

## **CHAPTER SEVEN SYSTEM COVERAGE PERFORMANCE**

### **I. SYSTEM COVERAGE PERFORMANCE**

Airport system coverage relates to the ability of existing Pennsylvania airports to support aviation demand throughout the Commonwealth. The evaluation of system performance as it relates to coverage is determined based on the percentage of population and geographic area that is within a reasonable drive time of an airport with the types of aviation facilities and services required to support a wide range of aviation users. Through the SASP process, Pennsylvania airports have been categorized into functional levels based on their contribution to the overall airport system. Discussion of system coverage performance will be described by airport functional level groups and specific options for improving performance will be identified and examined.

Existing airport system coverage by airport functional level in Pennsylvania is quantified for the following:

- ❑ Advanced Airport Coverage Performance
- ❑ Intermediate Airport Coverage Performance
- ❑ Basic Airport Coverage Performance
- ❑ Limited Airport Coverage Performance
- ❑ Special-Use Facilities
- ❑ Existing Coverage Performance Summary

Current system coverage performance for each of these airport functional level groupings is examined in the following sections.

#### **A. Advanced Airport Coverage Performance**

Those airports that were determined to contribute the most to Pennsylvania’s aviation system in the stratification process were categorized in the advanced airport functional level. Airports in the advanced functional level accommodate high levels of activity and are typically located in or near major population centers. Some advanced airports support commercial airline activities including scheduled passenger traffic. All advanced airports are intended to support general aviation activity including operations by larger corporate general aviation aircraft. In some cases, these airports are in major metropolitan areas and are intended to function as relievers to larger, more congested commercial service airports in the area.

Because of their relative importance to the overall system and the high level of facilities and services that this functional level of airports is intended to provide, it is important that advanced airports provide adequate access to the Commonwealth for the citizens and businesses that they serve. **Table 7-1** presents Commonwealth airports and their corresponding airport number used in SASP graphics. Current advanced airport coverage performance in Pennsylvania is

summarized in **Exhibit 7-1**. GIS analysis indicates that approximately 79 percent of the Commonwealth's population (based on Census year 2000 data) and approximately 37 percent of its land area is currently located within a 30-minute drive time of a Pennsylvania advanced airport.

Table 7-1 (Page 1 of 3)  
 Airport Presentation on Maps

Map Number	Associated City	Airport
1	Allentown	Lehigh Valley International
2	Altoona	Altoona-Blair County
3	Bradford	Bradford Regional
4	DuBois	DuBois-Jefferson County
5	Erie	Erie International
6	Franklin	Venango Regional
7	Harrisburg	Harrisburg International
8	Johnstown	Johnstown-Cambria County
9	Lancaster	Lancaster
10	Latrobe	Arnold Palmer Regional
11	Philadelphia	Philadelphia International
12	Pittsburgh	Pittsburgh International
13	Reading	Reading Regional
14	State College	University Park
15	Wilkes-Barre/Scranton	Wilkes-Barre/Scranton International
16	Williamsport	Williamsport Regional
17	Allentown	Queen City
18	Ambler	Wings Field
19	Annaville	Millard
21	Beaver Falls	Beaver County
22	Bedford	Bedford County
23	Bellefonte	Bellefonte
24	Bensalem	Total RF Heliport
26	Bethel	Grimes
27	Bloomsburg	Bloomsburg Municipal
28	Brogue	Baublitz
29	Burgettstown	Miller
30	Butler	Butler County
31	Butler	Butler Farm Show
32	Canadensis	Flying Dollar
33	Carlisle	Carlisle
34	Centre Hall	Centre Airpark
35	Centre Hall	Penn's Cave
36	Chambersburg	Chambersburg Municipal
37	Clarion	Clarion County
38	Clearfield	Clearfield-Lawrence
39	Coatesville	Chester County-G.O. Carlson
40	Collegeville	Perkiomen Valley
41	Columbia	McGinness Field
42	Connellsville	Connellsville
43	Corry	Corry-Lawrence

Table 7-1 (Page 2 of 3)  
 Airport Presentation on Maps

Map Number	Associated City	Airport
44	Culmerville	Culmerville
45	Danville	Danville
46	Doylestown	Doylestown
47	East Stroudsburg	Stroudsburg Pocono
48	Easton	Easton (Braden Airpark)
49	Ebensburg	Ebensburg
50	Eighty Four	Bandel
51	Erwinna	Van Sant
52	Essington	Philadelphia Seaplane Base
53	Exton	Keystone Heliport
54	Factoryville	Seamans Field
55	Fairfield	Mid-Atlantic Soaring Center
56	Finleyville	Finleyville Airpark
57	Fredericksburg	Farmer's Pride
58	Freeport	McVile
59	Galeton	Cherry Springs
60	Germansville	Flying M. Aerodrome
61	Gettysburg	Gettysburg Airport and Travel Center
62	Gettysburg	Southern Adams County Heliport
63	Greenville	Greenville Municipal
64	Grove City	Grove City
65	Hanover	Hanover
66	Harrisburg	Capital City
67	Hazleton	Hazleton Municipal
68	Honesdale	Cherry Ridge
69	Horsham	Horsham Valley Airways Heliport
70	Indiana	Indiana County-Jimmy Stewart
71	Irwin	Inter County
72	Jeannette	Greensburg-Jeannette Regional
73	Jersey Shore	Jersey Shore
74	Kralltown	Bermudian Valley
75	Kutztown	Kutztown
76	Lebanon	Keller Brothers
77	Lehighton	Beltzville
78	Lehighton	Jake Arner Memorial
79	Lock Haven	William T. Piper Memorial
80	Mars	Lakehill
81	Meadville	Port Meadville
82	Mifflintown	Mifflintown
84	Monongahela	Rostraver
85	Monroeville	Pittsburgh Monroeville
86	Morgantown	Morgantown
87	Mount Joy	Donegal Springs Airpark
88	Mount Pleasant	Mt. Pleasant - Scottdale
89	Mount Pleasant	WPHS Heliport
90	Mount Pocono	Pocono Mountains Municipal

Table 7-1 (Page 3 of 3)  
 Airport Presentation on Maps

Map Number	Associated City	Airport
91	Mount Union	Huntingdon County
92	Myerstown	Deck
93	New Castle	New Castle Municipal
95	Newry	Blue Knob Valley
96	Norristown	Valley Forge Bicentennial Heliport
98	Palmyra	Reigle
99	Perkasie	Pennridge
100	Philadelphia	Northeast Philadelphia
101	Philadelphia	Penn's Landing - Pier 36 Heliport
102	Philipsburg	Albert
103	Philipsburg	Mid-State
104	Pittsburgh	Allegheny County
105	Pittsfield	Brokenstraw
106	Pottstown	Pottstown Limerick
107	Pottstown	Pottstown Municipal
108	Pottsville	Schuylkill County-Joe Zerbey
109	Punxsutawney	Punxsutawney
110	Quakertown	Quakertown
111	Reedsville	Mifflin County
113	Sayre	Blue Swan
114	Selinsgrove	Penn Valley
115	Seven Springs	Seven Springs
116	Shamokin	Northumberland County
117	Shippensburg	Shippensburg
118	Slatington	Slatington
119	Smoketown	Smoketown
120	Somerset	Somerset County
121	St. Marys	St. Marys Municipal
122	Sterling	Spring Hill Airpark
123	Stewartstown	Shoestring Aviation
124	Sunbury	Sunbury
125	Sunbury	Sunbury Seaplane Base
126	Tarentum	Rock
127	Titusville	Titusville
128	Toughkenamon	New Garden Flying Field
129	Towanda	Bradford County
130	Tower City	Bendigo
131	Tunkhannock	Sky Haven
132	Unionville	Ridge Soaring Gliderport
133	Washington	Washington County
134	Wattsburg	Erie County
135	Waynesburg	Greene County
136	Wellsboro	Grand Canyon
137	Wellsville	Kampel
138	West Chester	Brandywine
139	Wilkes-Barre	Wilkes-Barre/Wyoming Valley
140	Williamsburg	Cove Valley
141	York	York
142	Zelienople	Zelienople Municipal

