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AUGUST 2006

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# A NEW SKY KING

Alaska Airlines has used clever commercials to help build itself into the major carrier with the most flights serving Portland and Seattle. Now it is facing new challenges.

BY ROBERT L. HILL

**T**he traveler steps up to the airline ticket counter, only to face a large video screen. He puts his credit card in a slot in the counter, a smiling female face appears on the screen and says, "Hello, I'm your automatic ticket dispenser. Your destination, please," and the man replies. "Smoking or nonsmoking?" the woman/screen asks. "Non-smoking," he answers. An airline ticket zips out of a slot in the counter. As the man takes the ticket, the woman on the screen instructs, "Please place your luggage in our automatic luggage conveyor slot at your feet." The man begins to protest, "But I don't have any luggage" when a suitcase-size slot in the counter opens, and, with a gush of air, the man's pants are sucked off through the opening. As the man stands there in his underwear looking perplexed a voice intones the message that, if you want more personalized service, you should fly Alaska Airlines.

This television commercial is the latest in a line of entertaining and award-winning Alaska Airlines spots produced by

Joe Sedelmaier, the Chicago advertising whiz who is responsible for many of the "atrocious" commercials on television, those spots that depict dire happenings to the user of a competitor's product or service. In fact, this new commercial has not even aired yet; it is scheduled to make its debut during the Super Bowl telecast in January.

The new commercial is more than a little symbolic. If financial results are compared, Alaska Airlines has been beating the pants off competitors along the west coast for quite some time. The next challenge facing Alaska Air is to continue that success in the wake of fare wars that have spread throughout the west coast.

Alaska Air has enjoyed 12 straight years of profitability. This includes the last seven under airline deregulation, which sent several major carriers down in flames. Alaska, meanwhile has been flying high, enjoying not only profitability, but also four straight years of record-setting revenues and profits. And 1985 should prove to be number five in that string. The company's 1984 return on shareholders' equity at 24.4% (see tables, pages 24 and 94) was among the highest in the industry and larger than any of the



major nationwide carriers, according to data supplied by E.F. Hutton & Co. Alaska ranks 21st in size among U.S. airlines. (The corporation recently set up a holding company, Alaska Air Group, Inc., as the parent company of Alaska Airlines, its only subsidiary. The company is listed under the holding company name in investor-related information.)

In the last four years, Alaska Air has doubled in size as it changed from a carrier primarily serving Alaska to one which now intends to be "the dominant carrier between the Pacific Northwest and the San Francisco Bay area and southern California," the stated goal of Bruce Kennedy, the 47-year-old chairman and chief executive officer of the company. (Kennedy, comparatively young to be CEO of a corporation of Alaska Air's size, is typical of the management team. Eight of the 11 top executives are 47 or younger, and only one is over 60.)

The carrier has gone a long way toward achieving its goal of regional dominance. In 1980, only 7% of Alaska Airlines passenger revenue came from routes out-

## ALASKA AIR GROUP HISTORICAL SUMMARY

DOLLAR AMOUNTS IN MILLIONS, EXCEPT PER-SHARE FIGURES

	1985*	1984	1983	1982	1981
TOTAL REVENUES	\$438.6	\$361.6	\$280.6	\$234.5	\$182
NET INCOME (LOSS)	29.4	23.9	15.7	10.6	7.7
NET INCOME (LOSS) PER SHARE (FULLY DILUTED)	2.00	1.93	1.44	1.15	.97
BOOK VALUE PER SHARE	—	10.12	8.05	6.65	6.47
RETURN ON AVERAGE SHAREHOLDERS' EQUITY	—	24.4%	20.1%	18.5%	24.8%

\* Estimates from William Whitlow, Jr., financial analyst in the Seattle office of Dain Bosworth, Inc.  
SOURCE: 1984 Alaska Airlines Annual Report

the 1988-1990 period, and United plans to buy 116 jets worth \$3 billion from Boeing, with delivery before 1991.

### Rent, Don't Buy, Planes

Alaska Air itself is in the midst of a purchase of nine McDonnell Douglas MD-83 jetliners for a total of \$212 million. These mid-range planes, specially designed for quiet operation, will be used to serve noise-sensitive airports in southern California.

A major purchase like this is somewhat of a departure for Alaska. It has tended to avoid large capital commitments by buying only used planes and leasing new ones. This has enabled the airline to maintain one of the lowest debt burdens in the industry. Its debt-to-equity ratio has hovered in the 40% to 50% range in past years.

Kennedy also has been committed to stringent cost control in most other areas, too, aside from changing the airline's image as one that is committed to offering a higher level of service than its competitors. This high level of service results in the airline having one of the highest operating cost levels in the industry. (For a comparison of operating statistics for several different airlines, see table, page 24.) But Kennedy is committed to controlling labor costs, too, before they begin to present financial problems.

To show its resolve, the company went through a strike last March, April and

May by its mechanics and related employees. But it emerged from that strike with its major goals: a new two-tier contract that provides for lower wages for starting employees, more flexible work rules, and greater use of part-time employees.

Throughout the industry, Kennedy said, unions "are slowly becoming aware of the problems" facing the airlines and "are becoming more enlightened" in their approach to contract bargaining. About 85% of Alaska Air's employees are covered by union contracts. The company's employment should average about 3,000 in 1985. In 1984, wages and benefits were about one-third of Alaska's operating costs, versus 23% for a discount carrier such as Continental.

One of the main reasons the company is attempting to lower its labor costs is the realization it was facing an increasingly competitive situation as it entered more populous Sun Belt markets. That point was driven home to the company this past fall as fare wars erupted not only in service from the Northwest-to-Los Angeles market, but also in the Northwest-to-Anchorage market, previously immune to this marketing tactic.

