

A View of Alaska's Air Transportation Industry

by Neal Fried and Brigitta Windisch-Cole

During the past two years, Alaska's airline industry has attracted much attention. Over 80 years ago when the first plane arrived in the Territory, the industry began to excite Alaska's collective consciousness. To this day, this excitement has not diminished. Grasping the potential of air transportation was almost immediate. Since 1922, when Roy Jones of Ketchikan set up the state's first commercial airline, the industry has made its big mark on the economy.

The lay of the land alone made the plane a dream fit for Alaska. With only 100 of the state's 300 communities served by road, airplanes quickly became the transportation mode of choice. Over 1,100 airstrips and airports in the state, more than 9,700 aircraft, and 9,500 pilots illustrate the strong presence of this industry. But other factors have built onto this natural fit to make air transportation a much bigger player in the economy. The fact that Alaska lies equidistant between Europe and Asia has meant the state is host to the biggest cargo airport in the country and home to one of the top five cargo airports in the world. Possibly more important than this cargo relationship is the future growth potential of this international connection.

Air transportation has also become a major beneficiary of the state's fastest growing industry—tourism. During the past two years, more than a million visitors have come to the state, and 60% of these visitors arrive in the state via air. After this growing number of visitors arrives, more of them choose to travel within the state as well as indulge in flight-seeing to get a bird's eye view of the land. These forces are not only helping to sustain one of the state's most enduring industries, but they are also helping it maintain its reputation as one of Alaska's most dynamic industries. Differently said, Alaska's air transportation industry both provides the economy with essential infrastructure support like roads, and also at-

tracts millions of new dollars that generate thousands of jobs by selling transportation services to the rest of the world and to out-of-state visitors.

This article will concentrate on Roy Jones' successors—the commercial side of air transportation. It is not always possible to separate the commercial side of aviation from its recreational counterpart, especially since so often business and pleasure mix in this industry. The focus will be on the trends of the state's approximate 300 private sector air transportation employers and their broad impacts on the economy.

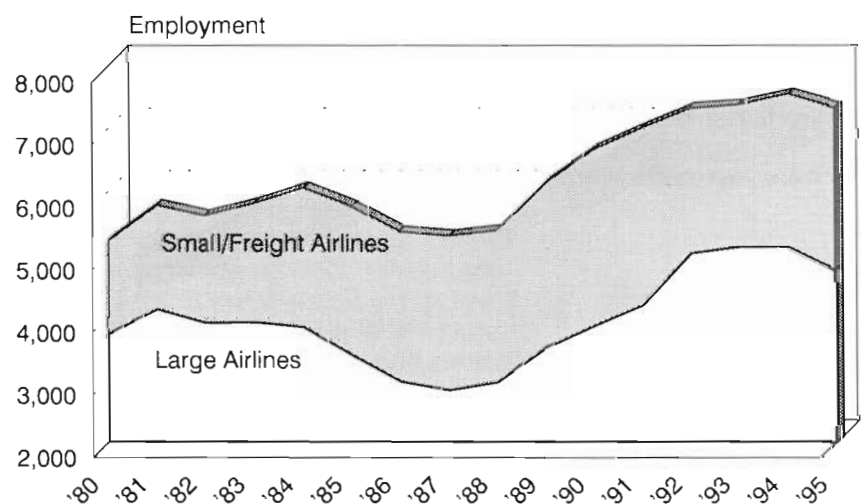
Aviation is a big employer

Over 7,000 jobs exist in the air transportation industry. (See Figure 1.) Counted in this figure is employment in all private sector firms that provide scheduled and nonsched-

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Figure • 1

Air Transportation Industry Employment 1980-1995



Source: Alaska Department of Labor, Research and Analysis Section.

