

The MASP 2008 defines the location and appropriate classification of all of the state’s public-use airports and the key facility elements that are considered essential to a properly developed state and national aviation system.

The MASP 2008 does not attempt to identify which of the eight facility goals is more important relative to other facility goals, nor does it attempt to establish the relative importance among the seven previously discussed system goals. It does establish that a hierarchy between facility goals and system goals will occur in an airport investment strategy, that will be developed subsequent to publication of the MASP 2008.

The following section describes in detail the eight facility goals that were determined to be applicable to all the Tier 1 and Tier 2 category airports in the state. Also discussed are the individual developmental items that make up each of the facility goals. The facility goals and development items that are applicable to the Tier 3 band of airports are also discussed.

Current achievement rates for each of the facility goals are shown in this section for the high-priority Tier 1 band of airports. Considerable progress has been made in achievement rates for the majority of the facility goals since the previous publication of this report (MASP 2000).

The figures and tables included in this section depict the current achievement rates for each of the eight facility goals, based on the seven MASP 2008 system goals. Each individual facility goal is represented by an associated bar graph and table. Bar graphs show the specific facility goal achievement rates for each system goal, based on a percentage of the 88 total Tier 1 airports.

Tables show the specific facility goal achievement rates for each system goal, based on a percentage of the number of airports within the specific system goal (32 total population center airports, 36 total business center airports, et cetera).

Primary Runway System

Tier 1, Tier 2, and Tier 3 category airports should have a complete primary runway system, including a paved runway of appropriate length and width, and a parallel taxiway, if warranted by airport classification, activity level, or type of instrument approach procedure. Airports classified with an approach Category A are an exception, as a turf surface is considered acceptable and a parallel taxiway is not required.

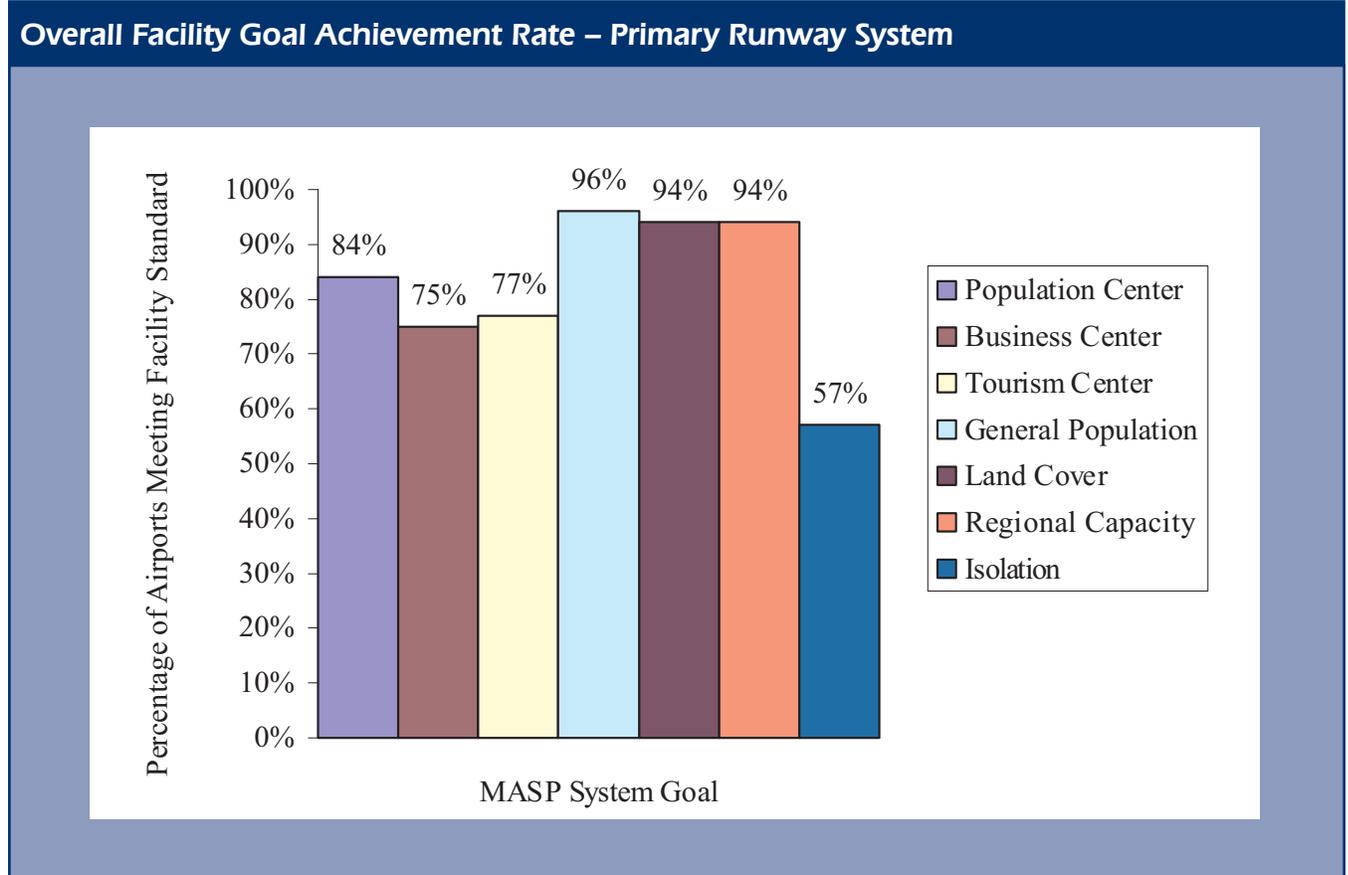
Current FAA standards require parallel taxiways for all airports with Instrument Approach Procedure (IAP) visibility minimums of less than one mile and recommend parallel taxiways for all airports with IAP visibility minimums of one-mile or greater.

