

APPENDIX H

Inventory and Database Documentation

- **Inventory Database, Classifications and Performance Measures Framework Technical Memorandum**
- **Inventory Database Preparation Statement of Services - from AASP NTP3**

Technical Memorandum – Task 5
Inventory, Database, Classifications, and Performance Measures Framework
WHPacific
May 7, 2008

Context: This technical memorandum is one of six produced for Phase I, Stage 1 of the Alaska Aviation system Plan (AASP). Phase I, Stage 1 comprises a three to four month period of preparatory tasks for the AASP. The scope of this technical memorandum is to provide a 10- to 20-page review of the available and needed inventory for the AASP, particularly as it relates to individual airports and performance measures.¹ The inventory and database development will be completed in Phase 2. The type of information collected for the inventory and database depends on airport classifications and performance measures, so the prior AASPs and a sampling of other states' classifications and performance measures are presented. In the appendix to this technical memorandum is a listing of existing available databases, with detailed descriptions of five.

This technical memorandum will help ensure that the inventory performed in Stage 2 of Phase I is important information to know in order to improve the Alaska aviation system.

Introduction: An almost infinite amount of information relevant to the Alaska aviation system could be collected. For an aviation system plan, however, it is most important to collect and analyze information that helps to assess the condition and performance of the system. The purpose of this technical memorandum is to review options and make recommendations regarding later inventory and performance measurement tasks for the AASP. As stated in the FAA Advisory Circular 150/5070-7, *The Airport System Planning Process*, pages 46 – 48:

The adequacy of a system of airports can be determined from the condition and performance of certain important characteristics of individual airports...Planners should initially conduct an inventory to identify existing conditions that may have an effect on the service level or role of the airports...

Broad system goals and performance measures are established at the outset of the planning process, resulting in products that can be effectively used...in determining airport needs. The system plan sponsor...should use these measures as a control to ensure the implementation of a successful aviation system that meets user and community needs...

More specific goals that are defined for a system plan report will vary depending on the characteristics or the planning area. Examples of goals include having a system of airports readily accessible to the population,...providing for emergency medical access to the greatest possible percentage of the population...

¹ Other technical memorandums produced in Phase I, Stage 1 cover additional inventory needed for their specific subjects, such as forecasts of aviation demand, economic impact, and airspace/navaids.

Performance measures, which are tied to the goals, should be developed to determine the level of service or the system of airports, based on the performance of individual airports...Because of their different roles, separate performance measures may be proposed for the commercial service and general aviation airports in the system. They can be tied to such indicators as safety, security, capacity,...design standards, cost effectiveness,...or accessibility to airport or desired destination.

This technical memorandum addresses airport classifications (airport service levels/roles), performance measures, and the type of inventory information needed to measure aviation system performance. This technical memorandum is organized to answer the following questions:

- 1. What sorts of airport classifications and performance measures are used outside Alaska?*
- 2. What classifications and performance measures were used by previous Alaska statewide aviation system plans?*
- 3. What other performance measures were and are used by others in assessing the Alaska aviation system?*
- 4. What are the options and recommendations for Alaska airport classifications and performance measures?*
- 5. Which airports should be inventoried?*

A survey of 42 existing inventory databases relevant to the Alaska aviation system is documented in the appendix to this technical memorandum. References to these databases use alpha-numeric codes that convey the subject of the database and identify the specific database:

- Airport activity (databases AC-1 through AC-8)
- Financial, maintenance, and administrative information (databases FI-1 through FI-5)
- Navigational aids, instrument procedures, obstructions, communications (databases NA-1 through NA-9)
- Physical airport characteristics (most also cover other types of information) (databases PH-1 through PH-7)
- Planning information (databases PL-1 through PL-7)
- Safety information (databases SA-1 through SA-2)
- Socioeconomic information (database SO-1)
- Weather data (databases WE-1 through WE-3)

1. WHAT SORTS OF AIRPORT CLASSIFICATIONS AND PERFORMANCE MEASURES ARE USED OUTSIDE ALASKA?

According to the Transportation Research Board's Committee on Aviation System Planning, "The need for clearly defined goals, implementation strategies, and metrics is a common issue among state and federal transportation departments." System plan goals should identify aviation system attributes that "can be measured and serve as yardsticks of system performance. Factual quantitative performance assessments are needed to support sound planning decisions, and the metrics must be selected specifically to support those decisions."²

Most state aviation system plans identify performance metrics that are largely based on airport classifications. The following is a survey of how the FAA and a sampling of Lower 48 states classify airports.

Although the FAA is concerned with all airports, only public use airports included in the National Plan of Integrated Airport Systems (NPIAS)³ are categorized by service level. Inclusion in the NPIAS makes an airport eligible for grant funding of up to 95% of eligible airport improvement project costs. Alaska has 261 airports in the NPIAS. The NPIAS includes 63% of the U.S. airports that are open to the public. Within Alaska, 63% of public use airports are in the NPIAS also. The NPIAS classifies each airport according to the type of service that is provided to the community:

- **Primary Airports:** Primary airports have scheduled air service and at least 10,000 annual passenger enplanements, or boardings. Alaska has 27 primary airports. Of these, one is designated a medium hub (Anchorage International), two are designated small hubs (Fairbanks and Juneau International), and the remainder are non-hub airports. The hub designation is determined by the number of passengers.
- **Commercial Service:** Commercial service airports have from 2,500 to 10,000 annual passenger enplanements. Alaska has 66 commercial service airports.
- **Reliever:** Reliever airports provide pilots with attractive alternatives to using congested hub airports. They also provide general aviation access to the surrounding area and must have at least 100 based aircraft or 25,000 annual itinerant operations. Alaska does not have any reliever airports.
- **General Aviation:** All other airports in the NPIAS. Nationwide, 76% of NPIAS airports are designated general aviation airports. These airports account for 40% of the nation's general aviation (GA) fleet. They are the most convenient source of air transportation for about 19% of the population and are particularly important to rural areas. In Alaska, 168 NPIAS airports are GA airports.

Classification systems used by six Lower 48 states are described in the following paragraphs. The states were chosen to emphasize the Northwest, but also sample other parts of the county (Southwest, Midwest, East). They show both highly developed

² Linda Howard and William Keller: Aviation System Planning, Addressing Airport Infrastructure Needs, Transportation Research Board Committee on Aviation System Planning.

³ Federal Aviation Administration: Report to Congress, National Plan of Integrated Airport Systems (NPIAS) 2007-2011.

(Virginia) and rather deficient (New Mexico) airport systems and represent work products by a variety of consultants.

Some of the classification definitions are fairly subjective and others require quantifiable facts, such as numbers of passenger enplanements, based aircraft, runway length, population served, or distance to other airports, in order to classify an airport.

Minnesota⁴ has divided its 136 public use airports into three classifications in regard to size and function:

- Key Airports: Airports that have paved and lighted primary runways 5,000 feet or greater; capable of accommodating all single engine aircraft along with larger multi-engine aircraft and most corporate jets.
- Intermediate Airports: Airports that have paved and lighted primary runways less than 5,000 long; capable of accommodating all single engine aircraft, some multi-engine aircraft, and some corporate jets.
- Landing Strips: Airports that have turf runways that can accommodate most single engine aircraft and some twin engine aircraft; may be unusable during wet weather, winter months, and during the spring melt.

New Mexico's five classifications⁵ adopt FAA service levels, except they subdivide the general aviation service level into two classifications. The five airport classifications for the New Mexico airport system are:

- Primary Commercial Service: Airport with scheduled passenger service and more than 10,000 annual passenger boardings.
- Non-primary Commercial Service: Airport with scheduled passenger service with 2,500 – 10,000 annual passenger boardings.
- GA Reliever: Airport that is an attractive alternative to a busy commercial service airport in large metropolitan area.
- GA Gateway: Airport that provides access to business aircraft within 30 minutes drive of a population center.
- GA Key: Airport that is located in close proximity to a GA Gateway or Commercial Service airport or has insufficient activity for the GA Gateway role.

Oregon revised its airport classifications in 2007⁶ into the following five classifications:

- Category I – Commercial Service Airports: These airports support some level of scheduled commercial airline service in addition to a full range of general aviation aircraft. This includes both domestic and international destinations.
- Category II – Urban General Aviation Airports: These airports support all GA aircraft and accommodate corporate aviation activity, including business jets, helicopters, and other GA activity. The primary users are business related and service a large geographic region, or they experience high levels of GA activity.

⁴ 2006 Minnesota Aviation System Plan.

⁵ New Mexico Department of Transportation, Aviation Division: New Mexico Airport System Plan, July 2003.

⁶ Oregon Department of Aviation: Oregon Aviation Plan 2007, February 2008, http://www.aviation.state.or.us/Aviation/docs/system_plan/Chapter_4_-_Airport_Functional_Roles.pdf

- Category III – Regional General Aviation Airports: These airports support most twin and single engine aircraft, may accommodate occasional business jets, and support regional transportation needs.
- Category IV – Local General Aviation Airports: These airports primarily support single engine, GA aircraft, but are capable of accommodating smaller twin-engine GA aircraft. They also support local air transportation needs and special use aviation activities.
- Category V – RAES (Remote Access/Emergency Service) Airports: These airports primarily support single-engine, GA aircraft, special use aviation activities, and access to remote areas or provide emergency service access.

Utah⁷ divides commercial service airports into two classifications and general aviation airports into three classifications:

- International Airport: SLC International provides essential national and international commercial airline access.
- National Airports: Accommodate a high level of commercial service and general aviation activity and serve major population centers or tourism destinations.
- General Aviation Regional Airports: Serve primarily GA activity, including jet and multi-engine aircraft and provide access to major population centers.
- General Aviation Community Airports: Provide aviation access to smaller population centers and are used for emergency air medical operations, business, recreational, and personal flying activities.
- General Aviation Local Airports: Have local importance, primarily serving recreational and personal flying activities.

Virginia⁸ has five airport classifications:

- Commercial Service: Provide scheduled air carrier and/or commuter service to domestic and, in some cases, international destinations for surrounding communities.
- Reliever: GA airports in metro areas intended to reduce congestion at large commercial service airports by providing general aviation pilots with comparable landside and airside facilities.
- General Aviation Regional: Service areas are often multi-jurisdictional due to geographic isolation or the relative scarcity of other airport services and facilities. Regional airports serve a large market area. They provide a full range of aviation facilities and services to the GA flying public, including jet fuel, instrument approaches, full service fixed based operations, corporate hangars and GA terminal facilities.
- General Aviation Community: Provide general aviation facilities and services to business and recreational users. Community airports typically serve their respective communities or a smaller market area. The services provided typically include aircraft rental, flight training and AvGas sales.

⁷ Utah Continuous Airport System Plan, Executive Summary, <http://www.udot.utah.gov/main/f?p=100:pg:5533273569547672610:::V,T:,190>

⁸ Virginia Aviation Department: The Virginia Air Transportation System Update, 2003 Technical Report.