Air Transportation Employment 1995

Area:	Average Employment	Percent of state
Anchorage	4,837	64.6%
MatSu Borough	72	1.0%
Kenai Peninsula Borough	120	1.6%
Kodiak Island Borough	98	1.3%
Valdez-Cordova	52	0.7%
Denali Borough	9	0.1%
Fairbanks North Star Borough	548	7.3%
Southeast Fairbanks	22	0.3%
Yukon-Koyukuk	9	0.1%
Nome	147	2.0%
North Slope Borough	92	1.2%
Northwest Arctic Borough	125	1.7%
Haines Borough	92	1.2%
Juneau Borough	334	4.5%
Ketchikan Gateway Borough	369	4.9%
Prince of Wales-Outer Ketchikan	25	0.3%
Sitka Borough	54	0.7%
Skagway-Hoonah-Angoon	42	0.6%
Wrangell-Petersburg	31	0.4%
Yakutat Borough	20	0.3%
Aleutian East Borough	10	0.1%
Aleutian West	26	0.3%
Bethel	147	2.0%
Bristol Bay Borough	71	0.9%
Dillingham	39	0.5%
Lake & Peninsula Borough	29	0.4%
Wade Hampton	72	1.0%

Source: Alaska Department of Labor, Research and Analysis Section.

uled passenger and cargo service, charters, flight-seeing, and airport services such as repair and maintenance. In addition, probably an equally large work force not counted in these figures supports this industry. For example, there is the large public sector side of aviation, with 1,500 Federal Aviation Administration (FAA) and approximately 470 State Department of Transportation employees. Other direct support to air transportation employment would include caterers, fuelers, customs, flight-training schools, aviation suppliers, local-government-run airports and others. Added to all this is the U. S. Air Force's 11,000 strong contingent in the state.

Air transportation's percent of total employment is four times higher in Alaska than in the rest of the nation. The industry moves four times the state's population each year, compared to 1.7 for the nation. These relationships are not surprising, given the fact that Alaska has six times as many pilots and 14 times as many aircraft per capita.

Deregulation introduces lots of turbulence in the industry

Before looking at more recent trends, it might be interesting to look at one of the biggest events that shaped Alaska industry into what it is today—deregulation. When deregulation hit Alaska beginning in 1980, the industry transformed nearly overnight and much of its legacy is still with us today. Prior to deregulation, only five airlines in Alaska were certified by the Civil Aeronautics Board (CAB) to provide scheduled passenger, cargo, and mail service. Of those original five certified carriers, only two still exist today—Alaska Airlines and Reeve Aleutian. These five air carriers often subcontracted with smaller noncertified carriers. Back then, such small carriers often operated at the mercy of the “big five.”

Before deregulation, when a carrier wanted to change a route, fares and other variations of flight service, it had to obtain approval from the CAB. Subsidies to ensure service to all of the state's communities were common. For example, in 1981, 187 out of 220 communities that received scheduled service were

subsidized by the U. S. Department of Transportation (USDOT) in the amount of \$10 million. Today, the number of communities receiving subsidies has declined to 30, now costing the USDOT only \$2.0 million. Five of these routes ensure jet service to communities in Southeast, and the remaining routes provide frequent service to small places around the state.

With deregulation, all established industry protocol tumbled. Any airline business that could prove financial and managerial competence became eligible for certification—a process that is still in effect today. Nearly overnight, 24 of the previous subcontractors to the big airlines obtained certification. Air carriers covet certification because it gives them the right to carry U.S. mail—the bread and butter for many of these players. Today, all air carriers which provide scheduled services in the state are certified. The rest are charter, flight-seeing companies, fish-spotter planes, and other operators.

Presently, there are 38 certified air carriers, and only a few of them are carry-overs of the original 24. Since deregulation, an equal number (38) of certified air carriers has either gone out of business or been absorbed by others. During the past 14 years, two of the three largest business failures in the state were airlines—Wien Airlines in 1982 and MarkAir in 1995.

The industry has grown by any measure

Not only has the number of air carriers grown, but so has employment. Over the past decade, employment in air transportation grew by nearly 2,000, or 37%. This is twice as fast as the overall work force. The number of firms grew from 230 to nearly 300 during the same period. Growth in the number of domestic passengers en- and de-planing at the state's two largest airports is also impressive. (See Figure 2.)

An irrefutable link exists between the well being of the air transportation industry and Alaska's economy. Between 1985 and 1987, employment and traffic in the industry plummeted right along with the economy.

