



# Chapter 2 - Forecasting

Forecasts of aviation, landside and terminal activities are the foundation for decisions in airport planning. Projections help determine the need for new or expanded facilities. There are many variables that affect these forecasts. Major forces on aviation activity include both aviation related and outside factors at the local, regional, and national levels. Aviation related factors include changes in the airline industry, such as consolidations and mergers. New classes of aircraft or types of aircraft using the airport can also bear on aviation activity. External items that affect aviation activity include geographic and economic characteristics and the geographic attributes of the areas surrounding an airport. Other factors that influence aviation activity include fuel costs, changes in aviation related taxes, national and international political developments, as well as changes in regulatory atmosphere and environmental impacts of aviation.

With a multitude of factors producing changes in the aviation activity and the demand for aviation services, forecasts should only serve as guidelines for planning activities. Unforeseeable impacts can greatly alter actual activities verses forecasted activities. Planning and projecting aviation activities for a twenty year period with absolute certainty is unrealistic. As a result, planning and the development of improvements must remain a dynamic process, and actual levels of use need to be evaluated and compared to forecasts on a regular basis.

The following analysis describes the characteristics of the areas surrounding Gallatin Field, the historical activity and forecasts of aviation activity at the Airport. The breakdown of information will serve as the foundation for identifying the need for new or expanded facilities at Gallatin Field. Forecasts have been developed both through mathematical processes and conclusions based on professional experience and knowledge of the aviation industry and the local market.

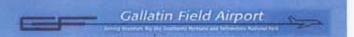
# **National Trends**

National forecasts by the FAA are published annually in the FAA Aerospace Forecast. National forecasts can be a useful tool in forecasting at the local and state level. The recent forecast for fiscal years 2006-2017 uses economic forecasts developed by the Executive Office of the President, Office of Management and Budget (OMB) to project domestic aviation demand. Over the entire forecast period, the expansion is expected to remain strong with growth rates declining slightly from 3.6 percent in 2005 to 3.0 percent in 2013.

Continuing a trend that has been occurring for several years, regional and low-cost carriers grew much faster than their legacy carrier counterparts. Low-cost carriers are made up of ATA, Frontier Airlines, JetBlue Airways, Sun Country Airlines, Southwest Airlines, and Spirit Airlines. Regional carriers include Air Wisconsin, Mesa Air, Pinnacle Airlines and Skywest. Legacy carriers are Alaska Airlines, American Airlines, Continental Airlines, Delta Air Lines, Mesa Air, Northwest Airlines, United Airlines, and US Airways. In domestic markets, commercial capacity grew 3.5 percent in 2005 propelled by large increases at low-cost and regional carriers. Over the planning period domestic commercial enplanements are projected to grow at 2.9% annually. This growth was made up of a 4.5% increase in regional carriers' enplanements and a 2.5% growth in main line carriers' enplanements. Past and projected United States passenger enplanements are displayed on Figure 2-1 for the main line and regional carriers.

Legacy carriers have been replacing their wide-body and larger narrow-body aircraft in their route networks with smaller narrow-body aircraft. In addition, some carriers, such as JetBlue, are turning to smaller aircraft, like the 100-seat Embraer 190, to supplement their network structure. The use of smaller narrow-body aircraft allows mainline carriers to serve their customers better by boosting frequency and improve profitability by more closely matching supply (the number of seats) with demand (the number of passengers). While mainline carriers have been reducing the size of aircraft flown domestically, regional carriers have been increasing the size of their aircraft. The most visible example of this trend is the wave of 70-90 seat regional jet aircraft that are entering the fleet with the continuing relaxation of scope clauses. Regional carriers are better able to support operations of their mainline partners when they can provide capacity that complements market demand. The greater number of the larger 70 and 90 seat regional jets increases the average seating capacity of the regional fleet-from 49.4 seats in 2005 to 55.1 seats in 2017.

