

CHAPTER 2

AVIATION DEMAND FORECASTS

This chapter presents the passenger, based aircraft, and aircraft operations forecast for the Pocatello Regional Airport. The objective of the forecast is to identify the long-term trends for the types and levels of aviation activity that could trigger the need for Airport facility expansion or improvement.

This chapter presents a long-term projection of Airport activity through the year 2030. The FAA Terminal Area Forecast (TAF) is the aviation industry's accepted source of future scheduled commercial passenger volumes, aircraft operations, and based aircraft. Therefore, the TAF will be used as the base forecast. Several alternative forecasts of passenger traffic will provide variations for facility planning purposes.

These alternative scenarios are also valuable to recognize the extreme volatility present in the airline industry, as well as the competitiveness of the Airport's local market. Critical concerns of any aviation forecast include possible airline consolidation, higher fuel prices, new environmental regulations, and shifts in airline service patterns.

This forecast is necessary to update the Airport's traffic projections based on the most recent changes in regional air service and airline operational policy. Other aviation industry issues will also be considered in this analysis.

This chapter is organized into sections, as follows:

- Regional Base for Aviation Activity
- Historical Passenger Activity
- Factors Influencing Passenger Air Service
- Passenger Forecast
- Aircraft Operations Forecast
- Design Aircraft
- Air Cargo Forecast
- Based Aircraft Forecast
- Summary of Forecast

Note this forecast is intended to be used for long-term planning purposes. It is presented in five-year increments, as well as peak period activity. Individual forecast years are less important in this type of forecast than trends, with sharp year-to-year variations possible as airlines, routes, equipment, and competition vary.

2.1 THE REGIONAL BASE FOR AVIATION ACTIVITY

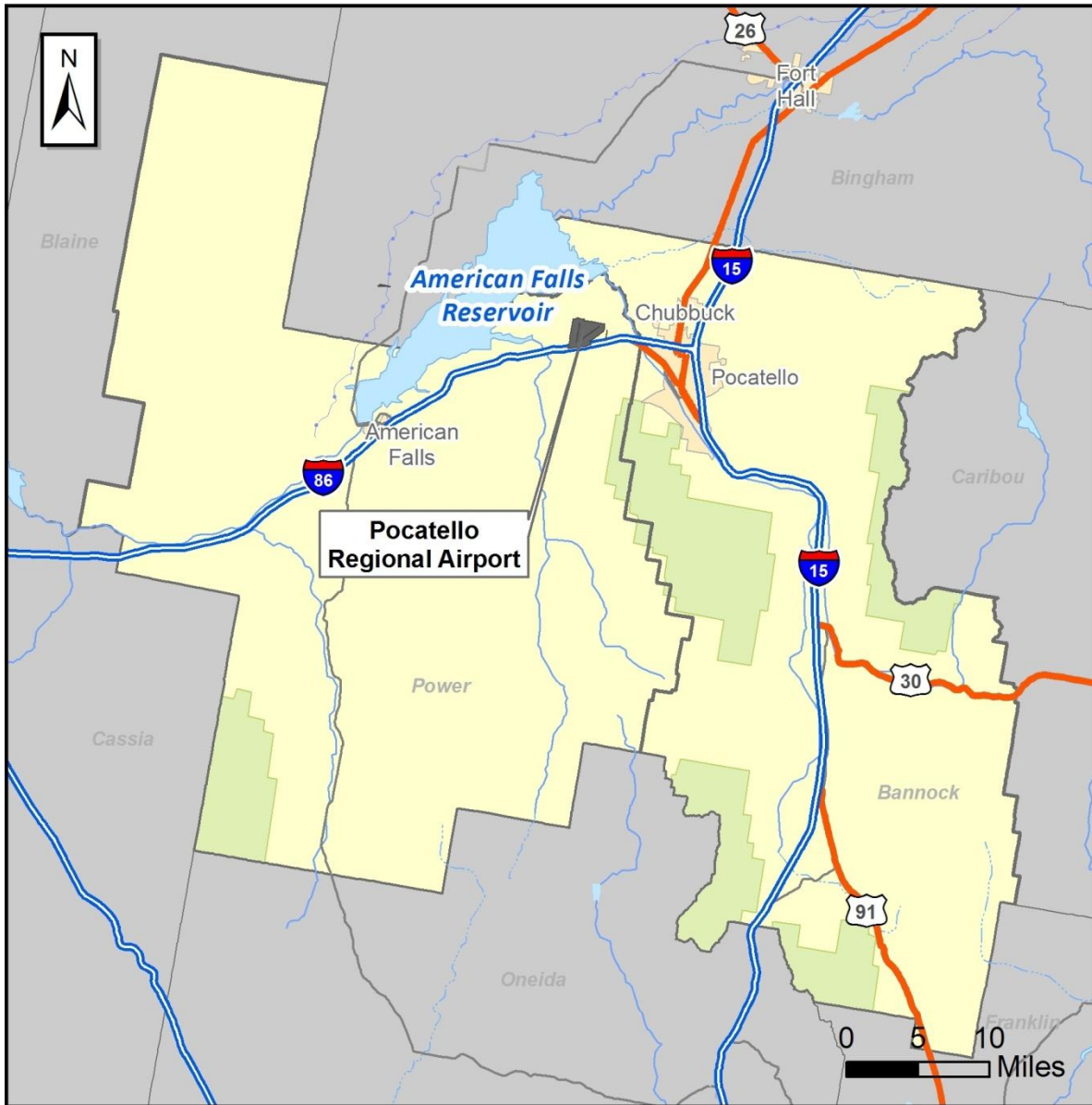
This section identifies the geographic area served by the Airport and region's characteristics that influence aviation demand. It is recognized that air passengers can come into the region from outside and local residents can utilize other airports; however, this regional analysis provides a basis for identifying and understanding the greater Pocatello area and its ability to support aviation activity.

2.1.1 Identification of the Air Trade Area and Population

The Pocatello Metropolitan Statistical Area (MSA) is defined as the Air Trade Area. This MSA is identified by the United States Census Bureau as the prime business market for southeastern Idaho. It is also the major source of existing passengers. The MSA contains only one commercial service airport – Pocatello Regional Airport.

The MSA consists of two counties – Bannock and Power. The estimated MSA population in 2009 was 90,273. Power County was estimated to have 7,734 residents, while Bannock County was estimated to have 82,539 residents in 2009. Within Bannock County, the City of Pocatello has 55,076 residents or 67 percent of the County's population. Thus, the City of Pocatello represents 61 percent of the MSA's population. The City of Chubbuck, with 12,483 residents, is the second largest city in the MSA. A map of this region with the MSA identified, as well as major highways in relation to the Pocatello Regional Airport, is shown on Figure 2-1. This figure also identifies the MSA counties, as well as the most current Census Bureau estimate of population.

Figure 2-1
POCATELLO METROPOLITAN STATISTICAL AREA AND 2009 POPULATION ESTIMATE



MSA County	2009 Population
Bannock	82,539
Power	7,734
Total	90,273

Source: U.S. Census Bureau, 2010

2.1.2 Air Trade Area Demographic and Economic Conditions

This section identifies the key demographic characteristics of the Air Trade Area, which was determined to be the Pocatello Metropolitan Statistical Area (MSA). In addition, large regional employers and sources of employment are identified. In this section, the MSA’s population, employment, and per capita income are presented with comparable information for the entire United States and the State of Idaho.

2.1.2.1 Population Growth

The rate of population growth in Pocatello has historically been slightly higher than the United States at 1.14 percent annually. In addition, the State of Idaho has grown faster at 1.99 percent annually. For the future, as projected by Woods and Poole Economics, the regional population is expected to grow slightly slower than the United States. The State of Idaho, however, is expected to continue its faster-than- the United States growth rate. This higher statewide average is assumed to occur due to the continued strong economy of the Boise City-Nampa Metropolitan Area. The historical and projected population comparison of the United States, State of Idaho, and the Pocatello MSA (Airport Trade Area) is shown in Table 2-1.

Table 2-1
HISTORICAL AND PROJECTED POPULATION GROWTH RATES

Area	1970 - 2010	2011 - 2030
United States	1.05%	0.94%
Idaho	1.99%	1.62%
Pocatello (MSA)	1.14%	0.82%

Source: Woods and Poole, 2010

2.1.2.2 Per Capita Personal Income

Per Capita Personal Income (PCPI) in Idaho and Pocatello was less than the United States average in 1970. Figures for today and 2030 still show the State and MSA below the U.S. average. Note that all these amounts are provided in constant year 2004 dollars as presented in Table 2-2.

Table 2-2
COMPARISON OF PER CAPITA PERSONAL INCOME AVERAGES (2004 \$)

Area	1970	2010	2030
United States	\$16,725	\$35,582	\$46,851
Idaho	\$14,411	\$28,072	\$36,981
Pocatello (MSA)	\$13,908	\$24,956	\$33,767

Source: Woods and Poole, 2010

2.1.2.3 Employment

Between 1970 and 2010, the United States, Idaho, and Pocatello area all saw relatively strong employment growth with the State showing the strongest growth. For the future, the rate of employment growth is expected to exceed 1 percent annually for the three areas with Idaho and Pocatello slightly higher than the United States average. The growth rate for comparative area employment is presented in Table 2-3.