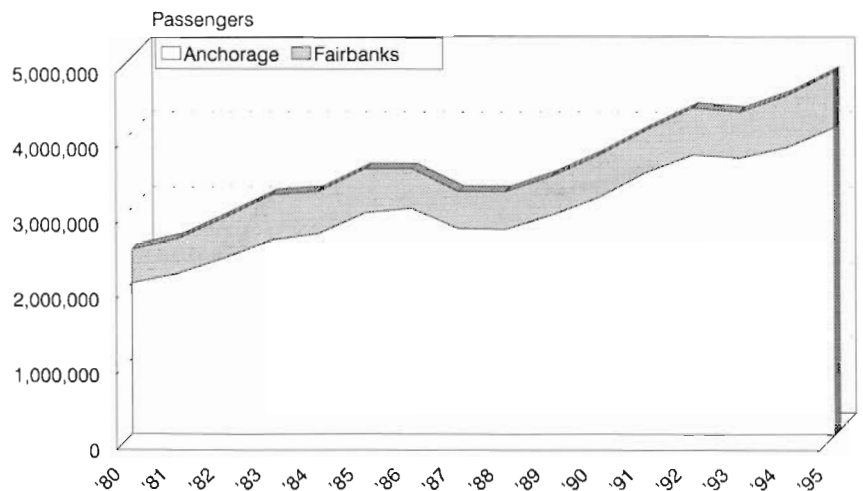
Alaska's Most Traveled Interstate Routes in 1995

Two Way Traffic		Total Passengers
Anchorage	Seattle, WA	1,209,640
	Salt Lake City, UT	245,825
	Minneapolis/St. Paul, MN	106,251
	Chicago, IL	90,744
	Los Angeles, CA	74,498
	Portland, OR	50,634
	Detroit, MI	46,029
	Denver, CO	45,291
	San Francisco, CA	35,732
	Dallas/Fort Worth, TX	27,733
	Houston, TX	16,546
	Cincinnati, OH	10,969
	Phoenix, AZ	10,343
	Fairbanks	Seattle, WA
Salt Lake City, UT		15,607
Minneapolis/St. Paul, MN		15,604
Juneau	Seattle, WA	228,196
Ketchikan	Seattle, WA	127,116
Sitka	Seattle, WA	46,726

Source: U. S. Department of Transportation.

Figure • 2

Passenger Traffic Increases at Alaska's Busiest Airports (Enplaned and Deplaned)



Source: State of Alaska Department of Transportation and Public Facilities, Anchorage International Airport and Fairbanks International Airport.

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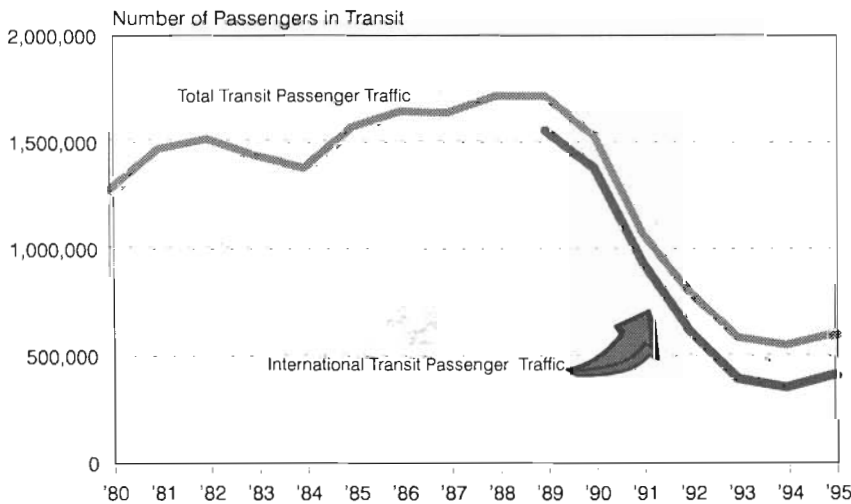
Alaska's Most Traveled Intrastate Routes in 1995

Two Way Traffic		Total Passengers
Anchorage	Fairbanks	320,059
	Kenai	243,008
	Juneau	137,775
	Kodiak	127,820
	Bethel	84,537
	King Salmon	65,740
	Homer	63,681
	Valdez	60,692
	Dutch Harbor	60,318
	Nome	53,720
	Kotzebue	47,209
	Sitka	46,339
	Dillingham	44,752
	Cordova	40,905
	Barrow	35,474
	Deadhorse	21,032
	Fairbanks	Barrow
Juneau		35,225
Nome		11,042

Source: U. S. Department of Transportation.

