

## Chapter B. Forecasts of Aviation Activity

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### Introduction

Forecasting is a key element in the master planning process. The forecasts are essential for analyzing existing airport facilities and identifying future needs and requirements of the facilities. Forecasting, by its very nature, is not exact, but it does establish some general parameters for development and provides a defined rationale for various development activities as demands increase. The amount and kind of aviation activity occurring at an airport is dependent upon many factors, but is usually reflective of the services available to aircraft operators, the meteorological conditions under which the airport operates (daily and seasonally), the businesses located on the airport or within the community the airport serves, and the general economic conditions prevalent within the surrounding area.

Aviation activity forecasting generally commences by utilizing the present time as an initial point, supplemented with historical trends obtained from previous years' activity and recorded information. This data has evolved from a comprehensive examination of historical airport records from airport personnel, *Colorado Statewide Airport Inventory and Implementation Plan, Technical Summary Report, 2000*, Form 5010-1 data, *FAA Terminal Area Forecasts (TAF)*, *FAA Aviation Forecasts Fiscal Years 2002-2013* and the *1998 Aspen/Pitkin County Airport Layout Plan (ALP) Update*. These documents were assembled in different years, making the base year data quite variable, and emphasizing the need for establishing a well-defined and well-documented set of base information from which to project future aviation activity trends.

Prior to an examination of current and future activity levels at the airport, there are several conditions and assumptions that should be noted which form the basis or foundation for the development of the forecasts contained herein. These statements cover a wide variety of physical, operational and socioeconomic considerations. These

conditions and assumptions, although not necessarily mentioned in order of importance or priority, include:

- **Weather Conditions.** Historic weather data (i.e. visibility, ceiling and wind conditions) for Aspen/Pitkin County Airport has been assembled and reviewed. Weather in the Aspen area is strongly influenced by the surrounding terrain and is typical of high altitude, alpine locations. Because of this, at times, the operation of the airport is significantly affected by weather. According to the 2001 *Aspen/Pitkin County Airport Advanced Navigation Airspace Feasibility Study*, meteorological conditions for the defined visual approach minimums of the Roaring Fork Visual Approach (cloud ceiling of 10,000 feet above ground level and 10 statute miles visibility) are experienced approximately 87% of the time annually during summer months (April 15 through October 14) and approximately 60.6% of the time annually during winter months. The potential negative impact of poor weather conditions on the operational capability of the airport is documented in the following chapter of this document. This information will be analyzed and evaluated in later chapters regarding the identification of potential instrument approach facility enhancements and the preparation of development alternatives for their implementation.
- **Airport/Community Location, Proximity and Role.** Aspen/Pitkin County Airport is uniquely situated within the mountains of Central Colorado, providing commercial passenger and general aviation aircraft access to this popular destination location. The airport is located approximately three (3) miles northwest of Aspen's Central Business District and, most uniquely, within sight of four ski mountains. The airport serves a region of the state that accommodates over 3,500,000 summer and winter tourists annually. One of the most photographed groups of peaks in North America, The Maroon Bells, are located less than 10 miles from downtown Aspen. Vehicular access to the airport is provided by Colorado Highway 82 and existing county roads that link the airport to Aspen and Snowmass Village.
- **Local/Regional Socioeconomic Conditions.** The existing socioeconomic condition of a particular region has historically impacted aviation activity within that area. The two primary socioeconomic indicators, which are often analyzed in the forecast of aviation activity, are population and employment statistics. However, in resort areas the impact of the tourism industry must also be carefully examined with respect to seasonal variations in visitation patterns.

*Recreational Travelers.* According to the Aspen Chamber Resort Association, the ski industry is an important factor influencing the regional economy. Therefore, this economic sector has a great impact on future aviation activity and air

transportation services within the region. According to *Colorado Ski Country USA*, skier visits to the four mountains operated by Aspen Skiing Company, have averaged over the past ten years, in excess of 1.4 million annual skier visits and has accounted for a significant share of total Colorado skier visits, currently 12%. It is likely that future enplanement figures at Aspen/Pitkin County Airport will continue to have a significant relationship to the annual variations in skier day visits. As an item of related interest, StayAspenSnowmass (the Aspen area central lodging reservations service) reports that there is also a direct relationship between the number of available seats on passenger aircraft flown by commercial airlines into ASE and the quantity of skier visits on a per season basis. Historically, Ski Season enplanements at Aspen/Pitkin County Airport have represented approximately 60% of the annual passenger enplanements. By contrast, at neighboring Eagle County Regional Airport, Ski Season Enplanements have historically represented over 90% of the Airport's annual enplanements.

Aspen/Pitkin County Airport enjoys significant year-round air service. While Ski Season enplanements are a critical component of the airport's overall passenger activity, they do not reflect the complete passenger service picture for the airport. Recreational air travelers abound in summer, spring and fall, as well. With Aspen's celebrated international reputation as a cultural center for the arts, its renowned annual festivals, and the picturesque scenery of the area, it is ensured that the airport will continue to be frequented by guests and travelers on a year-round basis.

Airline service levels at Eagle County Regional Airport in recent years have had an impact on passenger enplanement growth at Aspen/Pitkin County Airport. Eagle presently has seasonal air service by five major air carriers. This seasonal service has in effect been a contributing factor with regard to the flattening enplanement growth curve of Aspen/Pitkin County Airport. A recent Aspen Skiing Company on-mountain skier survey found that an estimated 19% of overnight guests utilized the Eagle County Regional Airport rather than the Aspen/Pitkin County Airport when bound for an Aspen/Snowmass destination. This same survey identified that an additional 20% of overnight guests flew to Denver and then drove to Aspen/Snowmass.

Forecast assumptions presented in this chapter include consideration of the potential for additional capture of some of the Aspen/Snowmass passenger "leakage" to Eagle and Denver. Of course, such projections are predicated upon airline service levels. Historically, the addition of service from multiple hub airports and added available seats into the Aspen market, have been a proven enplanement growth stimulator for the Aspen/Pitkin County Airport.

*Sales Tax.* Sales tax paid to the state of Colorado from retail sales within Pitkin County have grown from \$10,084,645 in 1990 to \$16,402,250 in 2000. Annual increases in sales taxes paid to the state over this period of time have increased at rate of 0.5% per year, with the growth flattening some in years 1997 through 2000. Current projections by Pitkin County staff for sales tax and the local economy take into consideration inflation and real growth. In consideration of these two factors, the staff's sales tax forecast is as follows: 6.5% down for 2002 and 1% down for 2003; then growth of 2.5% for 2004, 4.5% for 2005 and 4.5% for 2006. From a sales tax/local economy standpoint, the overall staff-identified trend is that the local tourist economy recession is slowing but will continue into 2003, and will be followed by a slow recovery over the next several years.