When airports in neighboring states (with facilities comparable to the objectives for the advanced airport functional level and with drive time coverage areas that extend into the Commonwealth) were identified and included in the GIS analysis, Pennsylvania coverage increases to approximately 82 percent of total population and approximately 41 percent of total land area. **Exhibit 7-2** includes out-of-state airports and identifies the coverage that they provide to Commonwealth residents. Out-of-state airports that were included in this analysis, as shown in Exhibit 7-2, include the following:

- ❑ New Castle County Airport (Wilmington, DE)
- ❑ Hagerstown Regional Airport (Hagerstown, MD)
- ❑ Trenton Mercer Airport (Trenton, NJ)
- ❑ Jamestown/Chautauqua County Airport (Jamestown, NY)
- ❑ Elmira/Corning Regional Airport (Elmira, NY)
- ❑ Binghamton Regional Airport (Binghamton, NY)
- ❑ Sullivan County International Airport (Monticello, NY)
- ❑ Orange County Airport (Montgomery, NY)
- ❑ Youngstown-Warren Regional Airport (Youngstown, OH)
- ❑ Morgantown Municipal Airport (Morgantown, WV)

As shown in Exhibit 7-2, some areas of the Commonwealth with significant population density are located beyond the coverage areas of current advanced airports. In addition, large geographic areas of the Commonwealth, including the northern tier, are not located within a reasonable drive time of a current advanced airport. Options for improving advanced airport coverage performance in the Commonwealth will be identified in a subsequent section of this chapter.

## **B. Intermediate Airport Coverage Performance**

Intermediate airports can generally be described as small commercial service or general aviation airports that accommodate significant amounts of business and recreational general aviation aircraft operations. Intermediate airports are typically used as gateways for business and recreational travelers to reach a county-wide or regional area in proximity to the airport. The facility and service objectives of intermediate airports are intended to allow these airports to accommodate activity by larger twin-engine piston aircraft and provide users the level of facilities and services required to support their operations.

Coverage performance of intermediate airports is summarized in **Exhibit 7-3**. GIS analysis indicates that approximately 50 percent of the Commonwealth's total population and approximately 36 percent of its geographic area is located within a 30-minute drive time of a Pennsylvania airport initially stratified in the intermediate airport functional level. Out-of-State airports that provide the level of facilities and services associated with the SASP intermediate functional level are included in **Exhibit 7-4**. As shown in Exhibit 7-4, these out-of-State intermediate airports have only a minimal impact on intermediate airport coverage.

Those out-of-State airports categorized in the intermediate functional level of the SASP include the following:

- Olean/Cattaraugus County Airport (Olean, NY)
- Ashtabula County Airport (Ashtabula, OH)

Intermediate airports are intended to complement the coverage provided to the Commonwealth by advanced airports. Therefore, it is important to examine the coverage performance provided by these two functional levels of airports individually, as well as combined. **Exhibit 7-5** illustrates the combined coverage of the advanced and intermediate airports. When current advanced and intermediate airports are examined together (along with out-of-State airports), system coverage performance increases to 91 percent of the Commonwealth’s population and approximately 57 percent of its total land area. Even when the coverage provided by these two functional levels is considered jointly, areas of significant population density and large geographic areas are located beyond the 30-minute drive time coverage areas of airports initially categorized as advanced and intermediate.

### **C. Basic Airport Coverage Performance**

Basic airports are intended to support smaller corporate aircraft and the operations of general aviation aircraft by private pilots for business and pleasure. This functional level of airport represents a typical general aviation airport and is intended to support a variety of uses, such as business, pleasure, and training, while providing the system with operational and storage capacity for single- and multi-engine piston aircraft. Coverage performance of existing basic airports, based on an estimated 30-minute drive time coverage area, is identified in **Exhibit 7-6**. As shown in Exhibit 7-6, basic airports provide coverage to approximately 47 percent of the Commonwealth’s total population and approximately 38 percent of its total land area. No out-of-State airports that are comparable to Pennsylvania’s basic airports were identified.

When basic airports are added to the coverage provided by advanced and intermediate airports, population coverage performance in the Commonwealth increases to approximately 94.5 percent and land area coverage increases to almost 67 percent. The coverage provided by these three functional levels of airports is illustrated in **Exhibit 7-7**. Airports in these three functional levels should generally be considered as the “core system” of airports in the Commonwealth. These airports play an important role in the aviation system and contribute significantly to system performance. It is important to note that, given the initial stratification of the airport system, there are large areas of the Commonwealth that are located beyond the 30-minute drive time of one of these core system airports. Areas of the Commonwealth that are currently lacking coverage by airports in these functional levels include all or most of the following counties: Potter, Tioga, Bradford, Susquehanna, Wayne, and Sullivan.

#### **D. Limited Airport Coverage Performance**

Limited airports include facilities with paved or turf runways that support small general aviation aircraft storage and operation. This level of airport supports private pilots that may be flying for business or pleasure. The users of airports in this functional level, predominately local users based at those facilities, require minimal support facilities and services. **Exhibit 7-8** summarizes existing coverage performance for the limited functional level. As shown in Exhibit 7-8, approximately 47 percent of the Commonwealth's population and over 38 percent of its land area is located within a 30-minute drive time of a limited airport.

**Exhibit 7-9** illustrates current overall airport coverage performance by airports in the advanced, intermediate, basic, and limited functional levels. Out-of-State airports that have 30-minute drive time coverage areas that extend into the Commonwealth are also shown. Approximately 98 percent of the Commonwealth's population and 79 percent of its land area is located within the 30-minute drive time of an airport in one of these functional levels. In some areas of the Commonwealth, coverage provided by these functional levels of airport complements one another. In the Philadelphia area, for instance, because of the large population base, a mix of airports in different functional levels is required to accommodate the differing types of demand for facilities that exist. In addition, the storage and operational capacity that basic and limited airports provide in this area relieves congestion at advanced airports and allows the overall system to operate more safely and efficiently.

It is important to note that this overall coverage performance analysis includes airports in the limited functional level that provide a minimal level of facilities and services. Many of the airports in the limited functional level have turf runways, no fixed base operator, and do not have fueling facilities. Because limited airports may lack the types of facilities and services that are essential to supporting transient and business operations, they may not adequately support aviation needs in those areas in which they provide exclusive coverage.

#### **E. Special-Use Facilities**

Special-use facilities are an important component of the Commonwealth's aviation system. The types of aviation facilities that have been included in this functional level in the SASP include heliports, gliderports, seaplane bases, and ultralight facilities that primarily support components of aviation demand other than fixed-wing aircraft. These types of facilities are located throughout the Commonwealth to meet the special needs of their users. It should be noted, however, that special-use facilities have not been included in the system adequacies analysis of the SASP because of their specialized nature. Determination of their overall performance and adequacy will not be completed in this analysis and options for improving coverage performance of special-use facilities will not be examined. The SASP recognizes the importance of these facilities and intends for these facilities to continue to support specialized aviation needs into the future.

## **F. Existing Coverage Performance Summary**

Subsequent sections of this chapter examine means for improving system coverage performance. Options for improving system coverage performance will include identifying an airport that is initially stratified in one functional level and recommending improvements to that facility that would bring it into compliance with the facility and service objectives of a higher functional level. Options are developed based on current population coverage and geographic coverage gaps, as well as projections of future population changes and planned roadway improvements. When examining options for improving coverage performance in airport functional levels, specific attention is given to improving population coverage by the top levels of airports, as well as to improving coverage in those areas of the Commonwealth covered exclusively by an airport that is initially stratified in the limited functional level.