- Local Service: Local service airports are generally low activity facilities and provide limited GA aviation facilities to their respective communities. They typically have development constraints which preclude substantial expansion, such as airspace conflicts, environmental concerns, topography, competing aeronautical services, surrounding land use patterns, and ownership status.

Washington⁹ has divided its public use airports into six classifications:

- Commercial Service Airports: Accommodate at least 2,500 scheduled passenger boardings per year for at least three years.
- Regional Service Airports: Serve the GA needs of multiple communities or are located in large metropolitan areas where multiple airports are warranted; include all FAA-designated Reliever airports. Except for some Reliever airports, should be capable of handling corporate and commuter jets and be distributed so nearly all the state's population is within a 90 minute drive of a Regional Service Airport or a Commercial Service Airport providing comparable facilities and services. Have at least 40 based aircraft and a runway at least 4,000 feet long, unless the airport is required for coverage of lower density population areas.
- Community Service Airports: Serve small to medium-sized communities; have at least 20 based aircraft and a paved runway.
- Local Service Airports: Serve small to medium-sized communities; have fewer than 20 based aircraft and have a paved runway.
- Recreation or Remote Airports: All land-based public use airports that do not meet criteria for other classifications; include airparks, backcountry airstrips, airports with unpaved runways.
- Seaplane Bases: Are reported by the FAA as a seaplane base, except for those classified as Commercial Service Airports.

These six states employ various metrics to measure performance (Table A). Performance measures are usually grouped into categories, such as safety, development, economic support, operational factors, planning factors, preservation, land use compatibility protection, facilities, and services. The metrics are called different names, such as minimum standards, evaluation factors, minimum service and facility objectives, and performance objectives. Oregon has both minimum criteria and desirable criteria. In all these states, the performance measures are tailored to individual airport classifications and they are selected and coordinated to provide capability for the airport to fulfill its role. For example, an airport classification that supports jet traffic includes objectives for jet fuel sales and instrument approaches (including weather reporting, lighting, and parallel taxiway objectives that support instrument approaches). Typically, the system plans report on the percentage of airports that meet each performance goal.

⁹ Washington State Department of Transportation: Washington State Long-Term Air Transportation Study, Phase II Technical Report, Airport Forecasts and Capacity Assessment, June 30, 2007.

Table A. Performance Metrics Used by Other States

Performance Measures	Minnesota	New Mexico	Oregon	Utah	Virginia	Washington
Airport Reference Code (based on wingspan, approach speed, tail height of most demanding aircraft)		X	X	X		
Runway Features (length, width, strength, surface, condition)	X	X	X	X		X
Compliance with FAA Design Standards (particularly Runway Safety Area)		X	X		X	X
Other Measures of Runway Adequacy (orientation for wind coverage, capacity, adequate for medevac)		X	X			
Taxiway (full parallel, partial parallel, turnaround, connector)		X	X	X	X	X
Clear Airspace (Part 77 surfaces, threshold siting surfaces, obstacle free zones)		X	X		X	X
Instrument Approach (precision, non-precision, non-precision straight-in, specific visibility minimums/ceilings)	X	X	X	X	X	X
Weather Reporting		X	X	X	X	X
Runway Lighting (HIRL, MIRL, reflective)	X	X	X	X	X	X
Visual Aids (beacon, windsock, vertical glide slope indicator, REILS, approach lighting)		X	X	X	X	X
Services (fuel sales, rental cars, FBO, major/minor maintenance, phone, restrooms, fencing/controlled access, auto parking, terminal, pilot lounge, deicing, food service, snow removal, cargo facilities, industrial/business park)		X	X	X		X
Aircraft Storage (tiedowns, hangars, based & transient)			X			
Access to Funding (inclusion in NPIAS, state grant programs)			X			
Access to population or land area (% population, employment, registered pilots within min. driving time for access to commercial service airport, NPIAS airport, system airport, bizjet capable airport, airport with instrument approach, cargo service airport, airport with medevac or firefighting capability; serves Regional Trade Center; accesses Interregional Corridors)	X		X	X	X	X
Land Use Compatibility Protection (height hazard zoning, zoning for noise compatibility, airport appropriately zoned, land use controlled in Runway Protection Zone, airport and compatibility policies in community comprehensive plan)	X	X			X	X
Planning Documents (up-to-date master plan, ALP)	X	X				X
Fiscal Responsibility (ratio of grant dollars to aircraft operations)					X	
Safety (GA crashes, GA fatalities)	X					
Security (meet TSA guidelines for GA security)	X					

Table B shows how New Mexico’s performance measures were tied to system goals.

Table B. Sample Linkage of System Goals and Performance Measures

System Goals	Evaluation Factors
Accommodate Existing and Projected Aviation Demand	<ul style="list-style-type: none"> • Runway Length and Width • Wind Coverage • Pavement Strength • Visual Glide Slope Indicator • Runway Edge Lighting • Automated Weather Reporting
Promote Accessibility to Airports	<ul style="list-style-type: none"> • Major Airline Service Areas • Candidates - National Plan of Integrated Airport Systems (NPIAS) • Emergency Use of Airports
Preserve Investment in Airports	<ul style="list-style-type: none"> • Current Airport Layout Plan • Current Master / Action Plan • Height Zoning • Noise Zoning • Runway Condition
Enhance Safety and Security	<ul style="list-style-type: none"> • Runway Safety Area • Clear Runway Approaches • Parallel Taxiway
Support Economic Growth	<ul style="list-style-type: none"> • Fuel Sales • Rental Car Service • Fixed Base Operator • Instrument Approach • Industrial/Business Park

Source: New Mexico Department of Transportation, Aviation Division: New Mexico Airport System Plan, July, 2003.

Virginia also has closely linked goals, objectives, and performance measures, as shown in the following example:

GOAL:

Develop system in a fiscally responsible manner.

Objective:

Optimize benefit derived from capital improvement investments.

Performance Measure:

Ratio of State and Federal capital grant dollars to the number of aircraft operations at those airports.

The Maine Aviation System Plan provides another example of how goals and performance measures are linked, although different terminology is used:

Performance Measure:

Quality of Life

Benchmarks:

-Percent of State, its population, and employment centers that are within 30 minutes of a system airport that supports forest firefighting activities.

-Percent of the State, its population, and employment centers that are within 30 minutes of a system airport that supports flights by fixed-wing, twin-engine emergency/medical aircraft.

The six state system plans reviewed employ airport classifications that focus mostly on distinguishing GA airports. Typically airports located in remote areas with low population levels and few based aircraft are used primarily for recreation and are measured against rather short “yardsticks.” That is, such airports need not have instrument approaches, lighting, services, etc. to be performing well. Consequently, the classification systems used by these five states have limited applicability in Alaska,

where such airports are often their community's primary means of access for people and goods and are not used primarily for recreation.

These six states provide some good models of performance measures, although a wider range of metrics could be applied to Lower 48 states, as well as to Alaska. For example, the following metrics were proposed to measure the performance of California's aviation system¹⁰:

- mobility and accessibility
- reliability
- cost effectiveness
- economic well-being
- sustainability
- environmental quality
- safety and security
- equity (fair distribution of benefits, such as funding, and burdens, such as noise)
- customer satisfaction

2. WHAT CLASSIFICATIONS AND PERFORMANCE MEASURES WERE USED BY PREVIOUS ALASKA STATEWIDE AVIATION SYSTEM PLANS?

The 1986 Alaska Aviation System Plan (AASP)¹¹ looked at the following factors to determine airport classifications:

- Community access (primary or secondary)
- Population served (major urban area, regional/medium/large population center, seasonal or specialized population, rural community (25+))
- Air service role (scheduled international/interstate/intrastate jet service, scheduled service, air taxi charter, recreational or emergency)
- System support (statewide/regional/district transshipment, statewide or regional economic development, intrastate carrier/air taxi/cargo carrier operations base)

The 1986 AASP developed six classifications: International, Regional Center, District, Transport, Community, and Local. Table C provides the definitions of these six classifications. The 1996 AASP Update reassessed the airport classification system. DOT&PF reported difficulty in distinguishing Regional, District, and Transport airports from each other and noted that airports moved within these classifications, based upon changes in postal hubs, air carrier service, mining, or other economic activity. Consequently, the 1996 Update eliminated the International, District, and Transport classifications. Table C provides definitions of the three classifications from 1996 AASP Update alongside the 1986 AASP definitions.

¹⁰ Geoffrey D. Gosling: Aviation System Performance Measures Working Paper, Institute of Transportation Studies, University of California, Berkeley, 1999. These performance measures have not been adopted.

¹¹ p. 3-7 of Phase II Report, Alaska Aviation System Plan, 1986.

Table C. Previous Alaska Aviation System Airport Classifications

Classification	1986 AASP Definition	1996 AASP Update Definition
International	Major international and interstate access points to Alaska, and to major urban centers; with scheduled international and interstate jet service; statewide air cargo and mail distribution center.	Classification deleted; airports added to "Regional" Classification
Regional Center	Primary intrastate access point to a region of Alaska and to a regional population center with population over 1,000, and serves as a significant transfer or transshipment point to the rest of the region.	Name changed to "Regional". Regional Airports are airports that 1) are primary or secondary hubs for passenger, cargo, or mail traffic, 2) provide primary access to populations greater than 1,000, or 3) support economic activities or unusual requirements of regional or statewide significance.
District	Secondary intrastate access point within a region, and primary access to a medium or large population center, and may serve as a significant transfer or transshipment point to the rest of the region or district.	Classification deleted; airports added to "Regional" Classification.
Transport	Serves to meet special transportation needs in Alaska in support of regional and statewide economic development activities, and other unusual circumstances of regional or statewide significance.	Classification deleted; airports added to "Regional" Classification
Community	<u>Primary</u> land or water access point to a small rural community of at least 25 permanent year-round residents, without other reliable year-round access.	Community Airports are the main airports, heliports, or seaplane facilities that serve rural communities of at least 25 permanent year-round residents.
Local	Serves as secondary access to a community served by another mode as primary access, or recreational or emergency airstrip.	Local Airports are airports, heliports, or seaplane facilities that are not in the Regional or Community classes.

The performance measures that the 1986 AASP established were called “minimum service levels.” Table D shows these minimum service levels and indicates if the information is now available to use them to measure airport performance. If the column “Information Not Readily Available” is checked, it means that there is no known electronic file that compiles the information. The information may be available through examining Airport Layout Plans (ALP), Master Plans (MP), or other documents.

Table D. 1986 Alaska Aviation System Plan Performance Measures

Minimum Service Level	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
<i>International:</i>				
Paved runway	x			
Full parallel taxiway			x	See note.
<i>Regional Center:</i>				
6,500' x 150' paved runway	x			
Partial parallel taxiway			x	See note.
<i>District:</i>				
5000' x 150' unpaved runway	x			
Apron taxilane and 120,000 sq. ft. apron			x	See note.
<i>Transport:</i>				
5000' x 150' unpaved runway	x			
Apron taxilane and 120,000 sq. ft. apron			x	See note.
<i>Community:</i>				
3000' x 60' unpaved runway	x			
Exit taxilane and 60,000 sq. ft. apron (or 2,000 sq. ft. float for seaplane base)			x	See note.
<i>Local:</i>				
2100' x 60' unpaved runway	x			
20,000 sq. ft. apron (or 500-900 sq. ft. float for seaplane base)			x	See note.

