An Airport

With Altitude

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ew airports in the country have undergone the kind of dramatic growth that now is under way at the Colorado Springs Airport (COS). Passenger boardings or "enplanements" have more than tripled since 1994, and according to Michael Boyd of Aviation Systems Research, Inc., "Colorado Springs is the fastest growing airport in the nation."

This article describes the changes undertaken at COS, ex-

plains the city's strategy for encouraging and accommodating this increase in boardings, and discusses the details of some of the successes won through experience in the past few years.

The accompanying table illustrates the extraordinary changes seen at Colorado Springs.

Rather than simply reacting to the growth in passenger boardings, the city embarked

	June 1994	June 1996
Daily Departures	48	97
Nonstop Cities	8	30
Gross Sales from Concessions (news/gifts, food/beverages, parking, etc.)	\$466,607	\$1,407,856
Gross Sales from Rental Cars	\$1,686,902	\$4,084,840
Monthly Enplanements	76,755	214,854
Annual Total Passengers (YTD)	750,126	2,256,846

about 10 years ago on a strategic path toward constructing proactively a first-class facility capable of attracting and retaining a major airline hub. With that grand strategy, a lot of optimism, and years of hard work by literally thousands of

people, that vision now is becoming a reality.

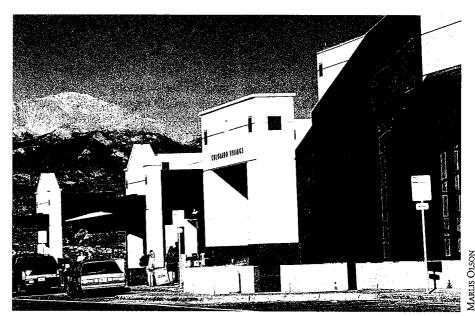
Grand Vision

The city began looking for ways to expand the terminal and airfield in the mid-1980s to meet the needs of the 1990s and beyond. Through this FAA sponsored master planning process, the city quickly found that simply expanding the six-gate, 1966-vintage, linear terminal with another six, 10, or 12 gates just would not make sense for a number of reasons.

Passenger inconvenience. To accommodate a modest six-gate expansion, the maximum walking distance (from the most distant gate to the baggage claim area, which already was 1,300 feet) would have to be extended to about a half-mile. In addition to this distance, the extra 900-foot walk from baggage claim to the surface parking lot, it was reasoned, would be an added inconvenience and would strongly affect the "Easy Come, Easy Go" reputation that the airport had promoted over the years.

Property constraints. Adjacent general aviation facilities, including a hangar and fixed-base operators' location (whose proximity to the terminal had always been thought to be an asset), were suddenly viewed as a liability because any terminal expansions to the north or south would require that they be purchased to make way for a larger passenger terminal and parking structure. The costs and potential time delays involved in condemnation and demolition, compared with the benefits gained, it was determined, would be high and difficult to justify.

Existing runway layout. The airport's three runways were originally laid out in a classic triangular configuration dating back about 50 years. While the triangular design proved invaluable for World War II aircraft operating in crosswind conditions, today's airlines are more in-



The Colorado Springs Airport terminal was dedicated in October 1994.

terested in maximizing operating efficiency, increasing take-off weights (requiring longer runways), or the number of landings per hour under instrument conditions. The feeling was that the capacity limitations imposed by the main, 11,000-foot-long, north/south runway would restrict the airport's growth and make it a less-than-desirable location for possible future commercial airline growth.

In addition, the north/ south runway, whose nearness to the terminal had so far been thought to be an asset, would not easily permit a terminal expansion without expensive remodeling. This "asset" practically eliminated the possibility of any configuration at the existing location other than that of an expanded linear terminal. Moving either the terminal away from the runway or the runway away from the terminal was not desirable from cost/benefit, operational, or practicality standpoints.

Noise mitigation. Accommodating the projected increase in flight operations on the main runway would mean increasing overflights of nearby expanding residential areas. But, it was reasoned, if a new runway could be built on raw land farther east, much of the air

traffic would be routed over a less populated area east of the city, and the number of residences severely affected would drop from an estimated 2,000 to about 200. Clearly, it was concluded, if the airport was to continue to grow and be a good neighbor, construction of a new parallel runway had to be seriously considered.