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Glasnost Affects Passenger Traffic in Anchorage



Source: State of Alaska, Department of Transportation and Public Facilities, Anchorage International Airport.

(See Figure 1.) Later, as statewide business activity began to pick up, so did employment in the air transportation industry. Beginning in 1989, it grew for six straight years, reaching record employment levels in 1994. A growing population, a growing visitor industry, competitive air fares, aggressive marketing, and an emerging cargo sorting industry helped keep these numbers climbing. Then, in 1995, air transportation defied the economic forces and went on a temporary tangent when MarkAir and MarkAir Express closed their doors. Both of these players were among Alaska's top 100 employers. The combined loss of about 1,300 jobs caused employment in air transportation to decline 4.0% in 1995 and still haunts 1996's numbers. Other airlines beefed up their employment in response to these closures. Several existing air carriers, such as Reeve Aleutian, Reno Air, Alaska Cargo Express and others, expanded their routes, and more than a few new airlines jumped into the fray. Among them were Lynden Air Cargo, America West and a few others. Because the closures were largely unrelated to economic conditions, these losses probably will be only a blip on the horizon.

Air transportation presence is ubiquitous in the state

From an employment standpoint, Anchorage is the biggest player in the industry. Although Anchorage is home to only 42% of the state's population and is accessible by rail, road and water, it employs 65% of the air transportation work force. (See Table 1.) The state's biggest city enjoys this distinction because it is Alaska's inter-state, intra-state and international air transportation hub. (See Tables 2 and 3.) According to the U.S. Census Bureau, the average Anchorage resident earns \$894 per capita from air transportation compared to \$121 for the nation.

Fairbanks is the only other community where more than five percent of all total air transportation employment resides. Fairbanks is not only the second largest community in the state, it is the air transportation hub for the Interior and the Northern region. Fairbanks International Airport is also becoming a growing player in the international cargo market.

By 1995, the number of international cargo carriers had climbed to 10.

The other bigger hubs include Juneau, Ketchikan, Bethel, Nome, Kodiak and Kotzebue and many others. (See Tables 3 and 4.) For their size, the volume of mail, passengers and freight traffic that flows through these communities is phenomenal. For example, in 1995, Bethel, a community with a population of 5,195, had 121,400 operations at its airport. This compared to 119,700 operations at Spokane International Airport in Washington State with a population of 187,000.

Mail is the bread and butter for many carriers

Unlike anywhere else in the country, nearly all mail in Alaska finds its way onto an airplane. For many of Alaska's intra-state air carriers, mail transport represents a vital share of their revenues. Some industry officials and observers believe that mail accounts for as much as 70-80 percent of some air carriers' revenues. (See Table 5.) Why is it so big?

The obvious answer is that air is the only way to reach most of Alaska's communities on a year-round basis and the U.S. Postal Service has a mandate to provide "uniform and universal services" to the nation. There are other reasons why it is so important and has become an increasingly popular way of moving freight to rural Alaska. By federal fiscal year 1995, the U.S. Postal Service paid Alaska air carriers \$104 million to ship the intra-state mail. Forty-one percent of these dollars went to delivering "intra-Alaska bush mail," which would cover regional hub traffic to the outlying communities. An example would be the route Dillingham to Naknek.

Shippers, residents, businesses and others use the mail because the Postal Service delivers service at the lowest rates to transport all kinds of goods, including groceries, to Alaska's roadless communities. In fact, the volumes got so large the Postal Service came up with the unique system of bypass mail for rural Alaska. Bypass mail is freight that a shipper takes directly to an air carrier who

Alaska's Top Ten Passenger Commuter Airlines (1995)

Rank	Name	Base	Enplaned Passengers
1	ERA Aviation	Anchorage	408,404
*2	MarkAir Express	Anchorage	238,636
3	Peninsula Airways	Anchorage	127,806
4	Yute Air Alaska, Inc.	Anchorage	72,790
5	L.A.B. Flying Service, Inc.	Haines	68,737
6	Frontier Flying Service	Fairbanks	42,831
7	Taquan Air Service, Inc.	Ketchikan	42,418
8	Bering Air, Inc.	Nome	41,943
9	Cape Smythe	Barrow	36,702
**10	Promech	Ketchikan	40,370

**no longer in business.*

***incl. Virgin Island's Operations.*

Source: United States Postal Service Annual UT-43 Summary & BTS Form 298-C Schedules A-1 & F-1 as filed by each carrier.

