

CHAPTER 6 – CLASSIFICATIONS AND AIRPORT METRICS

Washington’s system of airports supports an array of airport activities, infrastructure, and demand that vary from airport to airport. Airport classifications provide a mechanism to evaluate the system of airports by grouping like airports for purposes of analysis. There are several existing classification systems that exist on the national level, but these systems do not reflect the unique nature of Washington’s system, including the high number of airports that are not included in the Federal Aviation Administration’s (FAA) system as represented in the National Plan of Integrated Airport Systems (NPIAS). The existing systems were reviewed and a Washington-specific classification system was developed as part of the WASP for use in evaluating system needs and the overall performance of the system.

6.1 FAA Classifications

The FAA utilizes the NPIAS to determine the role and eligibility of funding for airports within the U.S. Of Washington’s 136 airports, the FAA has only designated 64 for inclusion in the NPIAS, less than half of the state’s system of airports. It is important to note that the FAA updates the NPIAS every two years. The most recent NPIAS (2017-2021) was submitted to Congress on September 30, 2016, well into the progress of the WASP. Therefore, the WASP references the prior 2015-2019 NPIAS.

As depicted in Many of Washington’s NPIAS airports are classified by the FAA as GA airports. In 2012, the FAA developed an additional classification system specific to GA airports titled *General Aviation Airports: A National Asset* and referred to as the ASSET Report. In this report, five new categories, which included nonprimary commercial service, relievers, and GA airports, were developed based on several factors focused primarily on the types and levels of existing activity. After the release of the 2012 report, the FAA conducted a second study to further examine its initial airports that were “unclassified.” The *2014 ASSET 2: In-Depth Review of 497 Unclassified Airports* report attempted to classify these airports. Of the 497 airports, 212 were classified but 281 remained unclassified. In Washington, 10 airports were initially deemed unclassified, with five of these classified as Basic in ASSET 2. Table 6-2 displays the different categories and their descriptions, as well as the number of Washington airports within each of the classifications.

Table 6-1, airports are classified by the FAA based on the availability and level of commercial service at the airport. For the commercial service airports classified as primary, which include those with more than 10,000 annual passenger boardings, the FAA also uses hub type to further classify airports. Those with less than 10,000 annual passenger boardings are referred to as nonprimary. The airports without commercial service, which are most airports in the U.S., are general aviation (GA) airports; these GA airports are further classified if they are designated as GA reliever airports. A reliever is designated by the FAA to relieve congestion at a nearby commercial service airport. Additionally, an airport may also be considered a cargo service airport if it is served by aircraft providing only cargo services with a total annual landed weight of more than 100 million pounds. All other airports are referred to as GA.

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National Asset and referred to as the ASSET Report. In this report, five new categories, which included nonprimary commercial service, relievers, and GA airports, were developed based on several factors focused primarily on the types and levels of existing activity. After the release of the 2012 report, the FAA conducted a second study to further examine its initial airports that were “unclassified.” The *2014 ASSET 2: In-Depth Review of 497 Unclassified Airports* report attempted to classify these airports. Of the 497 airports, 212 were classified but 281 remained unclassified. In Washington, 10 airports were initially deemed unclassified, with five of these classified as Basic in ASSET 2. Table 6-2 displays the different categories and their descriptions, as well as the number of Washington airports within each of the classifications.

Table 6-1. FAA NPIAS Airport Classifications

AIRPORT CLASSIFICATIONS		HUB TYPE: PERCENTAGE OF ANNUAL PASSENGER BOARDINGS	COMMON NAME	WASHINGTON
Commercial Service: Publicly owned airports that have at least 2,500 passenger boardings each calendar year and receive scheduled passenger service	Primary: Have more than 10,000 passenger boardings each year	Large: 1% or more	Large Hub	1
		Medium: At least 0.25%, but less than 1%	Medium Hub	0
		Small: At least 0.05%, but less than 0.25%	Small Hub	2
		Nonhub: More than 10,000, but less than 0.05%	Nonhub Primary	7
	Nonprimary	Nonhub: At least 2,500 and no more than 10,000	Nonprimary Commercial Service	2
Nonprimary (except commercial service)		Not Applicable	Reliever General Aviation	5 47

Source: FAA NPIAS Report 2015-2019

Table 6-2. FAA GA ASSET Airport Classifications

ROLE	DESCRIPTION	WASHINGTON
National	Supports the national and state system by providing communities with access to national and international markets in multiple states and throughout the United States.	1
Regional	Supports regional economies by connecting communities to statewide and interstate markets.	11
Local	Supplements communities by providing access to primarily intrastate and some interstate markets.	20
Basic	Links the community with the national airport system and supports general aviation activities (e.g., emergency services, charter or critical passenger service, cargo operations, flight training and personal flying).	16
Unclassified	Provides access to the aviation system.	5

Source: FAA NPIAS Report 2015-2019

A shortcoming of the NPIAS and ASSET systems is that they do not account for non-NPIAS airports, of which there are numerous airports, seaplane bases, and heliports in Washington State. To be considered eligible for entry into the NPIAS, they must meet entry criteria such as being located at an adequate site, capable of being expanded and improved to provide a safe and efficient airport, and not be located within 20 miles of another NPIAS airport. Additionally, the NPIAS is a nation-wide effort that does not factor in the characteristics and needs of Washington. Section 6.4 discusses the NPIAS and ASSET eligibility in detail as well as evaluates which non-NPIAS airports within the state may be considered eligible for inclusion in the NPIAS.

6.2 WASP Airport Classification Process

Through the review of NPIAS and ASSET classifications, it was determined that Washington needed its own airport classification system that allows for the examination of the entire state airport system in a more consistent and meaningful way. The WASP then examined the prior state classification system developed as part of the 2009 Washington Aviation System Plan. The six classifications from the previous Aviation System Plan are depicted in Table 6-3. The classifications were largely driven by accessibility of the system, while also considering population density and based aircraft within certain driving times, as well as minimum threshold criteria for each classification based on their intended function. These criteria included runway length, based aircraft, or special characteristics such as scheduled passenger service or water landing areas.

Several of these criteria were recognized as being valuable in determining the level of community demand, however, the criteria do not relate to the aviation activities within the state. The WASP examined the criteria and the nomenclature and proposed a new classification process. This process was vetted through the study’s Advisory Committee to gain a consensus on the appropriate naming convention and criteria applicable to today’s Washington aviation system.