The result of this fare cutting showed up in Alaska Air's third quarter results. This quarter is typically the company's most important because of the Alaska tourist traffic. Historically, revenues in Alaska's third quarter have equaled all the other three quarters combined. With the fare wars this past fall, Alaska was

able to report higher profits and revenues than the previous year, but its per-share earnings fell to 86 cents from 96 cents the year before, far below the level market analysts had expected. In a September "Research Memo" issued by the Seattle office of Dain Bosworth, Inc., market analyst William Whitlow, Jr. predicted per-share earnings in the third quarter for Alaska of between 96 cents and \$1.15. At the time, he predicted year-end results that would show fully diluted earnings per share of \$2.40, an increase of 24.4% over 1984's \$1.93.

Whitlow now says, after seeing the third quarter results, that he has revised his 1985 earnings estimate downward to about \$2, an increase of only 3.6%. (In the past year, Alaska has increased the average number of primary shares outstanding by almost 1.4 million shares through a \$28.5 million public stock offering last February.)

Whitlow said he was "very disappointed" with the third quarter results. He said he had thought Alaska Air would be "relatively immune to fare cutting," but that he was wrong. In the near term, the earnings outlook for the company "is not so favorable," but for the long-term he sees the stock as still being a good buy, particularly at prices below \$20 per share. The stock was trading at around \$20 in November.

Whitlow cautioned, however, that fare wars are always a concern, particularly if they last for very long. "They could really hurt (Alaska Air) if they continue into next summer. That is the key."

In the past, Alaska had been able to operate with relative impunity from a solid base of operations in the 49th state. The airline now faces the competition of United, which started service to Anchorage in 1983. Alaska Air also competes in the market with Western and Northwest. However, the company still claims a commanding share of the Alaska-lower 48 market — 41% earlier this year.

One of the biggest events that hit the airline industry this past year, outside of mergers, was the purchase of the Hertz

*continued on page 94*

## SELECTED AIRLINE 1984 OPERATING STATISTICS

REVENUE PASSENGERS	AIRCAL	ALASKA	CONTINENTAL	HORIZON*	NORTHWEST	UNITED	WESTERN
REVENUE PASSENGERS CARRIED	3,989,867	2,543,000	11,100,000	659,861	13,216,000	41,273,000	8,307,000
PASSENGER LOAD FACTOR	55.1%	52.2%	62.7%	52.2%	60.5%	60.4%	57.7%
BREAKEVEN LOAD FACTOR	50.2%	46.8%	59.8%	48.6%	57.6%	N/A**	59.9%
YIELD PER REVENUE PASSENGER MILE	17.7¢	17.1¢	9.4¢***	32.2¢	10.04¢	11.6¢	11.1¢
COST PER AVAILABLE SEAT MILE	9.3¢	9.3¢	6.2¢	17.7¢	7.11¢	7¢	7.2¢

\* Fiscal year ending September 1984. \*\* Not Available. \*\*\* First six months of 1985.  
SOURCE: 1984 annual reports or other company supplied data.

## ALASKA AIRLINES

continued from page 24

company by UAL, Inc., the parent company of United Airlines. With the acquisition of the nation's largest car rental company, combined with its existing Westin hotel chain, industry analysts speculated that United could become even more dominant in the travel industry and use its ability to offer deals with its other subsidiaries to take business away from other airlines.

But Kennedy is not too worried about the additional possibilities the purchase of Hertz might offer United. There are a number of areas in which Alaska can't compete with United, such as its reservation system and extensive frequent flyer program, Kennedy said, but Alaska can compete by offering better service.

### Plastic Parsley And Pygmy Chickens

Superior service and food have been the keystone of Alaska Air's television commercials which humorously claim other airlines have crowded conditions and inferior food. John Kelly, vice president of marketing for Alaska Air and the man responsible for the commercial campaign, said one of the first of that series of commercials — featuring airline passengers looking forlornly at a tiny doughnut on their seat trays — almost wrote itself. Kelly said he had traveled to Los Angeles several years ago and at the time had to take another airline. It was a major carrier which Kelly wouldn't name, but he said when the passengers were served only a small doughnut for breakfast, "it was even embarrassing for the flight attendants." This offered Kelly a "marketing person's dream," a classic case of product differentiation in which

"you have the clearly superior product." With Alaska's commercials, Kelly said, "for once, someone admits there are problems with flying." Alaska's message is that "we can help the traveler avoid or make more pleasant these problems. We are trying to offer traveling like it used to be." In addition to the soon-to-be released spot featuring the passenger's pants being sucked off, another spot emphasizing the bad food on competitor airlines will show meals with plastic "re-usable" parsley and pygmy chickens about the size of a thumbnail.

The "automatic ticket machine" commercial appears to be a direct slap at PSA airlines, which has recently been sending out press releases touting the time-saving aspects of its automated ticket machines. Comparing them to bank automatic tellers, PSA claims customers are "delighted" with the machines — which do not feature automatic luggage handling.

Looking to the future, Kennedy does not see a continuation of the 20%-per-year revenue growth enjoyed the past few years. He predicts 1986 revenue growth could drop below 15% and be 12% to 15% over the long term. On expansion of the system, Kennedy said Alaska has no plans to go into other Oregon cities, since Alaska Air's jets are too big to serve the available traffic there cost-effectively. But Alaska will continue to add cities to its system, probably at the rate of two to five a year. Kennedy sees service to Denver as a possibility and that Alaska could even extend all the way to the east coast, perhaps by offering direct service between Portland and Seattle and east coast cities. Securing direct service to the east is a current primary goal of the Port of Portland.

"We have found the Portland market good to us," Kennedy said. "We are keeping it central in our thinking." ■

## FREE WAY TO ALASKA

continued from page 77

product. Two Goodyear marketing executives flew from Ohio to Anchorage to experience part of the event.

