MONTANA AIR SERVICE:
OPPORTUNITIES AND CHALLENGES

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February 2007

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RESEARCH PROGRAMS

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Montana Air Service: Opportunities and Challenges

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16. Abstract

This report analyzes the challenges facing Montana's commercial service airports and outlines the opportunities for air service and air cargo development. There are 15 commercial service airports in the state. Before opportunities could be recognized, this report researched various airport, state, and industry trends including historic and current service by airport; socioeconomic trends; impact of federal initiatives; airline bankruptcies and mergers; airline operating costs; low-fare carrier impact; and limitations of and changes to the Essential Air Service program. Current air passenger leakage at Montana airports was quantified and future passenger demand was estimated.

The challenges to improving air service in Montana include the overlap of air service market areas, limited population, the current state of the airline industry, and the distance to hub airports. Realistic air service and air cargo opportunities are recommended in the form of a state marketing strategy. Statewide recommendations include developing a statewide air service committee, funding an air service development program, providing airport assistance, and creating a policy statement. Individual airport recommendations include establishing local catalyst and air service task force, working with current carriers, educating the community, and pursuing new air service opportunities.

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TABLE OF CONTENTS

REFERENCES

APPENDIX A: BUSINESS SURVEY SUMMARY RESULTS

LIST OF FIGURES

LIST OF TABLES

2.0 NATIONAL AND MONTANA-SPECIFIC TRENDS

EXECUTIVE SUMMARY

The Montana Department of Transportation, in conjunction with the Montana Department of Commerce, initiated a research project in late 2004 to report on the status and provide an assessment of air service in the State of Montana. This research project, entitled *Montana Air Service: Challenges and Opportunities*, was originally scheduled to be conducted over a 12-month period. The information included in this research project was updated in August and September of 2006 to reflect recent changes that impacted Montana's commercial service airports.

The goal of the study was to provide a historical framework from which to understand changes in air service. With the framework established, an analysis of national and state trends was conducted to set the stage for determining the opportunities and challenges in improving air service in Montana. Airport infrastructure needs, intermodal concerns, and long-range transportation policy issues were considered as they relate to development of a strategy for air service enhancements. Finally, a statewide marketing strategy was identified that documents considerations for improvements. Performance measures were also developed that can be used to monitor the performance of air service as changes continue.

EXISTING SYSTEM

Montana currently has 15 commercial service airports to serve its population centers. The seven largest airports serve the state's large and medium-sized population centers at Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula. The remaining eight Montana airports serve the state's smaller communities of Glasgow, Glendive, Havre, Lewistown, Miles City, Sidney, West Yellowstone, and Wolf Point.

There are several carriers that serve Montana's airports. Eight of the State's 15 airports are served by one regional carrier only; these eight communities are those with federal Essential Air Service (EAS) supported service. Airlines serving Montana include Alaska/Horizon, America West (now US Airways), Delta, Frontier, Northwest and United. Big Sky Airlines serves 11 of the state's 15 air service communities. In addition, eight of the state's airports serve air cargo needs.

INDUSTRY TRENDS

The demand for aviation services and airport development is directly influenced by national trends, changes in socioeconomic factors, regulatory issues, business factors, and statewide and regional tourism. Consideration of airline issues, aircraft fleet plans, federal initiatives, hub development, and air cargo growth must be included in order to determine what the future may hold. In addition to these more global and national

trends, it is critical that Montana-specific trends are considered in the analysis prior to evaluating air service needs.

From the 1990s through the early 2000s, airlines continued to experience significant changes. These changes impact their ability to serve destinations, including Montana. Some of the most significant changes that have impacted the service provided to Montana's airports include:

- Carrier consolidation and bankruptcies.
- Legacy carrier route restructuring and changes to their operating model.
- High cost of fuel.
- Regional carrier absorption by larger carriers.
- Regional jet aircraft introduction and increasing use.
- Declining yields and revenues.

IMPACT OF FEDERAL INITIATIVES

Public policy has played a key role in shaping the ways that air service is delivered in the U.S. There is little doubt that Airline Deregulation in 1978 permanently altered the course of modern day air service. However, even more recently, public policy has impacted air service within the U.S. and, in particular, air service for small communities.

Airports and airlines are governed by the U.S. Department of Transportation (US DOT), primarily through the Federal Aviation Administration (FAA). Through various regulations contained in the Federal Aviation Regulations (FAR) as well as in the Code of Federal Regulations (CFR), airports and airlines must meet certain standards and comply with regulations. In addition to the US DOT and FAA, the newly created Transportation Security Administration (TSA) also governs airports and airlines in the area of security. Each of these agencies is ultimately affected by policy decisions that provide guidance in how the agency's functions are carried out.

Four specific federal initiatives or programs have and will continue to impact Montana's commercial service airports. These initiatives or programs include the following:

- Essential Air Service.
- Small Community Air Service Development Program.
- Transportation Security Administration.
- FAR Part 139.

AIR SERVICE OPPORTUNITIES AND CHALLENGES

Commercial airline service is a dynamic industry that continues to evolve. There is an inherent relationship between airlines and airports wherein the private sector provides

the public airport with a service, but also requires the public to seek service from the private sector. In today's airline environment, airlines are struggling to survive crises such as fuel prices, low yields, and security issues. Airlines have been forced to change their operating model in order to compete more effectively. These struggles have reduced opportunities for growth into new markets with airlines delaying new aircraft orders and requiring guarantees that any new service is profitable.

The following are issues specific to Montana which impact air service development:

- Limited local population base.
- Limited number of carriers available to serve the markets.
- Distance to airline hubbing operations.
- Passenger perceptions of high airfares.
- State of airline industry.

The recommendations for improved air service at Montana's commercial service airports were based on an overview of the current and historic service and current industry trends. These recommendations are to be used as general guidance for air service improvements. The individual airports in the State have ongoing dialog with many carriers and have first hand knowledge of their actual ability to implement any of these recommendations at their airports.

Under the current airline industry, maintaining current levels of air service can be just as important as increasing air service. Since this analysis was initiated, Delta and its regional partners reduced almost one-quarter of all the service between Montana and Salt Lake City. Airports in Montana should build strong relationships and have frequent open dialog with their incumbent carriers. Often, air service development efforts overlook the current service and should ensure that existing carriers are profitable in their routes. Airports in Montana could consider the following related to existing service. Detailed airline route analysis was not under taken as part of this report. An airport should work closely with incumbent carriers to see if these recommendations are feasible based on the airline's current route development plans.

- Billings
  - Additional (3 total) daily nonstop flight to Minneapolis operated by Northwest Airlink on CRJ aircraft.
  - Expand scheduled service to Chicago on United.
  - Additional flights to Las Vegas on Allegiant Air.
  - Additional flights to Denver on Frontier Jet Express.
- Bozeman
  - Additional nonstop CRJ flights to Minneapolis on Northwest Airlink.
  - Monitor the ridership of seasonal Atlanta-Bozeman service to try to add several weekly flights on more than a seasonal basis.

- Butte
  - Upgrade current one-stop service to Seattle on Horizon Air to nonstop service.
- Great Falls
  - Supplement existing service to Minneapolis with additional CRJ service.
  - Upgrade current one-stop service to Seattle on Horizon Air to nonstop service.
  - One additional nonstop flight to Denver on United Express.
- Helena
  - Additional nonstop CRJ flights to Minneapolis on Northwest Airlink.
- Kalispell
  - Upgrade current one-stop service to Minneapolis to nonstop service.
  - Additional nonstop service to Seattle (upgrade one-stop service).
  - Work with US Airways to see what can be done to establish year-round daily service to Phoenix.
- Missoula
  - Additional flights to Las Vegas on Allegiant Air.
  - Supplement existing service to Minneapolis with CRJ service.
  - Expand weekend only service to Chicago on United Express.

According to origin and destination (O&D) analyses, it appears that Montana airports should pursue better linkages to the eastern half of the U.S. through the commuter partner of traditional carriers as well as strengthen connections to the Southwest U.S. Montana airports should consider opportunities to the following hub airports:

- Chicago.
- Cincinnati.
- Atlanta.
- Las Vegas.
- Los Angeles.
- Denver.
- Phoenix.
- Dallas/Ft. Worth.

Although low fare carriers typically look for markets with large populations, there are several Montana airports that may have an opportunity to be served by a low fare carrier due to recent fleet changes. The opportunities that should be considered in the low fare airline realm include:

- Frontier – Bozeman, Kalispell, Missoula.
- Other - Monitor other carrier fleets and route planning including JetBlue, AirTran, Southwest, and Virgin America (expected to begin operations in early 2007). US Airways should also be watched closely. The carrier intends to

operate with a low cost business model. However, the long-term ability to be true "low fare" carrier remains uncertain.

Due to its proximity to the Canadian provinces of Alberta and Saskatchewan, the possibility of new air service links between Montana and Canada has been an ongoing effort by local, state, and provincial officials. From the results of the statewide business survey that was administered, it appears that just a small amount of business travel is currently conducted between Canada and Montana. Also, when transborder service is analyzed, only a small amount of air travel is generated between Canada and Montana. The top destinations were Vancouver (31 percent), Toronto (26 percent) and Montreal (11 percent).

The economic impact of commercial airline service in Montana amounts to approximately 22,700 full-time equivalent jobs, which earn a combined payroll of more than $570 million. The total value of the output of the industry in Montana is estimated at over $1.2 billion. It should be noted that the impacts arise from the operations of scheduled air carriers at Montana's airports and other associated enterprises, such as concessions, rental car companies, airline service providers, and so forth. These impacts do not include those arising from other types of on-airport businesses, such as general aviation, manufacturing, airport management, or government enterprises.

AIRPORT INFRASTRUCTURE AND INTERMODAL NEEDS

All of Montana's Commercial Service and EAS airports have sufficient runway length to accommodate airline activity. All Commercial Service airports have an air traffic control tower except for Bert Mooney Airport in Butte. Most Commercial Service airports have either had a terminal remodel within the last few years, or are planning a terminal remodel within the next five years. The terminal remodel will update many new space requirements to accommodate TSA security, new baggage checks, and add passenger loading bridges. Most of the EAS airports have an adequate terminal for the demand currently experienced at the airport or anticipated within the next five years. Only a few EAS airports have a terminal expansion or remodel in their capital improvement plans. All the Montana Commercial Service airports have Navigational Aids (NAVAIDS) for at least one of the main runways to accommodate commercial aircraft. All of the Commercial Service airports meet the Federal Aviation Administration's FAR Part 139 requirements. West Yellowstone Airport will meet its Part 139 requirements, and is planning to add a wildlife perimeter fence around the airport and an aircraft rescue and firefighting (ARFF) truck by the required deadline to be compliant. The remaining seven of the EAS airports have a project planned within the next five-year capital improvement plan to bring them within compliance of Part 139.

MARKETING STRATEGY AND IMPLEMENTATION PLAN

In terms of air service, unless a market is proven, small and medium-sized communities need to have local and state support in place and incentives (financial and other) to offer potential carriers before many carriers will even consider entering a market. The state and local communities need to be well organized and have a good understanding of their markets to ensure the most effective pursuance of local air service improvements.

Montana should consider implementing some of the approaches used by other states to improve air service. The State of Montana stands to benefit economically if the opportunities for improving air service identified in this study can be implemented. Initiatives to be considered at the state level include:

- Continue to support EAS and the Governor's Essential Air Service Task Force.
- Develop a statewide air service committee.
- Create a policy statement.
- Fund a state air service development program.
- Work with state universities.
- Coordinate with other state agencies.
- Create State Air Service Development Program.
- Create state fund to match federal SCASDP grants.
- Develop state subsidies or revenue guarantees to airlines.
- Develop statewide marketing campaign.
- Fund marketing support to airports.
- Conduct additional airport studies/surveys.

It is important that each of the communities supporting commercial airline service has a sincere interest in improving their service and that the information presented in this study is used as the basis for developing an individual action plan. As such plans are prepared, it is important that the airports and communities recognize obvious limitations that may need to be addressed related to plan implementation. Actions that should be considered at the local level include:

- Establish local catalyst and air service task force.
- Identify and monitor target audience and build consensus.
- Work with incumbent carriers.
- Implement marketing and community education.
- Hire an air service development coordinator.
- Conduct airline marketing.
- Fund revenue guarantees/subsidies.
- Provide free ground handling, terminal/counter space, gate leases, landing fees, etc.
- Develop program to advertise to passengers.
- Develop passenger rebates to use local airport.

- Coordinate Frequent Flier bonus miles program.

MDT should track certain statewide performance measures in order to continue to adjust their marketing strategy in the future. The state should compile the data on a monthly, quarterly, and annual basis in order to track the performance of the airports and state as a whole. The state's program should track the following data:

- Air Passengers.
- Aircraft Operations.
- Destinations Served.
- Average Fares.
- Airline Yields.
- Air Cargo.
- Industry Trend Watch.
- Socioeconomic Trends.

INTRODUCTION

In 2005, the U.S. Census Bureau reported that Montana was home to nearly 936,000 residents. Although Montana ranks fourth among all U.S. states in terms of land area, the State ranks 44th in terms of population. Similar to many western states, Montana's population is focused in several large cities, with 28 percent of the 2005 estimated population living in Billings, Great Falls, and Missoula. There are also numerous smaller cities throughout the State that serve as economic, business, and population centers. In addition to the full-time residents, Montana has experienced a growing trend of second homeowners, which supplement the high number of tourists traveling to Montana to experience its natural beauty. Many of the residents and visitors to Montana require air travel, which is recognized as a driving force for economic vitality and future growth.

There are currently 15 commercial service airports located throughout the State. These 15 airports range dramatically in size from Billings, the largest airport (in terms of enplanements) in the State, to small, rural airports serving Sidney, Wolf Point, Glasgow, Havre, Miles City, Glendive, and Lewistown. All of the State's airports have experienced changes; some of the changes can be attributed to national economic and airline issues while others are linked to the State's economy and rural nature. While U.S. domestic carriers have been deregulated since 1978, additional fundamental changes are occurring in the industry that have the potential to further impact Montana's future air service. There can be little argument that the airline industry is famous for its "boom/bust" cycles. Beginning in 2001 and hastened no doubt by the events of 9/11, however, carriers have entered particularly turbulent economic times. The results to date include bankruptcies, hub closures, flight and schedule reductions, and more cities seeking subsidies from the essential air service (EAS) program. The future of the EAS program is of particular concern to Montana, as this program supports eight of the 15 airports in the State.

Statewide, Montana has experienced a growth in enplanements at the commercial service airports. According to airport statistics, in 1995 Montana's commercial airports enplaned nearly one million passengers. In 2005, more than 1.5 million statewide enplanements were recorded, representing an average annual growth rate of over five percent during the 10-year period. In gross numbers; Billings, Bozeman, Missoula, and Kalispell were the significant recipients of this growth, while several airports actually experienced declining enplanements during the period. Historically, the dominant carrier, in terms of seat capacity, was Delta Air Lines, serving the State through its regional/commuter partners (SkyWest and ASA). Horizon and Northwest offer similar service in terms of seating capacity. With recent cutbacks in Montana by Delta, Horizon and Northwest continue to gain market share of the State service. New air service opportunities have opened up recently as low fare carriers have begun partnering with commuter carriers operating regional jet aircraft (*Official Airline Guide* 2006a).

Two low fare carriers entered the State in the last few years. Frontier JetExpress began offering Billings' area passengers nonstop service to Denver in May 2004. America West Express also began service to Phoenix from Billings and Kalispell in 2004. When America West merged with US Airways, the service to Billings was discontinued and the service to Kalispell became seasonal only. As the aviation industry continues to undergo dramatic changes, additional opportunities for low fare carriers in Montana may continue to emerge. However, due to the small population of the markets in Montana, these opportunities will continue to be limited.

While it is important that statistics such as these be viewed in terms of the historical perspective they provide, it is just as important that the quality of the air service and the future trends be analyzed to determine how rural states such as Montana can address air service issues. The approach to this research project focuses on providing information that can be used to educate public policymakers as well as Montana residents about air service issues. This educational process starts with summarizing the history of air service in the State, followed by a depiction of anticipated trends. It is critical that issues such as business/corporate use of air service, charter activity, tourism, international service, cargo, and mail are included in the historical and trend analyses. Airline fares, hub development, and regional/commuter carriers are also addressed to understand the setting. The impact of federal initiatives including the current discussions relative to the EAS program, Federal Aviation Regulation (FAR) Part 139, and the Transportation Safety Administration (TSA) are documented to provide the background necessary to understand Montana's air service future.

This historical framework and trends analysis is followed by an assessment of the opportunities and challenges facing Montana in terms of growth and improvement in air service. Airport infrastructure needs, intermodal concerns, and long-range transportation policy issues are identified as they relate to development of a strategy for air service enhancements. Finally, statewide and local recommendations and marketing strategies document specific areas for improvements. The strategy is clearly defined with responsibilities and potential costs assigned to implement the improvements in achieving a higher level of air service. The top air service and air cargo opportunities in the State are identified in this research paper. Performance measures are developed that can be used to monitor the performance of the strategy as changes occur in the future.

1.0   AIR SERVICE OVERVIEW

Good quality passenger and cargo air service is vital to the economic and social well-being of any community. For a state as large and diverse as Montana, such air service is absolutely essential. Understanding the trends and motivations of change in the commercial aviation industry allows Montana's leaders to guide the State's aviation system to meet the needs of its consumers. The State requires an understanding of the sensitivity of changes in air service and the positive and negative impact on its communities' economic health.

This chapter sets the context for examination of air service options in Montana by providing a brief history of traffic and service at each of the State's commercial airports. These 15 communities throughout Montana recognize the strong link between scheduled commercial passenger and cargo air service and the ability of such service to retain, expand, and attract businesses and other economic development opportunities. Each community's ability to support scheduled air service is different and is based on several factors including population, employment, tourism, income, and airport access. In a large state like Montana, the location of and air service available at nearby airports, such as the airports at Billings and Missoula, are also important factors in each community's ability to support air service.

This chapter includes information on the general structure of commercial passenger service and air cargo in Montana.

1.1   STRUCTURE OF PASSENGER AIRLINE SERVICE IN MONTANA

Montana currently has 15 commercial service airports to serve its population centers (see **Figure 1.1**). The seven largest airports serve the State's large- and medium-sized population centers at Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, and Missoula. The remaining eight Montana airports serve the State's smaller communities of Glasgow, Glendive, Havre, Lewistown, Miles City, Sidney, West Yellowstone, and Wolf Point. Montana's air service at its small airports is mainly oriented around Billings as the principal destination and gateway for connecting access to the national transportation system. Billings serves as Big Sky Airlines' "state hub" for other communities in Montana; that is, most of the State's smaller markets connect only to Billings, where at larger airports, carriers offer service to several out-of-state destinations. One smaller market, West Yellowstone, is served by Sky West with seasonal service to Salt Lake City.
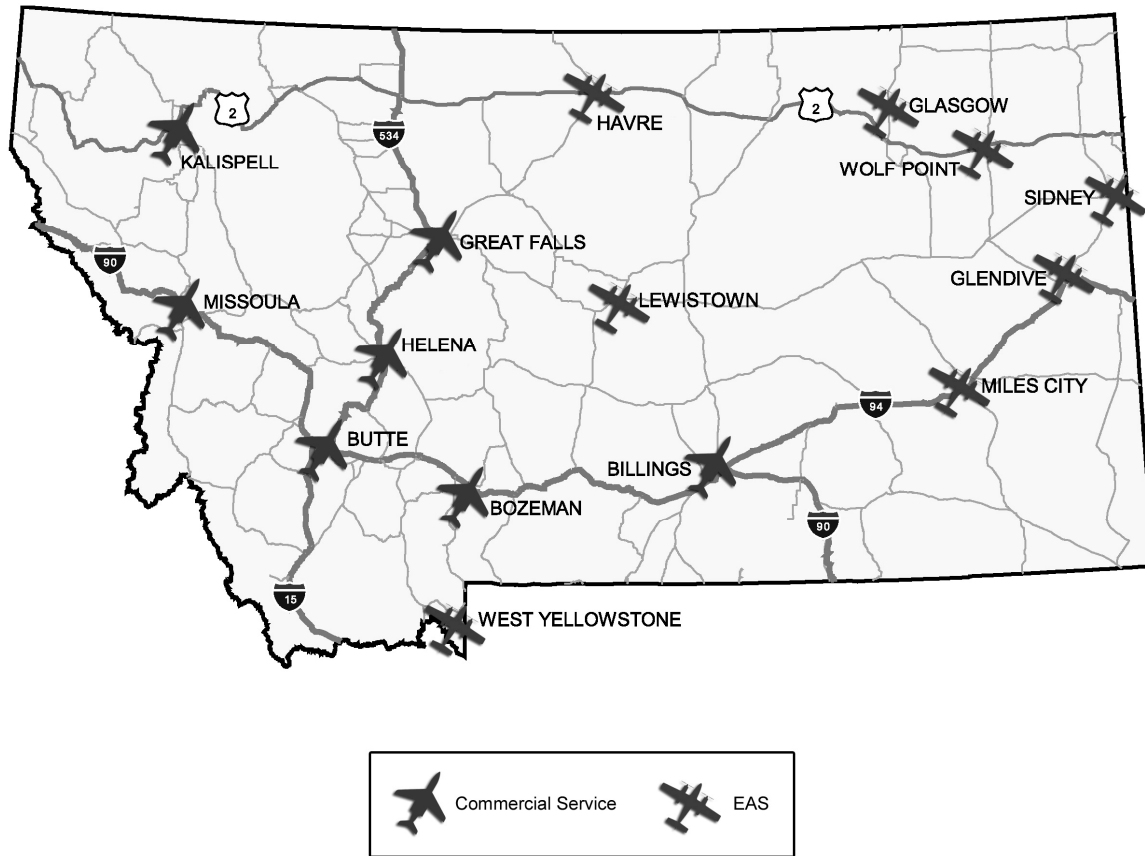
Figure 1.1
COMMERCIAL SERVICE AIRPORTS IN MONTANA

Source: Wilbur Smith Associates 2006.

For the purpose of this report, the airports in Montana are classified into the following two categories according to the type of airlines that serve them:

- **Commercial Service Airports (7)**
    - Billings-Logan International Airport (BIL).
    - Gallatin Field (Bozeman) (BZN).
    - Missoula International Airport (MSO).
    - Bert Mooney Airport (Butte) (BTM).
    - Great Falls International Airport (GTF).
    - Helena Regional Airport (HLN).
    - Glacier Park International Airport (Kalispell) (FCA).
- **Essential Air Service (EAS) Airports (8)**
    - Glasgow International Airport – Wokal Field (GGW).
    - Dawson Community Airport (Glendive) (GDV).
    - Havre City-County Airport (HVR).
    - Lewistown Municipal Airport (LWT).
    - Frank Wiley Field (Miles City) (MLS).

- Sidney-Richland Municipal Airport (SDY).
- Yellowstone Airport (West Yellowstone) (WYS).
- L. M. Clayton Airport (Wolf Point) (OLF).

Each of the eight smallest airports in Montana is supported through the U.S. Department of Transportation's (US DOT's) Essential Air Service (EAS) program. Two carriers, Big Sky Airlines and SkyWest, provide EAS service in Montana. In 2005, these carriers received over $7 million combined in EAS subsidies to provide service to the eight communities annually. (The EAS program and its effects on Montana's communities are discussed in detail in Chapter Three.)

There are several carriers that serve Montana's airports. Eight of the State's 15 airports are served by one regional carrier only; these eight communities are those with EAS-supported service. Big Sky Airlines serves 12 of the State's 15 air service communities. **Table 1.1** summarizes the carrier activity at Montana's airports as of September 2006 (*Official Airline Guide* 2006a).

Table 1.1
SCHEDULED CARRIERS (INCLUDING REGIONAL PARTNERS) SERVING MONTANA AIRPORTS
(As of September 1, 2006)

	Alaska/ Horizon	Allegiant	US Airways	Big Sky	Delta	Frontier	Northwest	United
Billings	X	X		X	X	X	X	X
Bozeman	X			X	X		X	X
Butte	X				X			
Glasgow[1]				X				
Glendive[1]				X				
Great Falls	X				X		X	X
Havre[1]				X				
Helena	X			X	X		X	
Kalispell	X		X		X		X	
Lewistown[1]				X				
Miles City[1]				X				
Missoula	X	X		X	X		X	X
Sidney[1]				X				
West Yellowstone[1]					X			
Wolf Point[1]				X				

Source: *Official Airline Guide* 2006a.
Notes: [1]Airport currently receiving service subsidized by the US DOT's Essential Air Service Program.

In addition, eight of the State's airports serve air cargo needs. In 2005, more than 31,300 tons of mail, express parcel, and freight passed through the airports at Billings, Bozeman, Butte, Great Falls, Helena, Kalispell, Missoula, and Wolf Point (US DOT 2006b). Of these, Billings and Great Falls handled the bulk of air cargo in the State. Billings International is a regional cargo hub for DHL and UPS, while FedEx operates a regional hub at Great Falls International. Both airports

are major regional facilities for the U.S. Postal Service as well. The remaining airports provide origin and destination cargo and mail activity, mainly loaded in the bellies of passenger aircraft or in small "feeder" aircraft for cargo carriers.

1.2   STATEWIDE AIRLINE PASSENGER ACTIVITY

1.2.1   Statewide Historic Service Trends

Although the total number of scheduled monthly departing seats at all Montana airports was at a similar level in 2006 as it was 10 years earlier, the nature of scheduled commercial service in Montana has changed dramatically. **Figure 1.2** graphically depicts the total scheduled seats departing Montana airports between 1996 and 2006 for the month of September. Total statewide seats peaked in 2005 at 242,166 monthly departing seats. The total number of scheduled departing seats offered at Montana airports changed very little between 1996 and 2003. By 2004, the overall statewide seats offered jumped nine percent from 2003 levels and rose again in 2005. Monthly scheduled departing seat dropped 14 percent in 2006 (*Official Airline Guide* 2006a).
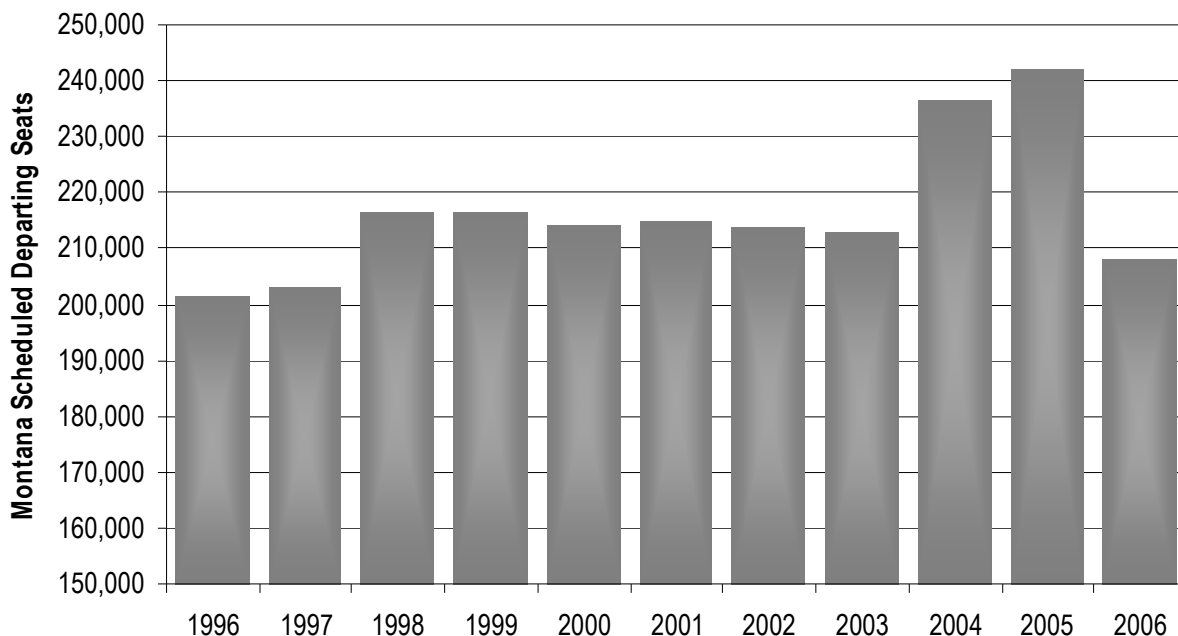
Figure 1.2
MONTANA STATEWIDE SCHEDULED DEPARTING SEATS
(Month of September)

Source: *Official Airline Guide* 2006a.