Note: Incomplete but outdated information is available about apron size and taxiway type in the AASP Update database (PH-4). Taxiway information for airports with instrument approaches can be seen in airport diagrams (NA-4). Taxiway, apron, and float information can be determined from ALP drawings for airports with up-to-date ALPs.

For the 1996 AASP Update, almost all the minimum service levels were eliminated. One reason was that the FAA had specific criteria for determining runway, taxiway, and apron size, based largely upon the design aircraft (most demanding regularly using the airport). FAA criteria would be more applicable to the Regional Airports than state-defined minimum standards, since the design aircraft was likely to be known at this class of airport. The large number, diversity, and limited funding for Local Airports were factors in eliminating minimum service levels for Local Airports. It was determined that minimum standards for runways, aprons, and floats should be retained for Community Airports, due to their community's unique needs resulting from lack of road access. Table E shows the 1996 AASP Update's minimum standards for Community Airports.

Table E. 1996 AASP Update Performance Measures for Community Airports

Minimum Standard	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
Primary runway 3,000 feet by 60 feet, minimum	x			
Apron areas 60,000 square feet, minimum			x	See note.
Seaplane floats sized for three airplanes, minimum			x	See note.

Note: Incomplete but outdated information is available about apron size in the AASP Update database (PH-4). Apron and float information can be determined from ALP drawings for airports with up-to-date ALPs.

3. WHAT PERFORMANCE MEASURES WERE AND ARE USED BY OTHERS IN ASSESSING THE ALASKA AVIATION SYSTEM?

Tables F through K show the performance metrics used by the FAA Alaskan Region, Capstone Statewide Plan, the DOT&PF's Airport Project Evaluation Board, the Alaska Aviation Coordination Council, Alaska Regional Transportation Plans, and the Copper Basin-Upper Tanana Valley Regional Airport Plan.

Table F. FAA Alaskan Region Performance Measures

Performance Measures	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
Improve Runway Safety Areas		x		PH-7, but only covers 30 airports
Fund Surveys for LPV Approaches	x			NA-2, PL-4, NA-8
Improve Rural Access and Safety		x		PL-4, PL-5, PL-6
Preserve Pavements	x			PH-3
Reduce Noise			x	Grants for Part 150 studies?

Source: 2007 Regional Airports Plan, FAA Alaskan Region, Airports Division

Table G. Capstone Performance Measures

Performance Measures	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
Primary measurements:				
<i>Increase aviation safety:</i>				
Reduction in accidents	x			SA-1
Reduction in fatalities	x			SA-1
Reduced insurance cost based on safety equipage			x	Survey of underwriters?
<i>Increase in access:</i>				
Reduction in IFR cancellations			x	Flight Service Stations?
Decrease in medevac response times			x	Air ambulance providers?
Community socioeconomic growth based on improved aviation transportation infrastructure		x		Hard to attribute to project, but SO-1 can track population increase
Secondary measurements:				
Aircraft equipped with approved avionic package		x		PL-4
Service volume installed and operational		x		PL-4
Number of airports upgraded from VFR to IFR	x			NA-3, PL-4
Additional weather reporting stations	x			WE-1
Additional RCOs and RCAGs		x		PL-4
Fuel savings and on-time arrival schedule due to improved infrastructure			x	
Reduction in Search and Rescue costs			x	

Source: Surveillance and Broadcast Services, Capstone Statewide Plan, August 8, 2007 resulted from a Memorandum of Agreement (MOA), dated 12 February 2007, between the FAA, Alaskan Aviation Safety Foundation, Alaska Airmen's Association, Alaska Air Carrier's Association, Helicopter Association International, and PenAir and Frontier Flying Service as the first two commercial operators to sign the agreement.

Table H. Airport Project Evaluation Board (APEB) Criteria

Criteria Guidance	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
<i>Safety Criteria:</i>				
Runway length	x			PH-1
Runway length needed for most demanding aircraft with 250 annual ops			x	Available in some MPs
Paved runway, taxiway, or apron condition	x			PH-3
Gravel runway, taxiway, or apron condition			x	Runway condition only in PH-1
Runway safety area compliance (% of standard)		x		PH-7, but only 30 airports
Documented wildlife, electrical, or other safety hazard; severity of hazard			x	Only obstruction data available by airport (NA-1)
Airport lighting system nonexistent or inoperable	x			PH-1
Crosswind coverage %			x	Available in some ALPs
% of time apron/float congested			x	Available in some MPs
Airport classification, certification, and annual passenger enplanements	x			PH-1, PH-2, AC-3
<i>Health & Quality of Life (Access to Basic Necessities) (criteria that duplicate safety criteria not shown):</i>				
State-sponsored school in community	x			SO-1
Community lacks (all-season) road access to contiguous road system or another airport		x		Data for highway system access in old database (PH-4)
Seasonal airport closure			x	
Severe ADA access limitation			x	
Community population	x			SO-1
<i>Economic Benefits (criteria that duplicate above criteria not shown):</i>				
Demonstrated need for runway length or strength needed for aircraft larger than ARC A-II or B-II			x	Available in some MPs
Project judged to provide HIGH economic benefits			x	Available in some MPs

Table H. Airport Project Evaluation Board (APEB) Criteria (cont.)

Criteria Guidance	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
No/minimal vacant airside accessible lease lots, waiting list for lease lot, documented need for lots in future		x		FI-1
Seaplane dock/float size inadequate for largest aircraft serving community, congestion affects economy of airport/community			x	Available in some MPs
No taxiway access to undeveloped lease area			x	Available in some ALPs
Benefit/cost ratio resulting from formal study; Region's belief concerning project's economic benefit			x	
<i>Maintenance & Operations:</i>				
Affect on M&O costs or ability to operate safely and efficiently		x		FI-2
<i>Aviation Alternatives (not shown are criteria that duplicate above criteria):</i>				
Distance by maintained road to other public aviation facility			x	Should be obtainable with GIS
<i>Runway Surface Condition:</i>				
Pavement condition index	x			PH-3
<i>Avigation Hazards (not shown are criteria that duplicate above criteria):</i>				
Extent to which project can correct/mitigate hazard			x	
Number of nighttime and IFR ops at the airport		x		IFR flight plans filed available (AC-5)
Annual ops at airport	x			PH-1
Potential number of passengers on aircraft			x	

Note: December 10, 2003 version.

The Alaska Aviation Coordination Council prepared a Five-Year Strategic Plan, 2003 through 2007, that embodied the criteria presented in Table I.

Table I. Alaska Aviation Coordination Council Criteria

Criteria	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
<i>Airports:</i>				
Minimum runway length (3,300 feet for publicly owned and used Airports)	x			PH-1
Lighting (runway edge lighting for publicly owned and used airports)	x			PH-1
Shelter (inc. telephone and toilet for publicly owned and used airports)			x	
Rural airport security (appropriate fencing and signage)			x	
Access for emergency services (medical and mass evacuation, critical repairs to aviation infrastructure, delivery of emergency support and supplies)		x		Not explicit, but probably covered by other items (runway length, lighting, instrument approach, etc.)
<i>Communications, Navigation and Surveillance (CNS) Capabilities:</i>				
All weather approach and landing capability at all airports with scheduled air service		x		NA-3, NA-4, AC-1
CNS capability available statewide to support efficient routing, traffic and terrain avoidance, real time flight locating, enhanced search and rescue		x		PL-4
IFR system capability between rural destinations		x		PL-4
<i>Weather Reporting/Forecasting:</i>				
Weather at destination and alternate airports for IFR operations; for VFR operations; include all AWOS sites and select remote passes or choke points		x		Need to know alternate airports, select remote passes, choke points.
Weather cameras	x			WE-2

Table I. Alaska Aviation Coordination Council Criteria, cont.

Criteria	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
Plan to maintain current and future systems			x	
<i>Research and Development:</i>				
Prototype new technology, closed environment		x		PL-4
Process to integrate into long term National Airspace System (NAS) and International Civil Aviation Organization (ICAO)			x	
Fully funded, functional, and institutionalized organizations and facilities in Alaska to research and develop new and emerging technologies			x	
<i>Local Workforce:</i>				
Trained stable (local)			x	
Impact of Age 60 rule			x	
<i>Governmental Policies (Alaska exemptions needed):</i>				
Delegation and exercise of more Regional authority to address Alaska specific issues			x	
Age 60 rule			x	
Outdated regulatory requirements			x	
Inability to comply with CNS requirements			x	
National standards inappropriate to Alaska (e.g., USPS policies pressure carriers to deliver mail regardless of weather)			x	

Source: Five-Year Strategic Plan, 2003 through 2007.

Regional Transportation Plans, which are components of the Alaska Statewide Transportation Plan, contain differing emphasis for the air transportation mode. Some, such as the Prince William Sound Plan, devote little analysis to air transportation, while other, such as the Yukon-Kuskokwim and Northwest Arctic Plans, focus on air

transportation. None of the plans classify airports as most aviation system plans do, but they use certain types of information to determine needs (primarily runway length) for the airports. Table J lists the airport information used by these Regional Transportation Plans. Most Regional Transportation Plans do not cover all public use airports in the region, but limit analysis to those with air carrier and air taxi service.

Table J. Airport Information Used in Alaska Regional Transportation Plans

Performance Measures	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
Hub for air service, distance to hub		X		PH-6, AC-1, Official Airline Guide (OAG)
Community population	x			SO-1
Runway length, width, safety area adequacy, surface material		X		PH-1, PH-3
Landing aids (vertical glide slope indicators, runway edge lighting, approach lighting system)	x			PH-1
Passenger shelter			x	
Major carriers providing scheduled passenger service; Part 135 or 121		x		AC-1
Lowest instrument approach visibility minimum	x			NA-3, NA-4
Community on- or off-road system		X		PH-4
Whether or not fuel deliveries by air			x	
FAA Classification	x			NPIAS Report
DOT&PF AASP Classification	x			PH-2
USPS Hub		X		Outdated info in PH-4
Part 139 Certificate	x			PH-1
Nonstop service to ANC		X		OAG?
Passenger enplanements and cargo tonnage	x			AC-1, AC-2
Travel time and cost for people and goods		X		OAG?
Accident rate per population	x			SA-1, SO-1
Flight cancellations and frequencies		X		AC-1 for frequencies
Proximity to other airports, schools, clinics		X		SO-1

In addition to Regional Transportation Plans, which cover all modes of transportation, there have been several regional aviation plans. Table K lists the airport classifications and performance measures used in one.