General Electric contributed additional funds for the video work to show how a polycarbonate Lexan the company manufactures protects windshields from flying rocks. The clear, plastic-like material is often used as bullet-proofing in banks and prisons. The clear sheets were cut to fit over the broad motorhome windshield. GE will use the footage for a video news release that will be beamed by satellite to as many as 600 television stations.

Lux, a manufacturer of RV seats, contributed four of its most comfortable units for the event. The company is producing a full color poster of the motorhome to promote its products.

ISSPRO of Portland provided a custom dashboard with special gauges. The 85 miles-per-hour speedometer was not always enough — the motorhome frequently buried the needle while speeding along the long, empty stretches of tundra road.

Other companies contributed road lights, brake pads, electric fuel pumps, airbags for suspension, chrome hub and nut covers, and electric rear-view mirrors. And on and on it goes.

Probably the most unusual contribution came from Apricot Computers, a manufacturer in the United Kingdom. It loaned a computer for word processing. A good bit of the trip it was stowed under the dinette seat, but after 5,000 miles of shaking and jarring it still functioned like new.

The most popular contributor to the event was chef Horst Mager, whose Rheinlander Restaurant provided gourmet sausages and meats, lentil soups, sauerkraut, and brownies. Mager's products made the motorhome the center of social life during the trip. Whenever there was a stop, Gordon heated sausages in the microwave and rallyists filled the RV.

Following the rally, Gordon displayed the motorhome — nicknamed "Rocky II" — at the Specialty Equipment Manufacturers Association show in Las Vegas in November. This is a big event for the automotive industry, and Rocky II captured more than its share of attention, according to Gordon. From there it went to the RV show at Dodger Stadium in Los Angeles.

Gordon is convinced that the more the contributors promote their products through emphasizing the exploits of Rocky II, the more it will help all the other participants — especially him.

He has indeed managed to have his cake and eat it, too: enjoying a trip to Alaska, having others foot the bill, and promoting his products in the process. ■

### AIRLINE FINANCIAL RESULTS

	REVENUES	% CHANGE FROM 1984	PROFIT	% CHANGE FROM 1984
AIRCAL	\$ 268.2	20	\$ 14.1	130
ALASKA	330.5	27	25.6	37
AMERICAN	4,642.8	16	321.4	53
CONTINENTAL	1,275.1	52	91.7	156
DELTA	3,570.3	7	154.9	- 16
EASTERN	3,688.1	14	73.8	251.5*
NORTHWEST	2,024.3	8	75.1	- 13
PSA	577.7	11	16.4	2,304*
UNITED**	4,490.9	- 15	- 69.5	- 135.2
WESTERN	1,012.2	12	74.6	414.8*

First nine months of 1985. Dollar amounts millions. \*Losses were reported for first nine months of previous fiscal year. \*\*Includes hotel operations and first month of operations of Hertz Corp., the car rental company purchased recently by UAL.

SOURCES: Company press releases and other published sources



BOB SHANE

*The CRJ is the sixth most successful jetliner ever built, with 1,436 firm orders from customers around the world. One of the latest CRJ200 operations is the Hawaiian inter-island service launched by Mesa Airlines, called go!*



BOMBARDIER

*The CRJ705 is actually a CRJ900 operated in a 2-class configuration.*

and Dash 8s—hitherto CRJ orders traditionally exceeded those for the turboprop.

Bombardier's Quiet Noise & Vibration Suppression System (NVS) is unique to the Q Series. Hidden microphones in the cabin measure noise levels and send this information to an onboard computer. This computer, which also receives propeller speed data, analyses the information and transmits messages to devices called ATVA (Active Tuned Vibration Absorbers), which are mounted on the fuselage frames. These absorbers produce counter vibrations, thus canceling out the traditional shaking associated with turboprop types (caused mostly by pulses of air, created by the propellers, striking the fuselage).

### **Q400: Leading the Way**

In the past two years most orders for the Q Series Dash 8 have been for the Q300 and Q400, which is not surprising, given the obvious benefits of larger aircraft. Operating a 78-seat Q400 on a 500mi (804km)-stage will save an airline an average of 40% overall operating costs compared to using a 50-seat CRJ200. Turbine engine maintenance costs (cycle costs) are up to 83% less than on a CRJ.

Jeff Pinneo, president and CEO of US West Coast-based Horizon Air, says that "there was no negative reaction from passengers when we switched some routes from jets to the Q400."



*As well as flying CRJs, Horizon Air, an Alaska Airlines affiliate, is the largest operator of the Dash 8 in the United States. The Q400 has the speed of a pure-jet, allowing airlines to mix and match types on the same sectors, much as Horizon and Alaska do on the Seattle–Spokane route in Washington state.*

*SAS Commuter was the first customer to take delivery of the Q400, in January 2000, and now operates 24 aircraft.*



PHOTOS: BOEING/ASA



*Caribbean Star Airlines operates a mix of Dash 8 Series 100s and 300s (pictured).*

The Q400's generous center of gravity envelope eliminates the need for weight distribution—no longer do flight attendants have to re-seat passengers after boarding. As Horizon receives more Q400s, the airline aims to eventually offer flights every 30 minutes from its Seattle hub to Spokane, Washington, and Portland, Oregon.

"This is only possible with the favorable economics of the Q400," notes Pinneo.

Horizon flies its Q400s an average of 10hr 20min a day—far higher than the industry average—and still manages to achieve a 97.5% schedule completion rate.