The Strategy

After considering a variety of alternatives, airport planners concluded that the best layout would involve eliminating one crosswind runway (6,000 feet); constructing a new, long, parallel north/south runway (13,500 feet); and abandoning the six-gate terminal in favor of a new, 12-gate passenger terminal in a new, midfield location. The new terminal, it was calculated, could be placed where it could theoretically accommodate up to 160 gates.

The total plan was estimated to cost about \$140 million and would take roughly 10 years to complete. These improvements would require reinventing the entire airport—a staggering, long-term challenge for a facility roughly 90th in national ranking.

Analysts concluded that financing the

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needed improvements could be relatively straightforward, using a variety of methods, including:

- Issuing up to \$64 million in bonds backed by airport revenues.
- Increasing airline revenues by renegotiating the use and lease agreement with the airlines.
- Increasing nonairline revenues from food/beverages, news/gifts, rental cars, and parking.
- Spending at least \$10 million from the Airport Enterprise Fund balance.
- Obtaining funding from the FAA for noise mitigation, the Airport Improvement Program, and, in 1991, a \$3-per-ticket passenger facility charge.
- Asking city voters to approve \$17
 million in general obligation bonds
 to pay for upgrades to Powers Boulevard, an adjacent major arterial roadway that would both serve the airport
 and complete a missing transportation link on the city's eastern side.

Despite a relatively low operating budget of some \$5 million annually, it was determined that the airport could financially support a growth program easily exceeding \$100 million over 10 years, based on conservative projections of a 3 percent annual growth rate.

Perhaps most important, the community seemed to understand the economic benefits of an expanded facility and approved the proposed improvement program at the ballot box. The city's voters had been asked to approve two bond issues: one for a new terminal backed by airport revenues, and one for general obligation bonds to construct Powers Boulevard (the off-airport expressway), backed by the city's general fund. By a margin of more than two to one, the bond issues passed, giving a green light to expansion of the airport.

The Analysis

Ground diversions. For years, hundreds of thousands of passengers originating

in or destined for Colorado Springs had chosen to use Denvers airport. They cited a number of reasons, including:

- Fare disparities.
- Preference for nonstop service.
- Convenience (many of the flights departing from Colorado Springs would fly first to Denver).
- Availability of seats, class of service, or airline preferences.

Marketing. Surveys conducted by the Colorado Springs Airport confirmed that about 25 percent of all passengers ignored their local airport and chose service from Denver. A major marketing campaign was launched to persuade local travelers to use the Colorado Springs Airport. The campaign cost about 30 cents per enplaned passenger.

After a few years of marketing, a measurable drop in the ground diversion rate was noted, and air service continued to show gradual improvement. When the increase in gross revenues was compared with the program's cost, the financial benefits of the growth in enplanements alone outweighed the marketing costs. Still, it is acknowledged that much of the program had benefits that were intangible and, at best, subject to interpretation.

Surface transportation influences. Increased congestion in the Denver metropolitan area was effectively moving the two airports slowly away from each other, in terms of travel time and thus of passenger convenience.

In addition to traffic congestion, the location of Denvers new airport, which opened in 1995, increased the driving time to and from Colorado Springs. In fact, surface transportation studies indicated that the "break-even" point in terms of travel time between the two airports was actually near the southern suburbs of Denver. And, depending on the time of day and on traffic conditions, the break-even travel timeline was even projected to extend inside the Denver metropolitan area. Clearly, the fun-

damentals of the airport service areas were forever changing the long-established standards of and expectations for air travel in the region.

After the inaugural flight on a new north/south runway at COS in 1991, ground was broken for the new terminal in 1992. Dedication of the new terminal took place on schedule and under budget, on October 11, 1994. It featured 10 jet bridges (versus six) and more than twice the floor space of the old terminal—about 270,000 square feet. Despite the debt service involved in issuing a \$62.9 million bond, the initial cost per enplaned passenger still remained slightly below the typical national charge per passenger.