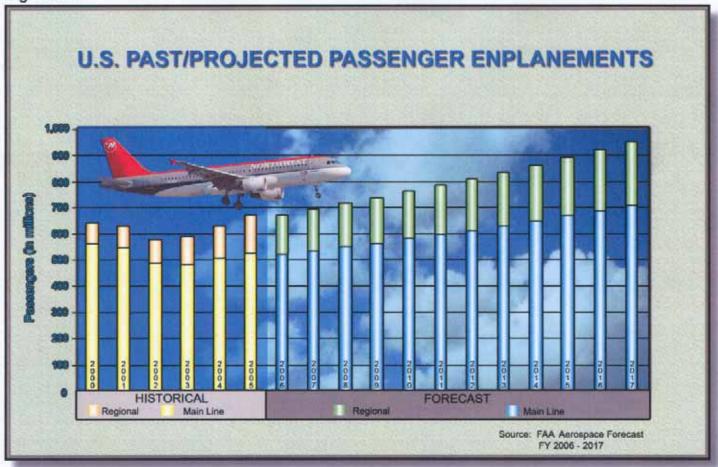
Despite a slowdown in the demand for business jets over the past several years, the current forecast assumes that business use of general aviation aircraft will expand at a more rapid pace than that for personal/sport use. The business/corporate side of general aviation could also benefit from a growing market for new microjets. The market for new microjets could add 500 aircraft a year to the active fleet by 2010. The relatively inexpensive twin-engine microjets (priced between \$1 and \$2 million) are believed by many to have the potential to redefine the business jet segment by expanding business jet flying and offering performance that could support a true on-demand air-taxi business service. In addition, safety/security concerns for corporate staff, combined with increased processing times



at some U.S. airports have made fractional, corporate, and on-demand charter flights practical alternatives to travel on commercial flights. The active general aviation fleet is projected to increase at an average annual rate of 1.4 percent over the 12-year forecast period, growing from an estimated 214,591 in 2005 to 252,775 aircraft in 2017. The more expensive and sophisticated turbine-powered fleet

(including rotorcraft) is projected to grow at an average of 4.0 percent a year over the 12-year forecast period with the turbine jet fleet doubling in size. The number of active general aviation pilots (excluding air transport pilots) is projected to be about 535,000 in 2017, an increase of more than 67,300 (up 1.1 percent yearly) over the forecast period.

Figure 2-1



# **Demographic Characteristics**

The local economic & demographic characteristics and suspected trends supply a prospectus to supporting the growth in aviation related activities. Geographic factors of the Airport's location also greatly affects the type of service and level of demand for air services. The service or trade area that supports Gallatin Field is described as being Gallatin County and the five surrounding counties of Broadwater, Jefferson, Madison, Meagher, and Park. The "Montana Air service: Opportunities and Challenges" report prepared for the Montana Department of Transportation uses a 90 minute drive time to the airport to describe the theoretical market area for Gallatin Field. This would include Silver-Bow and Lewis & Clark Counties as well as Sweet Grass County.

Gallatin County was the fifth fastest growing county in the State of Montana from 1990 to 2000 according to the 2000 census. From 2000 to 2005 Gallatin County was the fastest growing county in Montana according to the population estimates by Population Division, U.S. Census Bureau. The county grew by 15.3% in these five years or 3.1% annually on average. The trade area grew by 11.6%, well above the growth for the State at 3.7% during this period. Historic and forecast population data is displayed in Table 2-1. Several forecasts were looked at to estimate population growth for Gallatin County. The NPA Data Services is projecting an average annual growth of 1.6%, or 32% growth in Gallatin County from 2005 to 2025. The Gallatin County Growth Plan, conducted from 2000 to 2003, is forecasting a 2% average annual growth to 2030. This figure was used to project the population.

**Table 2-1 Population Forecasts** 

	- An art		Short	Term Populati	on Growth			
1000		S	ource: Popula	tion Division, L	I.S. Census E	ureau		
	Trade Area	Annual % growth	Gallatin County	Annual % growth	Belgrade	Annual % growth	Bozeman	Annual % growth
July-00	107,263		68,276		5,844	-11.2%	27,910	-5.4%
July-01	108,996	1.6%	69,795	2.2%	6,284	7.5%	28,707	2.9%
July-02	110,638	1.5%	71,076	1.8%	6,580	4.7%	29,514	2.8%
July-03	112,986	2.1%	73,331	3.2%	6,832	3.8%	30,869	4.6%
July-04	115,893	2.6%	75,632	3.1%	7,046	3.1%	32,412	5.0%
July-05	119,138	2.8%	78,210	3.4%	7,033	-0.2%	33,535	3.5%
		Long Term P	opulation Ti	rends Source: Po	pulation Division	U.S. Census B	ureau	
200	Trade	e Area	Gallati	n County	Belg	rade	Boz	eman
Growth 1990- 2000	26	.9%	34.4%		67.4%		21.4%	
Growth 2000- 2005	11	.6%	15	i.3%	22.8%		21.9%	
			P	opulation Fore	casts	Winds In		
bx -	Total Tr	ade Area	Gallatin County	Broadwater County	Jefferson County	Madison County	Meagher County	Park County
2005	119	,138	78,210	4,517	11,170	7,274	1,999	15,968
2010	129	,843	86,031	5,070	12,011	7,580	1,950	17,201
2015	140	,198	93,852	5,431	13,019	7,947	1,947	18,002
2020	150	,684	101,673	5,812	14,020	8,338	1,947	18,894
2025	161	,317	109,494	6,231	15,024	8,723	1,951	19,894
2030	172	,288	117,315	6,643	16,146	9,203	2,047	20,934