*Population and Growth Management.* According to the latest population data prepared by the Colorado Department of Local Affairs, the Pitkin, Eagle, and Garfield County population in 2000 totaled 100,675 residents. This service area population group has increased at approximately 3.60% annually since 1990. The year 2025 (the most current data available) population projections for Pitkin, Eagle, and Garfield Counties are expected to reach a total of 181,388, reflecting an average annual growth rate of 2.19%. This compares to a projected statewide average annual growth rate of approximately 1.6% for the same period.

Further, overall growth management is of paramount importance in Pitkin County. Like many Colorado communities, the appropriate management of development is a critical component to the *quality of living*. Accordingly, a primary goal of the *2000 Aspen Area Community Plan* (AACP) is to limit construction development within the Urban Growth Boundary to 2% annually.

*Employment.* According to the Colorado Department of Local Affairs, total estimated employment (total jobs) for Pitkin, Eagle, and Garfield Counties in 1990 was 17,186, 20,083, and 18,124, respectively. By 2000 the estimated employment in Pitkin County has grown to 20,911; 37,761, in Eagle County; and, 28,501 in Garfield County bringing the three county area employment totals to 87,173. This figure equates to a 3.7% annual growth rates in jobs for the three county area during the 90's. Employment projections for each county for the year 2025 are 41,431, for Pitkin County; 107,332, for Eagle County and 45,836 for Garfield County. Projected total employment for the three counties is estimated to be 194,599 in 2025 and represents an annual jobs growth rate in Pitkin, Eagle and Garfield Counties of 2.87% over the twenty-five year period.

*Second Home Owners.* An additional factor that is becoming economically noticeable on the region is the impacts of second home owners. In fact, to address concerns related to this topic and other critical growth management issues, in 2000-2001 Pitkin County placed a moratorium on the development of large houses. Also, the Northwest Colorado Council of Governments, which serves the mountain region, has also recognized this issue and trend by forming a special Second Homes Steering Committee to evaluate “the effects of second homes on the social and economic environments of mountain communities.” Although, this Steering Committee was only recently chartered, an interesting preliminary steering committee finding is “that incomes generated in just the construction and sale of second homes represent on average approximately 1/5 of the total income generation in Summit, Grand, Eagle and Pitkin Counties.”

- **Community Support.** Aspen/Pitkin County Airport benefits from the support of the surrounding cities, local governmental entities, and local industry and residents. The airport is recognized as a vital county asset, which contributes to the stability and the future of the area’s economy. The overall position of the county is to promote quality and safe growth at the airport. There is a special focus on the impetus that the airport provides to attract resort visitors, support economic growth, as well as the provision of necessary regionally-utilized general aviation facilities.

Additionally, it must be noted the Aspen area has experienced intense development pressure for many years. Protection of the environment in the Aspen area is a high priority for local residents and local governments. As mentioned earlier in this chapter, community development goals are constructed around growth management guidance. All of these factors indicate that although the Airport is viewed as a vital community asset, just as with any other public use facility in Pitkin County, its continued improvement will be guided by local development guidelines and requirements.

- **Facilities Potential.** Aspen/Pitkin County Airport currently serves a vital commercial passenger service role to the economy of Central Colorado. The airport holds strong potential as being able to better serve the air transportation needs of the region. It is one of only three airports within the region that can consistently accommodate the operation of air carrier and business jet aircraft.
- **Navigational Aids, Radar, Operational Reliability, Etc.** Access into Aspen/Pitkin County Airport is presently limited by a combination of elements including: terrain constraints, field elevation and local weather patterns. Historically, these three elements have caused a suppression of theoretical capacity of the airport. This

should not be construed to leave one with the impression that the airport is not active or that potential airport users can not avail themselves of this facility. They can and they are currently doing so.

With the exception of the capacity limits caused by the combination of field elevation and runway length, the remaining major limitation to increased airport use is the lack of a precision instrument approach to the airport. Additional terminal navigation aids (e.g., the localizer approach that is currently being tested) would also improve the operational reliability and hourly capacity of the airport during periods of inclement weather and at night.

The addition of the Airport Surveillance Radar, located on Cozy Point, coupled with the use of the VOR/DME or GPS-C non-precision approach from the Red Table VOR, has helped increase the hourly capacity of the airport during periods of inclement weather. Yet, the lack of better guidance to the airport final approach course remains a significant deficiency.

Increased operational reliability and enhanced instrument approach procedures into the airport are significant considerations for airlines serving the Aspen market. Improved reliability and approaches into the Aspen/Pitkin County Airport would be a positive factor in stemming the tide of enplaned passenger “spill or, leakage” to Eagle County Regional and Denver International Airports and potential improvements are explored in subsequent chapters of this report.

- **General Aviation.** The overall condition of the general aviation industry in the United States has been in a significant recession for the last two decades. The FAA has identified several contributing factors that have contributed to this prolonged downturn. These include three economic recessions, two fuel crises, the enactment of the Airline Deregulation Act of 1978, the repeal of the GI Bill, and the repeal of the investment tax credit.

There are a number of bright spots having a positive impact in certain segments of the general aviation industry. They include the passage of the long-awaited General Aviation Revitalization Act of 1994. As a result of this legislation, there is renewed interest and optimism among US manufacturers of smaller general aviation aircraft. The growth in the amateur-built aircraft market, and the strength of the used aircraft market, indicate that demand for inexpensive personal aircraft is still strong. Increased general aviation instrument operations at FAA towered airports, and general aviation aircraft handled at FAA en route centers point to continued growth of the more sophisticated general aviation users. In addition, it must be noted that use of larger general aviation aircraft (particularly business jets) continues to increase. This is of significant importance at an airport like

Aspen/Pitkin County Airport, which has always been heavily utilized by corporate aviation users.