## **II. POTENTIAL IMPACTS TO FUTURE SYSTEM COVERAGE PERFORMANCE**

The SASP is a 20-year planning document. Because of its long-range nature, when examining airport coverage performance in the SASP, it is important not only to identify current system performance, but also to identify those factors that will likely impact system coverage over the life of the planning document. Because of the study's timeframe, it is impossible for the SASP to identify all factors that may impact system coverage over the planning period. Based on existing data, however, two factors that are very likely to impact system performance have been identified and are examined in the following sections.

Those factors that will likely impact system coverage examined in the SASP include the following:

- ❑ Projected Population Growth
- ❑ Planned Roadway Improvements

The future impacts to system coverage performance of the factors listed above can only be estimated, but they are important considerations when developing options for improving performance in the future. If system coverage performance in any or all of the functional levels of system airports is determined in the SASP to be inadequate, options for improving coverage will be identified. As those options are analyzed to determine the best and most feasible options for improving system performance, future population growth and roadway system improvements in the Commonwealth will be considered.

### **A. Projected Population Growth**

Projected population growth for the Commonwealth will likely change the population base of Pennsylvania over the planning period. Those areas that are projected to show the most significant population increases may also represent those areas that could generate additional demand for improved airport facilities and/or benefit most from enhanced facilities. Projected population growth by county is summarized in **Exhibit 7-10**.

## **F. Existing Coverage Performance Summary**

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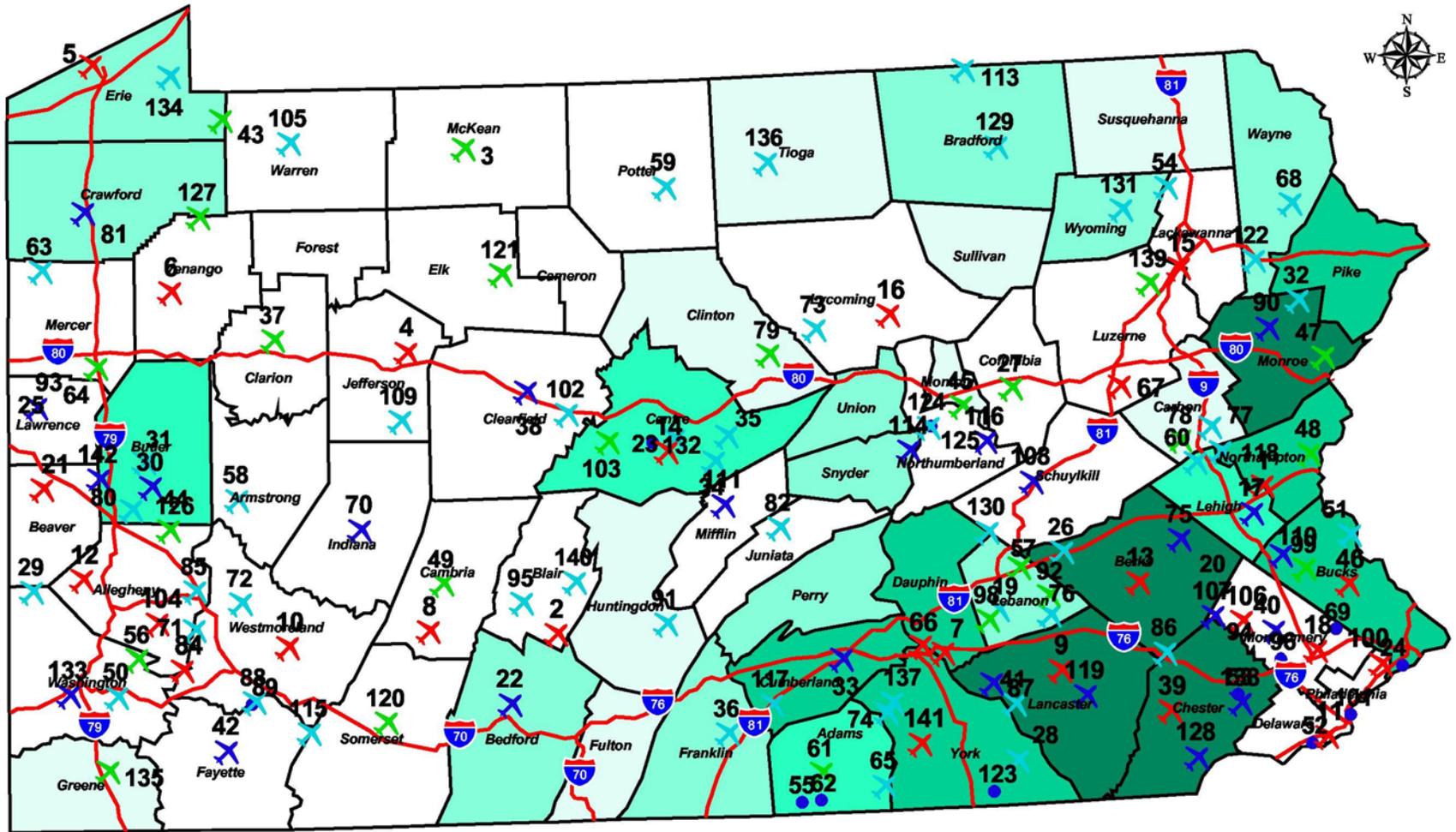
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### **A. Projected Population Growth**

Projected population growth for the Commonwealth will likely change the population base of Pennsylvania over the planning period. Those areas that are projected to show the most significant population increases may also represent those areas that could generate additional demand for improved airport facilities and/or benefit most from enhanced facilities. Projected population growth by county is summarized in **Exhibit 7-10**.



**Legend**

**Airports**

- Advanced Airports
- Intermediate Airports
- Basic Airports
- Limited Airports
- Special Use Facilities
- Interstate Highway

**Projected 2000 to 2020 Total Population Growth by County**

- County Growth Rate Less Than Projected State Average Annual Growth Rate (AAGR) (0.13%)
- 650 - 3,200 Persons
- 3,201 - 9,000 Persons
- 9,001 - 18,000 Persons
- 18,001 - 47,000 Persons
- 47,001 - 109,000 Persons

**Above AAGR (0.13%)**

**Scale**



Source: National Transportation Atlas Database, Pennsylvania Department of Transportation, and US Census Bureau

Page 7-19

Exhibit 7-10

Projected Population Growth

The population of the Commonwealth is projected to grow at an average annual rate of approximately 0.13 percent over the projection period. Those counties shown in white in Exhibit 7-10 represent counties in Pennsylvania that are projected to experience an average annual growth rate that is less than the Commonwealth average of 0.13 percent between 2000 and 2020. Those counties shown in a shade of green represent those counties projected to grow faster than the Commonwealth's projected average annual growth rate over the projection period. To complement the data related to projected average annual growth rates for the counties, those counties projected to grow at a rate greater than the Commonwealth's average have also been shaded to depict the estimated amount of gross population increase over the projection period. For instance, Greene County, in southwestern Pennsylvania, is projected to experience an average annual growth rate greater than the Commonwealth's over the projection period. However, its total population is projected to increase between 650 and 3,200 total people. Chester County, located in southeastern Pennsylvania, is also projected to experience an average annual growth rate greater than the Commonwealth, but as the shading in Exhibit 7-10 indicates, the total increase in population in that county is projected to be between 47,001 and 109,000 people by 2020.