Source: NPA Data services Inc. Projections

Note: Gallatin County population 2005 projected @ 2% per the Gallatin County Growth Plan.

#### **Aviation Forecasts**

Aviation forecasts that follow will estimate the use of future demand at Gallatin Field Airport over the next 20 years. The facility needs can then be planned based on future activity and demand. As forecasts are estimates and actual activity numbers are determined by many variables, it is not assured that the forecasts presented will exactly match future activity levels. It is important that facilities be planned in a manner that the construction can be phased when actual activity levels require the facilities.

Forecasts are included for the following:

- Commercial Service:
  - Annual Enplaned Passengers,
  - Annual Operations
  - Fleet Mix.
- Annual Instrument Approaches
- General Aviation
  - Based Aircraft,
  - Local and Itinerant operations
- Air Taxi
- Air Cargo
- Military
- Fuel Usage

# Commercial Service-Enplaned Passengers

Passenger enplanements at Gallatin Field have Increased 317% in the past 20 years, from 80,387 in 1985 to 335,679 in 2005. Since 1995 enplanements have shown a 6% average annual increase from a high of 9.9% in 2004 to a low of 2.1% in 1999. Historic passenger enplanements from 1995 to 2006 are displayed in **Table 2-2**.

Projections of passenger enplanements were forecast in several ways, regression analysis, trend analysis, and forecasts by the FAA Terminal Area Forecasts. Comparisons of the forecasts have served to develop the preferred planning forecast based on professional experience and understanding of the local market.

The first method, regression analysis, compares demand for aviation services to an independent variable, population in this case. There has been a 3% annual population growth for the last 5 years and projected population growth of two independent studies of between 1.6% and 2.0% average annual growth. Enplanements based on population growth were forecast at 2.0% average annual increase predicted by the Gallatin County Growth Policy, or 40% growth by 2025. This is considered to be the low estimate for growth since growth in enplanements at Gallatin Field has outpaced the growth in population of the service area for the last 30 years.

**Table 2-2 Commercial Enplanements** 

Year	Total Enplanements	Annual % Change
1995	186,685	
1996	196,378	5.2%
1997	207,352	5.6%
1998	218,117	5.2%
1999	222,767	2.1%
2000	242,650	8.9%
2001	256,134	5.6%
2002	274,499	7.2%
2003	281,052	2.4%
2004	308,985	9.9%
2005	335,679	8.6%
2006		
% Change	1995-2005	8.0%
% Change	2000-2005	7.7%

