

Chapter 1: Airport System Classifications

The existing SASP airport classifications were developed as a part of the 2002 SASP. The criteria used were initially derived from FAA guidelines and information from other states. They were then refined, based on recommendations from the 2002 SASP Planning Oversight Committee (POC) to be more specific and relevant to Pennsylvania's airport system. Five performance categories were identified for the 2002 SASP with several measurable subcategories for evaluation.

- Activity and Demand
- Accessibility
- Support and Local Commitment
- Facilities Amenities and Services
- Optimization Potential

A numeric scoring system was developed to rank each of the airports and place them into various categories. However, there were no clear-cut definitions on what rank an airport would receive within each subcategory. It was found that the subjective aspects of this approach could not be duplicated or easily explained. It was also found that the airports classified as "advanced" in the 2002 SASP included commercial service and general aviation (GA) airports which caused confusion and concern in airport communities around the state.

The 2002 SASP established these airport classifications.

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

Approach

This evaluation consisted of a review of the 2002 SASP facility amenities and services criteria defined for the "advanced" and "intermediate" airport classifications and the extent to which these airports met these criteria. This approach focused on eliminating the subjectivity in the airport classification process. The objective was to establish clear evaluation criteria to correct the disparity in the "advanced" classification.

In addition to reviewing the current classification system, a method to develop a new functional level into the SASP for commercial service airports was identified. This involved additional analysis of each airport classified as "advanced." In particular, each airport's 14 CFR Part 139 Certification² was reviewed to identify some commonality that would justify an airport being moved into a new "commercial service" classification.

Results – Commercial Service Classification

The "advanced" airport classification developed in the 2002 SASP included a broad range of airports which resulted in the need to differentiate commercial service airports from the general aviation airports within that classification. It was decided that the criteria used to classify such airports should be clear-cut and easily understood.

² 14 Code of Federal Regulations (CFR) Part 139 requires the FAA to issue airport operating certificates to airports that (1) serve scheduled and unscheduled air carrier aircraft with more than 30 seats, (2) serve scheduled air carrier operations in aircraft with more than 9 seats but less than 31 seats, and (3) the FAA requires to have a certificate.

The criterion selected was whether an airport was certificated under Part 139. There are 16 airports within the Commonwealth that are certificated as a Part 139 airport, 15 of which have regularly scheduled commercial air service (as of early 2007). This criterion was further modified so that the airport must have a Class I, II, or III Part 139 certificate because all Pennsylvania airports with those Part 139 certifications have scheduled service. **Table 1-1** displays the airports that are Part 139 certificated, their current class of certification, and which currently have schedule air carrier service.

Table 1-1 – FAR Part 139 Airports in Pennsylvania

Airport ID	Airport Name	Part 139 Classification	Scheduled Service
AOO	Altoona-Blair County	Class I	Yes
LBE	Arnold Palmer Regional	Class I	Yes
BFD	Bradford Regional	Class I	Yes
DUJ	DuBois-Jefferson County	Class II	Yes
ERI	Erie International	Class I	Yes
MDT	Harrisburg International	Class I	Yes
JST	Johnstown-Cambria County	Class I	Yes
LNS	Lancaster	Class II	Yes
ABE	Lehigh Valley International	Class I	Yes
PHL	Philadelphia International	Class I	Yes
PIT	Pittsburgh International	Class I	Yes
RDG	Reading Regional	Class IV	No
UNV	University Park	Class I	Yes
FKL	Venango Regional	Class II	Yes
AVP	Wilkes-Barre/Scranton International	Class I	Yes
IPT	Williamsport Regional	Class I	Yes

SOURCE: Federal Aviation Administration, Airports and Air Traffic Division, 7/6/06

Based on this criterion, the “commercial service” classification would therefore include the 15 airports in Table 1-1, excluding Reading.

Results – Advanced Classification

The evaluation of the criteria that define the “advanced” classification was a three-step process. Step 1 investigated the 12 airports remaining in the classification once the 15 “commercial service” airports were removed. These airports were investigated in terms of the key amenities and services criteria (or performance measures) that were contained in Table 10-1 of the 2002 SASP (See Appendix 1).

In Step 2 the key performance measures for both the “advanced” and “intermediate” classifications were refined in order to establish greater commonality within both of these classifications and to better define the dividing line between the two.