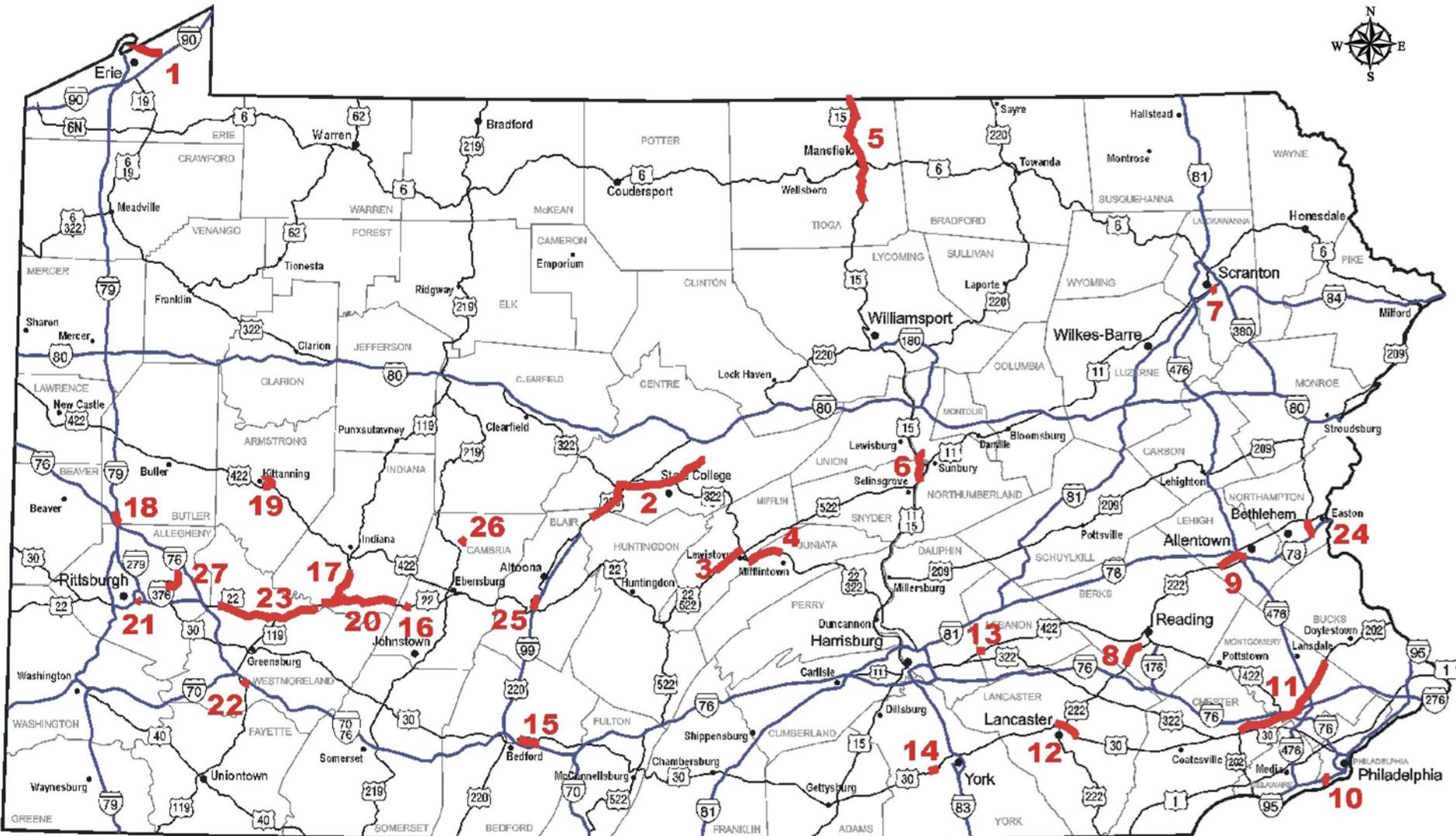
Those counties projected to experience an average annual growth rate that is greater than what is projected for the Commonwealth **and** that are also projected to experience the greatest increases in gross population include the following:

- ❑ Monroe County
- ❑ Berks County
- ❑ Lancaster County
- ❑ Chester County

As options are identified for improving existing airport coverage performance in the Commonwealth, projected population growth trends are an important consideration. Options to provide additional airport coverage to residents of the Commonwealth may be developed. These options will be evaluated not only on their ability to meet the needs of existing population centers, but also to support projected population growth trends and to meet the needs of future population centers.

## **B. Planned Roadway Improvements**

Planned roadway improvements will impact the Commonwealth's overall transportation infrastructure and could result in changes in demand for aviation facilities and services. **Exhibit 7-11** depicts areas of the Commonwealth in which significant roadway improvement projects are planned in the near term. More detailed project information for the projects identified in Exhibit 7-11 is presented in **Table 7-2**.



**Legend**

	17 Planned Roadway Improvement		County Boundary
	Interstate Highway		Major Road

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**Exhibit 7-21**  
**Exhibit 7-11**  
 Pennsylvania Roadway Improvements

**PENNSYLVANIA**  
STATEWIDE AIRPORT SYSTEM PLAN

ENGINEERS PLANNERS ECONOMISTS  
**Wilbur Smith Associates**

Source: National Transportation Atlas Database and Pennsylvania Department of Transportation

**Table 7-2  
Roadway Construction Projects Map Key**

<b>Map #</b>	<b>County</b>	<b>SR</b>	<b>Project</b>	<b>Limits</b>	<b>Improvement</b>	<b>TYP Status</b>
1	Erie	4034	East Side Access	Bayfront Hwy. To I-90	4 La. Divided Relocation	1st 4 Years
2	Centre	220/I-99	I-99 Corridor	Bald Eagle to I-80	4 La. Divided Relocation	1st 4 Years
3	Mifflin	22/322	Lewistown Bypass		4 La. Divided Relocation	1st 4 Years
4	Juniata/Mifflin	22/322	Lewistown Narrows	Arch Rock to Lewistown	Widen to 4 Lanes	1st 4 Years
5	Tioga	15/6015	US 15 Corridor	Blossburg to NY State line	Widening & Relocation	1st 4 Years
6	Snyder/Union/Northumberland	15	Central Susq. Valley Transportation Project	US 15 Corridor	Relocation of US 15	1st & 2nd 4 Yrs.
7	Lackawanna	81	Davis St. Interchange	Davis Street Interchange	Expand existing Interchange	1st 4 Years
8	Berks	222	Warren St.South	Penn Ave. to US 222	Completion of extension	1st 4 Years
8	Berks	222	Lancaster Pike	Gring Hill Rd- Lanc. Co. Line	Widening & Relocation	1st 4 Years
9	Lehigh	222	US 222 Trexlertown	Bypass Trexlertown	Relocation of US 222	1st 4 Years
10	Philadelphia	95	Airport Ramps	Phila. International Airport	New Interchange	1st 4 Years
11	Chester/Montgomery/Bucks	202	US 202 Relocation	US 30 to PA 611	Widen & Reconstruct	1st & 2nd 4 Yrs.
12	Lancaster	30	US 30 Corridor	PA 283 to PA 340	Widen & Reconstruct	1st 4 Years
13	Dauphin	2036	Hershey Park Extension	PA 743 to Lingle Ave.	New Roadway	1st 4 Years
14	York	30	York Widening West	PA 116 to PA 462	Widen & Reconstruct	1st 4 Years
15	Bedford	30	Bedford-Everett Widening	Bedford Bypass-Mt. Dallas	Widen & Reconstruct	1st 4 Years
16	Cambria	30	US 30 Corridor	Indiana Co. to Mundys Corner	Widening & Relocation	1st 4 Years
17	Indiana	119	Rt. 119 South Widening	PA 56 to US 22	Widening	1st 4 Years
18	Butler	79	I-79 Turnpike Connector	I-79 & I-76	Construct new Interchange	1st 4 Years
19	Armstrong	28	Kittanning Bypass	Allegheny River to near PA 85	4 La. Divided Relocation	1st 4 Years
20	Indiana	22	US 22 Corridor	WestmInd Co. to Indiana Co.	Widen & Reconstruct	1st and 2nd 4
21	Allegheny	279	I-279/I-376 Connector	Ft. Duquene Br. To Grant St	Construct connector roadway	1st 4 Years
22	Westmoreland	19	Sony Interchange		Intermodal Interchange Access	1st 4 Years
23	Westmoreland	22	US 22 Corridor	Murrysville to Indiana Co. line	Widen & Reconstruct	1st 4 Years
24	Lehigh	33	PA 33 Extension	US 22 to I-78	Completion of extension	1st 4 Years
25	Blair	1001	Plank Road	Convention Ctr. Blvd. - US 22	Widen & Center Turn Lanes	1st 4 Years
26	Cambria	Local	Hastings Ind.Pk. Access	SR 4021 to SR 4010	New 2-Lane Access Road	1st 4 Years
27	Allegheny	2130	Lawrenceville Ind. Access	Pittsburgh to Oakmont	2-Lane Relocation	1st & 3rd 4 Yrs.

