2011

ALASKA
Aviation System Plan

State of Alaska DOT&PF

From the Desk of
Steven D. Hatter, Deputy Commissioner – Aviation

I am pleased to present the "Alaska Aviation System Plan – 2011 – Executive Summary." This summary is a "snapshot" of our ongoing Alaska Aviation System Plan (AASP) effort. It showcases work already accomplished while highlighting our future goals. The overarching purpose of the AASP is to promote safety and efficiency within one of Alaska's most critical transportation capabilities—our aviation system.

The Alaska Aviation System Plan is funded through a grant from the Federal Aviation Administration and provides additional resources to state aviation stakeholders as we work together to build and maintain a safe and efficient aviation system. A continuous planning approach allows for the ongoing evaluation and development of strategies that will improve our day-to-day operations while ensuring clear and workable standards to measure goal achievement and performance.

I recognize the importance of a widely accepted system plan as a key component to both wise stewardship of current capabilities and to developing future investment strategies for building the critical aviation infrastructure that, in many cases, is a lifeline to Alaskan communities. I'm committed to the growth and development of our aviation system in a manner that recognizes the critical importance of effective planning and fiscal responsibility in securing the policy and resources we need.

I encourage you to visit our web site (www.AlaskaASP.com) and review the full Aviation System Plan and related reports in order to gain a better understanding of the largest aviation system in the U.S.

Sincerely,

Steven D. Hatter,
Deputy Commissioner

The mission of the Alaska Aviation System is:

To provide for the safe and efficient movement of people and goods and the delivery of state services through the development, maintenance, operations, and managment of Alaska's airport system.

Five goals support this mission:

Safety

Develop, operate, and maintain an airport system that contributes to aviation safety.

Service

Develop, operate, and maintain a reliable aviation system with facilities scaled to meet system user needs.

Fiscal Responsibility

Develop, operate, and maintain airport facilities and services in a cost effective and sustainable way.

Communication

Provide opportunities for public involvement to ensure effective communications regarding aviation system needs, user needs, and airport development, maintenance, and operations.

Management

Effectively implement system plan policies and guidance for management, planning, design, maintenance, and operation of aviation facilities.

- Visit **www.AlaskaASP.com**

- Review Alaska Aviation System Plan products and documents

Search the Facility Information Directory

- Find out which airports are served by an air carrier

- See airport mapping and photography

- Know runway pavement information and conditions

- Check out the Pilot Reports Page

- And much more!

The most complete listing of information about Alaska airports and links to public and private sites available.

- Over 700 registered airports

- 254 State owned airports
  » 172 gravel, 48 paved, 33 seaplane, and 1 heliport

- 27 Part 139 Certified Airports

- 30 Municipal and Village Airports

- 3 International Airports

- 64 runways less than 3,000'

- 18 runways less than 2,000'

Airports and aviation are essential components of Alaska's transportation system. The Alaska Aviation System Plan (AASP) aviation activity information is helpful in identifying high activity airports and helping to prioritize airport development to meet future airport needs.

A composite ranking was developed in which the system's airports were ranked in terms of passengers, enplaned and deplaned cargo, and commercial aircraft, based on 2010 T-100 data. The following table provides the composite ranking of the top twenty-five commercial airports. Anchorage is the busiest airport in all three categories. Fairbanks and Juneau rank high in passengers, while Bethel and Kotzebue rank high in cargo. Airports on the North Slope such as Deadhorse and Barrow rank high in passenger and cargo but low in the number of operations because most service at those airports is provided by large aircraft.