For operational safety enhancements, all approach Category C and D airports should have a full-length parallel taxiway. Approach Category B airports with over 20,000 annual operations should also have a full-length parallel taxiway.

Tier 1 Airports that currently meet this standard completely: 76 percent (67 out of 88).

Figure 9 shows the overall achievement rate of Tier 1 airports that meet the standards of this particular Facility Goal in its entirety, within each of the seven specific System Goal categories.

Figure 9



Source: MDOT Bureau of Aeronautics & Freight Services

Table 42 shows the achievement rate of each of the individual Standard Development items that make up this particular Facility Goal.

Table 42

Airport Development Item Achievement Rate – Primary Runway System

MASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Runway Length	97%	86%	77%	100%	94%	94%	57%
Runway Width	97%	83%	92%	100%	96%	94%	71%
Surface Type	100%	100%	95%	100%	94%	100%	57%
Primary Taxi System	84%	75%	92%	96%	98%	100%	71%

Source: MDOT Bureau of Aeronautics & Freight Services

Pavement Condition

Tier 1, Tier 2, and Tier 3 category airports should have pavements in their Primary Runway System in good or better condition. Pavement Condition Index (PCI) values, where available, will be used as a standardized means of quantifying overall pavement conditions at each airport.

The PCI, developed by the U. S. Air Force, is the nationally recognized method used in the evaluation of pavement conditions by a numbers-based system. PCI values range from a high of 100 for new or defect-free pavements, to a low of 0 for pavements that have completely failed.

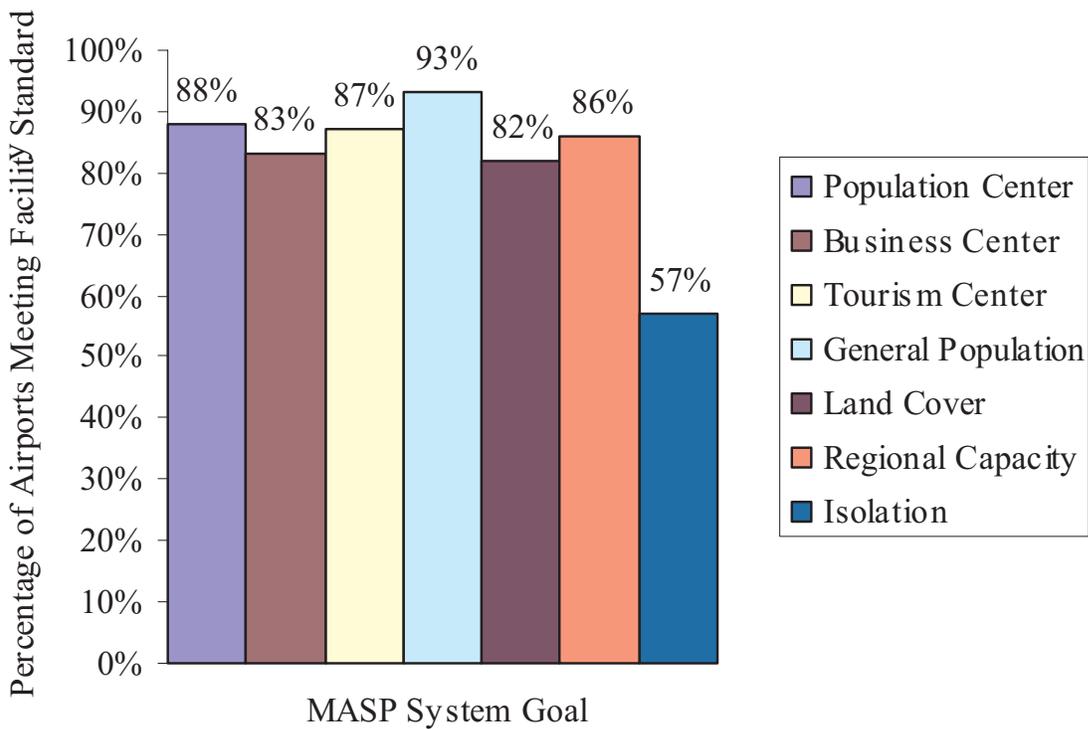
Target minimum-level PCI values have been established for various airport pavements as part of the MASP 2008 study. The threshold values for good pavement conditions for runways and taxiways at the six different MASP classifications of airports are listed in Tables 40 and 41 (see Section 7).

Tier 1 Airports that currently meet this standard completely: 82 percent (72 out of 88).