Source: Pennsylvania Department of Transportation

The planned roadway improvements included in this analysis have been developed through PennDOT's Transportation Improvement Program (TIP). Projects shown in Exhibit 7-11 and Table 7-2 have a planned implementation date within the first four years of the Commonwealth's Twelve-Year Transportation Program. Because of the greater uncertainty regarding the implementation of proposed projects beyond the first four years of the transportation program, they are not included in this analysis. Those projects planned for the first four years of the program, however, have either been completed or are in the process of completing the planning process and are nearing initial construction. In addition to the specific projects identified in Table 7-2, the SASP also took into account long-range improvement plans for major transportation corridors such as the entire I-99 project and the route 15 project.

Major planned improvements shown on Exhibit 7-11 include the continuation of I-99, a north-south corridor in central Pennsylvania (see #25 and #2). Significant improvements are also shown for Route 22 in Westmoreland and Indiana Counties (see #23, #17, and #20). In addition, the relocation of U.S. 15 in Snyder, Union, and Northumberland Counties (see #6) has the potential to impact several airports in the area.

Options that may be developed to improve system coverage performance will be evaluated based on a number of factors. One factor that will be important is the potential impact that roadway improvements will have on existing and future system coverage, and how the options that are identified can meet the changing needs for aviation services that may result from these transportation infrastructure changes.

### **C. Summary**

Projected population growth and planned roadway improvements have the potential to alter the future aviation needs of the Commonwealth. As areas or communities grow, airport needs may also increase. Roadway improvements provide an opportunity for additional increases in population as transportation travel times are reduced and currently underutilized properties present new growth opportunities. These two factors are considered in subsequent analysis of the Commonwealth's airport system coverage. Those options that may be recommended to improve system coverage performance will be ones that not only fulfill existing system needs, but also have the potential to meet future system needs based on the population projections and roadway improvement data that is currently available.

## **III. SYSTEM COVERAGE PERFORMANCE ANALYSIS**

Functional level groupings of airports have been examined to determine current system coverage performance. Options for improving system coverage performance will be identified and examined in the following sections. These options could include upgrading an existing airport to a higher functional level or, where this option is not feasible, could include the construction of a new airport facility. Options for improving system coverage performance are examined for the following individual and combined functional level groupings of system airports:

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Projected population growth and planned roadway improvements have the potential to alter the future aviation needs of the Commonwealth. As areas or communities grow, airport needs may also increase. Roadway improvements provide an opportunity for additional increases in population as transportation travel times are reduced and currently underutilized properties present new growth opportunities. These two factors are considered in subsequent analysis of the Commonwealth's airport system coverage. Those options that may be recommended to improve system coverage performance will be ones that not only fulfill existing system needs, but also have the potential to meet future system needs based on the population projections and roadway improvement data that is currently available.

## **III. SYSTEM COVERAGE PERFORMANCE ANALYSIS**

Functional level groupings of airports have been examined to determine current system coverage performance. Options for improving system coverage performance will be identified and examined in the following sections. These options could include upgrading an existing airport to a higher functional level or, where this option is not feasible, could include the construction of a new airport facility. Options for improving system coverage performance are examined for the following individual and combined functional level groupings of system airports:

- ❑ Advanced Airports Coverage Performance
- ❑ Advanced and Intermediate Airports Coverage Performance
- ❑ Advanced, Intermediate, and Basic Airports Coverage Performance
- ❑ Overall Airport Coverage Performance

Once options have been identified for improving system coverage performance for the functional level groupings listed above, these options will be examined to determine the most viable method for improving system performance. Options for improving system coverage performance are presented and analyzed in a matrix-based format. Specific data that is presented in the options analysis tables for each functional level grouping of system airports includes the following:

- ❑ **Airport Information** – the airport number (used on SASP graphics), the airport name, the county in which it is located, and the initial functional level classification of each airport is presented.
- ❑ **Additional Exclusive Coverage** – the additional exclusive population coverage that would be attained by moving each individual airport to the functional level being examined is identified. Through GIS analysis, the gross population increase in coverage performance was estimated; the findings for each airport are presented in terms of gross population increase and as a percentage of the Commonwealth’s total population.
- ❑ **Existing Facility Data** – existing facilities at each airport are presented. Those facilities examined for this analysis include some of the most important facilities included in the facility and service objectives that were developed for the SASP functional airport levels. Facility data for airports that is presented includes existing runway length, existing runway strength, and the most demanding approach type currently available at each airport.
- ❑ **Expansion Potential** – expansion potential at each system airport, specifically related to each airport’s ability to accommodate additional aviation facilities, was examined and quantified in Chapter Three, *Airport Roles*, of the SASP. The summary findings of the expansion potential analysis at each airport is presented.
- ❑ **Projected Population Growth** – projected population growth in each county in which an option airport is located has been quantified and is compared to the Commonwealth’s projected average annual growth rate over the 20-year projection period. Airports are then categorized as being located in a county that is projected to grow either above or below the Commonwealth’s average annual rate.
- ❑ **Major Roadway Improvements** – airports were evaluated to determine if they were located in area that is likely to be impacted by the major roadway improvements identified in the first four years of the Commonwealth’s current TIP.

- **Community Support** – community support at each system airport was examined and quantified in Chapter Three, *Airport Roles*, of the SASP. The summary findings of the community support analysis at each airport is presented.

These factors will be evaluated for airports that were determined to present options for improving system coverage performance.

**A. Advanced Airports Coverage Performance**

The current coverage provided to the Commonwealth by advanced airports was estimated at approximately 82 percent of Pennsylvania’s population and approximately 41 percent of its total land area. Advanced airports included in this analysis were those Pennsylvania airports determined to contribute most to the existing airport system, as well as those airports in neighboring states that had facilities comparable to the facility and service objectives identified for advanced airports in the SASP. Options for improving advanced airport coverage performance are identified in a following section and, based on matrix based analysis of those options, recommendations for improving advanced airport coverage performance are identified.

**Table 7-3** identifies those Pennsylvania airports in the intermediate, basic, and limited functional levels that represent options for extending advanced coverage performance in the Commonwealth to areas that are not currently located within the 30-minute drive time of an existing advanced airport. As shown on Table 7-3, 33 options airports were identified and examined for their potential to improve advanced airport system coverage performance. Based on the factors examined in this analysis, the following airports are recommended for upgrade to the advanced airport functional level:

- Butler County
- Penn Valley
- Schuylkill County-Joe Zerby
- Pocono Mountains Municipal
- Port Meadville

Each option airport was independently examined to determine its viability for improving advanced airport coverage performance.

Those airports recommended for upgrade to the advanced functional level tend to have the following general characteristics:

- The recommended airports are located in more densely populated areas and, therefore, the additional exclusive advanced airport coverage that they would provide if upgraded is significant. Upgrading these airports would provide some of the largest increases in system performance in terms of population coverage.
- Existing facilities at these airports are fairly well developed, meaning that they either already meet advanced airport facility and service objectives or have the potential, with relatively low levels of investment, to meet the objectives.