The Federal Aviation Administration Aerospace Forecast Fiscal Years 2010 – 2031 documents national trends in the aviation industry. The FAA continues to forecast long term aviation growth, despite global economic conditions. Since 2000, many events (such as the economic downturn and increased fuel prices) have suggested a pessimistic outlook for the future, however, the FAA reports that passengers, air freight, and general aviation will continue to grow over the long term, but not to levels previously predicted. The AASP and FAA forecasts are similar in their projections that despite the recent disruptions long-term aviation demand is expected to resume growth in all categories, including passengers, cargo, and aircraft operations. Demand in Alaska will be uneven, with higher growth in more urbanized areas and less growth in rural areas. Coupled with this growth will be a gradual transformation of the aircraft fleet, with newer and more sophisticated aircraft becoming more prevalent.

ALASKA'S 25 MOST ACTIVE AIRPORTS

Composite Rank	Airport Code	City	Commercial Aircraft Departures		Outbound Passengers		Total Freight/ Mail (tons)		Average of Ranks
			Total	Rank	Total	Rank	Total	Rank	
1	ANC	Anchorage	63,659	1	1,725,738	1	1,288,979	1	1.0
2	BET	Bethel	29914	2	103,921	4	26,211	2	2.7
3	FAI	Fairbanks	15,506	3	338,297	2	12,842	4	3.0
4	JNU	Juneau	14,971	4	228,918	3	10,142	7	4.7
5	OTZ	Kotzebue	10,080	6	43,947	9	15,905	3	6.0
6	OME	Nome	8,232	7	42,821	10	12,733	5	7.3
7	ADQ	Kodiak	7,265	9	59,714	7	4,849	13	9.7
8	KTN	Ketchikan	5,185	14	79,934	5	6,714	10	9.7
9	AKN	King Salmon	6,160	11	34,701	12	5,096	12	11.7
10	DLG	Dillingham	5,246	13	25,091	16	6,994	9	12.7
11	BRW	Barrow	3,552	19	30,002	14	9,134	8	13.7
12	ENA	Kenai	6,767	10	63,358	6	1,006	27	14.3
13	ANI	Aniak	5,384	12	11,871	21	3,700	15	16.0
14	HOM	Homer	8,049	8	30,100	13	990	28	16.3
15	WFB	Ketchikan	11,982	5	41,928	11	786	34	16.7
16	SCC	Deadhorse	2,410	32	28,307	15	10,624	6	17.7
17	SIT	Sitka	2,374	34	52,016	8	5,227	11	17.7
18	UNK	Unalakleet	3757	18	9,112	23	4,680	14	18.3
19	EMK	Emmonak	4,035	17	7,422	29	3,103	17	21.0
20	KSM	St. Mary's	4,252	15	6,807	33	3,373	16	21.3
21	GAL	Galena	2,983	22	9,148	22	1,452	24	22.7
22	DUT	DutchHarbor	2,061	45	19,952	17	1,484	23	28.3
23	CDB	Cold Bay	2,928	24	6,978	32	891	30	28.7
24	KWN	Quinhagak	3,392	20	5,384	35	641	42	32.3
25	FYU	Fort Yukon	2,619	27	6,434	34	731	38	33.0

Source: All Carrier (Domestic and International) T-100 data from USDOT's Research and Innovative Technology Administration's Bureau of Transportation Statistics. The T-100 data is collected from Form 41 Financial Schedules and contain information filed on large certificated air carriers and may not necessarily reflect other operators' departures, passengers, freight or mail. The Form 41 is monthly data reported by certificated U.S. and foreign air carriers on passengers, freight and mail transported. It also includes aircraft type, service class, available capacity and seats, and aircraft hours ramp-to-ramp and airborne.