Source: Airport Records

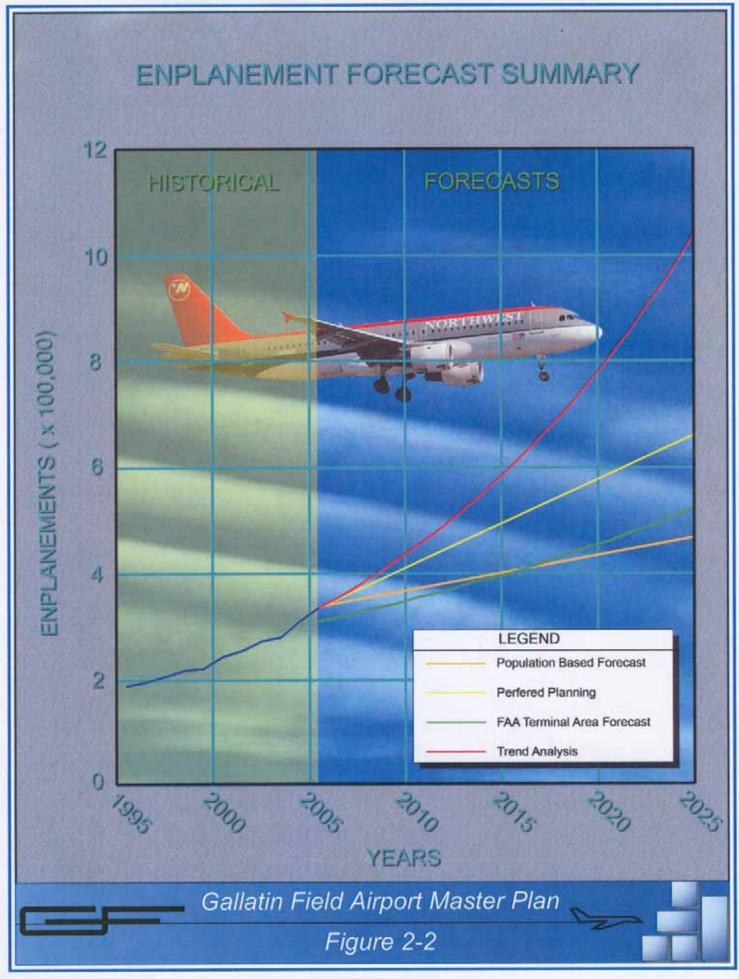
The trend analysis takes historic patterns of activity and projects the activity to the future. Growth over the past 10 years has averaged 6% annually. This figure was used to forecast enplanements and is considered to be the high or aggressive forecast. The Terminal Area Forecast (TAF) by the FAA is projecting enplanements to grow by 70% in the next twenty years or 3.5% on average annually. The current TAF forecast is based on 2004 results and forecasts 2005 results. The TAF forecast for enplanements in 2005 was 310,727, 8% below actual 2005 results as recorded by Gallatin Field. This variance makes comparisons to the TAF data difficult to interpret.

The preferred planning forecast for Gallatin Field was determined to be an average of 5% a year for the next twenty years, or 100% increase in the 2005 passenger numbers. Enplanement forecasts are displayed in **Table 2-3** and **Figure 2-2**.

Table 2-3 Passenger Enplanement Forecast

Year	FAA TAF	Population Based Growth (Low)	Trend Analysis (High)	Preferred Planning Forecast
2010	353,259	369,246	449,214	419,500
2015	402,839	402,814	601,150	503,500
2020	461,100	436,382	804,474	587,500
2025	529,742	469,950	1,076,568	671,500

TAF estimate for 2005 was 310,727, actual enplanements were 335,679.





# Commercial Service Operations Forecasts

According to operations numbers from the Gallatin Field Tower, the total number of air carrier operations has decreased over the past 5 years. The reason the numbers seem to be on the decline is a result of the way the FAA and the Tower classifies air taxi and air carrier operations. The Tower considers a flight containing less than 70 seats to be air taxi. The increase in numbers of regional jets has made the operations data look skewed. For the purposes of this report, air carrier operations have been considered to be any commercial flight that uses the terminal regardless of the numbers of seats. Air taxi numbers represent flights of passengers or cargo for hire that do not use the terminal facilities. Data is presented in this format to support planning decisions for the terminal area. Prior to the Tower

opening in mid-1999, operations data was not assumed to be accurate. Therefore, the year 2000 has been assumed to be the base year for operations forecast.

Table 2-4 displays the historic air carrier operations by seat size as well as the load factors, fleet mix, and enplanements. The fleet mix by percentage is presented in Figure 2-3. Operations have increased 78.7% over the past 5 years. The fleet mix changes show the industry's shift from larger 100 plus seat planes to smaller 40-99 seat planes. The future aircraft mix was established based in part on historic average fleet mix and part on professional opinion and experience. This fleet mix and the forecasted annual enplanements were then used to forecast operations as noted in Table 2-5.