**Table 7-3  
Options Analysis - Advanced Airport Coverage Performance**

Airport Number	Airport Name	County	Current Functional Level	Additional Advanced Exclusive Coverage 1/	Additional Advanced Coverage Percentage	Existing Runway Length	Existing Runway Strength	Existing Approach	Expansion Potential 2/	Population Growth Areas 3/	Major Roadway Improvements 4/	Community Support 5/
30	Butler County	Butler	Intermediate	204,649	1.67%	4,005	12S	Precision	Somewhat Constrained	Above State Avg.	Yes	Medium
116	Northumberland County	Northumberland	Intermediate	148,018	1.21%	3,297	12.5S	Nonprecision	Not Constrained	Below State Avg.	Yes	Medium
114	Penn Valley	Snyder	Intermediate	139,169	1.13%	3,800	12.5S	Nonprecision	Somewhat Constrained	Above State Avg.	Yes	Medium
108	Schuylkill County-Joe Zerby	Schuylkill	Intermediate	126,357	1.03%	4,594	21S	Nonprecision	Somewhat Constrained	Below State Avg.	No	High
90	Pocono Mountains Municipal	Monroe	Intermediate	109,768	0.89%	4,000	30S/45D/ 70DT	Nonprecision	Somewhat Constrained	Above State Avg.	No	Medium
81	Port Meadville	Crawford	Intermediate	90,330	0.74%	5,002	12S/60D	Nonprecision	Constrained	Above State Avg.	No	Medium
33	Carlisle	Cumberland	Intermediate	89,467	0.73%	4,008	14S/14D	Nonprecision	Constrained	Above State Avg.	No	Medium
70	Indiana County-Jimmy Stewart	Indiana	Intermediate	80,122	0.65%	4,000	18.5S	Nonprecision	Somewhat Constrained	Below State Avg.	Yes	High
111	Mifflin County	Mifflin	Intermediate	57,587	0.47%	5,001	48S/60D	Nonprecision	Not Constrained	Below State Avg.	Yes	High
38	Clearfield-Lawrence	Clearfield	Intermediate	43,309	0.35%	4,500	12.5S	Nonprecision	Not Constrained	Below State Avg.	No	High
42	Connellsville	Fayette	Intermediate	151,573	1.24%	3,458	12.5S	Nonprecision	Constrained	Below State Avg.	No	Medium
22	Bedford	Bedford	Intermediate	21,018	0.17%	4,113	12.5S	Nonprecision	Somewhat Constrained	Above State Avg.	Yes	High
27	Bloomsburg Municipal	Columbia	Basic	121,770	0.99%	2,800	12.5S	Nonprecision	Somewhat Constrained	Below State Avg.	No	Medium
121	St. Marys Municipal	Elk	Basic	38,452	0.31%	4,300	30S	Nonprecision	Somewhat Constrained	Below State Avg.	No	High
120	Somerset County	Somerset	Basic	37,757	0.31%	4,697	18S	Nonprecision	Constrained	Below State Avg.	No	Medium
3	Bradford Regional Airport	McKean	Basic	32,000	0.26%	6,499	48S/60D/ 92DT	Precision	Constrained	Below State Avg.	No	High
37	Clarion County	Clarion	Basic	30,120	0.25%	4,100	15S	Nonprecision	Not Constrained	Below State Avg.	No	Medium
79	William T. Piper Memorial	Clinton	Basic	30,070	0.25%	3,800	30S	Visual	Constrained	Above State Avg.	No	Medium
43	Corry-Lawrence	Erie	Basic	28,401	0.23%	4,100	12.5S	Nonprecision	Constrained	Above State Avg.	No	High
127	Titusville	Venango	Basic	26,235	0.21%	4,902	12.5S	Nonprecision	Not Constrained	Below State Avg.	No	Medium
103	Mid-State	Centre	Basic	12,916	0.11%	5,711	48S/60D/ 90DT	Precision	Not Constrained	Above State Avg.	Yes	Medium
126	Rock	Allegheny	Basic	108,122	0.88%	2,645	Unknown	None	Somewhat Constrained	Below State Avg.	Yes	Medium
129	Bradford County	Bradford	Limited	48,904	0.40%	3,020	12S	Nonprecision	Somewhat Constrained	Above State Avg.	No	Medium
136	Grand Canyon	Tioga	Limited	20,560	0.17%	3,600	12.5S	Nonprecision	Constrained	Above State Avg.	Yes	Medium
105	Brokenstraw	Warren	Limited	52,674	0.43%	2,660	Turf	None	Somewhat Constrained	Below State Avg.	No	Low
59	Cherry Springs	Potter	Limited	10,950	0.09%	3,570	Turf	None	Somewhat Constrained	Below State Avg.	No	Low
113	Blue Swan	Bradford	Limited	20,653	0.17%	2,850	Turf	none	Somewhat Constrained	Above State Avg.	No	Medium
131	Sky Haven	Wyoming	Limited	56,205	0.46%	2,007	12.5S	None	Constrained	Above State Avg.	No	Medium
68	Cherry Ridge	Wayne	Limited	41,349	0.34%	2,420	10S	Circling	Constrained	Above State Avg.	No	Medium
36	Chambersburg	Franklin	Limited	154,411	1.26%	3,300	13S	Nonprecision	Constrained	Above State Avg.	No	Medium
91	Huntingdon County	Huntingdon	Limited	62,610	0.51%	3,120	Gravel	None	Somewhat Constrained	Above State Avg.	Yes	Medium
82	Mifflintown	Juniata	Limited	64,126	0.52%	2,635	Unknown	None	Somewhat Constrained	Below State Avg.	Yes	Low
130	Bendigo	Dauphin	Limited	26,419	0.22%	2,100	Turf	None	Constrained	Above State Avg.	No	Low

Note 1/ New population coverage that would be gained by upgrading the airport to the Advanced functional level

Note 2/ From Table 3-6 "Optimization Potential Summary Ratings"

Note 3/ Based on projected average annual population growth rates for the counties in which each airport is located

Note 4/ Depicts those airports that have the potential to be impacted by major roadway improvements planned in the near-term of the Commonwealth's current TIP

Note 5/ From Table 3-4 "Support/Commitment Summary Ratings"

Source: Wilbur Smith Associates, Inc.

- Most of the airports recommended for upgrade to the advanced functional level are not constrained in terms of expansion potential. Port Meadville was shown as being constrained; however, runway length and runway strength at the airport currently comply with advanced airport facility and service objectives.
- Airports recommended for upgrade are located in counties of the Commonwealth that are projected to experience relatively high levels of population growth over the next 20 years, indicating that, in addition to being located in relatively densely populated areas, these airports are also located in areas of the Commonwealth that are expected to grow.
- The recommended airports have a generally good relationship with their local community. As a result, local communities may understand the importance of the airport and may also be supportive of the type of development projects that may be required to bring these airports into compliance with advanced airport facility and service objectives.

The impacts that these recommendations will have on advanced airport coverage performance will be quantified in Chapter Eight. In addition, the specific projects required to bring the recommended airports into compliance with advanced airport facility and service objectives, and their associated project costs, will be identified in that chapter of the SASP.

#### **B. Advanced and Intermediate Airports Coverage Performance**

Many advanced airports can also accommodate the types and levels of operational demand associated with the intermediate airport functional level. Therefore, the examination of intermediate airport coverage performance needs to be conducted in conjunction with advanced airports. The measure of system coverage performance for advanced and intermediate airports can generally be described as the percentage of the Commonwealth's population and total land area that is within a 30-minute drive time of an intermediate airport or an advanced airport that can accommodate intermediate airport needs. As presented in a previous section of this chapter, current coverage performance for the advanced and intermediate functional level grouping is approximately 91 percent of the Commonwealth's population and approximately 57 percent of its total land area.