ALASKA Aviation System Plan

International Class Airports

- Ted Stevens Anchorage International
- Fairbanks International
- Juneau International

Regional Class Airports

- Aniak
- Barrow (Wiley Post-Will Rogers Memorial)
- Bethel
- Cold Bay
- Cordova (Merle K (Mudhole) Smith)
- Deadhorse
- Dillingham
- Emmonak
- Fort Yukon
- Galena (Edward G. Pitka Senior)
- Gustavus
- Homer
- Iliamna
- Kenai (Kenai Municipal)
- Ketchikan (Ketchikan International)
- King Salmon
- Kodiak
- Kotzebue (Ralph Wien Memorial)
- McGrath
- Nome
- Petersburg (James A. Johnson)
- Sitka (Rocky Gutierrez)
- St. Mary's
- Unalakleet
- Unalaska
- Valdez (Pioneer Field)
- Wrangell
- Yakutat

Community Off-Road Airports

- 146 Airports

Community On-Road Airports

- 18 Airports

Local NPIAS High Activity Airports
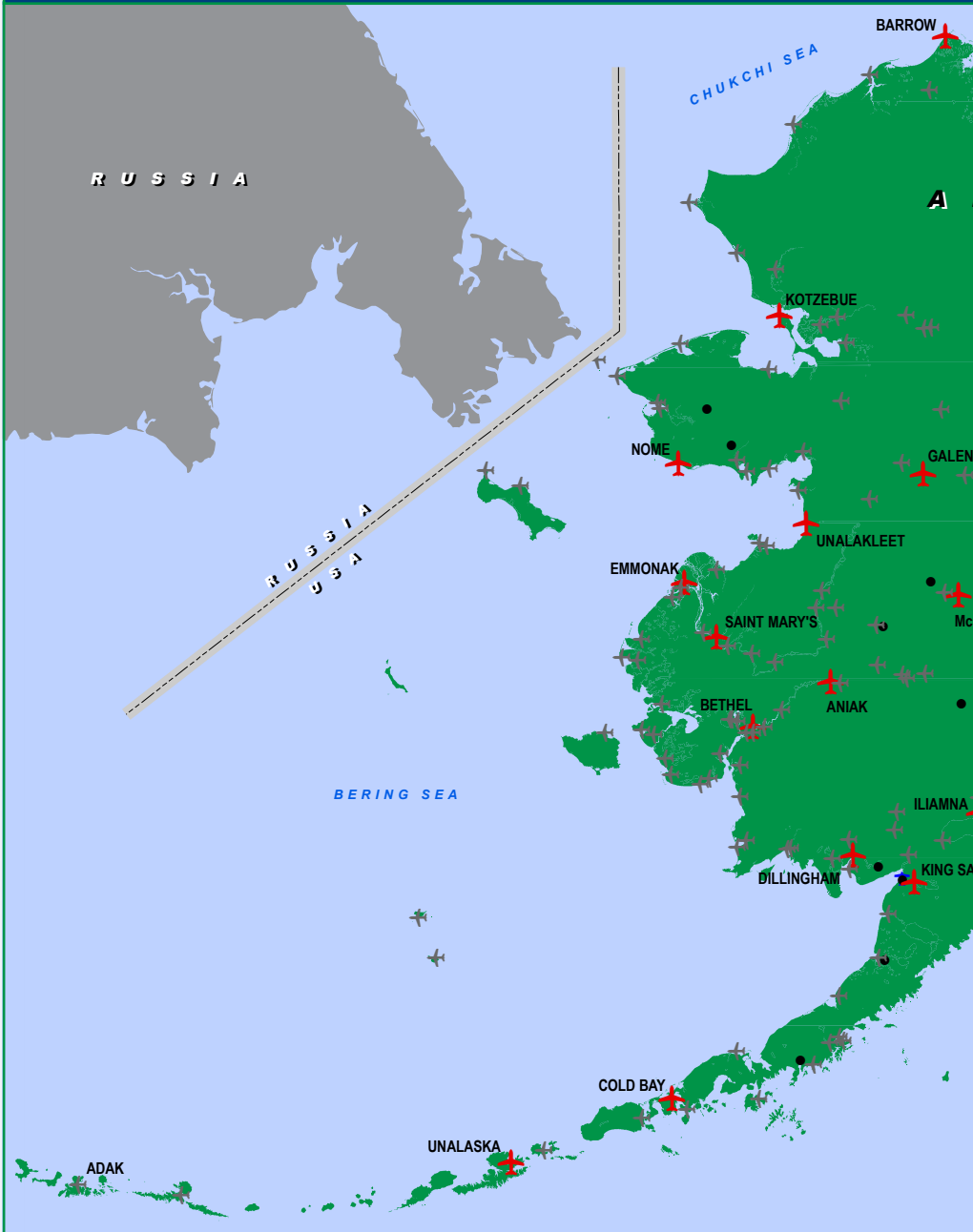
- 11 Airports