It is important to note that over the last 10 years the access to hub airports from Montana has increased, providing passengers in the State more convenient access to the national air transportation system. In 1995, Horizon provided service between Billings and three Montana

cities: Helena, Kalispell, and Missoula. Horizon also provided air service between Billings and Spokane. Also in 1995, Northwest supported nonstop scheduled service between Billings and its Minneapolis hub using DC9 and Boeing 727 aircraft. At that time, Northwest also provided air service from Billings to Bozeman using a Boeing 727 aircraft. In 1997, Horizon abandoned providing service between many Montana airports and Spokane and Billings; and instead began focusing its attention on serving Alaska's hubs at Seattle and Portland. Northwest also decreased the number of "through" flights and increased its nonstop service between Montana airports and Minneapolis. By 2006, just 22 percent of statewide departing seats were destined for another Montana airport. When the Big Sky intrastate service is excluded, the percentage drops to 12 percent of statewide departing seats that provide intra-Montana service.

Carriers have added new service to hubs at all Commercial Service Airports in Montana since 1996 (*Official Airline Guide* 2006a). The additions include:

- Billings- Seattle and Portland (Horizon), Las Vegas (Allegiant), Denver (Frontier JetExpress).
- Butte- Seattle (Horizon).
- Bozeman- Seattle (Horizon), Denver (United Express).
- Great Falls- Seattle (Horizon), Denver (United Express).
- Helena- Minneapolis (Northwest Airlink), Seattle (Horizon).
- Kalispell- Seattle (Horizon), Phoenix (US Airways).
- Missoula- Denver (United Express), Minneapolis (Northwest), Seattle (Horizon), Las Vegas (Allegiant).

1.2.2 Statewide Current Service

There are seven airports that provide the majority of commercial air service in Montana. The remaining airports serve the State's EAS communities. **Table 1.2** presents the scheduled service available at Montana's airports as of September 2006. Billings-Logan International had nonstop service to 17 destinations and was served by seven carriers. The airport had 879 monthly departures or an average of 29 per day. On average, there were 52 seats per flight that departed Billings. Unlike Billings, the other airports in the State serve origin and destination (O&D) traffic only, with limited connecting traffic. Gallatin Field and Missoula International Airport are somewhat smaller than Billings-Logan International, with 18 and 21 daily departures on average, respectively. Gallatin Field is served by five carriers, providing nonstop service to 10 destinations, while Missoula International is served by six carriers with service to 12 nonstop destinations. The nonstop destinations served by these carriers include hub airports at Denver, Minneapolis, Salt Lake City, and Seattle (*Official Airline Guide* 2006a).

Table 1.2
SCHEDULED NONSTOP PASSENGER SERVICE AT MONTANA AIRPORTS
(September 2006)

Category Airport	Number of Carriers[1]	Nonstop Dest. Served	Monthly Sched. Nonstop Departures	Seats	Avg. Seats per Flight
Commercial Service Airports	**7**	**18**	**3,200**	**196,050**	**61**
Billings	7	17	879	46,127	52
Bozeman	5	10	533	34,405	65
Butte	2	2	137	8,290	61
Great Falls	4	6	393	31,650	81
Helena	4	6	302	13,539	45
Kalispell	4	5	328	25,288	77
Missoula	6	12	628	36,751	59
EAS Airports	**2**	**2**	**588**	**11,961**	**20**
Glasgow	1	1	51	969	19
Glendive	1	1	55	1,064	19
Havre	1	1	51	969	19
Lewistown	1	1	102	1,938	19
Miles City	1	1	102	1,938	19
Sidney	1	1	76	1,444	19
West Yellowstone	1	1	70	2,100	30
Wolf Point	1	1	81	1,539	19

Source: *Official Airline Guide* 2006a.

Note: [1]If an airport is served by a mainline carrier such as United and a its regional partner (United Express), it is counted as one carrier.

Great Falls International has service to six destinations and Glacier Park International has service to five destinations, at a frequency of 393 and 328 monthly departures, respectively. Helena's four carriers offer 302 monthly nonstop departures, and Butte receives service from two carriers to two destinations departing 137 times a month.

Two carriers serve the eight EAS airports in Montana. West Yellowstone has nonstop service to Salt Lake City on SkyWest on a seasonal basis between June 7 and September 30. SkyWest service is on 30-seat Embraer Brasilia aircraft and is operated as a Delta Connection flight. The remaining seven airports each have year-round service to Billings on Big Sky Airlines. In September 2006, several of these communities had one-stop service through another EAS Montana airport. For example, Big Sky flights that originated in Havre made a stop in Lewistown to pick up additional passengers before heading to Billings. In 2004, Big Sky served these communities with 19-seat Metro aircraft. By 2006, Big Sky had fully implemented a program to replace the 19-seat Metros with Beechcraft 1900 airplanes. Combined, in September 2006, Big Sky and SkyWest perform 588 monthly departures at Montana EAS airports.

1.2.3   Statewide Total Enplanements

An enplanement is defined as a revenue-producing passenger boarding an aircraft as an originating, through, or connecting passenger.   As shown in **Table 1.3**, total Montana enplanements increased between 1999 and 2005, up 24.1 percent. Three of the largest airports (Bozeman, Kalispell, and Missoula) accounted for most of this growth. At the Commercial Service Airports, a cumulative increase of 24.5 percent occurred between 1999 and 2005. One Commercial Service Airport, Butte, experienced a decline in enplanements over the period. When combined, EAS airports experienced a 0.5 percent increase in enplanements over the period.   In 2005, 1.5 million passengers enplaned scheduled commercial airline flights at Montana's airports.   Nearly 99 percent of these passengers enplaned flights at the seven Commercial Service Airports. The EAS airports in Montana comprised just over one percent of total statewide enplanements in 2005 (MDT 2006).

In the first six months of 2006, enplanements in Montana were down 4.3 percent over the same period of 2005.   During the first two quarters of 2006, enplanements at the EAS airports decreased 13.9 percent versus the first six months of 2005 (MDT 2006). The main reasons for the decline in enplanements are a reduction of the number of flights and seats available and an increase in airfares. In September 2005, U.S. network air carriers Delta and Northwest filed for Chapter 11 bankruptcy protection.   In order to reduce overall operating costs, these carriers have modified their air network fleet assignments and route lines.

For example, between September 2005 and September 2006, the total number of seats departing from Montana airports offered on Delta and Northwest decreased 24 percent. In September 2005, Delta provided 83,590 available seats. One year later, Delta's available seats had declined 34 percent to approximately 55,300 total seats. The total decline in available seats offered by Northwest was eight percent.   The markets most affected by Delta's capacity reductions are Great Falls (-47 percent), Bozeman (-45 percent) and Helena (-40 percent).   For Northwest, bankruptcy restructuring efforts impacted available seats at two Montana airports by more than twenty percent; Billings registered a 21 percent decline and activity at Bozeman fell 19 percent (*Official Airline Guide* 2006a).

Table 1.3
MONTANA PASSENGER ENPLANEMENTS

Category								% Chg.	1st six months		% Chg.
Airport	1999	2000	2001	2002	2003	2004	2005	99-05	2005	2006	2005-06
Commercial Service Airports	**1,195,070**	**1,260,001**	**1,260,580**	**1,307,410**	**1,314,399**	**1,397,815**	**1,487,226**	**24.5%**	**678,992**	**650,282**	**-4.2%**
Billings	339,855	359,524	354,054	382,550	369,473	392,091	398,037	**17.1%**	182,616	182,446	**-0.1%**
Bozeman	221,997	242,650	256,134	274,499	281,502	308,985	335,679	**51.2%**	157,107	150,298	**-4.3%**
Butte	49,133	48,821	44,287	42,214	37,996	40,319	41,853	**-14.8%**	20,165	16,689	**-17.2%**
Great Falls	136,066	141,833	130,543	129,487	125,160	133,246	160,878	**18.2%**	73,010	66,313	**-9.2%**
Helena	79,862	76,473	77,742	77,173	76,200	84,303	93,218	**16.7%**	44,256	41,467	**-6.3%**
Kalispell	146,770	157,962	154,780	161,285	167,540	178,334	190,964	**30.1%**	82,074	70,937	**-13.6%**
Missoula	221,387	232,738	243,040	240,202	253,761	260,039	266,597	**20.4%**	119,764	122,132	**2.0%**
EAS Airports	**15,789**	**15,106**	**14,524**	**14,316**	**12,469**	**13,397**	**15,863**	**0.5%**	**6,186**	**5,328**	**-13.9%**
Glasgow	1,989	2,009	2,236	2,227	1,972	1,753	1,774	**-10.8%**	849	662	**-22.0%**
Glendive	1,139	1,111	938	965	970	898	934	**-18.0%**	449	464	**3.3%**
Havre	1,378	1,237	1,140	1,124	1,097	1,147	1,526	**10.7%**	749	658	**-12.2%**
Lewistown	1,052	1,016	735	862	744	758	748	**-28.9%**	397	296	**-25.4%**
Miles City	1,478	1,404	956	1,219	1,076	1,085	1,175	**-20.5%**	608	469	**-22.9%**
Sidney	2,457	2,789	2,609	2,556	1,880	2,344	3,401	**38.4%**	1,558	1,358	**-12.8%**
West Yellowstone	4,816	3,838	4,044	3,886	3,250	3,985	4,366	**-9.3%**	676	574	**-15.1%**
Wolf Point	1,480	1,702	1,866	1,477	1,480	1,427	1,939	**31.0%**	900	847	**-5.9%**
Total - All Airports	**1,210,859**	**1,275,107**	**1,275,104**	**1,321,726**	**1,326,868**	**1,411,212**	**1,503,089**	**24.1%**	**685,178**	**655,610**	**-4.3%**

Sources: MDT 2006, FAA 2006a.

1.2.4   Statewide Domestic Origin and Destination Trends

As shown in **Table 1.4**, between 1995 and 2005, Montana's share of national passenger traffic peaked in 2002 at 0.33 percent. Domestic origination and destination (O&D) traffic at all Montana airports grew at a slightly faster rate than it did at all U.S. airports combined during this period. Over those 10 years, O&D passengers at Montana airports grew 3.9 percent per year on average, while growth at all airports nationwide experienced an average annual growth of 2.4 percent. Much of this growth occurred in Montana between 2000 and 2005, and the entire U.S. between 1995 and 2000. Domestic O&D passenger traffic peaked in the U.S. in 2000, but traffic declined until 2004. This is in part due to the terrorist attacks of September 11, 2001 and the economic downturn. Passenger traffic in the U.S. rebounded in 2004, exceeding the 2000 level for the first time in four years. Traffic growth in the U.S. increased again in 2005. However, O&D traffic in Montana saw continued growth in spite of these events.   (Note: "Domestic Outbound O&D passengers" and "enplanements" are not the same.) Domestic outbound O&D passengers are those classified as beginning an itinerary on a scheduled air carrier with a U.S. final destination.   Enplanement counts may include connecting and international traffic, as well as any charter passengers. Discrepancies in data may occur because of these classifications and different reporting rules. Table 1.4 shows Montana enplanements for 1995-2005 for comparison purposes (US DOT 2006a, MDT 2006).

Table 1.4
DOMESTIC OUTBOUND O&D PASSENGERS
(ALL MONTANA AIRPORTS AND ALL U.S. AIRPORTS)

Year	Montana O&D Total	U.S. O&D Total	MT as % of U.S. Total	Total MT Enplanements	Difference in O&D vs. MT Enplanements
1995	974,780	345,261,060	0.28%		
1996	971,460	366,478,360	0.27%		
1997	1,032,650	378,470,830	0.27%		
1998	1,063,480	380,740,210	0.28%		
1999	1,120,020	397,030,970	0.28%	1,210,859	90,839
2000	1,163,010	413,064,780	0.28%	1,275,107	112,097
2001	1,187,650	384,670,650	0.31%	1,275,104	87,454
2002	1,218,670	373,766,790	0.33%	1,321,726	103,056
2003	1,234,780	381,126,460	0.32%	1,326,868	92,088
2004	1,324,170	416,410,660	0.32%	1,411,212	87,042
2005	1,423,850	439,396,110	0.32%	1,503,089	79,239

Compounded Average Annual Growth Rate		
1995-2000	3.6%	3.7%
2000-2005	4.1%	1.2%
1995-2005	3.9%	2.4%

Sources: US DOT 2006a; MDT 2006.

Note: Excludes airports outside the continental U.S., including Alaska, Hawaii, Puerto Rico, U.S. Virgin Islands, and the islands of the Pacific Trust.

Montana is one of the lowest-ranking states in the continental U.S. in terms of domestic O&D passenger activity and also has some of the highest airfares in the country (see **Table 1.5**). When ranked by outbound O&D passengers, Montana ranked 39th among continental U.S. states in 2005. When ranked by average one-way fares, Montana is ranked 45th, or the sixth-highest. The average one-way fare paid by domestic passengers originating in Montana was $168.14 in 2005. This is over $23 more than the average one-way fare paid by all U.S. domestic passengers combined. It is worth noting that the only low-fare carrier currently providing daily service to Montana is Frontier, which offers service from Billings and Great Falls to its Denver hub. Allegiant and US Airways (formerly America West) serve the State on a more limited basis (US DOT 2006a).

In addition, due to its remote location, many air travelers in Montana tend to travel further than the average continental U.S. traveler. The average itinerary for Montana O&D trips was over 1,300 miles, while the U.S. average was just slightly over 1,100 miles. This accounts for a portion of the higher fare as well (US DOT 2006a).

Table 1.5
STATE RANKING OF DOMESTIC O&D PASSENGERS AND FARES
UNITED STATES
(2005)

Rank	State	Domestic O&D Passengers	Rank	State	Average One-Way Fare
1	California	61,925,630	1	Maryland	$113.63
2	Florida	49,125,410	2	New Hampshire	$114.75
3	Texas	32,989,440	3	Rhode Island	$115.76
36	New Hampshire	2,113,950	42	West Virginia	$163.46
37	Arkansas	1,803,060	43	New Jersey	$166.91
38	Idaho	1,736,000	44	Iowa	$167.49
39	**Montana**	**1,423,850**	**45**	**Montana**	**$168.14**
40	Iowa	1,391,890	46	South Dakota	$181.88
41	Mississippi	1,142,440	47	Wyoming	$186.47
42	Maine	979,380	48	North Dakota	$188.47
	U.S. Total	*439,396,110*		*U.S. Average*	*$144.33*

Source: US DOT 2006a.
Note: Excludes airports outside the continental U.S., including Alaska, Hawaii, Puerto Rico, U.S. Virgin Islands, and the islands of the Pacific Trust.

1.3 STATEWIDE AIR CARGO & FREIGHT ACTIVITY

As stated in Section 1.1, eight of Montana's airports handled air cargo in 2005. That year, the State's airports accommodated 31,304 tons of mail, express parcels, and freight. The majority of this traffic occurred at Billings-Logan International and Great Falls International. Billings-Logan International is a regional hub for both DHL and UPS, while Great Falls is a regional hub

for FedEx. Both airports also have large U.S. Postal Service operations. Cargo at the remaining six airports is mainly carried in small regional feeder cargo aircraft or in the belly compartments of passenger aircraft. **Table 1.6** shows cargo tonnage for Montana's airports carried in 2003, 2004, and 2005. Cargo carriers were not required to report domestic cargo to the US DOT prior to October 2002, making historic comparisons incomplete. Throughout the 1990s, Great Falls International was the primary air cargo facility in the State. In recent years, however, Billings-Logan International has grown its air cargo capabilities, and now accommodates more than half of all cargo transported in the State (US DOT 2006b). Helena's air cargo tonnage decreased nearly 70 percent between 2004 and 2005.

Table 1.6
ENPLANED DOMESTIC AIR CARGO TONNAGE (FREIGHT AND MAIL)
MONTANA AIRPORTS
(2003-2005)

Airport	2003	2004	2005	% Change 2003-05
Billings	13,696	16,794	16,447	20.1%
Great Falls	7,353	4,738	13,452	83.0%
Helena	205	491	64	-68.8%
Bozeman	425	468	522	22.8%
Missoula	448	441	435	-2.9%
Kalispell	337	320	356	5.6%
Wolf Point	16	23	27	68.8%
Glasgow	0	1	0	0.00%
Butte	91	0	1	-98.9%
Total	**22,571**	**23,276**	**31,304**	**38.7%**

Source: US DOT 2006b.

The 78,000-square foot sorting facility that FedEx operates at Great Falls has both contributed to and supported the sharp increase in air cargo activity experienced in the market. Long-term FedEx air network plans will expand scheduled service between the U.S. and China. One Montana airport, Great Falls International, is currently upgrading its facilities to offer CAT III approaches. This type of Instrument Landing System (ILS) approach guides an airplane both on its approach to the runway and also on the runway's surface. Upon completion, Great Falls International will be the only airport in Montana offering CAT III approaches. In addition, the Great Falls International will also have a 24-hour U.S. Customs office. As FedEx's air network continues to support additional routes between the U.S. and China, Great Falls will become a more viable candidate for processing Asia material (Black 2006).

1.4   AIRPORT SERVICE TRENDS

Each of Montana's 15 airports serves its local community in unique ways. From small airports serving basic transportation needs to large regional passenger and cargo hubs, Montana's airports have evolved to meet the needs of each community. The following sections present discussions of the trends in airline service at each of the State's commercial service airports. For

the socioeconomic data presented, population, race, age, and household data are from the U.S. Census Bureau. Employment statistics are from the U.S. Department of Commerce, Bureau of Economic Analysis; business establishments, and average pay from the U.S. Department of Labor, Bureau of Labor Statistics. Lodging information was obtained through www.travelocity.com.

1.4.1   Traffic and Service Trends at Billings-Logan International Airport

1.4.1.1 Location

Billings-Logan International Airport (BIL) is located northwest of downtown Billings, along State Highway 3 and Airport Road. It is the largest airport in the State of Montana in terms of passengers and flights; Salt Lake City International Airport is the nearest larger airport, located 385 miles southwest.

1.4.1.2 Socioeconomics

In 2005, Billings had a population of 146,593 and Yellowstone County was home to 136,691. Other towns in Yellowstone County include Laurel, Lockwood, and Worden. The population of the county was 95 percent Caucasian and 3.4 percent of Yellowstone County's residents were Native American. The median age of the county's population was 36.9 years. There were 52,084 households in the county (U.S. Census Bureau 2006).

Employment in Yellowstone County numbered approximately 59,396 non-farm jobs in 2003. These workers were employed by 5,181 business establishments and were paid approximately $27,365 on average. The largest industries in Yellowstone County are the Retail Trade, Health Care and Social Services, and State and Local Government sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

There are an estimated 3,500 hotel rooms in the various lodging establishments in the Billings area to serve tourists and visitors (Travelocity 2005).

1.4.1.3 Domestic Originating Passengers (O&D) and Average Fares

Since 1990, domestic originations have increased steadily at Billings-Logan International Airport while average fares have fluctuated somewhat (see **Table 1.7**). In 1990, more than 222,000 domestic O&D passengers began a flight at Billings. This originating passenger activity peaked in 2005 at over 381,000. Over the period 1990-2005, domestic traffic at Billings-Logan International showed compound annual growth rates of 4.5 percent. Meanwhile, domestic average one-way fares offered by airlines serving the airport have recently declined after peaking in 2000. Overall, average fares at Billings-Logan International are approximately 2.4 percent lower in 2005 compared to 1990 levels, and nearly 10 percent lower than their 2000 peak. Fares at Billings-Logan declined 3.8 percent between 2003 and 2004. Yet, prices increased nearly 5 percent between 2004 and 2005. The average domestic one-way fare at Billings-Logan

International in 2005 was $161.33, lower than the State average of $168 but nearly 12 percent higher than the national average of $144 (US DOT 2006a).

Table 1.7 DOMESTIC ORIGINATING PASSENGERS AND AVERAGE ONE-WAY FARES BILLINGS-LOGAN INTERNATIONAL AIRPORT (1990-2005)		
Year	Domestic Originations	Avg. One-Way Fare
1990	222,250	$165.29
1991	226,830	$159.61
1992	262,500	$148.25
1993	265,690	$162.49
1994	265,940	$167.54
1995	287,130	$160.85
1996	276,350	$178.75
1997	279,060	$175.74
1998	288,610	$177.15
1999	304,150	$175.03
2000	314,420	$179.08
2001	315,020	$168.79
2002	337,470	$160.54
2003	329,250	$159.81
2004	367,540	$153.67
2005	381,150	$161.33

Source: US DOT 2006a.

Data on enplanements at Billings were obtained from the MDT Aeronautics Division for comparison to originations data obtained from the US DOT. In 2004, enplanements at Billings-Logan International Airport were 392,091. In 2005, enplanements grew to 398,037, and the domestic originations totaled 381,150. The airport's enplanements increased 17.1 percent between 1999 and 2005. The associated average annual compound growth rate is 2.9 percent During the first two quarters of 2006, total enplanements at Billings-Logan International Airport were nearly identical compared to the first six months of 2005. The year-over-year change was a decrease of 0.1 percent (MDT 2006).

1.4.1.4 Domestic Travel Patterns

The service provided to Billings' area residents and visitors by commercial airlines links the city with countless destinations around the world. Approximately half of all passenger traffic at Billings-Logan International is composed of local resident travelers and half of the domestic O&D passengers are visitors to the area. The access to the national air transportation system offered at Billings-Logan International allows these residents and visitors to travel quickly and efficiently around the country. **Table 1.8** below shows the most popular U.S. destinations for

Billings-area travelers and the average one-way fare those travelers paid to reach them (US DOT 2006a).

Table 1.8
TOP 20 DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS
BILLINGS-LOGAN INTERNATIONAL AIRPORT
(2005)

Rank	O&D Destination	Domestic Outbound O&D Passengers	Average One-Way Fare
1	Denver	27,790	$135.45
2	Salt Lake City	20,910	$128.62
3	Phoenix	20,870	$142.66
4	Seattle	20,870	$141.50
5	Las Vegas	16,120	$124.51
6	Portland, OR	15,080	$140.73
7	Minneapolis	11,760	$174.76
8	Dallas	8,990	$164.49
9	Houston - Bush	7,150	$192.63
10	Atlanta	6,880	$167.14
11	Los Angeles - LAX	6,800	$154.07
12	Orlando	6,370	$165.83
13	Chicago - O'Hare	5,830	$176.39
14	San Diego	5,590	$149.56
15	Anchorage	5,340	$192.50
16	Spokane	5,110	$140.18
17	Los Angeles - Wayne	4,950	$145.34
18	Sacramento	4,670	$175.36
19	Washington - Reagan	4,650	$206.51
20	Kansas City	4,200	$175.16

Source: US DOT 2006a.

When all domestic O&D destinations traveled by Billings' passengers in 2005 are combined by U.S. region, the results show that the Southwest and South Central U.S. are the predominant choices for most travelers, with nearly 44 percent of O&D passengers destined for these two regions alone (see **Table 1.9** and **Figure 1.3**, US DOT 2006a).

Table 1.9

DOMESTIC OUTBOUND O&D TRAVEL DESTINATION BY REGION
BILLINGS-LOGAN INTERNATIONAL AIRPORT
(2005)

Region	Domestic Outbound O&D Passengers	% of Total
Mid-South	11,000	2.9%
Midwest	36,460	9.6%
North Central	40,300	10.6%
Northeast	37,600	9.9%
Northwest	56,780	14.9%
South Central	59,680	15.7%
Southeast	32,940	8.6%
Southwest	106,390	27.9%
Total	**381,150**	**100%**

Source: US DOT 2006a.
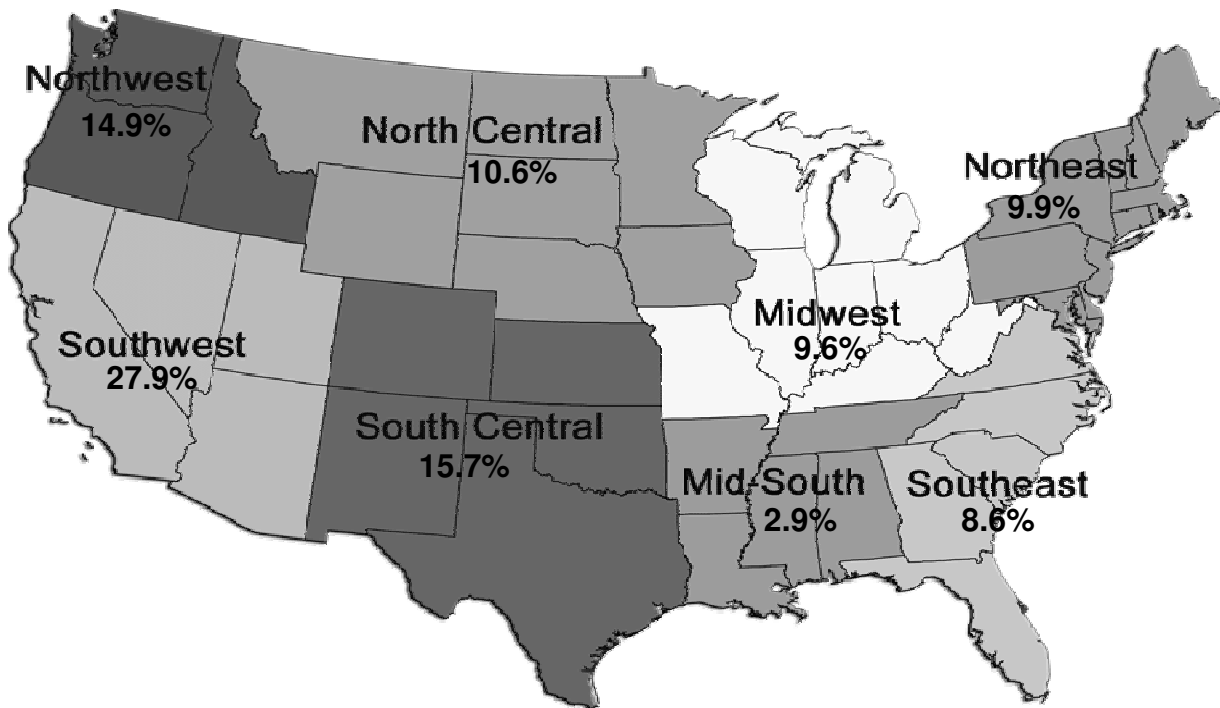
Figure 1.3
DOMESTIC OUTBOUND O&D TRAVEL DISTRIBUTION BY REGION
BILLINGS-LOGAN INTERNATIONAL AIRPORT
(2005)

Source: US DOT 2006a.