New Airlines and Other Successes

Within weeks of the opening of the new terminal, an airline (Reno Air) that had never before served the city offered to begin operations. A few months later, Northwest Airlines followed suit and began service.

Perhaps even more important though, a group of potential investors and former airline executives also took note of COS's potential benefits, including:

- Immediate gate availability.
- · Expandability.
- Proximity to a large passenger base determined to be underserved.
- The absence of a local hub carrier.
- A supportive community.

And in late April 1995, a third new airline, Western Pacific, entered the Colorado Springs market, bringing the total number of airlines to nine. Unlike the others, however, this new airline offered not only to serve the city but also to operate a hub, allowing passengers to connect via Colorado Springs.

Numerous benefits have since been noted, including:

 Nonstop service to medium- and long-haul markets. The new, 13,500-

- foot runway allows scheduled flights to major cities on both coasts.
- Quick turnarounds. These are made possible largely because of the efficient airfield layout, good weather, instrument landing system (ILS) equipment, and a lack of congestion.
- Market potential. Roughly 3 million people and a large resort destination market exist within two hours' drive.
- Geography. The central location of Colorado Springs allows both regional commuting and coast-to-coast (east-west) connections.

Results

Since its debut in April of 1995, Western Pacific has expanded its fleet by adding about one Boeing 737-300 aircraft per month, with all flights either originating in or departing from Colorado Springs. The number of cities served nonstop from Colorado Springs has increased from eight to more than 30.

Since October 1994, passenger enplanements have more than tripled and now include both local origin-destination and connecting traffic. By the end of 1996, 5 million passengers are expected to use the airport annually. To place that growth in perspective, the citys financial analysts initially predicted that Colorado Springs would not reach that level of passenger traffic until the year 2017. And if the current rate of growth continues in a few years, the airport will approach the levels of passenger boardings seen only at major airports such as Washington, D.C.'s Dulles.

What is even more interesting is how profoundly the air service market has changed. Before the new terminal opened, nearly all airport users were originating in or destined for Colorado Springs. Since the new terminal's opening, users have been coming from or destined for the Denver metropolitan area and northern Colorado.

Despite the increased competition, air fares to many destinations have dropped dramatically, and yet more carriers have entered the market. Perhaps most stunning, all major airlines serving Colorado Springs have expanded their operations, and Western Pacific has announced plans to add a regional commuter fleet in December 1996.

Accommodating the Growth

With the recent expansion of service, the

Colorado Springs Airport Enplaned Passengers 1994-1995 180,000 160,000 Monthly Passenger Boardings 140,000 120.000 100.000 80.000 60.000 40 000 20,000 Jan Feb 1995 May Jun Jul Total 1994 Passenger Boardings: 791,045 Sep Total 1995 Passenger Boardings: 1,402,302 Oct Nov Jan-June 1996 Passenger Boardings: 1,645,495

number of surface parking spaces at COS has increased from 2,300 to more than 8,000, and consideration now is being given to constructing a 2,800-space garage. Luggage carts and dispensers, a fleet of parking-lot circulator shuttles, and even valet parking have been tried with success. And plans are now under way to add additional toll booths and an inside, pre-pay kiosk to enhance passenger convenience.

More passenger hold-room space has been built, five passenger loading bridges have been added, and three others have been extended, bringing the total to 15 (compared with 10 in October 1994). Five more gates, two baggage claim carousels, and more hold-room space are under construction. The security checkpoint is being widened to accommodate six magnetometers and four x-ray machines, compared with only two magnetometers two years ago.

All told, the terminal, built with the foresight to accommodate growth for decades, is "bursting at the seams" in only two years and being expanded in virtually every respect.

The Future

At this point, the city has chosen to explore the possibility of developing a second terminal concourse and is considering ways to finance the needed improvements while also meeting the need for new facilities. It now appears possible to structure a combination of city investments, airline financing, and future airport revenues that will yield acceptable risks for the city and will strengthen the airports competitive position for decades to come.

While these "nice problems to have" will take years to solve, they would not even have arisen without the long-term strategic expansion program begun over a decade ago.

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