The overall achievement rate of Tier 1 airports by specific System Goal categories is shown below in Figure 10.

Figure 10

Overall Facility Goal Achievement Rate: Pavement Condition



Source: MDOT Bureau of Aeronautics & Freight Services

The achievement rate by individual Standard Development Items for this Facility Goal are shown below in Table 43.

Table 43

Airport Development Item Achievement Rate – Pavement Condition							
MASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Primary Runway PCI	88%	92%	87%	93%	82%	86%	57%
Primary Taxiway PCI	91%	83%	97%	96%	92%	88%	100%

Source: MDOT Bureau of Aeronautics & Freight Services

Lighting and Visual Aids

Tier 1, Tier 2, and Tier 3 category airports should have appropriate runway edge lighting systems and visual aids for their primary runways.

All airports with C-III or D-level classifications (as well as other category airports with Precision Instrument Approach procedures) should have High Intensity Runway Lights (HIRL). For airports that are classified B-I through C-II, Medium Intensity Runway Lights (MIRL) are considered acceptable. For airports that are classified with an A-level approach category, unlighted runway edge markers are considered acceptable.

PAPI lights and REIL are recommended for all primary runways at airports with B, C, and D-level classifications.

A Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) is recommended for all C and D-level approach category runways that have Precision Instrument Approach procedures.

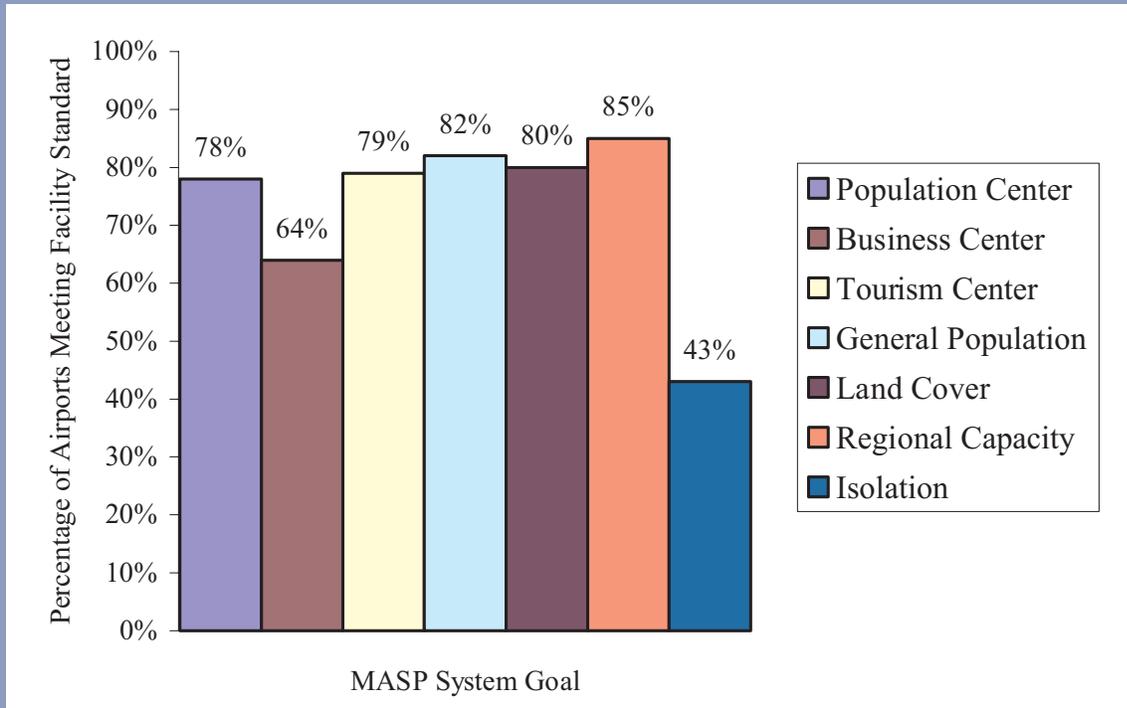
Rotating beacons, lighted wind indicators, and segmented circles are considered standard development items for all airports with B, C, and D-level MASP classifications.

Tier 1 Airports that currently meet this standard completely: 81 percent (71 out of 88).

The Tier 1 airport overall achievement rate within each of the seven specific System Goal categories is shown in Figure 11.

Figure 11

Overall Facility Goal Achievement Rate – Lighting and Visual Aids



Source: MDOT Bureau of Aeronautics & Freight Services

The Tier 1 Airport Standard Development Item achievement rate for the Lighting and Visual Aids Facility goal is shown in Table 44.