1.4.1.5 Current Service

In September 2006, three mainline legacy carriers served Billings-Logan International Airport, including Northwest, United, and US Airways. Additionally, four commuter/regional partner carriers served the airport, including Atlantic Southeast (Delta Connection), Big Sky, SkyWest (Delta Connection and United Express), and Horizon (Alaska and Frontier JetExpress). Allegiant Air also began serving the market in March 2006. Allegiant is considered to be a scheduled charter airline, providing low fare service between Billings and Las Vegas. These airlines (including Allegiant) operate flights to 17 nonstop destinations throughout the U.S. In September 2006, the airport had 220 weekly scheduled departures. This service included nonstop flights to major airline hubs at Denver, Minneapolis, Phoenix, Salt Lake City, and Seattle. On Saturdays, United Airlines also offered direct air service between Billings and its Chicago hub. Horizon also operated a flight to Portland. In addition, Big Sky Airlines provided nonstop in-state service between Billings and many of Montana's air service markets including Bozeman, Glasgow, Helena, Lewistown, Miles City, Sidney, and Wolf Point. Big Sky also offered out of state service to Sheridan and Boise. The service currently provided at Billings is well-matched to the travel patterns of its passengers, with nonstop flights available to each of the city's top seven destinations, and excellent connection opportunities at six hubs.

In September 2006, over 33 percent of flights that departed Billings-Logan International were offered on regional jet aircraft averaging 55 seats (see **Table 1.10**). Of the remaining departures, 52 percent were operated on turboprop aircraft averaging 30 seats, and 15 percent of the flights were by large jets averaging 125 seats (*Official Airline Guide* 2006a).

Table 1.10 **MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS** **BILLINGS-LOGAN INTERNATIONAL AIRPORT** **(September 2006)**				
Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	456	13,559	29.7	51.9%
Regional Jet	290	15,904	54.8	33.0%
Large Jet	<u>133</u>	<u>16,664</u>	<u>125.3</u>	<u>15.1%</u>
Total	**879**	**46,127**	**52.5**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.1.6 Historic Air Service Trends

Table 1.11 summarizes monthly scheduled seats available in September from Billings-Logan International over the last 10 years. In 1996, Billings had service primarily on mainline carriers. More than 80 percent of all departing seats that year were available on Delta, Northwest, and United. Big Sky, Horizon and SkyWest provided supplemental nonstop commuter and regional service at the airport. By 2006, the proportion of all scheduled seats departing Billings offered by mainline carriers had fallen to approximately 32 percent. This reflects a nationwide

trend among mainline carriers toward shifting short- and medium-haul jet service to regional carriers operating regional jet aircraft (*Official Airline Guide* 2006a).

Table 1.11
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
BILLINGS-LOGAN INTERNATIONAL AIRPORT
(Month of September 1996-2006)

Carrier	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alaska	**6,296**	**7,135**	**5,340**	**5,280**	**5,400**	**5,220**	**5,100**	**4,350**	**6,408**	**6,438**	**6,586**
Horizon	*6,296*	*7,135*	*5,340*	*5,280*	*5,400*	*5,220*	*5,100*	*4,350*	*6,408*	*6,438*	*6,586*
Allegiant Air	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,132**
Big Sky	**3,838**	**3,876**	**7,201**	**7,486**	**7,828**	**7,486**	**9,310**	**7,828**	**6,460**	**7,638**	**6,973**
Delta	**17,040**	**17,220**	**16,920**	**17,070**	**17,220**	**17,212**	**14,400**	**12,000**	**15,340**	**13,000**	**8,650**
Atlantic Southeast	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*4,200*	*350*
Delta	*13,290*	*13,440*	*13,170*	*13,320*	*13,500*	*12,712*	*8,550*	*4,500*	*0*	*0*	*0*
Comair	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*6,390*	*0*	*0*
SkyWest	*3,750*	*3,780*	*3,750*	*3,750*	*3,720*	*4,500*	*5,850*	*7,500*	*8,950*	*8,800*	*8,300*
Frontier	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**4,189**	**4,060**	**2,100**
Horizon	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*4,189*	*4,060*	*2,100*
Northwest	**17,476**	**11,532**	**12,014**	**9,832**	**9,000**	**9,000**	**8,606**	**11,362**	**9,000**	**9,444**	**7,440**
Sun Country	**0**	**0**	**0**	**0**	**0**	**0**	**180**	**0**	**0**	**0**	**0**
United	**7,158**	**9,748**	**8,820**	**10,047**	**9,930**	**9,605**	**10,900**	**9,356**	**9,444**	**10,396**	**12,246**
United	*7,158*	*9,748*	*8,820*	*8,547*	*8,430*	*8,105*	*8,350*	*7,856*	*7,680*	*7,116*	*7,092*
Air Wisconsin	*0*	*0*	*0*	*1,500*	*1,500*	*1,500*	*2,550*	*1,500*	*0*	*0*	*0*
SkyWest	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,764*	*3,280*	*5,154*
US Airways (formerly America West)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,600**	**3,750**	**3,700**	**0**
Mesa	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3,600*	*3,750*	*3,700*	*0*
Total	**51,808**	**49,511**	**50,295**	**49,715**	**49,378**	**48,523**	**48,316**	**48,496**	**54,591**	**54,676**	**46,127**

Source: *Official Airline Guide* 2006a.

Over the 10-year period, the total number of scheduled seats at Billings-Logan International changed little. However, the nature of the service has changed. One recent major merger in the U.S. commercial airline industry occurred late in September 2005 when the nation's seventh and eighth largest carriers merged operations. One carrier struggling to avoid bankruptcy, US Airways, combined its operations with the then profitable America West Airlines. Prior to this merger US Airways employees suffered pay cuts amounting to nearly 25 percent of their salaries and also lost the majority of the accumulated value in their pension accounts. The newly formed entity, branded as US Airways Group, is striving to operate as a low-cost carrier. Regarding demand, many analysts predict that the number of travelers seeking air service will increase dramatically over the next 10 to 15 years. The supporting factors behind this higher level of overall demand include high flight frequencies between major cities, very high reliability, and low prices. The newly formed US Airways Group is able to provide service to more points than US Airways or America West served as stand-alone entities. Prior to the merger, America West did not provide service to any international destinations.   For US

Airways, combining its operations with America West provides a well-developed U.S. west coast route structure (Arizona State University 2005). The September 2005 Chapter 11 bankruptcy filings of U.S. legacy carriers Delta and Northwest also impacted the Billings market. The available departing seats offered on these two carriers in September 2006 ranked 28 percent below September 2005 levels. In total, the available seats offered at the Billing-Logan International Airport in 2006 were nearly 11 percent below the 1996 level (*Official Airline Guide* 2006a).

1.4.1.7 Summary

Billings-Logan International Airport has enjoyed a steady level of service over the last 10 years. The airport is served by a combination of mainline and regional/commuter airlines. There are currently seven scheduled published carriers providing nonstop service to 17 destinations. Domestic originating passenger traffic peaked in 2005. The available air service is also well-matched to the community's travel patterns, allowing nonstop service to its most popular destinations.

1.4.2 Traffic and Service Trends at Gallatin Field (Bozeman)

1.4.2.1 Location

Gallatin Field (BZN) is located approximately eight miles northwest of downtown Bozeman, near the town of Belgrade. It is the second-busiest airport in the State of Montana in terms of passengers and 3rd busiest in terms of flights; Billings-Logan International Airport is the nearest larger airport, located 150 miles east.

1.4.2.2 Socioeconomics

In 2005, Bozeman had an estimated population of 33,535 and Gallatin County was home to 78,210. Other towns in Gallatin County include Belgrade, Four Corners, Three Forks, and West Yellowstone. The population of the county was 96 percent Caucasian and one percent Asian. The median age of the county's population was 32.5 years. There were 26,323 households in the county (U.S. Census Bureau 2006).

Employment in Gallatin County numbered approximately 30,620 non-farm jobs in 2003. These workers were employed by 3,962 business establishments and were paid approximately $26,173 on average. The largest industries in Gallatin County are the State and Local Government, Retail Trade, and Accommodation and Food Service sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

There are an estimated 1,600 hotel rooms in the various lodging establishments in the Bozeman area to serve tourists and visitors (Travelocity 2005).

1.4.2.3 Domestic Originating Passengers (O&D) and Average Fares

Since 1990, domestic originations have more than doubled at Gallatin Field while average one-way fares have fluctuated considerably (see **Table 1.12**). In 1990, fewer than 125,000 passengers began a flight at Bozeman. This domestic originating passenger activity peaked in 2005, at 315,750. Between 1990 and 2005, domestic traffic at Gallatin Field grew at a compounded annual rate of 6.4 percent. Meanwhile, domestic average one-way fares offered by airlines serving the airport peaked in 1999, dropped through 2003, and rose again in the last two years. The domestic average one-way fare at Gallatin Field in 2005 was $170.17, slightly higher than the State average of $168, and nearly 17 percent higher than the national average of $144 (US DOT 2006a).

Table 1.12 DOMESTIC ORIGINATING PASSENGERS AND AVERAGE ONE-WAY FARES GALLATIN FIELD (1990-2005)		
Year	Domestic Originations	Average One-Way Fare
1990	124,720	$162.45
1991	141,510	$159.47
1992	146,850	$154.94
1993	169,700	$159.66
1994	165,800	$171.12
1995	181,070	$169.67
1996	184,700	$179.05
1997	198,160	$176.04
1998	208,310	$175.69
1999	205,540	$185.53
2000	223,280	$182.02
2001	238,870	$175.18
2002	256,450	$163.57
2003	266,480	$162.11
2004	288,110	$165.58
2005	315,750	$170.17

Source: US DOT 2006a.

Data on enplanements at Bozeman were obtained from the MDT Aeronautics Division for comparison to originations data obtained from the US DOT. In 2004, enplanements were noted to be 308,985 compared to the domestic originations of 288,110. In 2005, enplanements at Gallatin Field grew to 335,679. Overall, the airport's enplanements grew 51 percent between 1999 and 2005, with an average annual compound rate of 7.1 percent. This annual compound growth rate is similar to the 6.4 percent compound annual growth rate in originations. During the first six months of 2006, enplanements at Bozeman's Gallatin Field decreased 4.3 percent compared to enplanements for the first six months of 2005 (MDT 2006, US DOT 2006a).

1.4.2.4 Domestic Travel Patterns

The service provided to Bozeman residents and visitors by commercial airlines links the area with countless destinations around the world. Approximately 36.8 percent of all passenger traffic at Gallatin Field is comprised of local residents; the connections that Bozeman's air service provides to the national air transportation system allow the county's residents to travel quickly and efficiently around the country. Visitors account for nearly two-thirds of all travel into and out of Bozeman, indicating Bozeman's strong demand for business and tourism-related travel. **Table 1.13** summarizes the most popular destinations for Bozeman-area travelers and the average one-way fare those travelers paid to reach them in 2005 (US DOT 2006a).

Table 1.13
TOP 20 DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS
GALLATIN FIELD
(2005)

Rank	O&D Destination	Domestic Outbound O&D Passengers	Average One-Way Fare
1	Denver	18,590	$121.18
2	Seattle	16,010	$130.88
3	Minneapolis	14,390	$154.38
4	Salt Lake City	11,410	$123.70
5	Atlanta	10,610	$169.51
6	Chicago - O'Hare	8,850	$165.81
7	Los Angeles - LAX	7,720	$176.10
8	Boston	6,510	$200.48
9	San Francisco	6,030	$163.74
10	Newark	5,830	$194.43
11	Portland, OR	5,770	$152.35
12	Dallas	5,740	$169.36
13	Las Vegas	5,450	$147.56
14	Orlando	5,440	$164.77
15	Phoenix	5,440	$150.97
16	San Diego	5,410	$148.97
17	Philadelphia	5,340	$190.00
18	Detroit	5,170	$171.99
19	Los Angeles - Wayne	4,890	$161.23
20	New York - La Guardia	4,520	$232.73

Source: US DOT 2006a.

When all domestic destinations traveled to by Bozeman's passengers in 2005 are combined by U.S. region, the results show that Southwest and Northeast U.S. are the predominant choices for most travelers, with 40 percent destined for these two regions alone (see **Table 1.14** and **Figure 1.4**, US DOT 2006a).

Table 1.14
DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS BY REGION
GALLATIN FIELD
(2005)

Region	Domestic Outbound O&D Passengers	% of Total
Mid-South	12,360	3.9%
Midwest	44,360	14.0%
North Central	20,050	6.3%
Northeast	55,490	17.6%
Northwest	30,960	9.8%
South Central	37,500	11.9%
Southeast	43,760	13.9%
Southwest	71,270	22.6%
Total	**315,750**	**100%**

Source: US DOT 2006a.
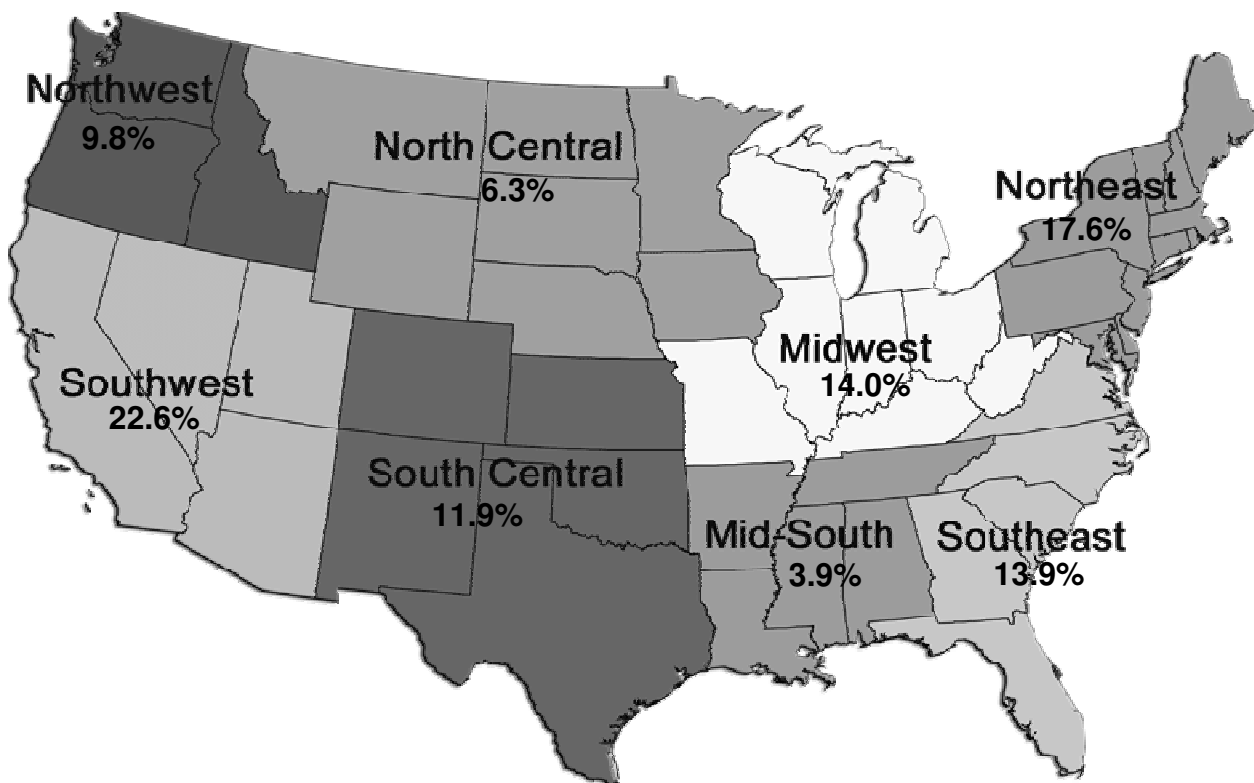
Figure 1.4
DOMESTIC OUTBOUND O&D TRAVEL DISTRIBUTION BY REGION
GALLATIN FIELD
(2005)

Source: US DOT 2006a.

1.4.2.5 Current Service

In September 2006, seven scheduled commercial service airlines served Gallatin Field. Three mainline carriers, Delta, Northwest, and United currently serve the airport. Additionally, four commuter/regional partner carriers serve the airport, including Big Sky, Horizon (Alaska partner), Atlantic Southeast (Delta Connection), and SkyWest, which operates as both a Delta and United regional partner. In September 2006, these airlines operated flights to ten nonstop destinations, including hubs at Chicago, Denver, Minneapolis, Salt Lake City, and Seattle. Nonstop seasonal service was also offered by Delta to its hub in Atlanta at the beginning of September 2006. Boise also supports daily nonstop flight on Big Sky originating at Gallatin Field. On weekends, Big Sky provides scheduled nonstop service to Billings and Missoula as well with a 19-seat Beechcraft 1900. One daily flight is also flown from Bozeman to Butte on Horizon. This flight is the final leg of a trip that originates in Seattle.

In September 2006, the airport had 133 weekly scheduled departures. The service currently provided at Bozeman is sufficient for the travel patterns of many of its passengers, with nonstop flights available to each of the city's top six destinations, and excellent connection opportunities at five hubs. However, passengers destined for the second-most popular destination region (Northeast U.S.) will find less convenient service and must currently make connections at Minneapolis, Salt Lake City, or Denver to reach their final destinations.

In September 2006, carriers offered a large number of flights at Gallatin Field on regional jet aircraft averaging 55 seats, a category which represented 61 percent of all departures (see **Table 1.15**). Another 11 percent of departures were operated on large jet aircraft averaging 137 seats and 27 percent on turboprop aircraft averaging 56 seats (*Official Airline Guide* 2006a).

Table 1.15
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
GALLATIN FIELD
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	145	8,145	56.2	27.1%
Regional Jet	327	17,878	54.7	61.4%
Large Jet	61	8,382	137.4	11.4%
Total	**533**	**34,405**	**64.5**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.2.6 Historic Air Service Trends

Table 1.16 summarizes monthly scheduled departing seats available in September from Bozeman over the last 10 years. In 1996, the city had service on Delta, Horizon, Northwest, and SkyWest. In 2001, United Express began serving the market, restoring nonstop service to Denver that was temporarily lost when Frontier Airlines left the market in 1995. In the 1990s

and 2000s, Delta also began to shift service to its partners, SkyWest and Atlantic Southeast, which operate regional jet aircraft. This reflects a nationwide trend among mainline carriers toward shifting short- and medium-haul jet service to regional carriers operating regional jet aircraft (*Official Airline Guide* 2006a).

Table 1.16
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
GALLATIN FIELD
(Month of September 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Aspen Mountain Air	**0**	**0**	**1,800**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Alaska	**4,162**	**1,848**	**5,400**	**7,320**	**7,380**	**8,052**	**7,590**	**6,402**	**8,424**	**7,326**	**7,252**
Horizon	*4,162*	*1,848*	*5,400*	*7,320*	*7,380*	*8,052*	*7,590*	*6,402*	*8,424*	*7,326*	*7,252*
Big Sky	**0**	**0**	**0**	**0**	**1,140**	**0**	**0**	**0**	**0**	**570**	**893**
Delta	**13,671**	**15,180**	**14,910**	**11,090**	**11,680**	**11,460**	**12,990**	**14,732**	**17,332**	**17,500**	**9,610**
Atlantic Southeast	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2,380*
Delta	*12,171*	*12,780*	*13,410*	*8,940*	*8,940*	*9,240*	*9,240*	*8,932*	*8,332*	*9,000*	*150*
SkyWest	*1,500*	*2,400*	*1,500*	*2,150*	*2,740*	*2,220*	*3,750*	*5,800*	*9,000*	*8,500*	*7,080*
Northwest	**13,442**	**7,818**	**7,512**	**7,533**	**9,094**	**8,760**	**7,908**	**8,452**	**8,880**	**10,132**	**8,232**
Northwest	*13,442*	*7,818*	*7,512*	*7,533*	*9,094*	*8,760*	*7,908*	*8,452*	*8,880*	*8,856*	*8,232*
Pinnacle	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,276*	*0*
United	**0**	**0**	**0**	**0**	**0**	**4,500**	**5,890**	**6,000**	**6,848**	**6,780**	**8,418**
Air Wisconsin	*0*	*0*	*0*	*0*	*0*	*0*	*5,890*	*0*	*0*	*0*	*0*
SkyWest	*0*	*0*	*0*	*0*	*0*	*4,500*	*0*	*6,000*	*6,848*	*6,780*	*8,418*
Total	**31,275**	**24,846**	**29,622**	**25,943**	**29,294**	**32,772**	**34,378**	**35,586**	**41,484**	**42,308**	**34,405**

Source: *Official Airline Guide* 2006a.

Over the 10-year period, scheduled service in terms of overall departing seats at Bozeman changed little. Since 1996, carriers serving Bozeman have not changed the total number of available seats significantly; between 1996 and 2006, the number of available seats increased by 3,130 monthly departing seats, from 31,275 to 34,405. In the intervening years, however, the number of scheduled seats available fell to a low of 24,800 in 1997. In 1998, however, Horizon began offering more departing seats as it began new nonstop service to Seattle. In 2001, United Express began service to Denver. Monthly scheduled departing seats at Bozeman peaked in 2005. However, as Delta and Northwest began operating under Chapter 11 bankruptcy protection, air network capacity reductions ensued. By September 2006, Delta had pulled nearly all jet service from the Bozeman market. In spite of these reductions, Delta did initiate twice-weekly nonstop seasonal service between Bozeman and its Atlanta hub in June 2006. Other new service at Bozeman in 2006 includes daily nonstop service to Chicago by United Express. In September 2006, Northwest did not operate the supplemental scheduled service at Bozeman on Pinnacle Airlines. As a result of Northwest and Delta cutbacks, total scheduled departing seats for the market were nearly 19 percent below 2005 levels.

1.4.2.7 Summary

Gallatin Field has enjoyed a steady level of airline service over the last 10 years. The airport is served by a combination of mainline and regional/commuter airlines. Originating passenger traffic peaked in 2005 and is more than double the 1990 O&D passenger level. The available air service is adequate for much of the community's travel patterns, allowing nonstop service to its four most popular destinations.

1.4.3   Traffic and Service Trends at Bert Mooney Airport (Butte)

1.4.3.1 Location

Bert Mooney Airport (BTM) is located southeast of downtown Butte, along State Highway 2 and Interstate 90 near its junction with Interstate 15. The nearest commercial service airport with comparable service is 64 miles northeast in Helena. The nearest hub[1] is at Bozeman, located 100 miles east.

1.4.3.2 Socioeconomics

Butte and Silver Bow County have a consolidated city and county government, and therefore have the same demographic profile. Silver Bow County had a population of 32,982 in 2005, which was 95 percent Caucasian and two percent Native American. The median age of the county's population was 39 years. In 2004, there were 14,432 households in the county (U.S. Census Bureau 2006).

Employment in Silver Bow County numbered approximately 12,432 non-farm jobs in 2003. These workers were employed by 1,106 business establishments and were paid approximately $27,359 on average. The largest industries in Silver Bow County are the Retail Trade, State and Local Government, and Construction sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

There are an estimated 1,363 hotel rooms in the various lodging establishments in the Butte area to serve tourists and visitors (Travelocity 2005).

1.4.3.3 Domestic Originating Passengers (O&D) and Average One-Way Fares

Since 1990, domestic originations have fluctuated somewhat at Bert Mooney Airport while average one-way fares have seen considerable decline (see **Table 1.17**). In 1990, nearly 32,600 domestic O&D passengers began a flight at Butte. Domestic passenger activity grew slowly through 1995 before peaking in 1997, at over 50,000. Passenger traffic fell in 1998 to 41,500, and remained at a similar level until 2003 when traffic fell to 36,000 once again. Passenger levels at

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[1] The term "hub airport" refers to the U.S. Department of Transportation's definitions of airport size. Here, the term refers to airports classified as Small Hub or larger. A Small Hub is one that enplanes more than 0.05% of all passengers enplaned annually at U.S. airports.

Bert Mooney Airport have increased again in the last two years. Between 1999 and 2005, domestic O&D traffic at Bert Mooney Airport showed a negative compound annual growth rate of 1.5 percent. Meanwhile, average one-way fares offered by airlines serving the airport began the 1990s at their highest point, above $200. These domestic fares peaked once again in 1994 before falling in 1995. Since 1995, fares have fluctuated, but in 2005 remained at a level comparable to 1995. Overall, fares at Butte are approximately 10 percent lower in 2005 versus 1990. However, the average domestic one-way fare at Bert Mooney Airport in 2005 was $181.59, significantly higher than both the State average of $168 and the national average of $144 (US DOT 2006a).

Table 1.17		
DOMESTIC ORIGINATING PASSENGERS AND AVERAGE ONE-WAY FARES		
BERT MOONEY AIRPORT		
(1990-2005)		
Year	Domestic Originations	Average One-Way Fare
1990	32,580	$202.85
1991	33,340	$194.98
1992	35,330	$186.77
1993	36,000	$192.99
1994	34,770	$200.44
1995	36,750	$179.97
1996	41,170	$181.34
1997	50,140	$179.84
1998	41,500	$196.05
1999	44,040	$188.40
2000	44,650	$188.61
2001	41,500	$186.07
2002	40,730	$172.37
2003	36,120	$179.20
2004	37,930	$181.73
2005	40,160	$181.59

Source: US DOT 2006a.

Data on enplanements at Butte were obtained from the MDT Aeronautics Division for comparison to originations data obtained from the US DOT. In 2004, enplanements were noted to be 40,319 compared to the domestic originations of 37,930. In 2005, enplanements at Bert Mooney Airport grew to 41,853. For the first six months of 2006, enplanements at Bert Mooney Airport in Butte declined 17.2 percent versus enplanement levels for the first six months of 2005.

Delta's bankruptcy declaration and subsequent restructuring efforts have impacted the Butte market. In September 2006, Delta operated just two flights each day between Salt Lake City and Butte. However, in September 2004, Delta had operated four daily flights between these points. In total, available departing seats from Butte are approximately 33 percent below 2005 capacity levels. The airport's enplanements declined 14.8 percent between 1999 and 2005. This decline

represents a negative average annual compound rate of 2.6 percent. (MDT 2006, US DOT 2006a).

1.4.3.4 Domestic Travel Patterns

Local residents comprise 51.0 percent of domestic O&D travelers at Bert Mooney Airport. The service provided to Butte-area residents and visitors connects the city to the national air transportation system, which allows passengers to travel quickly and efficiently around the country. **Table 1.18** below shows the most popular domestic destinations for Butte-area travelers and the average one-way fare those travelers paid to reach them (US DOT 2006a).