Table K. Copper Basin-Upper Tanana Valley Minimum Facility Standards

Performance Measures	Information Readily Available	Information Somewhat Available	Information Not Readily Available	Remarks
<i>Regional Airport (same definition as 1996 AASP Update):</i>				
Eligible for Federal Funds	x			PH-1, NPIAS Report
5000'x75' paved runway	x			PH-1
Accommodate bizjets			x	
Plan for precision instrument approach		x		NA-2, NA-3, NA-4, PL-4, ALP
Medium intensity runway lights (MIRL)	x			PH-1
Aircraft parking-25 spaces			x	ALP
Lease lots-5 acres		x		FI-1, for DOT airports
Utilities-water, power			x	ALP
Access road-hardened			x	
Winter maintenance			x	DOT&PF should have for their airports
Snow removal equipment & equipment building			x	DOT&PF should have for their airports
Reserve land for Aircraft Rescue and Firefighting Facility			x	ALP
<i>Local-Major Airport (used for special purposes that benefit the public or used regularly for a variety of general aviation purposes by at least five pilots):</i>				
Eligible for Federal Funds	x			PH-1
3200'x60' runway	x			PH-1
Plan for non-precision instrument approach		x		NA-2, NA-3, NA-4, PL-4, ALP
MIRL	x			PH-1
Aircraft parking-10 spaces			x	ALP
Lease lots-1 acre		x		FI-1 for DOT airports
Utilities-power			x	ALP
Access road-gravel			x	
Winter maintenance			x	DOT&PF should have for their airports
<i>Local-Minor Airport (used regularly by fewer than five private pilots, used only for emergency or precautionary landings, or used infrequently by transient pilots for recreational flights):</i>				
2,000' x 60' runway	x			PH-1
Access road-gravel			x	

4. WHAT ARE THE OPTIONS AND RECOMMENDATIONS FOR ALASKA AIRPORT CLASSIFICATIONS AND PERFORMANCE MEASURES?

Options:

- a. Continue using the classifications and performance measures from the 1996 AASP Update.
- b. Discontinue state airport classifications and just use FAA service levels and FAA priorities for investment.
- c. Reinstate 1986 AASP classifications and performance measures.
- d. Convene a working group to address new classifications and performance measures.

Reject Option a. A stronger commitment to maintaining aviation system information and to performing continuous system planning is evident now, compared to when the 1996 AASP Update was prepared. More performance metrics than used in the 1996 AASP Update are warranted.

Reject Option b. Alaska is too unique for the FAA service levels to suffice.

Reject Option c. Classifications and minimum service levels established in 1986 are now outdated.

Recommendation: Option d. Convene a working group to address new classifications and performance measures. The working group should address goals and objectives for the aviation system as a framework for performance measures. The group should decide if information mentioned in this technical memorandum and its appendix is important. The group should also decide if other information is important to know, such as airport facilities and services needed to accommodate a bush postal hub, air ambulance, air cargo, or firefighting activity; capital, life cycle, and operational costs; other transportation modes than roads, such as ferry, barge, and rail access; process-oriented factors about the grant program and project environmental / design / construction phases; and work force and training information.

The recommended tasks for the working group follow in order:

1. Determine aviation system goals and objectives. To do this, review prior AASP goals, the technical memorandum for Task 3 of Phase I, Stage 1 (issues and goals), and the goals and objectives implied by performance measures discussed in this technical memorandum. The Contractor will facilitate the working group meeting to help organize and prioritize ideas.
2. Identify general ways to measure the system goals and objectives, using performance measures identified in this technical memorandum as a basis for brainstorming. Consider the difficulty in obtaining the data required to measure performance and the relevance of performance measures to different types of airports. The Contractor will facilitate the working group meeting.

3. Discuss the need for an airport classification system in order to measure aviation system performance and understand airport roles. What is good and bad about the current system from the 1996 AASP Update and used in the APEB? Review the current assignment of classifications to Alaska airports, lists of airports with commercial activity and based aircraft, and similar airport lists that distinguish Alaska's airports. Are there concepts from other states that would help identify appropriate airport classifications? Should the definitions of classifications be qualitative, quantitative, or a mixture? Should there be sub classifications? Should there be separate classifications for seaplane bases from land based airports? What about heliports? The Contractor will facilitate the meeting.
4. If an airport classification system is agreed to, the Contractor will assign Alaska airports to the classifications and submit the list to the working group for review. The Contractor will also propose appropriate, specific performance measures for working group review, based upon earlier working group discussion.
5. After the Contractor has reported on the system performance, the working group will identify the need to revise classifications and performance measures.
6. The Contractor will submit revised classification definitions, revised assignments of airports to classifications, revised performance measures, and revised reporting of system performance for the working group's review.

The tasks above will require several months and several meetings of the working group, as the Contractor will need to collect inventory information and perform technical analyses and time will be needed for reviews and approvals. The first group meeting will address tasks 1, 2, and 3 and will result in recommended goals. The second group meeting will revisit tasks 1, 2, and 3 and will result in recommended objectives for the approved goals. Tasks 4, 5, and 6 will each require a meeting, but these meetings could be held by teleconference. At the Task 5 meeting, the working group will recommend final definitions for airport classifications. At the Task 6 meeting, the working group will recommend final performance measures. Working group recommendations will be approved through the decision-making process established for the AASP.

The criteria for airport classifications and the performance measures applicable to airport classifications and the whole aviation system will determine the bulk of AASP inventory information needed. However, additional inventory may be required for the forecasts, economic impact determination, airspace/navaids analysis, and other issues analysis not identified at this time.

5. WHICH AIRPORTS SHOULD BE INVENTORIED?

State aviation system plans usually cover all the public use airports (approximately 412 in Alaska), although the FAA limits the funding of some special studies, such as pavement management, to those airports in the NPIAS (261 in Alaska).

Options:

- a. Be as comprehensive as possible and use the AASP process to find all the airports in the state, including those not registered with the FAA.
- b. Limit the inventory to the approximately 730 known airports.
- c. Limit the inventory to the approximately 412 public use airports
- d. Reduce the number of public use airports inventoried to a smaller number, such as those in the NPIAS, those with commercial activity, and those strictly GA airports of some minimum size.
- e. Some combination of the above options.

Recommendation: Option e.

- **Do not inventory unregistered airports, but develop policies or initiatives that encourage their registration.** There could easily be more than 1,000 places where aircraft land in the state. In the Mat-Su Borough, many private airports have been established without filing an FAA Form 7480-1, Notice of Landing Area Proposal. The Copper Basin-Upper Tanana Valley Regional Airport Plan also reported this occurs along the Richardson Highway, south of Gulkana, and it likely there are unreported private airports in other areas where individuals have large tracts of land. It is important to know where all landing areas are located in populated areas, not just for aviation safety, but also for the protection of airport neighbors from accident potential and noise. In unpopulated areas, backcounty strips support emergency/precautionary landings, rescue, firefighting, subsistence, wildlife and pipeline surveys, and the sport/recreation economies. The preservation of backcounty airstrips is an issue in Alaska and other western states. Nevertheless, an exhaustive effort to find unregistered landing areas and complete an inventory of their characteristics is probably not appropriate at this time in the AASP process.
- **With a few exceptions, limit the inventory of the approximately 318 private use airports to the FAA Airport Master Record and other FAA national database information.**

Note: Reviewers have requested the private use airports of Port Alsworth, Nicolski, and Denali Park Strip be included in a more detailed inventory.

- **Develop a tiered inventory for the approximately 412 public use airports.**
 - Tier One. Provide the greatest detail of inventory for airports that have a minimum level of commercial activity or at least five based aircraft. This is approximately 260 airports.
 - Tier Two. Provide a medium level of detail for other airports that are in the NPIAS. This is approximately 40 airports.
 - Tier Three. Provide the lowest level of detail for all other public use airports and a limited number of private use airports. This is approximately 130 airports.

A review of T-100 and FAA 5010 databases found airports in Alaska can be divided as follows:

- 216 public use airports with at least 12 entries¹² as an origin airport in the T-100 database (about one-fourth also have at least five based aircraft)
- 45 additional public use airports with at least five based aircraft¹³ (including the privately owned Bradley Sky Ranch Airport)
- 40 public use airports that are in the NPIAS but do not meet the above minimum thresholds for commercial activity and based aircraft
- 111 other public use airports
- 17 private use airports with at least 12 entries as an origin airport in the T-100 database (including Wilder/Natwick LLC Airport in Port Alsworth and Nicolski Air Station)
- 49 additional private use airport with at least five based aircraft (including Port Alsworth Airport)
- 254 other private use airports (including Denali Airport at McKinley Park)

At the time of this review of databases, 732 airports were in the FAA database. The T-100 database lists nearly 700 codes for airports in Alaska and 252 airports had at least 12 entries as an origin airport in 2007. The T-100 database does not always use airport codes that match FAA airport identifiers and includes airports that are not in the FAA database. Approximately 100 airports that met the 12-entry threshold had different airport codes than the FAA identifiers, and no airport could be found in the FAA database for 14 airports meeting the threshold.

Additional review of these lists of airports is recommended before finalizing the list of airports to inventory. The review can be performed in Stage 2 of Phase 1 of the AASP, along with the determination of inventory information to collect for the different tier airports.

Additional Recommendation: A reviewer of this technical memorandum recommended the AASP inventory include a section entitled Airport Operations/Maintenance, with the various airport components broken out by funding source. FI-5, Maintenance Management System, contains such information for 126 State-owned airports, segregated by General Fund, Capital Improvement, and Federal Project activity. Only DOT&PF M&O personnel have access to the Maintenance Management System, but it is assumed they will assist in providing this information.

¹² Entries are the number of carriers' reports on Form 41, schedule T-100 - U.S. Air Carrier Traffic and Capacity Data by Nonstop Segment and On-flight Market. Large certificated carriers are required to report monthly and carriers with less than \$20 million annual operating revenue have lower reporting requirements.

¹³ For approximately 75 public use airports, the numbers of based aircraft from the 5010 database were changed to match the based aircraft inventory performed in 2007.

Task 5 Technical Memorandum Appendix
Inventory Databases
WHPacific
April 23, 2008

The purpose of this appendix is to survey existing databases of information about multiple airports that may be helpful in preparing the Alaska Aviation System Plan (AASP). This appendix will be appended to the Technical Memorandum: *Inventory, Database, Classifications, and Performance Measures Framework*. This appendix only reports what was found, and not what inventory information should be collected for the AASP.

According to FAA Advisory Circular 150/5070-7, *The Airport System Planning Process*, the inventory of system condition and performance contains the following items:

- Airport physical characteristics
- Airport activity levels
- Environmental and land use considerations and applicable laws
- Navigational aids
- Local socioeconomic data
- Airport financial data
- Historical weather data
- Surface transportation characteristics
- Terminal, airspace, and airfield capacity

In addition to the items listed above, it is typical to collect information such as services provided at airports, safety, ownership and other administrative/regulatory information, future plans for aviation system improvement, and past airport improvement projects.