- **Commercial Service Aircraft Operational Capabilities.** Although not impacting the unconstrained demand for services, the present reality for aircraft operating at Aspen/Pitkin County Airport is, that terrain, elevation and weather have an impact on the types of aircraft that can operate from this airport. Only a very small number of the commercial service aircraft in use today can meet the demanding performance parameters required. Such aircraft, ones that excel in an operating environment like ASE, are in service at the airport today. It is reported that many other air carriers have expressed sincere interest in providing commercial air service to Aspen, but lack the aircraft necessary to succeed in this niche market. It is further believed that if new aircraft are developed that will meet the operation requirements of ASE, while at the same time, cost-effectively meeting the needs of the individual airline that operates them, then Aspen/Pitkin County Airport will see additional air service. The performance burden placed on these new aircraft may well be lessened by improvements recommended in this Airport Master Plan.

### Historical Airport Activity Summary

A tabulation of Aspen/Pitkin County Airport's historical aviation activity since 1990 is presented in Table B1, entitled *HISTORICAL AVIATION ACTIVITY, 1990-2001*. This table presents a summary of historic aviation activity at the airport, which includes four categories of aircraft operations, as well as total operations and passenger enplanements.

Table B1  
**HISTORICAL AVIATION ACTIVITY, 1990-2001**  
*Aspen/Pitkin County Airport Master Plan*

Year	Passenger Enplanements	Air Carrier Operations	Air Taxi Operations	General Aviation Operations	Military Operations <sup>(1)</sup>	Total Operations
1990	213,079	13,685	9,101 <sup>(1)</sup>	36,838	140	59,764
1991	217,088	13,295	1,716 <sup>(4)</sup>	33,695	129	48,835
1992	243,907	14,312	1,283 <sup>(4)</sup>	33,944	132	49,671
1993	251,914	14,114	1,270 <sup>(4)</sup>	32,825	285	48,494
1994	239,050	12,644	2,409 <sup>(4)</sup>	32,224	59	47,336
1995	200,685	9,281	2,482 <sup>(4)</sup>	35,096	239	47,098
1996	210,672	10,517	3,460 <sup>(4)</sup>	30,863	314	45,154
1997	224,815	15,180	5,120 <sup>(1)</sup>	28,784	179	49,263
1998	248,510	15,708	4,124 <sup>(1)</sup>	30,179	110	50,121
1999	213,903	11,227	3,664 <sup>(1)</sup>	34,798	156	49,845
<b>2000</b> <sup>(2)</sup>	<b>214,816</b>	<b>9,114</b>	<b>5,717</b>	<b>33,658</b>	<b>352</b>	<b>48,841</b>
2001 <sup>(3)</sup>	187,622	8,141	7,855	29,930	121	46,047

Source: Except as Noted all Data from Aspen/Pitkin County Airport Records.

- 1 FAA Terminal Area Forecasts, 1990-2015.
- 2 Base Year Data for this Master Plan. Source: Aspen/Pitkin County Airport Records.
- 3 Aspen Air Traffic Control Tower Records.
- 4 1998 Airport Layout Plan Update.

It should be noted that aircraft operations totaled 46,047 and enplanements totaled 187,622 in calendar year 2001. Because the calendar year 2001 numbers were influenced by the downturn in commercial passenger and general aviation traffic following the events of September 11, 2001, calendar year 2000 aircraft operations numbers and enplanements numbers will be utilized as the base year data for this Airport Master Plan.

As can be seen, total aircraft operations (an operation is defined as either a takeoff or a landing) at Aspen/Pitkin County Airport have held relatively flat since 1991.

- *Passenger Enplanements.* Passenger enplanements over the past ten years have been reflective of the local market forces at work in Aspen/Snowmass. Higher enplanement figures relate to times when additional seats have been provided to the market and when the ski and tourism economy has been its strongest. It is likely this trend will continue.

- *Commercial Service Aircraft Operations.* The air carrier service has fluctuated somewhat over the years. Certainly, the departure of Continental Airlines from its Denver Hub in 1994 can be noted. Further fluctuations have occurred with the coming and going of various start-up commuter carriers throughout the mid to last 90's. Throughout the decade presented in the pervious table, United Express, operating the 86-passenger BAe-146-200 regional jet, has provided the largest number of annual air carrier aircraft operations to Aspen/Pitkin County Airport.
- *General Aviation Operations.* General aviation operations are typically more directly tied to economic conditions than commercial passenger operations, and this trend is often reflected in the historical operations data for a particular airport. The amount of general aviation activity at many airports around the country has remained flat or declined since the early 1990's. The data available for Aspen/Pitkin County Airport illustrates a slight increase in general aviation activity since 1990. A modest growth trend should be anticipated as the number of large, sophisticated general aviation aircraft grow in relation to small single-engine aircraft.
- *Air Taxi Operations.* During the past decade the number of air taxi operations has fluctuated significantly between 1990 and 2000 with a high of approximately 9,101 annual operations in 1990 and a low of approximately 1,200 in 1992. As categorized by Air Traffic Control personnel, "Air Taxi" includes those aircraft capable of seating less than 60 passengers, which are being utilized for passenger or air freight service and which use a three letter company designator or the "Tango" designation. For purposes of this study, air taxi operations will be included in the general aviation operations category.
- *Military Operations.* Historically, military aircraft have utilized Aspen/Pitkin County Airport on a sporadic and infrequent basis. This may be primarily do to the prevailing operating conditions at the airport. Military activity is generally limited to fly-byes and contact approaches and is expected to remain an insignificant component of the total operations for Aspen/Pitkin County Airport.

## Passenger Enplanement Forecast

Passenger enplanement forecasts are an important part of the forecasting effort as they are the cornerstone for formulating commercial passenger service aircraft operational projections. However, enplanement forecasting within Central Colorado, and at

Aspen/Pitkin County Airport in particular, is unique due in part to the types of commercial passenger service available at airports in the region, and because of the influence of the extraordinary number of passengers associated with resort/vacation travel.

The number of passenger enplanements at Aspen/Pitkin County Airport has oscillated over the past decade; however, the number has remained between 200,000 and 250,000 with the exception of 1995, when the number increased to almost 252,000 and 2001, when the number dipped below 188,000. Certainly the terrorist attacks of 9/11/01 influenced the 2001 total. It should also be noted the comparably high enplanement numbers in 1992, 1993 and 1998 took place at ASE when several airlines were providing good service in and out of the airport. As can be seen from the historical data, the relationship between enplanements and operations has varied somewhat; however, in general, changes in the number of enplanements usually correspond to changes in the number of air carrier and air taxi aircraft operations.

Another consideration is that the commercial passenger market is expanding much more rapidly on a *national* basis than population increases; due to the nature of the business travel outlook for the next twenty years. The FAA Aviation Forecast Fiscal Years 2002-2013, published in March 2000, indicates that domestic air carrier passenger enplanements are expected to increase at a 3.1 percent annual rate through the year 2013.