Table 2-3
COMPARISON OF TOTAL EMPLOYMENT GROWTH RATES

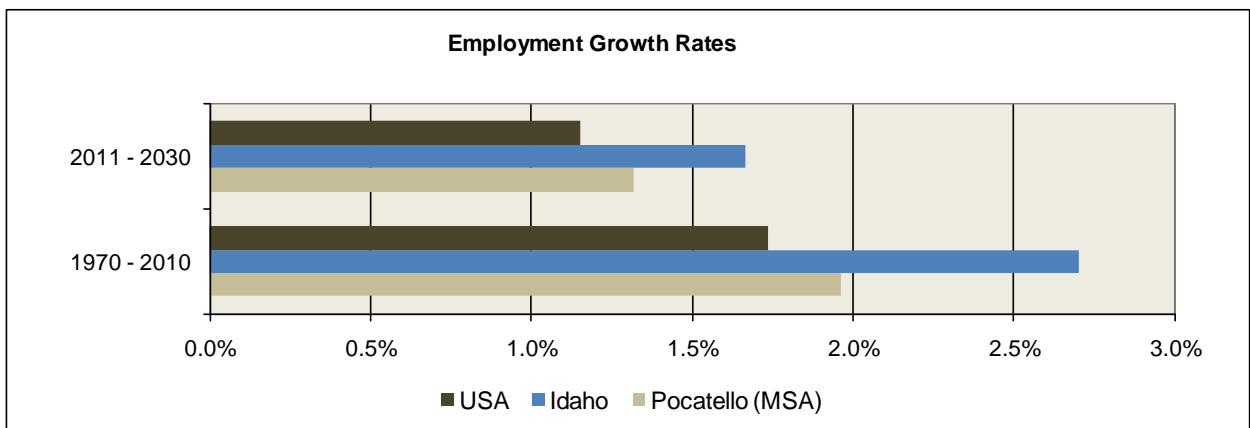
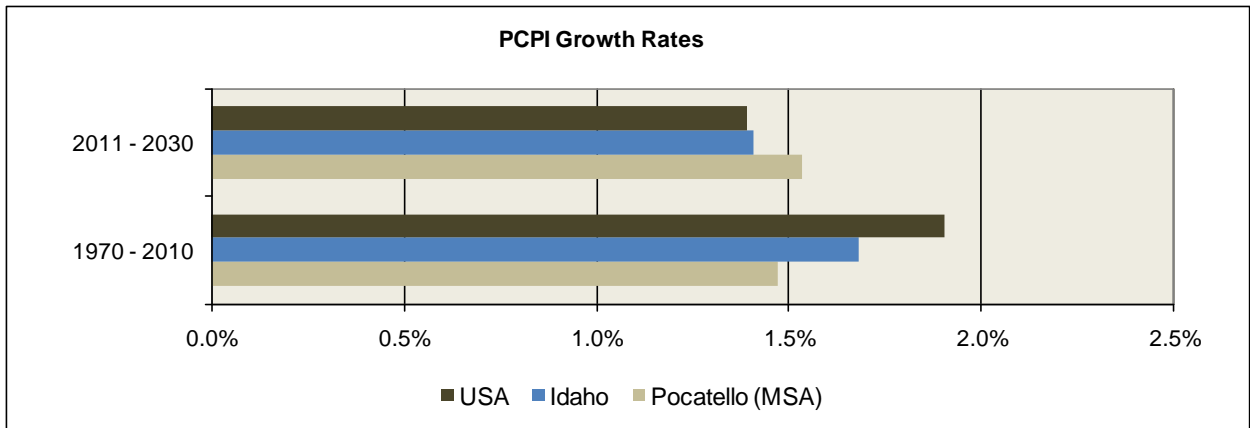
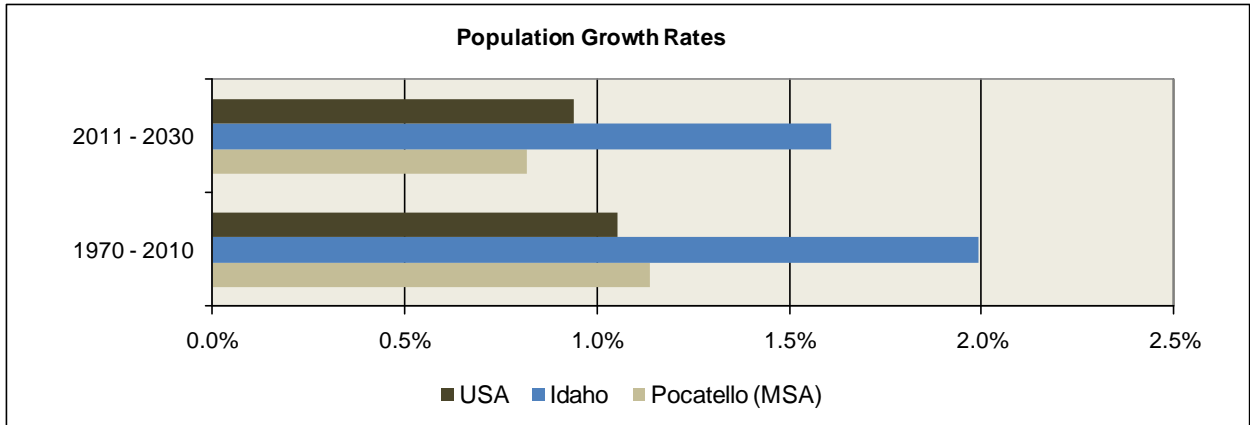
Area	1970 - 2010	2011 - 2030
United States	1.73%	1.15%
Idaho	2.70%	1.67%
Pocatello (MSA)	1.96%	1.32%

Source: Woods and Poole, 2010

2.1.2.4 Summary

Consideration of a community's economic character is particularly important to the determination of business travel, general aviation, and air cargo levels. Prior to developing the aviation demand forecast for Pocatello Regional Airport, current and projected economic trends and population projections within the Airport's Air Trade Area were examined. The local socioeconomic picture derived from this comparison of the United States, Idaho, and Pocatello, which is presented in Figure 2-2 presents a positive growth outlook for the Air Trade Area. This information includes the comparison of growth rates of population, PCPI, and employment. While the population growth rate for the MSA is below state and national averages, it is expected that the local population and the economy will continue to grow at a stable rate.

Figure 2-2
COMPARISON OF AIR TRADE AREA DEMOGRAPHIC INFORMATION



Source: Woods & Poole, 2010

2.1.2.5 Major Employers and Other Economic Indicators

As in any community, the major employers in the Air Trade Area include a large number of governments, schools, and hospitals, as well as business operations. The Idaho State University is the largest single regional employer with over 3,000 full-time equivalent employees. Based on Idaho Department of Labor information, the 15 largest employers in the Air Trade Area are listed in Table 2-4.

Table 2-4
POCATELLO'S LARGEST EMPLOYERS

Employers	Business	Employees
Idaho State University	Education	3,000
School District #25	Education	1,500
Portneuf Medical Center	Health Services	1,000
Heinz Frozen Foods	Food & Beverage	800
ON Semiconductor	Manufacturing	600
Convergys Business Services	Business Services	600
Pocatello City Government	Government	600
Union Pacific Railroad	Transportation	500
Varsity Contractors	Construction	500
Wal-Mart Retail Stores	Trade	400
Bannock County Government	Government	400
Teleperformance, USA	Utilities	300
Bernett Research Center	Business Services	300
Farmers Insurance Group	Business Services	250
Fred Meyer Superstore	Trade	150

Source: Idaho Department of Labor, 2010 (Employees Rounded)

2.2 HISTORICAL PASSENGER ACTIVITY

This section identifies the historical air traffic activity at the Airport. Based on the 2010 FAA Terminal Area Forecast (TAF), the number of enplaned passengers has decreased from 31,100 in 1990 to 21,213 in 2009. In 2010, the passenger activity record at the Airport has begun to show signs of recovery, increasing slightly from 21,213 to 23,319. The average annual passenger growth rate over the 20-year period from 1990 to 2010 was minus 1.4 percent.