Local NPIAS Low Activity Airports

- 56 Airports

Local Non-NPIAS Airports
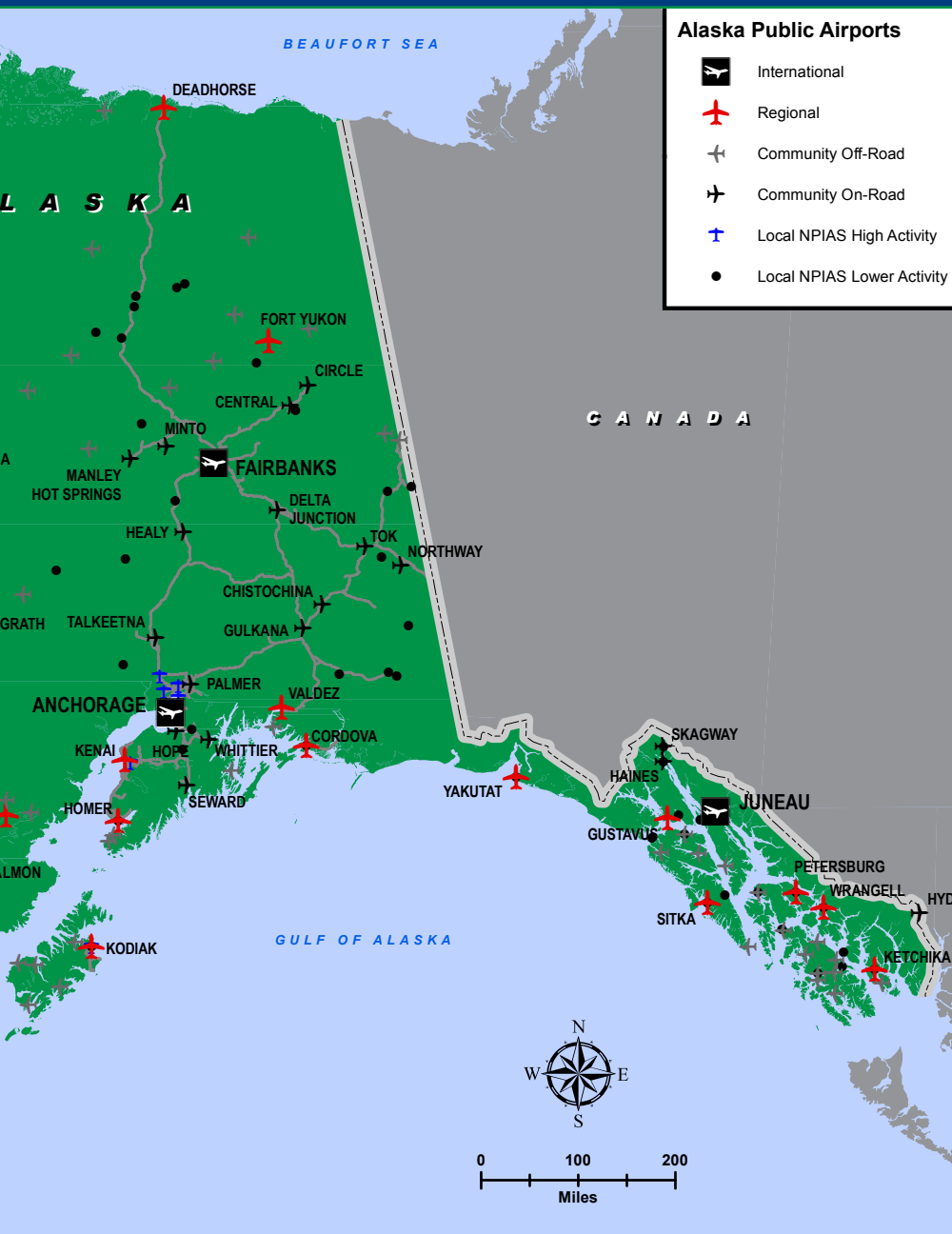
- 469 Airports

The National Plan of Integrated Airport Systems (NPIAS) identifies nearly 3,400 existing and proposed airports that are significant to national air transportation and thus eligible to receive Federal grants under the Airport Improvement Program (AIP).

Alaska has over 700

Non-State Public Airports

- Akutan Seaplane Base Airport
- Merrill Field
- Delta Junction
- Egegik Airport
- Haines SPB
- Juneau International Airport
- Kake SPB
- Kenai Municipal Airport
- Ketchikan International Airport*
- Ketchikan Airport SPB*
  (* KTN is State of Alaska owned, Ketchikan Gateway Borough operated)
- Ketchikan, Murphy's Pullout
- Loring SPB
- Kodiak Municipal Airport/Lilly Lake
- Kodiak Inner Harbor SPB

registered airports!

BEAUFORT SEA

Alaska Public Airports

- International
- Regional
- Community Off-Road
- Community On-Road
- Local NPIAS High Activity
- Local NPIAS Lower Activity

DEADHORSE

A L A S K A

FORT YUKON
CIRCLE
CENTRAL
MINTO
MANLEY HOT SPRINGS
FAIRBANKS
DELTA JUNCTION
HEALY
TOK
NORTHWAY
CHISTOCHINA
GRATH
TALKEETNA
GULKANA
ANCHORAGE
PALMER
VALDEZ
KENAI
HOPE
WHITTIER
CORDOVA
HOMER
SEWARD
ALMON
KODIAK

CANADA

SKAGWAY
HAINES
YAKUTAT
JUNEAU
GUSTAVUS
PETERSBURG
WRANGELL
HYDE
SITKA
KETCHIKAN

GULF OF ALASKA

N
W E
S

0   100   200
Miles

Classifying airports helps DOT&PF understand and convey each airport's role in the system and prioritize airport funding investments.