Table 1.18
TOP 20 DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS
BERT MOONEY AIRPORT
(2005)

Rank	O&D Destination	Domestic Outbound O&D Passengers	Average One-Way Fare
1	Salt Lake City	5,580	$121.15
2	Seattle	3,740	$142.36
3	Las Vegas	1,960	$135.72
4	Portland, OR	1,540	$168.03
5	Los Angeles - LAX	1,160	$159.09
6	Phoenix	1,160	$144.87
7	Denver	1,150	$189.62
8	San Diego	1,110	$202.80
9	Los Angeles - Wayne	1,020	$179.32
10	Atlanta	980	$175.33
11	Chicago	970	$288.93
12	Dallas	920	$204.48
13	San Francisco	770	$172.48
14	Sacramento	770	$170.86
15	Houston – Bush	760	$173.03
16	Anchorage	680	$153.61
17	Orlando	570	$146.56
18	Reno	560	$152.39
19	Kansas City	510	$194.31
20	Ontario, CA	480	$173.94

Source: US DOT 2006a.

When all domestic destinations traveled to by Butte passengers in 2005 are combined by U.S. region, the results show that Southwest and Northwest U.S. are the predominant choices for most travelers, with nearly 55 percent of O&D passengers destined for these two regions alone (see **Table 1.19** and **Figure 1.5**, US DOT 2006a).

Table 1.19
DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS BY REGION
BERT MOONEY AIRPORT
(2005)

Region	Domestic Outbound O&D Passengers	% of Total
Mid-South	1,010	2.5%
Midwest	3,510	8.7%
North Central	730	1.8%
Northeast	3,640	9.1%
Northwest	6,920	17.2%
South Central	4,240	10.6%
Southeast	3,730	9.3%
Southwest	16,380	38.2%
Total	**40,160**	**100%**

Source: US DOT 2006a.
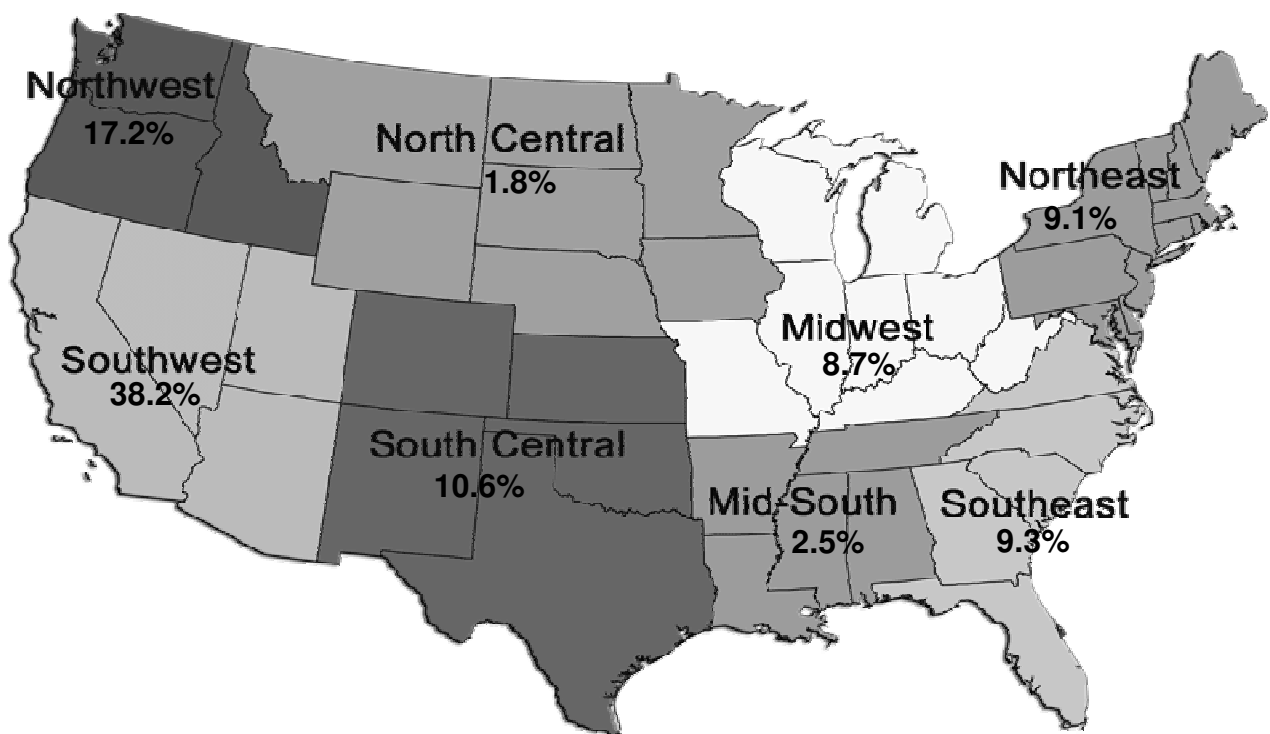
Figure 1.5
DOMESTIC OUTBOUND O&D TRAVEL DISTRIBUTION BY REGION
BERT MOONEY AIRPORT
(2005)

Source: US DOT 2006a.

1.4.3.5 Current Service

In September 2006, two scheduled commercial service airlines, Horizon and SkyWest served Bert Mooney Airport. Both of the carriers serving the airport are regional partners of major national airlines, Alaska and Delta Air Lines, respectively. In September 2006, Horizon Airlines operated flights to Bozeman (with onward service to Seattle), while SkyWest offered service to Delta's hub in Salt Lake City. That month, the airport had 34 weekly scheduled departures. The service currently provided at Butte allows passengers connection opportunities at two hubs, each located in one of the city's top destination regions.

In September 2006, 56 percent of the flights that departed Butte were offered on regional jet aircraft averaging 50 seats (see **Table 1.20**). All of the remaining departures were operated on turboprop aircraft averaging 74 seats. Horizon operates the 74-seat Q400 aircraft between Seattle and Butte (*Official Airline Guide* 2006a).

Table 1.20
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
BERT MOONEY AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	60	4,440	74.0	43.8%
Regional Jet	77	3,850	50.0	56.2%
Large Jet	0	0	0.0	0.0%
Total	**137**	**8,290**	**60.5**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.3.6 Historic Air Service Trends

Table 1.21 summarizes monthly scheduled departing seats available in September from Bert Mooney Airport over the last 10 years. Since 1996, Butte has had service on the same two carriers, Horizon and SkyWest. In 1996, 7,920 monthly seats were available, with the majority of the seats offered on Delta regional partner, SkyWest. By 2006, an additional 370 seats per month were available, with the majority of the seats offered on Horizon. During the 1997 passenger peak (see Originating Passengers section above), Horizon offered six flights a day on 19-seat Metro aircraft to Spokane and Billings even though monthly scheduled seats bottomed out at fewer than 7,600 in September of that year. Horizon ended service to Billings and Spokane in 1997 and began new nonstop service to Alaska's hub in Seattle. Monthly scheduled departing seats at Bert Mooney peaked in 2004. At that time, SkyWest offered four weekday flights to Salt Lake City on 50-seat CRJ aircraft and Horizon offered three daily flights to Seattle. By 2006, SkyWest and Horizon each reduced service levels in these markets and now operate two weekday flights. The flights to Seattle in September 2006 were operated as one-stop flights through Bozeman (*Official Airline Guide* 2006a).

Table 1.21
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
BERT MOONEY AIRPORT
(Month of September, 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Horizon (AS*)	3,420	1,577	3,330	5,340	4,503	5,742	5,610	4,356	6,264	4,440	4,440
SkyWest (DL*)	4,500	6,000	5,840	5,750	5,700	5,700	5,600	5,800	6,000	5,750	3,850
Total	**7,920**	**7,577**	**9,170**	**11,090**	**10,203**	**11,442**	**11,210**	**10,156**	**12,264**	**10,190**	**8,290**

Source: *Official Airline Guide* 2006a.

1.4.3.7 Summary

Over the last 10 years, two carriers have offered nonstop scheduled service at Bert Mooney Airport. In 2006, the number of seats and departures was at the lowest level since 1997. Originating domestic passenger traffic peaked in 1997, and current levels show continued declines from that level. The available air service allows connecting flights to major hubs in its two most popular destination regions.

1.4.4   Traffic and Service Trends at Glasgow International Airport – Wokal Field

1.4.4.1 Location

The City of Glasgow is the seat of government of Valley County, in northeastern Montana. The city is located at the junction of U.S. Highway 2 and Montana Highway 24. The nearest city with a hub airport is 280 miles away in Billings. The City of Great Falls lies approximately 270 miles west of Glasgow. Wolf Point has airline service comparable to Glasgow and lies 50 miles to the east.

1.4.4.2 Socioeconomics

In 2005, Glasgow had a population of 3,018 and Valley County was home to 7,143. Other towns in Valley County include Frazer, Nashua, and Fort Peck, each with fewer than 500 residents. The population of the county was 88 percent Caucasian and 10.1 percent Native American. The median age of the county's population was 42.1 years. There were 3,150 households in the county (U.S. Census Bureau 2006).

Private nonfarm employment in Valley County numbered 1,910 non-farm jobs in 2003. These workers were employed by 520 business establishments and were paid approximately $26,050 on average. The largest industries in Valley County are Retail Trade establishments and the State and Local Government sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Visitors to Glasgow and Valley County can choose from lodging establishments that offer approximately 260 rooms (Travelocity 2005).

1.4.4.3 Historic Enplanements

Since 1999, passenger traffic at Glasgow International (GGW) has fluctuated somewhat (see **Table 1.22**). In 1999, 1,989 passengers began a flight at the airport. By 2001, however, that number had peaked at 2,236, before retreating to a 2005 level of 1,774. Between 1999 and 2005, enplanements experienced an average annual decline of 1.9 percent. During the first six months of 2006, enplanements at Glasgow International decreased 22 percent as compared to the first six months of 2005 (MDT 2006).

Table 1.22 HISTORIC ENPLANEMENTS GLASGOW INTERNATIONAL AIRPORT (1999-2005)	
Year	Enplanements
1999	1,989
2000	2,009
2001	2,236
2002	2,227
2003	1,972
2004	1,753
2005	1,774

Source: MDT 2006.

1.4.4.4 Travel Patterns

Due to the small sample size at Glasgow International, accurate travel patterns by top destinations and regions are not available.

1.4.4.5 Current Service

The commercial service provided at Glasgow International is currently subsidized under the US DOT's Essential Air Service (EAS) program. In September 2006, Big Sky Airlines operated one daily flight and one weekday-only flight from Glasgow to Billings, on an early-morning and midday departure schedule. The arrival schedule consisted of a direct flight from Billings in the late morning and a flight with a stop in Wolf Point in the evening. As an EAS community, two daily flights and one weekend flight are required by the US Department of Transportation.

As shown in **Table 1.23**, all of the flights to Glasgow are operated with 19-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.23
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
GLASGOW INTERNATIONAL AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departure	% of Total Departures
Turboprop	51	969	19.0	100.0%
Regional Jet	0	0	0.0	0.0%
Large Jet	0	0	0.0	0.0%
Total	**51**	**969**	**19.0**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.4.6 Historic Air Service Trends

For each of the past 10 years, Big Sky Airlines has served Glasgow International Airport (see **Table 1.24**). Historically, the airline has served the community with 19-seat aircraft and schedules have averaged 1,012 seats per month or approximately 12 departures per week. This market is currently served with a 19-seat Beechcraft 1900 airplane (*Official Airline Guide* 2006a).

Table 1.24
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
GLASGOW INTERNATIONAL AIRPORT
(Month of September, 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	798	817	969	1,406	1,368	931	950	969	969	988	969
Total	**798**	**817**	**969**	**1,406**	**1,368**	**931**	**950**	**969**	**969**	**988**	**969**

Source: *Official Airline Guide* 2006a.

1.4.4.7 Summary

Glasgow International Airport has enjoyed a small but relatively steady level of service over the last 10 years as an EAS-subsidized airport. The airport is served by one commuter airline, with a level of scheduled service that is currently slightly below its 10-year average in terms of available seats. The available air service allows direct service to the State's largest airport at Billings-Logan International, where connecting flights are available to a wide variety of major airline hubs. However, Big Sky passengers boarding at Glasgow must undergo security screening at Billings since there are no passenger screening capabilities available in Glasgow. For those passengers traveling beyond Billings, this may add an additional level of complexity to travel.

1.4.5   Traffic and Service Patterns at Dawson Community Airport (Glendive)

1.4.5.1 Location

The City of Glendive is the county seat of Dawson County, in eastern Montana. The city is located on Interstate 94 at its junction with Montana Highway 200 South and Highway 16. The nearest city with a hub airport is 225 miles west in Billings. Miles City and Sidney each have airline service comparable to Glendive, and lie 80 miles southwest and 50 miles northeast, respectively. Dickinson, North Dakota, located 100 miles from Glendive, has a slightly higher departure frequency and flights to a larger hub airport at Denver.

1.4.5.2 Socioeconomics

Glendive had a population of 4,670 and Dawson County was home to 8,688 in 2005. Other towns in the county include West Glendive and Richey. The population of the county is 98 percent Caucasian, and its median age is 41.5 years. There were 3,625 households in the county (U.S. Census Bureau 2006).

In 2003, Dawson County was home to 2,707 non-farm jobs. These workers were employed by 304 business establishments and were paid approximately $22,590 on average. The largest industries in Dawson County are the State and Local Government, Retail Trade, and Health Care sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Visitors to Glendive and Dawson County can choose from lodging establishments that offer approximately 410 rooms (Travelocity 2005).

1.4.5.3 Historic Enplanements

Since 1999, passenger traffic at Dawson Community Airport (GDV) has decreased (see **Table 1.25**). In 1999, approximately 1,140 passengers began a flight at the airport. By 2005, however, that number had fallen to 934 passengers. This represents an average annual compound decline of 3.3 percent between 1999 and 2005. During the first six months of 2006, enplanements at Dawson Community Airport increased 3.3 percent versus enplanements recorded for the first six months of 2005 (MDT 2006).

Table 1.25
HISTORIC ENPLANEMENTS
DAWSON COMMUNITY AIRPORT
(1999-2005)

Year	Enplanements
1999	1,139
2000	1,111
2001	938
2002	965
2003	970
2004	898
2005	934

Source: MDT 2006.

1.4.5.4 Travel Patterns

Due to the small sample size of passengers at Dawson Community Airport, accurate travel patterns by top destinations and regions are not available.

1.4.5.5 Current Service

In September 2006, Big Sky Airlines operated two daily departures from Glendive to Billings with a stop in Miles City, on an early-morning and early-evening schedule. Arrivals to Glendive consisted of two daily flights from Billings with a stop in Miles City, arriving mid-afternoon and in the evening. Glendive is an Essential Air Service community, and two daily flights and one weekend flight are required by the US Department of Transportation.

As shown in **Table 1.26**, all of the flights to Glendive are operated with 19-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.26
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
DAWSON COMMUNITY AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departure	% of Total Departures
Turboprop	56	1,064	19.0	100.0%
Regional Jet	0	0	0.0	0.0%
Large Jet	0	0	0.0	0.0%
Total	**56**	**1,064**	**19.0**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.5.6 Historic Air Service Trends

Big Sky Airlines has served Glendive and Dawson Community Airport for each of the past 10 years (see **Table 1.27**). Historically, the airline has served the community with 19-seat Metro aircraft, and schedules have averaged 1,135 seats per month, or approximately 14 departures per week. In September 1998, scheduled departing seats peaked at 1,444. By September 2006, monthly nonstop scheduled departing seats at Dawson Community Airport were 20 percent below the 1996 level of 1,330. Big Sky currently serves the market with one 19-seat Beechcraft 1900 airplane (*Official Airline Guide* 2006a).

Table 1.27 MONTHLY NONSTOP SCHEDULED DEPARTING SEATS DAWSON COMMUNITY AIRPORT (Month of September, 1996-2006)											
Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	1,330	1,349	1,444	1,064	1,026	1,026	1,026	1,045	1,045	1,064	1,064
Total	**1,330**	**1,349**	**1,444**	**1,064**	**1,026**	**1,026**	**1,026**	**1,045**	**1,045**	**1,064**	**1,064**

Source: *Official Airline Guide* 2006a.
Note: Includes departures resulting from stopovers.

1.4.5.7 Summary

Dawson Community Airport has enjoyed a small but relatively steady level of service over the last 10 years as an EAS-subsidized airport. The airport is served by one commuter airline, with a level of scheduled service that is currently below its 10-year average in terms of available seats. The available air service allows direct service to the State's largest airport at Billings-Logan International, where connecting flights are available to a wide variety of major airline hubs. However, Big Sky passengers boarding at Glendive must undergo security screening at Billings since there are no passenger screening capabilities available in Glendive. For those passengers traveling beyond Billings, this may add an additional level of complexity to travel.

1.4.6 Traffic and Service Patterns at Great Falls International Airport

1.4.6.1 Location

Great Falls International Airport (GTF) is located west of downtown Great Falls, along Interstate 15 on a bluff above the Sun River. It is the largest airport in north-central Montana in terms of passengers and flights; Gallatin Field in Bozeman is the nearest comparably-sized airport, located 175 miles to the south.

1.4.6.2 Socioeconomics

In 2005, the City of Great Falls had a population of 56,338 and surrounding Cascade County was home to a total of 79,569 residents. Other population centers in Cascade County include

Black Eagle, Sun Prairie, and Malmstrom Air Force Base. The population of the county was 91 percent Caucasian and 4.5 percent Native American. The median age of the county's population was 39.5 years. There were 32,547 households in the county (U.S. Census Bureau 2006).

Employment in Cascade County numbered approximately 27,796 non-farm jobs in 2003. These workers were employed by 2,498 business establishments and were paid approximately $22,877 on average. The largest industries in Cascade County are the Retail Trade, Health Care and Social Services, and Military sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

There are an estimated 2,015 hotel rooms in the various lodging establishments in the Great Falls area to serve tourists and visitors (Travelocity 2005).

1.4.6.3 Domestic Originating Passengers (O&D) and Average One-Way Fares

Since 1990, domestic originations have fluctuated somewhat at Great Falls International Airport, while average one-way fares have increased (see **Table 1.28**). In 1990, nearly 110,000 domestic O&D passengers started an airline trip at Great Falls. This originating passenger activity peaked in 2005 at over 146,300. Domestic O&D passenger traffic declined through 2003, when 118,500 O&D passengers enplaned flights at Great Falls International. Between 1999 and 2005, this traffic at Great Falls International showed a compound annual growth rate of 1.9 percent. Meanwhile, in 2005, average one-way fares offered by airlines serving the airport were nearly identical to 1995 and 1990 levels. Overall, fares at Great Falls are less than one percent higher in 2005 than in 1990. The average one-way fare at Great Falls International in 2005 was $168, right at the State average of $168 and above the national average of $144 (US DOT 2006a).

Table 1.28
DOMESTIC ORIGINATING PASSENGERS AND AVERAGE ONE-WAY FARES GREAT FALLS INTERNATIONAL AIRPORT
(1990-2005)

Year	Domestic Originations	Average One-Way Fare
1990	109,880	$168.42
1991	110,040	$163.87
1992	123,850	$155.78
1993	118,010	$170.87
1994	118,350	$172.51
1995	119,470	$168.68
1996	116,070	$181.71
1997	119,360	$175.32
1998	122,680	$182.85
1999	129,130	$183.05
2000	132,870	$188.10
2001	124,220	$178.48
2002	121,810	$181.39
2003	118,450	$182.74
2004	121,920	$179.84
2005	146,320	$168.55

Source: US DOT 2006a.

Data on enplanements at Great Falls were obtained from the MDT Aeronautics Division for comparison to originations data obtained from the US DOT. In 2004, enplanements were noted to be 133,246 compared to the domestic originations of 121,920. In 2005, enplanements at Great Falls International Airport grew to 160,878. The airport's enplanements increased 18.2 percent between 1999 and 2005, with an average compound annual growth rate of 2.8 percent. For the first six months of 2006, enplanements at Great Falls International are 9.2 percent lower compared to enplanements for the first six months of 2005 (USDOT 2006a, MDT 2006).

1.4.6.4 Domestic Travel Patterns

The service provided to residents and visitors to Great Falls who arrive by commercial airlines links the city with countless destinations around the world. Nearly 51 percent of all passenger traffic at Great Falls International comes from local residents; the access that the city's air service provides to the national air transportation system allows these residents to travel quickly and efficiently around the country. The other 49 percent of travelers were visitors to the Great Falls area. **Table 1.29** shows the most popular domestic destinations for Great Falls-area travelers and the average one-way fare those travelers paid to reach them (US DOT 2006a).

Table 1.29
TOP 20 DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS
GREAT FALLS INTERNATIONAL AIRPORT
(2005)

Rank	O&D Destination	Domestic Outbound O&D Passengers	Average One-Way Fare
1	Salt Lake City	14,570	$120.82
2	Seattle	9,380	$127.96
3	Denver	7,710	$146.85
4	Las Vegas	6,130	$139.59
5	Minneapolis	5,500	$166.48
6	Portland, OR	3,360	$159.77
7	Phoenix	3,280	$143.93
8	Atlanta	3,170	$188.06
9	Dallas	3,100	$169.59
10	Orlando	2,960	$217.83
11	Los Angeles – LAX	2,890	$158.50
12	Spokane	2,780	$116.98
13	Washington - Reagan	2,700	$232.81
14	Chicago – O'Hare	2,670	$196.03
15	San Diego	2,430	$167.91
16	Sacramento	2,220	$158.79
17	Houston – Bush	2,180	$158.42
18	Boston	1,840	$207.11
19	Los Angeles - Wayne	1,750	$152.13
20	Baltimore - Wash Intl	1,660	$232.21

Source: US DOT 2006a.

When all domestic destinations traveled to by Great Falls passengers in 2005 are combined by U.S. region, the results show that Southwest and Northwest U.S. are the predominant choices for most travelers, with nearly 43 percent of domestic O&D passengers destined for these two regions alone (see **Table 1.30** and **Figure 1.6**, US DOT 2006a).

Table 1.30
DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS BY REGION GREAT FALLS
INTERNATIONAL AIRPORT
(2005)

Region	Domestic Outbound O&D Passengers	% of Total
Mid-South	4,620	3.2%
Midwest	16,770	11.5%
North Central	11,070	7.6%
Northeast	17,230	11.8%
Northwest	19,840	13.6%
South Central	18,410	12.6%
Southeast	16,140	11.0%
Southwest	42,240	28.9%
Total	**146,320**	**100%**

Source: US DOT 2006a.
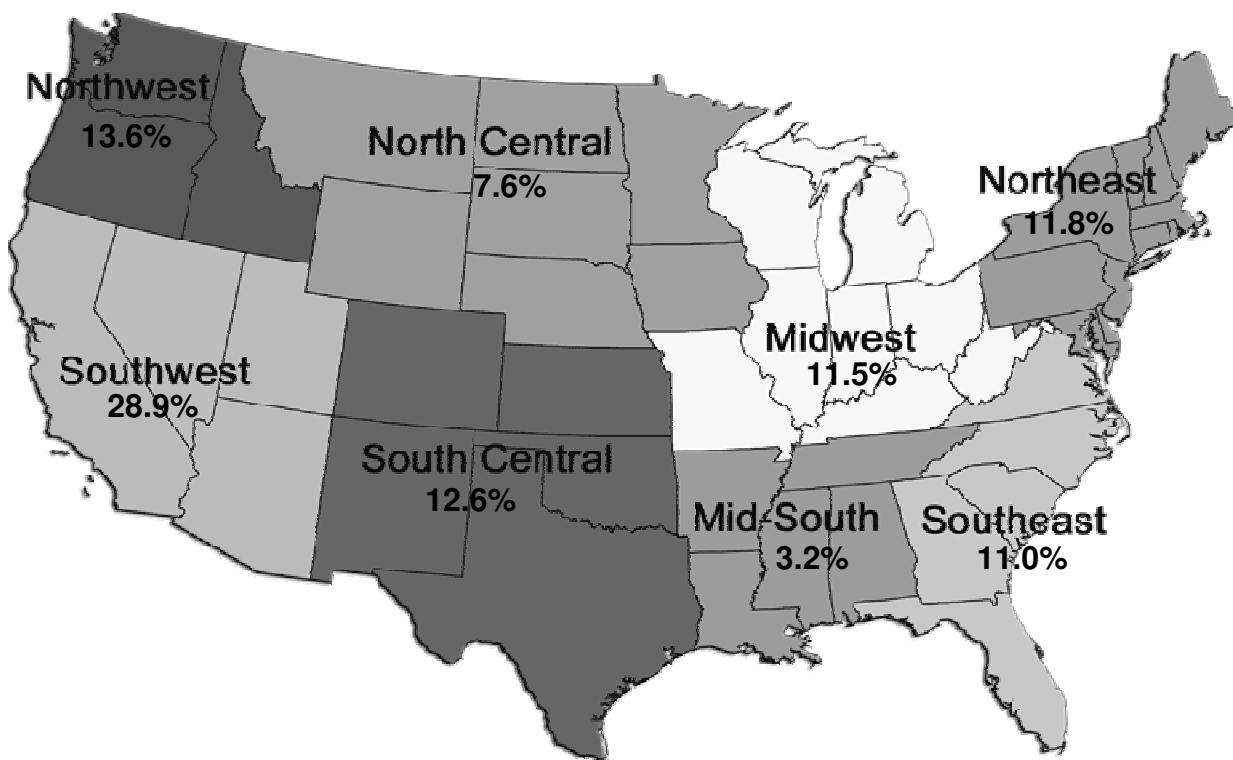
Figure 1.6
DOMESTIC OUTBOUND O&D TRAVEL DISTRIBUTION BY REGION
GREAT FALLS INTERNATIONAL AIRPORT
(2005)

Source: US DOT 2006a.

1.4.6.5 Current Service

In September 2006, three scheduled commercial service airlines served Great Falls International. One mainline carrier, Northwest, and two commuter/regional partner carriers served the airport, including Horizon (Alaska partner), and SkyWest (Delta and United partners). These four airlines operate nonstop flights to six destinations throughout the U.S. In September 2006, the airport had 393 monthly scheduled nonstop departures. This service included flights to major airline hubs at Minneapolis, Salt Lake City, Denver, and Seattle. In-state service consisted of Horizon service to Helena (with onward service to Seattle), and Northwest service to Kalispell (one-stop service between Minneapolis and Kalispell). The service currently provided at Great Falls provides local travelers with nonstop flights to four of the city's top five destinations. SkyWest introduced scheduled service between Great Falls and United's hub in Denver in May 2005.

In September 2006, a large number of flights that departed Great Falls International were offered on turboprop aircraft averaging 74 seats, a category which represented nearly 23 percent of all departures (see **Table 1.31**). Of the remaining departures, approximately 47 percent were operated on regional jets averaging 50 seats, and nearly 31 percent on large jets averaging 124 seats (*Official Airline Guide* 2006a).