Table 44

Airport Development Item Achievement Rate – Lighting and Visual Aids

MASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Runway Lighting System	100%	100%	95%	100%	92%	97%	57%
PAPI	100%	100%	97%	100%	94%	95%	57%
REIL	97%	100%	87%	96%	86%	89%	43%
MALSR	88%	64%	87%	86%	84%	85%	100%
Rotating Beacon	100%	100%	97%	100%	94%	98%	57%
Lighted Wind Indicator	100%	100%	97%	100%	96%	100%	57%
Segmented Circle	78%	83%	79%	82%	80%	85%	57%

Source: MDOT Bureau of Aeronautics & Freight Services

Approach Protection

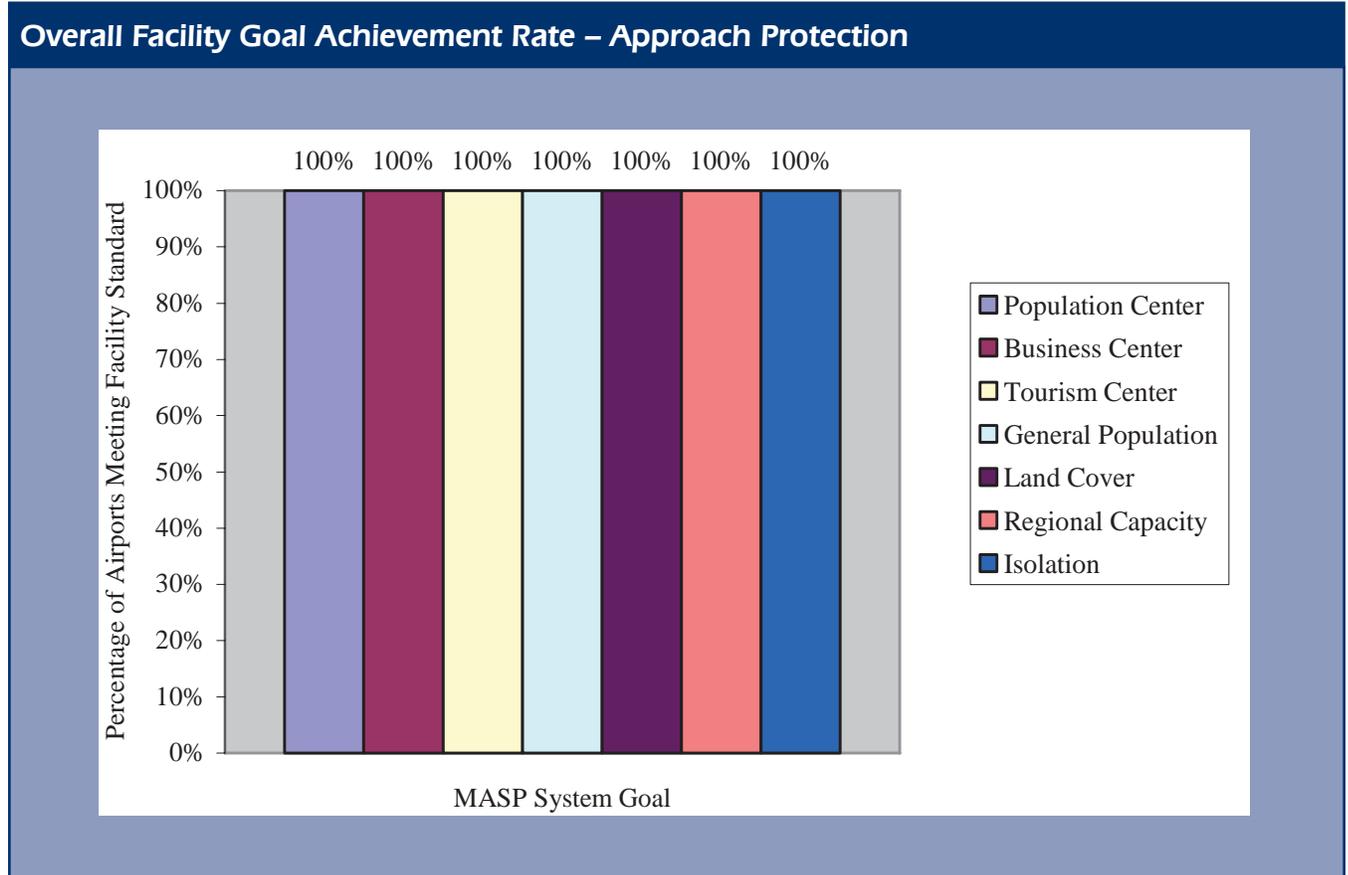
Tier 1, Tier 2, and Tier 3 category airports should have a current airport approach plan approved by the MAC, or an Airport Zoning Ordinance adopted under the provisions of the Michigan Airport Zoning Act (Act 23 of 1950). At time of publication of the MASP 2008, all public-use airports in the state had appropriate airport approach plans in place that were approved by the MAC.

It is recommended that all MAC approved airport approach plans be filed with the appropriate local authorities or agencies. Beginning in January 2008, MDOT Airports Division requested written confirmation from airport managers that their airport approach plans have been filed with their local authorities. At time of publication of the MASP 2008, not all of the confirmation letters had been received by MDOT. It is recommended that for future updates, verification that the approved approach plans currently are on file be considered a standard approach protection item.

Tier 1 Airports that currently meet this standard completely: 100 percent (88 out of 88).

The Approach Protection Facility Goal overall achievement rate for Tier 1 airports is shown below in Figure 12.

Figure 12



Source: MDOT Bureau of Aeronautics & Freight Services

The Standard Development Item achievement rate for the Tier 1 airport Approach Protection Facility Goal is shown below in Table 45.