Our search for electronic data that covered multiple airports found information about most of these subjects. However, we did not find good statewide or regional files of environmental and land use considerations related to airports. Also, surface transportation characteristics are not catalogued for airports, although we found databases with empty fields available for this information. Terminal, airspace, and airfield capacity information is not information available in a multi-airport, database format.

We found 42 databases and reported the following information about each:

- Description
- Proponent
- Date of data
- Is the data maintained (up-dated)?
- Challenges to using data
- Number and type of airports

In keeping with the scope of this task, more detailed information, such as a listing of the fields in the database, has been provided about five of the more comprehensive databases.

The 42 databases have been sorted into eight groups:

- Airport activity (AC)
- Financial, maintenance, and administrative information (FI)
- Navigational aids, instrument procedures, obstructions, communications (NA)
- Physical airport characteristics (PH) (most also cover other types of information)
- Planning Information (PL)
- Safety information (SA)
- Socioeconomic information (SO)
- Weather data (WE)

Here is a list of the 42 airport databases:

- AC-1 T-100 Database^{1,2}
- AC-2 Intra-Alaska Air Carrier Statistics¹
- AC-3 Terminal Area Forecasts¹
- AC-4 National Based Aircraft Inventory Program
- AC-5 Airport IQ Data Center¹
- AC-6 Civil Aviation Registry¹
- AC-7 Airline Certificate Information¹
- AC-8 Air Traffic Activity System¹

- FI-1 Statewide Leasing Database¹
- FI-2 Airport Revenues and Expenses
- FI-3 Airport Improvement Program Grant History¹
- FI-4 Alaska Land Records
- FI-5 Maintenance Management System (MMS)¹

- NA-1 National Flight Data Center¹
- NA-2 LPV Approach Candidates
- NA-3 Compilation of Approach Procedures
- NA-4 Digital Terminal Procedures/Airport Diagrams¹
- NA-5 Aeronautical Survey Program¹
- NA-6 FAA Obstruction Evaluation (OE) Data¹
- NA-7 FAA AVN Data Sheets¹
- NA-8 FAA AVN Procedures Production Plan¹
- NS-9 Airports GIS¹

- PH-1 5010 Airport Master Records^{1,2}
- PH-2 Statewide Aviation Database²
- PH-3 Pavement Condition¹
- PH-4 1996 Alaska Aviation System Plan Update²
- PH-5 Interior Alaska Transportation Plan Airport Data²
- PH-6 Air Nav¹
- PH-7 Runway Safety Areas

- PL-1 AIP Spending Plan¹

PL-2 Alaska Region Airport Capital Improvement Plan (ACIP)¹
PL-3 Aviation Industry Prioritization of Instrument Approaches
PL-4 Plans to Upgrade Rural Airport Instrument Approaches
PL-5 Weather Camera Plan
PL-6 Rural Alaska Lighting Program
PL-7 FY 2007 Airports Deferred Maintenance Allocation

SA-1 NTSB Accident Database and Synopses¹
SA-2 Aircraft Strike Database¹

SO-1 DCCED Community Database and Economic Information System¹

WE-1 Alaska Aviation Weather¹
WE-2 Weather Cameras¹
WE-3 Climate Information¹

¹ Regularly and reliably updated

² One of five databases with more detailed analysis

Databases that are updated on a regular basis by reliable means and likely to remain available for the long-term future were sought. As shown above, the majority of the databases we found are updated periodically. Some of the others are updated, but we are not assured it has happened or will happen on a regular basis or with sufficient accuracy.

The number of Alaska airports covered by the databases varies from 30 to over 1,000. Some databases were limited to the number of airports owned by the DOT&PF (258), the number of airports in the National Plan of Integrated Airport Systems (NPIAS) (261, including many but not all the DOT&PF airports), or the number of airports recognized by the FAA (730, including 412 public use and 318 private use). We found that 126 airports have instrument procedures and that air carriers reported activity at approximately 366 airports in 2007.

For the full analysis of the 42 databases, see **Inventory of Databases 4-23-08.xls**.

Number	Database	Description	Proponent	Date	Maintained?	Challenges to Using Data	Number and Type of Airports	Other Comments
AC = Airport Activity FI = Financial, Maintenance, and Administrative Information NA = Navigational Aids, Instrument Procedures, Obstructions, Communications PH = Physical Airport Characteristics (and Services, etc.) SA = Safety Information SO = Socioeconomic Information WE = Weather Data								
AC-1	T-100 Database , http://transtats.bts.gov/DL_SelectFields.asp?Table_ID=292&DB_Short_Name=Air%20Carriers&SYS_Table_Name=T_T100_MARKET&USER_Table_Name=T-100%20Market&Frequency=Monthly&Data_Frequency=Annual,Quarterly,Monthly&Num_Geo=2&Info_Ownly=0&Year_Info=1&Last_Year=2004&O	Passengers, cargo, air carriers, origins/destinations, etc. See separate sheet for more info.	Bureau of Transportation Statistics, USDOT	Current, with historical data back to 1990	Yes	Web-based database has pre-set queries. Obtaining and manipulating data in other ways may require subscribing to raw data.	366 (approx.), all airports where air carriers report activity	
AC-2	Intra-Alaska Air Carrier Statistics , http://www.bts.gov/programs/airline_information/intra_alaska_air_carrier_statistics/	T-100 data for Alaska bush carriers. BTS processes the data for the U.S. Postal Service (USPS) which uses the market (MKT) and segment (SEG) files to determine the "qualified" air carriers for the tender of non-priority bypass mail in the Intra-Alaska Bypass Mail System.	Bureau of Transportation Statistics, USDOT	Current	Yes	Available for download as asc files.	All airports with bypass mail	
AC-3	Terminal Area Forecasts , http://aspm.faa.gov/main/taf.asp	Historical and forecast enplaned passengers, aircraft operations, instrument operations, based aircraft	FAA	Dec. 2007, with 2006 the last year of actual data	Yes, annually	Forecasts for small airports are often 0% growth. Small airports' historical based aircraft and operations data based on 5010 forms that are often inaccurate and not updated.	260 - all that are in NPIAS	
AC-4	National Based Aircraft Inventory Program , http://www.basedaircraft.com/bacounts/counts.asp	Provides a summary of an actual count of based aircraft (by N number) and compares to 5010 reported numbers.	FAA	2007	Unknown	Data can be downloaded as pdf or html, or copy/paste into Excel. Fleet mix not provided.	161 airports; all appear to be DOT&PF-owned	Gabriel Mahns, FAA, also provided as AlaskaOutstanding.pdf
AC-5	Airport IQ Data Center , http://www.airportiq.com/	Real Time Flight Activity Report, Various Airline Reports, Detailed GA Activity Report (based on IFR Flight Plans filed)	GCR and Associates	Current	Yes	Cost \$295/month for all US airports	Probably all airports with airline activity and IFR flight plans	
AC-6	Civil Aviation Registry , http://www.faa.gov/about/officeorg/headquarters_offices/avs/offices/afs/afs700/	Aircraft and Airmen Databases. Registered aircraft N-number, make, model, engine, owner name & address. Releasable airmen data include type rating. Can download or query databases.	FAA	Current	Yes		NA	
AC-7	Airline Certificate Information , http://av-info.faa.gov/OpCert.asp?SrchBy=Location	Can query database on FAR Part, Name, Location (City/State where based); provides info about airline certificate, aircraft fleet	FAA	Current	Yes	No download; can cut and paste query results. No FAR Part 91 info for Alaska	NA	
AC-8	Air Traffic Activity System , http://aspm.faa.gov/main/atads.asp	Gives aircraft operations counts from towers, centers on a yearly, monthly, data	FAA	1990-current	Yes		Only airports with towers	
FI-1	Statewide Leasing Database	Contains information on leases, subleases, assignments, start & end dates, tenants, block/lot square footage. Prints invoices and tracks payment info.	DOT&PF	Current	Yes, continuously, although property section (block/lot identification) may not have been maintained well.	Internal database, not publicly available (Revenue Accounting System).	All State Airports	Contact: Penny Adler 451-5226 penny.adler@alaska.gov
FI-2	Airport Revenues and Expenses , FY07 Stwd Apts Rev-Exp.xls	Leasing income vs. M&O expenses for 2007, by airport and region	DOT&PF	2007	Yes	Unsure if historical data also available	211 State-owned Airports	Beverly A. Leslie
FI-3	Airport Improvement Program Grant History , http://www.faa.gov/airports_airtraffic/airports/aip/grant_histories/#obtain	Lists of past grants to airports, by year, type of project, cost	FAA	2007 most recent	Yes	Most historical files not in Excel, but pdf, html, or Word	260, all in NPIAS	May also contact Alaska Region, who has published a pdf file with grant history FY82-FY06

Number	Database	Description	Proponent	Date	Maintained?	Challenges to Using Data	Number and Type of Airports	Other Comments
FI-4	Alaska Land Records , http://plats.landrecords.info/index.html	DOT&PF airport property maps available as pdf under "record type" query for Central and Northern Region	Recorders Office, Department of Natural Resources	Unknown	Unknown	pdf files	Unknown, but limited to Northern and Central Region DOT&PF airports	Rose Martel-Greenblatt was source of info
FI-5	Maintenance Management System (MMS)	The system, through the completion of a work activity focused Daily Work Report, records labor, equipment, material cost and work activity location on state maintained highways and airports. All the work activities performed by Maintenance & Operations and State Equipment Fleet staff are captured for General Fund, Capital Improvement and Federal Project work.	DOT&PF M&O, Ocie Adams (907) 465-6940	Current	Yes, daily input by foremen	Is not accessible to the public or even to all of DOT&PF	126 State owned airports, excludes Fairbanks and Anchorage	State Citrix-based website, Oracle application (FAA grant-funded)
NA-1	National Flight Data Center , http://nfdc.faa.gov/index.jsp	NASR Lookup query of individual airport identifier provides much of the same info as 5010, but also has airport communications frequencies	FAA	Current	Yes		Presumably, 730 airports and over 2,000 fixes	
NA-2	LPV Approach Candidates , Master LPV Combined 011808.xls	Lists all runway ends with information about whether or not a candidate for an LPV approach and why, including status of survey, parallel taxiway (incomplete)	FAA	Jan. 2008	Yes, but will need to request update from FAA	Excel spreadsheet	Hard to tell; listed by runway	Source was John Lovett, FAA Alaska Region
NA-3	Compilation of Approach Procedures , Approach Procedures.xls	Compilation of approach procedure information from various FAA sources	HNTB, for AASP	Feb. 2008	Not past project	Excel spreadsheet makes it easier to use than FAA pdf files (NA-4), but will it be maintained beyond this project?	126 airports with instrument procedures	
NA-4	Digital Terminal Procedures/Airport Diagrams , http://www.naco.faa.gov/index.asp?xml=naco/online/d_tpp	Instrument approach and departure procedures	FAA	Current	Yes, monthly	pdf files	126 airports with instrument procedures	
NA-5	Aeronautical Survey Program , http://www.ngs.noaa.gov/AERO/aero.html	Obstruction charts, area navigation and LPV surveys, and UDDF data on airports, runways, nav aids, obstructions	NOAA (National Geodetic Survey) and FAA	Current	Yes		about 50	
NA-6	FAA Obstruction Evaluation (OE) Data , https://oeaaa.faa.gov/oeaaa/external/portal.jsp	Proposed objects that have been filed to the FAA for OE determination.	FAA ATO	Historical & current	Yes	Information is for off-airport development OEs that have been proposed, circulated and approved. Determinations and impacts are displayed.	All	
NA-7	FAA AVN Data Sheets , http://avnwww.jccbi.gov/datasheet	Aviation System Standards (AVN) airport database utilized for procedure design.	FAA AVN	Current	Yes	Data is per airport and specific runways where instrument approach procedures exist.	Airports and runways with instrument approaches	
NA-8	FAA AVN Procedures Production Plan , http://avnweb.jccbi.gov/schedule/production	AVN production plan for instrument approach development.	FAA AVN	Current	Yes	Information is for upcoming instrument approaches that have been initiated for design and publication.	All	
NA-9	Airports GIS , http://airports-gis.faa.gov/airport/login.do?tpss=true	Airport GIS Data (WORK IN PROGRESS)	FAA Airports HQ	WORK IN PROGRESS	WORK IN PROGRESS	Information will be for survey and airport planimetric data.	WORK IN PROGRESS	
PH-1	5010 Airport Master Records , http://www.gcr1.com/5010web/default.cfm	See separate sheet for full list. Much more than physical facility inventory. Basis for Airports Facility Directory	FAA, maintained by GCR & Assoc.	Continuously updated; appears most publicly owned airports updated in the 2000s	Yes, however, there are complaints about delays in getting updated info published.	Some criticize complex method of contracting updates. Data on operations, aircraft, airport manager at smaller airports often erroneous	730 (412 public use and 318 private use)	
PH-2	Statewide Aviation Database , DOTPF ARP Database 1-20-08 Update.xls	A simplification of the 1996 AASP Update (PH-4), limited to DOT&PF airports. See separate sheet.	DOT&PF, Statewide Aviation, Roger Maggard	Jan-08	Some fields have been updated as projects completed.	No consistent updating of information has occurred.	258 DOT&PF airports	