Table 1.31
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
GREAT FALLS INTERNATIONAL AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	90	6,660	74.0	22.9%
Regional Jet	183	10,110	50.2	46.6%
Large Jet	120	14,880	124.0	30.5%
Total	**393**	**31,650**	**80.5**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.6.6 Historic Air Service Trends

Table 1.32 summarizes monthly scheduled seats available in September from Great Falls International over the last 10 years. In 1996, Great Falls had service primarily on mainline carriers. Over 89 percent of all seats that year were available on Delta and Northwest. Horizon also provided supplemental nonstop regional service at the airport. By 2006, the proportion of all scheduled seats departing Great Falls offered by mainline carriers had fallen to approximately 47 percent. This reflects a nationwide trend among mainline carriers toward shifting short- and medium-haul jet service to regional carriers operating regional jet aircraft (*Official Airline Guide* 2006a).

Table 1.32
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
GREAT FALLS INTERNATIONAL AIRPORT
(Month of September 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	969	988	1,900	2,470	2,432	1,862	1,900	1,957	1,938	1,976	0
Delta	12,150	12,927	13,410	12,780	11,520	12,150	10,680	10,552	10,450	11,700	6,150
Delta	*12,150*	*12,927*	*13,410*	*12,780*	*11,520*	*12,150*	*7,680*	*7,552*	*0*	*0*	*0*
SkyWest	*0*	*0*	*0*	*0*	*0*	*0*	*3,000*	*3,000*	*10,450*	*11,700*	*6,150*
Horizon	2,261	2,687	5,640	7,200	7,200	7,380	7,590	6,336	8,424	6,660	6,660
Northwest	16,060	15,848	15,118	11,908	12,000	9,000	8,700	9,024	12,000	14,976	14,880
Sun Country	0	0	0	0	0	0	360	0	0	0	0
United	0	0	0	0	0	0	0	0	0	3,000	3,960
SkyWest	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3,000*	*3,960*
Total	31,440	32,450	36,068	34,358	33,152	30,392	29,230	27,869	32,812	38,312	31,650

Source: *Official Airline Guide* 2006a.

Over the 10-year period, scheduled service at Great Falls International changed moderately. Between 1996 and 2006, the number of available seats increased slightly overall, from 31,440 to 31,650. Scheduled air service for the Great Falls market has changed significantly in the past couple of years. In September 2004, Delta operated seven daily rotations between Great Falls and Salt Lake City. SkyWest Airlines continues to operate as a published carrier to Great Falls flying for Delta Air Lines. However, in the aftermath of Delta's September 2005 bankruptcy filing, the carrier has reduced its service provided on SkyWest. Four scheduled Delta flights operated by SkyWest Airlines currently fly between Great Falls International and Salt Lake City International each day. In June 2005, United Airlines established new service between Denver International and Great Falls International on SkyWest Airlines. SkyWest flies two daily rotations between these points using Canadair CRJ-700 aircraft. In July 2006, Big Sky announced that it would discontinue service to Great Falls.

1.4.6.7 Summary

Great Falls International Airport has enjoyed a steady level of service over the last 10 years. The airport is served by a combination of mainline and regional/commuter airlines. In 2006, carriers provided nonstop service to six destinations, including three major airline hubs. Scheduled service levels and originating passenger traffic peaked in 2005. The available air service is also well-matched to the community's travel patterns, allowing nonstop service to some of its most popular destinations.

1.4.7   Traffic and Service Patterns at Havre City-County Airport

1.4.7.1 Location

The City of Havre is the county seat of Hill County, in north-central Montana. The city is located at the junction of U.S. Highways 2 and 87, as well as a number of major county roads. The nearest city with a hub airport is located 200 miles south in Billings. Great Falls International Airport is located approximately 120 miles southwest of Havre.

1.4.7.2 Socioeconomics

In 2005 Havre was home to 9,390 residents, while Hill County had a population of 16,304. A number of other small towns are located in Hill County, mostly along U.S. 2, and each of them with populations of fewer than 500. The county's population was 78 percent Caucasian and 19 percent Native American, and its median age was 36.4. There were 6,457 households in Hill County (U.S. Census Bureau 2006).

In 2003, Hill County was home to 4,632 non-farm jobs. These workers were employed by 511 business establishments and were paid, on average, approximately \$24,437. The largest industries in Hill County are the State and Local Government, Retail Trade, and Accommodation and Food Service sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Visitors to Havre and Hill County can choose from lodging establishments with approximately 410 total rooms (Travelocity 2005).

1.4.7.3 Historic Enplanements

Since 1999, passenger traffic at Havre City-County Airport (HVR) has increased overall (see **Table 1.33**). In 1999, approximately 1,380 passengers began a flight at the airport. By 2003, however, that number had fallen to less than 1,100 passengers before recovering to more than 1,500 in 2005. Between 1999 and 2005, total enplanements at Havre City-County Airport registered an average annual compound increase of 1.7 percent between 1999 and 2005. During the first six months of 2006, enplanements at Havre City-County Airport decreased 12.2 percent versus enplanements recorded for the first six months of 2005 (MDT 2006).

Table 1.33
HISTORIC ENPLANEMENTS
HAVRE CITY-COUNTY AIRPORT
(1999-2005)

Year	Enplanements
1999	1,378
2000	1,237
2001	1,140
2002	1,124
2003	1,097
2004	1,147
2005	1,526

Source: MDT 2006.

1.4.7.4 Travel Patterns

Due to the small sample size of passengers at Havre City-County Airport, accurate travel patterns by top destinations and regions are not available.

1.4.7.5 Current Service

In September 2006, Big Sky Airlines operated a schedule of two weekday departures and one daily weekend departure from Havre to Billings with a stop in Lewistown, on an early-morning and late-afternoon schedule. Arrivals to Havre consisted of two daily flights from Billings, again with a stop in Lewistown, arriving mid-afternoon and in the evening. Havre is an Essential Air Service community; two weekday flights and one weekend flight are required by the US DOT.

As shown in **Table 1.34**, all of the flights to Havre are operated with 19-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.34
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
HAVRE CITY-COUNTY AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departure	% of Total Departures
Turboprop	51	969	19.0	100.0%
Regional Jet	0	0	0.0	0.0%
Large Jet	<u>0</u>	<u>0</u>	<u>0.0</u>	<u>0.0%</u>
Total	**51**	**969**	**19.0**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.7.6 Historic Air Service Trends

Big Sky Airlines has served Havre City-County Airport for each of the past 10 years (see **Table 1.35**). Historically, the airline has served the community with 19-seat Metro aircraft and schedules have averaged 938 seats per month, or approximately 13 departures per week. Big Sky currently serves the market with one Beechcraft 1900 airplane. Service in recent years has shown stability in average monthly seats (*Official Airline Guide* 2006a).

Table 1.35 MONTHLY NONSTOP SCHEDULE DEPARTING SEATS HAVRE CITY-COUNTY AIRPORT (Month of September, 1996-2006)											
Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	798	817	969	988	969	931	950	969	969	988	969
Total	**798**	**817**	**969**	**988**	**969**	**931**	**950**	**969**	**969**	**988**	**969**

Source: *Official Airline Guide* 2006a.

1.4.7.7 Summary

Havre City-County Airport has enjoyed a small but relatively steady level of service over the last 10 years as an EAS-subsidized airport. The airport is served by one commuter airline, with a level of scheduled service that is currently slightly above its 10-year average in terms of available seats. The available air service allows direct service to the State's largest airport at Billings-Logan International, where connecting flights are available to a wide variety of major airline hubs. However, Big Sky passengers boarding at Havre must undergo security screening at Billings since there are no passenger screening capabilities available in Havre. For those passengers traveling beyond Billings, this may add an additional level of complexity to travel.

1.4.8 Traffic and Service Patterns at Helena Regional Airport

1.4.8.1 Location

Helena Regional Airport (HLN) is northeast of the capital's business district, along Airport Road and Skyway Drive, just east of Interstate 15. It is the sixth-largest airport in Montana in terms of passengers and flights; Great Falls International is the nearest larger airport, located 85 miles northeast. Bert Mooney Airport in Butte is located 70 miles southwest of Helena, and Gallatin Field in Bozeman is located 95 miles southeast.

1.4.8.2 Socioeconomics

In 2005, the City of Helena had an estimated population of 27,383 and surrounding Lewis and Clark County was home to a total of 58,449 residents. Other population centers in Lewis and Clark County include Augusta and Lincoln. The population of the county was 95 percent

Caucasian and two percent Native American. The median age of the county's population was 41.0 years. There were 22,850 households in the county (U.S. Census Bureau 2006).

Employment in Lewis and Clark County numbered approximately 21,202 non-farm jobs in 2003.   These workers were employed by 2,024 business establishments and were paid approximately $27,453 on average. The largest industries in Lewis and Clark County are the State and Local Government, Retail Trade, and Health Care and Social Services sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

There are an estimated 1,400 hotel rooms in the various lodging establishments in the Helena area to serve tourists and visitors (Travelocity 2005).

1.4.8.3 Domestic Originating Passengers (O&D) and Average One-Way Fares

Since 1990, domestic originations have increased relatively steadily at Helena Regional Airport; while average one-way fares have remained stable (see **Table 1.36**). In 1990, more than 50,700 domestic O&D passengers began an airline trip at Helena. This originating passenger activity peaked in 2005 at over 87,200. Between 1990 and 2005, domestic traffic at Helena Regional showed a compound average annual growth rate of 3.7 percent. Meanwhile, average one-way fares offered by airlines serving the airport fluctuated during the study period. Overall, fares at Helena were approximately seven percent lower in 2005 than in 1990. The average one-way fare at Helena Regional in 2005 was $178.38, considerably higher than the State average of $168 and the national average of $144 (US DOT 2006a).

Table 1.36
DOMESTIC ORIGINATING PASSENGERS AND AVERAGE ONE-WAY FARES
HELENA REGIONAL AIRPORT
(1990-2005)

Year	Domestic Originations	Avg. One-Way Fare
1990	50,730	$192.50
1991	51,050	$184.99
1992	55,960	$178.87
1993	55,000	$196.86
1994	56,880	$193.90
1995	59,580	$183.89
1996	63,080	$192.16
1997	67,840	$180.18
1998	72,610	$187.50
1999	74,820	$191.26
2000	71,370	$197.81
2001	74,100	$182.63
2002	71,260	$182.71
2003	72,030	$185.51
2004	78,380	$196.91
2005	87,240	$178.38

Source: US DOT 2006a.

Data on enplanements at Helena were obtained from the MDT Aeronautics Division for comparison to originations data obtained from the US DOT. In 2004, enplanements were noted to be 84,303 compared to the domestic originations of 78,380. In 2005, enplanements at Helena Regional Airport grew to 93,218. The airport's enplanements grew 16.7 percent between 1999 and 2005, with an average annual compound growth rate of 2.6 percent For the first six months of 2006, enplanements at Helena Regional Airport were 6.3 percent lower versus enplanements for the first six months of 2005 (MDT 2006, US DOT 2006a).

1.4.8.4 Domestic Travel Patterns

The service provided to residents of and visitors to Helena who arrive by commercial airline links the city with countless destinations around the world. Approximately 54.3 percent of Helena's air passenger traffic is generated by local residents; the national air transportation system allows Helena's residents to travel quickly and efficiently around the country. **Table 1.37** shows the most popular destinations for Helena-area travelers and the average one-way fare those travelers paid to reach them (US DOT 2006a).

Table 1.37
TOP 20 DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS
HELENA REGIONAL AIRPORT
(2005)

Rank	O&D Destination	Domestic Outbound O&D Passengers	Average One-Way Fare
1	Salt Lake City	11,150	$122.37
2	Seattle	6,380	$141.98
3	Denver	3,100	$208.17
4	Portland, OR	3,030	$161.37
5	Las Vegas	2,940	$148.11
6	Billings	2,550	$90.10
7	Minneapolis	2,400	$188.31
8	Los Angeles - LAX	2,160	$172.38
9	Dallas	2,130	$223.82
10	Phoenix	2,100	$172.62
11	San Diego	1,970	$152.73
12	Washington - Reagan	1,940	$255.08
13	Chicago	1,720	$210.11
14	Atlanta	1,640	$189.18
15	Sacramento	1,560	$172.83
16	Orlando	1,460	$159.56
17	San Francisco	1,410	$160.78
18	Los Angeles - Wayne	1,410	$155.43
19	Washington – Dulles	1,110	$233.99
20	Boston	1,080	$222.60

Source: US DOT 2006a.

When all domestic destinations traveled to by Helena passengers in 2005 are combined by U.S. region, the results show that Southwest and Northwest U.S. are the predominant choices for most travelers, with more than 49 percent of domestic O&D passengers destined for these two regions alone (see **Table 1.38** and **Figure 1.7**, US DOT 2006a).

Table 1.38
DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS BY REGION
HELENA REGIONAL AIRPORT
(2005)

Region	Domestic Outbound O&D Passengers	% of Total
Mid-South	2,200	2.5%
Midwest	7,630	8.7%
North Central	7,360	8.4%
Northeast	10,280	11.8%
Northwest	13,130	15.1%
South Central	8,470	9.7%
Southeast	7,980	9.1%
Southwest	30,190	34.6%
Total	**87,240**	**100%**

Source: US DOT 2006a.
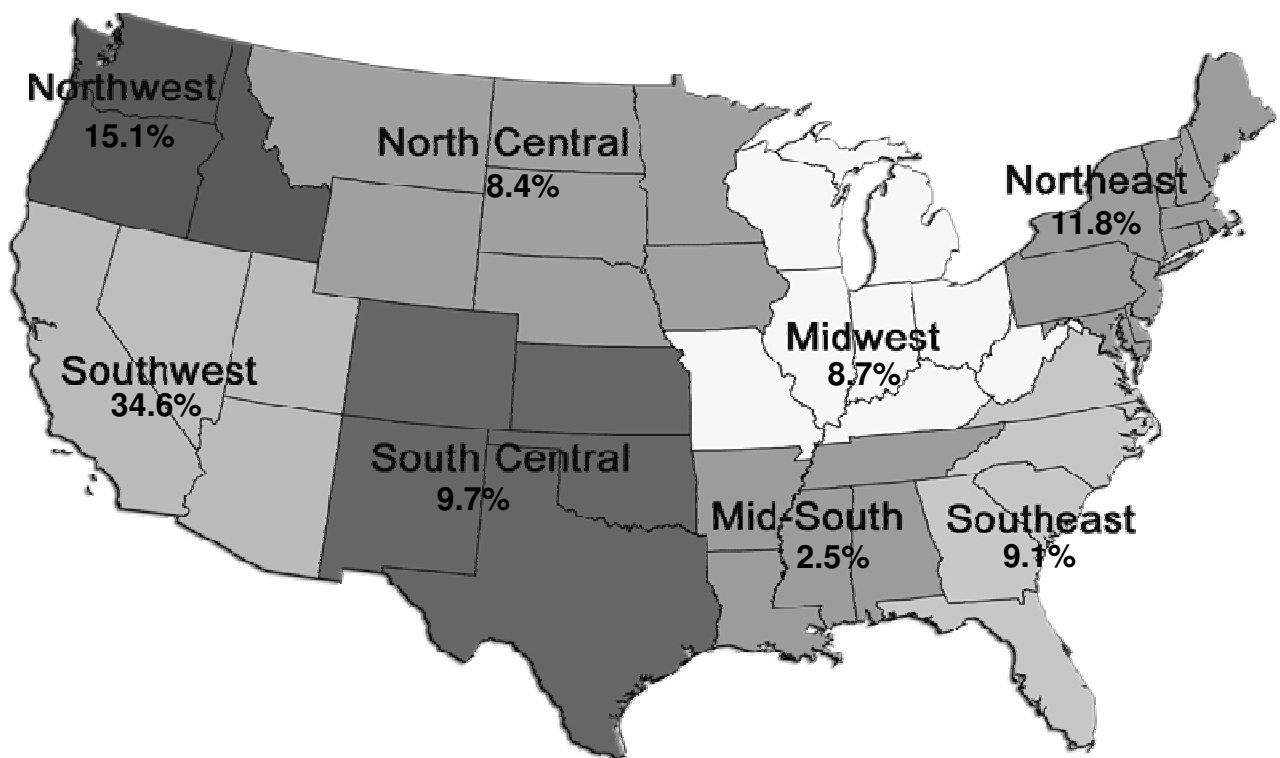
Figure 1.7
DOMESTIC OUTBOUND O&D TRAVEL DISTRIBUTION BY REGION
HELENA REGIONAL AIRPORT
(2005)

Source: US DOT 2006a.

1.4.8.5 Current Service

In September 2006, Helena Regional was served by four scheduled commercial service airlines. All service is provided on commuter/regional partner carriers, including Big Sky, SkyWest (Delta), Horizon (Alaska partner), and Pinnacle (Northwest Airlink). These four airlines operate nonstop flights to six destinations in the U.S. In September 2006, the airport had 76 weekly scheduled nonstop departures. This service included flights to major airline hubs at Minneapolis, Salt Lake City, and Seattle. In-state service consisted of Big Sky Airlines flights to Billings and Missoula (with onward service to Kalispell) and Horizon flights to Great Falls (with onward service to Seattle). The service currently provided at Helena Regional provides local travelers with nonstop flights to the city's top three destinations as well as connection opportunities at three major airline hubs.

In September 2006, half of the flights that departed Helena Regional were offered on regional jet aircraft averaging 49 seats (see **Table 1.39**). Of the remaining departures, the other 50 percent were operated on turboprop aircraft averaging 41 seats. During September 2006, there were no scheduled large jets operating at Helena Regional Airport (*Official Airline Guide* 2006a).

Table 1.39 MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS HELENA REGIONAL AIRPORT (September 2006)				
Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	151	6,169	40.9	50.0%
Regional Jet	151	7,370	48.8	50.0%
Large Jet	0	0	0.0	0.0%
Total	**302**	**13,539**	**44.8**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.8.6 Historic Air Service Trends

Table 1.40 summarizes monthly scheduled departing seats available in September from Helena Regional over the last 10 years. In 1996, Helena Regional had service by one mainline carrier (Delta) and one regional carrier (Horizon). Nearly 70 percent of all seats that year were available on Delta alone. By 2006, there were no scheduled seats departing Helena offered by mainline carriers. This reflects a nationwide trend among mainline carriers toward shifting short-and medium-haul jet service to regional carriers, operating regional jet aircraft (*Official Airline Guide* 2006a).

Table 1.40
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
HELENA REGIONAL AIRPORT
(Month of September 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	0	0	2,964	2,964	2,907	2,812	2,869	2,774	2,128	2,128	1,729
Delta	11,669	13,410	13,410	11,520	11,520	11,520	8,540	8,966	10,450	10,100	6,050
Delta	*11,669*	*13,410*	*13,410*	*11,520*	*11,520*	*11,520*	*7,040*	*4,466*	*0*	*0*	*0*
Comair	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,500*	*5,950*	*0*	*0*
SkyWest	*0*	*0*	*0*	*0*	*0*	*0*	*1,500*	*3,000*	*4,500*	*10,100*	*6,050*
Alaska	5,279	6,691	4,440	5,400	5,400	5,490	5,610	4,356	6,264	4,440	4,440
Horizon	*5,279*	*6,691*	*4,440*	*5,400*	*5,400*	*5,490*	*5,610*	*4,356*	*6,264*	*4,440*	*4,440*
Northwest	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3,000**	**1,376**	**1,320**	**1,320**
Northwest	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3,000*	*100*	*0*	*0*
Pinnacle	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,276*	*1,320*	*1,320*
Total	**16,948**	**20,101**	**20,814**	**19,884**	**19,827**	**19,822**	**17,019**	**19,096**	**20,218**	**17,988**	**13,539**

Source: *Official Airline Guide* 2006a.

Over the 10-year period, scheduled service at Helena Regional changed significantly. By 1998, Big Sky had entered the market, adding nearly 3,000 monthly departing seats. Horizon pulled some service, but focused on serving Alaska's hub in Seattle, providing area travelers with additional connecting options. After September 11, 2001, the mainline carriers serving Helena Regional began shifting passenger traffic to their regional partners; Delta added flights on both Comair and SkyWest, while Northwest began service with its Pinnacle subsidiary. In 2004, Comair, SkyWest, and Horizon each increased the number of departing seats they offered. These changes in 2004 marked an increase in available departing seats of approximately six percent over the previous year. However, between 2004 and 2006, scheduled air service at Helena declined dramatically. There were one-third fewer scheduled seats and flights than two years earlier. SkyWest reduced its number of departing seats by 40 percent between 2005 and 2006 and available seats on Alaska Air (Horizon) declined nearly 30 percent. Overall, between 1996 and 2006, the number of available seats offered at Helena Regional decreased 20 percent from 16,948 to 13,539.

1.4.8.7 Summary

Helena Regional Airport enjoyed a growing level of service through 2004. The level of scheduled service peaked in 2004, with six carriers providing nonstop service to six destinations, including three major airline hubs and the largest city in Montana, Billings. Originating passenger traffic peaked in 2005. The level of passenger service at Helena has declined in recent years due to the airline restructuring. In 2006, the airport was served exclusively by regional and commuter airlines. The available air service is well-matched to the community's travel patterns, allowing nonstop service to each of its three most popular destinations.

1.4.9 Traffic and Service Patterns at Glacier Park International Airport (Kalispell)

1.4.9.1 Location

Glacier Park International Airport (FCA) is northeast of the City of Kalispell, along U.S. Highway 2. It is the fourth-largest airport in Montana in terms of passengers and fifth in flights; Missoula International is the nearest larger airport, located 120 miles to the south.

1.4.9.2 Socioeconomics

In 2005, the City of Kalispell had a population of 18,480 and surrounding Flathead County was home to a total of 83,172 residents. Other population centers in Flathead County include Columbia Falls, Evergreen, and Whitefish, which combine for an additional 19,000 residents. The population of the county was 96 percent Caucasian and one percent Native American. The median age of the county's population was 40.8 years and there were 29,588 households in the county (U.S. Census Bureau 2006).

Employment in Flathead County numbered approximately 29,906 private non-farm jobs in 2003. These workers were employed by 3,594 business establishments and were paid approximately $25,583 on average. The largest industries in Flathead County are the Retail Trade, Construction, and Health Care and Social Services sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Tourism is also an essential part of Kalispell's economy, since the town serves as the western gateway to Glacier National Park, Flathead Lake, and other area attractions in northwestern Montana. Many hotels and restaurants catering to these visitors are located in the town. There are an estimated 4,500 rooms in the various lodging establishments in the Kalispell and Whitefish area to serve tourists and visitors (Travelocity 2005).

1.4.9.3 Domestic Originating Passengers (O&D) and Average One-Way Fares

Since 1990, domestic originations have increased dramatically at Glacier Park International Airport; while average one-way fares have fallen (see **Table 1.41**). In 1990, nearly 68,000 domestic O&D passengers began an airline trip at Kalispell. This originating passenger activity was at its highest level in 2005 at 182,830. Domestic O&D passenger traffic declined very slightly in 2001 after the 9/11 attacks and economic downturn. Between 1999 and 2005, traffic at Glacier Park International registered compound annual growth rates of 4.5 percent. Meanwhile, the average one-way fare offered by airlines serving the airport in 2005 was the same average fare offered 15 years earlier. The average one-way fare at Glacier Park International in 2005 was $174.10, above the State average of $168 and significantly higher than the national average of $144 (US DOT 2006a).

Table 1.41
DOMESTIC ORIGINATING PASSENGERS AND AVERAGE ONE-WAY FARES
GLACIER PARK INTERNATIONAL AIRPORT
(1990-2005)

Year	Domestic Originations	Average One-Way Fare
1990	67,930	$174.15
1991	74,230	$168.09
1992	82,270	$164.44
1993	85,540	$178.64
1994	96,810	$180.52
1995	109,940	$161.78
1996	115,580	$167.66
1997	125,010	$162.91
1998	129,130	$168.93
1999	140,030	$170.77
2000	148,780	$176.69
2001	147,310	$169.92
2002	153,470	$161.84
2003	161,390	$166.57
2004	168,830	$166.04
2005	182,830	$174.10

Source: US DOT 2006a.

Data on enplanements at Kalispell were obtained from the MDT Aeronautics Division for comparison to domestic originations data obtained from the US DOT. In 2005, enplanements were noted to be 178,334 compared to the domestic originations of 182,830. In 2005, enplanements at Glacier Park International Airport reached 190,964. The airport's enplanements grew 30.1 percent between 1999 and 2005, with an average annual compound rate of 4.5 percent. During the first six months of 2006, enplanements at Kalispell were nearly 13.6 percent lower versus enplanements for the first six months of 2005 (MDT 2006, US DOT 2006a).

1.4.9.4 Domestic Travel Patterns

The service provided to residents of and visitors to Kalispell who arrive by commercial airlines links the region with countless destinations around the U.S. and the world. Approximately 37 percent of Kalispell's domestic passenger traffic is generated by local residents. Nearly 63 percent of the local O&D traffic is visitors to the area, demonstrating that the airport supports a large number of tourists to the attractions in northwestern Montana, including Glacier National Park and Flathead Lake. Glacier Park International Airport provides access to the national air transportation system and allows Glacier-area travelers to travel quickly and efficiently around the country. **Table 1.42** shows the most popular domestic markets for these travelers and the average one-way fare those travelers paid to reach them in 2005 (US DOT 2006a).

Table 1.42
TOP 20 DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS
GLACIER PARK INTERNATIONAL AIRPORT
(2005)

Rank	O&D Destination	Domestic Outbound O&D Passengers	Average One-Way Fare
1	Salt Lake City	16,320	$115.77
2	Seattle	11,390	$135.62
3	Phoenix	7,100	$166.96
4	Minneapolis	5,970	$177.78
5	Atlanta	5,740	$170.32
6	Los Angeles – LAX	5,530	$180.01
7	San Diego	4,690	$159.77
8	Dallas	4,440	$188.01
9	Las Vegas	4,400	$151.92
10	Denver	4,360	$190.36
11	Chicago	4,170	$203.82
12	Los Angeles – Wayne	4,000	$163.86
13	Orlando	3,390	$168.66
14	Portland, OR	3,370	$160.29
15	Sacramento	3,280	$155.70
16	San Francisco	3,100	$169.27
17	San Jose	2,950	$161.46
18	Newark	2,930	$180.14
19	Houston - Bush	2,800	$175.08
20	Boston	2,520	$197.49

Source: US DOT 2006a.

When all domestic destinations traveled to by Kalispell passengers in 2005 are combined by U.S. region, the results show that the Southwest is the predominant choice for most travelers, with one out of every three domestic O&D passengers destined for this region alone (see **Table 1.43** and **Figure 1.8**). Between 10 and 12 percent of the domestic O&D passengers at Kalispell were destined for each of the following regions: Northeast, Northwest, Southeast, and Midwest (US DOT 2006a).

