FACILITY GOALS

The Michigan Airport System Plan not only identifies the location and appropriate airport classification of those airport facilities that need to be included in the ***MASP 2000***, but also the development items that are basic to a properly developed system. The following section describes those facility elements that are crucial to a properly developed airport system. Included in each section is a discussion of the facility item, a figure displaying for each system goal, the number of airports meeting all the facility standards and those with deficiencies, and a table listing the number of airports meeting each component of a particular facility goal.

The ***MASP 2000*** does not attempt to identify which facility goals are more important relative to other facility goals. Nor does it attempt establish a the relative importance among system goals. Rather, establishing a hierarchy between system goals and facility goals will occur in an airport investment strategy which will be developed subsequent to completion of the ***MASP 2000.***

Complete and Adequate Primary Runway System

Airports designated as Tier 1 in the state airport system should have a complete and adequate primary runway system including: a paved runway of appropriate length and width; an appropriate runway lighting system; access from the terminal/ramp area to the primary runway; a parallel taxiway when appropriate based on airport classification and/or activity level; and clear approaches with the appropriate glide slope.

Figure 9
1999 Facility Goal Achievement:
Complete and Adequate Primary Runway System

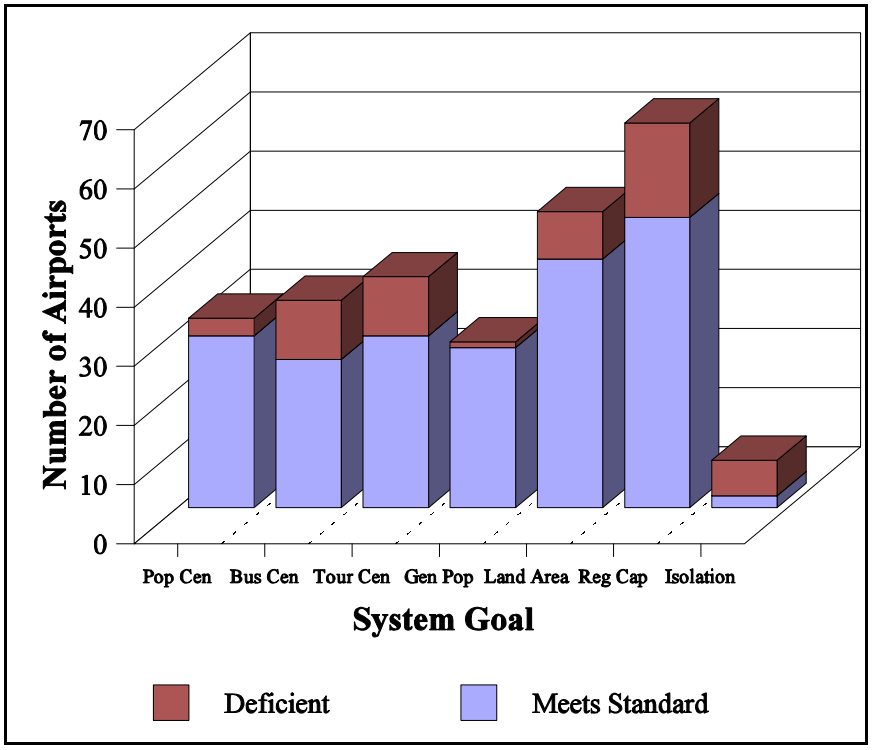

Table 44
1999 Facility Goal Achievement: Complete and Adequate Primary Runway System
Number of Tier 1 Airports Meeting the Facility Standard

Item	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
Runway Length	29	28	30	28	47	57	3
Runway Width	29	27	35	28	47	55	2
Runway Surface	32	35	37	28	48	65	3
Runway Lights	32	35	37	28	47	58	4
Runway Approach	31	34	34	27	42	54	2
Parallel Taxiway	32	28	37	28	49	59	5

The largest number of deficiencies occur at business center, tourism/convention center, and regional capacity airports with runway length and runway width not meeting the facility standard for that

airport classification.

Pavements in "Good" Condition

Airports designated as Tier 1 in the state airport system should have pavements in their *primary runway system* in "good" condition.

