

Chapter 6 Confirm Suitability of NPIAS Standards

In this chapter, the proposed capital improvements listed in the 2007 PENNDOT Approved Four-Year Plan (FYP) for Pennsylvania's 64 AIP eligible NPIAS airports were reviewed. The review assessed the extent to which the FYP contains projects that support the development of these airports to NPIAS standards.

Approach

The approach consisted of a review of the AIP eligible NPIAS airports and the projects contained in the 2007 PENNDOT Approved FYP for these airports. The primary focus was to compare the FYP projects to the amenities and services criteria described in Chapter 3 for the "commercial service," "advanced," and "intermediate" classifications (as listed in Appendix 1, directly after that chapter).

Results

All 15 of the "commercial service" airports in the Commonwealth are included in the NPIAS. Fourteen of the 15 "advanced" and 17 of the 21 "intermediate" airports are included in the NPIAS. General observations of the appropriateness of the Approved 2007 FYP for these 46 NPIAS airports follow.

Commercial Service Airports

- These airports comprise 11% of the total airport system and many of them are funded through other means including direct FAA grants, passenger facility charges, and non-aeronautical revenues
- Two percent of the FYP was allocated to these airports which does not include the state match of the non-federal share of AIP grants, typically \$3.5 million annually

Advanced Airports

- Twenty-five percent of the total FYP budget was allocated to these airports
- This funding level is commensurate with the 11 percent that these airports comprise of the state system because these airports are critical components of the state system, serving larger markets and more demanding aircraft types
- Several of the FYP projects for these airports are to maintain and improve key amenities, such as the runways, taxiways and aprons
- Several projects are directed toward enhancing safety by bringing RPZs and RSAs into compliance with FAA standards

Intermediate Airports

- The Pennsylvania NPIAS airports in the "intermediate" category receive the majority of FYP resources at over 53 percent of the total budget
- This illustrates that the BOA allocates substantial capital for the 15 percent of the state system that these airports comprise
- The bulk of this funding is for capacity, safety, security and standards projects
- This level of state investment makes sense due to the greater need for these airports to meet the amenities and services criteria than the "commercial service" and "advanced" airports

Conclusions

The PENNDOT 2007 Approved FYP allocates \$81.5 million for Pennsylvania’s airports of national significance. This demonstrates the BOA’s commitment to improving the state’s NPIAS airports so they comply with federal and SASP performance criteria.

In summary, the 2007 FYP dedicates the majority of funds to help the state’s NPIAS airports comply with the SASP performance criteria and the NPIAS guiding principles. **Tables 6-1** and **6-2** illustrate the 2007 FYP for the NPIAS airports in the Commonwealth.

Table 6-1 – Approved 2007 FYP Funding for NPIAS Airports (\$s)

Findings	Commercial Service	Advanced	Intermediate
Amount of FYP Allocated to Each Classification	\$16.3 million ¹¹	\$20.4 million	\$43.3 million
Amount for Capacity		\$3.0 million	\$18.3 million
Amount for Safety, Security & Standards		\$13.2 million	\$17.8 million
Amount for Planning & Environmental		\$622,000	\$790,000
Amount for Reconstruction		\$3.4 million	\$6.2 million

Table 6-2 – Approved 2007 FYP Funding for NPIAS Airports (%)

Findings	Commercial Service	Advanced	Intermediate
Percent of FYP Allocated to Each Classification	20% ¹¹	25.1%	53.2%
Percent for Capacity		3.7%	22.5%
Percent for Safety, Security & Standards		16.3%	21.8%
Percent for Planning & Environmental		0.8%	1.0%
Percent for Reconstruction		4.2%	7.6%

NPIAS Coverage Map

This map illustrates the overall coverage of the AIP eligible NPIAS airports throughout the Commonwealth based on a 30-minute ground travel time. Using a geographic information system (GIS) database analysis, a layer was created that graphically displays the area surrounding each NPIAS airport within a 30-minute drive.

¹¹ This amount includes the \$2.3 million in the FYP plus the \$3.5 million of State Airport Development Plan (ADP) funds allocated annually to match AIP and non-FAA-eligible projects.