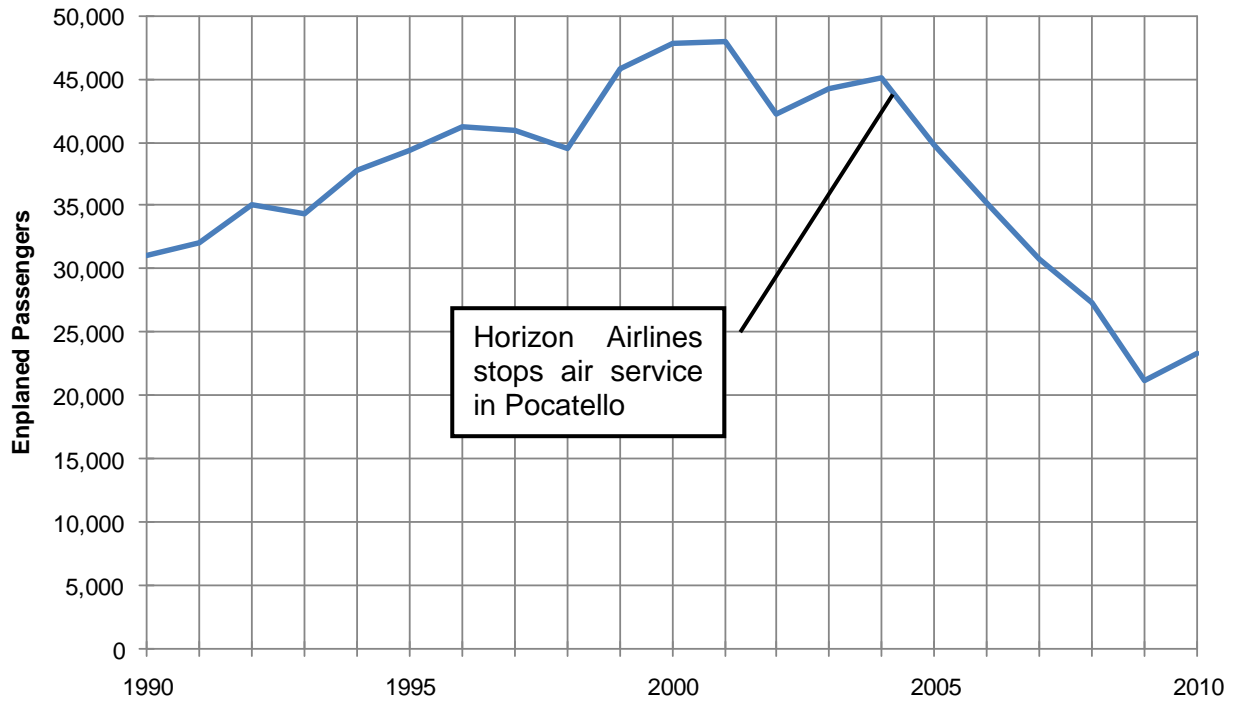
2.2.1 Annual Enplaned Passenger Activity

The enplaned passenger history in the 20-year period from 1990 to 2010 presents a somewhat uneven record. In the first 10 years from 1990 to 2000, passenger traffic grew at an average annual rate of 4.4 percent annually to over 47,000 enplanements. Over the next ten years, passenger traffic dropped to a low of just over 21,000 enplaned passengers in 2009.

The recent decrease in air passenger volume is directly related to the departure of Horizon Airlines, whose last flight was in 2005. With the departure of Horizon Airlines, passengers heading westbound were forced to drive to an alternate airport. With the loss of 30 to 60 available Horizon seats a day, Airport enplaned passengers dropped to approximately 21,000 in 2009.

The annual enplaned passengers in the 1990 through 2010 period at five-year intervals are shown in Figure 2-3. In addition, the average annual growth rate at ten-year intervals is presented.

Figure 2-3
HISTORICAL ENPLANEMENTS (FY 1990-2010)



Year	Historical Enplanements
1990	31,000
1995	39,334
2000	47,847
2005	39,854
2006	35,209
2007	30,832
2008	27,274
2009	21,212
2010	23,319

Average Annual Growth Rate	
Period	Percent Change
1990-2000	4.4%
2000-2010	-6.9%
1990-2010	-1.4%

Source: FAA TAF, 2010; Airport Record 2010.

2.2.2 Monthly and Other Seasonal Trends

The monthly passenger activity at the Airport is unusual in that traffic is relatively steady by month throughout the year with no readily discernable peaking. Most airports see a mid-summer peak and relatively weaker traffic in mid-winter. The Airport’s trend by month is identified in this section.

Based on six years of historical data, each year shows little change between months. February shows less traffic than the other months, but that is largely because there are fewer days in the month. Otherwise, no peak or weak months are apparent. Therefore, the Airport may be identified as a “business type” market where a relatively constant number of passengers are seen each month. While there is a slight dip in the winter months, there is a small increase during March, which can be linked to the annual spring break schedule at Idaho State University. Note there is some variation among passengers by year, but between months within a year, traffic is relatively stable.

The monthly passenger traffic for the past six years appears in Figure 2-4. This exhibit indicates the relatively stable number of passengers between months in the same year.

2.2.3 Airlines Providing Service

Delta Air Lines is the Airport’s only current scheduled passenger airline. The actual operator of the route is SkyWest Airlines. SkyWest Airlines utilizes an Embraer E-120 Brasilia between Pocatello Regional Airport and Salt Lake City International Airport.

For 22 years from 1983 to 2005, Horizon Airlines served the Pocatello market with flights to Seattle via Boise. Other carriers, including Big Sky Airlines have also served the market.

2.2.4 Flight Schedule

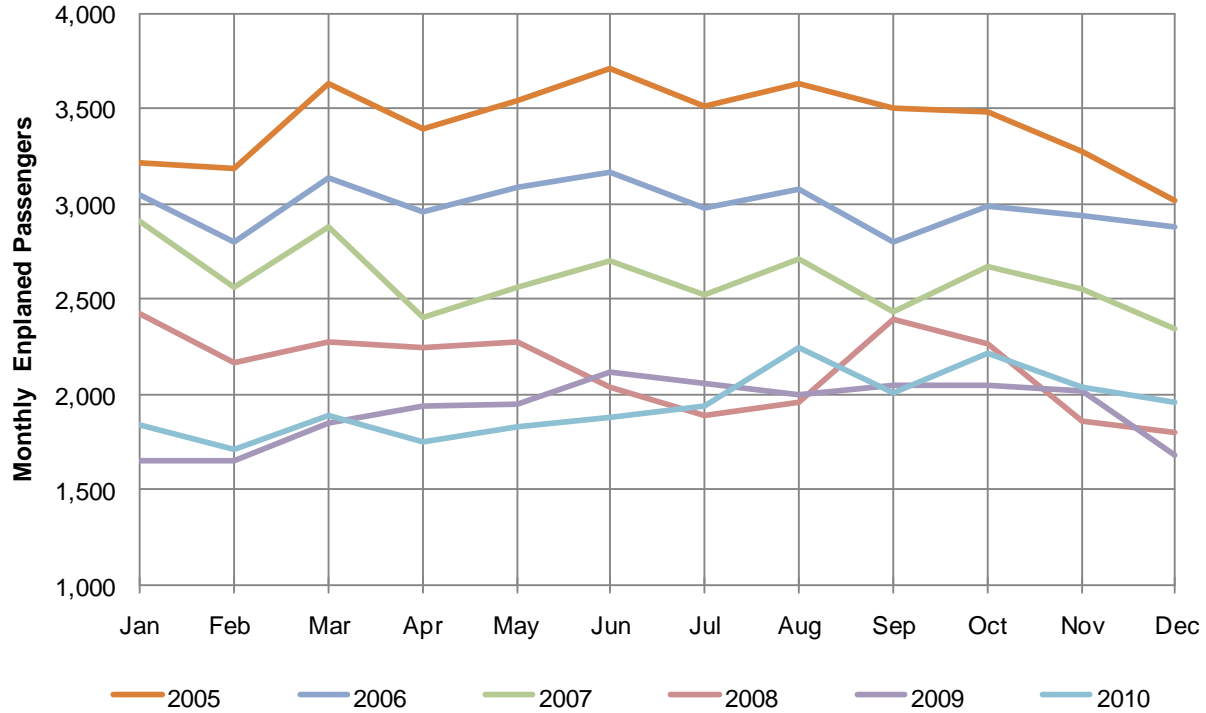
Delta’s flights serve their western hub in Salt Lake City. The December 2010 flight schedule for Pocatello Regional Airport is shown in Table 2-5.

Table 2-5
SCHEDULED PASSENGER AIRLINES SERVING THE AIRPORT

Arrivals			
Airline	From	Time	Day
Delta/Skywest Airlines	Salt Lake City, UT	9:15 AM	Monday - Sunday
Delta/Skywest Airlines	Salt Lake City, UT	12:01 PM	Monday - Sunday
Delta/Skywest Airlines	Salt Lake City, UT	5:51 PM	Monday - Sunday
Delta/Skywest Airlines	Salt Lake City, UT	9:15 PM	Tuesday Only
Delta/Skywest Airlines	Salt Lake City, UT	10:45 PM	Excluding Tuesday
Departures			
Airline	To	Time	Day
Delta/Skywest Airlines	Salt Lake City, UT	6:10 AM	Monday - Sunday
Delta/Skywest Airlines	Salt Lake City, UT	9:30 AM	Monday - Sunday
Delta/Skywest Airlines	Salt Lake City, UT	12:16 PM	Monday - Sunday
Delta/Skywest Airlines	Salt Lake City, UT	6:06 PM	(Sunday - Friday Only)

Source: PIH Airport Records, 2010

Figure 2-4
 MONTHLY ENPLANED PASSENGER TRAFFIC (CY 2005 - 2010)



Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2005	3,219	3,186	3,629	3,391	3,546	3,709	3,514	3,628	3,499	3,479	3,280	3,020
2006	3,043	2,801	3,141	2,954	3,084	3,165	2,974	3,081	2,798	2,985	2,934	2,877
2007	2,910	2,560	2,884	2,405	2,560	2,705	2,524	2,708	2,438	2,672	2,555	2,342
2008	2,424	2,169	2,277	2,245	2,273	2,033	1,889	1,963	2,393	2,268	1,862	1,803
2009	1,653	1,649	1,846	1,935	1,952	2,119	2,060	2,000	2,048	2,043	2,017	1,679
2010	1,844	1,709	1,891	1,752	1,831	1,884	1,935	2,249	2,011	2,219	2,036	1,955
Average Monthly Enplaned Passenger	2,516	2,346	2,611	2,447	2,541	2,603	2,483	2,605	2,531	2,611	2,447	2,279

Source: PIH Airport Records, 2010

2.3 SIGNIFICANT FACTORS INFLUENCING PASSENGER AIR SERVICE

This section identifies the most significant factors expected to influence regional air service demand. Competition among airports and airlines results in a situation where regional passengers have multiple choices for travel.