These criteria were selected based on design standards and operational requirements for the critical aircraft using these facilities. The new key “advanced” criteria included:

- Runway length of 4,500 feet and greater to accommodate small and medium sized business jets³
- Either Medium (MIRLs) or High (HIRLs) Intensity Runway Lights
- Visibility minimums of 400 feet and ¾ mile or less

It was recommended that **if an airport met two out of three of the new criteria, it should be classified as “advanced.”**

In Step 3, each airport’s classification in the federal aviation system (National Plan of Integrated Airport Systems or NPIAS), level of aircraft operations (for 1999 and 2005), and number of based aircraft (for 1999 and 2005) were reviewed to serve as a “sensitivity” test. The sensitivity test was to identify which airports, if any, experienced notable decreases in either operations or based aircraft which would indicate the extent to which the airport was performing in its role in the state system.

Results – Intermediate Classification

Similar to the “advanced” assessment, these amenities and services criteria were identified for “intermediate” airports:

- Runway length of 3,800 feet and greater⁴
- Medium Intensity Runway Lights (MIRLs)
- Visibility minimums of 600 feet and 1 mile or less

Conclusions

The amenities and services criteria used to define the top three airport classifications are shown in **Table 1-2**.

Table 1-2 – Airport Classification Criteria and Sensitivity Tests

Commercial Service	Advanced	Intermediate
CFR Part 139 Certification – Class I, II & III	4,500-foot main runway	3,800-foot main runway
	Visibility Minimums: 400 ft and ¾ mile	Visibility Minimums: 600 ft and 1 mile
	MIRLs or HIRLs	MIRLs

Sensitivity Tests
NPIAS Designation
Steady or increased aviation activity from 1999 to 2005
Steady or increased based aircraft from 1999 to 2005

The following classification rules were recommended.

- “Advanced” airports had to meet two of the three airport amenities and service criteria described above.

³ “Advanced” runway length criterion was based on Figure 3-1 in FAA AC 150/5325-4B, “Runway Length Requirements for Airport Design,” page 12, for 75% of the fleet at 60% useful load at 75°F, sea level, and dry runway.

⁴ “Intermediate” runway length criterion was based on Figure 2-1 from AC 150/5325-4B, page 7, for aircraft 12,500 lbs or less and runway lengths 3,800 feet or greater.

- Unless they were reclassified to move to or from “advanced,” airports classified as “intermediate” in the 2002 SASP remained in that classification in the 2007 SASP.
- Airport amenities and services criteria should be reviewed regularly to determine which airports qualify for reclassification.
- General aviation airports which did not pass the sensitivity tests were not reclassified to “advanced”.

Underlined airports were reclassified from the 2002 SASP from “advanced” to “intermediate” and **bold and italicized airports** were reclassified from “intermediate” to “advanced.” Airports in the “commercial service” classification were all reclassified.

Commercial Service (15)

Altoona-Blair County	AOO	Lancaster	LNS
Arnold Palmer Regional	LBE	Lehigh Valley International	ABE
Bradford Regional	BFD	Philadelphia International	PHL
DuBois-Jefferson County	DUJ	Pittsburgh International	PIT
Erie International	ERI	University Park	UNV
Harrisburg International	MDT	Venango Regional	FKL
Johnstown-Cambria County	JST	Wilkes-Barre/Scranton Int'l	AVP
Williamsport Regional	IPT		

Advanced (15)

Allegheny County	AGC	Northeast Philadelphia	PNE
Beaver County	BVI	Port Meadville	GKJ
<i>Bedford County</i>	HMZ	Penn Valley, Selinsgrove ⁵	SEG
Butler County	BTP	Reading Regional	RDG
Capital City	CXY	Schuylkill Co – Joe Zerbey	ZER
Chester County	40N	<i>Washington County</i>	AFJ
Hazleton Municipal	HZL	York	THV
<i>Mifflin County</i>	RVL		

Intermediate (21)

Bradford County	N27	Perkiomen Valley	N10
Brandywine, West Chester	N99	<u>Pocono Mountains Muni.</u>	MPO
Carlisle	N94	Pottstown Municipal	N47
Clearfield-Lawrence	FIG	<u>Pottstown Limerick</u>	PTW
Connellsville	VVS	Quakertown	UKT
Donegal Springs Airpark	N71	Queen City, Allentown	1N9
<u>Doylestown</u>	DYL	Rock, Tarentum	9G1
Indiana County	IDI	Rostraver, Monongahela	FWQ
New Castle Municipal	UCP	<u>Wings Field, Philadelphia</u>	LOM
New Garden Flying Field	N57	Zelienople Municipal	PJC
Northumberland County	N79		

⁵ Between the time of this assessment and the completion of the 2007 SASP, Penn Valley Airport completed a runway extension that qualified it for the “advanced” classification. The final airport classifications shown above reflect this.