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:

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- 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.

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

Table 5-2 -NPIAS Guiding Principles Findings

Conclusions

Heliport / P72

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.

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

Table 5-3 – Case Study Recommendations

compatible

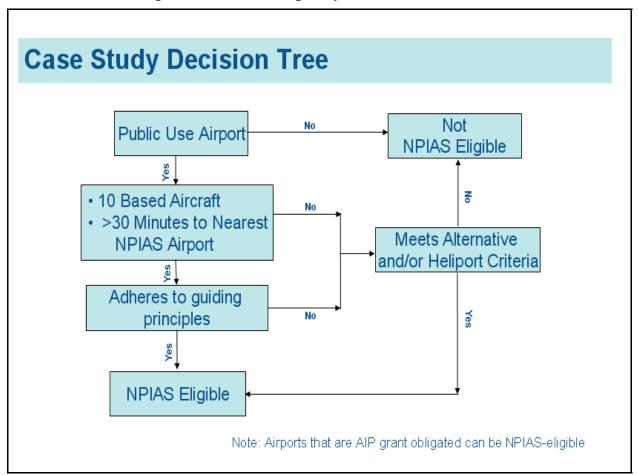
Airport	ID	Owner- ship	Based Aircraft	Nearest NPIAS Airport (min)	Meets Primary Criteria	Meets Guiding Principles	Grant Obliga- ted	Now In NPIAS	Recom- mended for NPIAS
Mid-State	PSB	Public	8	30-35	No	No	Yes	Yes	No**
Ebensburg	9G8	Public	5	25	No	No	Yes	Yes	No**
Deck	9D4	Private	37	30-35	Yes	Yes	No	No	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

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



^{**} These airports are presently in the NPIAS because of grant obligations