2.3.1 Location and Other Characteristics of Regional Airports

The Airport serves a unique Air Trade Area because it is located relatively close to several other airports. By far the most important competitive airport is Salt Lake City International Airport. Salt Lake City is located about 175 miles to the south of Pocatello and is accessed via Interstate 15. The Salt Lake City Airport is a hub for the nation’s largest airline – Delta Air Lines. Further, Salt Lake City has service from most of the U.S. carriers including low cost airlines such as Southwest and Frontier.

Other airports such as Idaho Falls, Twin Falls, Jackson Hole, West Yellowstone, and Friedman Memorial (Hailey) are reasonably close in distance as well and may attract certain passengers. The Boise Airport is located about 225 miles to the west and has extensive air service. Both Boise and Salt Lake City’s airports are believed to be the most serious competitors for passengers.

Key information including the mileage from each airport to Pocatello Regional Airport and driving time to the main competitive airports is provided in Table 2-6. Also provided is the number of enplaned passengers at each airport in calendar year 2009 and their size ranking among all U.S. airports based upon FAA data.

Table 2-6
SURROUNDING REGIONAL AIRPORTS

Airport City	Highway Miles	Driving Time	FAA Classification	2009 Enplanements	2009 Size Rank
Pocatello, ID	0	0	Non-Hub	21,212	330
Idaho Falls, ID	56	59	Non-Hub	138,957	195
Twin Falls, ID	111	1:57	Non-Hub	26,991	305
Jackson Hole, WY	153	2:58	Non-Hub	284,397	152
West Yellowstone, MT	161	3:54	Commercial Service	4,331	471
Hailey, ID	168	2:55	Non-Hub	49,549	265
Salt Lake City, UT	174	2:49	Large-Hub	9,903,821	24
Boise, ID	225	3:32	Small-Hub	1,400,343	76

Source: Bing Maps; FAA ACAIS Database and TAF, 2010

All these airports are linked to the Air Trade Area by interstate highways that make driving relatively easy. However, congestion on the highways in and around Salt Lake City can hinder access at peak times, as well as weather in the winter that slows travel in the entire region.

2.3.2 Airport Efforts to Improve Air Service

The Airport has been persistent in efforts to increase and improve air service to Pocatello. These efforts include a “fly local” marketing campaign that educates, advertises, encourages, and provides incentives (free coffee and parking) for the local community to use their Airport. Further, the Airport has just completed a terminal renovation and expansion with better vehicle access and passenger facilities to improve the travel experience.

2.4 PASSENGER FORECAST

This section presents the enplaned passenger forecast. The analysis is based upon the FAA TAF and two alternative passenger activity scenarios for future traffic. The TAF is the “base” projection used as the principal expectation for future analysis in this Master Plan. The two alternatives include a low growth scenario and an aggressive growth scenario. All the forecasts are used in the Master Plan for comparative purposes representing potential alternative aviation activity possibilities.

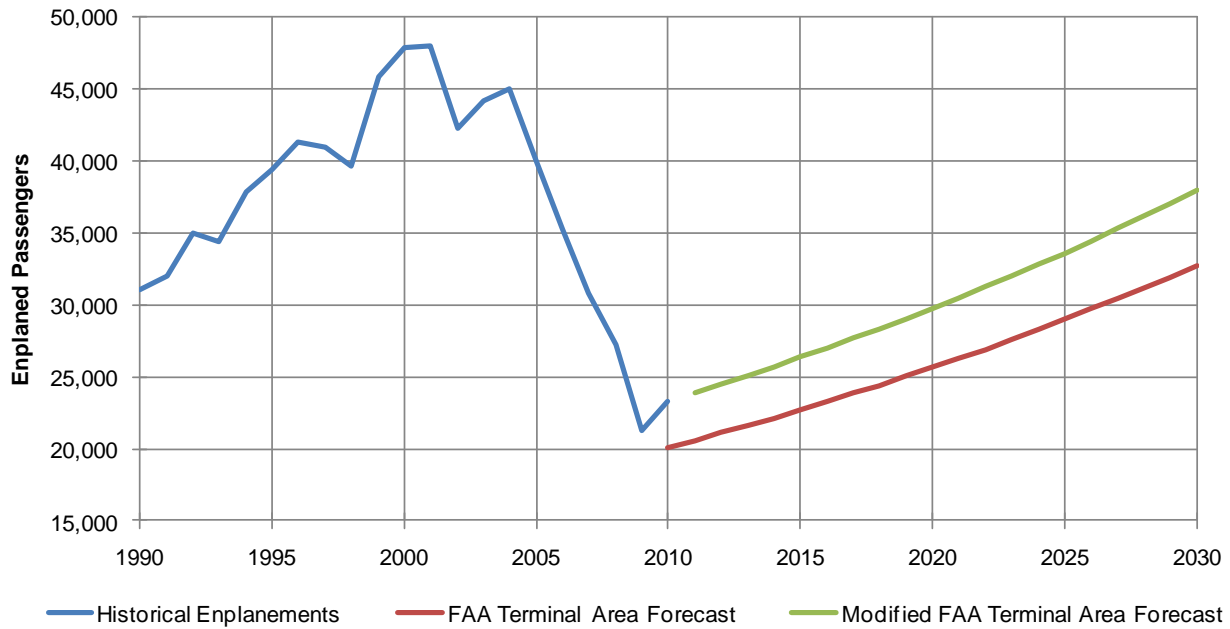
2.4.1 Presentation of FAA Terminal Area Forecast – Base Case

This Master Plan assumes the FAA 2010 Terminal Area Forecast is the principal basis for future facility planning. The FAA prepares an annual projection of commercial passengers and aircraft operations traffic for all U.S. airports. This Terminal Area Forecast is calculated based upon each airport’s historical activity and national averages for change in passengers, aircraft operations, and certain other activity measures. The FAA 2010 Terminal Area Forecast for Pocatello Regional Airport is presented in Figure 2-5.

Since the FAA Terminal Area Forecast was published, the Airport’s actual 2010 passenger information has become available. With this new information, the starting point of the FAA Terminal Area Forecast was adjusted to project future passenger activity from the actual beginning point and carried the FAA projected growth rate forward. The FAA Terminal Area Forecast projects that passenger activity continues to increase at a 2.5 percent average annual rate. This rate of increase is higher than the national average domestic growth rate of 2.4 percent contained in the *FAA Aerospace Forecast, Fiscal Years 2010-2030*, released in March 2010. By 2030, almost 38,000 enplanements are projected at the Airport, an increase of roughly 18,000 from the 2010 level, or a 90 percent increase overall.

The Terminal Area Forecast suggests there is only one principal air carrier. No “new” carriers are necessarily anticipated; rather, the existing carrier adds flights and/or increases the load factor of their aircraft over time. While other new scheduled carriers are possible under this base case, they are assumed to replace the existing carrier. Therefore, the total number of passengers would remain similar regardless of replacement or name changes of carriers.

Figure 2-5
2010 FAA TERMINAL AREA FORECAST



Year	Historical Enplanements	FAA Terminal Area Forecast	Modified FAA Terminal Area Forecast
1990	31,000		
1995	39,334		
2000	47,847		
2005	39,854		
2006	35,209		
2007	30,832		
2008	27,274		
2009	21,212		
2010	23,319		
2015		22,695	26,330
2020		25,636	29,750
2030		32,723	37,950
Average Annual Growth Rate			
Period	Percent Change		
1990-2010	-1.4%		
2005-2010	-10.2%		
2010-2030	2.5%	2.5%	2.5%