Both legacy carriers and start-ups are realizing that



*The bulk of the Flybe fleet will eventually be composed of 78-seat Q400s.*

# Horizon Air Celebrates 25 Years of Serving You

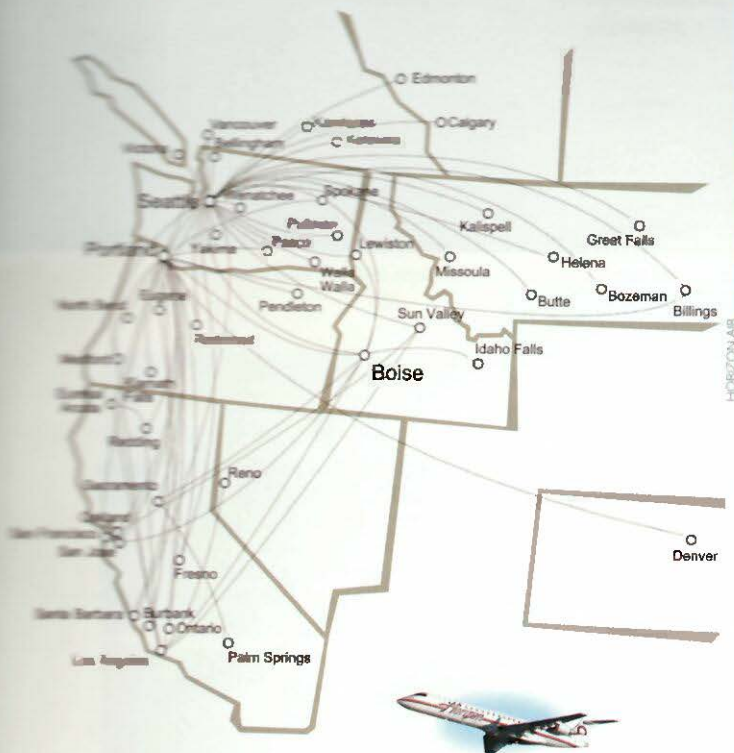
by Haas Mroue

## Horizon Air



'It's our privilege to serve you' has been Horizon Air's motto from the day the company was incorporated, on May 7, 1981—as Pacific Horizon Airlines—by a team of entrepreneurs led by Milton G Kuolt.

Kuolt (who had been a business manager with Boeing on the 737 program), along with local businessmen Bruce McCaw, Joe Clark, and pilot Scott Kidwell, believed that after airline deregulation there was a need for air service from Seattle, Washington, to smaller cities throughout the Pacific Northwest. And they were right.



*Horizon Air's first flight (QX100) carried only a few paying customers—most of the passengers were McCaw family members. This is the airline's second of three former Quebecair F-27s.*

*Horizon Air operates as an Alaska Airlines code-share partner using AS (2000-2999) flight numbers.*

In a little more than three months the airline (renamed Horizon Airlines, doing business as Horizon Air) had an air carrier operating certificate, acquired two airplanes, painted and refitted their interiors, started a reservations center, and hired pilots, flight attendants, and the other employees vital to the operation of an airline. It was a staggering task, and McCaw and the group worked constantly. When Horizon Air began service the company had 36 employees; today it has over 4,000.

On September 1, 1981, the day after its certificate was issued, and less than 100 days after the airline was formed, Horizon's first flight—operated with a leased 40-seat Fairchild F-27—departed from Seattle (SeaTac) to Yakima. Six days later, service to Pasco started, followed in December by Pullman, and interstate flights to Portland, Eugene, and Medford, Oregon. Ski charters to Sun Valley, Idaho, began early in January 1982.

Barely a year after it was founded, Horizon Air took

over Air Oregon, adding seven 19-seat Fairchild Metro IIs. And then, in December 1983, Horizon acquired Utah-based Transwestern Airlines, along with another three Metros. The following year Horizon raised much-needed cash through a successful public stock offering.

From then on, Horizon Air was unstoppable, opening new stations in cities across Oregon, Washington, Idaho, and eventually moving further afield, into Canada, California, and Nevada.

Bill Ayer (now CEO of Alaska Airlines) was hired by Horizon in 1982 to generate charter business. He remembers coming to work at 0400, along with the other executives. As Jeff Pinneo, president and CEO of Horizon points out, "Horizon was founded as a people business, we are all about service."

Five years after its start, Horizon Air was bought by the Alaska Air Group. It was an airline marriage made in heaven: Horizon kept its identity (the two are separate



*Air Oregon was acquired by Horizon on June 17, 1982, and the first combined flight schedule was effective July 6. Transwestern Airlines of Utah was taken over on December 1, 1983. Horizon received its first Metro III in April 1983.*





*Horizon was the first regional carrier in the Northwest to operate pure-jets when it acquired a Fokker F28 Mk.1000 in 1984.*



*Horizon had a short stint with other jets, wet-leasing a Douglas DC-9-14 (left) from All Star Airlines from July to Thanksgiving 1984 before the first F28 arrived. Two BAC One-Eleven 400s were wet-leased from Cascade Airways during the second half of 1985 when Horizon proposed to acquire the Spokane-based competitor. The transaction failed to materialize and Cascade ceased operations in March 1986.*





Introduced in 1986, the Dash 8 Series 100 was retired in 2001 in favor of the Q200 (above).



Horizon introduced Dornier 328-110s in 1994, but the type was withdrawn—along with the long-serving Metro III—three years later in a cost-cutting move.



In 1999, Horizon was the first North American customer to order both the Bombardier CRJ700 (foreground) and Q400. "The Q400 has been a great replacement for the F28 on certain routes," says Horizon President & CEO Jeff Pinneo.

companies but are co-marketed) and Alaska Airlines benefited from passengers fed to its Seattle hub.

By 1993, Horizon had become the fourth largest operator at SeaTac and scored its busiest day to date, boarding a record 10,000 passengers in a 24-hour period. Three years later, Horizon was operating more than 500 flights a day system-wide, and in 1999 it had become the second-largest airline at SeaTac (based on passenger boardings), after Alaska Airlines.