Figure 10
1999 Facility Goal Achievement: Pavement Condition

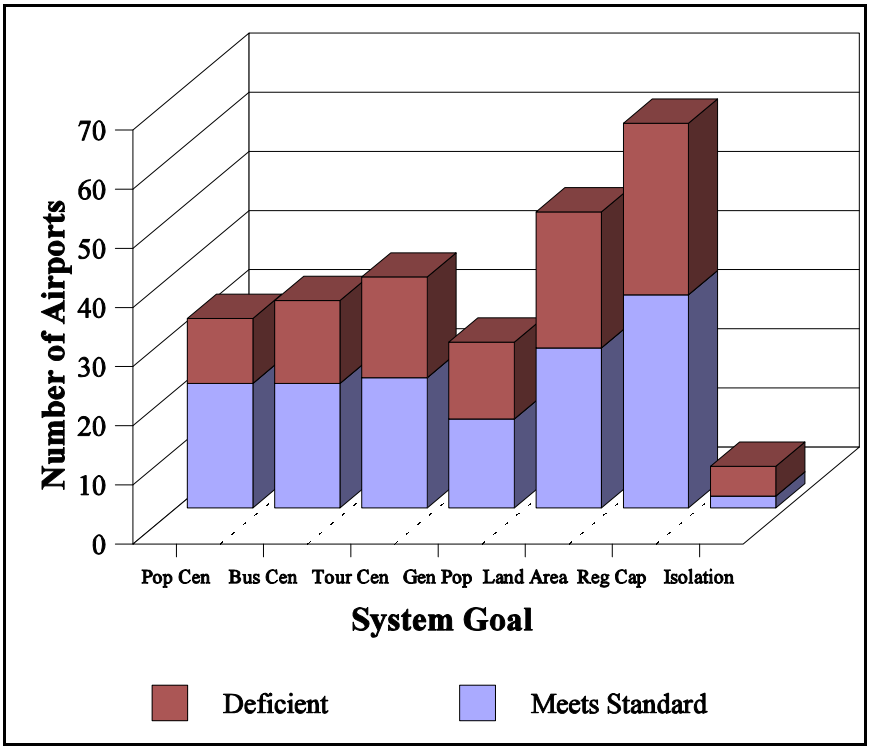

Table 45
1999 Facility Goal Achievement: Pavement Condition
Number of Tier 1 Airports Meeting the Facility Standard

Pavement Component	System Goal						
	Population Center	**Business Center**	**Tourism Center**	**General Population**	**Land Area**	**Regional Capacity**	**Isolation**
Number Tier 1 Airports	32	35	39	28	50	65	7
Primary Runway	24	26	25	18	33	45	2
Primary Taxiway System	25	25	25	20	35	45	2
Terminal Apron	25	27	28	21	36	47	2

Pavement condition at Tier 1 airports for each system goal is a concern. Primary runways meet the facility standard less than 75 percent of the time. Preservation of airport pavement infrastructure has been a point of emphasis in recent years and will continue to be emphasized in years to come.

All Weather Access

Airports designated as Tier 1 or Tier 2 in the state airport system should have all weather access. This includes an All Weather Observation System (AWOS) or equivalent, a Pilot Informantion Center (PIC), and a Ground Communication Outlet (GCO) or equivalent.