Table 45

Airport Development Item Achievement Rate – Approach Protection							
MAASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Approach Protection Plan	100%	100%	100%	100%	100%	100%	100%
Filed with Local Authorities	TBD*	TBD*	TBD*	TBD*	TBD*	TBD*	TBD*
* TBD - As of January 2008, we have requested written notification from the airport manager.							

Source: MDOT Bureau of Aeronautics & Freight Services

Basic Pilot and Aircraft Services

All public-use airports in the state airport system should have an appropriate range of pilot and aircraft services.

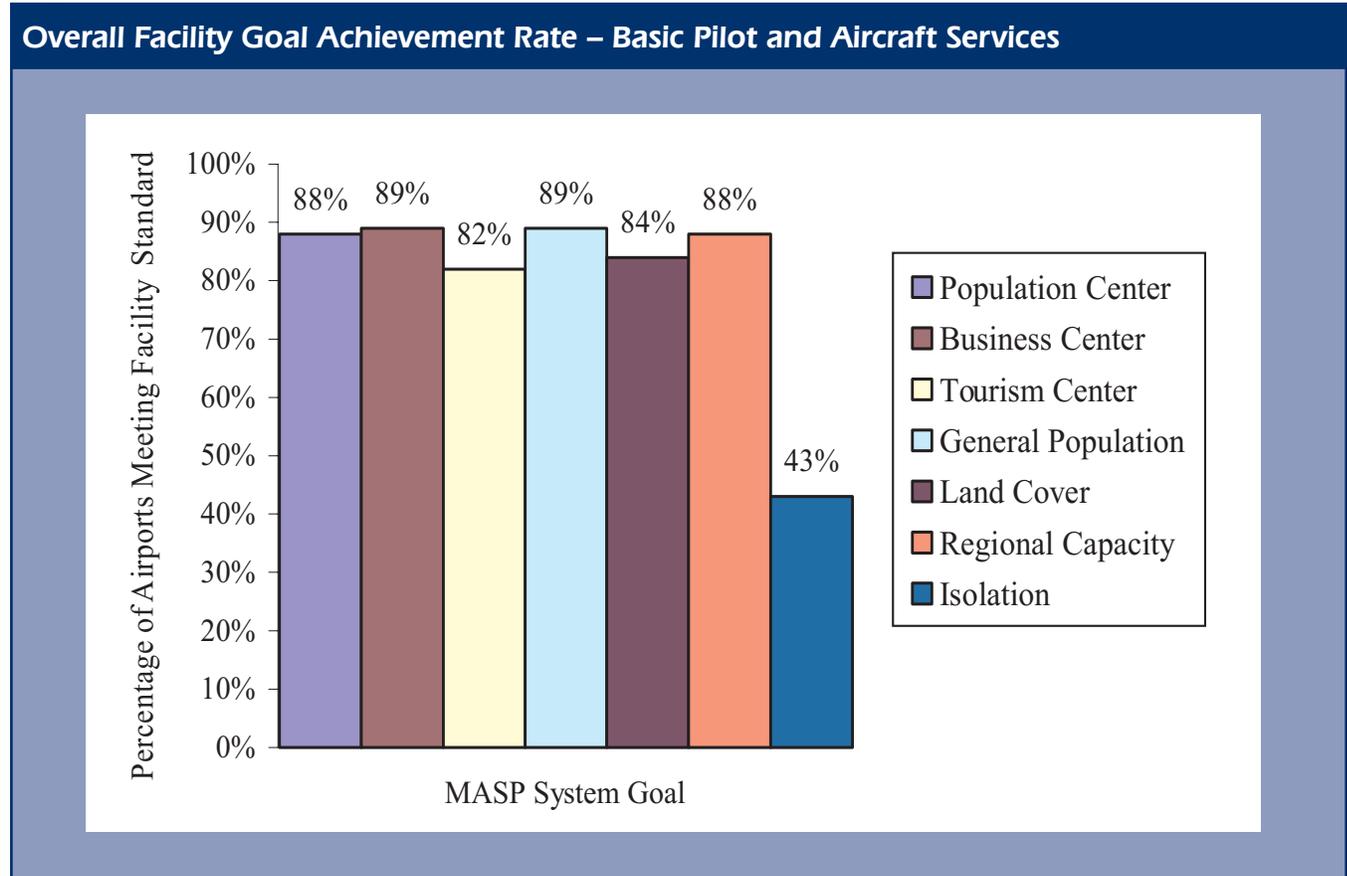
For Tier 1, Tier 2, and Tier 3 category airports, basic pilot and aircraft services include a 24 hour-per-day accessible pilot and passenger shelter, a telephone, a restroom, avgas availability, and aircraft parking. Aircraft parking includes either hangar space, apron space, or a tie-down area for based or itinerant aircraft parking accommodation.

In addition to the services mentioned above, Tier 1 and Tier 2 category airports should also include the availability of aircraft maintenance services and at least one available airport staff member during normal business hours. These two services are not considered a basic service goal for Tier 3 category airports.

Tier 1 Airports that currently meet this standard completely: 76 percent (67 out of 88).

Figure 13 shows the Tier 1 airport overall achievement rate of this Facility Goal by System Goal category.