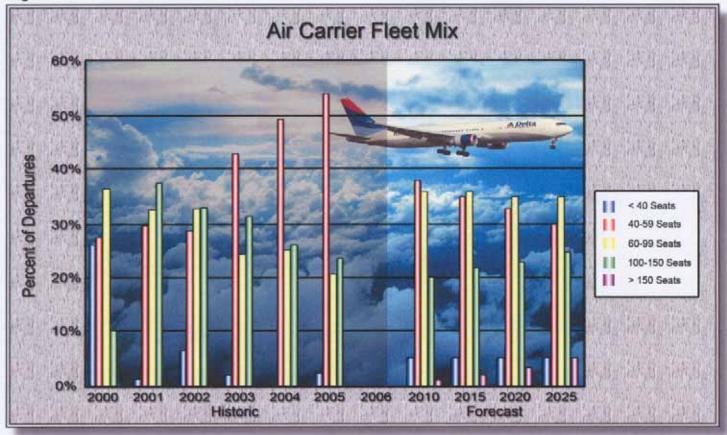
Table 2-4 Historic Air Carrier Departures, Load Factors, Fleet Mix and Enplanements

Seating Range	2000	2001	2002	2003	2004	2005	2006
< 40	26.0%	1.0%	6.3%	1.8%	0.0%	2.1%	
40-59	27.3%	29.4%	28.5%	42.8%	49.1%	53.9%	
60-99	36.3%	32.4%	32.6%	24.3%	25.1%	20.5%	
100-150	10.4%	37.3%	32.7%	31.1%	25.9%	23.5%	
Seats per Departure	83.6	87.3	85.3	83.1	73.8	74.2	- 5
Enplanements per Departure	53.6	56.2	54.5	52.4	48.2	50.2	-
Boarding Load Factor	64.1%	64.3%	63.9%	63.0%	65.3%	67.6%	-
Annual Enplanements	242,650	256,134	274,499	281,052	308,985	335,679	1 2

Table 2-5 Forecast Air Carrier Departures, Load Factors, and Fleet Mix & Enplanements

Seating Range	2005	2010	2015	2020	2025
< 40	2.1%	5.0%	5.0%	5.0%	5.0%
40-59	53.9%	38.0%	35.0%	33.0%	30.0%
60-99	20.5%	36.0%	36.0%	35.0%	35.0%
100-150	23.5%	20.0%	22.0%	23.0%	25.0%
>150	0.0%	1.0%	2.0%	3.0%	5.0%
Seats per Departure	74.2	74.0	77.0	78.0	83.0
Enplanements per Departure	50.2	54.8	60.1	62.4	66.4
Boarding Load Factor	67.6%	74.0%	78.0%	80.0%	80.0%
Annual Enplanements	335,679	419,500	503,500	587,500	671,500
Annual Departures	6,665	7,661	8,383	9,415	10,113
Annual Operations	13,330	15,321	16,767	18,830	20,226

Figure 2-3 - Air Carrier Fleet Mix



Source: Gallatin Field

# **Annual Instrument Operations**

Annual Instrument approaches are recorded by the Tower. This data can be used to determine future navigation aide facilities. Instrument operations have increased 62% since 2000, or 12.4% on average annually, slightly below the increase in air carrier operations of 78.7%. The historic

instrument approaches by aircraft category are displayed in Table 2-6.

As total operations increase, so will the number of instrument operations. From 2000 to 2005, instrument operations have averaged 28% of total operations. This percentage is expected to remain constant in the future.

**Table 2-6 Annual Instrument Operations** 

Year	Air Carrier	Air Taxi	General Aviation	Military	Total
2000	8,188	2,373	3,708	53	14,322
2001	8,216	3,059	3,361	103	14,739
2002	9,325	3,761	3,784	74	16,944
2003	9,973	3,927	3,840	100	17,840
2004	12,297	4,100	4,193	52	20,642
2005	12,883	5,010	5,338	32	23,263
2006					