Map Data Layers

Several different layers were acquired from various data sources as summarized below:

- **PA State Roads – 2006** – obtained from the PENNDOT Bureau of Planning and Research, Geographic Information Division as extracted from the PENNDOT Roadway Management System (RMS).
- **PA County and PA Municipal Boundaries** – obtained from the PENNDOT, Bureau of Planning and Research, Cartographic Information Division for the PENNDOT Type 10 general highway maps and as augmented by data from the Pennsylvania Bureau of Municipal Services.
- **PA Licensed Public Use Airports** – obtained from the PENNDOT that shows the locations of public use airports within the Commonwealth that they license.
- **Core Transportation System** – based on information provided from the BOA, as well as from a summary report from the Pennsylvania State Transportation Advisory Committee (TAC).

The county and municipal data were supplemented with data from the US Census to identify municipalities in the Commonwealth with populations greater than 40,000. Those cities are listed in **Table 6-3** and highlighted on the map to show their location in relation to the NPIAS airports.

Table 6-3 – Municipalities with more than 40,000 residents

Abington	Haverford	Philadelphia
Allentown	Hempfield	Penn Hills
Altoona	Lancaster	Pittsburgh
Bensalem	Lower Merion	Reading
Bethlehem	Lower Paxton	Scranton
Bristol	Middletown	Upper Darby
Erie	Millcreek	Wilkes-Barre
Harrisburg	Northampton	York

The Core Transportation System (CTS) is being proposed to improve the performance of Pennsylvania’s transportation system by encompassing all modes of transportation throughout the state. The CTS will provide a means for analyzing how each mode of transportation in the statewide system is inter-related. Three tiers were used to define an illustrative core system. Tier 1 elements comprise the overall core transportation system. Tier 2 represents facilities or services that are outside of Tier 1, but are significant at a regional level. Tier 3 includes activity centers that support Tier 2 economic centers.

Only Tier 1 and Tier 2 systems were identified on this map because those are the tiers served by the top three SASP airport classifications. **Table 6-4** identifies the Tier 1 and Tier 2 airports.

Table 6-4 – Tier 1 and 2 Airports in Pennsylvania

Tier 1 Airports	Tier 2 Airports	
Altoona-Blair County	Allegheny County	New Garden Airport
Arnold Palmer Regional	Beaver County	Northeast Philadelphia
Erie International	Bradford County	Penn Valley
Harrisburg International	Bradford Regional	Pocono Mountains
Johnstown-Cambria County	Butler County	Port Meadville
Lancaster	Capital City	Pottstown Limerick
Lehigh Valley International	Chester County-G.O. Carlson	Reading Regional
Philadelphia International	Clearfield-Lawrence	Schuylkill County-Joe Zerby
Pittsburgh International	DuBois-Jefferson County	Washington County
University Park	Hazleton Municipal	Wings Field
Venango Regional	Indiana County-Jimmy Stewart	York
Wilkes-Barre Scranton International	Mifflin County	
Williamsport Regional	New Castle Municipal	

Methodology

The methodology used in creating this map was to incorporate all of the datasets described above into a single map within ESRI’s ArcGIS. Using the data mentioned earlier a “network analysis” within ArcGIS was conducted that calculated a 30-minute drive time surrounding each of the airports and created a polygon to represent this drive time. The network analysis took into consideration all of the interstates, major roadways, and other minor roadways that interconnect with an airport. The speed limit for each of these roads was provided within the road dataset and was used during the calculations of the coverage area.