Alaska's Top Ten Bush Mail Carriers (1995) From Hub Locations to Villages

Rank	Name	Base	Bush Mail (lbs.)
*1	MarkAir Express	Anchorage	8,487,079
2	Ryan Air, Inc.	Anchorage	6,165,722
3	Yute Air Alaska	Anchorage	5,065,335
4	Cape Smythe	Barrow	4,855,254
5	Hageland Aviation	Anchorage	3,959,352
6	Larry's Flying Service	Fairbanks	3,293,375
7	Arctic Circle Air Service	Anchorage	3,282,786
8	Bering Air Incorporated	Nome	3,282,052
9	Peninsula Airways	Anchorage	3,200,798
10	Baker Aviation	Kotzebue	2,417,823

**no longer in business.*

Source: United States Postal Service Annual UT-43 Summary & BTS Form 298-C Schedules A-1 & F-1 as filed by each carrier.

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Alaska's Top International Cargo Airlines 1995

Rank	Airline	All Traffic in lbs
1	Korean Airlines	467,096,854
2	United Parcel Service	317,305,413
3	China Airlines	182,147,993
4	Nippon Cargo Airlines	164,008,010
5	Polar Air	110,157,172
6	Lufthansa	96,380,369
7	Asiana Airlines	69,270,046
8	Singapore Airlines	61,335,600
9	Evergreen International	60,494,272
10	Cathay Pacific Airways	59,581,382

Source: State of Alaska, Department of Transportation and Public Facilities, Anchorage International Airport.

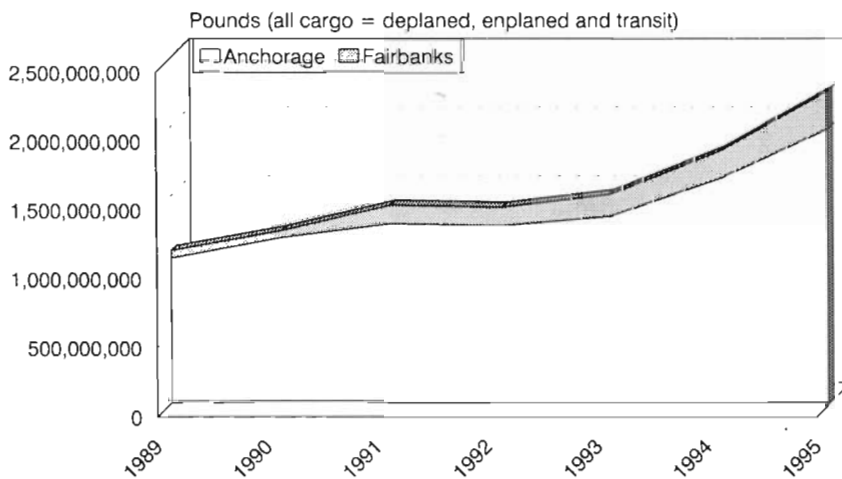
delivers it directly to the addressee, bypassing the post office altogether. The only time the Post Office gets involved is when one of its employees assesses the volume and the integrity of freight at the carrier's warehouse.

Mail has been an important source of growth for many airlines. During the past five years, the dollar amount spent to ship mail by air has increased by 25%. According to some industry analysts, without this increased volume of bypass mail, the overall level of domestic air cargo shipped would have remained stagnant or even declined. This is because in recent years fewer fish products were air lifted, and the growth in the economy has slowed.

In essence, Alaska's unique rural mail delivery system does not only improve the daily lives of rural residents by ensuring an economical and efficient mail system, but it also helps maintain a far-flung passenger carrier network. Providing such services also gives air transportation a big shot in the arm.

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**Freight Arriving and Leaving Alaska's Airports
Anchorage and Fairbanks**



Source: State of Alaska, Department of Transportation and Public Facilities, Anchorage International Airport and Fairbanks International Airport.