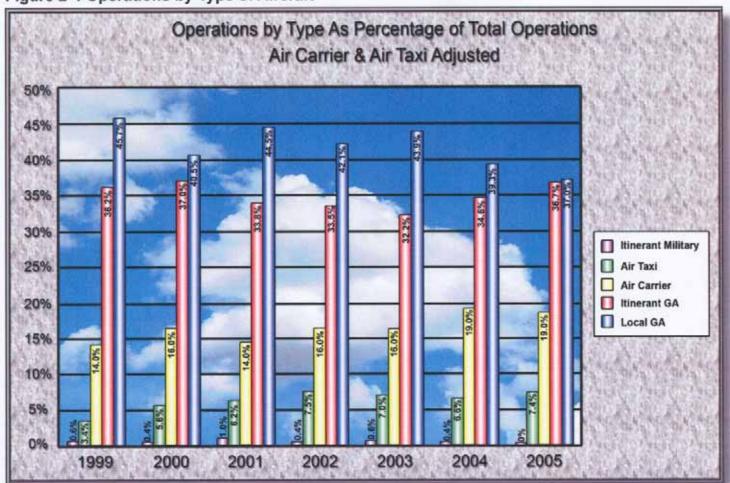


#### **General Aviation**

The local and itinerant general aviation activity at Gallatin Field accounted for 73.7% of the operations in 2005 as shown in Figure 2-4. These operations are a mix of personal use, corporate express traffic and pilot training operations. Gallatin Field's corporate jet traffic remains strong, fueled by Big Sky, Yellowstone Club and Spanish Peaks Resort. Many of the people flying general aviation aircraft own vacation homes in these areas. Yellowstone National Park

and the area's outdoor activities also draw a large number of general aviation aircraft. There has also been a large gain in pilot training at Gallatin Field. This activity has been spurred by the College of Technology in Bozeman, an extension of the Great Falls College of Technology, which is providing an aviation science and technology degree. As of July of 2006 local operations are up by 5,500 operations and are expected to reach 31,000. This would be an 17% increase over 2005 local operations of 26,447. Much of this increase is a result of the flight school increases. This "bubble" is believed to be a one time increase and that subsequent growth will be slower than recent trends.

Figure 2-4 Operations by Type of Aircraft



#### **Based Aircraft Forecasts**

At the time of the last Master Plan, Gallatin Field had 103 based aircraft in 1992. Since that time the numbers of based aircraft have increased 155% to 263. Shorter term increases show a 32% increase in based aircraft or an 8% annual average since 2001. The Washington Post reported the number of pilots nation wide has decreased 25% in the past 25 years. This is a result of student pilots not replacing the aging pilots that leave flying. The numbers of student pilots have fallen 56% in the last 25 years per the Washington Post. The total numbers of GA pilots nation wide is only projected to increase 1.1% annually on average per the FAA Aerospace Forecast for the years 2006-2017. Based aircrafts at Gallatin Field have out paced national averages over the past 13 years.

The current TAF projections don't have actual 2005 results for based aircraft but they have a projection of 232 aircraft in 2005. The TAF matches Gallatin Field figures for the year 2004 and projects 255 based aircraft by 2025, which is below actual 2005 results of 263. Due to these discrepancies a good comparison cannot be made to the TAF forecasts. The preferred forecast percentage of 5% is below recent

trends of 8% annual increase and well below the 12.9% average annual increase since 1992. With the GA fleet in the U.S., only expected to grow at a rate of 1.4% per year, per the FAA Aerospace Forecasts, it will be difficult for Gallatin Field's based aircraft to continue to grow at its current rate.

Local GA operations were forecast using the number of operations per based aircraft, as reported by Gallatin Field. This figure has been declining in recent years to 101 operations per based aircraft. With no substantive reason for the past decline or future increase in operations per based aircraft this figure was held constant for forecasting.

The itinerant general aviation activity is also expected to double in the planning period. Over the past 5 years itinerant GA has shown a 29% increase, or 5.9% on average annually. In 2005, the total number of GA operations, itinerant and local, per based aircraft was 201. With itinerant operations forecast at 5% average annual growth, the total number of GA operations per based aircraft will remain constant at 201. The TAF is projecting 263 total operations per based aircraft. Historic and forecast based aircraft and general aviation operations are displayed in Table 2-7. Figure 2-5 displays the historic and forecasted operations for the GA fleet.

Table 2-7 Based Aircraft, Local, Itinerant & Total GA Operations

	2001	2002	2003	2004	2005	2006	2010	2015	2020	2025
Sailplane/Ultralite	18	19	15	20	18		19	19	20	20
Single Engine	158	164	162	175	197		246	295	344	394
Twin Engine	8	10	8	11	13		18	23	28	33
Jet	12	13	17	18	27		36	45	54	63
Helicopter	3	3	2	7	8		10	12	14	16
Total Based Aircraft	199	209	204	231	263		329	394	460	526
Local Operations	28,042	25,633	28,719	26,156	26,477		33,229	39,794	46,460	53,126
Local Operations Per Based Aircraft	141	123	141	113	101		101	101	101	101
Itinerant Operations	21,300	20,366	21,057	23,046	26,267		32,820	39,380	45,940	52,500
Total GA Operations	49,342	45,999	49,776	49,202	52,744		66,049	79,174	92,400	105,626
Total Operations Per Based Aircraft	248	220	244	213	201		201	201	201	201