Figure 13



Source: MDOT Bureau of Aeronautics & Freight Services

Table 46 shows the Tier 1 airport achievement rate according to specific individual Standard Development Items that make up this particular Facility Goal.

Table 46

Airport Development Item Achievement Rate – Basic Pilot and Aircraft Services

MASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Pilot Shelter (24-hr)	88%	89%	82%	89%	84%	88%	43%
Telephone	100%	100%	90%	96%	96%	98%	57%
Restrooms	97%	100%	90%	93%	90%	97%	57%
Fuel	100%	97%	87%	100%	90%	100%	43%
Aircraft Parking	100%	100%	100%	100%	100%	100%	57%
Aircraft Maintenance	97%	97%	95%	93%	96%	100%	100%
Available Staff	100%	94%	85%	96%	86%	89%	43%

Source: MDOT Bureau of Aeronautics & Freight Services

All-Weather Access

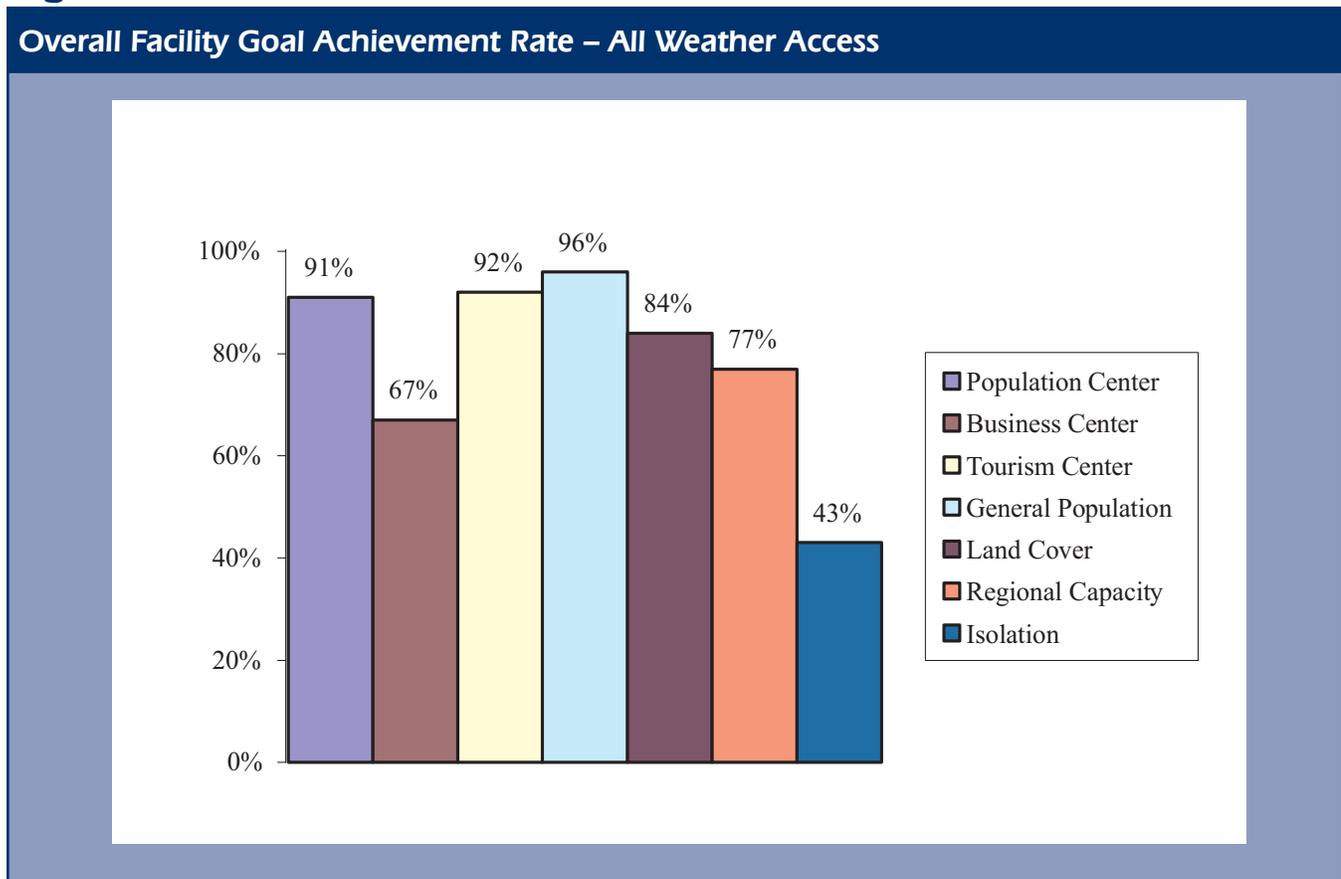
Tier 1 and Tier 2 category airports should be accessible in all types of weather conditions. These airports should have published Instrument Approach Procedures that are considered appropriate for the size, activity level, and specific needs of each particular airport.

Airports in these categories should also have weather reporting capabilities and provide pilot access to weather briefing sources. Weather reporting can be accomplished by Automatic Terminal Information Service broadcasts or by AWOS broadcasts at airports that have these capabilities. Weather briefing information can be made accessible to pilots by means of computer terminal, wireless/landline internet provision, or telephone.