More than Alaska's economy has the industry growing

Several economic forces go way beyond local economic conditions to affect the health of the state's air transportation industry. One of the biggest is the international connection. Prior to 1990, the strongest boost to the aviation industry came from the international transit passengers. During the peak years of 1985-1990, approximately 1.5 million international travelers passed through the Anchorage International Airport annually. Less than four percent ever left the airport. However, transit passengers spent lots of money at the duty-free shops. During peak years, the duty-free shops sold more than \$100 million worth of goods, and the airport received approximately \$18 million in commissions to fill its coffers. Then technology and *glasnost* intervened, and by 1993 these numbers fell to a third of their previous peak. (See Figure 3.) More fuel efficient jets made it possible for many of these flights to proceed nonstop from Europe to Asia. When the then-Soviet Union opened its air-

Top Five International Passenger Airlines in 1995
Includes Enplaned and Deplaned Passengers

space, the length of the flights was shortened. The transit passenger numbers hit their nadir in 1994, and just recently they began to bounce back. For the first 10 months of this state fiscal year (July-June), their numbers are up 21%.

Many of these transit passengers never left the international airport to visit the state. Many of these airlines don't have traffic rights or don't care to exercise them. If an airline does not have these rights, its passengers must stay in transit. And even if they do have these rights, air carriers often don't want to take on passengers for only part of a leg of the journey. They would rather fill the plane seats with passengers making the full trip. In spite of these obstacles, these "unseen and temporary" visitors are always being eyed as a giant potential for Alaska's visitor industry.

Rank	Airline	Total Passengers
1	Korean Airlines	16,946
2	Alaska Airlines International	11,447
3	Aeroflot	6,861
4	Condor	6,814
5	Balair	4,548

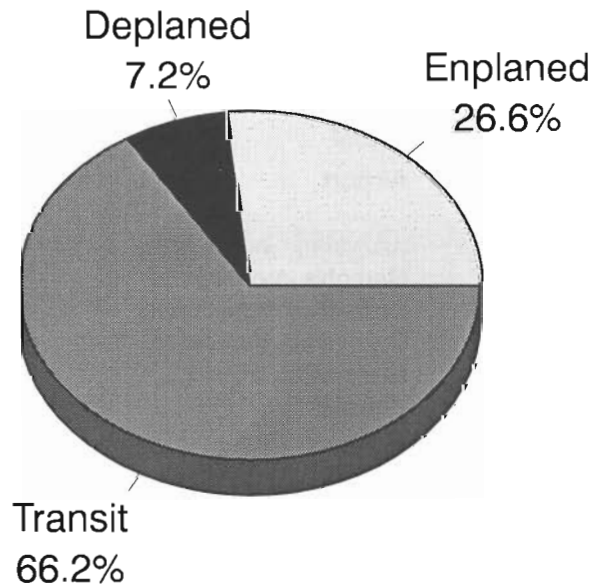
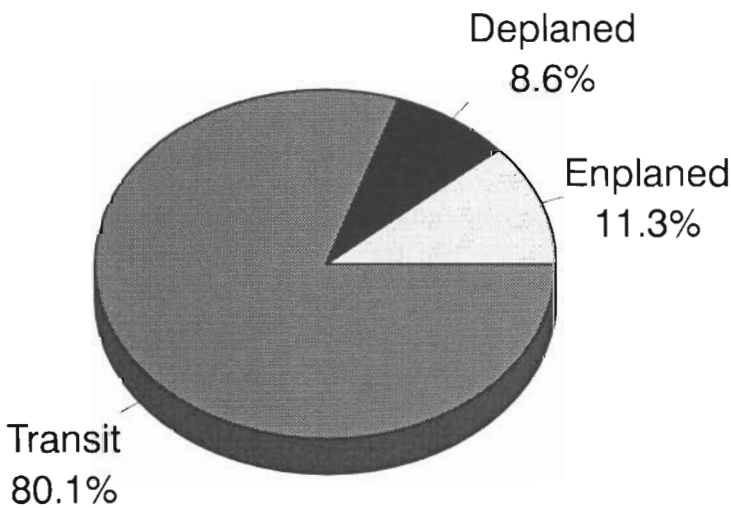
Source: State of Alaska, Department of Transportation and Public Facilities, Anchorage International Airport.