Various passenger enplanement forecast scenarios are presented in the following table entitled, *COMMERCIAL AIRLINE ENPLANEMENTS FORECAST, 2000-2021*. Enplanement forecasts presented in the *Colorado Statewide Airport Inventory and Implementation Plan, 2000* and those developed as part of the FAA's *Terminal Area Forecast* are included for comparison purposes. A trend projection is not presented because of its recent negative trending and, therefore, thought to be unrealistic.

**Growth Management Scenario.** This scenario is based on the growth management guideline previously mentioned in Aspen Area Community Plan of 2% per year. Using this figure as a guide can also somewhat account for population growth associated with occupants of second homes (not counted in census data).

The population in Pitkin, Eagle, and Garfield Counties is expected to grow by a combined average annual growth rate of 2.19% over the next twenty (20) years. In addition, this forecast is reflective of a continuation of the trend that the number of enplanements at Aspen/Pitkin County Airport is increasing at a slower rate than the rate of increase for enplanements nationally.

**Positive Resort Visitor Growth Scenario.** This scenario postulates that if better airlines service is provided at the airport (more seats, suitable frequencies, competitively priced tickets, appropriate destinations, good reliability, etc.) that the number of passengers will return to the 1993 level of approximately 250,000 annual enplanements relatively quickly. Due to the recent reductions in the number of guest rooms available to rent presently in Aspen/Snowmass, it would be difficult, if not impossible to return the historic passenger high immediately. However, there are several projects in various stages of the planning and construction process that will likely remedy the situation within this same period of time. The Positive Resort Visitor Growth Scenario projects returning to the 1993 passenger enplanement levels by 2007, and then growing at an annual rate of 2% throughout the balance of the twenty year planning horizon.

**Increased Regional Capture Scenario.** With better airline service (as described above) this scenario indicates that some of passengers currently flying into Eagle County Regional Airport and Denver International Airport and driving to Aspen will fly directly to Aspen. The Increased Regional Capture Scenario projects capturing 50% of the market currently utilizing the Eagle and Denver Airports by 2007 then growing at an annual growth rate of 2% for the duration of the planning period.

**FAA Forecast Scenario.** This forecast scenario is based on the assumption that enplanements at Aspen/Pitkin County Airport will grow at the same rate as that which is forecast nationally for air carrier airlines by the FAA. Strong growth is expected in airline passenger activity throughout the next decade and beyond. The FAA indicates in their forecasts, *FAA Aviation Forecasts Fiscal Years 2002-2013*, that domestic passenger enplanements are expected to increase at an approximate 3.1% annual rate through the year 2013. In addition, this forecast scenario recognizes the continuing strength of the local and regional economy.

Table B2  
**COMMERCIAL AIRLINE ENPLANEMENT FORECAST**  
*Aspen/Pitkin County Airport Master Plan*

Year	1998 ALP Update	Colorado Statewide Plan, 2000	TAF	Growth Management Scenario <sup>(1)</sup>	Positive Resort Visitor Growth Scenario <sup>(1)</sup>	Increased Regional Capture Scenario <sup>(1)</sup>	FAA Forecast Scenario <sup>(1)</sup>
Base Year <sup>(2)</sup>	---	---	---	214,816	214,816	214,816	214,816
2003	---	289,392	234,817	227,964	229,895	240,908	235,420
2004	---	---	244,094	232,524	234,921	249,606	242,718
2005	308,868	---	253,371	237,174	239,947	258,303	250,242
2006	---	---	262,647	241,918	244,974	267,001	257,999
2007	---	---	271,924	246,756	250,000	275,698	265,997
2012	---	---	318,306	272,439	276,020	304,393	309,864
2015	394,637	---	346,137	289,114	292,915	323,024	339,584
2017	---	---	---	300,794	304,749	336,074	360,964
2018	---	439,226	---	306,810	310,844	342,796	372,154
2022	---	---	---	332,101	336,467	371,053	420,492

**1998 ALP Update:** Aspen-Pitkin County Airport Layout Plan Update, 1998 – Isbill Associates.

**Colorado Statewide Plan, 2000:** Colorado Statewide Airport Inventory and Implementation Plan, 2000

**TAF:** FAA Terminal Area Forecast

1 See Narrative above for detailed explanation of each column.

2 Base year refers to calendar year 2000 data.

#### Recommended/Selected Forecast

Following discussion with the Study Advisory Committee, the Staff Technical Committee, and the Board of County Commissioners on July 8<sup>th</sup> and 9<sup>th</sup>, 2002, **the Positive Resort Visitor Growth Scenario for passenger enplanements was selected as the forecast prediction to use for facility programming in this Master Plan.**

#### Commercial Service Operations Forecast

Currently, Aspen/Pitkin County Airport’s air carrier service is offered on a year round basis, with the exception of Mesaba, which is not operating during the summer or fall months (April through November). During the winter months, the three carriers operate a total of eighteen daily flights during the week, which extends to twenty-two daily flights on Saturday and Sunday when two carriers offer additional flights. United Express, operating BAe 146-200 aircraft that accommodate eighty-six (86) passengers, has

ten daily flights to Denver and one flight to Los Angeles during the ski season and six daily flights to Denver during the balance of the year. Mesa Airlines operates three daily flights during the winter season and one flight the remainder of the year, while Mesaba operates two daily and one daily Saturday/Sunday flight during the winter months, with one daily flight during June, July, and August. The following table, entitled *EXISTING COMMERCIAL SERVICE CARRIERS* provides detailed information on the existing air carrier and commuter carriers that are presently serving Aspen/Pitkin County Airport.

Table B3  
**EXISTING COMMERCIAL SERVICE CARRIERS**  
*Aspen/Pitkin County Airport Master Plan*

<b>Airline</b>	<b>Aircraft Type</b>	<b>Seating Capacity</b>	<b>City/ Destination</b>	<b>Stage Length (Nautical Miles)</b>
Mesa (America West)	Dash 8	37	PHX	426 N.M.
Mesaba (Northwest <sup>1</sup> )	Avro 85 Regional Jet	69	MEM	846 N.M.
Mesaba (Northwest <sup>1</sup> )	Avro 85 Regional Jet	69	MSP	696 N.M.
United Express (United)	BAe 146-200/300	86-100	DEN/LAX	106/640 N.M.