Number	Database	Description	Proponent	Date	Maintained?	Challenges to Using Data	Number and Type of Airports	Other Comments
PH-3	Pavement Condition , http://www.dot.state.ak.us/stwddes/desmaterials/mat_pvmmtmg/apt_pcr04/pcr04_main.shtml	Pavement condition index (PCI) for runway, taxiway, apron; area and age of pavement; strength is not tested	DOT&PF, Angela Parsons	Annually updated for 1/3 of paved airports	Yes, although DOT&PF is behind on updating the website; 2004 is most recent available; more recent reports are available from Angela Parsons.	Maps, narrative, and tabular information is available as pdf files on website.	50 largest airports with paved runways, taxiways, aprons (includes some that are not State-owned)	
PH-4	1996 Alaska Aviation System Plan Update , GENERAL.xls and RUNWAYS.xls	Comprehensive inventory framework for airport facilities, services, navaids, certification, etc. See separate sheet for more information. Originally was Access database.	DOT&PF, Statewide Aviation	Initially around 1992/1993. Some updates to 1997/2001.	No	Quite a bit of information is unknown and now much is out of date. Statewide Aviation reduced scope considerably and has maintained somewhat as an Excel file (PH-2).	1113	
PH-5	Interior Alaska Transportation Plan Airport Data , Airport Inventory Spreadsheet_1-27-08 R.xls	Airport roles, ownership, facilities, services, airspace and air traffic control, weather reporting, activity, traffic, etc. See separate sheet.	DOT&PF, Northern Region, compiled by WHPacific	2007-2008	Not past project	Excel spreadsheet, not finalized	67 public use airports in Interior	Contact: sfunk@whpacific.com
PH-6	Air Nav , http://www.airnav.com/	Uses FAA facility, navaids, airspace fixes, terminal procedures data, but augments with information about fixed base operators, other airport businesses, fuel prices; Allows queries such as to find airports with certain features within a certain distance of a location	AirNav, LLC	Current	Yes	Copyrighted	409	
PH-7	Runway Safety Areas , 139 RSA.xls	Lists runway ends, RSA size required, if meets standards, if practical to meet standards, priority for improvement	FAA	Unknown	Unknown	only covers airports with Part 139 certificate	30	Source was Gabriel Mahns, FAA Alaskan Region
PL-1	AIP Spending Plan , Excel spreadsheet	Lists airport improvements planned for five-year future by FY. Includes airport, project description, APEB score, estimated cost	DOT&PF, Roger Maggard	Current	Yes		260, all in NPIAS	
PL-2	Alaska Region Airport Capital Improvement Plan (ACIP) , 2008 beyond AK ACIP.pdf	Lists projects, FAA priority score, cost for FY 2008 and beyond by airport	FAA	Jan. 2008	Yes	Provided as pdf file, but probably available as spreadsheet or database	260, all in NPIAS	Pat Oien, FAA Alaska Region
PL-3	Aviation Industry Prioritization of Instrument Approaches , Airport Approach Priority Overview.ppt and Airport Priority Equation Explained.ppt	These presentations do not contain the data used in evaluation, but include a prioritized list of airports to receive instrument approaches, based on factors such as % instrument weather & darkness, population, medevac rate, alternative access, delay cost. "Thousands of hours" went into this analysis. Climate data came from UAA climate study.	Industry Council Transition Working Group	Jan. 2006	No	Getting access to raw data	55 airports lacking instrument approaches	Obtained from Leonard Kirk, UAA
PL-4	Plans to Upgrade Rural Airport Instrument Approaches , TWG and IFR access.ppt, LPV pdf, Need for Rural Community Access in Alaska.ppt, JRC2b Final Investment Decision.xls, Capston CIT_VP_F 11_1_06.ppt, Project Organization Review 121806 REVISED.xls, Capston TWG Airport List VFR-IFR updated July 13.xls, http://www.faa.gov/about/office_or_g/headquarters_offices/arc/programs/fly_alaska/	Includes not just WAAS LPV GPS approaches, but full Capstone program--avionics, ASB-D, RCO, RCAG, priorities, methodology for priorities, status of surveys, flight checks, etc.	FAA	2006-2007	Unknown	Need to contact FAA for updates; much of the information not tied to specific airport	Varies; 38 airports proposed for VFR to IFR upgrade	Source was Gabriel Mahns, FAA Alaskan Region; includes some repetition of PL-3
PL-5	Weather Camera Plan , Weather Camera Site Installation List.xls	Identified FY07-FY13 plan for installing additional weather cameras	FAA	Unknown	Unknown	Need to contact FAA for updates; not all tied to specific airports	more than airports	Source was Gabriel Mahns, FAA Alaskan Region
PL-6	Rural Alaska Lighting Program , RALP_plan_jan_07.xls	Plan listing airports and priorities for installing edge lighting, PAPI, REIL	FAA	Jan. 2007	Unknown	Need to contact FAA for updates	103	Source was Gabriel Mahns, FAA Alaskan Region

Number	Database	Description	Proponent	Date	Maintained?	Challenges to Using Data	Number and Type of Airports	Other Comments
PL-7	FY 2007 Airports Deferred Maintenance Allocation, Deferred Maint fun distr-07-08.pdf	Memorandum containing regional allocations of Airports Life Safety and Deferred Maintenance funds; also includes memo for highways	DOT&PF, Mike Coffey	July 31, 2006	Annual	pdf file - few of the funding projects list specific airports, e.g., "Apply Dust Palliative to Runways, Taxiways, and Aprons"	only DOT airports	Source was Clarke Milne, DOT&PF
SA-1	NTSB Accident Database and Synopses, http://ntsb.gov/ntsb/query.asp	Searchable by date, location, injury severity, aircraft, airline, FAR part, etc	National Transportation Safety Board	Current; many years of history	Yes	Locations for accidents reported as nearest airport although most don't occur at airports. Individual accident reports are pdf files.	All airports where accidents occur or are the closest airport	
SA-2	Aircraft Strike Database, http://wikilife-mitigation.tc.faa.gov/public_html/index.html#access	Can query database and download data on bird strikes by species, state, time period	FAA	Current	Yes	Data is statewide, so can be used to compare to US, but no specific regional/airport info	NA	
SO-1	DCED Community Database and Economic Information System, http://www.commerce.state.ak.us/dca/commdb/CF_COMDB.htm	Economic data and community database that you can query for information about demographics, employment, schools, ANCSA Land Status, health care & other facilities, transportation, capital projects, etc.	Alaska Department of Commerce, Community, and Economic Development	Generally current; 2006 is the most recent DCED certified population	Yes	Some of the contact information may be out of date. Overview info on history, climate, transportation, facilities, is narrative in form.	All Alaskan communities, so presumably covers all airports	Quick and easy to create spreadsheets with features for all communities
WE-1	Alaska Aviation Weather, http://aawu.arh.noaa.gov/obs.php and http://www.alaska.faa.gov/fai/afss/AKlocid/Alaska%20Station%20WX%20Ident.htm	Station, identifier (4-letter), type (AWOS, ASOS, Apaid, etc), agency, etc. Provides hot link to real time weather information	National Weather Service	Current	Yes, continuously	Includes some places that are not airports	about 170 weather stations, nut not all airports	
WE-2	Weather Cameras, http://akweathercams.faa.gov/sitelist.php	Real time video of airports, mountain passes, etc.,	FAA	Current	Yes, continuously	Real time, not recorded in historical records	85 airports and passes	
WE-3	Climate Information, http://www.wrcc.dri.edu/CLIMATE/DATA.html	Precipitation, temperature, no. clear days, prevailing wind direction & speed, etc.	Western Region Climate Center	Historical	Unknown	Data is not geared specifically to aviation weather concerns; not detailed enough for wind rose or % instrument weather	Up to 100 places in Alaska; many are airports.	

AC-1 T-100 Data

Database	T-100 Database, http://transtats.bts.gov/DL_SelectFields.asp?Table_ID=292&DB_Short_Name=Air%20Carriers&SYS_Table_Name=T_T100_MARKET&USER_Table_Name=T-100%20Market&Frequency=Monthly&Data_Frequency=Annual,Quarterly,Monthly&Num_Geo=2&Info_Only=0&Year_Info=1&Last_Year=2004&O
Description	Historical information about commercial flights
Proponent	Bureau of Transportation Statistics, Research and Innovative Technology Administration (RITA), USDOT
Date	Current; historical data goes back to 1990
How Maintained	Form 41, schedule T-100 - U.S. Air Carrier Traffic and Capacity Data by Nonstop Segment and On-flight Market, required by law to be completed by large, certificated air carriers, small certificated air carriers, and commuter air carriers (carries passengers on at least 5 RT/week on at least one route between two or more points acc. to published flight schedule). Carriers with less than \$20 million annual operating revenue have lower reporting requirements.
Challenges to Using Data	Web-based database has pre-set queries. Obtaining and manipulating data in other ways may require subscribing to raw data.
Number and Type of Airports	For Alaska, all of 2007 origin airports = 366 airports; some airports had fewer than 10 flights in 2007
Missing Data that Might Be Desired	Covers commercial, not general aviation activity.
Names of Fields	Queries are set up to provide information on passengers, freight, mail, carrier, origin, destination, time (year, quarter, month), distance, service class. At the most detailed level, the database provides monthly traffic and operational data for each air carrier, for each city-pair market the carrier operated, and month traffic, capacity and operational data for each aircraft type that the airline flew in each city-pair flight segment, which is also known as a flight stage, or flight leg.