Freight in Transit Dominates Alaska's Air Cargo

1995

Anchorage

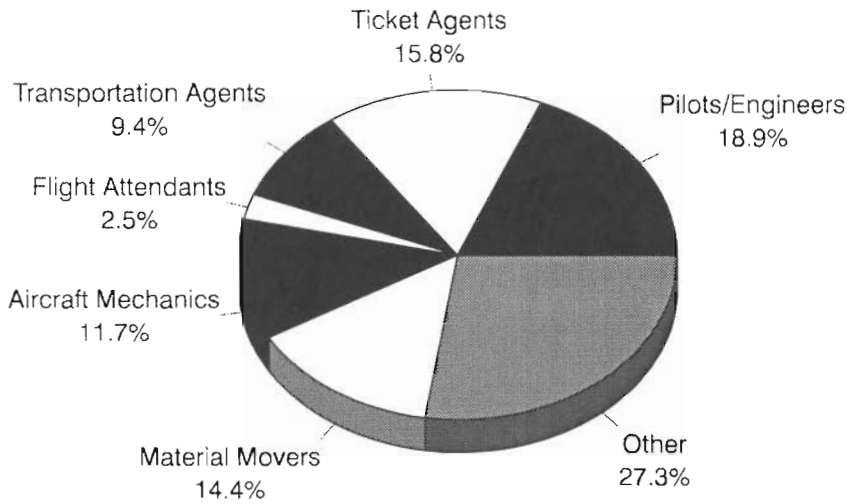
Fairbanks



Source: State of Alaska, Department of Transportation and Public Facilities, Anchorage International Airport and Fairbanks International Airport.

Figure • 6

Selected Air Transportation Occupations



Source: Alaska Department of Labor, Research and Analysis Section.

One important source of growth for international visitors bound for Alaska is those carriers flying directly to Alaska. (See Table 7.) For example, three charter companies now have direct flights from Europe to Alaska during the summer months. The latest addition is World Airways that will begin flying twice a week between Alaska and Germany this summer.

Another international passenger and cargo development that many observers believe has a huge potential is the Russia-Alaska connection. Combined, Alaska Airlines and Aeroflot fly six round-trip flights per week between Alaska and several points in the Russian Far East. Given the vast wealth of the Russian Far East, its development potential, its need for technology, investment capital, information and goods, Alaska is certainly in a position to become a major player. Our proximity, similar environment, airport infrastructure, historical connections, and other factors put Alaska at a distinct advantage.

Table • 8

Anchorage Ranks First in Cargo Landings

Rank	Airport	Location	State	Landed Weight
1	Anchorage International	Anchorage	AK	9,473,495,017
2	Memphis International	Memphis	TN	8,098,231,886
3	Louisville International	Louisville	KY	6,944,578,000
4	O' Hare International	Chicago	IL	6,891,610,604
5	Miami International	Miami	FL	4,536,135,965
6	Honolulu	Honolulu	HI	4,295,590,500
7	John F. Kennedy	New York	NY	4,159,577,499
8	Los Angeles International	Los Angeles	CA	3,350,997,620
9	James M. Cox Dayton International	Dayton	OH	3,160,919,220
10	Newark International	Newark	NJ	3,157,035,656
...36	Fairbanks International	Fairbanks	AK	759,190,011

Source: State of Alaska Department of Transportation and Public Facilities, Anchorage, Alaska.

The big international story is cargo

Anthony Sampson wrote in his book *Empires of the Sky* that Anchorage owes its prosperity to oil, but even more so to the planes which have connected it both to the world and to the rest of Alaska. There is certainly much bravado in this statement, yet maybe he was insightful regarding Alaska's future.

The state's international cargo picture is impressive. Nearly 90 percent of all Asia-North America scheduled air cargo traffic comes through Anchorage. Both Fairbanks' and Anchorage's international airports are beneficiaries of this traffic (See Figure 4 and Table 6.) Anchorage International Airport ranks number one in the nation when measured by landed weight. (See Table 8.) For many of these flights, Alaska is simply a "pit stop." Most of these planes stop only to refuel and trade out crews. (See Figure 5.) By way of this simple exchange, airports earn landing fees and the fuel suppliers sell lots of fuel. A 1995 University of Alaska-Anchorage report on the Anchorage International Airport estimated that for each international transit cargo plane which lands one time per week, five jobs are generated in the economy. With over 15,000 international cargo landings last year, this adds up quickly.