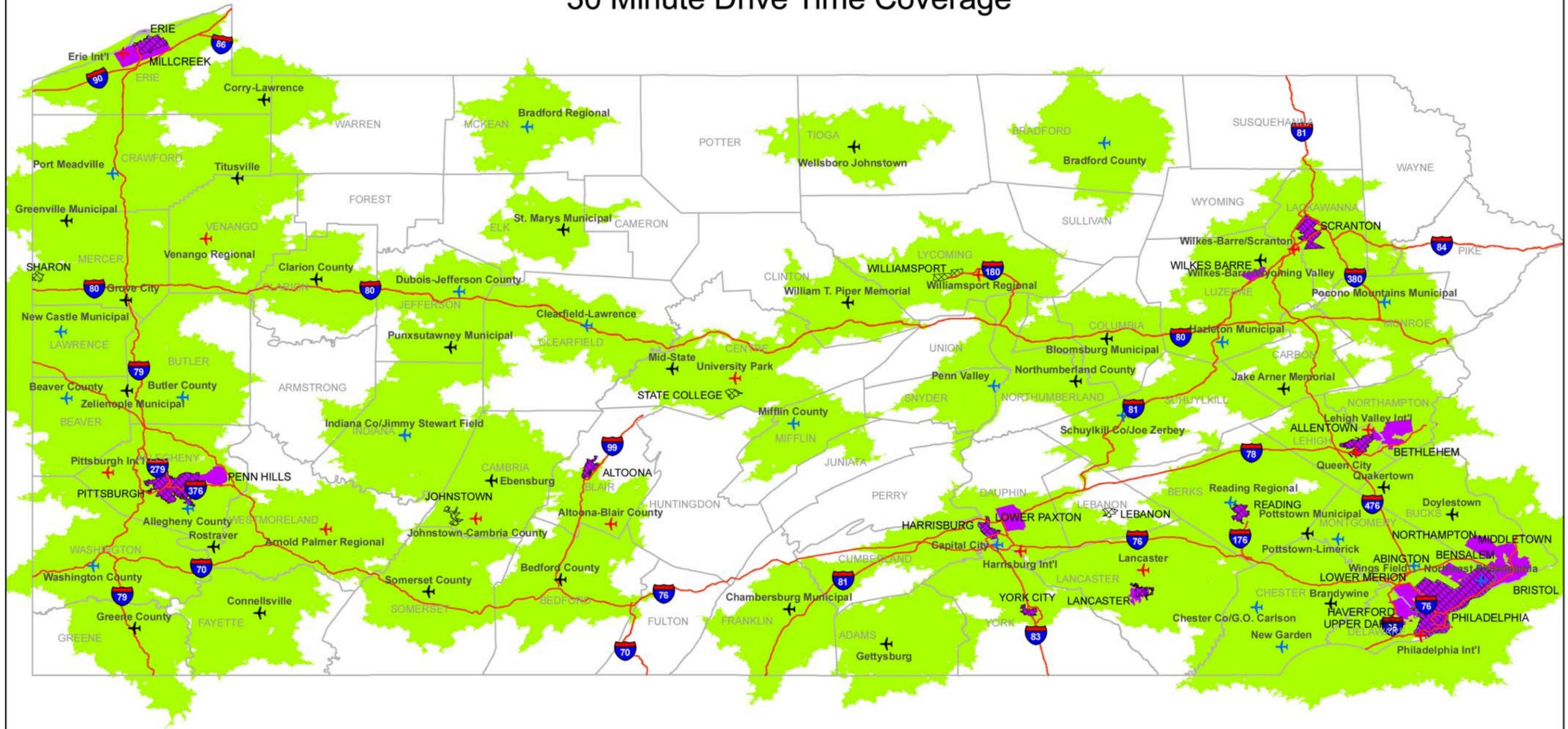
Results

Overall, the vast majority of the inhabitable areas of Pennsylvania are within 30-minutes of a NPIAS airport. There are several counties: Armstrong, Cameron, Forrest, Fulton, Huntingdon, Juniata, Perry, Pike, Potter, Sullivan, Susquehanna, Union, Warren, and Wyoming; that do not have a NPIAS airport. However, all Pennsylvania counties have some level of coverage from airports in adjoining counties.

The results show that all municipalities with populations of greater than 40,000 people are covered by a NPIAS airport. The results also show that all Tier 1 and Tier 2 economic centers are within a NPIAS coverage area.

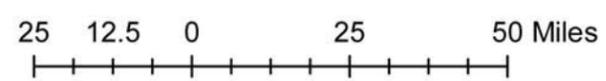
Insert Exhibit 6-1 – NPIAS Coverage Map – here.

30 Minute Drive Time Coverage



Legend

- + Tier 1 Airport
- + Tier 2 Airport
- + Other
- Economic Centers
- Major Population Areas (40,000+ Population)
- 30 Minute Area Coverage



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