- Nenana Municipal Airport
- Anaktuvuk Pass
- Atqasuk
- Kaktovik -- Barter Island
- Nuiqsut
- Wainwright
- City of Palmer Municipal Airport
- Pelican SPB
- Quinhagak Airport
- Seldovia SPB
- Sitka SPB
- Soldotna Airport
- Arctic Village
- Venetie
- Wasilla Municipal Airport
- Wrangell SPB

International

Airport that serves at least 0.05% of the annual passenger boardings in the U.S. and is classified by the FAA as a small or medium hub.

Regional

Public use airport, heliport, or seaplane base that serves as an economic or transportation hub for more than one community, indicated by having at least three of the following characteristics:

- At least 10,000 annual passenger boardings
- An air carrier hub
- A postal hub or more than 2 million pounds of cargo handled annually
- Scheduled passenger service in aircraft with at least thirty seats
- Community has a health facility serving two or more communities
- Primary or secondary fire tanker base
- Community has a Coast Guard air station, air support facility, or forward operating station

Community

Community class includes public use airports, heliports, or seaplane bases that serve as the main air transportation facility for an individual community, providing, at a minimum, basic health, safety, and emergency needs. The community must have a minimum year-round population of at least twenty five and a public school. The community airport must be at least one-hour driving time (over year-round accessible road) from an international, regional, or other community airport.