Source: FAA Terminal Area Forecast, 2010

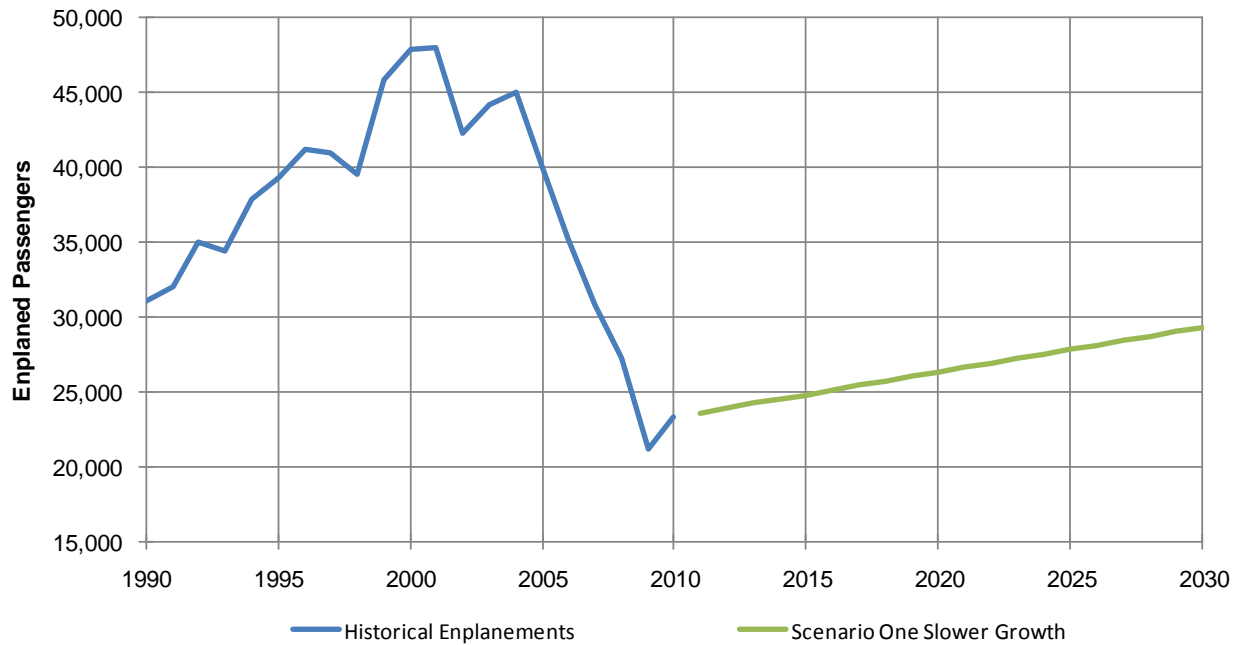
2.4.1 Scenario One – Slower Growth Rate

This scenario assumes a relatively slower growth of regional air passengers over the 20-year planning period versus the TAF. That is, the current level of air passengers continues with annual growth of traffic below national average levels. The reason for this slow growth is assumed to be that most passengers from the Air Trade Area utilize airports in Idaho Falls, Boise, Salt Lake City, or other locations. No reduction of traffic occurs; rather, a slower recovery of passengers to 1990 levels is seen. Under this scenario, the rate of air passenger growth will approximately match the average rate of population, income, and employment increase.

Similar to the Terminal Area Forecast, the scheduled commercial passenger airline service suggests that Delta remains the principal carrier. No “new” carriers are anticipated. Over time, as load factors increase, the existing carrier may add additional flights.

The “slower growth rate” scenario is presented in Figure 2-6. The annual growth rate between 2010 and 2030 averages 1.2 percent annually versus the 2.5 percent shown in the TAF. Passenger growth averages approximately 300 per year resulting in just over 29,000 enplanements by 2030.

Figure 2-6
SCENARIO ONE – SLOWER GROWTH



Year	Historical Enplanements	Scenario One Slower Growth
1990	31,000	
1995	39,334	
2000	47,847	
2005	39,854	
2006	35,209	
2007	30,832	
2008	27,274	
2009	21,212	
2010	23,319	
2015		24,700
2020		26,300
2030		29,300
Average Annual Growth Rate		
Period	Percent Change	
1990-2010	-1.4%	
2005-2010	-10.2%	
2010-2030	1.2%	

Source: RS&H Analysis, 2010

2.4.2 Scenario Two – Aggressive Growth

Scenario Two assumes a higher growth rate than the TAF based on the return of a second major airline with flights to a second hub. This causes the Airport to be much more competitive with nearby airports; thereby attracting a larger share of regional air passengers. The air service assumptions that accompany this case are:

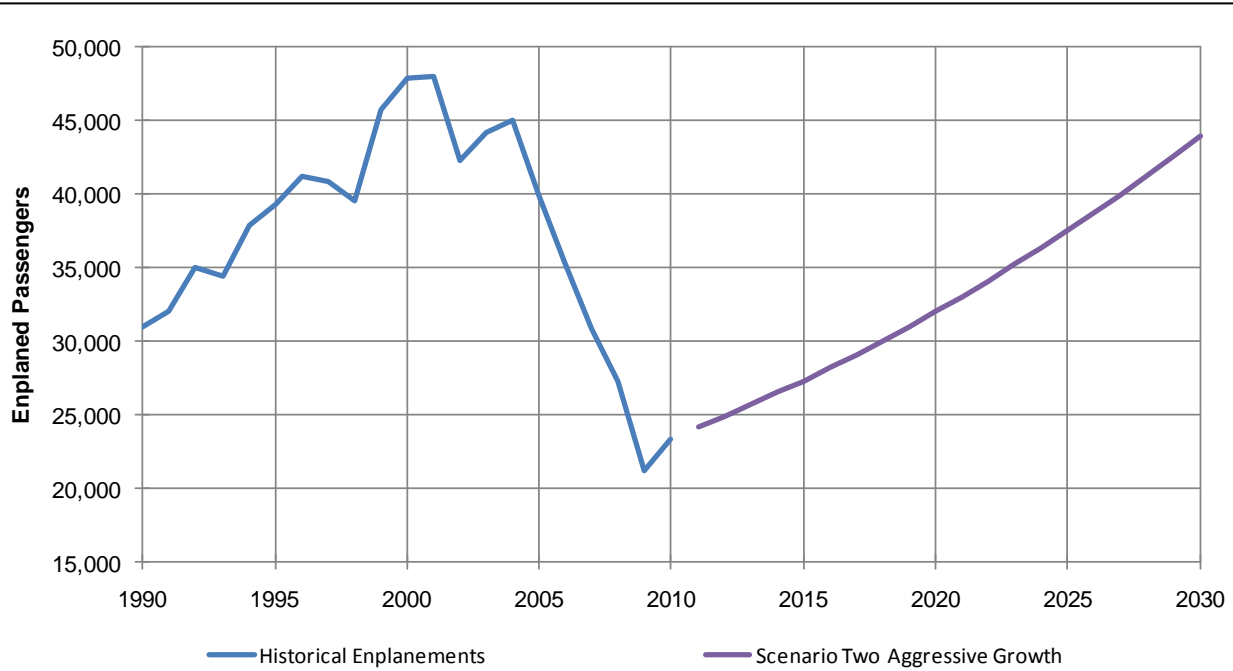
- Delta/SkyWest maintains the existing daily service to Salt Lake City through 2015 and adds a few additional daily flights or larger aircraft by 2030.
- United/SkyWest adds one daily flight to Denver by 2015, one more by 2020, and another flight by 2025. These flights serve local traffic between Pocatello and Colorado, as well as offer connecting opportunities to passengers.
- As an alternative to the possible United service to Denver, Horizon Airlines could provide one daily flight to Seattle by 2015, a second by 2020, and a third flight by 2025. These flights would serve local traffic between Pocatello and the State of Washington, as well as offer increased connecting opportunities.

Under this scenario, existing air service is retained and a new carrier is added. Realistically, increased load factors should accommodate most of the increased volume of passengers; but, over the long term, more aircraft frequency may be deployed on the existing routes. Further, replacement of turbo-props with regional jets is expected. The Scenario Two forecast is presented in Figure 2-7.

Scenario Two is logical for Pocatello Regional Airport air service, but it is more likely to occur over the intermediate or longer term and not immediately. Continued growth of Air Trade Area, particularly in high-tech industries, is expected under this scenario to attract additional air service. The key to further passenger air service growth at the Airport is the intense competition offered between Delta and another carrier (either United or Horizon). The advantage of having two aggressive carriers serving the Airport is that passengers benefit from the lower fares and increased air service options. The result is more passengers utilize the Airport. These increased Airport passenger numbers result from less leakage to other airports and a higher propensity of local residents choosing to fly versus driving or not traveling.