Relevant data for the 21 basic and limited airports that are located in areas of the Commonwealth not currently provided coverage performance by the advanced and intermediate airport functional level grouping are presented in **Table 7-4**. As shown in Table 7-4, the option airports were examined for their potential to improve advanced and intermediate airport system coverage performance. Based on the factors examined in this analysis and the recommendations made for improving advanced airport coverage performance, the following airports are recommended for upgrade or reclassification to the intermediate airport functional level:

**Table 7-4  
Options Analysis - Advanced and Intermediate Airports Coverage Performance**

Airport Number	Airport Name	County	Current Functional Level	Additional Intermediate Exclusive Coverage 1/	Additional Intermediate Coverage Percentage	Existing Runway Length	Existing Runway Strength	Existing Approach	Expansion Potential 2/	Population Growth Areas 3/	Major Roadway Improvements 4/	Community Support 5/
27	Bloomsburg Municipal	Columbia	Basic	28,359	0.23%	2,800	12.5S	Nonprecision	Somewhat Constrained	Below State Avg.	No	Medium
121	St. Marys Municipal	Elk	Basic	30,452	0.25%	4,300	30S	Nonprecision	Somewhat Constrained	Below State Avg.	No	High
120	Somerset County	Somerset	Basic	34,972	0.28%	4,697	18S	Nonprecision	Constrained	Below State Avg.	No	Medium
3	Bradford Regional Airport	McKean	Basic	32,200	0.26%	6,499	48S/60D/ 92DT	Precision	Constrained	Below State Avg.	No	High
37	Clarion County	Clarion	Basic	30,120	0.25%	4,100	15S	Nonprecision	Not Constrained	Below State Avg.	No	Medium
79	William T. Piper Memorial	Clinton	Basic	30,070	0.25%	3,800	30S	Visual	Constrained	Above State Avg.	No	Medium
43	Corry-Lawrence	Erie	Basic	28,401	0.23%	4,100	12.5S	Nonprecision	Constrained	Above State Avg.	No	High
127	Titusville	Venango	Basic	21,410	0.17%	4,902	12.5S	Nonprecision	Not Constrained	Below State Avg.	No	Medium
103	Mid-State	Centre	Basic	12,916	0.11%	5,711	48S/60D/ 90DT	Precision	Not Constrained	Above State Avg.	Yes	Medium
126	Rock	Allegheny	Basic	346,926	2.83%	2,645	Unknown	None	Somewhat Constrained	Below State Avg.	Yes	Medium
129	Bradford County	Bradford	Limited	48,904	0.40%	3,020	12S	Nonprecision	Somewhat Constrained	Above State Avg.	No	Medium
136	Grand Canyon	Tioga	Limited	20,560	0.17%	3,600	12.5S	Nonprecision	Constrained	Above State Avg.	Yes	Medium
105	Brokenstraw	Warren	Limited	52,674	0.43%	2,660	Turf	None	Somewhat Constrained	Below State Avg.	No	Low
59	Cherry Springs	Potter	Limited	10,950	0.09%	3,570	Turf	None	Somewhat Constrained	Below State Avg.	No	Low
113	Blue Swan	Bradford	Limited	20,653	0.17%	2,850	Turf	none	Somewhat Constrained	Above State Avg.	No	Medium
131	Sky Haven	Wyoming	Limited	206,502	1.68%	2,007	12.5S	None	Constrained	Above State Avg.	No	Medium
68	Cherry Ridge	Wayne	Limited	61,420	0.50%	2,420	10S	Circling	Constrained	Above State Avg.	No	Medium
36	Chambersburg	Franklin	Limited	106,258	0.87%	3,300	13S	Nonprecision	Constrained	Above State Avg.	No	Medium
91	Huntingdon County	Huntingdon	Limited	43,746	0.36%	3,120	Gravel	None	Somewhat Constrained	Above State Avg.	Yes	Medium
82	Mifflintown	Juniata	Limited	27,125	0.22%	2,635	Unknown	None	Somewhat Constrained	Below State Avg.	Yes	Low
130	Bendigo	Dauphin	Limited	26,829	0.22%	2,100	Turf	None	Constrained	Above State Avg.	No	Low

Note 1/ New population coverage that would be gained by upgrading the airport to the Intermediate functional level

Note 2/ From Table 3-6 "Optimization Potential Summary Ratings"

Note 3/ Based on projected average annual population growth rates for the counties in which each airport is located

Note 4/ Depicts those airports that have the potential to be impacted by major roadway improvements planned in the near-term of the Commonwealth's current TIP

Note 5/ From Table 3-4 "Support/Commitment Summary Ratings"

Source: Wilbur Smith Associates, Inc.

- Bradford Regional
- Rock
- Bradford County
- Rostraver

Those airports recommended to be upgraded to the intermediate functional level to improve system coverage performance of the advanced and intermediate functional levels were identified for some of the following reasons:

- Bradford Regional – as shown in Table 7-4, existing facilities at the airport are adequate to support the demands associated with an intermediate airport. Upgrading Bradford Regional to the intermediate functional level in the SASP classification would provide geographic coverage performance to a large portion of McKean County, an area (along with most of the northern tier of Pennsylvania) that is currently located beyond the 30-minute drive time coverage area of an existing advanced or intermediate airport.
- Rock – if upgraded to the intermediate functional level, Rock Airport would provide coverage performance to very densely populated areas of Armstrong, Westmoreland, and Allegheny Counties that are currently located beyond the 30-minute drive time coverage area of an existing advanced or intermediate airport.
- Bradford County – this airport is located in another area of the northern tier in which there are no existing advanced or intermediate airport facilities. In addition, Bradford County and its neighboring counties have been identified as high-growth population counties in the SASP analysis. Upgrading Bradford County to the intermediate functional level will provide additional population and geographic coverage at the present time and will help to meet the future aviation needs of this growing area of the Commonwealth.

Rostraver was recommended for reclassification as an intermediate airport instead of an advanced airport because of its limited development potential related to the runway length objective of advanced airports. In addition, Rostraver provides duplicative advanced coverage meaning that there were other advanced airports in the area meeting the facility and service objectives of advanced airports that provide coverage performance to the population located within the 30-minute drive time coverage area of Rostraver. It is important to note that the reclassification of Rostraver has no net effect on this analysis of advanced and intermediate coverage performance.

### **C. Advanced, Intermediate, and Basic Airports Coverage Performance**

Existing coverage performance by the advanced, intermediate, and basic airport functional level groupings was estimated at approximately 95 percent of the Commonwealth's population and approximately 67 percent of its land area. Although this coverage performance will be increased by implementing the recommendations presented in previous sections of this chapter, there are

still some areas of the Commonwealth that would be located beyond the 30-minute drive time of an airport in these functional level groupings if all of the recommendations were implemented. The following sections examine options for improving the coverage performance of the advanced, intermediate, and basic airport functional level grouping.

**Table 7-5** identifies those limited airports that are located beyond the 30-minute drive time coverage areas of advanced, intermediate, and basic airports. These airports are examined as optional airports for improving the coverage performance of this functional level grouping of airports. Important data regarding existing facilities, expansion potential, projected population growth, and community support for these option airports are summarized in Table 7-5.

Based on the data examined in this SASP analysis, the following airports are recommended for upgrade or reclassification to the basic airport functional level:

- Chambersburg Municipal
- Kutztown
- Huntingdon County
- Smoketown
- Grand Canyon

The airports recommended for upgrade to the basic functional level have some of the following similar characteristics:

- These airports provide additional geographic coverage to areas of the Commonwealth that are currently located beyond the 30-minute drive time of an existing advanced, intermediate, or basic airport.
- Recommended airports already meet many of the facility and service objectives of basic airports and therefore the investment required to upgrade these airports may be minimal.
- Recommended airports generally have a positive relationship with their local communities and are located in areas of the Commonwealth that are projected to experience average annual population growth rates greater than that of Pennsylvania over the study period.