A more recent and possibly more important international cargo development is the dramatic increase in the freight forwarding business, which at this point is concentrated in Anchorage. These businesses specialize in freight consolidation and efficient routing to deliver freight to various national and international markets. Presently, the two biggest players are Federal Express and United Parcel Service (UPS). Combined, they employ more than 1,000 workers, and both are among Alaska's top 100 employers. Federal Express built its sorting facility in 1989 and has been expanding ever since. And now, UPS is tripling its square footage to accommodate this rapidly growing market.

Just recently, FedEx Logistics Services (a subsidiary of Federal Express) announced that it will open an express distribution center in Anchorage. Several industry analysts see this event as putting Alaska one step closer to becoming a major global distribution center. Alaska's location makes possible quick delivery of high-valued, time-sensitive, manufactured products to nearly any part of the world. Because of the growing use of time-sensitive technology and the hyper-growth of East Asia, the upside in this segment of the industry is tremendous.

There are lots of jobs and job seekers

Because of the size and growth of this industry, thousands of Alaskans have found opportunities to earn their living in aviation. The mean wage for the air transportation industry is higher than average. (See Table 9.) Wages and opportunities vary a great deal, as do the kinds of occupations represented in the industry. (See Table 10 and Figure 6.) For example, on average pilots, mechanics and air traffic controllers earn

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Air Transportation Industry Wage and Salary Earnings in 1994 compared to:

Industries:	Annual Average Monthly Earnings
All Industries - Average	\$2,691
Air Transportation	\$2,984
Water Transportation	\$3,373
Trucking & Warehousing	\$2,671
Oil & Gas	\$6,111
Construction	\$3,779
Retail Trade	\$1,499
Services	\$2,040
Government	\$3,157

Source: Alaska Department of Labor, Research and Analysis Section.

\$17-30 per hour, while wages in other air transportation occupations do not differ much from jobs found in the other lower-paying service industries. It is not unusual for entry level wages to be in the \$6.50-7.00 per hour range for ramp workers, ticket agents, plane cleaners and sometimes flight attendants. These wages also vary depending on experience, responsibilities and who the employer is.

At present, many carriers are experiencing little difficulty finding qualified personnel—and over the years this has typically been the case. The sheer romance tied up in this industry seems to ensure a steady supply of job seekers. Another big reason this healthy supply of experienced aviation personnel presently exists is the closure of MarkAir and MarkAir Express. It's not a surprising result, considering that 1,300 MarkAir people lost their jobs in the past 18 months. The

military and several schools in the state also provide the industry with a steady supply of trained workers. There are exceptions. For example, some airlines have difficulty finding experienced aircraft mechanics who can work on some of the industry's older planes. In the bigger scheme of things, the industry is large enough and dynamic enough that perseverance does often pay off.

Summary—Lots of potential for uplift

In spite of the short-term employment setback caused by the closure of MarkAir and MarkAir Express, the outlook is rosy for many segments of the industry. But at present, Alaska's lackluster economy will probably not provide much uplift for the industry. Regulatory changes could also stifle some of the industry's growth. Yet some big forces are operating in the industry's favor.

Air transportation is the biggest beneficiary of the stellar performance of the visitor industry. These benefits come not only from ferrying a growing number of visitors back and forth to the state, but also from traffic within the state and from flight-seeing tours to glaciers and other destinations of interest.

In addition to a promising domestic outlook, Alaska's international side of aviation also should prosper due to the booming economies of Asia and the even more rapid increases in international trade. Growth should continue in moving bulk cargo, sorting cargo, and moving people in transit. Becoming a major international logistics center would pump just that much more wind beneath the Alaska air transportation industry's wings. The result of all of this should mean that more Alaskans will be finding employment opportunities in the state's aviation industry.

Table • 10

Wages for Air Transportation Occupations 1995

	Median Hourly Wage Rate
Aircraft Pilots/Flight Engineers	\$29.54
Ticket Agent	\$10.88
Transportation Agent	\$10.66
Flight Attendant	\$10.62
Aircraft Mechanics	\$17.36
Material Movers	\$10.93
Air Traffic Controller*	\$27.72

* Federal position: based on GS-12; Step 4 ; includes 25% COLA adjustment
Source: Alaska Department of Labor, Research and Analysis Section.