Under Scenario Two “aggressive growth” scenario, the annual growth rate between 2010 and 2030 averages 3.2 percent annually versus the 2.5 percent shown in the TAF. Passenger growth averages about 800 per year resulting in approximately 44,000 passengers by 2030. This is almost a 50 percent increase in the 20-year forecast period and almost doubles the total number of passengers

Figure 2-7
SCENARIO TWO – AGGRESSIVE GROWTH



Year	Historical Enplanements	Scenario Two Aggressive Growth
1990	31,000	
1995	39,334	
2000	47,847	
2005	39,854	
2006	35,209	
2007	30,832	
2008	27,274	
2009	21,212	
2010	23,319	
2015		27,300
2020		32,000
2030		43,900
Average Annual Rate	Growth	
Period	Percent Change	
1990-2010	-1.4%	
2005-2010	-10.2%	
2010-2030	3.2%	

Source: RS&H Analysis, 2010

2.4.3 Passenger Forecast Comparison and Summary

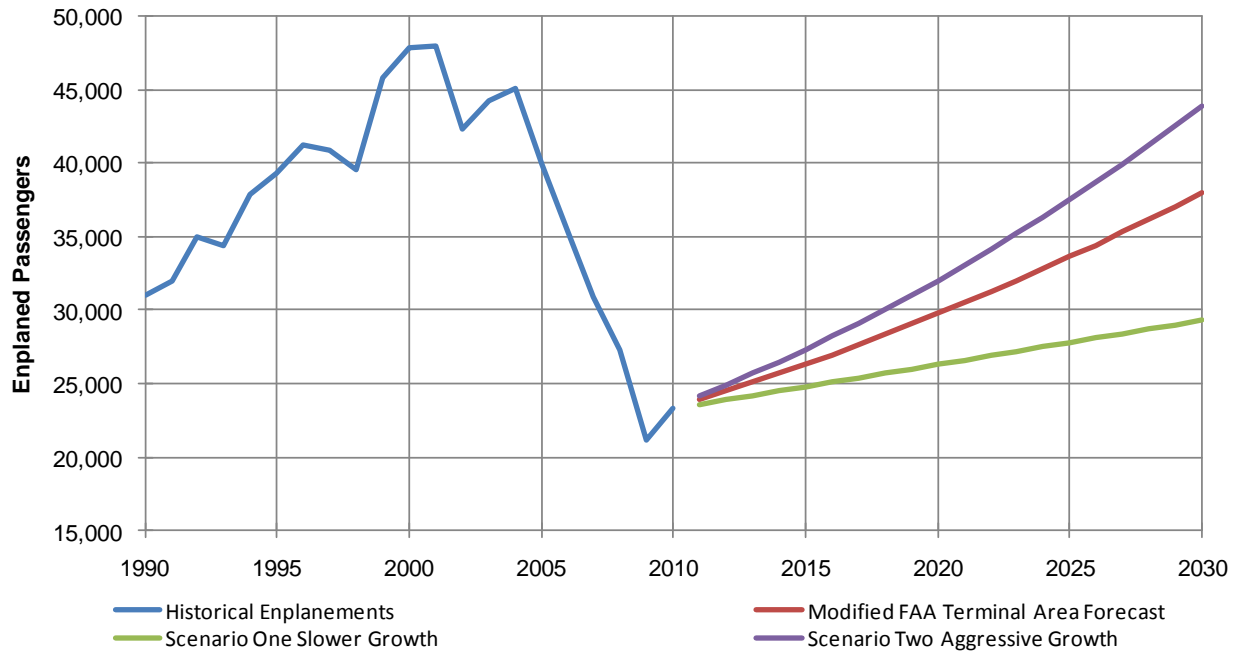
Three forecast cases were developed in this analysis. One was based on the FAA Terminal Area Forecast and two scenarios of a higher and lower rate of passengers were developed. The Terminal Area Forecast indicates passenger levels will be nearly 38,000 by 2030, while the higher growth scenarios indicate levels over 43,000 enplanements. The lower growth scenario estimated a passenger total in 2030 of approximately 29,000. The three projected passenger enplanements are presented in Figure 2-8, along with the average annual growth rates between the periods shown. All these cases predict that the Airport continues to increase passenger volumes over the long term.

2.4.4 Passenger Forecast Qualifications and General Assumptions

The expectation is that Pocatello and its surrounding area continues to be a leader in southeastern Idaho in manufacturing, education, and other businesses, as well as remaining a strong retail center. This economic success will, in turn, attract passengers from a broad geographic area. The significant assumptions regarding the growth of passengers at the Airport include:

- The strength of the worldwide economic recovery and specifically the expectations for population and economic growth of the Air Trade Area.
- The continued increase in air passengers in the United States, which is encouraged by the availability of jet fuel at a reasonable price; relatively low taxes on air travel; environmental laws that support continued air travel; and the lack of competitor modes (such as rail) for long distance travel.

Figure 2-8
ENPLANED PASSENGER FORECAST SUMMARY



Year	Historical Enplanements	Modified FAA TAF	Scenario One Slower Growth	Scenario Two Aggressive Growth
1990	31,000			
1995	39,334			
2000	47,847			
2005	39,854			
2006	35,209			
2007	30,832			
2008	27,274			
2009	21,212			
2010	23,319			
2015		26,330	24,700	27,300
2020		29,750	26,300	32,000
2030		37,950	29,300	43,900
Average Annual Growth Rate				
Period				
Percent Change				
1990-2010	-1.4%			
2005-2010	-10.2%			
2010-2030		2.5%	1.2%	3.2%

Source: RS&H Analysis, 2010

2.4.1 Design Day / Design Hour

Airport facilities are not typically designed based upon their annual activity; rather, they are designed to accommodate a busy or peak period. This section of the Master Plan forecast identifies and projects the peak activity period for commercial passengers and aircraft gate usage.

The peak activity at any airport is often constrained by the number of gates. At the same time, the number of airlines and their number of destinations, as well as their number of on-airport employees, limit any airline's ability to schedule and handle too many aircraft at the same time. Therefore, this peak period gate analysis is built from the bottom-up, based upon the existing and projected airline schedule. The current gate usage and overnight aircraft, as derived from the December 2010 actual flight schedule, are presented in Figure 2-9.

Figure 2-9
DECEMBER 2010, AIRLINE SCHEDULE BY GATE

Airline		Midnight	1:00am	2:00am	3:00am	4:00am	5:00am	6:00am	7:00am	8:00am	9:00am	10:00am	11:00am	12:00pm	1:00pm	2:00pm	3:00pm	4:00pm	5:00pm	6:00pm	7:00pm	8:00pm	9:00pm	10:00pm	11:00pm	Overnight
Delta/Skywest SLC (Wednesday - Monday)	Arrive										9:15			12:01					5:51						10:45	
	Depart						6:10				9:30			12:16						6:06						
Delta/Skywest SLC (Tuesday Only)	Arrive										9:15			12:01					5:51					9:15		
	Depart						6:10				9:30			12:16						6:06						

Source: PIH Airport Records, 2010

The peak period most commonly used in airport planning is the design day and/or design hour. These periods are not the absolute peak usage that an airport will ever see, but rather represent the typical busier than normal period. There are several factors to consider in this peak hour analysis. First, the number of flights per day does not vary substantially during the year because the airlines' schedule is relatively stable. Second, the early morning aircraft departures and late evening arrivals are normally the busiest. Third, these peak passenger activity hours are usually particularly noticeable on Monday mornings and Friday evenings. Therefore, a peak gate usage analysis will be based upon full aircraft and the current flight schedule.

The Peak Month was identified from 2010 activity as being August with 9.65 percent of the year's activity. The Average Day of the Peak Month is represented by 1/31 of the peak month's activity.

The current airline schedule was analyzed to identify the peak hours for scheduled aircraft arrivals and departures. Based on the current airline schedule, the maximum number of scheduled aircraft on-the-ground in any single hour is one. In addition, there is only one aircraft that overnights at the Airport.

The gate usage by aircraft is identified differently. Under the current schedule, Delta can use either of the two available gates. For the future, both gates are projected to be used for departing flights and related passenger enplanements. Full aircraft are assumed based on a typical busy day schedule such as Monday morning or Friday evening.

Based on this analysis, the peak departing passenger hour is 6 to 7 am when one 30-passenger Embraer E-120 Brasilia departs. When full, 30 passengers use the Airport. The peak arrival hour is represented both by the 5 to 6 pm and 9 to 10 pm period when the Embraer E-120 Brasilia arrives. With full aircraft, this results in 30 arriving passengers. For the future, similar conditions are expected, but with higher activity over time factored into the analysis if the type of aircraft changes.

The peak month for each of the forecast scenarios, as well as the peak day, has been calculated. The projected maximum number of gates utilized and the peak hour enplanements/deplanements for 2010, 2015, 2020, and 2030 were also projected. These peak activity calculations are presented in Table 2-7. Note that this forecast is based upon the current schedule and full Embraer E-120 Brasilia (30-seat) aircraft. However, in the future scenarios, regional jets are likely to be used creating a higher peak hour.

Table 2-7
PEAK PERIOD PROJECTION

Year	Passengers					Daily Flights	Aircraft/ Seats	Peak Hour Flights
	Annual	Peak Month	Average Day	Peak Hour Enplanement	Peak Hour Deplanement			
Base Case - FAA TAF								
2010	23,319	2,250	73	30	30	4	EMB 120 /30	1
2015	26,330	2,540	82	30	30	4	EMB 120 /30	1
2020	29,750	2,870	93	30	30	4	EMB 120 /30	1
2030	37,950	3,660	118	50	50	2	CRJ/50	1
Scenario One - Slower Growth								
2010	23,319	2,250	73	30	30	4	EMB 120 /30	1
2015	24,700	2,380	77	30	30	4	EMB 120 /30	1
2020	26,300	2,540	82	30	30	4	EMB 120 /30	1
2030	29,300	2,830	91	30	30	4	EMB 120 /30	1
2030								
Scenario Two - Aggressive Growth								
2010	23,319	2,250	73	60	60	4	EMB 120 /30	2
2015	27,300	2,630	85	60	60	4	EMB 120 /30	2
2020	32,000	3,090	100	100	100	2	CRJ / 50	2
2030	43,900	4,240	137	100	100	3	CRJ / 50	2

Source: RS&H, 2012

2.5 ANNUAL AIRCRAFT OPERATIONS FORECAST

This section presents a general overview of the historical trends in aviation activity at the Airport along with the 2010 TAF forecast of annual aircraft operations.