Table 6-3. 2009 WASP Classifications

CLASSIFICATION	# OF AIRPORTS	DESCRIPTION
Commercial Service	16	Accommodates at least 2,500 scheduled passenger boardings per year for at least 3 years
Regional Service	19	Serves large or multiple communities; all NPIAS relievers; 40 based aircraft AND 4,000-foot runway (with exceptions)
Community Service	23	Serves a community; at least 20 based aircraft; paved runway
Local Service	33	Serves a community; fewer than 20 based aircraft; paved runway
Rural Essential	38	Other land-based airport, including residential airparks
Seaplane Bases	9	FAA-identified unless it is commercial service

Source: 2009 Washington Aviation System Plan

The first step in the process was to evaluate the criteria most relevant to determining airport classifications. One specific factor that was determined not to be important to the classification of an airport was whether or not the airport was included in the FAA’s NPIAS. The three factors that were determined to be most impactful on the classifications of airports included the following:

- Community demand
- Primary aviation activities
- Critical aircraft

The type and size of the community the airport serves is a driving factor in the success of an airport. Population density ranges dramatically throughout the state and does not allow for precise ranges for classification. The population density within the airport drive times are based on a geographic information system analysis utilizing zip code and U.S. Census tract data.¹ Within the analysis, it is assumed that 20 nautical miles equated to a 30-minute drive time and that the population was dispersed evenly across the zip code.

As the population density has such large ranges, the community is defined in terms of geography, population, and the aviation community for the WASP. Another factor in the community demand for aviation is the number of based aircraft and the surface of the runway, which should support the level of community demand.

The primary aviation activities are important as they indicate the size and type of aircraft that need to be accommodated and services provided relative to the activities. Primary activities at an airport can vary widely and can be based on the infrastructure and amenities available, the local characteristics and needs, and the population density. The impact of each type of activity may not always be quantifiable, but they all provide some level of value to the community. Activities deemed to have a higher impact include air cargo, pilot training, aircraft manufacturing, commercial service, corporate general aviation and business travel, and personal transportation through GA. These activities are more typical in larger communities

¹ Washington State population data – 2010 US Census Data; Washington State retail data – 2007 US Economic Census data; Idaho State population – 2014 ACS 5-Year census tract data; Oregon State population – 2014 ACS 5-Year census tract data.

due to the diversity and needs of users for economic viability of the activity. In the case of commercial service, airlines decide which communities to serve unless they are included in the Essential Air Service program of the U.S. Department of Transportation. Airlines consider the population of a community, business activity, and distance from other commercial airports. For air cargo, service is provided at airports based on the flow of goods arriving and departing the airport service area and also consider business activity and distance from other airports where cargo activity is occurring.

Of a lesser impact are more recreational activities, such as skydiving, aerial sightseeing, and aerial photography, as well as scientific research, national security, and agricultural activities. These activities may not require the same infrastructure and population density to support due to their more specialized nature.

Other activities that have an impact to the community include activities related to emergencies such as firefighting, search and rescue, medical air transport, blood tissue and organ transportation, and emergency preparedness and disaster response. Depending on the level of operation, a certain amount of infrastructure may be necessary to support the activity. Medical air transport units may be based at an airport, requiring personal facilities for staff and aircraft storage and fuel. If the airport is just used as a landing site for emergency aviation services when necessary, it may only require a place to land, fuel, and roadway access.

Critical Aircraft is defined by the FAA as the most demanding type of aircraft to conduct at least 500 operations a year at an airport. Based on this aircraft's approach speed to the runway, tail height, and wingspan, an Airport Reference Code (ARC) is assigned and dictates the design standards for the airport. This aircraft is a good indicator of the types of activities that take place or are possible at an airport. It is unlikely airline passengers would be at an airport that is only capable of handling small, light aircraft. Similarly, it is unlikely that these light aircraft are regularly landing at an airport with large commercial jets. Table 6-4 displays the dimensions for the main categories used in the WASP airport classification criteria.

Table 6-4. Airport Reference Code (ARC) Dimensions

ARC	APPROACH SPEED	WINGSPAN	TAIL HEIGHT	EXAMPLE AIRCRAFT
A-I (small)	Less than 91 knots	Less than 49 feet	Less than 20 feet	
B-II	91 to 120 knots	49 to 78 feet	20 to 29 feet	
C-III	121 or greater knots	79 feet or greater	45 feet or greater	

Source: FAA Advisory Circular 150/5300-13A

In addition to evaluating the criteria that are applicable to Washington’s aviation classifications, the nomenclature and number of classifications was reviewed. Five airport classifications were identified through work with the Advisory Committee. These classifications include *Major*, *Regional*, *Community*, *Local*, and *General Use*. The naming of these classifications was tied to the size of the community within the airport’s service area, whether it is the population, geographic size, or size of aviation community. Table 6-5 presents a summary of the WASP airport classifications, including the naming convention, the associated primary activities, and other factors used in classifying the airports.

Table 6-5. WASP Airport Classifications Summary

CLASSIFICATION	PRIMARY ACTIVITIES	FACTORS TO CLASSIFY AIRPORTS
Major	<ul style="list-style-type: none"> § Commercial service § Aircraft or aerospace manufacturing 	<ul style="list-style-type: none"> § ARC C-III or greater § Primary Activity: commercial service and/or aerospace manufacturing/MRO § Population over 40,000
Regional	<ul style="list-style-type: none"> § Corporate GA and travel business 	<ul style="list-style-type: none"> § ARC B-II or greater § Primary Activity: corporate GA and travel business § Population over 30,000
Community	<ul style="list-style-type: none"> § GA-personal transportation/ business and recreational § Pilot training 	<ul style="list-style-type: none"> § Not metro or regional § Paved primary runway surface § 15 or more based aircraft
Local	<ul style="list-style-type: none"> § GA-personal transportation/ recreational § Pilot training § Agriculture 	<ul style="list-style-type: none"> § Not metro or regional § Paved primary runway surface § Less than 15 based aircraft
General Use	<ul style="list-style-type: none"> § GA-personal transportation/ recreational, including backcountry 	<ul style="list-style-type: none"> § Unpaved primary runway surface (including all seaplane bases)

Source: Parsons Brinckerhoff and Kimley-Horn and Associates

Appendix C, Table C-1 presents a listing of airports by classification, and Table C-2 presents an alphabetical listing of airports by the associated city while denoting the classification. The following provides a more detailed description of each classification.

6.2.1 Major

A *Major* airport services the general population’s travel needs through commercial service activities and most likely provides aircraft or aerospace manufacturing. There may be other activities on the airfield such corporate travel, emergency medical, or flight training, but the primary role is commercial travel. As such, the main aircraft will tend to be larger with an ARC C-III or greater and the runways will be paved. The service area population must be a minimum of 40,000 but is more likely between 55,000 and 2.2 million.

There are 10 airports classified as *Major Airports* (all of which are included in the NPIAS) as listed in Table C-1 in Appendix C.

6.2.2 Regional

A *Regional* airport primarily serves as a base for corporate and business travel via general aviation aircraft and commuter passenger service through the airlines. These trips are typically in smaller aircraft, with an ARC of B-II or greater, and may or may not include scheduled commercial airline service. The population must be a minimum of 30,000 but is more likely between 34,000 and 2.1 million.