Table 1.43
DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS BY REGION
GLACIER PARK INTERNATIONAL AIRPORT
(2005)

Region	Domestic Outbound O&D Passengers	% of Total
Mid-South	5,920	3.2%
Midwest	19,780	10.8%
North Central	12,090	6.6%
Northeast	22,570	12.3%
Northwest	21,110	11.5%
South Central	16,510	9.0%
Southeast	22,570	12.3%
Southwest	62,280	34.1%
Total	**182,830**	**100%**

Source: US DOT 2006a.
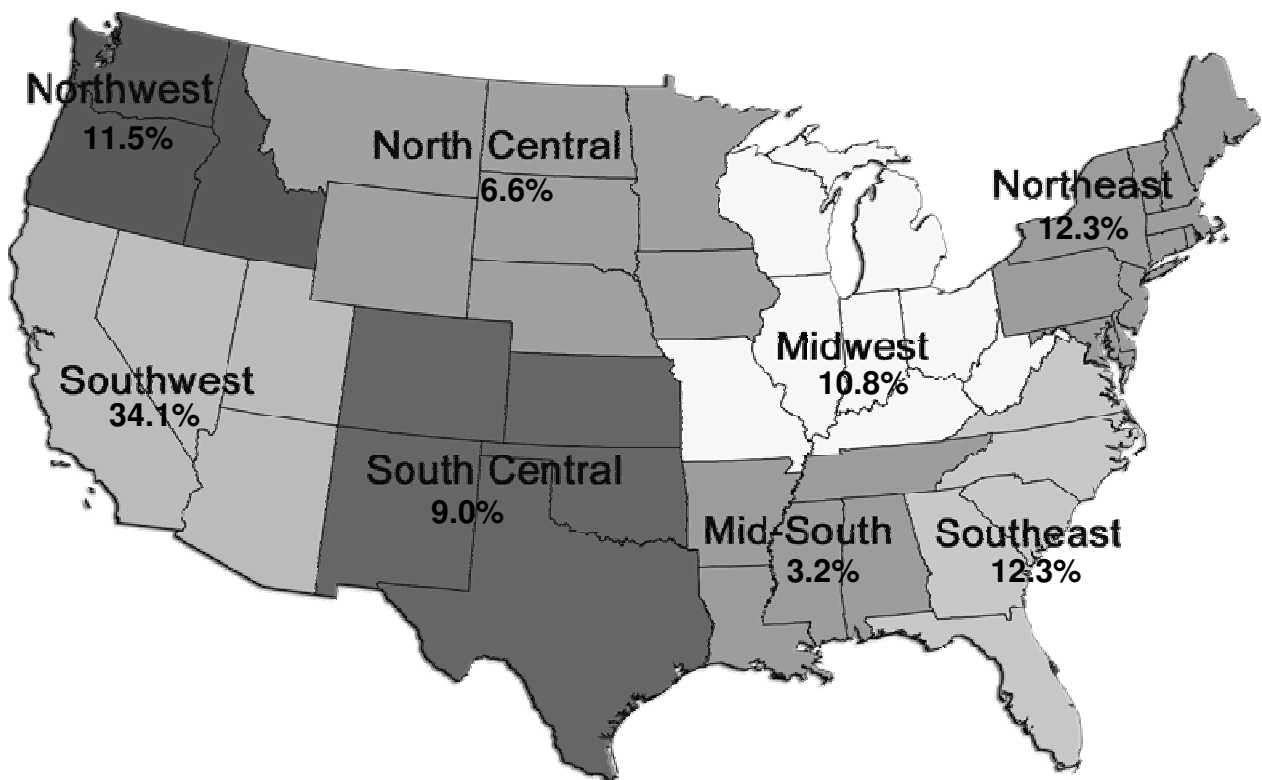
Figure 1.8
DOMESTIC OUTBOUND O&D TRAVEL DISTRIBUTION BY REGION
GLACIER PARK INTERNATIONAL AIRPORT
(2005

Source: US DOT 2006a.

1.4.9.5 Current Service

In September 2006, Glacier Park International was served by five scheduled commercial service airlines. Two mainline carriers (Northwest and US Airways) and three commuter/regional partner carriers served the airport, including Horizon (Alaska partner), SkyWest, and Atlantic Southeast (Delta). These five airlines operated flights to five nonstop destinations throughout the U.S. In September 2006, the airport had 82 weekly scheduled nonstop departures. This service included nonstop flights to major airline hubs at Phoenix, Salt Lake City, and Seattle. In-State service consisted of Northwest flights to Great Falls (with onward service to Minneapolis) and Horizon flights to Missoula (with a connection to Seattle). The nonstop service currently provided at Glacier Park International provides local travelers with flights to the city's top four destinations and excellent connection opportunities at three major airline hubs.

In September 2006, more than half of all scheduled flights departing Glacier Park International were offered on regional jet aircraft averaging 60 seats (see **Table 1.44**). Of the remaining departures, 30 percent were operated on turboprop aircraft averaging 74 seats, and nearly 20 percent on large jets averaging 125 seats (*Official Airline Guide* 2006a).

Table 1.44
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
GLACIER PARK INTERNATIONAL AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	97	7,178	74.0	29.6%
Regional Jet	166	10,000	60.2	50.6%
Large Jet	65	8,110	124.8	19.8%
Total	**328**	**25,288**	**77.1**	**100.0%**

Source: *Official Airline Guide* 2006a

1.4.9.6 Historic Air Service Trends

Table 1.45 summarizes monthly scheduled departing seats available in September from Glacier Park International over the last 10 years. In 1996, Kalispell's airport had service on two mainline and one regional carriers. Over 55 percent of all seats that year were available on Delta alone. Horizon also provided nonstop regional service at the airport. By 2006, the proportion of all scheduled seats departing Kalispell offered by mainline carriers had fallen to approximately 29 percent. This reflects a nationwide trend among mainline carriers, shifting short-and medium-haul jet service to regional carriers operating regional jet aircraft (*Official Airline Guide* 2006a).

Table 1.45
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
GLACIER PARK INTERNATIONAL AIRPORT
(Month of September 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	0	0	988	2,622	2,603	1,406	2,565	2,527	1,634	1,140	0
Delta	12,780	13,410	13,410	12,780	12,780	12,780	12,926	13,080	11,950	11,750	10,000
Atlantic Southeast	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*2,800*
Delta	*12,780*	*13,410*	*13,410*	*12,780*	*12,780*	*12,780*	*12,926*	*13,080*	*0*	*0*	*0*
SkyWest	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*11,950*	*11,750*	*7,200*
Horizon	6,962	7,602	7,583	6,753	5,880	6,072	5,610	6,138	7,056	7,178	7,178
Northwest	3,292	738	1,682	5,800	6,000	6,000	5,996	6,096	6,048	7,488	7,440
Northwest	*3,292*	*738*	*1,600*	*5,800*	*6,000*	*6,000*	*5,996*	*6,096*	*6,048*	*7,488*	*7,440*
Mesaba	*0*	*0*	*82*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
US Airways	0	0	0	0	0	0	0	0	1,500	1,944	670
US Airways	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*744*	*670*
Mesa	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,500*	*1,200*	*0*
Total	**23,034**	**21,750**	**23,507**	**27,541**	**26,852**	**26,036**	**26,692**	**27,442**	**28,188**	**29,500**	**25,288**

Source: *Official Airline Guide* 2006a.

Over the 10-year period, scheduled service at Kalispell changed significantly. In 1997, Horizon transitioned all nonstop service to Alaska's hub in Seattle. By 1998, Big Sky and Northwest had both entered the market, partially offsetting decreases in departing seats by Delta and Horizon. In 2004, Delta withdrew its mainline service at Glacier Park International and replaced it with regional service onboard its SkyWest partner. The same year, Mesa added a daily departure to its Phoenix hub, bringing the airport's carrier count to five. The result of these changes added destinations and available seats. Seats and flights offered at Kalispell peaked in 2005. In 2006, Big Sky discontinued service at the airport and US Airways (formerly America West) and Delta partner, Sky West, cut back flights. Between September 1996 and 2006, the number of monthly available seats increased from 23,034 to 25,288. While airlines serving Kalispell had largely switched to smaller regional aircraft, they increased the frequency with which these were employed, leaving travelers with airline service that was comparable to previous years.

1.4.9.7 Summary

Glacier Park International Airport has enjoyed a growing level of service and passengers over the last 10 years. In 2006, the airport was served by a mix of mainline and regional/commuter airlines. The level of scheduled service reached a 10-year peak in 2005 with four carriers providing nonstop service to six destinations, including three major airline hubs. Domestic originating passenger traffic peaked in 2005 as well, and trends point to likely continued growth. The available air service is also well-matched to the community's travel patterns, allowing nonstop service to three major airline hubs in two of its most popular destination regions.

1.4.10 Traffic and Service Patterns at Lewistown Municipal Airport

1.4.10.1 Location

The City of Lewistown is the county seat of Fergus County, in central Montana. The city is located at the junction of U.S. Highways 87 and 191. The nearest city with a hub airport is 125 miles south in Billings. Great Falls International Airport is located approximately 110 miles west of Lewistown.

1.4.10.2 Socioeconomics

Lewistown was home to 6,009 residents, while Fergus County had a population of 11,551 in 2005. A number of other small towns are located in Fergus County, including Lewistown Heights and Denton, each with populations of fewer than 500. The county's population was 97 percent Caucasian and its median age was 42.4. There were 4,860 households in Fergus County (U.S. Census Bureau 2006).

In 2003, Fergus County was home to 3,068 private non-farm jobs. These workers were employed by 433 business establishments and were paid, on average, approximately $23,057. The largest industries in Fergus County are the State and Local Government, Retail Trade, and Accommodation and Food Service sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Visitors to Lewistown and Fergus County can choose from lodging establishments with approximately 350 total rooms (Travelocity 2005).

1.4.10.3 Historic Enplanements

Since 1999, passenger traffic at Lewistown Municipal Airport (LWT) has decreased (see **Table 1.46**). In 1999, approximately 1,050 passengers began a flight at the airport. By 2001, however, that number had fallen to a level of 735 passengers. Annual passenger traffic has changed little since 2001. The overall decrease in enplanements between 1999 and 2005 accounts for an annual compound decline of 5.5 percent. During the first six months of 2006, enplanements at Lewistown Municipal Airport decreased 25.4 percent versus enplanements recorded for the first six months of 2005 (MDT 2006).

Table 1.46
HISTORIC ENPLANEMENTS
LEWISTOWN MUNICIPAL AIRPORT
(1999-2005)

Year	Enplanements
1999	1,052
2000	1,016
2001	735
2002	862
2003	744
2004	758
2005	748

Source: MDT 2006.

1.4.10.4 Travel Patterns

Due to the small sample size of passengers at Lewistown Municipal Airport, accurate travel patterns by top destinations and regions are not available.

1.4.10.5 Current Service

In September 2006, Big Sky Airlines operated a schedule of two weekday departures and one daily weekend departure on 19-passenger Beechcraft 1900 aircraft from Lewistown to Billings on an early-morning and late-afternoon schedule. Arrivals to Lewistown consisted of two daily flights from Billings arriving mid-afternoon and in the evening, and two daily flights from Havre arriving early morning and late afternoon. Lewistown is an Essential Air Service community; a minimum of two weekday flights and one weekend flight are required by the US DOT.

As shown in **Table 1.47**, all of the flights to Lewistown are operated with 19-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.47
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
LEWISTOWN MUNICIPAL AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	102	1,938	19.0	100.0%
Regional Jet	0	0	0.0	0
Large Jet	0	0	0.0	0
Total	**102**	**1,938**	**19.0**	**100.0%**

Source: *Official Airline Guide* 2006a.
Note: Includes departure and seat data resulting from stopover flights.

1.4.10.6   Historic Air Service Trends

Big Sky Airlines has served Lewistown Municipal Airport for each of the past 10 years (see **Table 1.48**). Historically, the airline served the community with 19-seat aircraft, and schedules averaged 1,878 seats per month or approximately 25 departures per week. These nonstop departing seats include the flights that are through Lewistown enroute to Havre. Only half of these flights and seats are nonstop to Billings. Big Sky currently serves the market with one Beechcraft 1900 airplane. Service in recent years has shown stability in monthly seats (*Official Airline Guide* 2006a).

Table 1.48 MONTHLY NONSTOP SCHEDULED DEPARTING SEATS LEWISTOWN MUNICIPAL AIRPORT (Month of September, 1996-2006)											
Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	1,615	1,634	1,938	1,976	1,938	1,862	1,900	1,938	1,938	1,976	1,938
Total	**1,615**	**1,634**	**1,938**	**1,976**	**1,938**	**1,862**	**1,900**	**1,938**	**1,938**	**1,976**	**1,938**

Source: *Official Airline Guide* 2006a.

1.4.10.7   Summary

Lewistown Municipal Airport has enjoyed a small but relatively steady level of service over the last 10 years as an EAS-subsidized airport, even though passenger levels have declined. The airport is served by one commuter airline, with a level of scheduled service that is currently above its 10-year average in terms of available seats. The available air service allows direct service to the State's largest airport at Billings-Logan International, where connecting flights are available to a wide variety of major airline hubs. However, Big Sky passengers boarding at Lewistown must undergo security screening at Billings since there are no passenger screening capabilities available in Lewistown. For those passengers traveling beyond Billings, this may add an additional level of complexity to travel.

1.4.11   Traffic and Service Patterns at Frank Wiley Field (Miles City)

1.4.11.1   Location

Miles City is the county seat of Custer County, in eastern Montana. The city is located along Interstate 94 at its junction with U.S. Highway 12 and Montana Highway 59. The nearest city with a hub airport is 145 miles southwest in Billings. Glendive, with airline service similar to Miles City, is approximately 80 miles northeast.

1.4.11.2   Socioeconomics

In 2005, Miles City was home to 8,162 residents, while Custer County had a population of 11,267. The city is relatively isolated, with only a few other small towns located in Custer

County, each with populations of fewer than 200. The county's population was 97 percent Caucasian and its median age was 39.3. There were 4,768 households in Custer County; its average household size is 2.36 persons (U.S. Census Bureau 2006).

In 2003, Custer County was home to 3,742 private non-farm jobs. These workers were employed by 408 business establishments and were paid, on average, approximately $22,837. The largest industries in Custer County are the Health Care and Social Services, State and Local Government, and Retail Trade sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Visitors to Miles City and Custer County can choose from lodging establishments with approximately 580 total rooms (Travelocity 2005).

1.4.11.3   Historic Enplanements

Since 1999, passenger traffic at Frank Wiley Field (MLS) has decreased (see **Table 1.49**). In 1999, approximately 1,480 passengers began a flight at the airport. By 2001, however, that number had fallen to a level of 956 passengers. Passenger traffic has recovered since 2001, but between 1999 and 2005, enplanements decreased at an average annual compound rate of 3.8 percent. During the first six months of 2006, enplanements at Frank Wiley Field decreased 22.9 percent versus enplanements recorded for the first six months of 2005 (MDT 2006).

Table 1.49 HISTORIC ENPLANEMENTS FRANK WILEY FIELD (1999-2005)	
Year	Enplanements
1999	1,478
2000	1,404
2001	956
2002	1,219
2003	1,076
2004	1,085
2005	1,175

Source: MDT 2006.

1.4.11.4   Travel Patterns

Due to the small sample size of passengers at Frank Wiley Field, accurate travel patterns by top destinations and regions are not available.

1.4.11.5   Current Service

In September 2006, Big Sky Airlines operated a schedule of two weekday departures and one daily weekend departure on 19-passenger Beechcraft airplane from Miles City to Billings on an early morning and late afternoon schedule. Arrivals to Miles City consisted of two daily flights from Billings arriving mid-afternoon and in the evening, and two daily flights from Glendive arriving early morning and late afternoon. These flights fly through Miles City enroute to Billings. Miles City is an Essential Air Service community; a minimum of two weekday and one weekend flight are required by the US DOT.

As shown in **Table 1.50**, all of the flights to Miles City are operated with 19-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.50
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
FRANK WILEY FIELD
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	102	1,938	19.0	100.0%
Regional Jet	0	0	0.0	0.0%
Large Jet	0	0	0.0	0.0%
Total	**102**	**1,938**	**19.0**	**100.0%**

Source: *Official Airline Guide* 2006a.
Note: Includes departure and seat data resulting from stopover flights.

1.4.11.6   Historic Air Service Trends

Big Sky Airlines has served Frank Wiley Field for each of the past 10 years (see **Table 1.51**). Over the past decade, the airline has served the community with 19-seat aircraft, and schedules have averaged 1,867 seats per month, or approximately 25 departures per week. Big Sky Airlines currently serves Frank Wiley Field with 19-seat Beech 1900 aircraft. Service in recent years has shown stability in average monthly seats (*Official Airline Guide* 2006a).

Table 1.51
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
FRANK WILEY FIELD
(Month of September, 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	1,653	1,672	1,938	1,976	1,843	1,767	1,900	1,938	1,938	1,976	1,938
Total	**1,653**	**1,672**	**1,938**	**1,976**	**1,843**	**1,767**	**1,900**	**1,938**	**1,938**	**1,976**	**1,938**

Source: *Official Airline Guide* 2006a.

1.4.11.7   Summary

Frank Wiley Field in Miles City has enjoyed a small but relatively steady level of service over the last 10 years as an EAS-subsidized airport. The airport is served by one commuter airline, with a level of scheduled service that is currently above its 10-year average in terms of available seats. The available air service allows direct service to the State's largest airport at Billings-Logan International, where connecting flights are available to a wide variety of major airline hubs. However, Big Sky passengers boarding at Miles City must undergo security screening at Billings since there are no passenger screening capabilities available in Miles City. For those passengers traveling beyond Billings, this may add an additional level of complexity to travel.

1.4.12   Traffic and Service Patterns at Missoula International Airport

1.4.12.1   Location

Missoula International Airport (MSO) is northwest of the City of Missoula, along Old Highway 93 near Interstate 90. It is the third-largest airport in Montana in terms of passengers and second in flights; Spokane International is the nearest larger airport, located 200 miles west.

1.4.12.2   Socioeconomics

The City of Missoula had a population of 62,923 in 2005; surrounding Missoula County was home to a total of 100,086 residents. Other population centers in Missoula County include Lolo, Orchard Homes, and Seeley Lake. The population of the county was 94 percent Caucasian and 2 percent Native American. The median age of the county's population was 33.2 years. There were 38,439 households in the county (U.S. Census Bureau 2006).

Employment in Missoula County numbered approximately 43,458 private non-farm jobs in 2003. These workers were employed by 3,930 business establishments and were paid approximately $26,823 on average. The largest industries in Missoula County are the Retail Trade, Health Care and Social Services, and the State and Local Government sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

There are an estimated 2,700 hotel rooms in the various lodging establishments in the Missoula area to serve tourists and visitors (Travelocity 2005).

1.4.12.3   Domestic Originating Passengers (O&D) and Average One-Way Fares

Since 1990, domestic originations have increased significantly at Missoula International Airport; while average one-way fares have remained relatively stable (see **Table 1.52**). In 1990, nearly 135,000 domestic passengers began an airline trip at Missoula. This domestic originating passenger activity peaked in 2005 at nearly 254,000. Domestic O&D passenger traffic declined slightly in 2002 after the 9/11 attacks and economic downturn. Between 1999 and 2005, domestic traffic at Missoula International Airport showed a compound annual growth rate

increase of 0.5 percent. Meanwhile, average one-way fares offered by airlines serving the airport decreased by less than $1 over the study period. Overall, fares at Missoula are less than one percent lower in 2005 as compared to 1990. The average one-way fare at Missoula International in 2005 was $168.52, right at the State average of $168 but considerably above the national average of $144 (US DOT 2006a).

Table 1.52 DOMESTIC ORIGINATING PASSENGERS AND AVERAGE ONE-WAY FARES MISSOULA INTERNATIONAL AIRPORT (1990-2005)		
Year	Domestic Originations	Avg. One-Way Fare
1990	134,710	$169.18
1991	139,320	$163.48
1992	145,950	$159.77
1993	160,660	$170.49
1994	158,840	$179.31
1995	167,320	$174.27
1996	163,040	$184.49
1997	180,540	$174.23
1998	187,560	$178.50
1999	206,720	$173.86
2000	212,960	$188.54
2001	232,310	$163.43
2002	226,260	$160.96
2003	238,770	$166.30
2004	249,800	$161.65
2005	253,660	$168.52

Source: US DOT 2006a.

Data on enplanements at Missoula were obtained from the MDT Aeronautics Division for comparison to originations data obtained from the US DOT. In 2004, enplanements were noted to be 260,039 compared to the domestic originations of 249,800. In 2005, enplanements at Missoula International Airport grew to 266,597. The airport's enplanements grew 20.4 percent between 1999 and 2005, with an average annual compound rate of 3.2 percent. During the first six months of 2006, enplanements at Missoula International increased 2 percent versus the first six months of 2005 (MDT 2006, US DOT 2006a).

1.4.12.4 Domestic Travel Patterns

The service provided to residents of and visitors to Missoula who arrive by commercial airlines links the region with countless destinations in the U.S. and around the world. Approximately 49 percent of Missoula's air passenger traffic is generated by local residents and 51 percent of O&D passengers are visitors; the national air transportation system allows these western Montana residents and visitors to travel quickly and efficiently around the country. **Table 1.53**

shows the most popular domestic destinations for these travelers and the average one-way fare those travelers paid to reach them (US DOT 2006a).

Table 1.53
TOP 20 DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS
MISSOULA INTERNATIONAL AIRPORT
(2005)

Rank	O&D Destination	Domestic Outbound O&D Passengers	Average One-Way Fare
1	Salt Lake City	22,310	$120.00
2	Denver	17,760	$134.69
3	Las Vegas	15,780	$101.71
4	Seattle	14,880	$144.02
5	Minneapolis	8,180	$163.14
6	Chicago – O'Hare	5,980	$186.73
7	Los Angeles – LAX	5,940	$175.77
8	Phoenix	5,120	$165.93
9	San Diego	5,070	$168.33
10	Portland, OR	4,970	$159.24
11	Atlanta	4,610	$195.79
12	Billings	4,310	$110.35
13	Dallas	4,290	$187.28
14	San Francisco	4,280	$164.19
15	Los Angeles – Wayne	4,180	$153.34
16	Washington – Reagan	3,950	$232.39
17	Sacramento	3,620	$164.35
18	Boston	3,500	$196.76
19	Philadelphia	3,380	$201.94
20	Newark	3,300	$190.84

Source: US DOT 2006a.

When all domestic destinations traveled to by Missoula passengers in 2005 are combined by U.S. region, the results show that the Southwest and Northeast U.S. are the predominant choices for most travelers; with more than 46 percent of O&D passengers destined for these two regions alone (see **Table 1.54** and **Figure 1.9**, US DOT 2006a).

Table 1.54
DOMESTIC OUTBOUND O&D TRAVEL DESTINATIONS BY REGION
MISSOULA INTERNATIONAL AIRPORT
(2005)

Region	Domestic Outbound O&D Passengers	% of Total
Mid-South	6,590	2.6%
Midwest	27,890	11.0%
North Central	18,630	7.3%
Northeast	34,280	13.5%
Northwest	29,080	11.5%
South Central	31,600	12.5%
Southeast	23,540	9.3%
Southwest	82,050	32.3%
Total	**253,660**	**100%**

Source: US DOT 2006a.
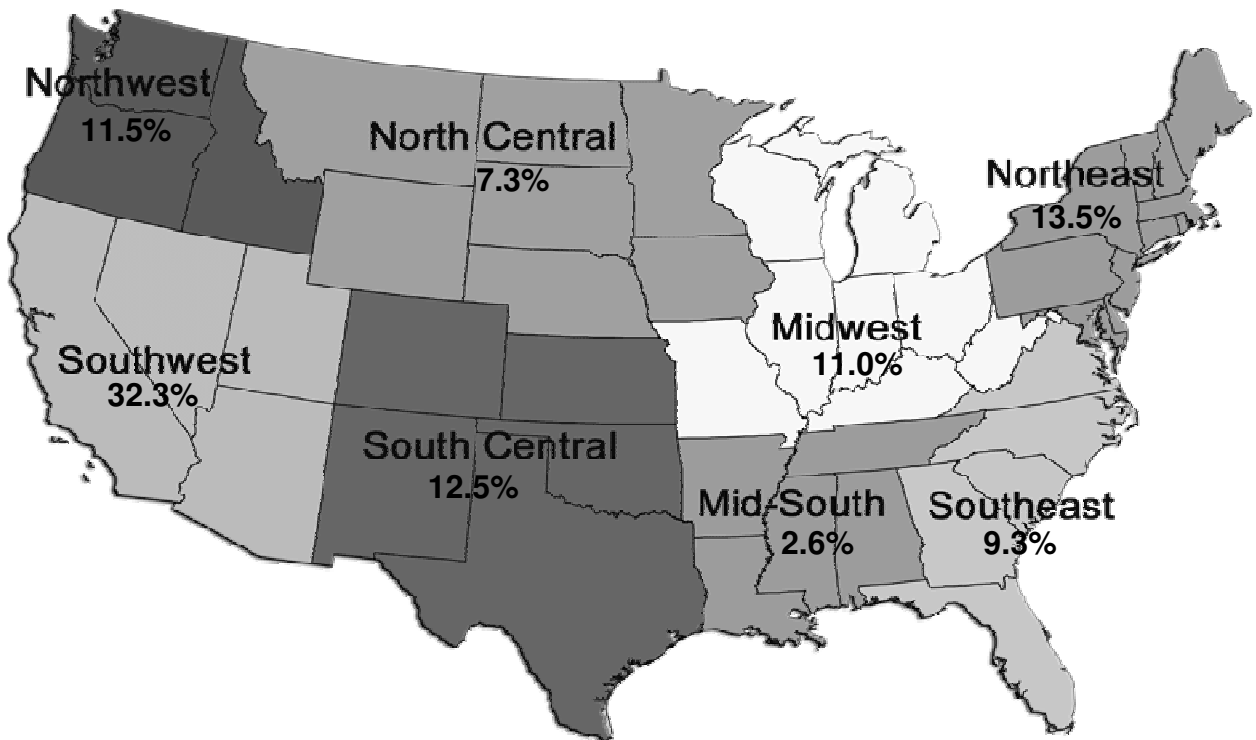
Figure 1.9
DOMESTIC OUTBOUND O&D TRAVEL DISTRIBUTION BY REGION
MISSOULA INTERNATIONAL AIRPORT
(2005)

Source: US DOT 2006a.

1.4.12.5   Current Service

In September 2006, six scheduled carriers served Missoula International. One mainline carrier (Northwest) and four commuter/regional carriers served the airport, including Big Sky, Horizon (Alaska partner), and SkyWest, which operates as both Delta and United regional partners, and Atlantic Southeast (Delta partner). Allegiant Air, a scheduled charter airline, also provided passenger service from Missoula International to Las Vegas. This twice-weekly air service began in March 2005. These airlines (including Allegiant) operated flights to twelve nonstop destinations throughout the U.S. In September 2006, the airport had 157 weekly scheduled nonstop departures. This service included nonstop flights to major airline hubs at Chicago, Denver, Minneapolis, Salt Lake City, and Seattle. Big Sky also operated flights nonstop to Boise and Portland. In-state service consisted of Big Sky flights to Billings, Bozeman, and Helena. Horizon also provided once daily service to Kalispell. This flight is the end leg of service that goes from Seattle-Missoula-Kalispell. The nonstop service currently provided at Missoula International provides local travelers with nonstop flights to the city's top six O&D destinations as well as excellent connection opportunities at five major airline hubs.