An aircraft operation is defined as either a takeoff or a landing. Therefore, the typical air carrier flight consists of a landing and a takeoff for a total of two operations. The FAA records annual aircraft operations in the following four categories:

- **Air Carrier** - An air carrier operation involves an aircraft with a seating capacity of more than 60 seats or a cargo payload capacity of more than 18,000 pounds. Further, the aircraft must be carrying passengers or cargo for hire or compensation.
- **Commuter** - Commuter operations represent scheduled commercial flights for aircraft with 60 seats or fewer or a cargo payload capacity of 18,000 pounds or less. This category includes air taxi operations, which are nonscheduled commercial flights or those for-hire flights using aircraft with 60 or fewer seats or a payload capacity of 18,000 pounds or less.
- **Military** - Military operations are by all classes of U.S. military or Federal government aircraft.
- **General Aviation** - General aviation operations are any type of operation that is not included in one of the previous defined categories. These are typically privately owned aircraft used for training, recreation, or personal use.

General observations regarding each aircraft operational category are presented below:

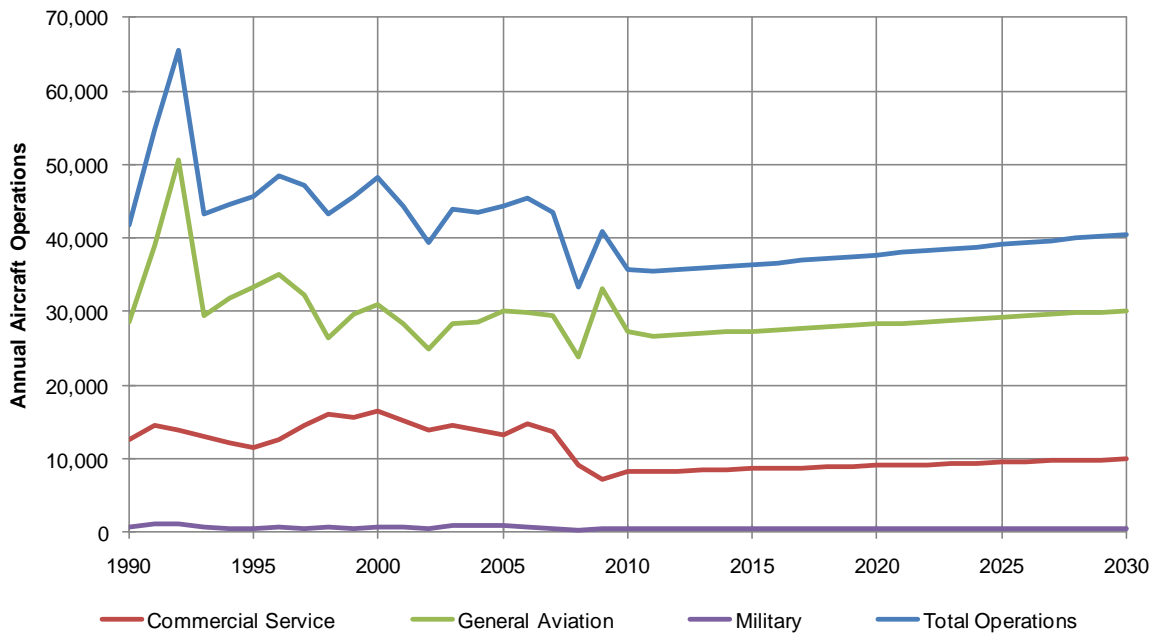
- **Commercial** – Most historical and projected commercial flights at the Airport are by commuter type aircraft, as discussed below.
 - Air Carrier - Air carrier operations have fluctuated over the past 20-year period, ranging from 14 in 1990 to a high of 726 in 2005. Air carrier operations were 53 in 2009. For the future, the FAA expects the number of air carrier operations to remain steady at 92 annually. Based on national trends that indicate continued increases in regional airline service, it is assumed the FAA expects the Airport to retain service by regional carriers and see limited service by charter or scheduled air carriers.
 - Commuter - Commuter operations have an uneven historical trend. There were 12,621 in 1990, increasing to a peak of 16,036 in 2000. Since 2000, the annual totals have declined to a low of 7,233 in 2009. The substitution of larger aircraft for smaller ones is believed to be responsible for the decrease. In the future, commuter operations are expected by the FAA to grow. By 2030, approximately 10,000 commuter operations are projected.
- **General Aviation** - The overwhelming majority of operations at the Airport are flown in the general aviation category. General aviation operations have remained relatively constant since 1990, on average, fluctuating by less than seven percent annually. In 1990, general aviation operations were 28,564 and grew to 30,100 in 2000. The period between 2000 and 2010 is marked by a decline in activity returning the annual operation back to roughly the same level as in 1990. Further, this decline corresponds to a period of weakening economic climate coupled with a sharp increase in fuel prices that most likely have negatively impacted demand in the

aviation sector. General aviation activity is projected by the FAA to grow to approximately 30,000 operations by 2030. It is important to note that within this category, all the Bureau of Land Management's aircraft are counted.

- **Military** - Since 1990, annual military aircraft operations at the Airport have fluctuated from a few hundred to just under a thousand. Recent activity levels have been relatively flat over previous years with 367 annual operations in 2007 and 395 in 2010. While the recent annual numbers are relatively constant, it is not unusual for military aircraft operations counts to increase or decline by large margins as the Department of Defense alters its operational requirements. Military operations are projected to remain steady over the 20-year planning period. These military operations are primarily generated from both the 22nd Air Refueling Squadron from the U. S. Air Force and the 151st Air Refueling Wing from the Utah Air National Guard.

The result is total Airport operations are expected to grow in the 20-year forecast period from approximately 35,800 in 2010 to almost 40,500 in 2030. The operations forecast is shown on Figure 2-10.

Figure 2-10
FORECAST ANNUAL AIRCRAFT OPERATIONS



Year	Commercial Service			General Aviation			Military			Total Operations
	Air Carrier	Commuter	Subtotal	Itinerant	Local	Subtotal	Itinerant	Local	Subtotal	
1990	14	12,621	12,635	17,295	11,269	28,564	297	312	609	41,808
1995	37	11,543	11,580	18,928	14,466	33,394	238	357	595	45,569
2000	537	16,036	16,573	16,957	14,053	31,010	209	450	659	48,242
2005	726	12,589	13,315	15,138	14,996	30,134	199	726	925	44,374
2006	223	14,625	14,848	15,352	14,610	29,962	279	348	627	45,437
2007	406	13,266	13,672	15,568	13,915	29,483	198	199	397	43,552
2008	129	8,945	9,074	13,249	10,682	23,931	245	122	367	33,372
2009	53	7,233	7,286	14,187	18,949	33,136	299	128	427	40,849
2010	92	8,116	8,208	12,734	14,468	27,202	271	124	395	35,805
2015	92	8,528	8,620	13,271	14,118	27,389	271	124	395	36,404
2020	92	8,960	9,052	14,054	14,223	28,277	271	124	395	37,724
2030	92	9,898	9,990	15,754	14,433	30,187	271	124	395	40,572

Average Annual Growth Rate

Period	Percent Change			
	Commercial Service	General Aviation	Military	Total
1990-2010	-2.1%	-0.2%	-2.1%	-0.8%
2005-2010	-9.2%	-2.0%	-15.6%	-4.2%
2010-2015	1.0%	0.1%	0.0%	0.3%
2010-2020	1.0%	0.4%	0.0%	0.5%
2010-2030	1.0%	0.5%	0.0%	0.6%

Source: FAA TAF, 2010

2.5.1 **Instrument Operations Forecast**

The instrument operations count is a reflection of workload for FAA facilities that are controlling aircraft at a particular facility. An instrument operation is an arrival or a departure of an aircraft operating in accordance with an Instrument Flight Rule (IFR) flight plan or an operation where IFR separation between aircraft is provided. Instrument operations are used in part by the FAA to determine an airport's eligibility for enhanced instrument approach capability and additional navigations aids.

Historical and forecast instrument approach data for the Airport are presented in Table 2-8. Annual instrument approaches have decreased from 9,070 in 1990 to 1,163 in 2010, representing an average annual decrease of 9.8 percent during this period. As a result, instrument operations are projected to increase at the same rate as total operations, which is approximately 1,300 instrument operations by 2030.

Table 2-8
INSTRUMENT OPERATIONS FORECAST

Year	Airport Operations	Instrument Operations
1990	41,808	9,070
1995	45,569	11,419
2000	48,242	12,773
2005	44,374	12,174
2006	45,437	10,223
2007	43,552	8,587
2008	33,372	6,984
2009	40,849	7,001
2010	35,805	1,163
2015	36,404	1,180
2020	37,724	1,220
2030	40,572	1,300
Average Annual Growth Rate		
Period	Percent Change	
1990-2010	-0.8%	-9.8%
2005-2010	-4.2%	-37.5%
2010-2015	0.3%	0.3%
2010-2020	0.5%	0.5%
2010-2030	0.6%	0.6%

Source: 2010 FAA Terminal Area Forecast (TAF); Air Traffic Activity Data Systems (ATADS)

2.6 DESIGN AIRCRAFT

The FAA recommends the identification of an existing and future design aircraft. The design aircraft is defined as the most demanding aircraft in terms of size and approach speeds that performs or is forecast to perform at least 500 annual operations at the Airport. The Airport Reference Code (ARC) is a system developed by the FAA to relate airport design criteria to the operational and physical characteristics of the airplane types that will operate at a particular airport. The ARC has two components relating to the airport design aircraft. The first component, depicted by a letter, is the aircraft approach category and relates to aircraft approach speed. The second component, depicted by a Roman numeral, is the airplane design group and relates to airplane wingspan and tail height.