There are 20 airports classified as *Regional* airports (all of which are included in the NPIAS) as listed in Table C-1 in Appendix C.

6.2.3 Community

A *Community* airport provides a facility for larger scale general aviation activities that are important to aviation, such as business and personal transportation, recreation, and pilot training. There may be fewer corporate flights for business activities than a *Regional* airport, but they will still be active at this type of airport. The typical aircraft serving these activities are ARC A-I (small) to B-II. A *Community* airport serves a population range of 5,000 to 1.8 million. *Community* airports have paved runways and should have a minimum of 15 based aircraft to be included in this classification.

There are 35 airports classified as *Community* airports (18 of which are included in the NPIAS) as listed in Table C-1 in Appendix C.

6.2.4 Local

A *Local* airport primarily serves GA activities such as personal transportation, recreation, pilot training, and agricultural uses. It is like a *Community* airport but has less activity or serves a smaller community. *Community* airports are differentiated by having paved runways with less than 15 based aircraft. The aircraft will be similar in size to a *Community* airport, with an ARC of A-I (small) to B-II. The population served may range from as little as 3,500 to 1 million people.

There are 37 airports classified as *Local* airports (14 of which are included in the NPIAS) as listed in Table C-1 in Appendix C.

6.2.5 General Use

All airports without a paved surface are classified as *General Use*. This classification includes seaplane bases and those airports with turf or other surfaces that are not paved. The same type of aircraft, ARC A-I to B-II, as *Community* and *Local* airport may operate at the airport, but they are primarily for personal transportation and backcountry activities. There are no minimums for population or based aircraft for this classification, but the population can range dramatically from 2,400 to 2.1 million depending on the airport's location.

There are 34 airports classified as *General Use* airports (2 of which are included in the NPIAS) as listed in Table C-1 in Appendix C.

6.3 Airport Metrics

Measuring the system’s performance is an important objective of the WASP. In order to measure the system’s performance, evaluating each airport’s contributions to the system and how each airport impacts the overall system’s performance must be determined. The airport classifications allow for the establishment of metrics that are obtainable for the individual airports based on their classification or role and contribution to the system. It is not reasonable to assume that an airport with limited resources and activity should be held to the same standards or performance as an airport with greater resources and significant annual activity. Individual airport metrics can be compiled to evaluate the overall system’s performance and determine adequacies, deficiencies, and redundancies.

For the WASP, metrics were developed relative to each system goal category. Some of the metrics are easily quantifiable, such as the pavement condition index (PCI), while others may be actions the airport needs to take, such as analyzing how well the airport meets FAA design standards. Some of the metrics are also important to serve as minimum standards for the system’s development, while others are recommended to serve as minimums to strive to achieve.

The following presents the Airport Metrics by goal category, as well as specific metrics associated with each classification.

6.3.1 Aeronautical Airport Safety

Aeronautical and Airport Safety is intended to ensure airports are operating safely and efficiently. The objectives of this goal include attaining and maintaining the WSDOT Performance Objectives and Standards and the FAA Design Standards as well as, more specifically, maintaining safe and clear approaches. Based on this, two metrics derived from FAA Design Standards were established to measure the system’s performance of the Aeronautical Airport Safety goal.



The FAA Design Standards facilitate the public interest requirement to develop and maintain a national system of safe, delay-free, and cost-effective airports through publications of advisory circulars and orders. The standards and recommendations represent the most effective national approach for meeting the long-term aviation demand in a manner that is consistent with national policy, with safety being the highest priority. Every effort should be made to bring an obligated airport in line with the existing standards not only for safety purposes but also because federal funding may be dependent on it.

The Obstructions Metric (Table 6-6) includes, at minimum, ensuring the Runway Safety Area (RSA)² and the Threshold Siting Surfaces (TSS)³ are clear of obstructions for all runway ends at all classifications of airports. The target is to ensure that the ultimate approach, whether it is with a runway extension or lower visibility minimums, is also clear so there are no obstructions to the future development. The existing and required dimensions of the RSA and TSS can be found on the airport’s Airport Layout Plan (ALP).

Table 6-6. Aeronautical and Airport Safety Metric: Obstructions

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD	TARGET
I	Major	Clear runway safety area and threshold siting surface for all runway ends	Clear runway safety area and threshold siting surface for all runway ends, and clear obstructions to achieve airport’s identified ultimate approach capability
II	Regional	Clear runway safety area and threshold siting surface for primary runway ends	Clear runway safety area and threshold siting surface for all runway ends, and clear obstructions to achieve airport’s identified ultimate approach capability
III	Community	Clear runway safety area and threshold siting surface for primary runway ends	Clear runway safety area and threshold siting surface for all runway ends, and clear obstructions to achieve airport’s identified ultimate approach capability
IV	Local	Clear runway safety area and threshold siting surface for primary runway ends	Clear runway safety area and threshold siting surface for all runway ends, and clear obstructions to achieve airport’s identified ultimate approach capability
V	General Use	Clear runway safety area and threshold siting surface for primary runway ends	Clear runway safety area and threshold siting surface for all runway ends, and clear obstructions to achieve airport’s identified ultimate approach capability

² The Runway Safety Area is a defined surface surrounding the runway prepared or suitable for reducing the risk of damage to aircraft in the event of an undershoot, overshoot, or excursion from the runway.

³ The Threshold Siting Surfaces ensure compatibility between nearby objects and the runway’s threshold, which is defined as the first part of pavement available and suitable for landing.

The Weather Services Metric (Table 6-7) displays the type of weather systems that should be utilized by the airports based on the classification. Smaller airports, such as *General Use*, *Local*, and *Community*, should ideally have an on-site weather reporting system such as an Automated Weather Observation System (AWOS) or Automated Surface Observation System (ASOS).⁴ *Major* and *Regional* airports should have a weather system on-site at a minimum, but ideally also provide an Automated Terminal Information System (ATIS) to pilots. The ATIS provides hourly recorded essential aeronautical information, such as weather, active runways, available approaches, Notices to Airmen, and other pertinent information.

Table 6-7. Aeronautical and Airport Safety Metric: Weather Services

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD	TARGET
I	Major	On-site weather reporting (AWOS, ASOS)	On-site weather reporting (AWOS, ASOS, ATIS)
II	Regional	On-site weather reporting (AWOS, ASOS)	On-site weather reporting (AWOS, ASOS, ATIS)
III	Community	Not required	On-site weather reporting
IV	Local	Not required	On-site weather reporting
V	General Use	Not required	On-site weather reporting

⁴ AWOS are mostly operated, maintained, and controlled by FAA. ASOS are operated and controlled cooperatively by FAA, National Weather Service, and Department of Defense.