In September 2006, just over 40 percent of flights that departed Missoula International were offered on small turboprop aircraft averaging 43 seats, a category which represented just under 30 percent of all seats offered (see **Table 1.55**). Of the remaining departures, 49 percent were operated on regional jets averaging 54 seats, and nearly 11 percent on large jets averaging 138 seats (*Official Airline Guide* 2006a).

Table 1.55
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
MISSOULA INTERNATIONAL AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	254	10,931	43.0	40.4%
Regional Jet	306	16,420	53.7	48.7%
Large Jet	68	9,400	138.2	10.8%
Total	**628**	**36,751**	**58.5**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.12.6   Historic Air Service Trends

Table 1.56 summarizes monthly scheduled departing seats available in September from Missoula International over the last 10 years. In 1996, the airport was served primarily by mainline carriers, with Delta and Northwest offering nearly 71 percent of all departing seats. In 2001, United Express entered the Missoula market, replacing the Denver service Frontier provided until leaving the market in 1996. In 2004, Delta withdrew its mainline service at Missoula International and replaced it with regional service onboard its partner, SkyWest. Also in 2004, United Express partner SkyWest expanded as well. Between 1996 and 2006, nonstop

service to three new hubs (Seattle, Denver, and Minneapolis) was added, providing Missoula area travelers with improved access to the national air transportation system. While airlines serving Missoula International had largely switched to smaller regional aircraft, they increased the frequency with which these were employed, leaving travelers with airline service that was comparable to previous years (*Official Airline Guide* 2006a).

Table 1.56
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
MISSOULA INTERNATIONAL AIRPORT
(Month of September 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Alaska	**8,174**	**12,325**	**9,143**	**7,487**	**8,885**	**7,656**	**7,656**	**7,392**	**8,424**	**8,806**	**8,704**
Horizon	*8,174*	*12,325*	*9,143*	*7,487*	*8,885*	*7,656*	*7,656*	*7,392*	*8,424*	*8,806*	*8,704*
Allegiant	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,476**	**1,312**
Big Sky	**0**	**0**	**1,463**	**2,052**	**2,033**	**836**	**2,565**	**3,002**	**2,090**	**2,128**	**2,717**
Delta	**12,150**	**14,427**	**14,910**	**18,750**	**15,530**	**14,850**	**13,990**	**11,852**	**12,000**	**11,750**	**8,888**
Delta	*12,150*	*12,927*	*13,410*	*17,250*	*12,780*	*12,150*	*11,290*	*7,552*	*0*	*0*	*0*
Atlantic Southeast	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*350*
SkyWest	*0*	*1,500*	*1,500*	*1,500*	*2,750*	*2,700*	*2,700*	*4,300*	*12,000*	*11,750*	*8,538*
Northwest	**8,300**	**8,760**	**8,760**	**6,605**	**6,000**	**6,000**	**6,200**	**6,196**	**7,656**	**8,084**	**8,088**
United	**0**	**0**	**0**	**0**	**0**	**4,500**	**4,500**	**3,070**	**4,900**	**4,800**	**7,042**
Air Wisconsin	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1,720*	*0*	*0*	*0*
SkyWest	*0*	*0*	*0*	*0*	*0*	*4,500*	*4,500*	*1,350*	*4,900*	*4,800*	*7,042*
Total	**28,624**	**35,512**	**34,276**	**34,894**	**32,448**	**33,842**	**34,911**	**31,512**	**35,070**	**35,568**	**36,751**

Source: *Official Airline Guide* 2006a.

1.4.12.7 Summary

Missoula International Airport has enjoyed a relatively steady level of service over the last 10 years. In late 2006, the airport was served by a mix of mainline and regional/commuter airlines. The level of scheduled service in 2006 was in line with most previous years, with five carriers providing nonstop service to twelve destinations, including four major airline hubs. Domestic originating passenger traffic peaked in 2005 and trends point to likely continued growth. The available air service is also well-matched to the community's travel patterns, allowing nonstop service to the area's five most popular destinations, and four major airline hubs in two of its most popular destination regions.

1.4.13   Traffic and Service Patterns at Sidney-Richland Municipal Airport

1.4.13.1   Location

Sidney is the county seat of Richland County, in eastern Montana near the North Dakota border. The city is located at the junction of Montana Highways 16 and 200. The nearest city with a hub airport is Billings, approximately 275 miles southwest of Sidney. Glendive and Williston (ND), each with airline service similar to Sidney's, are approximately 55 miles southwest and northwest, respectively.

1.4.13.2   Socioeconomics

In 2005, Sidney was home to 4,470 residents, while Richland County had a population of 9,096. The towns of Fairview and Knife River are also located in Richland County, accounting for about 1,000 residents. The county's population was 97 percent Caucasian, and its median age was 39.2. There were 3,878 households in Richland County (U.S. Census Bureau 2006).

In 2003, Richland County was home to 2,988 non-farm jobs. These workers were employed by 396 business establishments and were paid, on average, approximately $23,590. The largest industries in Richland County are the town's State and Local Government, Retail Trade, and Accommodation and Food Service sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Visitors to Sidney and Richland County can choose from lodging establishments with approximately 150 total rooms (Travelocity 2005).

1.4.13.3   Historic Enplanements

Since 1999, passenger traffic at Sidney-Richland Municipal Airport (SDY) has increased overall (see **Table 1.57**). In 1999, approximately 2,460 passengers began a flight at the airport. By 2000, that number had risen to a level of nearly 2,790 passengers. In 2003, however, passenger counts had fallen to just 1,880, roughly two-thirds of the 1999 level. Passenger traffic recovered slightly in 2004 and grew substantially between 2004 and 2005. Between 1999 and 2005, enplanements grew at an average annual rate of 5.6 percent.   During the first six months of 2006, enplanements at Sidney-Richland Municipal Airport were 12.8 percent below the enplanements recorded during the first six months of 2005 (MDT 2006).

Table 1.57
HISTORIC ENPLANEMENTS
SIDNEY-RICHLAND MUNICIPAL
(1999-2005)

Year	Enplanements
1999	2,457
2000	2,789
2001	2,609
2002	2,556
2003	1,880
2004	2,344
2005	3,401

Source: MDT 2006.

1.4.13.4   Travel Patterns

Due to the small sample size of passengers at Sidney-Richland Municipal, accurate travel patterns by top destinations and regions are not available.

1.4.13.5   Current Service

In September 2006, Big Sky Airlines operated a schedule of two weekday flights and one daily weekend departure on 19-passenger Beechcraft 1900 aircraft from Sidney to Billings on a late morning and early afternoon schedule. Arrivals to Sidney consisted of two daily flights from Billings arriving late morning and mid-afternoon.   Sidney is an Essential Air Service community, and a minimum of two weekday flights and one weekend flight are required by the US DOT.

As shown in **Table 1.58**, all of the flights to Sidney are operated with 19-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.58
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
SIDNEY-RICHLAND MUNICIPAL
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	76	1,444	19.0.	100.0%
Regional Jet	0	0	0.0	0.0%
Large Jet	0	0	0.0	0.0%
Total	**76**	**1,444**	**19.0**	**100.0%**

Source: *Official Airline Guide* 2006a.
Note: Includes departure and seat data resulting from stopover flights.

1.4.13.6   Historic Air Service Trends

Big Sky Airlines has served Sidney-Richland Municipal for the past 10 years (see **Table 1.59**). Over the past decade, the airline has served the community with 19-seat aircraft and schedules have averaged 1,385 seats per month, or approximately 19 departures per week. Big Sky currently serves this market with one of its 10 Beechcraft 1900 airplanes. Service in recent years has shown stability in monthly seats (*Official Airline Guide* 2006a).

Table 1.59
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
SIDNEY-RICHLAND MUNICIPAL
(Month of September, 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	893	931	1,368	1,558	1,425	1,482	1,539	1,520	1,520	1,558	1,444
Total	**893**	**931**	**1,368**	**1,558**	**1,425**	**1,482**	**1,539**	**1,520**	**1,520**	**1,558**	**1,444**

Source: *Official Airline Guide* 2006a.

1.4.13.7   Summary

Sidney-Richland Municipal Airport has enjoyed a small but relatively steady level of service over the last 10 years as an EAS-subsidized airport. The airport is served by one commuter airline, with a level of scheduled service that is currently above its 10-year average in terms of available seats. The available air service allows direct service to the State's largest airport at Billings-Logan International, where connecting flights are available to a wide variety of major airline hubs. However, Big Sky passengers boarding at Sidney must undergo security screening at Billings since there are no passenger screening capabilities available in Sidney. For those passengers traveling beyond Billings, this may add an additional level of complexity to travel.

1.4.14   Traffic and Service Patterns at Yellowstone Airport (West Yellowstone)

1.4.14.1   Location

West Yellowstone is located in Gallatin County, in southwestern Montana on the western edge of Yellowstone National Park. The town is located at the junction of U.S. Highways 20 and 191. The nearest city with a small hub airport is 90 miles north in Bozeman. Idaho Falls is approximately 110 miles southwest of West Yellowstone.

1.4.14.2   Socioeconomics

West Yellowstone was home to 1,223 year-round residents in 2005, while Gallatin County had a population of 78,210. The town's population was 97 percent Caucasian, and its median age was 30.7. There were 518 households in West Yellowstone (U.S. Census Bureau 2006).

In 2003, West Yellowstone was home to 1,122 non-farm jobs. These workers were employed by 179 business establishments and were paid, on average, approximately $16,700. The largest industries in West Yellowstone are the town's Accommodation and Food Service, Retail Trade, and Construction sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Tourism is an essential part of West Yellowstone's economy, since the town serves as the western gateway to Yellowstone National Park. Many hotels and restaurants catering to these visitors are located in the town. Visitors to West Yellowstone can choose from lodging establishments with approximately 1,700 total rooms (Travelocity 2005).

1.4.14.3 Historic Enplanements

Since 1999, passenger traffic at Yellowstone Airport (WYS) has decreased (see **Table 1.60**). In 1999, approximately 4,820 passengers began a flight at the airport. By 2003, however, that number had declined to a level of 3,250 passengers. Passenger traffic recovered in 2004 and 2005. Overall, enplanements declined at an average annual rate of 1.6 percent between 1999 and 2005. Through September 2006, enplanements at Yellowstone Airport had decreased 7.9 percent versus enplanements recorded for the summer of 2005 (MDT 2006). It is important to note, however, that Yellowstone Airport has seasonal service to Salt Lake during the summer months.

Table 1.60 HISTORIC ENPLANEMENTS YELLOWSTONE AIRPORT (1999-2006)	
Year	Enplanements
1999	4,816
2000	3,838
2001	4,044
2002	3,886
2003	3,250
2004	3,985
2005	4,366
2006	4,020

Source: MDT 2006.

1.4.14.4 Travel Patterns

Due to the small sample size of passengers at Yellowstone Airport, accurate travel patterns by top destinations and regions are not available.

1.4.14.5 Current Service

Yellowstone Airport is unique among Montana's smaller commercial service airports. The town and its airport primarily serve Yellowstone National Park visitors on a seasonal basis. SkyWest Airlines, a Delta regional carrier, operates flights to the airport from its Salt Lake City hub four months out of the year. This service is subsidized under the US DOT Essential Air Service Program on a seasonal basis.

In September 2006, SkyWest operated a schedule of two daily departures on 30-passenger Embraer Brasilia aircraft from Yellowstone Airport to Salt Lake City on a mid-morning and evening schedule. This seasonal schedule was in effect between June and late September. Arrivals to Yellowstone Airport consisted of two daily flights from Salt Lake City arriving mid-morning and late afternoon. Under the EAS program, a minimum schedule of two weekday and one weekend flight are required by the US DOT. This service is only required seasonally at West Yellowstone.

As shown in **Table 1.61**, in September 2006, all of the flights at West Yellowstone were operated with 30-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.61 MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS YELLOWSTONE AIRPORT (September 2006)				
Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	70	2,100	30.0	100.0%
Regional Jet	0	0	0.0	0.0%
Large Jet	0	0	0.0	0.0%
Total	**70**	**2,100**	**30.0**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.14.6 Historic Air Service Trends

SkyWest Airlines has served Yellowstone Airport for the past 10 years (see **Table 1.62**). Over the past decade, the airline has served the community with 30-seat Embraer Brasilia aircraft, and schedules have averaged 2,416 seats per month or approximately 17 departures per week during the four-month season (*Official Airline Guide* 2006a).

Table 1.62
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
YELLOWSTONE AIRPORT
(Month of September, 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
SkyWest (DL*)	1,800	2,700	2,700	2,700	2,700	2,700	2,640	2,700	1,800	2,040	2,100
Total	**1,800**	**2,700**	**2,700**	**2,700**	**2,700**	**2,700**	**2,640**	**2,700**	**1,800**	**2,040**	**2,100**

Source: *Official Airline Guide* 2006a.

1.4.14.7 Summary

Yellowstone Airport enjoys a small but relatively steady level of seasonal service. The airport began receiving EAS subsidy in 2004 in order to guarantee air service. The airport is served by one regional airline, with a level of scheduled service that is currently below its 10-year average in terms of available seats. Enplanements peaked in 1999, with 2005 enplanements at Yellowstone Airport 9.3 percent lower than 1999 levels. The available air service allows direct service to the region's largest airport at Salt Lake City International, where onward flights are available to a wide variety of destinations on board SkyWest's partner airline, Delta, as well as several other airlines.

1.4.15   Traffic and Service Patterns at L. M. Clayton Airport – Wolf Point (OLF)

1.4.15.1   Location

Wolf Point is the county seat of Roosevelt County in northeastern Montana. The city is located near the junction of U.S. Highway 2 and Montana Highway 13. The nearest city with a hub airport is Billings, approximately 315 miles southwest of Wolf Point. Glasgow, with airline service similar to Wolf Point's, is located approximately 50 miles west. Williston, ND, is located approximately 100 miles east of Wolf Point and has nonstop service to Minneapolis.

1.4.15.2   Socioeconomics

In 2005, Wolf Point was home to 2,623 residents, while Roosevelt County had a population of 10,524. The towns of Poplar and Culbertson are also located in Roosevelt County, together accounting for over 1,600 residents. The county's population was 58 percent Native American and 40 percent Caucasian; its median age was 33.2. There were 3,581 households in Roosevelt County (U.S. Census Bureau 2006).

In 2003, Roosevelt County was home to 1,532 private non-farm jobs. These workers were employed by 226 business establishments and were paid, on average, approximately $19,133. The largest industries in Roosevelt County are the town's State and Local Government, Retail Trade, and Health Care and Social Service sectors (U.S. Department of Commerce 2006, U.S. Department of Labor 2006).

Visitors to Wolf Point and Roosevelt County can choose from lodging establishments with approximately 110 total rooms (Travelocity 2005).

1.4.15.3   Historic Enplanements

Since 1999, passenger traffic at L. M. Clayton Airport (OLF) fluctuated through 2004 and then increased significantly in 2005 (see **Table 1.63**). In 1999, approximately 1,480 passengers began a flight at the airport. By 2001, however, that number had risen to a level of nearly 1,870 passengers. Passenger traffic has increased since to a level above 1999 enplanements, rising 4.6 percent per year on average between 1999 and 2005. During the first six months of 2006, enplanements at L.M. Clayton Airport decreased 5.9 percent versus enplanements recorded for the first six months of 2005 (MDT 2006).

Table 1.63 HISTORIC ENPLANEMENTS L. M. CLAYTON AIRPORT (1999-2005)	
Year	Enplanements
1999	1,480
2000	1,702
2001	1,866
2002	1,477
2003	1,480
2004	1,427
2005	1,939

Source: MDT 2006.

1.4.15.4   Travel Patterns

Due to the small sample size of passengers at L.M. Clayton Airport, accurate travel patterns by top destinations and regions are not available.

1.4.15.5   Current Service

In September 2006, Big Sky Airlines operated a schedule of two weekday departures and one daily weekend departure on 19-passenger Beechcraft 1900 aircraft from Wolf Point to Billings on an early-morning and early-afternoon schedule. Arrivals to Wolf Point consisted of two daily flights from Billings arriving late morning and in the evening. The late morning arrival from Billings included a stop in Glasgow. Additionally, the early morning departure to Billings is a through flight from Glasgow. Wolf Point is an Essential Air Service community, and a minimum schedule of two weekday and one weekend flight are required by the US DOT.

As shown in **Table 1.64**, all of the flights to Wolf Point are operated with 19-seat turboprop aircraft (*Official Airline Guide* 2006a).

Table 1.64
MONTHLY SCHEDULED DEPARTURES AND DEPARTING SEATS
L. M. CLAYTON AIRPORT
(September 2006)

Type	Nonstop Scheduled Departures	Available Departing Seats	Average Seats/Departures	% of Total Departures
Turboprop	81	1,539	19.0	100.0%
Regional Jet	0	0	0.0	0.0%
Large Jet	0	0	0.0	0.0%
Total	**81**	**1,539**	**19.0**	**100.0%**

Source: *Official Airline Guide* 2006a.

1.4.15.6   Historic Air Service Trends

Big Sky Airlines has served L. M. Clayton Airport for the past 10 years (see **Table 1.65**). Over the past decade, the airline has served the community with 19-seat aircraft, and schedules have averaged 1,460 seats per month or approximately 20 departures per week. Big Sky currently serves this route with a 19-seat Beech 1900 aircraft. Service in recent years has shown relative stability in monthly seats (*Official Airline Guide* 2006a).

Table 1.65
MONTHLY NONSTOP SCHEDULED DEPARTING SEATS
L. M. CLAYTON AIRPORT
(Month of September, 1996-2006)

Airline	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Big Sky	1,292	1,311	1,539	1,558	1,539	1,501	1,140	1,539	1,539	1,558	1,539
Total	**1,292**	**1,311**	**1,539**	**1,558**	**1,539**	**1,501**	**1,140**	**1,539**	**1,539**	**1,558**	**1,539**

Source: *Official Airline Guide* 2006a.

1.4.15.7   Summary

L. M. Clayton Field in Wolf Point has enjoyed a small but relatively steady level of service over the last 10 years as an EAS-subsidized airport. The airport is served by one commuter airline, with a level of scheduled service that is currently above its 10-year average in terms of available seats. The available air service allows direct service to the State's largest airport at Billings-Logan International, where connecting flights are available to a wide variety of major airline hubs. However, Big Sky passengers boarding at Wolf Point must undergo security screening at Billings since there are no passenger screening capabilities available in Wolf Point. For those passengers traveling beyond Billings, this may add an additional level of complexity to travel.

2.0 NATIONAL AND MONTANA-SPECIFIC TRENDS

The demand for aviation services and airport development is directly influenced by national trends, changes in socioeconomic factors, regulatory issues, business factors and statewide and regional tourism. This trends analysis identifies and measures anticipated positive or negative changes that are related to or impact the demand for commercial aviation services. Consideration of airline issues, aircraft fleet plans, federal initiatives, hub development, and air cargo growth must be included in order to determine what the future may hold.[2] In addition to these more global and national trends, it is critical that Montana-specific trends be evaluated in the analysis prior to evaluating air service needs. The trends impacting air service in Montana will be discussed in the following sections:

- Airline Industry Trends.
- Cargo Trends.
- Montana Socioeconomic Trends.

2.1   AIRLINE INDUSTRY TRENDS

In order for a community to make informed decisions regarding the establishment of air service objectives, it is important to have a general understanding of the industry and the forces that influence the current airline operating environment. A summary of recent and anticipated trends in the national airline industry provides valuable educational data that help the community to set realistic air service expectations and to develop viable air service action plans. This section provides a national perspective of the industry and how this impacts communities, including those in Montana.

2.1.1   Current Operating Environment

2.1.1.1 The 1990s

In the late 1980s, air carriers lost millions of dollars. Those losses had a profound effect on the way airlines operated. Some of the most dramatic changes that occurred included the sudden and complete shutdown of several hub operations and the demise of several flagship carriers, notably, Eastern Airlines, Braniff, and Pan Am. Frontier Airlines served several Montana airports, including Billings, Bozeman, Missoula, Helena, Great Falls, and Kalispell, until it was acquired by Continental in 1986. The "new" Frontier Airlines began operations based in Denver in 1994.

The over expansion of the airline industry experienced in the late 1980s, coupled with the Gulf War, were major factors in causing the airlines to lose $13 billion during the early 1990s (see **Figure 2.1**). The airlines made the following adjustments to cut costs, gain efficiency, and focus on the most profitable aspects of their business (Air Transport Association 2006a):

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[2] The impact of federal initiatives will be discussed in Chapter 3.0.

- Implement major adjustments to their route structures, concentrating on the most profitable routes.
- Increase seating capacity and maximize frequencies to achieve higher load factors.
- Eliminate secondary connecting hubs and introduce point-to-point service in the larger markets.
- Focus on the development of strategic marketing alliances with regional carriers in the U.S. and other airlines abroad.
- Rationalize aircraft fleets that, on average, offered lower operating costs.
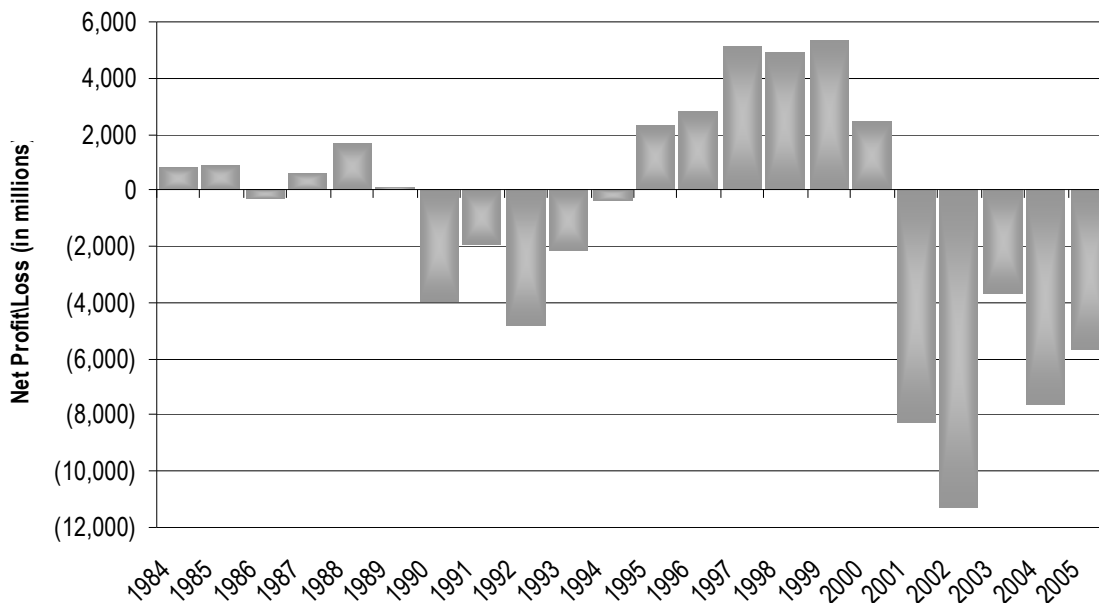
Figure 2.1
U.S. AIR CARRIER NET PROFITS

Source: Air Transport Association 2006a.

The 1990s ushered in a new period of mergers, global alliances, and joint marketing agreements, as well as domestic alliances between major and regional carriers. In addition, there were significant structural changes in the way airlines conduct business. The airlines examined every aspect of their operations to reduce costs. A "shifting downstream" of service to smaller communities marked the mid-1990s. The regional carriers, with lower labor costs, came into their own. Shorter haul service to hub airports was turned over to the regional carriers and they provided high-frequency turboprop service to and from their major carrier affiliate's hub airport.

The late 1990s and the first few years of the 2000 period showed the cyclical nature of the airline industry. New low fare carriers such as JetBlue and a solidified AirTran experienced growth, bringing low-cost service to many communities, especially many in the Northeast, which had not experienced the full impact of low-cost service similar to West Coast markets. In the late 1990s, many airlines achieved their highest profits ever.

2.1.1.2 The 2000s

The profits achieved in the 1990s were not enough to sustain the events to come in the early 2000s. Beginning in 2000, the "dotcom" bust was well underway and a general economic downturn had begun. When coupled with the terrorist attacks of September 11, 2001, a new era of airline industry woes was ushered in. The airline industry witnessed a decline in demand for air travel. Both business and leisure travelers began seeking cheaper airfares. Increased fuel costs, fewer travelers, and the high airline labor costs began the worst airline industry downturn in history. These events substantially impacted traditional carriers such as United, Delta, TWA, and Northwest. At the same time, the new entrants and long-term low-cost giant, Southwest, stayed their course, continuing to make money despite the economy.

The events of September 11th led to a loss of over $8 billion in the airline industry, even after accounting for $5 billion in government stabilization payments. Those attacks exacerbated the industry's woes as many people feared flying for some time thereafter, further decreasing passenger traffic. New security measures and changes in airline structures also occurred after the attacks, adding to the declining levels of passenger traffic. Passenger demand for air travel did not return even though carriers cut fares and tried to reduce costs. Airlines reduced much of their short-haul traffic because of the new "hassle factor" associated with airline travel. The total loss for all U.S. airlines in 2002 topped $11 billion. It was noted that carriers lost approximately $7.6 billion in 2004 and an additional $5.7 billon in 2005 (Air Transport Association 2006a).

In order to reduce losses and stabilize itself, the airline industry continues to undertake dramatic cost cutting strategies. Many of the high cost traditional hub and spoke carriers have noted that they have to change the way they do business in order to stay in business. **Figure 2.2** presents the current airports with hubbing operations or those that have been designated as "focus cities" throughout the U.S. Many of the major U.S. airlines use the traditional hub-and-spoke model, which is designed to extract relatively high airfares from passengers while offering seamless travel around the world.

Figure 2.2
CURRENT CONNECTING HUBS

Source: Wilbur Smith Associates 2006.

The hub and spoke model worked well during times of economic growth when leisure travelers and especially business travelers willingly paid higher fares. But it is an expensive model for several reasons:

- Flight schedules are designed for airline "banks" at certain times of the day. This means high volumes of low-yield passengers passing through the airports with hubbing operations. Airport congestion, slow aircraft turnaround on the ground, and inefficient use of equipment and people throughout the day has resulted.
- The majors using the hub and spoke model fly a variety of long, short, low-traffic, and high-traffic routes. In order to accommodate these routes, airlines must use a variety of aircraft. Varying aircraft types means more expensive maintenance, large and expensive parts inventories, and redundant crew training facilities.
- The different routes require costly changes in regard to last-minute seat assignments, upgrades, and itineraries.

The excessive expenses of the hub-and-spoke model took their toll on the largest airlines during the recent downturn. Major airlines had no choice but to reduce costs, cut capacity, and restructure their business models. Nationwide, aircraft were parked, retired, or returned to lessors and manufacturers, and airport construction projects were canceled or delayed. Along with heavy financial losses and massive layoffs experienced by nearly all carriers, US Airways filed for bankruptcy in mid-2002 and United followed in December 2002 after failing to

negotiate necessary wage and salary decreases with its employees. Many other carriers, including America West, depended on the government loan guarantees after September 11th to keep them out of bankruptcy. Several carriers, including Vanguard, Midway, and National Airlines, could not sustain the losses incurred and went out of business. Although American Airlines bought Trans World Airlines prior to 9/11, American reduced its hubbing operation at St. Louis following 9/11.