Figure 11
1999 Facility Goal Achievement: All Weather Access

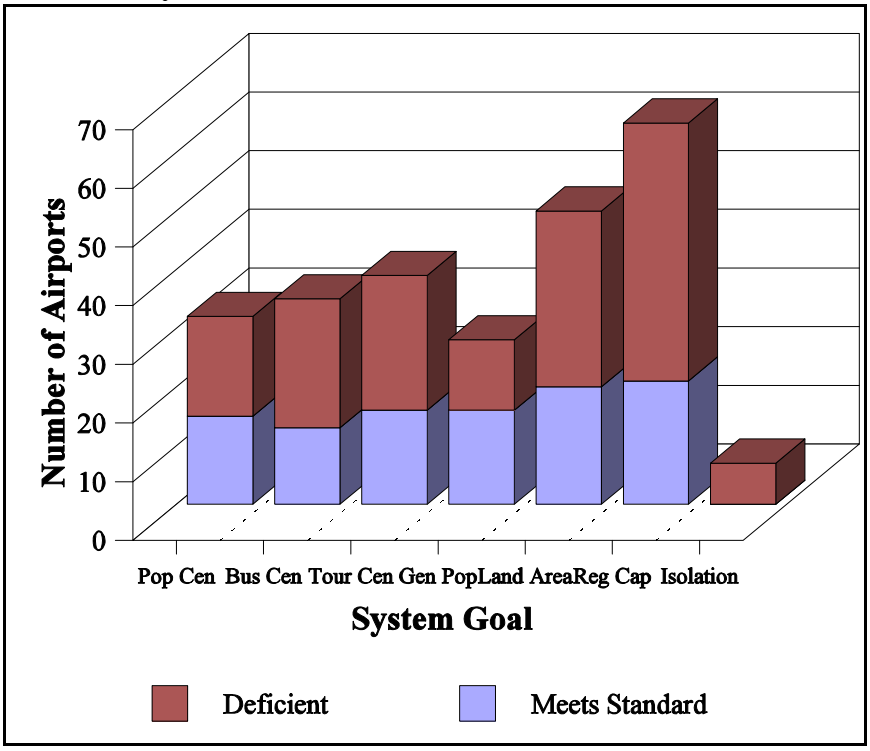

Table 46
1999 Facility Goal Achievement: All Weather Access
Number of Tier 1 Airports Meeting the Facility Standard

Component	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
AWOS	31	30	30	27	39	42	1
Pilot Information Center	18	17	20	19	25	31	1
Ground Comm Outlet	26	25	24	24	33	36	0

The All Weather Access program is a comparatively new program within AERO. As such, it is not surprising that particularly with the pilot information center and ground communication outlet additional work needs to be done. The Airport Investment Strategy will evaluate how vigorously these needs can be addressed and establish a priority for responding to these needs.

Year-Round Access

Airports designated as Tier 1 in the state airport system should be open throughout the year. This means the airport should be able to clear the runway of snow in a timely fashion, and have at least one paved runway that would not be affected by spring thaw conditions.

