIPAL
	EASTPORT	EASTPORT MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
	CARRABASSETT	SUGARLOAF REGIONAL
	LEVEL IV	DEBLOIS
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
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
LEVEL IV	OXFORD	OXFORD COUNTY REGIONAL	NO
	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
FRYEBURG		EASTERN SLOPES
GREENVILLE		GREENVILLE MUNICIPAL
OLD TOWN		OLD TOWN/DEWITT FIELD
PITTSFIELD		PITTSFIELD MUNICIPAL
PRINCETON		PRINCETON MUNICIPAL
LEVEL III		BELFAST
	BIDDEFORD	BIDDEFORD MUNICIPAL
	CARRABASSETT	SUGARLOAF REGIONAL
	EASTPORT	EASTPORT MUNICIPAL
	JACKMAN	NEWTON FIELD
	LINCOLN	LINCOLN REGIONAL
	OXFORD	OXFORD COUNTY REGIONAL
	LEVEL IV	CARIBOU
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 MUNICIPAL	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 MUNICIPAL
	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 MUNICIPAL
	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 MUNICIPAL
	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
LEVEL II	WISCASSET	WISCASSET
	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIPAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
	RANGELEY	RANGELEY MUNICIPAL

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 MUNICIPAL	
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 MUNICIPAL
		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 MUNICIPAL
	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 MUNICIPAL
	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 MUNICIPAL
	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
LEVEL II	WISCASSET	WISCASSET
	DEXTER	DEXTER REGIONAL
	FRYEBURG	EASTERN SLOPES
	GREENVILLE	GREENVILLE MUNICIPAL
	OLD TOWN	OLD TOWN/DEWITT FIELD
	PITTSFIELD	PITTSFIELD MUNICIPAL
	PRINCETON	PRINCETON MUNICIPAL
LEVEL III	RANGELEY	RANGELEY MUNICIPAL
	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
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 bases 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 least 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 noting, 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 airport 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 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.