**Source:** Airport management records.

1 - Service conducted by Northwest Airlines and the LAX service provided by United Airlines is seasonal.

The establishment of projected enplanements, in addition to identifying fleet mix, is required to properly project commercial service operations. While the trend of commuter airlines is leaning towards the use of larger regional jets (50-70 seats) and turboprops, it is not necessarily the case that all regional carriers will provide service with larger aircraft. Currently, aircraft operating into and out of Aspen/Pitkin County airport range from 37 to 100 seats. While there is a wide disparity in aircraft seat size, based on the existing number of operations per aircraft, it has been calculated that the average seat size per aircraft is approximately 75. Due to the age and cost of maintaining and operating the BAe 146-200/300 aircraft, it is not unreasonable to assume newer technology aircraft with less seating availability will enter the Aspen market at some point in the near future. Therefore, the average seat size per aircraft has been assumed to be 70 after the tenth year (2013) of the twenty year planning horizon. According to the *Aspen Air Service Overview 2002*, by StayAspenSnowmass, average load factors of

approximately 65% were being achieved in the winter months November 2000 through April 2001. The average load factor for calendar year 2000 was approximately 61%. The FAA estimates the average load factor will increase to 70% by the end the planning period as described in the *FAA Aerospace Forecasts, Fiscal Years 2002-2013*. The enplanement forecast scenarios, along with these seating capacity and load factor assumptions have been used to assemble the projections in the following table entitled *COMMERCIAL SERVICE OPERATIONS FORECAST*. **Note that the Positive Resort Visitor Growth Scenario has been selected as the projection which will be used for facility programming in this Master Plan.**

Table B4  
**COMMERCIAL SERVICE OPERATIONS FORECAST**  
*Aspen/Pitkin County Airport Master Plan*

<b>Year</b>	<b>Growth Management Scenario</b>	<b>Positive Resort Visitor Growth Scenario<sup>2</sup></b>	<b>Increased Regional Capture Scenario</b>	<b>FAA National Trend Scenario</b>
Base Year <sup>1</sup>	9,114	9,114	9,114	9,114
2003	9,636	9,717	10,183	9,951
2004	9,757	9,858	10,474	10,185
2005	9,880	9,996	10,760	10,425
2006	10,006	10,132	11,043	10,671
2007	10,133	10,266	11,322	10,923
2012	10,804	10,946	12,071	12,288
2017	12,685	12,852	14,173	15,223
2022	13,555	13,733	15,145	17,163

1 Source: Airport management records, calendar year 2000.  
2 Selected forecast scenario for facility programming in the Master Plan.

### General Aviation Operations Forecast

In developing the general aviation activity forecasts, as with the enplanements and commercial service operations forecasts, several general aviation forecasts and national trends were reviewed. Included in this assessment, and presented in the following table entitled *GENERAL AVIATION OPERATIONS FORECAST SCENARIOS, 2000-2022*, are several general aviation operational forecast options, including a trend projection based upon the preceding ten years of aircraft activity, the 1998 *Colorado Statewide Airport Inventory and Implementation Plan*, the 1998 *Airport Layout Plan Update*, and three (3) scenarios developed

for this Master Plan. As can be noted in the following table, the forecasts contained in the 1998 *Colorado Plan* projected a half of a percent (0.5%) growth rate for the years 1998 through 2018. According to forecast contained in the 1998 *Airport Layout Plan Update*, general aviation activity is projected to grow at approximately 0.4% annually for the years 1997 through 2015.

In 2000 (base year), a total of 39,375 general aviation operations (including Air Taxi operations) were conducted at the airport. Year-to-year variations in activity levels closely correlate with fluctuations in snowfall and ski traffic to the resorts. The estimated business/tourist-related use of the airport (i.e., the itinerant portion of general aviation activity) is estimated at near 88% for 2000.

The FAA National Scenario forecast reflects the average annual growth rate of 1.83%, as presented in the *FAA Aviation Forecasts Fiscal Years, 2002-2013*. The Growth Management Scenario forecast uses an average annual growth rate of 2.0%, which corresponds to the Growth Management maximum rate of growth.

The Local Conditions Scenario recognizes that general aviation operations at Aspen/Pitkin County Airport are likely to grow at a slower rate (1%/year) than that which can be expected nationally. This last scenario is based on the assumption that many general aviation pilots may choose not to operate in a mountainous environment and that some types of general aviation activities (e.g., flight training, aircraft maintenance) are likely to be less numerous at a high-cost-of-living resort-environment airport than they are at other airports without these characteristics. **With these considerations in mind, the Local Conditions Scenario has been chosen as the selected general aviation forecast projection for facilities planning.**

Built into the selected forecast scenario is the assumption that general aviation activity at Aspen/Pitkin County Airport will continue to be centered on the larger corporate-type GA aircraft, an industry sector that is predicted to continue to be robust throughout the planning horizon.

Table B5  
**GENERAL AVIATION OPERATIONS FORECAST**  
*Aspen/Pitkin County Airport Master Plan*

Year	Trend	Colorado Statewide Plan, 2000	1998 ALP Update	FAA National Scenario	Growth Management Scenario	Local Conditions Scenario <sup>2</sup>
Base Year <sup>1</sup>	39,375	---	---	39,375	39,375	39,375
2003	33,246	35,673	---	41,576	41,785	40,568
2004	33,213	---	---	42,337	42,621	40,974
2005	33,180	---	40,412	43,112	43,473	41,384
2006	33,147	---	---	43,901	44,343	41,797
2007	33,114	---	---	44,704	45,229	42,215
2010	---	---	41,184	---	---	---
2012	32,948	---	---	48,947	49,937	44,369
2015	---	---	41,795	---	---	---
2017	32,783	---	---	53,593	55,135	46,632
2018	---	38,444	---	---	---	---
2022	32,617	---	---	58,680	60,873	49,011

1 Source: Airport management records, calendar year 2000.

2 Selected forecast scenario for facility programming in the Master Plan.

### Military Operations Forecast

As a percentage of total annual aircraft operations, the number of military operations at the airport has historically been relatively insignificant. No factors have been identified that would significantly increase the number of military operations in the future; therefore, the number of military aircraft operations is projected to remain at historic levels through the end of the planning period.

Table B6  
**MILITARY OPERATIONS FORECAST**  
*Aspen/Pitkin County Airport Master Plan*

<b>Year</b>	<b>Colorado Plan, 2000</b>	<b>FAA TAF</b>	<b>Military Aircraft Operations Forecast</b>
Base Year <sup>1</sup>	---	352	352
2007	21	352	300
2012	---	352	300
2017	---	352	300
2022	---	352	300

1 – Source: FAA Terminal Area Forecasts, calendar year 2000.

