

## Chapter 5: NPIAS Case Studies

There are a number of airports in the Commonwealth that may not meet all the NPIAS entry criteria discussed in Chapter 4 and that the BOA would like to examine in more detail in order to decide if they should be included in the NPIAS. It was decided to perform case studies to examine the unique aspects of each airport in order to recommend whether or not they should be included in the NPIAS. The following eight Commonwealth airports in the SASP were identified by PENNDOT for case studies:

- Carlisle
- Cherry Ridge
- Sky Haven
- Mid-State
- Ebensburg
- Deck
- Pennridge
- Penn’s Landing Heliport

### Approach

The approach was to compare the characteristics of the case study airports to the NPIAS guiding principles and entry criteria as defined by the FAA and summarized in Chapter 2. The findings were documented for these eight airports and also serve as a general process for examining future case studies.

### Results – NPIAS Entry Criteria

Table 5-1 summarizes these findings.

**Table 5-1 –NPIAS Entry Criteria Findings**

Airport/ID	Based Aircraft	Primary Runway Length (ft)	In NPIAS (Y/N)	Proximity to NPIAS Airport
Carlisle / N94	58	4,008	No	30 minutes from Capital City Airport
Cherry Ridge / N30	41	2,420	No	>30 minutes from Wilkes-Barre/Scranton
Sky Haven / 76N	29	2,007	No	35 minutes from Wilkes-Barre Wyoming
Mid-State / PSB	8	5,711	Yes	35 minutes from University Park
Ebensburg / 9G8	5	3,204	Yes	25 minutes from Johnstown-Cambria County
Deck / 9D4	37	3,786	No	35 minutes from Lancaster
Pennridge / N70	50	4,215	No	15 minutes from Quakertown
Penn’s Landing Heliport / P72	4	N/A	No	<30 minutes from PHL and PNE

### Results – NPIAS Guiding Principles

Paragraph 1-7 in the FAA NPIAS Order contains nine statements that guide Federal involvement in the nation’s system of airports. Many of these guiding principles are subjective and others are integrated into the specific entry criteria examined above. To define an objective approach for measuring adherence to the guiding principles, the following questions were recommended as a way for the BOA to assess how case study airports comply with the NPIAS guiding principles:

1. Does the airport have sufficient runway length to accommodate the most demanding aircraft that regularly use the airport?
2. Does the airport have room to expand if necessary?
3. Is the airport compatible with surrounding development in terms of zoning, land use and noise?

Since this evaluation was to determine if an airport is a viable candidate for entry into the NPIAS, runway length sufficiency was examined using FAA Advisory Circular (AC) 150/5325-4B, "Runway Length Requirements for Airport Design."

Table 5-2 summarizes the results of the case studies.

**Table 5-2 –NPIAS Guiding Principles Findings**

Airport/ID	Runway	Expandability	Compatibility
Carlisle / N94	Length is sufficient. 40-foot width is not	Growth is limited and impractical	Residential development is incompatible
Cherry Ridge / N30	Length and width are insufficient	Airport is landlocked and has limited expansion capability	Trees, terrain and residential development are incompatible
Sky Haven / 76N	Length and width are insufficient	Airport is landlocked and has limited expansion capability	Site is generally incompatible with surrounding development and terrain
Mid-State / PSB	Length and width are sufficient	There is room to expand	Surrounding land is compatible
Ebensburg / 9G8	Length and width are sufficient	There is room to expand	Surrounding land is mostly compatible
Deck / 9D4	Length and width are sufficient	There is room to expand	Surrounding land is mostly compatible
Penncridge / N70	Length and width are sufficient	There is no room to expand	Surrounding land is mostly compatible
Penn's Landing Heliport / P72	N/A	Site is very limited	Surrounding land is compatible

### Conclusions

Table 5-3 summarizes the recommendations for the eight case study airports and their status in the NPIAS. Recommendations are based on existing conditions and may be reconsidered if local changes justify such actions. Those airports recommended for the NPIAS which are privately-owned will require a public owner or sponsor to be eligible for federal AIP funding.

**Table 5-3 – Case Study Recommendations**

Airport	ID	Owner-ship	Based Aircraft	Nearest NPIAS Airport (min)	Meets Primary Criteria	Meets Guiding Principles	Grant Obliga-ted	Now In NPIAS	Recom-mended for NPIAS
Carlisle	N94	Private	58	25-30	Yes	Yes	No	No	Yes
Cherry Ridge	N30	Private	41	30	Yes	Yes	No	Yes	Yes*
Sky Haven	76N	Private	29	30-35	Yes	No	No	No	No

Airport	ID	Owner-ship	Based Aircraft	Nearest NPIAS Airport (min)	Meets Primary Criteria	Meets Guiding Principles	Grant Obliga-ted	Now In NPIAS	Recom-mended for NPIAS
Mid-State	PSB	Public	8	30-35	No	No	Yes	Yes	No**
Ebensburg	9G8	Public	5	25	No	No	Yes	Yes	No**
Deck	9D4	Private	37	30-35	Yes	Yes	No	No	Yes
Pennridge	N70	Private	50	15-20	No	Yes	No	No	No
Penn's Landing Heliport	P72	Private	4	30	No	Yes	No	No	Yes

\* Cherry Ridge should remain as a NPIAS airport only until a suitable replacement airport is available  
\*\* These airports are presently in the NPIAS because of grant obligations

Based on this analysis, it is recommended that the BOA use a similar screening process for addressing any requests from airport sponsors to have their airports included in the NPIAS. This process should rely on the entry criteria from the FAA's NPIAS Order and on the guiding principles described previously.

This process is illustrated in **Figure 5-1**.

**Figure 5-1 – NPIAS Eligibility Criteria Decision Tree**