Figure 12
1999 Facility Goal Achievement: Year Round Access

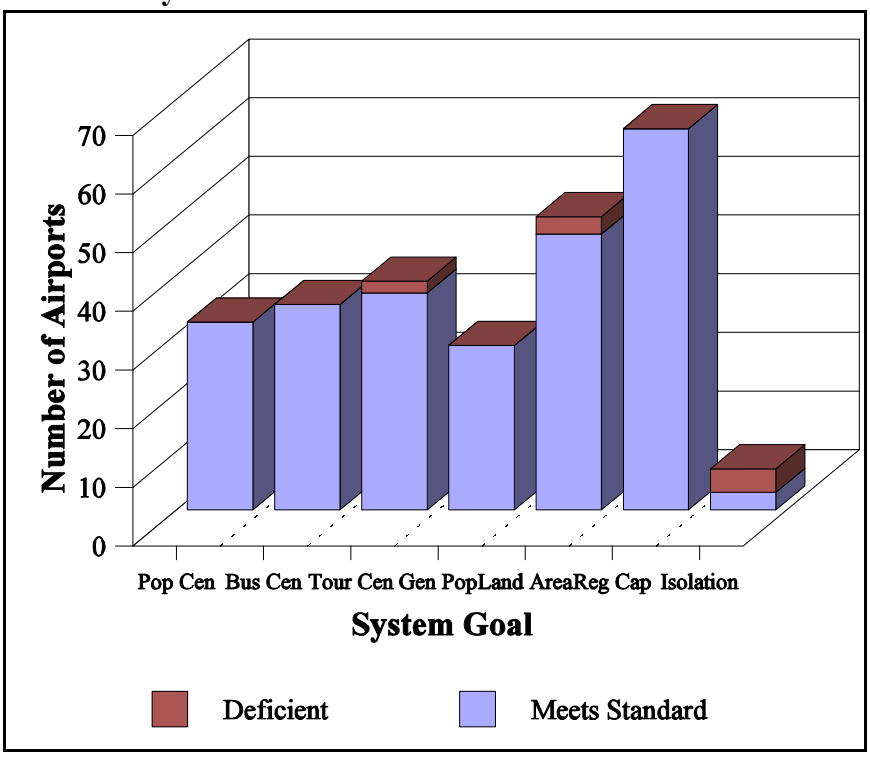

Table 47
1999 Facility Goal Achievement: Year Round Access
Number of Tier 1 Airports Meeting the Facility Standard

Component	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
Snow Removal	32	35	37	28	47	65	4
Open Through Spring	32	35	37	28	48	65	3

There are only minor deficiencies in meeting the year round access facility standards. Almost all Tier 1 airports have a snow removal plan and are able to stay open through the spring thaw period.

Basic Pilot and Aircraft Services

Airports designated as Tier 1 in the state airport system should have an appropriate range of pilot/aircraft services.

Figure 13
1999 Facility Goal Achievement: Basic Pilot and Aircraft Services

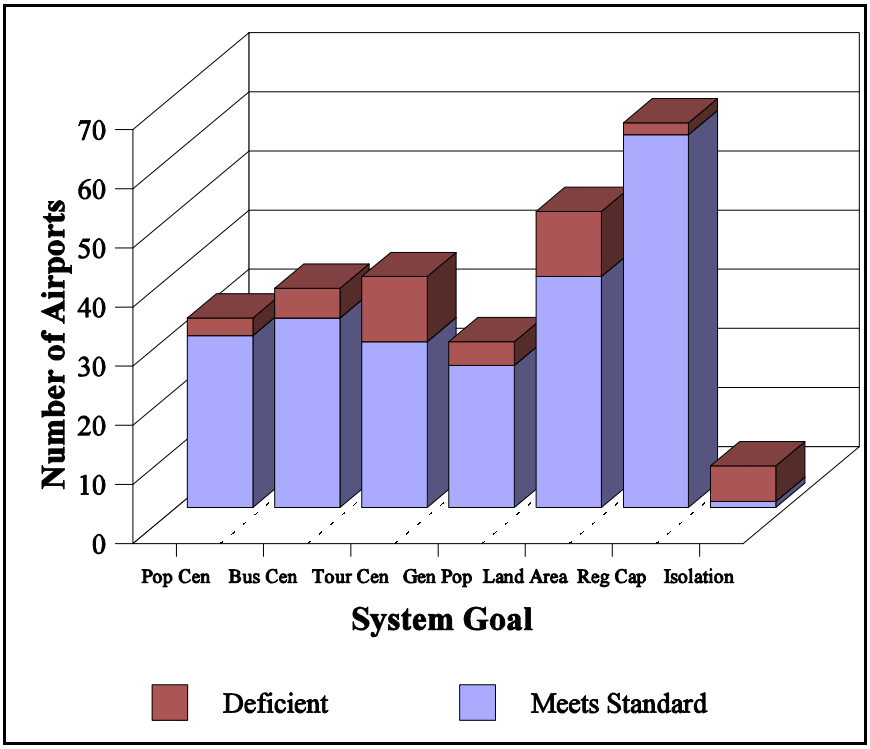

Table 48
1999 Facility Goal Achievement: Basic Pilot and Aircraft Services
Number of Tier 1 Airports Meeting the Facility Standard

Component	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
Staffing	32	34	33	28	44	64	2
Fuel	32	34	33	28	45	65	1
Telephone	32	35	37	28	47	64	3
Restrooms	32	35	37	28	47	64	3
Pilot Shelter	32	35	37	28	47	64	3
Aircraft Maintenance	30	32	28	25	49	65	5
Aircraft Repair	30	32	28	25	49	65	5
Hangar	31	35	33	27	44	64	1

Most Tier 1 airports meet virtually all of the facility goals for basic pilot and aircraft services. Only at Tourism/Convention Center airports and Land Area Coverage airports are problems indicated. Compared to other facility goals, these deficiencies are comparatively modest.