### Operations Forecast By Aircraft Type

Now that total numbers of aircraft operations have been projected, the next step in the forecasting process is to detail the various types of aircraft which will operate at the airport. The following table, entitled *SUMMARY OF AIRCRAFT OPERATIONS FORECASTS BY AIRCRAFT TYPE*, presents that detail.

The largest increase in operational demand is expected in the General Aviation category, with demand for approximately 9,636 additional operations at the end of the twenty-year planning period. General Aviation operational demand is expected to grow most rapidly in the turboprop and business jet types of aircraft categories. Military and helicopter activity is expected to remain roughly at current levels. Military operations are performed by a variety of military aircraft including, the F-16 Fighting Falcon, C-130 Hercules and the UH-60 Blackhawk, with no dominate aircraft types. Helicopter activity is generally related to, search and rescue; medical flights and film industry work, mostly making use of single and twin-engine turbine helicopters.

Table B7  
**SUMMARY OF AIRCRAFT OPERATIONS FORECASTS BY AIRCRAFT TYPE**  
*Aspen/Pitkin County Airport Master Plan*

<b>Operations By Type</b>	<b>Base Year<sup>1</sup></b>	<b>2007</b>	<b>2012</b>	<b>2017</b>	<b>2022</b>
<i>Passenger Air Carrier/Commuter</i>	<i>9,114</i>	<i>10,266</i>	<i>10,946</i>	<i>12,852</i>	<i>13,733</i>
<i>Military</i>	<i>352</i>	<i>300</i>	<i>300</i>	<i>300</i>	<i>300</i>
<i>General Aviation</i>	<i>39,375</i>	<i>42,215</i>	<i>44,369</i>	<i>46,632</i>	<i>49,011</i>
Single Engine Piston	5,315	5,485	5,559	5,592	5,751
Multi-Engine Piston	5,120	5,280	5,320	5,600	5,760
Turboprop	9,840	10,550	11,310	11,890	12,500
Business Jet	18,900	20,690	21,960	23,320	24,750
Helicopter	200	210	220	230	250
<b>TOTAL ANNUAL OPERATIONS</b>	<b>48,841</b>	<b>52,781</b>	<b>55,615</b>	<b>59,784</b>	<b>63,044</b>

1 – Base Year: Calendar year 2000 Data.

In the general aviation category, the airport currently experiences a significant number of turboprop and business jet operations when compared with single engine aircraft operations, with approximately 50% of all activity being associated with these larger “corporate” type aircraft. Local estimates indicated that operations conducted by single engine aircraft represent approximately 13.5% of the general aviation activity, while approximately 13% are multi-engine piston operations, 25% are turboprop operations, and approximately 48% are business jet operations.

It is estimated that the distribution of operations will remain similar throughout the forecast period, with percentage of operations performed by single and twin-engine piston aircraft declining somewhat, and the percentage of turboprop and business jet activity increasing somewhat. General aviation operational growth will be led by the business jet sector. Perhaps an even more important issue related to general aviation aircraft type is the relative noise levels produced by the business jets that operate at the airport. Currently the majority of business jet operations are conducted by Stage 3 aircraft. Stage 3 refers to FAA’s Federal Aviation Regulation Part 36 that categorizes jet aircraft based upon noise levels. Stage 2 refers to the older louder aircraft and Stage 3 refers to the newer generation quieter aircraft. As documented in the April 2001 *Part 161 Study Draft Report* (a study undertaken to determine the feasibility of potentially implementing noise related use and access restrictions at ASE), approximately 86% of the business jet operations at the airport are currently Stage 3 aircraft. Because of the age of the aircraft and operational efficiency issues, it is anticipated that the number of Stage 2

business jet operations at the airport will decline in the future, with none being conducted by the end of the 20-year planning period covered by the Airport Master Plan. The implementation of the Part 161 recommendations (if approvable under federal law) could hasten the phase out of Stage 2 business jet operations at the airport.

Air Carrier aircraft operations will primarily be carried out by select types of aircraft. It is anticipated that these aircraft will continue to be high performance turboprop and jet aircraft with seating capacities in the range of 30 to 99 seats, with the 50 to 70 seat jet aircraft being most frequent. By federal mandate, all of the commercial service passenger jet aircraft currently operating at the airport are Stage 3.

### Local and Itinerant Operations Forecast

The *Air Traffic Control Handbook* defines a local operation as any operation performed by an aircraft operating in the local traffic pattern or within sight of the tower, or aircraft known to be departing or arriving from flight in local practice areas, or aircraft executing practice instrument approaches at the airport. Itinerant aircraft operations are those landings and takeoffs that are conducted by an aircraft that originate from or are departing to someplace that is outside of the local traffic pattern. According to current FAA Form 5010-1 records, itinerant operations constituted 92% of the total operations at the airport. This existing percentage of itinerant activity can be attributed to the fact that, with respect to general aviation, the airport accommodates a significant number of business and tourist-related aircraft operations and currently experiences very little general aviation flight training activity.

It is forecast that the level of itinerant business-related aviation activity will likely remain high. The following table, entitled *SUMMARY OF LOCAL AND ITINERANT OPERATIONS*, indicates that Aspen/Pitkin County Airport will remain primarily a center for larger general aviation aircraft business/resort-operations with the percentage of itinerant operational activity remaining at its current level through the planning period.

Table B8  
**SUMMARY OF LOCAL AND ITINERANT OPERATIONS**  
*Aspen/Pitkin County Airport Master Plan*

<b>Year</b>	<b>Local Operations</b>	<b>Itinerant Operations</b>	<b>Total Operations</b>
Base Year <sup>1</sup>	3,907 (8.0%)	44,934 (92.0%)	48,841
2007	3,959 (7.5%)	48,822 (92.5%)	52,781
2012	3,893 (7.0%)	51,722 (93.0%)	55,615
2017	3,886 (6.5%)	55,898 (93.5%)	59,784
2022	3,783 (6.0%)	59,261 (94.0%)	63,044

1 – Source: FAA Form 5010-1, calendar year 2000.