The Airfield Geometry Design Standards Metric (Table 6-8) sets the minimum standard for all NPIAS airports to meet FAA airfield geometry design standards. The FAA promotes standards and recommendations to support their policies as promulgated by the United States Code. The FAA-obligated NPIAS airports are required to meet FAA standards and, as appropriate and eligible, can work with FAA to apply for a modification of standard for certain conditions. FAA defines a modification to standard as “any approved nonconformance to FAA standards, other than dimensional standards for Runway Safety Areas (RSAs), applicable to an airport design, construction, or equipment procurement project that is necessary to accommodate an unusual local condition for a specific project on a case-by-case basis while maintaining an acceptable level of safety.” The target for NPIAS airports is to meet the FAA design standard for their Airport Reference Code.

In addition, WSDOT plans to develop state standards that best align with the airport classification and the necessary infrastructure associated with the standards. These standards have not yet been established, but if the state standards are greater than FAA standards, all airports would need to comply with state standards. These state standards would be the only ones applicable to the non-NPIAS airports. The target for non-NPIAS airports is to meet the state design standards without modification of standards.

Initially, it is anticipated that WSDOT’s state standards will focus on the RSA, widths of runway and taxiways, separation standards, and airspace obstructions. The existing and recommended dimensions of the design standards can be found on the airport’s ALP.

Table 6-8. Aeronautical and Airport Safety Metric: Airfield Geometry Design Standards

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD*	TARGET*
I	Major	Meet FAA/state design standards for Airport Reference Code	Meet FAA/state design standards for Airport Reference Code
II	Regional	Meet FAA/state design standards for Airport Reference Code	Meet FAA/state design standards for Airport Reference Code
III	Community	Meet FAA/state design standards for Airport Reference Code	Meet FAA/state design standards for Airport Reference Code
IV	Local	Meet FAA/state design standards for Airport Reference Code	Meet FAA/state design standards for Airport Reference Code
V	General Use	Meet FAA/state design standards for Airport Reference Code	Meet FAA/state design standards for Airport Reference Code

*Includes Runway Safety Area, runway/taxiway width, runway/taxiway separation standards

6.3.2 Economic Development and Vitality



Economic Development and Vitality ensures the airport is advancing the business opportunities of the airport and its surrounding community. The objectives include supporting and increasing the opportunity of the transportation of goods and passengers utilizing air service, enhancing collaboration between the airport and its community to maintain and support economic growth and development, and increasing tenant revenues by promoting on-airport businesses and aerospace manufacturing jobs.

Table 6-9 sets the recommended minimum and target for the Collaboration with Government Agencies on Economic Opportunities Metric for all classifications of airports in the WASP. The recommended minimum includes collaborating with state and local agencies, such as the local chamber of commerce, economic development commission, or tourism bureau. The target is to have a documented plan and monitor these efforts. Table 6-10 displays a similar metric for Partner with Industry to Support Activities. As with the collaboration on economic opportunities metric, the recommended minimum is to collaborate with businesses to support activities and the target is to document and monitor the efforts for all classifications of airports.

Table 6-9. Economic Development and Vitality Metric: Collaboration with Government Agencies on Economic Opportunities

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Collaborate with state & local agencies to document economic and qualitative contributions of aviation	Documented plan for collaboration efforts; track and monitor efforts and results
II	Regional	Collaborate with state & local agencies to document economic and qualitative contributions of aviation	Documented plan for collaboration efforts; track and monitor efforts and results
III	Community	Collaborate with state & local agencies to document economic and qualitative contributions of aviation	Documented plan for collaboration efforts; track and monitor efforts and results
IV	Local	Collaborate with state & local agencies to document economic and qualitative contributions of aviation	Documented plan for collaboration efforts; track and monitor efforts and results
V	General Use	Collaborate with state & local agencies to document economic and qualitative contributions of aviation	Documented plan for collaboration efforts; track and monitor efforts and results

Table 6-10. Economic Development and Vitality Metric: Partner with Industry to Support Activities

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Collaboration with businesses to support airport activities	Documented plan for collaboration efforts; track and monitor efforts and results
II	Regional	Collaboration with businesses to support airport activities	Documented plan for collaboration efforts; track and monitor efforts and results
III	Community	Collaboration with businesses to support airport activities	Documented plan for collaboration efforts; track and monitor efforts and results
IV	Local	Collaboration with businesses to support airport activities	Documented plan for collaboration efforts; track and monitor efforts and results
V	General Use	Collaboration with businesses to support airport activities	Documented plan for collaboration efforts; track and monitor efforts and results

The Air Cargo Activity Report Metric (Table 6-11) provides recommended minimums and targets regarding tracking activity, managing air cargo support services and facilities, and collaborating with other agencies to expand air cargo opportunities based on the classification of airport. A *Major* airport is targeted to collaborate with WSDOT on facility and policy needs related to air cargo, outside agencies for connections to off-airport activity such as an airport logistic park, and track and report cargo activity statistics. Smaller *Community* and *Local* airports should be tracking the activity and discussing needs with WSDOT.

Table 6-11. Economic Development and Vitality Metric: Cargo Activity Reporting

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Track and annually report air cargo/freight activity (such as number of operations, tonnage, type of freight carried) to WSDOT; manage off-airport resources for air cargo support services (such as cross-dock trucking, warehouse, etc.); examine feasibility of establishing airport logistics parks	Collaborate with WSDOT on air cargo facility and policy needs, and investment strategies, identified as a result of reported activity; collaborate with regional planning and economic development agencies on off-airport resource development
II	Regional	Track and annually report air cargo/freight activity (such as number of operations, tonnage, type of freight carried) to WSDOT; identify off-airport resources for air cargo support services	Collaborate with WSDOT on air cargo facility and policy needs, and investment strategies, identified as a result of reported activity; collaborate with regional planning and economic development agencies on off-airport resource development
III	Community	Track and report air cargo/freight activity (such as number of operations, tonnage, type of freight carried) to WSDOT	Collaborate with WSDOT on air cargo facility and policy needs, and investment strategies, identified as a result of reported activity
IV	Local	Track and report air cargo/freight activity (such as number of operations, tonnage, type of freight carried) to WSDOT	Collaborate with WSDOT on air cargo facility and policy needs, and investment strategies, identified as a result of reported activity
V	General Use	Track and report air cargo/freight activity (such as number of operations, tonnage, type of freight carried) to WSDOT	Collaborate with WSDOT on air cargo facility and policy needs, and investment strategies, identified as a result of reported activity

6.3.3 Education, Outreach, and Community Engagement

Education, Outreach, and Community Engagement is intended to promote aviation and its importance, impact, and activities. The objectives include promoting aviation education to enhance safety and community support, increasing community knowledge of the aviation systems to communicate airport benefit and contribution to local communities and economies, and promoting aviation activities matched to community needs.