Off-Road Community Class – serves a community that lacks access to the interstate road system.

On-Road Community Class – serves a community with access to the interstate road system.

Local

Local class includes airports, heliports, or seaplane bases that accommodate mostly general aviation activity.

Local NPIAS High Activity Class – included in the NPIAS and has at least twenty based aircraft.

Local NPIAS Lower Activity Class – included in the NPIAS and has fewer than twenty based aircraft.

Local Non-NPIAS Class – is not assigned to another class.

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In total, the aviation industry generated over $3.5 billion in economic activity throughout Alaska - an amount equal to nearly eight percent of the State's $44.5 billion gross state product in 2007. The fact that the aviation industry in Alaska is almost 40 percent larger than the industry's role in the national economy further demonstrates the importance of the aviation industry in Alaska's economy.
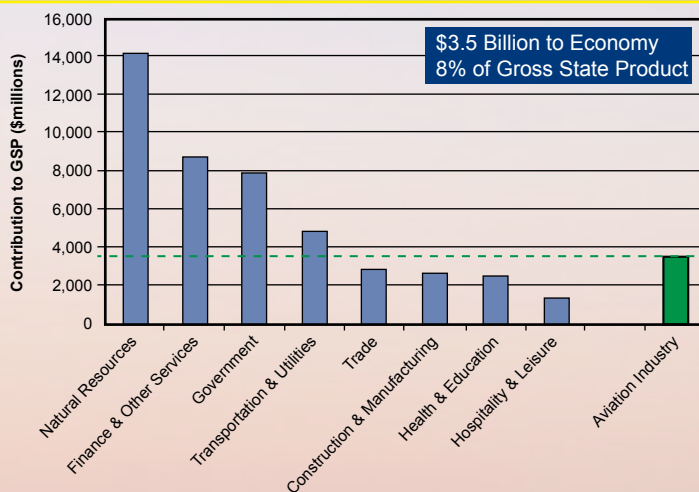
The Aviation Industry's Contribution to GSP Compared to Primary Economic Sectors, 2007
Source: Northern Economics estimate, 2008

EMPLOYMENT

Jobs related to aviation

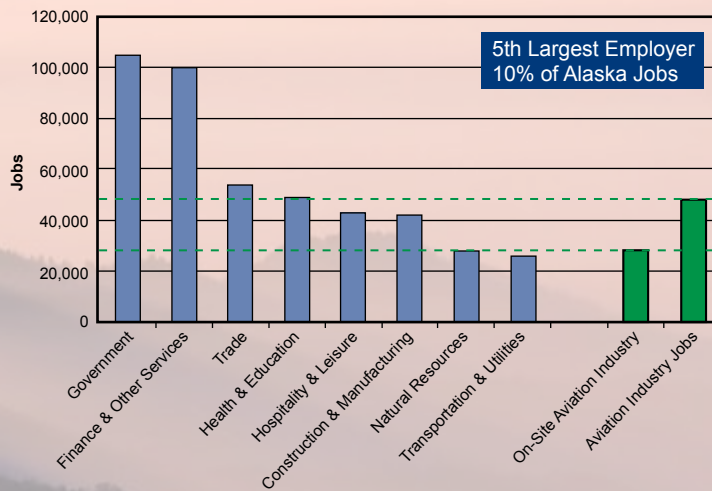**2,000 jobs** to operate airports statewide, full and part time

25,000 jobs due to on-site business, organizations and agencies

20,000 jobs created due to multiplier effect from aviation jobs

**47,000 jobs** attributed to aviation in Alaska in 2007

This represents about

10% of all jobs in Alaska!