In the analysis of the coverage performance of this functional level grouping, it was determined that Kutztown Airport and Smoketown Airport should be recommended for reclassification to the basic functional level. These airports were initially stratified in the intermediate functional level. Based on the existing facilities and services at these airports, as well as the types and levels of activity that they accommodate, it was determined that they can better serve the system as basic airports. The reclassification of these airports to the basic functional level, however, has no net effect on the coverage performance of the advanced, intermediate, and basic airport functional level grouping examined in this analysis.

**Table 7-5  
Options Analysis - Advanced, Intermediate, and Basic Airports Coverage Performance**

Airport Number	Airport Name	County	Current Functional Level	Additional Basic Exclusive Coverage 1/	Additional Basic Coverage Percentage	Existing Runway Length	Existing Runway Strength	Existing Approach	Expansion Potential 2/	Population Growth Areas 3/	Major Roadway Improvements 4/	Community Support 5/
129	Bradford County	Bradford	Limited	48,904	0.40%	3,020	12S	Nonprecision	Somewhat Constrained	Above State Avg.	No	Medium
136	Grand Canyon	Tioga	Limited	20,560	0.17%	3,600	12.5S	Nonprecision	Constrained	Above State Avg.	Yes	Medium
105	Brokenstraw	Warren	Limited	35,495	0.29%	2,660	Turf	None	Somewhat Constrained	Below State Avg.	No	Low
59	Cherry Springs	Potter	Limited	10,950	0.09%	3,570	Turf	None	Somewhat Constrained	Below State Avg.	No	Low
113	Blue Swan	Bradford	Limited	20,653	0.17%	2,850	Turf	none	Somewhat Constrained	Above State Avg.	No	Medium
131	Sky Haven	Wyoming	Limited	34,334	0.28%	2,007	12.5S	None	Constrained	Above State Avg.	No	Medium
68	Cherry Ridge	Wayne	Limited	61,420	0.50%	2,420	10S	Circling	Constrained	Above State Avg.	No	Medium
36	Chambersburg	Franklin	Limited	106,114	0.86%	3,300	13S	Nonprecision	Constrained	Above State Avg.	No	Medium
91	Huntingdon County	Huntingdon	Limited	61,885	0.50%	3,120	Gravel	None	Somewhat Constrained	Above State Avg.	Yes	Medium
82	Mifflintown	Juniata	Limited	68,855	0.56%	2,635	Unknown	None	Somewhat Constrained	Below State Avg.	Yes	Low
130	Bendigo	Dauphin	Limited	64,417	0.52%	2,100	Turf	None	Constrained	Above State Avg.	No	Low

Note 1/ New population coverage that would be gained by upgrading the airport to the Basic functional level

Note 2/ From Table 3-6 "Optimization Potential Summary Ratings"

Note 3/ Based on projected average annual population growth rates for the counties in which each airport is located

Note 4/ Depicts those airports that have the potential to be impacted by major roadway improvements planned in the near-term of the Commonwealth's current TIP

Note 5/ From Table 3-4 "Support/Commitment Summary Ratings"

Source: Wilbur Smith Associates, Inc.

**D. Overall Airport Coverage Performance**

Previous GIS analysis indicates that existing coverage performance by the advanced, intermediate, and basic airport functional level grouping is estimated at approximately 95 percent of the Commonwealth’s population and approximately 67 percent of its land area. The advanced, intermediate, and basic airports are considered the core system, and they should support the majority of the system’s aviation needs. When limited airports are added to this analysis, overall system coverage performance of public-use airports in the Commonwealth increases to approximately 97 percent of the Commonwealth’s population and 79 percent of its land area. Based on this analysis, the vast majority of the Commonwealth’s population and a significant amount of its geographic area are located within the 30-minute drive time of an existing advanced, intermediate, basic, or limited airport.

When examining overall airport coverage performance and quantifying the coverage provided by limited airports, it is important to consider areas of the Commonwealth that are provided coverage only by limited airports. Because of the nature of limited airports, the level of facilities and services intended for those types of facilities may not be sufficient to accommodate aviation demand in areas of the Commonwealth that are densely populated and/or projected to experience significant population growth. Four counties or portions of counties, currently covered exclusively by limited airports, were identified as potential areas that may require coverage by a higher functional level of airport.

Those areas include the following:

- ❑ Cumberland County – Cumberland County is a relatively densely populated area of the Commonwealth that is projected to experience one of the highest rates of population growth over the study period. A limited airport is the only airport currently providing coverage performance to western Cumberland County. Central portions of Cumberland County are provided coverage by Carlisle Airport, an intermediate airport with limited expansion potential.
- ❑ Wayne County and Pike County – Significant areas of both of these counties are located beyond the 30-minute drive time coverage area of any system airport or any out-of-state airport. Those areas of these counties that are provided coverage performance from system airports are provided most of this coverage by limited and basic airports. These counties are relatively populous and are projected to be high-growth counties in the future.
- ❑ Huntingdon County – Only the most western portion of Huntingdon County, in central Pennsylvania, is within the 30-minute drive time coverage area of an airport in the advanced, intermediate, or basic airport functional levels. While this county is not densely populated, there are population centers in the county that are provided coverage exclusively by Huntingdon County Airport, a limited airport. In addition, this area of the Commonwealth is the only one along Interstate 76 that is currently beyond the coverage provided by airports in the top three functional level categories.

In addition, a very densely populated area of the Commonwealth that includes a small section of northeastern Allegheny County, northern Westmoreland County, and central southern Armstrong County, is currently provided exclusive coverage by Rock Airport, a basic airport. Coverage by an airport in the advanced and intermediate airport functional level may be justified for this area based on its existing and projected future population.

#### **IV. SUMMARY**

Based on the analysis conducted in this chapter, a number of recommendations have been put forth for upgrading or reclassifying some system airports to improve system coverage performance. These recommendations were developed following a GIS analysis of initial system coverage performance in each of the SASP's functional levels, as well as groupings of different functional levels. System coverage performance was examined by grouping functional levels together, from top to bottom, because of the complementary nature of functional levels. For example, advanced airports are intended to support the aviation needs of the most demanding types of aircraft; however, most of these airports can also support the aviation needs of those aircraft intended to use the intermediate, basic, and limited functional levels. Therefore, when examining intermediate coverage performance, it is also important to take into consideration where advanced airports can also accommodate the intermediate airport demands.

Initial airport coverage performance was quantified and airports that could potentially be upgraded or moved to a different functional level to improve system coverage performance were identified. These option airports were then evaluated on a number of factors to determine the feasibility of changing their functional level classification. The impacts that potential changes to specific airport functional level classifications would have on system coverage performance were also quantified through GIS analysis. Option airports were evaluated based on the following factors:

- ❑ Additional Exclusive Coverage
- ❑ Existing Facility Data
- ❑ Expansion Potential
- ❑ Projected Population Growth
- ❑ Major Roadway Improvements
- ❑ Community Support

Based on the analysis conducted in this process, the following recommendations were developed for improving system coverage performance:

- ❑ **Airports to be Upgraded to the Advanced Airport Functional Level**
  - Butler County
  - Penn Valley
  - Schuylkill County-Joe Zerby
  - Pocono Mountains Municipal
  - Port Meadville

❑ **Airports to be Added to the Intermediate Airport Functional Level**

- Bradford Regional
- Rostraver
- Rock
- Bradford County

❑ **Airports to be Added to the Basic Airport Functional Level**

- Grand Canyon
- Chambersburg Municipal
- Kutztown
- Huntingdon County
- Smoketown

In addition to the recommendations for changing airport functional level classifications, the SASP has identified some specific areas of the Commonwealth in which current and future system coverage performance may be a concern.

Those areas of the Commonwealth that the SASP has identified as having a potential need for improved airport facilities to accommodate future aviation demand include the following counties:

- ❑ Cumberland County
- ❑ Wayne and Pike Counties
- ❑ Allegheny County
- ❑ Huntingdon County

The impacts of these recommendations to system coverage performance will be quantified in Chapter Eight, *Recommendations*.