The Aviation Outreach and Engagement Metric (Table 6-12) recommends, at a minimum, airports in all classifications have a documented plan to engage the local and aviation community and tourism boards in how to advocate for the airport while supporting the community. The target would be to implement the plan’s methods and be able to measure the engagement. Engagement may be in the form of hosting public events, maintaining a website or actively participating on social media, supporting educational programs, or soliciting feedback from the community to ensure its needs are being met.

Table 6-12. Education, Outreach, and Community Engagement Metric: Aviation Outreach and Engagement

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Documented plan to engage local community, aviation groups, and tourism boards, advocating the airport and supporting the community (host events, websites, educational programs, solicit feedback, etc.)	Implemented methods that provide positive, measurable engagement with the community
II	Regional	Documented plan to engage local community, aviation groups, and tourism boards, advocating the airport and supporting the community (host events, websites, educational programs, solicit feedback, etc.)	Implemented methods that provide positive, measurable engagement with the community
III	Community	Documented plan to engage local community, aviation groups, and tourism boards, advocating the airport and supporting the community (host events, websites, educational programs, solicit feedback, etc.)	Implemented methods that provide positive, measurable engagement with the community
IV	Local	Develop plan to engage local community	Implemented plan that provides positive engagement with the community
V	General Use	Documented plan to engage local community, aviation groups, and tourism boards, advocating the airport and supporting the community (host events, websites, educational programs, solicit feedback, etc.)	Implemented plan that provides positive engagement with the community

6.3.4 Infrastructure Improvement, Preservation, and Capacity

Infrastructure Improvement, Preservation, and Capacity is focused on ensuring the existing system is maintained and improved to handle the current and forecasted capacity. The objectives include providing access for aircraft during all weather conditions, maintaining the facilities to established classification levels, and planning to meet emerging requirements in technology and infrastructure, such as NextGen.



The Physical Condition of Infrastructure Metric (Table 6-13) is based on the industry standard Pavement Condition Index (PCI). Pavement can be assessed following the ASTM Standard D5340, *Standard Test Method for Airport Pavement Condition Index Surveys*. PCI values range from 0 (failed) to 100 (excellent).

Table 6-13. Infrastructure Improvement, Preservation, and Capacity Metric: Physical Condition of Infrastructure

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD*	TARGET*
I	Major	Runways PCI >70 (AC) or >60 (PCC)	Runways PCI >70 (AC) or >60 (PCC); taxiways PCI >65 (AC) or >55 (PCC); other pavements PCI >60 (AC) or >50 (PCC)
II	Regional	Runways PCI >65 (AC) or >55 (PCC)	Runways PCI >65 (AC) or >55 (PCC); taxiways and other pavements PCI >60 (AC) or >50 (PCC)
III	Community	Runways PCI >65 (AC) or >55 (PCC)	Runways PCI >65 (AC) or >55 (PCC); taxiways and other pavements PCI >60 (AC) or >50 (PCC)
IV	Local	Runways PCI >65 (AC) or >55 (PCC)	Runways PCI >65 (AC) or >55 (PCC); taxiways and other pavements PCI >60 (AC) or >50 (PCC)
V	General Use	Not applicable	Not applicable

*AC = asphalt concrete; PCC = Portland cement concrete

Figure 6-1 provides examples of pavement in poor and good condition. Pavement condition is a major safety component at an airport as it directly impacts the capability of the runway surface to provide a suitable environment for maintaining aircraft directional control. Pavement in poor condition can damage aircraft through prop strikes or foreign object debris being swept up from the ground into an aircraft. It is also important to maintain pavement regularly as repairs become costlier the longer maintenance is deferred. As *General Use* airports are unpaved surfaces, this Metric does not apply to them. *Local*, *Community*, and *Regional* airports should have a PCI of 55 or greater if using Portland cement concrete (PCC) or 65 or greater if using asphalt concrete (AC). *Major* airports have a higher standard of 60 or greater for PCC and 70 or greater for AC. The Target PCIs for runways, taxiways, and other pavement areas are shown in Table 6-13.

Figure 6-1. Example of Pavement Conditions



Airport Capacity Metric (Table 6-14) recommends that all classifications of airports have the ability to meet their current storage requirements. *Community*, *Regional*, and *Major* airports should ensure they are not exceeding 80 percent of their current airfield capacity. Airfield capacity can be defined as either a measure of maximum sustainable throughput or as the number of aircraft operations that can be accommodated with a specified maximum average delay. Airfield capacity is determined based on the available airfield system and a range of airport characteristics, including the types and numbers of aircraft operations.

Targets for airport capacity include providing storage for future aircraft based on forecasts for all classifications and not exceeding 60 percent of the airfield capacity for *Community*, *Regional*, and *Major* airports.

Table 6-14. Infrastructure Improvement, Preservation, and Capacity Metric: Airport Capacity

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM*	TARGET*
I	Major	Airfield capacity <80% and sufficient aircraft storage capacity	Airfield capacity <60% and land for future aircraft storage capacity
II	Regional	Airfield capacity <80% and sufficient aircraft storage capacity	Airfield capacity <60% and land for future aircraft storage capacity
III	Community	Airfield capacity <80% and sufficient aircraft storage capacity	Airfield capacity <60% and land for future aircraft storage capacity
IV	Local	Sufficient aircraft storage capacity	Land for future aircraft storage capacity
V	General Use	Sufficient aircraft storage capacity	Area for future aircraft storage capacity

* Airfield Capacity can be either Annual Service Volume or Hourly Capacity

6.3.5 Aviation Innovation



Aviation Innovation is aimed at supporting new technologies and processes related to aviation with objectives in supporting innovation in the aviation system and aeronautics. The primary purpose of this metric is to foster, embrace, and enable aviation innovation through monitoring emerging innovation opportunities, providing support, and communicating the opportunities to engage WSDOT’s support. The recommended minimum for the Integration of Aviation Innovation Metric (Table 6-15) is to track and report on the activities and projects being completed by the airport that support the integration of these innovative projects with an ultimate target of increasing the activities and projects over the years. The activities include fostering and enabling, while infrastructure projects could include ensuring the electrical system is built to a standard that allows for additional navigational aids, constructing natural gas fueling locations for the shuttles, or participating in a research study. By supporting and partnering in the research and advancement of the technologies through industry providers, aviation-related associations, and academia, sponsors can stay informed and potentially be involved in evolving programs.