The Aviation Industry's Contribution to Available Jobs Compared to Primary Economic Sectors, 2007
Source: Northern Economics estimate, 2008

If the aviation industry were a primary economic sector, it would be the fifth largest economic sector in terms of contribution to the gross state product (GSP) after natural resources, finance & other services, government, and transportation & utilities sectors. The aviation industry is larger than the trade, construction & manufacturing, health & education, and hospitality & leisure sectors.
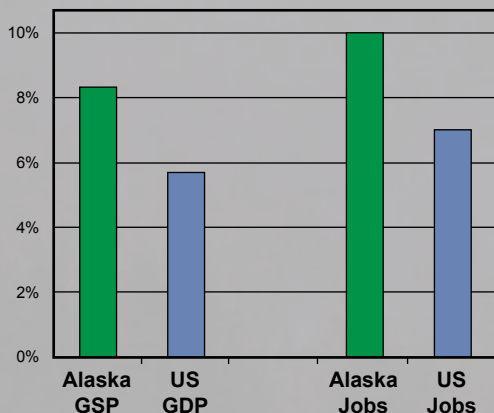
The aviation industry's proportional contribution to Alaska's economy is greater than the proportion the industry contributes to the national economy.

Economy and Jobs: Importance in Alaska vs. the US

Economic Analysis of Runway Extensions

This study analyzed the effects that longer runways have on rural Alaska communities' well-being and economic development. This study found that longer runways provide improved reliability of service, improved aviation safety, and reduced cost to fly fuel to communities. Longer runways allow residents greater access to medical services in case of emergencies and provide the basic foundation for improved economic development. These improvements may also contribute to other potential economic benefits such as lower living costs, higher standards of living, reduced cargo shipping/transportation costs, and reduced air carrier operating costs. Because the actual benefits realized by a community are dependent on a great many factors, the appropriate runway length for each airport must be evaluated on a case-by-case basis.

Intra-Alaska Mail Service by Air

The United States Postal Service (USPS) is required to provide "universal service at universal rates" to all persons in the United States (39 USC 5402). Since many Alaskan communities are not accessible by road, they receive all mail by air, paying ground rates for much of this mail volume, at the expense of the USPS. 75% of Alaska's mail volume is shipped via the bypass mail system from Anchorage and Fairbanks to 16 regional hubs and 120-130 destination bush locations.

In light of the dire financial issues facing the USPS, the agency is searching for cost reductions. In Alaska, the USPS has identified additional mail hub airports, which would reduce the rates the USPS pays air carriers to deliver mail to some communities. The designation of any of these communities as a hub would impact the DOT&PF airports and the air carriers serving those communities. Potential changes to the bypass mail system also create challenges for the DOT&PF as the Department seeks to manage and operate an aviation system that best meets the current and future needs of those served. The DOT&PF is part of an ongoing dialog between the USPS, air carriers, and other stakeholders to advise future decisions about the structure of mail delivery in Alaska.

Cost of Federal Regulatory Requirements

The Transportation Security Administration (TSA), the Federal Aviation Administration (FAA), and the Environmental Protection Agency (EPA) impose regulations that require Alaska airport operators to perform functions which are not fully funded by the federal government, called unfunded mandates. Although the FAA provides significant funding to support its mandates, the total annual costs to the DOT&PF to achieve compliance exceed $2 million, excluding Anchorage and Fairbanks International Airports.

Rural Airport Deferred Maintenance

In 2010, the State identified more than $52.5 million in airport deferred maintenance needs. The DOT&PF is addressing these needs through the State-funded Deferred Maintenance budget and the FAA-funded Minor Surface Improvements grant. Although the DOT&PF has aggressively pursued ways to address the backlog of deferred maintenance needs and has been successful on many fronts, funding for these projects remains a top issue. Past funding levels have not been sufficient to protect the investment in airport infrastructure, and future funding is uncertain as federal and state governments tighten budgets.

DOT&PF's proposed plan to address this issue is Service Based Budgeting. Service Based Budgeting is a strategy that will define the needs of the aviation system through newly developed standards and metrics and that will seek funding to meet those needs so that the aviation system can attain mission accomplishment.