General Aviation Operations 120,000 Historic Forecast 100,000 80,000 60,000 40,000 20,000 2000 2004 2001 2002 2003 2005 2010 2015 2020 2025

Figure 2-5 Historic & Forecast General Aviation Operations

Source: Gallatin Field

#### Air Taxi

Air Taxi operators are defined as being a classification of air carriers which directly engage in the air transportation of persons, property, mail, or in any combination of such transportation and which do not directly or indirectly use large aircraft. At Gallatin Field this includes cargo operators and charters. Air taxi operations have increased 72% or 14.4% annually since 2000, with most of the growth being in the charter market. An increased trend in air taxi operations is expected to continue but at a slower pace. Because the TAF considers air taxi as passenger aircraft with fewer than 70 seats, and many of these aircraft are utilizing the terminal area and have been considered air carrier, it is difficult to compare the planned forecasts to the TAF. Projections of air taxi operations are expected to grow at the same rate as the air carriers and the general aviation fleets at 5% average annual growth and are displayed in Table 2-8. The numbers presented reflect those planes classified as air taxi by the Tower that do not use the terminal area.

Table 2-8 Historic and Forecast Air Taxi Operations

Year	Air Taxi Total	Cargo	Other	Annual % change in non-cargo aid taxi
2000 *	4,143	2,908	1,235	
2001	3,938	2,822	1,116	-9.6%
2002	4,585	2,934	1,651	47.9%
2003	4,564	2,756	1,808	9.5%
2004	4,368	2,604	1,764	-2.4%
2005	5,290	2,392	2,898	64.3%
2010	6,612	2,342	4,270	47.3%
2015	7,934	2,292	5,642	32.1%
2025	9,267	2,242	7,025	24.5%
2025	10,600	2,192	8,408	19.7%

<sup>\*</sup> Air carrier and air taxi figures for 2000 were adjusted due to changes in the Tower's operation hours.

# Air Cargo

Carriers of cargo include the airlines as well as independent cargo specific operators. Specific carriers operating on the airport include DHL, FedEx, and UPS. Historic cargo amounts for the commercial carriers are displayed in **Table 2-9**. While the FAA does not require cargo specific operators to report the amount of cargo carried, commercial operators are required to provide such information. As a requirement of Fed Ex's new facility lease they have begun reporting cargo levels. As this data is gathered, some projections may be made to amounts of cargo carried. Currently, with a lack of viable data, no projections in the amounts of

cargo carried are presented. There is no indication of large increases or decreases in the levels of cargo activities at the airport. There is a designated area for cargo operators at the East Ramp. Cargo activities should be monitored from time to time to provide proper facilities in the future.

Historic and forecast cargo specific operations are displayed in **Table 2-10**. Cargo operators currently use relatively small aircraft. As cargo amounts increase, the carriers will transition to larger aircraft rather than more flights. Currently Cargo specific Operations account for 6-8 operations each business day. Operations have been forecast to one flight per day per carrier.