Airport Zoning

Airports designated as Tier 1 in the state airport system should have a current airport zoning plan and an active airport zoning board.

Figure 14
1999 Facility Goal Achievement: Airport Zoning

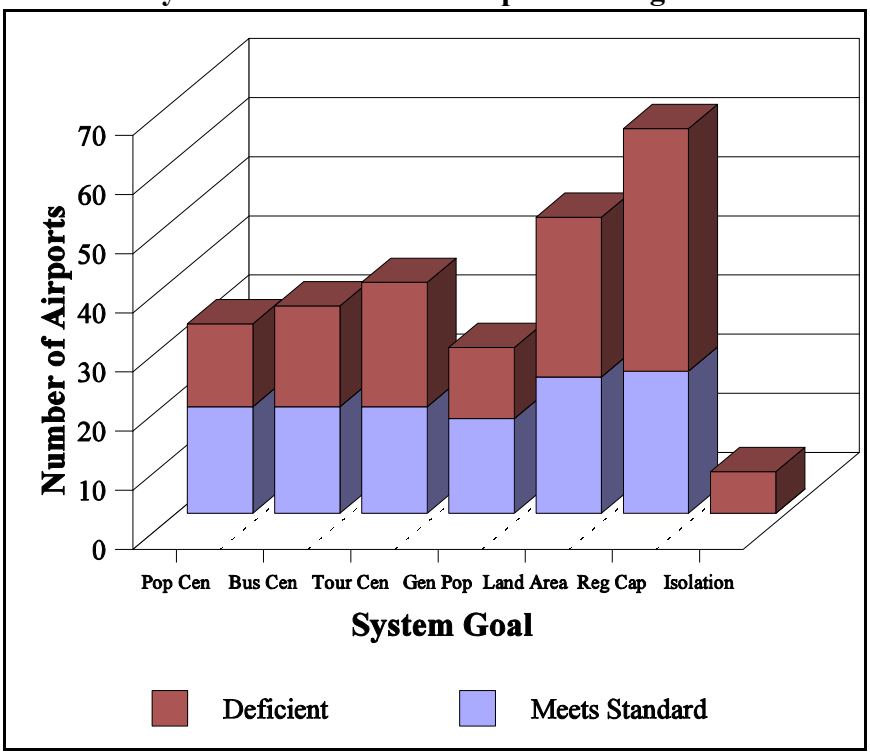

Table 49
1999 Facility Goal Achievement: Airport Zoning
Number of Tier 1 Airports Meeting the Facility Standard

Component	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
Active Zoning Board	18	18	18	16	23	24	0
Current Zoning Plan	22	22	21	19	27	29	0

Although these airports have had an opportunity to develop and maintain airport zoning and have an active zoning board for many years, comparatively few airport sponsors have taken advantage of this opportunity. In recent years, this has become a point of emphasis of the Michigan Aeronautics Commission (MAC). The MAC has approved in a number of instances AERO staff participation on airport zoning boards and has taken a greater interest in seeing that

effective local airport zoning is in place. As with the All Weather facility goal, this is a comparatively new initiative and will take a number of years to be completely responsive.

Miscellaneous Navigational Aids

Airports designated as Tier 1 in the state airport system should have appropriate navigational aids including Runway End Identifier Lights (REILs), a rotating beacon, segmented circle and lighted wind indicator.