Impacts of Rising Airport Commodity Prices

Commodities, (materials, components, and utilities used by the DOT&PF as part of the routine maintenance work conducted at the State's airports) comprise approximately 17%-20% of the total annual Statewide Maintenance & Operations (M&O) budget. These costs have been increasing steadily and without a corresponding increase in funding, DOT&PF must cut commodities spending or pay for commodities by taking funds from other M&O programs. The result of either action is a decrease in the level of service the DOT&PF is able to offer. The Service Based Budgeting initiative also seeks to address the challenges of rising commodity prices.

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The Alaska Aviation System
the Alaska Aviation System by

Safety
Incorporate policies and programs to ensure safe airport infastructure and a safe airport system

Service
Guide the development of a reliable aviation system with facilities that meet system user needs

Fiscal Responsibility
Provide responsible asset management and efficient allocation of limited resources

Communication
Engage in early, clear, and continuous public involvement to ensure the department fully understands aviation issues and needs, and the aviation community understands departmental actions and constraints

Management
Advance policies for management, planning, design, maintenance, and operation of aviation facilities

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Planning process will support tracking performance objectives:

- Bring airports into compliance with FAA airport design standards, to the extent practical.
- Provide adequate airfield surface condition.
- Reduce obstructions to aviation that are in approach/departure surfaces.
- Advocate adequate aviation infrastructure (communication, approaches, instrument flight rules routes, weather reporting, etc.) for pilots.
- Improve access control around aircraft operating areas.
- Facilitate the preservation of back country airports needed for system safety.

- Develop an air transportation system that supports and promotes economic development.
- Provide facilities that serve current and future needs.
- Provide Alaskan residents with appropriate and reasonable levels of access to the air transportation system, including access to targeted airports capable of handling medical evacuation at night and during bad weather.
- Eliminate correctable seasonal closures of airports needed year-round, to the extent practical.
- Consider options to connect communities by alternate means instead of building new/improved airports.

- Adequately fund airport management, operation, and maintenance functions.
- Make infrastructure investments that meet needs and support the state and local economy.
- Prioritize investment in airports to advance system goals and objectives, lower life cycle costs, and consider maximizing the economic benefit relative to the cost.
- Consider cost effectiveness for air carriers, airport owners, and other airport users.
- Recommend to the FAA airports that should be added to the NPIAS to be eligible for federal AIP grants.
- Improve the management of AIP grants.
- Increase airport revenue and funding.

- Incorporate public participation in capital improvement programming, project development, and ongoing airport operation.
- Provide timely and effective interdepartmental and agency coordination.

- Comply with applicable federal, state, and local laws and regulations.
- Meet regularly with the FAA, other agencies, and users to identify and resolve emerging problems and needs.
- Promote aviation safety education for pilots, airport staff, and the public.
- Explore the selective transfer of airport ownership.
- Explore the selective joint use of military/civilian airfields and other aviation facilities.
- Coordinate with the FAA and the military on military airspace and training activities.
- Ensure those that manage, plan, design, maintain, and operate Alaska's airports are trained to do their jobs well. Support continuing education.
- Ensure that policies and procedures for planning, design, managing, and funding are consistent with system goals and objectives, are documented, and are accessible to the public.

The State of Alaska Department of Transportation and Public Facilities (DOT&PF), with the assistance of the Federal Aviation Administration (FAA), will use this framework to report annually to the people of Alaska on the aviation system's performance.

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"If we didn't have the airport we wouldn't have anything. The airport is a fact of life for living out here in the villages. The airport is our roads, highway, ocean, our lifeline."

~Rural Alaskan Resident

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The aviation industry contributes about 3.5 billion dollars (of the 44 billion dollar total Gross State Product) and more than 47,000 jobs to the state's economy.

The aviation industry accounted for about 10 percent of Alaska's 2007 employment.

82% of the communities in Alaska are not connected to a highway or road system, thus rely entirely on air service.

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