Table 6-15. Aviation Innovation Metric: Integration of Aviation Innovation

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Track and report activities and projects that support integration of aviation innovation (NextGen, alternative fuels)	Increase activities and projects that support integration of aviation innovation
II	Regional	Track and report activities and projects that support integration of aviation innovation (NextGen, alternative fuels)	Increase activities and projects that support integration of aviation innovation
III	Community	Track and report activities and projects that support integration of aviation innovation (NextGen, alternative fuels)	Increase activities and projects that support integration of aviation innovation
IV	Local	Track and report activities and projects that support integration of aviation innovation (NextGen, alternative fuels)	Increase activities and projects that support integration of aviation innovation
V	General Use	Track and report activities and projects that support integration of aviation innovation (NextGen, alternative fuels)	Increase activities and projects that support integration of aviation innovation

6.3.6 Modal Mobility, Capacity, and Accessibility

Modal Mobility, Capacity, and Accessibility is intended to ensure the airport is easily accessible by the general public. *Regional* access to airports has been identified as a reoccurring problem across the nation as airports are not always considered in the regional transportation planning process. Objectives include providing adequate ground access to and from the airport, supporting road capacity access initiatives, and supporting and improving multimodal connections. The Ground Access Metric (Table 6-16) recommends a certain level of accessibility to the airport. It recommends ensuring there is adequate parking for users and tenants, ensuring users are able to find their way to the airport when departing and to their destination when arriving through signage, car rental, or multiple modes of public transportation.



Table 6-16. Modal Mobility, Capacity, and Accessibility Metric: Ground Access

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Collaborate with regional transportation and business partners to reduce delay and provide sufficient road access on key routes, address parking demand, provide adequate directional signage, and coordinate with public transit and transportation for hire	Optimize road access capacity, provide sufficient parking capacity, enhanced directional signage, collaborate with public transit and transportation for hire
II	Regional	Collaborate with regional transportation and business partners to reduce delay and provide sufficient road access on key routes, address parking demand, provide adequate directional signage, and coordinate with public transit and transportation for hire	Optimize road access capacity provide sufficient parking capacity, enhanced directional signage, collaborate with public transit and transportation for hire
III	Community	Collaborate with regional transportation and business partners to reduce delay and provide sufficient road access on key routes, address parking demand, provide adequate directional signage, and coordinate with public transit and transportation for hire	Optimize road access capacity, provide sufficient parking capacity, enhanced directional signage, collaborate with public transit and transportation for hire
IV	Local	Sufficient road access capacity and adequate directional signage	Sufficient road access capacity and adequate directional signage
V	General Use	Sufficient road access capacity and adequate directional signage	Sufficient road access capacity and adequate directional signage

6.3.7 Stewardship



Stewardship is intended to ensure an airport is looking after the long-term welfare of itself. Objectives include protecting the investment by implementing and maintaining planning documents, conducting preventive and corrective maintenance of the infrastructure, and advocating for land-use protection and height hazard zoning.

The Airport Maintenance Metric (Table 6-17) indicates the minimum and targeted standards for the different classifications of airports. Preventive maintenance programs ensure that an airfield is being maintained to the correct standards and regular inspections and investigations conducted. At a minimum, *General Use* airports should maintain the maintenance records but ideally should complete quarterly inspections and complete all routine maintenance. *Local, Community, and Regional* airports should, at a minimum, perform annual required corrective and preventive maintenance in addition to maintaining their records. *Local* airports should ideally conduct monthly inspections, and *Community* and *Regional* airports should ideally conduct daily and monthly inspections and maintain sponsor-owned facilities in good condition. *Major* airports should meet the federal airport certification regulation Title 14, Code of Federal Regulations, Part 139 maintenance requirements. Each airport works with the FAA to develop an Airport Certification Manual that describes individual airport inspection and maintenance requirements.

Table 6-17. Stewardship Metric: Airport Maintenance

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD	TARGET
I	Major	Meet Part 139 maintenance requirements	Meet Part 139 maintenance requirements; maintain sponsor-owned facilities in good condition
II	Regional	Annual required corrective and preventive maintenance performed and records maintained	Conduct daily and monthly inspections and implement routine surface management; records maintained; maintain sponsor-owned facilities in good condition
III	Community	Annual required corrective and preventive maintenance performed and records maintained	Conduct daily and monthly inspections and implement routine surface management; records maintained; maintain sponsor-owned facilities in good condition
IV	Local	Annual required corrective and preventive maintenance performed and records maintained	Conduct monthly inspections and implement routine surface management and records maintained
V	General Use	Annual preventive maintenance performed and records maintained	Conduct quarterly inspections and implement routine surface management and records maintained

The Planning Metric (Table 6-18) is based on the type of planning document to be used to guide future airport development. The Airport Master Plan and Airport Layout Plan (ALP) are comprehensive analyses of an airport that ultimately illustrate the short- and long-term development plans to meet the future aviation demand requirements.

ALPs are generally needed for airports with less than 50 based aircraft, lower activity levels, and no unusual activity. As such, *General Use* airports should, at a minimum, to complete an ALP, and, *Local*, and *Community* both an ALP and Master Plan. *Regional* and *Major* airports should have completed a master plan, ideally within the past 5 to 7 years. These documents should be reviewed every 10 years, at a minimum, for applicability to the current goals and conditions of the airport. Additionally, a review of obstructions and survey effort through Airport Geographic Information System (AGIS) should be completed to assist in the national data collection and analysis effort.

Table 6-18. Stewardship Metric: Planning

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD	TARGET
I	Major	Master Plan (last 10 years)	Review Master Plan (5 years), AGIS Survey/Evaluation (5 years), eALP and update plans as needed
II	Regional	Master Plan (last 10 years)	Review Master Plan (7 years), AGIS Survey/Evaluation (7 years), eALP and update plans as needed
III	Community	Master Plan and ALP	Review Master Plan (10 years), AGIS Survey/Evaluation (10 years), and update plans as needed
IV	Local	Master Plan and ALP	Review Master Plan (10 years), AGIS Survey/Evaluation (10 years), and update plans as needed
V	General Use	ALP	Review Master Plan (10 years) and Obstructions and update plans as needed

The Land Use Metric (Table 6-19) encourages municipalities to address protection of airports and their future improvements in in the future land use, transportation, intergovernmental coordination, and capital improvement program elements of their local government comprehensive plan. This may include adopting land use compatibility and height hazard zoning into the municipal code. Ideally, there should be no new incompatible land uses near an airport and the municipalities work with the airport to promote compatible uses.