To replace its fleet of 13 F-27s, Horizon ordered De Havilland Canada Dash 8-100s in 1985, which began arriving at the end of the year. These have since been replaced by the improved Bombardier Q Series 200 (from 1997) and Q400 (from 2001). In 1995 the Dash 8 fleet was approved for operations in Category III weather conditions with a Head-Up Guidance System (HGS).

After wet-leasing a Douglas DC-9 for several months, Horizon began its own pure-jet service at the end of 1984 with a sole Fokker F28 Fellowship. A second followed two years later, with a third in 1989, and this small fleet of twin-jets was expanded to 35 from the mid-Nineties. Noise restrictions and high fuel burn saw these popular aircraft retired in 2003 (*Airways*, May 2003) and replaced by Q400s and the Bombardier CRJ700.

The CRJ700 has double the range of the F28 and has

helped Horizon spread its wings to new destinations such as Los Angeles, from Boise, Idaho, and Eugene.

In fact the biggest news for Horizon Air as it celebrates its 25<sup>th</sup> birthday is the emergence of California—and Los Angeles in particular—as the airline's next big market. "As Alaska Air grows at LAX," says Jeff Pinneo, "Horizon will continue to grow there also."

Horizon now flies only Bombardier types—a 68-airplane mix of Q200s, Q400s, and CRJ700s. "We are looking to morph into larger aircraft," admits Pinneo, but no order decision has been made.

Another dozen Q400s are due over the next two years, allowing the airline to expand service and add more frequency on key routes. At Horizon, the motto for the shuttle-like timetable is: 'You're never late for your flight, you're just early for the next one'.

Customer loyalty to both the Horizon and Alaska brands is very strong, especially in the Northwest, but increasingly so in California. Horizon is also finding a niche presence in such cities as Reno (Nevada), Boise, and Portland. Recently, Alaska Airlines suspended service from Portland to Reno (a route which had been operated using either a Boeing 737 or McDonnell Douglas MD-80) and Horizon took over with the Q400. Horizon already flies between Reno and Los Angeles.

Horizon operates nine CRJ700s on behalf of Frontier Jet Express. These are dedicated F9 services, not code-shared by Horizon.



ERIC DANIEL SMITH

Passengers are discovering that in order to find frequency and low fares they have to fly a regional airline, and Horizon is flying more 'point-to-point' customers—those passengers who are not feeder clients to Alaska. Horizon launches service in August to LAX from Redmond, Oregon, and in 2007 to Santa Rosa (Sonoma County)—in the heart of California's wine country—from both Seattle and LAX.

After September 11, 2001, Horizon Air realized how exposed the company was to shifts in the industry. Some CRJ deliveries were deferred and other orders switched to Q400s. Still faced with excess capacity, a 12-year agreement was signed with Frontier Airlines to operate nine CRJ700s for Frontier JetExpress, replacing a contract with Mesa Airlines. Some 200 Horizon employees are based in Denver (and crews wear Horizon uniforms), with

the CRJs operating to cities within 800mi (1,300km) or so, including Billings (Montana), Spokane (Washington), Tulsa (Oklahoma), and Tucson (Arizona). Pinneo says: "We have a terrific partnership with the people at Frontier; their work culture is very similar to ours."

After a quarter century of steady growth, Horizon's traffic continues to rise. In April 2006, for example, 554,600 passengers were carried, compared to 505,500 in the same month last year—an 18% increase—and load factor rose from 70 to 75%. (The figures include services operated for Frontier Jet Express.)

Most importantly, the airline has not forgotten its purpose in life. "We are still very committed to maintaining our promise to our customers," says Pinneo, "and without our enthusiastic and hard-working employees, Horizon would not be where it is today." →



Horizon Air is the only regional US carrier to offer complimentary beer and wine (from Northwest microbrews and local wineries) to all passengers. Also, Horizon was the first US airlines to serve Starbucks coffee on all its flights.

## Fast Facts-Horizon Air

IATA: QX ICAO: QXE  
IATA/ARC: 481 Radio: Horizon



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**Internet:** [www.horizonair.com](http://www.horizonair.com)

**Founded:** May 7, 1981

**Start date:** September 1, 1981

**Chairman:** William Ayer

**President & CEO:** Jeff Pinneo

**Employees:** 4,000

**Ownership:** Horizon Air Industries/Alaska Air Group

### Fleet

Type	N°	Seats	Engines
DHC-8-202	28	Y37	PWC PW123D
DHC-8-402	20	Y74	PWC PW150A
CRJ700	20	Y70	GE CF34-8C1

### On order

DHC-8-402	12
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# Showtime at 'The OC'

by Mac of Uhr

For many reasons, Santa Ana/John Wayne Airport-Orange County (IATA: SNA/ICAO: KSNA) would simply be just another obscure sun-bleached airfield in southern California. There are, however, a few amusement park-style rides and experiences that spice up this parched little airport named after movie legend John 'Duke' Wayne.

This small parcel of land ranks among the USA's busier single commercial runway airports, with jets as large as Boeing 757s making regular appearances. In addition to the main Runway 1L/19R, at a length of 5,700ft (1,737m), there is the shorter 1R/19L (2,887ft/880m), built in 1940 and used mainly for general aviation, about 100ft (30m) to the east. Airliner arrivals here quite often find themselves in close formation with a small single-engine Cessna or Piper during short final.

What really sets this airport apart is the relative short main runway and what could be the world's most stringent noise restrictions. Special noise abatement takeoff profiles have been developed for 19R. The trick, which requires some unique procedures and special training, is to get in and out of 'the OC' without setting off any of the noise-monitoring bells and whistles. Many of these devices are located along the departure path, and decibel readings are recorded for each takeoff.