PH-1 5010 Airport Master Record

Database	5010 Airport Master Records , http://www.gcr1.com/5010web/default.cfm
Description	The source of the FAA's Airport Facility Directory, this is the most comprehensive source of airport data available. Based on airport inspections. Information is free.
Proponent	FAA, maintained by GCR Associates.
Date	Continuously updated; appears most publicly owned airports updated in the 2000s. Airport inspection dates vary, but the data is available after changes submitted to GCR.
How Maintained	GCR Associates. There are complaints about delays in getting updated info published.
Challenges to Using Data	Some criticize complex method of contracting updates. While the system is continuously maintained, the information is not always kept up-to-date. Obvious errors in data, such as name of airport manager. Based aircraft and aircraft operations data can be highly erroneous as the 2007 survey of based aircraft (AC-4) found. Info in remarks about hazards, etc. is not reported in a consistent format.
Number and Type of Airports	730 (412 public use and 318 private use)
Missing Data that Might Be Desired	Parallel taxiway(s), aprons, instrument approach visibility minima, buildings (terminal, ARFF, SREB, docks, e.g.), passenger and cargo data, airlines and tenants, capital improvements (past and future), several FBO services, surface access, financial info, utilities, land use compatibility, design aircraft/Airport Reference Code, compliance with design standards, complete obstruction data. Many of the fields listed are not filled in for many Alaska airports.
Names of Fields	246 fields subdivided as Facilities, Runways, Remarks, Schedules (see below). Explanations are in hidden column on the right.
Facilities:	ActivationDate
	AirframeRepair
	AirportElevationSource
	AirportElevationSourceDate
	AirportPositionSource
	AirportPositionSourceDate
	AirportStatusCode
	AirportToFSSPhoneNumber
	AirspaceDetermination
	AlternateFSSID
	AlternateFSSName
	AlternateFSS TollFreeNumber
	ARPElevation
	ARPElevationMethod
	ARPLatitude
	ARPLatitudeS
	ARPLongitude
	ARPLongitudeS
	ARPMMethod
	ATCT
	BeaconColor

PH-1 5010 Airport Master Record

	BottledOxygenType
	BoundaryARTCCComputerID
	BoundaryARTCCID
	BoundaryARTCCName
	BulkOxygenType
	CertificationTypeDate
	ChartName
	City
	ContractFuelAvailable
	County
	CountyState
	CTAFFrequency
	CustomsAirportOfEntry
	CustomsLandingRights
	DirectionFromCBD
	DistanceFromCBD
	DistrictOffice
	EffectiveDate
	FacilityName
	FederalAgreements
	FuelTypes
	GlidersOperational
	HelicoptersGA
	IcaoIdentifier
	InspectionGroup
	InspectionMethod
	JetEngineGA
	LandAreaCoveredByAirport
	LastInspectionDate
	LastOwnerInformationDate
	LightingSchedule
	LocationID
	MagneticVariation
	MagneticVariationYear
	Manager
	ManagerAddress
	ManagerCSZ
	ManagerPhone
	MedicalUse
	MilitaryJointUse
	MilitaryLandingRights
	MilitaryOperational
	MultiEngineGA
	NationalEmergencyInterest

PH-1 5010 Airport Master Record

	NationalEmergencyStatus
	NonCommercialLandingFee
	NOTAMFacilityID
	NOTAMService
	OperationsAirTaxi
	OperationsCommercial
	OperationsCommuter
	OperationsDate
	OperationsGAltin
	OperationsGALocal
	OperationsMilitary
	OtherServices
	Owner
	OwnerAddress
	OwnerCSZ
	OwnerPhone
	Ownership
	PowerPlantRepair
	Region
	ResponsibleARTCCComputerID
	ResponsibleARTCCID
	ResponsibleARTCCName
	SegmentedCircle
	SingleEngineGA
	SiteNumber
	State
	StateName
	TieInFSS
	TieInFSSID
	TieInFSSName
	TieInFSSTollFreeNumber
	TrafficPatternAltitude
	TransientStorage
	Type
	Ultralights
	UNICOMFrequencies
	Use
	WindIndicator
Runways:	BaseEndAcltStopDistanceAvailableASDA
	BaseEndALS
	BaseEndArrestingDeviceType
	BaseEndCenterlineLights
	BaseEndCrossingHeight
	BaseEndDisplacedElevation

PH-1 5010 Airport Master Record

	BaseEndDisplacedLatitude
	BaseEndDisplacedLatitudeS
	BaseEndDisplacedLength
	BaseEndDisplacedLongitude
	BaseEndDisplacedLongitudeS
	BaseEndDisplacedThresholdElevationSource
	BaseEndDisplacedThresholdElevationSourceDate
	BaseEndDisplacedThresholdPositionSource
	BaseEndDisplacedThresholdPositionSourceDate
	BaseEndElevationSource
	BaseEndElevationSourceDate
	BaseEndGlidePathAngle
	BaseEndGradient
	BaseEndGradientDirection
	BaseEndID
	BaseEndILSType
	BaseEndLandingDistanceAvailableLAHSO
	BaseEndLandingDistanceAvailableLAHSOCoordSrc
	BaseEndLandingDistanceAvailableLAHSOCoordSrcDate
	BaseEndLandingDistanceAvailableLAHSOHdPtLatitude
	BaseEndLandingDistanceAvailableLAHSOHdPtLatitudeS
	BaseEndLandingDistanceAvailableLAHSOHdPtLongitude
	BaseEndLandingDistanceAvailableLAHSOHdPtLongitudeS
	BaseEndLandingDistanceAvailableLAHSOIntEntityDesc
	BaseEndLandingDistanceAvailableLAHSOIntRwyID
	BaseEndLandingDistanceAvailableLDA
	BaseEndMarkingsCondition
	BaseEndMarkingsType
	BaseEndObjectClearSlope
	BaseEndObjectDescription
	BaseEndObjectDistance
	BaseEndObjectHeight
	BaseEndObjectMarkLight
	BaseEndObjectOffset
	BaseEndPart77Category
	BaseEndPhysicalElevation
	BaseEndPhysicalLatitude
	BaseEndPhysicalLatitudeS
	BaseEndPhysicalLongitude
	BaseEndPhysicalLongitudeS
	BaseEndPositionSource
	BaseEndPositionSourceDate
	BaseEndREIL
	BaseEndRightTrafficPattern

PH-1 5010 Airport Master Record

	BaseEndRVR
	BaseEndRVV
	BaseEndTakeOffDistanceAvailableTODA
	BaseEndTakeOffRunAvailableTORA
	BaseEndTDZElevation
	BaseEndTouchdownLights
	BaseEndTouchdownZoneElevationSource
	BaseEndTouchdownZoneElevationSourceDate
	BaseEndTrueAlignment
	BaseEndVASI
	EdgeLightsIntensity
	PavementClass
	ReciprocalEndActtStopDistanceAvailableASDA
	ReciprocalEndALS
	ReciprocalEndArrestingDeviceType
	ReciprocalEndCenterlineLights
	ReciprocalEndCrossingHeight
	ReciprocalEndDisplacedElevation
	ReciprocalEndDisplacedLatitude
	ReciprocalEndDisplacedLatitudeS
	ReciprocalEndDisplacedLength
	ReciprocalEndDisplacedLongitude
	ReciprocalEndDisplacedLongitudeS
	ReciprocalEndDisplacedThresholdElevationSource
	ReciprocalEndDisplacedThresholdElevationSourceDate
	ReciprocalEndDisplacedThresholdPositionSource
	ReciprocalEndDisplacedThresholdPositionSourceDate
	ReciprocalEndElevationSource
	ReciprocalEndElevationSourceDate
	ReciprocalEndGlidePathAngle
	ReciprocalEndGradient
	ReciprocalEndGradientDirection
	ReciprocalEndID
	ReciprocalEndILSType
	ReciprocalEndLandingDistanceAvailableLAHSO
	ReciprocalEndLandingDistanceAvailableLAHSOCoordSrc
	ReciprocalEndLandingDistanceAvailableLAHSOCoordSrcDate
	ReciprocalEndLandingDistanceAvailableLAHSOHdPtLatitude
	ReciprocalEndLandingDistanceAvailableLAHSOHdPtLatitudeS
	ReciprocalEndLandingDistanceAvailableLAHSOHdPtLongitude
	ReciprocalEndLandingDistanceAvailableLAHSOHdPtLongitudeS
	ReciprocalEndLandingDistanceAvailableLAHSOIntEntityDesc
	ReciprocalEndLandingDistanceAvailableLAHSOIntRwyID
	ReciprocalEndLandingDistanceAvailableLDA

PH-1 5010 Airport Master Record

	ReciprocalEndMarkingsCondition
	ReciprocalEndMarkingsType
	ReciprocalEndObjectClearSlope
	ReciprocalEndObjectDescription
	ReciprocalEndObjectDistance
	ReciprocalEndObjectHeight
	ReciprocalEndObjectMarkLight
	ReciprocalEndObjectOffset
	ReciprocalEndPart77Category
	ReciprocalEndPhysicalElevation
	ReciprocalEndPhysicalLatitude
	ReciprocalEndPhysicalLatitudeS
	ReciprocalEndPhysicalLongitude
	ReciprocalEndPhysicalLongitudeS
	ReciprocalEndPositionSource
	ReciprocalEndPositionSourceDate
	ReciprocalEndREIL
	ReciprocalEndRightTrafficPattern
	ReciprocalEndRVR
	ReciprocalEndRVV
	ReciprocalEndTakeOffDistanceAvailableTODA
	ReciprocalEndTakeOffRunAvailableTORA
	ReciprocalEndTDZElevation
	ReciprocalEndTouchdownLights
	ReciprocalEndTouchdownZoneElevationSource
	ReciprocalEndTouchdownZoneElevationSourceDate
	ReciprocalEndTrueAlignment
	ReciprocalEndVASI
	RunwayID
	RunwayLength
	RunwayLengthSource
	RunwayLengthSourceDate
	RunwaySurfaceTreatment
	RunwaySurfaceTypeCondition
	RunwayWeightBearingCapacityDDT
	RunwayWeightBearingCapacityDT
	RunwayWeightBearingCapacityDW
	RunwayWeightBearingCapacitySW
	RunwayWidth
	SiteNumber
	State
Remarks:	RemarkElementName
	Remarks
	SiteNumber