Table 6-19. Stewardship Metric: Land Use

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Airports integrated into local comprehensive and transportation plans, policies and development regulations that discourage development of incompatible land uses within the airport influence area, and adoption of Overlay Zones 1-6	No additional incompatible land uses introduced in airport influence area and promotion of compatible and complimentary land uses
II	Regional	Airports integrated into local comprehensive and transportation plans, policies and development regulations that discourage development of incompatible land uses within the airport influence area, and adoption of Overlay Zones 1-6	No additional incompatible land uses introduced in airport influence area and promotion of compatible and complimentary land uses
III	Community	Airports integrated into local comprehensive and transportation plans, policies and development regulations that discourage development of incompatible land uses within the airport influence area, and adoption of Overlay Zones 1-6	No additional incompatible land uses introduced in airport influence area and promotion of compatible and complimentary land uses
IV	Local	Airports integrated into local comprehensive and transportation plans, policies and development regulations that discourage development of incompatible land uses within the airport influence area, and adoption of Overlay Zones 1-6	No additional incompatible land uses introduced in airport influence area and promotion of compatible and complimentary land uses
V	General Use	Airports integrated into local comprehensive and transportation plans, policies and development regulations that discourage development of incompatible land uses within the airport influence area, and adoption of Overlay Zones 1-6	No additional incompatible land uses introduced in airport influence area and promotion of compatible and complimentary land uses

The Emergency Response Plan Metric (Table 6-20) recommends that airports have an emergency response plan in case an emergency happens at the airport utilizing nonairport first responders. The target

is for airports to have a documented plan that demonstrates coordination with the appropriate public service agencies and organizations to react to the different types of emergencies that may occur at an airport.

Table 6-20. Stewardship Metric: Emergency Response Plan

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Emergency/hazard response plan including support for nonairport emergency response	Fully developed emergency/hazard response plan coordinated with relevant public service agencies and organizations
II	Regional	Emergency/hazard response plan including support for nonairport emergency response	Fully developed emergency/hazard response plan coordinated with relevant public service agencies and organizations
III	Community	Emergency/hazard response plan including support for nonairport emergency response	Fully developed emergency/hazard response plan coordinated with relevant public service agencies and organizations
IV	Local	Emergency/hazard response plan including support for nonairport emergency response	Fully developed emergency/hazard response plan coordinated with relevant public service agencies and organizations
V	General Use	Emergency/hazard response plan including support for nonairport emergency response	Fully developed emergency/hazard response plan coordinated with relevant public service agencies and organizations

6.3.8 Sustainability

Sustainability can mean different things to different people and organizations, but the aviation industry has mainly adopted the “economic vitality, operational efficiency, natural resources, and social responsibility” approach. The objectives of sustainability for WSDOT include reducing environmental impacts, providing an aviation system that is sustainable, and implementing financial sustainability measures.



The Environmental Sustainability Metric (Table 6-21) recommends, at a minimum, that all classifications of airports have a plan in place for waste, air, and water quality management and mitigation, have completed a wildlife assessment, consider future extreme weather/climate resilience, and encourage the use of alternative energy sources. These programs and practices can be implemented into any planning, design, or construction project as well as in an overall Sustainability Plan that outlines the overall goals and objectives of the airport. By connecting sustainability to the other goals at the airport, it is outlining a successful program that is more easily achieved. The target is to track and report on the methods used and achievements, complete a wildlife management plan as needed, and continue to accommodate alternative energy sources and uses.

In terms of resilience, Washington has developed a climate change strategy (available at <http://www.ecy.wa.gov/climatechange/2012ccrs/infrastructure.htm>). This strategy includes information on infrastructure resilience, addressing the capacity of a system to absorb disturbance and still retain its basic function and structure. Infrastructure resilience is about making the state’s transportation system and other infrastructure better prepared to withstand catastrophic events and be able to bounce back more quickly post event.

Table 6-21. Sustainability Metric: Environmental Sustainability

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Plans for waste, air and water quality management and mitigation and completed wildlife assessment, and encourage consideration of extreme weather/future climate resilience and accommodation of alternative energy sources/uses	Tracking and reporting sustainability methods and achievements; wildlife management plan, as needed; accommodate alternative energy sources/uses through support facilities
II	Regional	Plans for waste, air and water quality management and mitigation and completed wildlife assessment, and encourage consideration of extreme weather/future climate resilience and accommodation of alternative energy sources/uses	Tracking and reporting sustainability methods and achievements; wildlife management plan, as needed; accommodate alternative energy sources/uses through support facilities
III	Community	Plans for relevant environmental sustainability measures and encourage consideration of extreme weather/climate resilience and accommodation of alternative energy sources/uses	Tracking and reporting sustainability methods and achievements; wildlife management plan, as needed; accommodate alternative energy sources/uses through support facilities
IV	Local	Plans for relevant environmental sustainability measures and encourage consideration of extreme weather/climate resilience and accommodation of alternative energy sources/uses	Tracking and reporting sustainability methods and achievements; wildlife management plan, as needed; accommodate alternative energy sources/uses through support facilities
V	General Use	Plans for relevant environmental sustainability measures and encourage accommodation of alternative energy sources/uses	Tracking and reporting sustainability methods and achievements; wildlife management plan, as needed; accommodate alternative energy sources/uses through support facilities

The Land Use Control Metric (Table 6-22) recommends that the airport sponsor control the land use in the Federal Aviation Regulation Part 77 Imaginary Surfaces. Ideally, there should be no incompatible uses in these areas. These surfaces are based on the Safe, Efficient Use, and Preservation of the Navigable Airspace and include horizontal, conical, primary, approach, and transitional surfaces. These surfaces may be found in the ALP drawing set.

Table 6-22. Sustainability Metric: Land Use Controls

CLASSIFICATION	DESCRIPTION	RECOMMENDED MINIMUM	TARGET
I	Major	Land Use Control of Part 77 Surfaces	No Incompatible Uses in Part 77
II	Regional	Land Use Control of Part 77 Surfaces	No Incompatible Uses in Part 77
III	Community	Land Use Control of Part 77 Surfaces	No Incompatible Uses in Part 77
IV	Local	Land Use Control of Part 77 Surfaces	No Incompatible Uses in Part 77
V	General Use	Land Use Control of Part 77 Surfaces	No Incompatible Uses in Part 77

The Financial Sustainability Metric (Table 6-23) is a key topic for many airports as they strive to become self-sufficient or continue to provide their local share of the funds for development projects. At a minimum, all classifications of airports should conduct a business plan to ensure they are choosing development projects that give them the best returns on their investments, charging the correct rates, operating and marketing the airport properly and efficiently, and reviewing additional sources of revenue. Ideally, the business plan would be reviewed every five years and updated as necessary. Additionally, airports should report on the success and failures of the recommendations from the business plan.

Table 6-23. Sustainability Metric: Financial Sustainability

CLASSIFICATION	DESCRIPTION	MINIMUM STANDARD	TARGET
I	Major	Business plan	Review business plan every 5 years and update as needed; report on implementation of recommendations
II	Regional	Business plan	Review business plan every 5 years and update as needed; report on implementation of recommendations
III	Community	Business plan	Review business plan every 5 years and update as needed; report on implementation of recommendations
IV	Local	Business plan	Review business plan every 5 years and update as needed; report on implementation of recommendations
V	General Use	Business plan recommended	Review business plan and update as needed

6.3.9 Summary of Airport Metrics

A summary of all Airport Metrics by goal category according to whether classified as a minimum standard or recommended minimum is provided in Figure 6-2.