**Table 2-9 Historic Cargo Amounts** 

TO STATE OF THE ST		2000	2001	2002	2003	2004	2005	2006
D. W. W. L	ON	130,149	220,268	104,107	42,422	72,125	72,854	
Delta (Lbs.)	OFF	244,224	268,290	230,662	205,003	199,763	172,093	
11 -11 11 1 1	ON	12,984	14,206	20,878	18,615	22,419	29,498	
Northwest (Lbs.)	OFF	118,466	103,263	87,118	73,390	122,436	100,071	
11-1-11-1	ON	30,153	29,268	11,545	11,590	7,089	9,354	
Horizon (Lbs.)	OFF	295,312	197,314	139,792	171,593	130,080	140,474	
Date Comment of the V	ON	5,476	8,907	537	395	4,122	5,658	
Delta Connection (Lbs.)	OFF	1,341	2,200	626	1,487	10,079	8,268	
	ON	178,762	272,649	137,067	73,022	105,755	117,364	
	% Change	-1.4% *	52.5%	-49.7%	-46.7%	44.8%	11.0%	
Airline Cargo Total (Lbs.)	OFF	659,343	571,067	458,198	451,473	462,358	420,906	
	% Change	6.8% *	-13.4%	-19.8%	-1.5%	2.4%	-9.0%	
	ON	496,990	532,858	638,084	636,848	561,783	483,228	
Airborne, DHL, UPS (Lbs.)	OFF	1,010,910	1,091,287	1,088,120	1,232,644	1,208,321	1,208,703	
	ON	675,752	805,507	775,151	709,870	667,538	600,592	
	% Change	25.9%	19.2%	-3.8%	-8.4%	-6.0%	-10.0%	
Total (Lbs.)	OFF	1,670,253	1,662,354	1,546,318	1,684,117	1,670,679	1,629,609	
	% Change	35.1%	-0.5%	-7.0%	8.9%	-0.8%	-2.5%	Min-

Percent change from 1999 data available to the airport.

Table 2-10 Cargo Specific Operations

	ALES HA	Cargo Speci	fic Operation	18	3.1.8
Year	FedEx	Corporate	Ameriflight	Total	% Change
1999	1090	670	1034	2794	
2000	1106	312	1490	2908	4.1%
2001	1084	12	1726	2822	-3.0%
2002	1146	2	1786	2934	4.0%
2003	948	0	1808	2756	-6.1%
2004	976	0	1628	2604	-5.5%
2005	988	2	1402	2392	-8.1%
2010	924	2	1416	2342	-2.1%
2015	860	2	1430	2292	-2.1%
2020	795	2	1445	2242	-2.2%
2025	730	2	1460	2192	-2.2%

Source: Gallatin Field

### Military

Gallatin Field has seen a 10% decrease in military air traffic in the past 5 years. No evidence suggests an increase or decrease in future military operations at Gallatin Field. Operations are presumed to stay consistent over the

planning period. Historic military operations are displayed in Table 2-11.

**Table 2-11 Military Operations** 

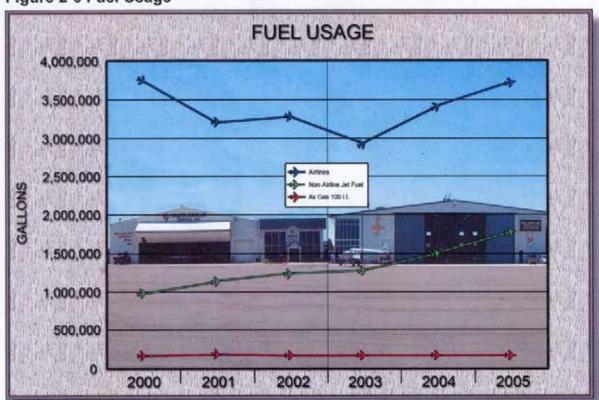
Year	Military	% Change
2000	212	-26.9%
2001	650	206.6%
2002	264	-59.4%
2003	384	45.5%
2004	254	-33.9%
2005	192	-24.4%

Source: Gallatin Field

### **Fuel Usage**

As aviation activity continues to increase, fuel use should increase at the same rate. Aviation forecasts are showing activities doubling over the next 20 years. Fuel storage areas should be reserved for such an increase. The most notable increase in fuel usage is in the jet fuel consumption. Jet fuel sales to non-airline aircraft have increased 80% since 2000. Figure 2-6 displays the historic fuel usage at Gallatin Field.

Figure 2-6 Fuel Usage



# **Forecast Summary**

The aviation demand forecasts represent a 100% increase over 2005 statistics in the next twenty years. FAA Advisory Circular 150-5070-6B, Airport Master Plans, considers forecasts to be consistent with the TAF if they are within 10% in the five year period, and 11% in the ten year period. With the TAF forecasts of 2005 data being considerably lower than 2005 actual results by 6.6% for operations,

13.3% for based aircraft and 8% for enplanements, making comparisons is difficult. While the planned forecasts exceed the FAA's terminal area forecasts, they are lower than projecting the past trends. A summary of the preferred forecasts is displayed in the table and graph on Figure 2-7. The following chapter will relate these results to the existing capacity of facilities at the airport. The capacity results will then be used to make decisions on future facility needs.

Figure 2-7 Forecast Summary