'Busting' any of these monitors quickly brings you from an everyday hero to zero in less than the runway's available length. The most crucial of these intrusive listening devices is located barely 3,000ft (900m) from the end of the runway, on both sides of the extended centerline. Only minor deviations are needed to increase the noise by one decibel (dB). For instance, a two-second delay in setting cutback power, 3% above target  $N_1$  (fan or low pressure compressor speed) or 191ft below normal altitude, can do it.

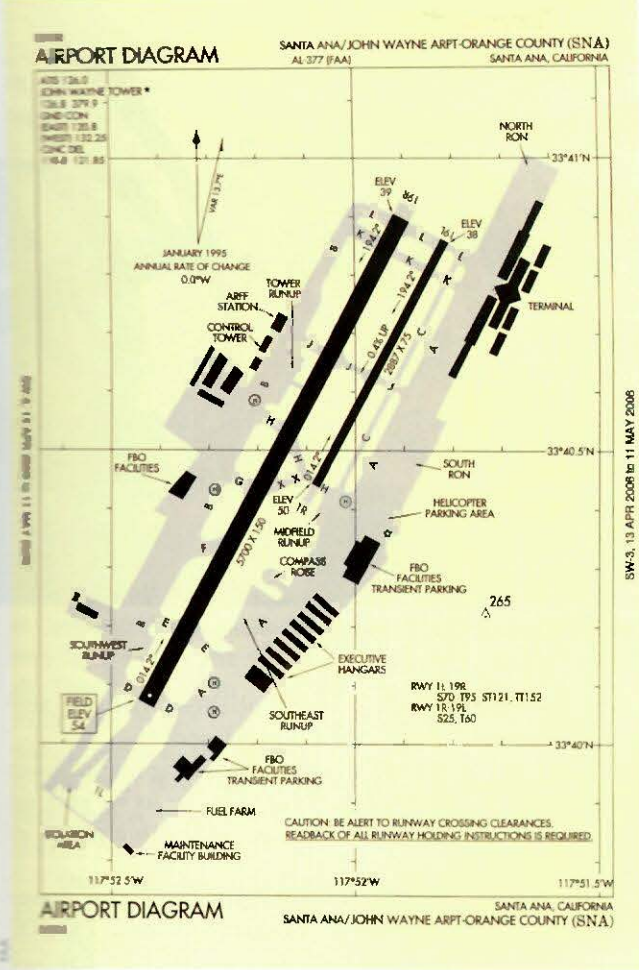
This may seem like an insignificant amount, but each decibel can have a huge impact on an airline's operation. As an example, during one week in November 2004 Alaska Airlines's SNA departures were, as a whole, only 1.3dB below the maximum allowable limits. The way the airport authority tracks individual flights is by their assigned transponder 'squawk' code issued by Air Traffic Control.

Orange County is also slot-restricted, meaning that an airline has to apply for permission to fly there. Only a limited number of weight-specific



A bronze statue of John Wayne (born Marion Morrison) is on display at SNA. In his final years Wayne lived in nearby Newport Beach, where he is buried.

Wayne co-produced and starred in two classic aviation movies, *Island in the sky* (1953) and *The High and the Mighty* (1954), both based on novels by Ernest K Gann.



taxiways, built of concrete and able to support aircraft weighing up to 300,000lb (136t). As soon as the first batch of flights pushes back from the gates, another lot of waiting airplanes are towed to vacated airbridges and the aircraft launch continues unabated through the late morning. The next peak period is during the traditional 'siesta' time, after lunch, followed by a final massive evening rush as everybody tries to arrive before the curfew cutoff.

\*\*\*\*\*

Recently, I made a bid for a rotation that would take me to SNA from Anchorage, Alaska (ANC), via Seattle, Washington (SEA) and Oakland, California (OAK). Charles 'Chuck' Paldanius, a five-year first officer, will occupy the right seat as my co-pilot over the next four days. In SEA we pick up three Los Angeles Basin-based flight attendants for our southbound flight. Jeff Rodrigues works up front in first class while Jody and Cheryl take care of our coach passengers.

The flight in and out of the Bay Area is uneventful—which is how I like it—and we set course for Surf City, USA. After passing MCKEY intersection off the California coastline, followed by DAISY, something tells us that we are approaching 'the happiest place on earth': Disneyland.

We pass 25nm (45km) northwest of Santa Catalina Island at 11,000ft in the dark, descending towards the oil rigs south of Newport Beach, their lights visible for miles. Over Costa Mesa we go 'feet dry' at our clean maneuvering speed of 210kt. The maximum airspeed below the floor of the LAX Class B airspace is either 200kt or the maneuvering speed, though this requirement is waived for most departures to facilitate compliance with the noise abatement procedures.

As we enter the downwind leg at 4,000ft, we configure flaps to 'Five' and slow to 180kt. Shortly thereafter a dazzling light display catches my eye. To the left and in front of us is Mickey Mouse's 85ac (34ha)-kingdom in all its glory. The light show is the 2130 Sunday fireworks

slots are available, with the average departures hovering around the 140 per day mark. For instance, the 'E' slot for the Boeing 737-400 is limited to 108,000lb (49,000kg), while the 'A' slot for the same type is limited to 140,000lb (63,500kg). Achieving satisfactory noise readings is increasingly more difficult as the weight increases, especially within the 'E' category slots.

Currently, there are seven air carriers on the waiting list to add service at John Wayne Airport (JWA reviews capacity annually, around April each year). If space became available, an airline would have to fulfill a number of requirements before receiving approval, including an aircraft qualification test. This consists of at least five arrival and five departures during a single day to show adherence to the noise restrictions.