Tier 1 airports that currently meet this standard completely: 70 percent (62 out of 88).

Figure 14 shows the overall achievement rate of Tier 1 airports that meet the standards of the All-Weather Access Facility Goal in its entirety, broken down by System Goal categories.

Figure 14



Source: MDOT Bureau of Aeronautics & Freight Services

Table 47 shows the achievement rate of each of the individual Standard Development Items that make up the All-Weather Access Facility Goal.

Table 47

Airport Development Item Achievement Rate – All Weather Access							
MASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Instrument Approach	91%	67%	95%	100%	92%	97%	43%
Weather Reporting	97%	94%	92%	96%	84%	77%	43%
Weather Briefing Access	100%	100%	100%	100%	100%	100%	71%

Source: MDOT Bureau of Aeronautics & Freight Services

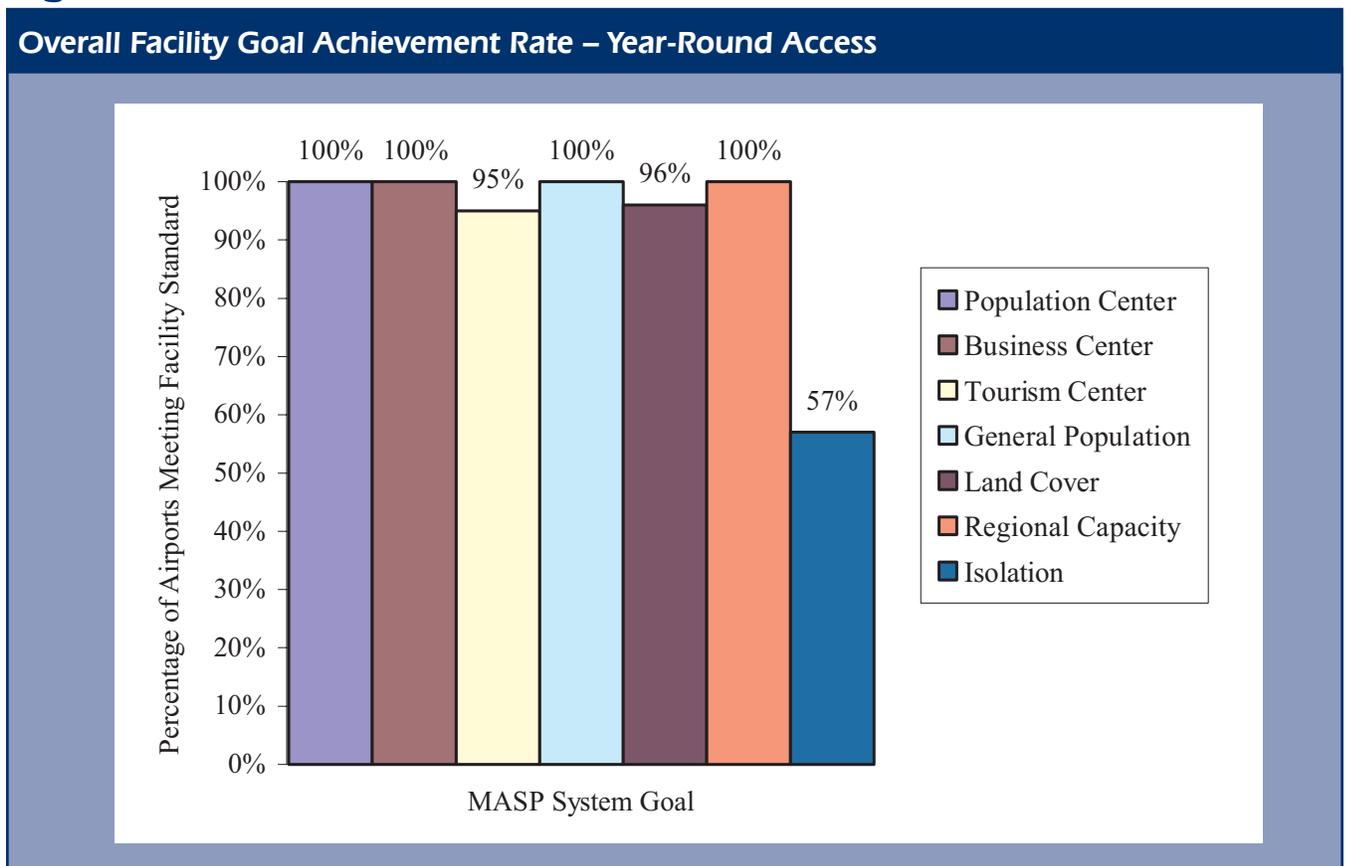
Year-Round Access

Tier 1 and Tier 2 category airports should be open throughout the year. Each airport should have timely snow removal capabilities and a primary runway that is unaffected by spring thaw conditions.

Tier 1 Airports that currently meet this standard completely: 94 percent (83 out of 88).

The overall achievement rate of Tier 1 airports by specific System Goal categories is shown below in Figure 15.

Figure 15



Source: MDOT Bureau of Aeronautics & Freight Services

The Tier 1 Airport Standard Development Item Achievement Rate for this Facility Goal is shown in Table 48.