Figure 15
1999 Facility Goal Achievement: Navigational Aids

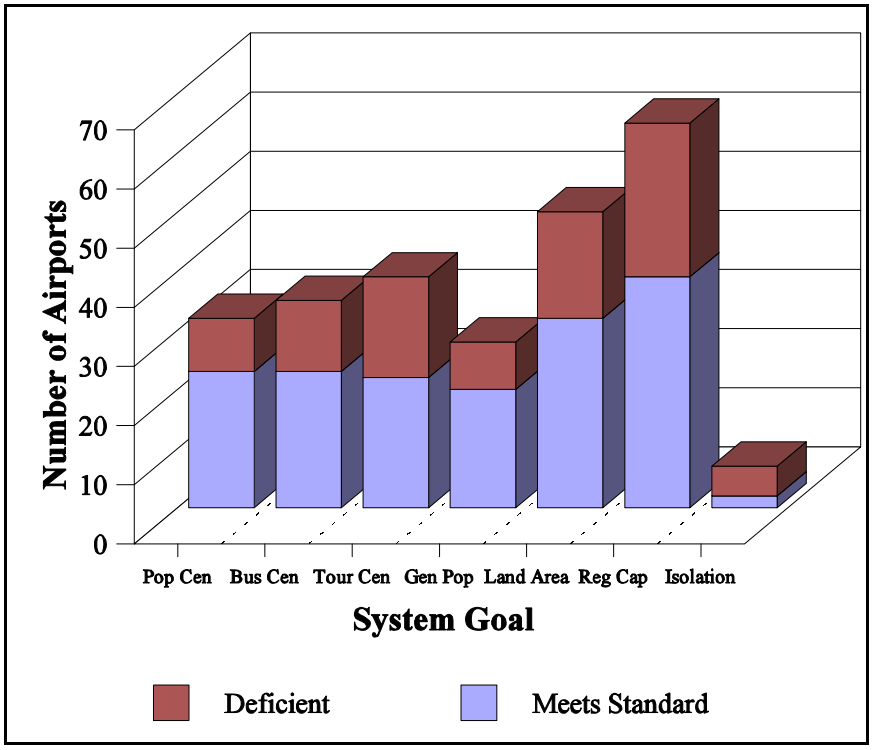

Table 50
1999 Facility Goal Achievement: Navigational Aids
Number of Tier 1 Airports Meeting the Facility Standard

Component	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
Runway End Indent Lights	32	34	33	27	42	53	2
Rotating Beacon	32	35	38	28	47	62	4
Segmented Circle	23	25	28	20	39	52	4
Lighted Wind Indicator	32	33	33	28	44	56	2

For the most part, Tier 1 airports have most of the navigational aids appropriate for their classification. The greatest number of deficiencies are found at the Land Area Coverage airports and the Regional Capacity airports.

Appropriate Instrument Approaches

Airports designated as Tier 1 in the state airport system should have the appropriate two-dimensional or three-dimensional instrument approach system that permits reliable air operations in minimal weather conditions. In recent years and in the future, these approach systems are anticipated to utilize either two-dimensional or three-dimensional Global Positioning System (GPS) technology.