### Peak Period Forecast

An additional element of assessing airport usage and determining various requirements necessitated by capacity and demand considerations is the determination of peak period activities. Although specific operational data for Aspen/Pitkin County Airport was unavailable to project peak period trends, some flying activity information was available to compare with generalized FAA operational statistics for airports with similar activity and peaking characteristics. This information was then utilized to formulate peak period forecasts. The average peak hour aircraft operations projections are depicted in the following table, entitled *PEAK PERIOD AIRCRAFT OPERATIONS*. The information provided in this table is generalized and is likely to be appropriate during good weather conditions without consideration of landside capacity limitations (available aircraft parking positions).

Table B9  
**PEAK PERIOD AIRCRAFT OPERATIONS**  
*Aspen/Pitkin County Airport Master Plan*

<b>Year</b>	<b>Annual</b>	<b>Peak Month</b>	<b>Average Day of Peak Month</b>	<b>Peak Hour/ Average Day Ratio</b>	<b>Average Peak Hour</b>
Base Year	48,841 <sup>1</sup>	6,105 <sup>2</sup>	197	11%	22
2007	52,781	6,650	215	11%	24
2012	55,615	7,007	226	11%	25
2017	59,784	7,533	243	11%	27
2022	63,044	7,944	256	11%	28

1 – Base Year: Calendar year 2000 Data.

2 – Estimated using air traffic control tower traffic counts for peak month in 2001 (August).

Peak period aircraft operations estimated based on methodology from FAA AC 150/5070-6A *Airport Master Plans* and FAA AC 150/5060-5 *Airport Capacity and Delay*.

Because of specific circumstances, peak hour demand and capacity at this airport is more complex. Peak hour aircraft operations at Aspen/Pitkin County Airport tend to occur during holiday and vacation seasons. Determination of actual peak hour capacity for the airspace surrounding the airport and the airport’s airside/landside facilities are made up of a combination of factors including the severity of the weather during the demand period.

The heaviest seasons for aircraft traffic are, not surprisingly, associated with summer and winter vacation schedules. Typically, the highest use demands are placed on the airport are during the months of August and March. The heaviest weeks for traffic are the weeks of the Fourth of July and the week between Christmas and New Years. The heaviest single day for aircraft traffic has traditionally been January 2<sup>nd</sup>. These “special” peak period circumstances, limitations, and potential improvements designed to minimize capacity-related restrictions are detailed in the following chapters of this report.

### General Aviation Based Aircraft Forecast

The number of general aviation aircraft, which can be expected to base at an airport facility, is dependent on several factors, such as airport radio communications, available facilities, airport operator services, airport proximity and access, aircraft basing capacity available at adjacent airports and similar considerations. General aviation operators are particularly sensitive to both the quality and location of their basing facilities, with proximity of home (or vacation home) and work often being identified as the primary

consideration in the selection of an aircraft basing location. Aspen/Pitkin County Airport will likely continue to be attractive to aircraft owners due to the airport's relative distance to larger population areas and the popularity of the adjacent ski areas. However, due to the constrained nature of the airport, available property to construct additional aircraft storage facilities are limited. According to FBO personnel, there is an active waiting list of aircraft owners who desire to base their aircraft at the airport. It should also be noted that much of the existing demand for basing business jet aircraft at Aspen/Pitkin County Airport is related to seasonal transient aircraft with activity concentrated during the summer and winter months.

At many general aviation airports, there is a relationship between aircraft operational activity and based aircraft, stated in terms of operations per based aircraft (OPBA). Sometimes a trend can be established from historical information of operations and based aircraft. Because of the significant amount of commercial passenger service activity at ASE, along with the high percentage of itinerant aircraft operations, the OBPA cannot be utilized here to accurately predict a realistic forecast of based aircraft for the planning period. Therefore, other projection methods have been relied up and are presented in the following table, entitled *BASED AIRCRAFT FORECAST*. Each projection uses a different leading indicator with a separate identifiable percentage that is applied to the beginning year based aircraft count.

The Terminal Area Forecast (TAF) for 1990-2013 is presented to provide the FAA's official estimate for ASE. The 1998 Airport Layout Plan uses a 0.7% growth rate, FAA Aerospace Forecasts 2002-2013 uses a growth rate of 0.3%, and in the Recommended Forecast a growth rate of 1% is used to coincide with the forecast for general aviation operations growth. Although the Recommended Forecast presents somewhat larger numbers than the other scenarios, it remains moderate, and is thought to be the most realistic expectation of demand due to the expressed desire of several aircraft owners to base their aircraft at the airport if additional aircraft storage units are constructed.

Table B10  
**BASED AIRCRAFT FORECAST**  
*Aspen/Pitkin County Airport Master Plan*

Year	TAF	1998ALP Update	FAA Forecast	Recommended Forecast
Base Year	103	---	---	80 <sup>1</sup>
2003	106	---	80	82
2004	107	---	80	82
2005	109	97	81	83
2006	110	---	81	84
2007	111	---	81	85
2012	119	---	82	89
2015	---	100	---	---
2017	---	---	84	94
2022	---	---	85	99

**TAF:** FAA Terminal Area Forecast

**1998 ALP Update:** Aspen-Pitkin County Airport Layout Plan Update, 1998 – Isbill Associates.

**FAA Forecast:** FAA, Aviation Forecasts Fiscal Years 2002-2013.

1 – Existing (2002) FAA Form OMB 2120-0015 (Form 5010) and FBO Personnel.

The mix of based aircraft for incremental periods throughout the planning period is illustrated in the following table, entitled *GENERAL AVIATION BASED AIRCRAFT FLEET MIX, 2000-2022*. The national trend is for the more rapid growth in turboprop and business jet aircraft numbers when compared to single and multi-engine piston aircraft. This trend is certainly reflected in the future demand expectations for Aspen/Pitkin County Airport. From a demand standpoint, the largest percentage growth will be in based jet aircraft while the greatest numbers of additional based aircraft growth will come from the prevailing category of single-engine aircraft. Currently 75% of the based fleet are single-engine aircraft, while business jets are just over 6%. By the end of the planning period, single engine aircraft are anticipated to comprise 68% of the total based aircraft at the airport, with approximately 12% being multi-engine piston aircraft, 10% turboprops, and 10% being business jets. The ability to accommodate the forecast based aircraft demand will be dependant on the availability of appropriate aircraft storage units (hangars) and space to construct those units.