To further complicate matters, SNA also has a curfew, mandated by an agreement that settled litigation against the airport. The curfew lasts from 2200 to 0700 every day except Sunday, when ops cannot begin until 0800. With all of the airport's 14 gates always occupied in the morning, a traffic jam is created as everybody wants to depart at the same time. To facilitate aircraft movements during this morning rush hour, the shorter GA runway is used as a taxiway. Runway 19L is, like the airport's other



The proximity of Disneyland doesn't make operating into SNA kids' stuff.



FO Chuck Paldanius conducts the preflight of Ship 765 at SNA, although a more appropriate airplane would have been Ship 791 (opposite).

display in honor of the park's 50<sup>th</sup> anniversary, and it is truly a spectacle. From my lofty vantage point I can see the Matterhorn 'mountain', the monorail, and many of the other thrilling rides I remember so fondly from numerous childhood visits with my parents.

Unfortunately we do not have time to watch the brilliant pyrotechnics—even though multi-hued explosions continue to brighten our darkened cockpit at frequent intervals—as we are quite busy at this stage of the approach. SoCal Approach calls our base turn and then vectors us onto the ILS (Instrument Landing System) final with a sly warning. The US Airways/America West Boeing 737-300 (call-sign *Cactus*) in front of us has slowed dramatically and much earlier than usual. On our TCAS (Traffic Alert and Collision Avoidance System) 'fish-finder' traffic display we can see that the diamond-shaped icon depicting the AWA 737 is indeed closer than before. Like the old Pacman arcade game, we are 'eating' *Cactus* at an alarming rate. Before the SoCal controller hands us over to John Wayne Tower he instructs us to slow to less than 160kt IAS (Indicated Air Speed)—and the implication is crystal-clear. We must slow before the LEMON intersection or our approach will turn sour, necessitating another trip around the pattern. With the understated jargon of his trade, the ATC controller leaves this unpleasant fact unarticulated, but nevertheless painfully clear.

Chuck disconnects the autopilot and the autothrottles and closes the throttles. We drop the gear like an anchor, followed by the flaps to their full 40 degrees. As the speed bleeds off, Chuck picks up the slack with the power levers. By the time we slither by SNAKE on the ILS approach, he has countered the additional drag with more thrust. We are now stabilized at our final approach speed of 139kt thanks to Chuck's display of power and momentum

management, skillfully accomplished without any unnecessary movement of the power levers.

Wisps of the quickly thickening evening marine layer are reflected in our powerful landing lights as we pick up the runway end identifier lights in the evening gloom at about 1,200ft.

To further complicate the situation, the tower controller is attempting to depart an Aloha 737-700 between us and the 'new' US Airways jet that has just touched down. It will without a doubt be a close call. The Aloha 737 aggressively takes the runway, its captain no doubt spurred on by our increasing close proximity. The controller impatiently instructs *Cactus* to expedite clearing the runway and then, in the same breath and transmission, clears Aloha for takeoff. I watch with acute interest as Aloha accelerates down the short runway to insure that the 737 becomes airborne in time. Boeing's long-range 'baby' finally breaks ground just as we sail across the 405 freeway and then the airport perimeter fence. Chuck deposits us right smack on target in the middle of the touchdown zone with the deft touch necessary for safe operations on short runways.

We clear Runway 19R at Taxiway Echo with only a moderate combination of reverse thrust and wheel brakes. As we turn northbound on the parallel taxiway the next jet arrives over the numbers—another routine evening for John Wayne's 'cowboy' controllers who expertly know how to corral their aluminum herd. A few minutes later we block in at Gate 10, the termination of Flight AS 470.

"Who is the Navy pilot?" quips Jeff from the forward galley when we crack open the cockpit door. Chuck, a US Air Force veteran and former F-16 and A-10 fighter jock, tries real hard but unsuccessfully to look hurt and insulted.

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Chuck and I are back at the airport before noon the next day—which promises to be a long one. We are scheduled to be on duty for more than 12 hours, including 7hr 45min in the air—a quarter of an hour shy of the FAA's eight-hour domestic daily flight time limit.

From SNA we will first fly north to Portland, Oregon (PDX), then return south to Sacramento (SMF), the state capital of California, before going back to PDX. Our final leg will again take us to California, this time to San Diego (SAN), arriving a little before midnight. SAN sports another interesting challenge with only a steep localizer approach to Runway 27 terminating over the infamous parking garage.

We pick up the paperwork in Operations and review the pertinent points. This afternoon we are going to be quite heavy, with bookings indicating that we should have a full load of passengers. The weight and steadily climbing temperature—currently at 18°C (64°F)—is going to put us at the very edge of our balanced field envelope. Winds are very light out of the south and thus of no help to us at all. This forces us to use 'bleeds off' takeoff and flaps at 15 degrees, rather than the preferred Flaps 5. A bleeds off takeoff refers to the practice of using the APU (Auxiliary Power Unit) bleed air supply to feed the air-conditioning packs rather than air from the engines, which is the normal procedure.

Our steed for this flight, another 737-400 in the airline's standard livery, pulls into the gate. The fur parka-clad Eskimo used to be an odd sight in these southern climes, but no more. But it would be more appropriate if we had one of the airline's two Disneyland theme-painted 737s at our disposal.

After the two arriving pilots vacate the front office I begin to build my nest and setting up the cockpit to my liking. Chuck joins me after completing his external preflight. Before calling for the Before Start checklist I brief the entire noise abatement departure. Our instructions

state that it is imperative that these profiles be flown with precision—although I reflect that at no time, under any circumstances, would sloppy flying be acceptable. There is a further admonition that specified power reductions must begin promptly and set accurately.

During the cockpit setup I select my FD (Flight Director) switch to 'On' while turning Chuck's corresponding switch to 'Off'. This action will remove the pitch bar from the FD display on my attitude indicator, as it would otherwise give me erroneous information. I also brief the passengers while still sitting at the gate, as required.