PH-1 5010 Airport Master Record

	State
Schedules:	AttendanceSchedule
	SequenceNumber
	SiteNumber
	State

PH-2 Statewide Aviation

Database	Statewide Aviation Database, DOTPF ARP Database 1-20-08 Update.xls
Description	A simplification of the 1996 AASP Update (PH-4), limited to DOT&PF airports. See separate sheet.
Proponent	DOT&PF, Statewide Aviation, Roger Maggaard
Date	Jan-08
How Maintained	Some fields have been updated as projects completed.
Challenges to Using Data	No consistent updating of information has occurred.
Number and Type of Airports	258 DOT&PF-owned airports
Missing Data that Might Be Desired	Data does not include everything used in APEB scoring.
Names of Fields	TL
	Reg
	Community
	Facility Name
	Site Number
	Loc. Ident.
	DOT/PF Class
	DOT/PF Region
	Borough or Census Region
	Economic Region
	Ownership Type
	Owner
	Owner's Address
	Owner's City, State & Zip
	Owner's Phone Number
	Manager
	Manager's Address
	Manager's City, State, & Zip
	Manager's Phone Number
	Manager's Fax Number
	Landing Facility Type
	Float Plane Service
	Public or Private Use
	Postal Service Status
	Postal Hub Point
	Postal Service Identifier
	Essential Air Service
	FAR Part 139
	Airport Certification
	ARFF Index
	NPIAS 1990-1999
	Airport Reports
	FLIP Supplement
	'86 Inventory
	ARP Latitude
	ARP Longitude
	ARP Latitude
	ARP Longitude
	ARP Long Decimal Degrees
	ARP Long Decimal Degrees
	Airport Elevation
	Acreage
	Highway Access
	Environmental Status
	Geotech Constraints
	Pilot Control of Lighting
	Weather Data Sources

PH-2 Statewide Aviation

	Critical Aircraft
	Runway Safety Area
	Taxiway Dimensions
	Taxiway Safety Area
	Apron Size
	Air Traffic Control Tower
	Terminal Status/Type
	ARFF Equipment
	Snow Removal Equipment
	Equipment Storage Building
	Cargo Status
	Scheduled Air Carriers
	Based Aircraft Projections
	Operations Projections
	Enplanements
	Comercial Operations
	General Aviation Local Operations
	General Aviation Itenerant Operations
	Military Aircraft Operations
	Total Operations
	Maintained
	ROW Interest
	Surface
	RWY Length
	Instrument Approach
	Comments

Database	1996 Alaska Aviation System Plan Update	
Description	Comprehensive, if outdated, inventory of airport facilities, services, nav aids, certification, etc.	
Proponent	DOT&PF, Statewide Aviation	
Date	Initial data 1992/1993. Carl Siebe thinks last updates were 2001 for General Database, 1997 for Runway Database	
How Maintained	Not Maintained	
Challenges to Using Data	Quite a bit of information is unknown and now much is out of date. Statewide Aviation reduced scope considerably and has maintained somewhat as an Excel file (PH-2).	
Number and Type of Airports	1113	
Missing Data that Might Be Desired	Critical Aircraft, taxiway, apron, equipment info generally unknown; no financial or socioeconomic info	
Names of Fields	GENERAL DATABASE	RUNWAY DATABASE
	On Highway System	Site Number
	Community	Runway Identification
	Facility Name	Runway Length
	Site Number	Runway Width
	Location Identifier	Surface Type
	DOT/PF Class	Surface Condition
	DOT/PF Region	Surface Treatment
	Borough or Census Region	Runway Lights Edge Intensity
	Economic Region	Runway Category (Base End)
	Ownership Type	Controlling Object (Base End)
	Owner	Instrument Landing System Type (Base End)
	Owner's Address	Approach Slope Required (Base End)
	Owner's City, State & Zip	Visual Glide Slope Indicators (Base End)
	Owner's Phone Number	Runway Visual Range Equipment (Base End)
	Manager	Runway Visibility Value Equipment (Base End)
	Manager's Address	Approach Light System (Base End)
	Manager's City, State, & Zip	Runway End Identifier Lights (Base End)
	Manager's Phone Number	Runway Centerline Lights (Base End)
	Manager's Fax Number	Runway End Touchdown Lights (Base End)
	Landing Facility Type	Runway Category (Reciprocal End)
	Float Plane Service	Controlling Object (Reciprocal End)
	Public or Private Use	Instrument Landing System Type (Reciprocal End)
	Postal Service Status	Approach Slope Required (Reciprocal End)
	Postal Hub Point	Visual Glide Slope Indicators (Reciprocal End)
	Postal Service Identifier	Runway Visual Range Equipment (Reciprocal End)
	Essential Air Service	Runway Visibility Value Equipment (Reciprocal End)
	FAR Part 139	Approach Light System (Reciprocal End)
	Airport Certification	Runway End Identifier Lights (Reciprocal End)
	ARFF Index	Runway Centerline Lights (Reciprocal End)
	NPIAS 1990-1999	Runway End Touchdown Lights (Reciprocal End)
	Airport Reports	
	FLIP Supplement	
	'86 Inventory	
	ARP Latitude	
	ARP Longitude	
	ARP Latitude decimal degrees	

	ARP Longitude decimal degrees	
	Airport Elevation	
	Acreage	
	Highway Access	
	Environmental Status	
	Geotech Constraints	
	Pilot Control of Lighting	
	Weather Data Sources	
	Critical Aircraft	
	Runway Safety Area	
	Taxiway Dimensions	
	Taxiway Safety Area	
	Apron Size	
	Air Traffic Control Tower	
	Terminal Status/Type	
	ARFF Equipment	
	Snow Removal Equipment	
	Equipment Storage Building	
	Cargo Status	
	Scheduled Air Carriers	
	Based Aircraft Projections	
	Operations Projections	
	Enplanements	
	Comercial Operations	
	General Aviation Local Operations	
	General Aviation Itenerant Operations	
	Military Aircraft Operations	
	Total Operations	

Database	Interior Alaska Transportation Plan Airport Data, Airport Inventory Spreadsheet_1-27-08 R.xls
Description	Facilities, services, and activity data for airports in the study area of this on-going regional plan
Proponent	DOT&PF, Northern Region, compiled by WHPacific
Date	2007-2008
How Maintained	Data is updated and corrected as the project continues.
Challenges to Using Data	Not maintained past project completion. Completeness and accuracy of information is spotty. Basic source of data was 5010 form, with follow-up verification call to airport manager. Many managers could not be reached or did not know.
Number and Type of Airports	67 airports open to public use, including privately owned airports
Missing Data that Might Be Desired	Information about terminal shelters, costs, socioeconomic data, passengers
Names of Fields	NAME
	CITY
	IDENTIFIER
	LATITUDE
	LONGITUDE
	ELEVATION
	ROAD ACCESS
	OWNER
	NPIAS
	5010 FORM (inspection date)
	R/W NO. ORIENTATION
	THLD/THLD LENGTH x WIDTH
	LIGHTING
	SURFACE / CONDITION
	ALP (list date)
	AIRPORT SECURITY /SAFETY
	ACREAGE
	NAVAIDS
	LANDING AIDS
	BASED AIRCRAFT
	UTILITIES
	TAXIWAY SIZE/ COND
	APRON SIZE/ COND
	SAFETY AREA SIZE
	NUMBER OF TIEDOWNS
	SKI STRIP (YES/NO)
	VEHICLE PARKING (YES/NO)
	OBSTRUCTION DATA/slope
	Instrument Approach? (type and vis. min. if yes)
	Compliant Runway Safety Area?
	Current Design Aircraft/ARC
	Future Design Aircraft/ARC
	Fuel & Other Services Provided?
	FBOs and Air Carriers - with contact info
	Buildings? (type and size if available)
	Future Projects?
	REMARKS
	Photos Available
	AWOS/ASOS?
	FSS-defined Region (River Valley)

Alaska Aviation System Plan
Inventory Database Preparation Statement of Services

7/9/08

From AASP NTP3: PHASE 1, STAGE 3

Task 15: Inventory Database Preparation

The inventory database will consist of data maintained by others and downloaded periodically by the Contractor and data collected by the Contractor from other sources, including Contractor research. This task will build upon work performed in NTP 1, Task 5, which reviewed existing data about Alaska aviation and recommended a hierarchy of airports for collecting information.

The Contractor's team of aviation planners and database specialists will meet with the Contracting Agency to identify the objectives and framework for the database and the scope of initial data gathering. The scope of initial data gathering includes finalizing the list of airports, sorting them by level of inventory detail desired, specific items of inventory, data sources, the role of DOT&PF in the data collection, the need for a data dictionary/manual, and the need for data updates during the life of the project or after the project is completed. Other items discussed will include, as applicable, uses of data including data queries; security and accessibility of data (who, how, what); data sources and their documentation; data accuracy; methods for adding, removing, and updating data; and the need for pull-down menus, data ranges, and look-up tables. In addition to meeting with the Contracting Agency, the consulting team will meet together and perform prototypical data collection, to ensure that the full inventory is done consistently.

The heart of the database will be the data that the FAA's National Flight Data Center (NFDC) maintains, which includes the data in the FAA 5010 Form Airport Master Records. Additional data to collect will be defined in consultation with the Contracting Agency in the meeting described above. As recommended by NTP 1, Task 5, different amounts of data will be collected for airports as follows:

- The most information will be collected about the airports that have the most commercial and general aviation activity, which is approximately 260 airports. This includes a few privately owned and privately used airports, but the group is mostly comprised of public use, publicly owned airports. Approximately 77% of the airports that meet the commercial and general aviation criteria for this level of detail are owned by the DOT&PF.
- Less information will be collected about the approximately 40 public use airports that are in the National Plan of Integrated Airport Systems (NPIAS), but not in the first group.
- Even less information will be collected about remaining public use airports and a few of the more significant private use airports. This group includes approximately 130 airports.

- Approximately 300 mostly private use airports not included in the previous three groups will have no additional data collected; the NFDC database will be sufficient.

Data items will be categorized by difficulty to obtain, building upon the assessment of data collection difficulty performed in NTP 1, Task 5. Data items will be prioritized as to their importance to other initial AASP tasks and work groups.

The contractor will collect existing ALP's that are readily available from the DOT&PF web site and by sending an email request to each of the regional planning offices. The contracting agency will present the status of the ALP collection effort at the meeting held with the planners during this task, and will report on the age of any ALP collected. Any additional ALP collection efforts needed beyond use of the DOT&PF web site and an email request to the planners would be handled under another task.

Deliverables of this task will include the following:

- Meeting agenda, handouts, notes
- List of ALP's collected and their ages

Contracting Agency Will:

- Schedule and participate in the meeting
- Provide copies of ALP's not on the DOT&PF web site

DOWL Team Responsibility:

- Lead: WH Pacific
- Support: DOWL, PTI

Contracting Method of Payment:

- Fixed Price