Table 48

Airport Development Item Achievement Rate – Year-Round Access							
MASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Snow Removal	100%	100%	95%	100%	96%	100%	57%
Open Year-Round	100%	100%	95%	100%	96%	100%	57%

Source: MDOT Bureau of Aeronautics & Freight Services

Landside Access

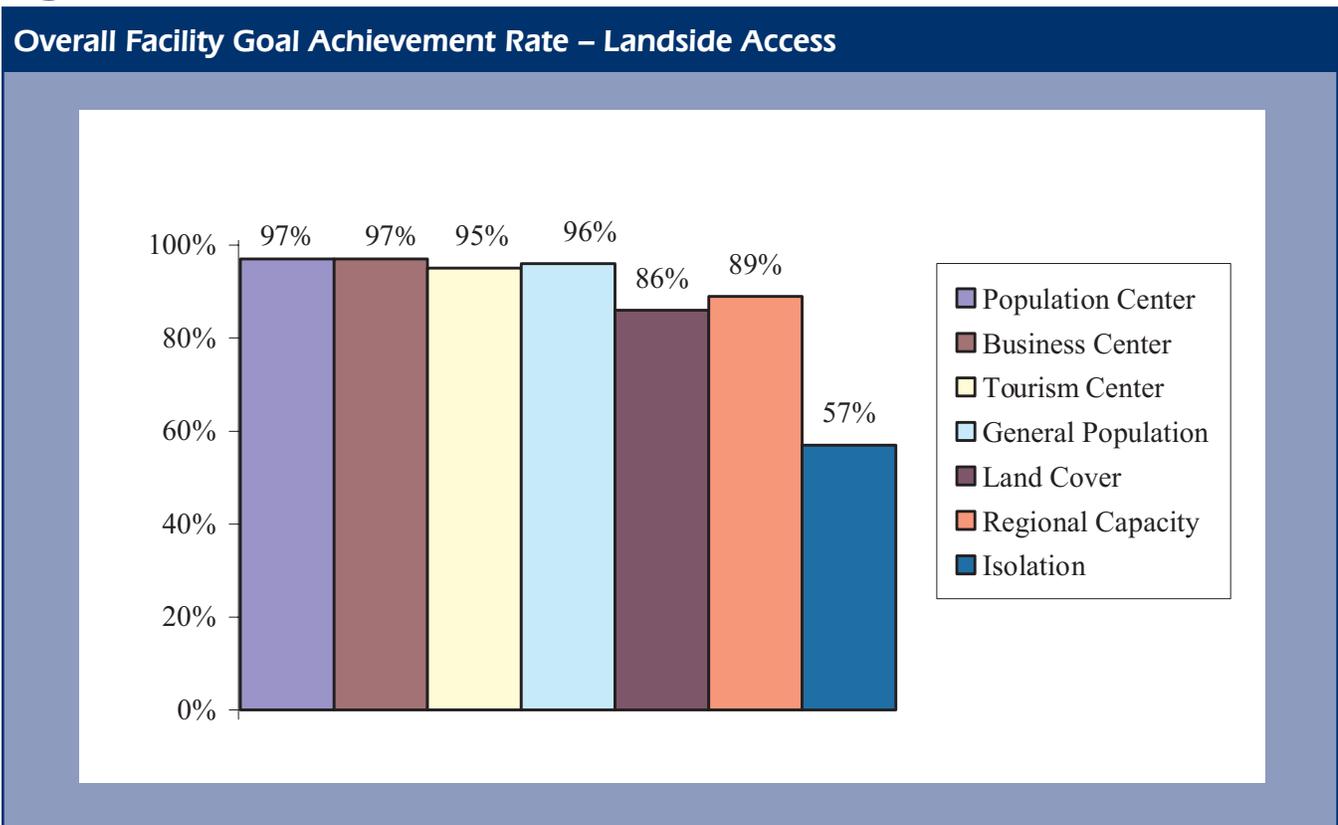
Tier 1 and 2 category airports should have at least one mode of landside transportation service between the airport and the surrounding community, whether those services are made available by private firms or public transportation systems.

It is recommended that sponsors of public-use airports coordinate with state or local road agencies to ensure public roadway access is provided at surface conditions and service levels consistent with airport user needs.

Tier 1 airports that currently meet this standard completely: 88 percent (77 out of 88).

The Tier 1 airport overall achievement rate within each of the seven specific System Goal categories is shown for the Landside Access Facility Goal in Figure 16.

Figure 16



Source: MDOT Bureau of Aeronautics & Freight Services

The Tier 1 Airport Standard Development Item Achievement Rate for this Facility Goal is shown in Table 49.

Table 49

Airport Development Item Achievement Rate – Landside Access							
MASP System Goal	Population Center	Busines Center	Tourism Center	General Population	Land Cover	Regional Capacity	Isolation
Number of Tier 1 Airports within System Goal	32	36	39	28	50	64	7
Development Item	Percentage of Tier 1 Airports Meeting the Facility Standard						
Public/Private Transportation	97%	97%	95%	96%	86%	89%	57%

Source: MDOT Bureau of Aeronautics & Freight Services