There is even a suggested announcement for those PA (Public Address)-challenged pilots amongst us, which goes like this: *Good \_\_\_\_\_ ladies and gentlemen from the flightdeck. If this is your first departure from John Wayne Airport we would like you to know we are required to use a special noise abatement procedure on takeoff. There will be a steeper than normal initial climb followed by a power reduction when we are safely above the airport. This FAA-approved procedure helps minimize the effect of noise on our airport neighbors and is required in order to serve you here at John Wayne Airport.*

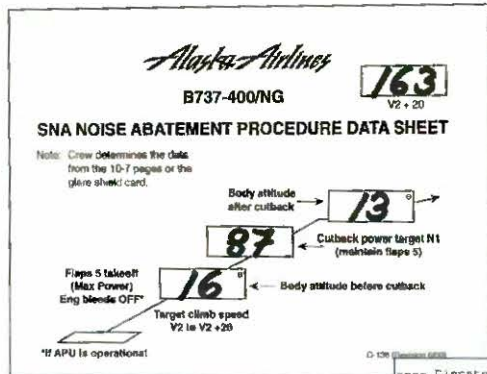
At 1211, shortly before the afternoon rush hour, Flight AS 421 pushes back from Gate 10 directly onto the taxiway intersecting the runway. Just before pushback we received the 'numbers' over the ACARS (Aircraft Communications Addressing and Reporting System) including weight, center-of-gravity, and load information. They indicate that our takeoff weight is 126,100lb (57,210kg), and all our 12 first class and 132 coach seats have passengers' bottoms parked in them, with a few children in laps to weigh us down even further. The forward and aft cargo holds as well as the overhead bins are also jammed to capacity.

We use this data to determine our cutback power setting, which Chuck manually sets by pulling out the right N<sub>1</sub> bug-setting knob. He also calculates the before and after cutback pitch attitude—which I will use as a target after lift-off (Alaska Airlines stipulates that only the captain





Keeping the peace: A noise monitoring station at SNA.



The dispatch release for Flight AS 421 and the noise abatement procedure data sheet.



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===== Dispatch Release for AS # 421 - SNA - 200
----- DISP NLS PLT 421 AMND 0 -----
PERM TO MIN LP ALTN TOW RC SKED S
SNA PDZ 189 MIN SLE 1264 4391 1956 2
-IFR- VT 1826Z / D-DESK PATCH 55 / PHONE 2
DISPATCHER / DATE / ACFT / FAMILTY
G. SMITH 10AOK 765
CAPTAIN
RMKS:
SNA TON BASED RMY 19R / FLP 15 / 0 TWC / P19C
RNG WLEDS CFF / 2XK /
AIRCRAFT 765 MEL
MOTOM 143.5 MGLM 121.0 MZFW 113.0 SELCAL
EQUIP FLARES/ACARS / RLT
CAT III AUTO / H08
MEL
NONE
CEL
NONE

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is allowed to perform the takeoff at SNA).

As the tug disconnects from our nosewheel, I start both engines while Chuck programs the numbers into the FMC (Flight Management Computer). Because we are sitting right next to the runway, I ask Chuck to deploy the flaps to 15 degrees, and I then brief the 'SNA NOISE ABATEMENT PROCEDURE DATA SHEET' that Chuck has also completed, verify the bug speeds, and complete the normal takeoff briefing. We then finalize the Taxi checklist, also without moving.

Although we are in close proximity to the runways it is a big 'no-no' to call Tower directly, instead of first dealing with Ground Control again, as it upsets the ATC system. Tower instructs us to hold between the two runways at idle power—so as to not to cause damage, or even destroy, a Cessna 172 practicing touch-and-goes on 19L—while waiting for the arrival of another airline's 737-800 on short final.

The 737 crosses the threshold at what appears to be a tad on the low side before a hard reunion with terra firma. There is an impressive and expensive gray cloud of tire smoke as the aircraft bounces several feet in the air like a bucking bronco before settling down again. The lack of available asphalt must have intimidated the pilot flying, and there would be no doubt in those hapless passengers' minds that they have arrived in Orange County; the thrill ride they experienced for no additional charge must have rivaled those available next door at Disneyland.

Only a couple of miles to the north and bearing down on us is SNA's next customer in line, indeed one of the airport's heavyweights: a Boeing 757-200 of Delta Air Lines.

Not wishing to hold up the parade, I stand the throttles up as soon as I make the turn facing south at the very northern edge of 19R. As I take the runway we can smell the tire smoke from that Dash 800's recent 'arrival'. While I hold down the brakes, Ship 765 strains against them like a dog on a leash with a cat in sight. Amidst the slowly dissipating rubber smoke we can see the 737-800 clearing the runway at the end, and Tower clears us for takeoff.

The female controller's voice is calm but her tone is urging us to "Get moving!" so I pour on the coals and call for "Max power," simultaneously punching the TOGA (TakeOff Go Around) buttons. With the two CFM56 engines giving their all, and with brakes released, I unleash the proverbial canine. The turbines howl in response as the big N<sub>1</sub> fans come up to speed and we thunder down the short strip.

Now it is 'Showtime at The OC' for the pilots of AS 421, and the electronic critics are ready to judge our performance. The emphasis is on style and grace rather than rock concert decibels and over-the-top antics. Coupled to uncaring computers, the eavesdropping devices are waiting at the ready, primed to immediately tattle on us if we do not have this little aerial ballet down pat.

Any flagrant or blatant violation will reward me with an uncomfortable rug dance in front of the chief pilot or fleet captain, with a remedial simulator check and evaluation all but guaranteed. Too many noise violations and the SNA authorities will pull the valuable and scarce slots, forcing wholesale cancellation of our airline's flights. In case of an emergency or other flight safety item we would, of course, immediately discontinue the noise profile—but this must then be promptly reported.

The end of the runway approaches far too quickly