Figure 6-2. Summary of Airport Metrics



6.4 NPIAS Classifications and Evaluation

The FAA's classification system of airports is important from the perspective that airports included in the NPIAS are deemed by FAA to be important to the national system of airports and are typically eligible to apply for federal funding for certain project types. For the most part, the NPIAS has consisted of publicly owned, public-use airports, although in some states there are privately owned, public-use airports that have been deemed important to the state and national systems. Approximately 65 percent of the public landing facilities in the U.S. are in the NPIAS. As part of the WASP, the eligibility criteria for airports not currently included in the federal aviation system were reviewed.

As previously presented, airports are first categorized as primary or nonprimary. Primary airports are the commercial service airports, served by airlines that provide service to the general public with more than 10,000 boardings or enplaned passengers per year (enplanements). These primary commercial service airports are categorized into nonhub, small, medium, or large hub based on the percentage of the passengers they handle annually. Nonprimary commercial service airports serve less than 10,000 enplanements per year.

Due to the different operating characteristics between larger commercial and smaller GA aircraft, GA operations, especially single-engine propeller aircraft, typically prefer and use noncommercial airports to the extent possible. GA airports are considered nonprimary.

Airports that are officially designated to relieve commercial airports from GA traffic are referred to as Relievers in the NPIAS. They must have at least 100 based aircraft or 25,000 annual itinerant operations, provide access to the overall community, and support a metropolitan commercial service airport that has a population of at least 250,000 or has at least 250,000 enplanements and that is operating at least 60 percent of its operational capacity.

To further address the roles and characteristics of GA airports, the FAA developed the Asset Study.⁵ The FAA classified all GA airports currently in the NPIAS into groups, including National, *Regional*, *Local*, and Basic, depending on the types and levels of activity. There is also a classification of "Unclassified" for airports for which the FAA could not determine a specific role and that did not meet the established criteria. The new categories were intended to better capture the various functions and contributions GA airports make to their community and the nation overall.

National airports serve national to global markets and have very high levels of jet activity and based aircraft of 200 or more. The *Regional* airports serve regional and some national markets and have high levels of jet activity and based aircraft of 90 or more. *Local* airports supplement communities by providing access to primarily intrastate and a few interstate markets and have low levels of instrument flight rules operations with at least 15 based aircraft. Basic airports serve local to regional markets and have moderate levels of single-engine aircraft activity with based aircraft of 33 or more. The NPIAS airports that could not be classified and were identified as "Unclassified" have lost eligibility for FAA's nonprimary entitlement funding.

⁵ General Aviation Airports: A National Asset (ASSET 1 & 2)
http://www.faa.gov/airports/planning_capacity/ga_study/

6.4.1 NPIAS and ASSET Criteria

To meet the demand for air transportation, per the 2015 NPIAS Report to Congress, the following guiding principles are provided for the airports and the airport system:

- Airports should be safe and efficient, located where people will use them and developed and maintained to appropriate standards.
- Airports should be affordable to both users and government, relying primarily on producing self-sustaining revenue and placing minimal burden on the general revenues of the local, state, and federal governments.
- Airports should be flexible and expandable, able to meet increased demand and to accommodate new aircraft types.
- Airports should be permanent, with assurance that they will remain open for aeronautical use over the long term.
- Airports should be compatible with surrounding communities, maintaining a balance between the needs of aviation, the environment, and the requirements of residents.
- Airports should be developed in concert with improvements to the air traffic control system and technological advancements.
- The airport system should support a variety of critical national objectives, such as defense, emergency readiness, law enforcement, and postal delivery.
- The airport system should be extensive, providing as many people as possible with convenient access to air transportation, typically by having most of the population within 20 miles of a NPIAS airport.

There are more specific criteria to be considered eligible to be included in the NPIAS and subsequently categorized in ASSET for GA airports. The NPIAS criteria for GA airports are outlined in FAA Order 5090.3C *Field Formulation of the NPIAS*, which was reviewed in 2015 by the *Report to Congress—Evaluating the Formulation of the NPIAS*.

NPIAS criteria include the following for an airport:

- Is included in the State Aviation System Plan (SASP) (such as the WASP) or Metropolitan Airport System Plan, and
- Has at least 10 based aircraft (currently or within 5 years), and
- Serves a community located 30 minutes or more average ground travel time (approximately 20 miles) from the nearest existing or proposed NPIAS airport, and
- Is an eligible sponsor willing to undertake the ownership and development of the airport.

Special cases may be made for airports that were previously included in the NPIAS that meet the current criteria, an analysis determines that the benefits of the airport exceed the development costs, serves the needs of native American communities, or supports isolated communities, recreation areas, or important national resources. Cases may also be made for airports that are official airstops for U.S. mail service or have a permanently assigned unit of Air National Guard or reserve component of the Armed Forces.

A public use heliport that doesn't meet the criteria may be included if it is deemed it makes a significant contribution to public transportation and if it has at least 4 based rotorcraft, 800 annual itinerant operations, or 400 annual operations by air taxi rotorcraft.

If a GA airport is eligible for the NPIAS, it would be classified within an ASSET category if it met the minimum criteria:⁶

- At least 10 based aircraft, or
- Heliport with at least four based helicopters, or
- Identified and used by either U.S. Forest Service, U.S. Marshals Service, U.S. Customs and Border Protection, U.S. Postal Service, or has Essential Air Service, or
- New or replacement airport activated after January 1, 2001, or
- Considered remote access (nearest NPIAS airport is at least 30 miles away) or is identified in SASP as remote access, and
- Publicly owned (if privately owned then must be designated as a Reliever with at least 90 based aircraft).

6.4.2 Evaluation

An evaluation of the non-NPIAS airports within the state of Washington was completed based on the above criteria for the NPIAS and subsequent ASSET.⁷ There were seven airports identified that may be considered by WSDOT for further study and evaluation, and discussion with FAA, regarding their ability and interest in potential inclusion in the NPIAS. The analysis of potential airports that could be considered for inclusion in the NPIAS is based purely on the criteria; however, it is recognized that through the ASSET classifications, FAA appears to be winnowing the number of airports included in the NPIAS and eligible for federal funding. Coordination with FAA on consideration of NPIAS expansion is warranted based on this analysis. It is also possible that airports may choose to leave the NPIAS as the evaluation of airports continues every two years.

⁶ Minimum criteria are an airport classified as “Basic” in the ASSET Report.

⁷ A variety of sources were utilized during the evaluation. Airnav.com – Based Aircraft, Fleet Mix, Activation Data, Nautical Miles to airports; Google Maps – Driving distances; SASP – Airport Activities and Based Aircraft forecasts; Washington National Guard – National defense role