Figure 16
1999 Facility Goal Achievement: Instrument Approaches

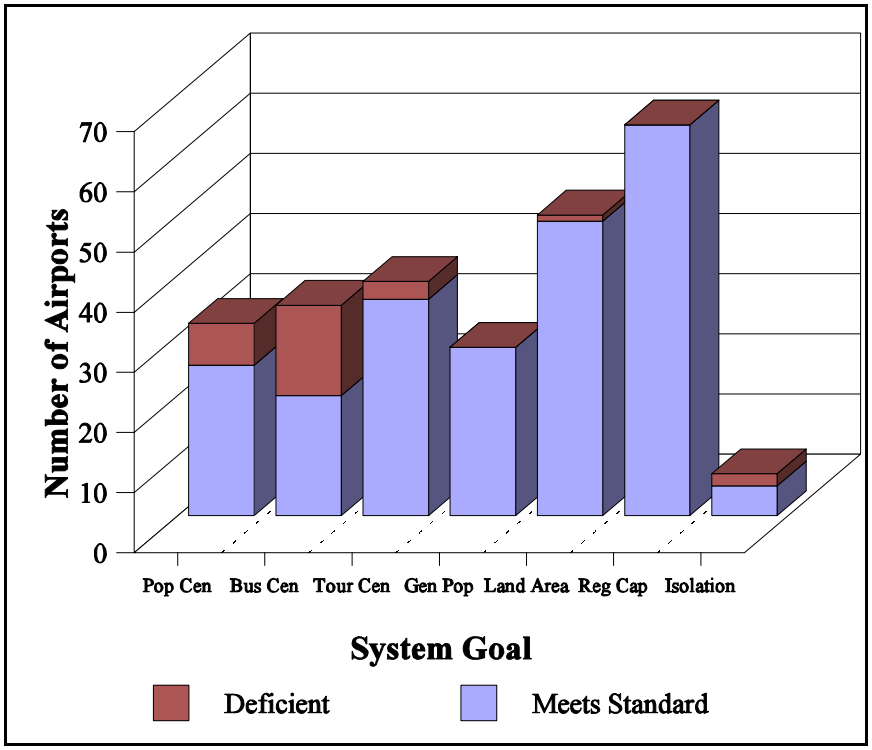

Table 51
1999 Facility Goal Achievement: Instrument Approaches
Number of Tier 1 Airports Meeting the Facility Standard

Component	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
Appropriate Instr Approach	25	20	36	28	49	65	5

Three dimensional precision approaches at Population Center and Business Center airports meet standards less than 75 percent of the time. The two dimensional non-precision approaches indicated at the other Tier 1 system airports are generally in place.

Appropriate Surface Access

Airports designated as Tier 1 in the state airport system should have appropriate highway and public transportation access responsive to both the volume and type of vehicular traffic requiring airport access.

Figure 17
1999 Facility Goal Achievement: Surface Access

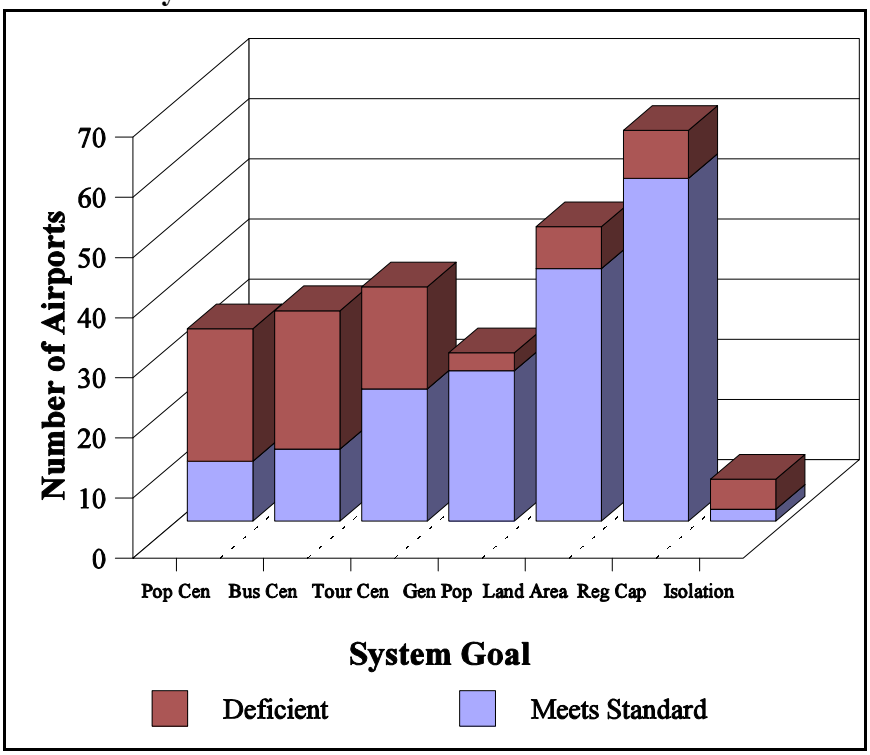

Table 52
1999 Facility Goal Achievement: Airport Surface Access
Number of Tier 1 Airports Meeting the Facility Standard

Component	System Goal						
	Population Center	Business Center	Tourism Center	General Population	Land Area	Regional Capacity	Isolation
Number Tier 1 Airports	32	35	39	28	50	65	7
Road Access	16	16	32	25	42	57	2
Public Transportation	21	25	38	28	49	65	5

The greatest deficiencies occur at population center and business center airports where both the highest level of highway access (arterials), and public transportation services are called for by airport development standard.