Table B11  
**GENERAL AVIATION BASED AIRCRAFT FLEET MIX**  
*Aspen/Pitkin County Airport Master Plan*

Aircraft Type	Base Year <sup>1</sup>	2007	2012	2017	2022
Single Engine	60 (75.0%)	62 (73.3%)	64 (71.5%)	66 (69.8%)	67 (68.0%)
Multi-Engine	10 (12.4%)	11 (12.7%)	11 (12.5%)	11 (12.2%)	12 (12.0%)
Turboprop	5 (6.3%)	6 (7.0%)	7 (8.0%)	8 (9.0%)	10 (10.0%)
Business Jet	5 (6.3%)	6 (7.0%)	7 (8.0%)	8 (9.0%)	10 (10.0%)
<b>TOTAL</b>	<b>80</b>	<b>85</b>	<b>89</b>	<b>94</b>	<b>99</b>

1 - Actual 2002.

### Airport Reference Code (ARC) Analysis

The types of aircraft presently utilizing an airport and those projected to utilize the facility in the future are important considerations for planning airport facilities. An airport should be designed in accordance with the Airport Reference Code (ARC) standards that are described in AC 150/5300-13 "Airport Design". The ARC is a coding system used to relate and compare airport design criteria to the operational and physical characteristics of the aircraft intended to operate at the airport. The ARC has two components that relate to the airport's "Design Aircraft". The first component, depicted by a letter (i.e., A, B, C, D or E), is the aircraft approach category and relates to aircraft approach speed based upon operational characteristics. The second component, depicted by a roman numeral (i.e., I, II, III, IV, V or VI), is the aircraft design group and relates to aircraft wingspan (physical characteristic). Generally speaking, aircraft approach speed applies to runways and runway-related facilities, while aircraft wingspan is primarily related to separation criteria associated with taxiways and taxilanes.

Aspen/Pitkin County Airport's single runway (Runway 15/33) must accommodate all aircraft types using the airport. It has been determined that the "design aircraft" types for the airport are best represented by the Gulfstream IV (G-IV - a medium to long range corporate jet) and the BAe 146-200 (a medium range four-engine commercial passenger regional jet). Both of these aircraft regularly utilize the airport. The G-IV has an approach speed of 145 knots and a wingspan of 77.8 feet, indicating an ARC of D-II. The BAe 146-200 has an approach speed of 117 knots and a wingspan of 86.4 feet, making it design group III aircraft and giving it an ARC of B-III. By combining the approach speed of the G-IV and the wingspan of the BAe 146-200, an ARC D-III is deemed to appropriate for ASE.

It should be mentioned that the two above aircraft have been referenced as the composite design aircraft because they are readily identifiable. Yet, other aircraft regularly using Aspen/Pitkin County Airport can fit into the role of the composite critical design aircraft as well. For example, the G-II and the Lear 35 all have approach speeds of 141 knots or greater, placing them into approach category D along with the G-IV. Also, both the G-V and Bombardier Global Express have wingspans in aircraft design group III category, like the BAe 146-200, yet remain under the wingspan limitation of 95 feet.

In addition, it should be emphasized that the airport has existing wingspan and gross operating weight limitations. By FAA guidance and County Ordinance, aircraft with wingspans in excess of 95 feet and dual-wheel weights of greater than 100,000 are restricted from operation at the airport.

## Summary

The following tables summarize the forecasts of aviation activity, which has been presented in this chapter. This information will be utilized in the following chapter to document and analyze both airside and landside facility requirements. Therefore, the forecasts of aviation activity are an important part of the information base, which will be used to develop future plans for the airport and formulate implementation decisions relating to airport development.

Overall, total aircraft operations at Aspen/Pitkin County Airport are anticipated to increase over the course of the twenty-year planning period.

Table B12  
**SUMMARY OF AVIATION ACTIVITY FORECASTS, 2000-2022**  
*Aspen/Pitkin County Airport Master Plan*

<b>Operations</b>	<b>Base Year</b>	<b>2007</b>	<b>2012</b>	<b>2017</b>	<b>2022</b>
<i>Passenger Air Carrier/Commuter</i>	9,114	10,266	10,946	12,852	13,733
<i>General Aviation</i>	39,375	42,215	44,369	46,632	49,011
Single Engine Piston	5,315	5,485	5,559	5,592	5,751
Multi-Engine Piston	5,120	5,280	5,320	5,600	5,760
Turboprop	9,840	10,550	11,310	11,890	12,500
Business Jet	18,900	20,690	21,960	23,320	24,750
Helicopter	200	210	220	230	250
<i>Military</i>	352	300	300	300	300
<b>TOTAL OPERATIONS</b>	<b>48,841</b>	<b>52,781</b>	<b>55,615</b>	<b>59,784</b>	<b>63,044</b>
Local Operations	3,907	3,959	3,893	3,886	3,783
Itinerant Operations	44,934	48,822	51,722	55,898	59,261
<b>Passenger Enplanements</b>	<b>214,816</b>	<b>250,000</b>	<b>276,020</b>	<b>304,749</b>	<b>336,467</b>
<b>Based Aircraft By Type</b>					
Single Engine	60	62	64	66	67
Multi-Engine	10	11	11	11	12
Turboprop	5	6	7	8	10
Business Jet	5	6	7	8	10
<b>Total</b>	<b>80</b>	<b>85</b>	<b>89</b>	<b>94</b>	<b>99</b>

Table B13  
**SUMMARY OF SELECTED FORECAST INFORMATION (FAA FORMAT)**  
*Aspen/Pitkin County Airport Master Plan*

<b>Passenger Enplanements</b>	<b>Base Year</b>	<b>2007</b>	<b>2012</b>	<b>2017</b>	<b>2022</b>
Passenger Air Carrier/Commuter	214,816	250,000	276,020	304,749	336,467
Total Enplanements	214,816	250,000	276,000	304,749	336,467
<b>Aircraft Operations</b>					
<b>ITINERANT OPERATIONS</b>					
Air Carrier/Commuter	9,114	10,266	10,946	12,852	13,733
General Aviation	35,468	38,256	40,476	42,746	45,228
Military	352	300	300	300	300
TOTAL ITINERANT OPERATIONS	44,934	48,822	51,722	55,898	59,261
<b>LOCAL OPERATIONS</b>					
General Aviation	3,907	3,959	3,893	3,886	3,783
TOTAL LOCAL OPERATIONS	3,907	3,959	3,893	3,886	3,783
<b>TOTAL OPERATIONS</b>	<b>48,841</b>	<b>52,781</b>	<b>55,615</b>	<b>59,784</b>	<b>63,044</b>

Source: Barnard Dunkelberg & Company.  
<sup>(1)</sup> Actual.