The previous Master Plan determined that the “most demanding” type of aircraft at the Airport were the Boeing KC-135 (C-IV) and Lockheed C-130 (C-IV). As for the airlines, the Embraer E-120 Brasilia (B-II), DeHavilland Canada Dash 8 (A-III), and Canadair Regional Jets 100-200 series aircraft (C-III) were identified. Many corporate jets using the Airport fall within the ARC B-I through D-III categories.

Based on the analysis of the previous Master Plan, it was determined to leave the Airport’s ARC in the D-IV category. The aircraft speed component (“D”) coming from large corporate jet users and the wingspan and tail height component (“IV”) coming from the military aircraft that use the field.

A re-evaluation of the most demanding aircraft design category was conducted to determine if the projected change in aircraft operations would modify the Airport’s critical aircraft. Design aircraft is defined by the FAA as a type or series of users that have a minimum of 500 annual operations. Specific areas of an airport can be specified to accommodate various categories of aircraft. That is, each runway or aircraft movement area may be designated for a different type aircraft. For example, one runway may be designed to accommodate general aviation aircraft and another designed to serve commercial services aircraft.

Scheduled commercial passenger flights currently are being conducted by an Embraer E-120 Brasilia (B-II) turbo-prop aircraft. In the 20-year planning period, a similar mix of aircraft is expected. That is, the future scheduled commercial passenger fleet mix is expected to consist mainly of various types of Embraer E-120 Brasilia (B-II), DeHavilland Canada Dash 8 (A-III), and Canadair Regional Jets 100-200 series aircraft (C-III).

Corporate and general aviation aircraft fleet mix is expected to remain similar to today in that most flights are of single engine piston aircraft. At the same time, the number of corporate jets is expected to increase as businesses purchase, lease, or time-share these aircraft to increase business productivity. Therefore, smaller mid-sized corporate jets such as Bombardier, Gulfstream, Falcon, and Cessna Citation series jets are expected to utilize the Airport. These aircraft range from ARC, B-II to ARC, D-II.

Within the general aviation category discussed above, the Airport serves as a base for interagency wildfire suppression operations under the control of the Bureau of Land Management. The operations at the Airport are largely air attack aircraft, and air tankers (water bombers). Aircraft supporting wildfire suppression such as the CL-215 (A-III), CL-415 (B-II), AT-802 Air Tractor (B-II), P2V Neptune (C-III), and P3 Orion (C-III). In addition, helicopter, smokejumper, and lead planes can be expected to remain similar to today’s activity.

Military operations at the Airport are largely Boeing KC-135 (C-IV) air-refueling training flights from Utah Air National Guard, Fairchild A-10 Thunderbolts (C-II) from Idaho Air National Guard, and McDonnell Douglas F-15E Strike Eagle (D-I) from Mountain Home U.S. Air Force Base. In addition, military helicopter operations do occur occasionally. Future military operations are also expected to remain similar to today's activity. It is worth noting that both military groups referenced above have been deployed in recent history, resulting in a reduced need for training operations; however, when overseas military conflicts expire, it is reasonable to suggest that an increase in training operations will occur within the 20-year planning period.

In conclusion, the expected fleet mix at the Pocatello Regional Airport is anticipated to remain similar to today over the forecast period. Additional analysis and recommendations regarding a Design Aircraft for Pocatello Regional Airport will be included in the Design Aircraft section of Chapter 3, Facility Requirements.

2.7 AIR CARGO FORECAST

The record of air cargo volume at the Pocatello Regional shows rather nominal annual traffic. However, air cargo operations fall within three categories: dedicated cargo aircraft, overnight express delivery aircraft, and passenger airline "belly" cargo. Dedicated jet air cargo aircraft typically only operate in the larger metropolitan areas. Therefore, dedicated, high-capacity jet air cargo aircraft are not anticipated at Pocatello Regional Airport within the planning period. However, Federal Express (FedEx) and United Postal Serves (UPS) operate a daily feeder aircraft carrying overnight express delivery packages.

As for passenger airlines, a limited record of the belly cargo carried by the scheduled airlines was available. Belly cargo indicates the air cargo is carried in the cargo area under the floor of the passenger area of airline aircraft. However, the TSA severely limits the air cargo that can be carried in passenger aircraft because of safety considerations. Therefore, passenger airlines normally carry only certain first class mail and certain pre-cleared packages. While of very high value, the weight of this air cargo is typically limited. In addition, the relatively small size of the passenger aircraft used to/from the Airport limit the amount of belly cargo capacity.

For the future, no scheduled air cargo flights are predicted at the Airport. In addition to the level of airline service provided, other factors impacting future air cargo include the state of the local and national economy, as well as the continued switch by the U.S. Mail and air express companies (FedEx and UPS) to more economical ground shipments. There are a number of reasons that air cargo volume is not expected to grow significantly at the Airport as indicated below.

- The Airport is located in the southeastern part of Idaho where truck shipments between major cities have replaced flights to and from the Midwestern air hubs of air cargo companies. That is, the Airport is located within an eight-hour drive of several larger metropolitan areas such as Salt Lake City, Utah; Boise, Idaho; and Butte, Montana; therefore, many shipments travel by ground.
- The express air cargo companies, specifically FedEx and UPS, are consolidating their regional service to a few large markets and eliminating flights to smaller cities. That is, trucks are used to feed shipments from smaller points to central, consolidated airports. In this manner, one large aircraft can serve a region versus numerous smaller aircraft. For the Idaho market, Spokane, Boise, and Salt Lake City are the prime service points for flights and truck service is used to most other cities.

2.8 BASED AIRCRAFT FORECAST

Based aircraft represent the total number of active, civil aircraft permanently located or projected to be located at an airport. Based aircraft categories include single-engine piston, multi-engine piston, turbo-prop, jet, rotorcraft, and other. This section forecasts the number and type of based aircraft at the Airport.

The national general aviation industry has experienced declines in nearly all measures of activity since the early 1980s including new aircraft shipments, active fixed base operators (FBOs), hours flown, and number of pilots. The number of aircraft based at individual airports has dropped at many facilities. The Pocatello Regional Airport shows a more stable record according to the FAA Terminal Area Forecast. FAA records indicate there were 68 based aircraft in 1990 and 94 in 2000. Current Airport records of January 1, 2010 indicate 70 based aircraft.

The FAA’s Terminal Area Forecast (TAF) for Pocatello Regional Airport serves as the basis for the Master Plan Forecast. The FAA indicates the number of based aircraft is expected to remain at 70. However, based on national trends, this analysis indicates a change in the mix of aircraft in the forecast period. Specifically, the number of turbo-prop and small business jet aircraft will increase and the number of piston-powered aircraft will decrease. Table 2-9 shows estimates of future types of based aircraft at the Airport.

Table 2-9
BASED AIRCRAFT PROJECTIONS

Year	Piston		Turbo-Prop	Jet	Roto-Craft	Other	Total
	Single	Multiple					
2010	47	19	0	1	3	0	70
2015	47	18	1	1	3	0	70
2020	45	17	2	2	4	0	70
2030	43	16	3	3	5	0	70

Source: PIH Airport Record, 2010; FAA TAF, 2010

2.9 SUMMARY OF FORECAST

This chapter provides a projection of passengers and other aviation activity for the Master Plan forecast. Information from this summary is used in the remainder of the Master Plan to assess the capacity of the existing Airport facilities and provide planning guidance for proposed facility expansion or renewal. In summary, this forecast assumes continuation of the current types of aviation activity with growth in line with historical and economic trends.

A summary of the aviation demand forecasts for the Airport is presented in Table 2-10. These activity projections are used in the next chapters of the Master Plan to assess the capacity of existing facilities and determine facility expansions or improvements needed to satisfy future activity levels.

Table 2-10
FORECAST SUMMARY

Activity Measures	2010	2015	2020	2030
Commercial Passengers				
Annual Enplaned-Base	23,319	26,330	29,750	37,950
Annual Enplaned-One	23,319	24,700	26,300	29,300
Annual Enplaned-Two	23,319	27,300	32,000	43,900
Peak Hour				
Enplaned-Base	30	30	30	50
Enplaned-One	30	30	30	30
Enplaned-Two	60	60	100	100
Annual Operations				
Commercial	8,208	8,620	9,052	9,990
General Aviation	27,202	27,389	28,277	30,187
Military	395	395	395	395
Total	35,805	36,404	37,724	40,572
Based Aircraft				
Total	70	70	70	70

Source: PIH Airport Record, 2010; FAA TAF 2010

THIS PAGE INTENTIONALLY LEFT BLANK