In 2003, the war in Iraq further strained both traffic and air carriers' bottom lines. US Airways emerged from bankruptcy in early 2003, however was forced to reenter bankruptcy in September 2004. During its reorganization, US Airways reduced its hubbing operation in Pittsburgh and reduced it to a "focus city". America West also felt the pressure as it introduced a new price structure and abandoned its small hub in Columbus, Ohio.

In September 2005, two major U.S. air carriers, Delta and Northwest, filed for Chapter 11 bankruptcy protection. With these two filings, Bear Stearns estimates that half of all U.S. passenger airline capacity in 2005 was provided on carriers operating under Chapter 11 protection. Both carriers cited rising fuel costs as a supporting factor in their filings. Another factor behind these filings is increased price competition which has resulted in lower overall revenues per passenger (Isidore 2005).

Also in September 2005, the merger between America West Airlines and US Airways became effective. Just one year earlier, in September 2004, US Airways filed for Chapter 11 bankruptcy protection for the second time in just over two years. During the ensuing reorganization efforts, US Airways was able to reduce its labor and overhead costs. The carrier also increased its aircraft utilization and more closely aligned aircraft capacity with passenger demand as US Airways rationalized its aircraft fleet. At the time of the merger, US Airways operated a well-developed east coast air network while America West maintained hub operations at Sky Harbor International Airport in Phoenix and also at McCarran International Airport in Las Vegas.

In January 2006, all America West flights began operating under the US Airways Group brand. In total, the cost savings from the America West and US Airways merger is estimated at $600 million. Prior to the merger, America West's business model enabled the carrier to maintain a significantly lower operating cost profile versus US Airways. Going forward, the newly formed US Airways entity will position itself to operate with a low cost business model. As evidence of this, the company is now traded on the NYSE under the ticker symbol LCC (US Airways 2006a).

The re-emergence of leaner, strengthened carriers with lower costs will put pressure on the other large carriers to cut their labor and operating costs. As the largest airlines gain more control of their expenses, they are becoming more competitive with Southwest Airlines and other discount airlines such as JetBlue. The line between low-cost carriers and mainline legacy carriers has blurred.

2.1.1.3 Urgency to Cut Costs

The financial difficulties of the industry have placed pressure on the relationship between management and labor, as well as the relationship between air carriers and outside suppliers. Every carrier in the industry continues seeking ways to cut costs. As a consequence, the airlines sought concessions from employees and have contracted out aircraft maintenance, as well as baggage handling, ticketing, and gate agent duties at airports where activity is limited. The airlines have stopped paying travel agency commissions and are using the Internet to sell their tickets directly and lower their sales costs.

The airlines have also turned to airports to extract lower costs for landing fees, leases, and ground operation fees. These costs have been increasing, as many airports, facing large capital improvement programs to maintain airport facilities, must achieve financial self-sufficiency. Today, airports must also look after the quality of their own air service. Reductions in the airlines' local sales forces have left individual smaller airports responsible for marketing the products that the airlines are offering. Airports, trying to maintain or increase passenger activity, have risen to the occasion, but find themselves in a position where they are marketing a product they do not control at all.

Expectations about what is a reasonable price to pay for air service can be different in the eyes of the carrier compared to those of the communities. A brief discussion of pricing principles and the direct costs associated with providing air service is useful to form expectations.

There are a number of factors that influence how air service is priced. These can be grouped as either operating or competitive factors. In the best possible world (from the air carrier's standpoint), airfares would be set to cover the following:

- Direct costs associated with providing the service. These include the cost of the aircraft, fuel, maintenance, employees, landing fees and other associated airport expenses, etc.
- Indirect costs such as advertising and promotion, commissions, and administration.
- Sufficient return to finance future business development (including capital replacement such as new aircraft), ride out downturns in the economy, and provide a decent rate of return to owners and stockholders.

Carriers have historically preferred to operate where they have a dominant market share and can set price. In fact, during the 1980s, many carriers launched campaigns to achieve concentration in markets either by constructing hub and spoke operations within a geographic region or swamping a given market with so much service that smaller (marginal) providers in that particular market would drop out. Studies sponsored by the U.S. General Accounting Office (GAO) have confirmed that cities where there is a high degree of carrier concentration tend to be cities where airfares are also high. Minneapolis, Cincinnati, and Pittsburgh have historically been prime examples. Smaller airports, having single-carrier feeder service to these hub airports, also often experienced higher airfares. In this more competitive and typical environment, contributing factors to price include the following:

- Number of carriers offering service between two given cities.
- Available capacity versus demand in the market (number of daily departures and seats versus traffic).
- Types of service offered (jet versus turboprop/direct versus connecting).
- Distance to other airports where alternate choices of service are available.
- Presence of a lower cost or low-fare carrier at the airport or nearby airports.
- Special promotions and discounts offered by competing carriers.

Competitive pricing has been difficult for the higher-cost major carriers. As **Figure 2.3** shows, the downward pressure on domestic passenger yields is nothing short of dramatic. In Figure 2.3, yields are expressed as cents per revenue passenger mile. Yields are also adjusted for inflation, using 1982 as the base year. As shown, average yield on domestic routes has declined from a high of 28.3 cents per revenue passenger mile in 1951 to 6.3 cents in 2005. The largest declines occurred prior to airline deregulation in 1978. However, since 1980, average yield for the U.S. major and national carriers has declined another 6.6 cents per revenue passenger mile (Air Transport Association 2006b).
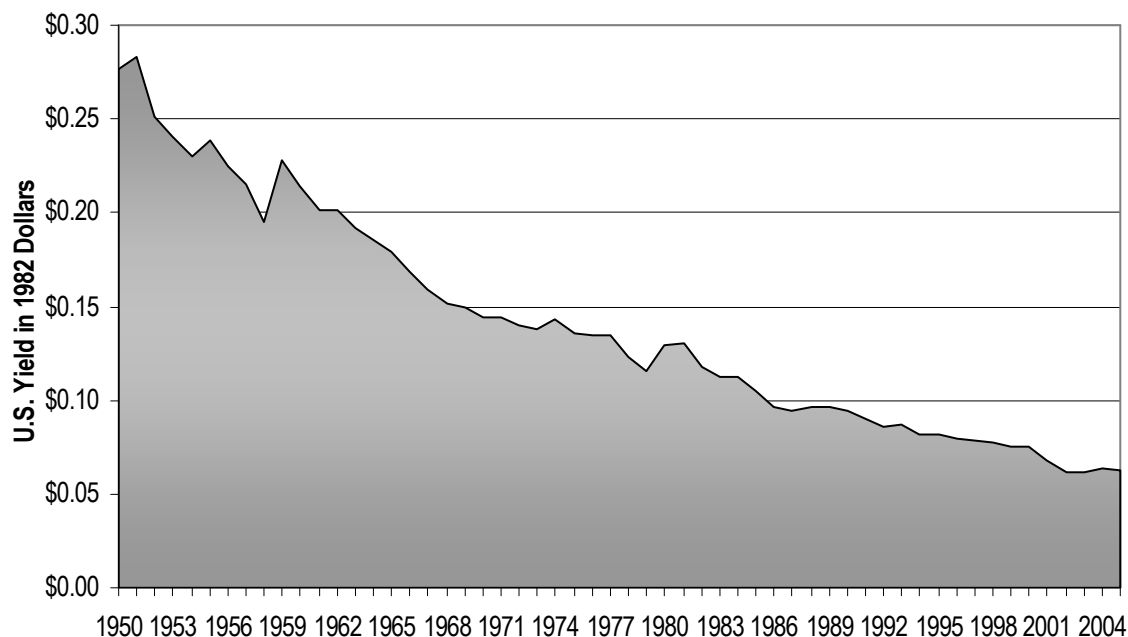
Figure 2.3
U.S. SCHEDULED AIRLINE YIELD
(Constant 1982 U.S. dollars)

Source: Air Transport Association 2006b.

The real decline in yields is another reason why the airlines have gone to great lengths to control costs and only operate on the most profitable routes. **Figure 2.4** shows the most important operating expenses in 2005 for traditional carriers. They are fuel (25 percent), followed by labor (24 percent), aircraft fleet costs (8 percent) and then interest (3 percent),

maintenance, food, and commissions. The "other" category includes insurance, communication costs, and various miscellaneous categories of direct expense (Air Transport Association 2006c).
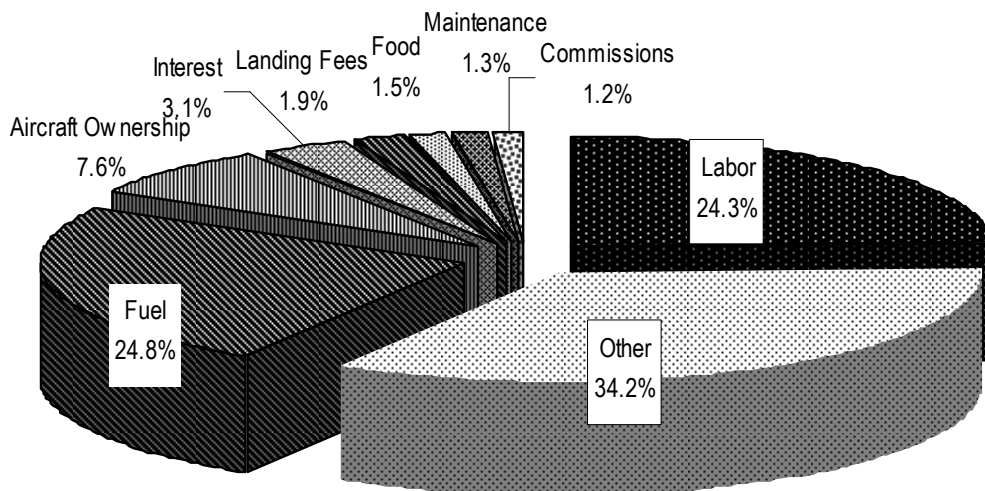
Figure 2.4
MAJOR AND NATIONAL CARRIER OPERATING EXPENSES
(4Q 2005)

Source: Air Transport Association 2006c.

The airlines have had varying success in bringing down their direct operating costs. **Figure 2.5** shows annual change since 1982 in the most important operating costs for the airlines. Each cost category has its own unique measure, as follows (Air Transport Association 2006c):

- Labor – employment cost per employee.
- Fuel – cost per gallon.
- Aircraft Ownership – cost per seat.
- Maintenance Material – cost per airborne hour.
- Passenger Food – cost per revenue passenger mile (RPM).
- Commissions – cost per revenue passenger mile (RPM).
- Landing Fees – cost per aircraft ton landed.
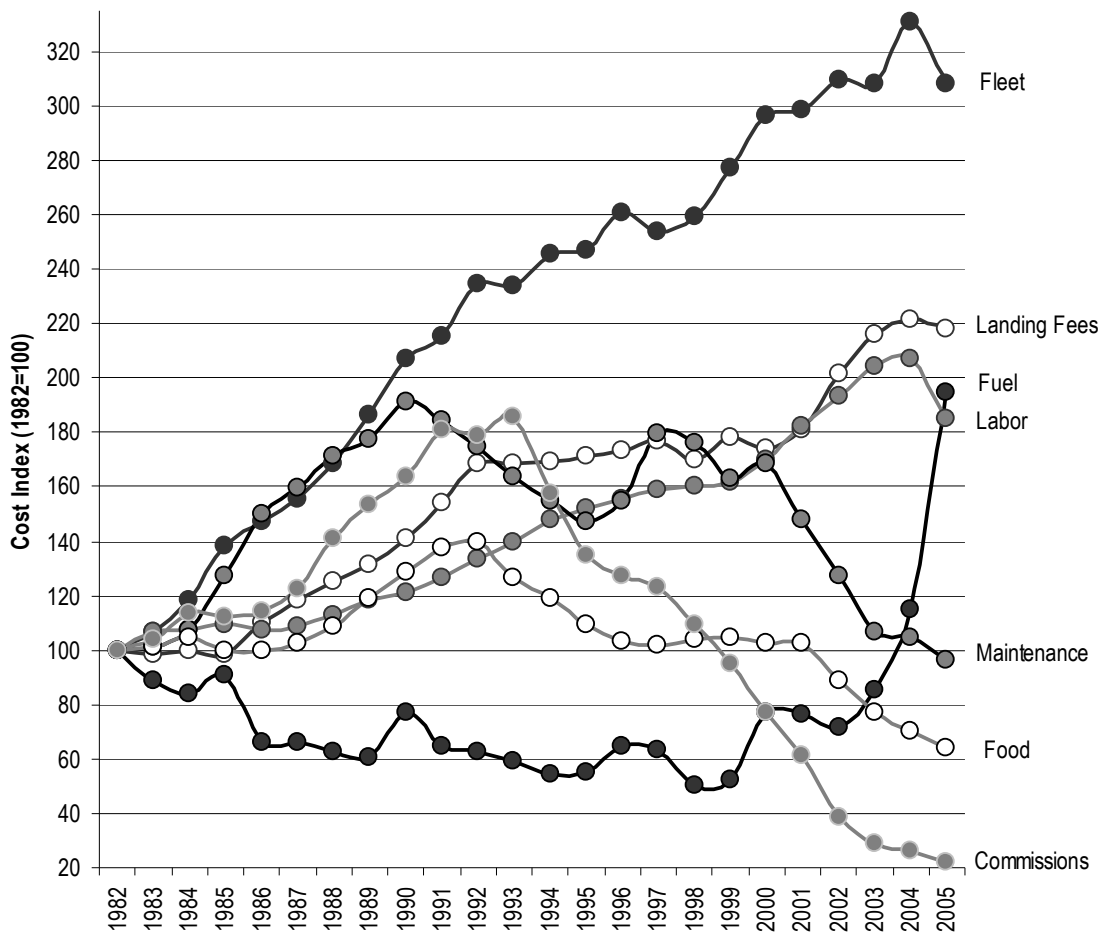
Figure 2.5
CHANGES IN SELECTED OPERATING COSTS, TRADITIONAL AIRLINES (1982-2005)

Source: Air Transport Association 2006c.
Note: Airline Cost Index, 1982 = 100.

2.1.1.3.1 Labor

Since the late 1990s, major airlines have faced rising costs fueled by labor. Although the percentage of cost represented by this category declined between 2004 and 2005, labor expenses averaged 24 percent of the revenue for the major carriers in 2005. Even prior to September 11, 2001, airline labor costs were a significant issue. Labor expenses were exacerbated by large jumps in pilot pay, which raises the bar for other employee groups. Airlines experienced serious work slowdowns, sickouts, and refusals to work overtime during contract negotiations. Airline labor unions including pilots, flight attendants, mechanics, and others pursued successful contract changes to increase pay and terms, resulting in higher labor costs between 1999 and 2001. Airline employees are paid nearly twice the average for all U.S. industries. The average compensation jumped from $67,946 in the second quarter of 2000 to $80,456 by the same period of 2002 (Air Transport Association 2006c). This represents an increase of 18.4

percent, as airline profits fell dramatically during the same period. Rising costs in labor have also forced majors to shift short haul routes to lower-cost regional airlines

Historically, major airlines raised fares to compensate for their labor-related losses. Even prior to the economic downturn and September 11th, fare increases by the major airlines caused market share to shift to low-fare airlines. This shift occurred because the average fares of low-fare airlines are sharply below those of the major airlines and because there was increasing business traveler resistance to the high fares of the major airlines.

After September 11th, the major carriers lost all ability to raise airfares to compensate for huge labor costs. Feeling the pressure to cut costs and keep afloat, airlines have cut the jobs of over 100,000 employees since September 11th, representing a 13 percent decline. All airlines have worked or are working with their unions for wage and work-rule reductions. Some airlines felt more pressure than others to cut labor costs. For example, labor accounted for 50 percent of United's revenue, about 36 percent of the revenue earned by Southwest, and 30 percent of America West's revenues in 2002. By 2005 these ratios had improved at two of the three carriers. United's labor expense as a percent of revenue was 31 percent, Southwest's labor expenses held steady at 36 percent of revenues, and the newly formed US Airways entity reported labor costs as 28 percent of revenues (United Airlines 2006a, Southwest Airlines 2006, US Airways 2006b).

2.1.1.3.2 Fuel

There has not been a shortage of aviation fuel since the fuel crisis of 1974. However, the price of aviation fuel continues to be an important and uncertain factor affecting airline operating costs. In 2002, nearly 12 percent of all airline revenue was used to pay for jet fuel. In 2004, this percentage jumped to 18 percent due to a 64 percent hike in fuel prices in the last year. Fluctuating fuel prices have caused corresponding fluctuations in airline revenue and airfares. Fuel prices have remained below the 1982 level, but shot up 75 percent between 1999 and 2000, reaching 90 cents per gallon. Fuel prices remained high throughout 2000 and much of 2001 and many of the airlines including U.S. carriers Continental, Northwest, American, Delta, United, US Airways, and Southwest raised fares to compensate. Since September 11th, U.S. major carriers have not been successful in raising fares to compensate for rising fuel prices due to the weak economy and poor pricing power. By 2002, the price of fuel subsided slightly but due to the war with Iraq in 2003, fuel prices reached $1.20 per gallon and many carriers were forced to add a $10 surcharge to all tickets purchased. By 2005, the price of jet fuel had skyrocketed to $1.37 per gallon due to the ongoing war in Iraq and other factors (Air Transport Association 2006c). As of August 2006, the spot price for a gallon of U.S. jet fuel was up to $2.12; a 136 percent increase versus the 2000 price (Economagic 2006).

2.1.1.3.3 Aircraft Ownership and Maintenance

As the airlines acquire newer jet aircraft, including regional jets, the average cost per seat is increasing dramatically. Of all airline costs, aircraft ownership costs rose the most since 1982.

Since 9/11, many mainline carriers made sizable reductions and retired aircraft in order to modernize and simplify their fleets. By operating fewer types of aircraft, carriers have simplified aircraft maintenance, and costs have fallen simultaneously with reductions in fleet. Regional carriers, however, continued to take on additional capacity. The number of overall seats in the U.S. has not declined dramatically, as carriers replaced mainline service with regional jet service. However, mainline carrier costs, in terms of fleet, have declined.

Overall, the rate of new aircraft orders and options fell dramatically since 9/11. Contrary to this trend, low fare carrier JetBlue currently has orders or options on 81 Airbus 320 aircraft and 83 Embraer 190 aircraft. Low fare carrier Southwest Airlines also plans to expand its fleet with 67 firm orders for Boeing 737 aircraft and an additional 33 option contracts for Boeing 737s. US Airways has orders or options on 59 Airbus aircraft and 57 Embraer aircraft. Frontier has orders or options on 19 Airbus aircraft. Among the traditional U.S. air carriers, United has orders or options on 23 Airbus 319 aircraft. The carrier has 18 Airbus 320 aircraft on deferred order. Delta Air Lines, operating under Chapter 11 bankruptcy protection, has 50 Boeing 737 aircraft on order and another five Boeing 777 aircraft on order. Legacy U.S. air carrier Northwest Airlines has placed an order for one Boeing 747 aircraft (Wikipedia 2006, Southwest Airlines 2006).

Until recently, most maintenance on aircraft operated by U.S. airlines was done by technicians working directly for the airlines at maintenance facilities located at airports on the airlines' routes. The airlines employed certified, licensed mechanics almost exclusively, and work was closely regulated and supervised by the FAA. In the last few years, major U.S. airlines, including Delta, Northwest, Alaska, and US Airways, in their search for lower costs, have outsourced much of their maintenance to low-cost contractors, many of which are outside the U.S. In 2005, Delta signed a maintenance contract with Air Canada Technical Services of Vancouver. This outsourcing has made the FAA's job of overseeing aircraft maintenance much more difficult.

2.1.1.3.4 Passenger Food

One easy way the high cost legacy/traditional carriers cut costs after September 11th was to discontinue serving in-flight meals. The carriers now offer scaled-back food service on most domestic flights and only beverages on many flights less than four hours in duration. As low-cost, no food carriers such as Southwest, AirTran, and Frontier continue to expand routes, the other carriers will continue to drop food service in order to keep costs low. Delta, United, and other carriers have begun charging passengers for food on flights.

2.1.1.3.5 Travel Agent Commissions

In 1993, travel agents sold 85 percent of all airline tickets. The airlines paid a straight commission based on the face value of the ticket. In 1993, commissions represented 10.9 percent of airline operating costs; in 2005, commissions were 1.2 percent of airline operating costs.

Figure 2.6 shows travel agent commissions as a percent of total airline operating costs over the last 18 years. The decline is evident (Air Transport Association 2006c).
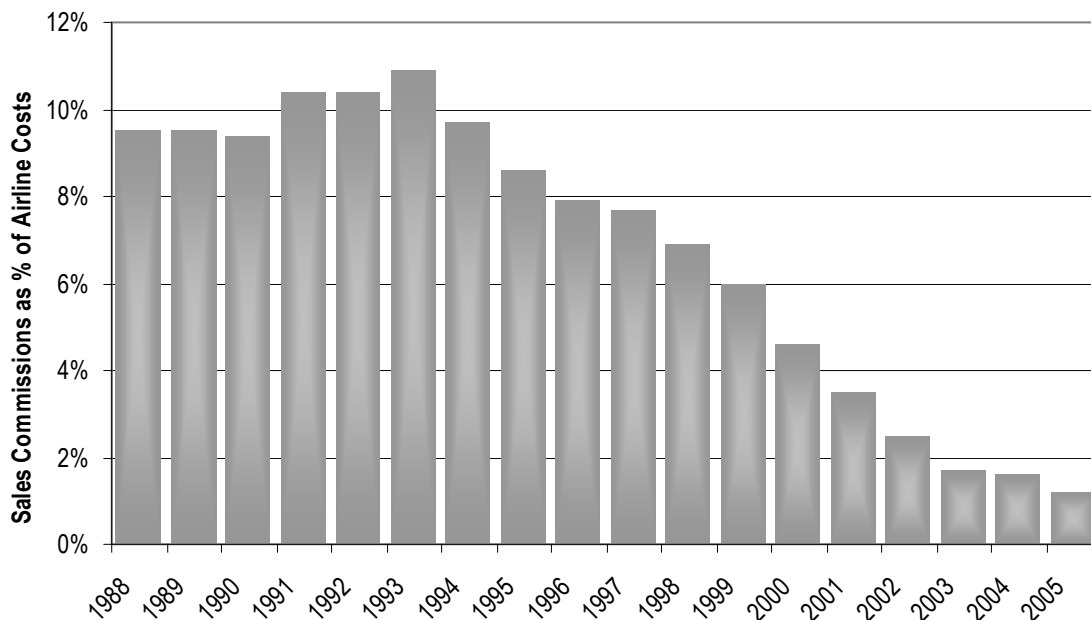
Figure 2.6
SALES COMMISSIONS AS A PERCENT OF AIRLINE OPERATING COST
(1988-2005)

Source: Air Transport Association 2006c.

As commissions hovered around 10 percent, sales costs became an outside expense that the airlines wanted to reduce. Commissions peaked as the economy was faltering in 1991 and the airlines were suffering their previous great losses. It is easy to understand why the carriers wanted to acquire more control over their ticket distribution system. It was not until 1995 that the carriers dared to alienate the travel agents. This was the time that electronic ticketing became feasible.

Travel agents have historically offered the following three types of service: (1) price comparison, (2) ticketing, and (3) expertise. In 1995, the airlines vastly increased their capability of selling tickets directly to passengers with the introduction of paperless or electronic tickets. Between 1999 and 2002, on average, the percentage of tickets booked through travel agents declined from 67 percent to 46 percent. The percent of tickets booked online through both on-line travel agencies, such as Orbitz and Travelocity, and on airlines' own websites increased from seven percent to 30 percent over the same period. The remainder of tickets booked were through airline call centers. To make matters worse for travel agents, in 1995, the carriers began capping commissions at $50 per ticket. By 1999, it was down to 8 percent of the ticket's value and in 2002, airlines stopped paying commissions to all travel agents except those with very high ticket sales (U.S. General Accounting Office 2003b).

2.1.1.3.6   New Taxes and Fees

There was a 76 percent increase in U.S. government taxes and fees on airline service between 1992 and 2002. In 1992, taxes and fees made up 15 percent ($29) of a $200 round trip airline ticket with a single connection. By 2002, fees and taxes represented 26 percent of a $200 ticket or $51. Between 2002 and 2006 the government taxes and fees assessed on airline services by the U.S. government increased again. In 2006, fees and taxes represented 27 percent of a $200 ticket, or $54.30. **Table 2.1** provides a brief summary of federal aviation taxes and fees imposed since 1972 (Air Transport Association 2006d).

Table 2.1
FEDERAL AVIATION TAXES AND FEES

Tax/Fee	1972	1992	2002	2006	Roundtrip with 1 connection
Passenger Ticket Tax (Domestic only)	8.00%	10.00%	7.50%	7.50%	-
Passenger Flight Segment Tax (Domestic only)	-	-	$3.00	$3.30	$13.20
Passenger Security Surcharge	-	-	$2.50	$2.50	$10.00
Passenger Facility Charge	-	$3.00	$4.50	$4.50	$18.00
International Departure Tax	$3.00	$6.00	$13.40	$14.50	-
International Arrival Tax	-	-	$13.40	$14.50	-
INS User Fee	-	$5.00	$7.00	$7.00	-
Customs User Fee	-	$5.00	$5.00	$5.00	-
APHIS Passenger Fee	-	$2.00	$3.10	$5.00	-
Cargo Waybill Tax (Domestic only)	5%	6.25%	6.25%	6.25%	-
Frequent Flyer Tax	-	-	7.50%	7.50%	-
APHIS Aircraft Fee	-	$76.75	$65.25	$70.25	-
Jet Fuel Tax (Domestic only)	-	-	4.3¢/gal	4.3¢/gal	-
LUST Fuel Tax (Domestic only)	-	0.1¢/gal	0.1¢/gal	0.1¢/gal	-
Air Carrier Security Fee	-	-	varies	varies	-

Source: Air Transport Association 2006d.

Since 1992, several new taxes and fees have been initiated including Passenger Facility Charges (PFCs) and Flight Segment Taxes. Under the Aviation and Transportation Security Act, Congress authorized several additional post-September 11th taxes imposed on both passengers and carriers to fund security screeners, equipment, and other costs of the Transportation Security Administration (TSA). The taxes, fees, and mandates imposed after September 11th have cost the industry an additional $4 million annually (Air Transport Association 2006d). These taxes are a cost beyond the control of the airlines and airports, and have contributed to the dire situation of the industry.

2.1.1.4 Limited Ability to Raise Airfares

Airline fares are impacted significantly by the division of costs among the total number of passengers that they carry. In the past, an airline operating a charter flight could offer very low prices to vacation destinations simply because the charter carrier would operate at a 100 percent

load factor and the cost of the trip would be divided among many passengers. Today, airlines try to fill their planes using yield management systems. These are complex computer systems designed to estimate the number of seats on each flight that can be sold at varying discounts. The goal is to fill the plane. Related objectives of this goal are to set pricing policies that separate the business passenger (premium fare) from the vacation traveler (discount fare). For airlines operating small aircraft, the goal is to maximize the number of seats sold at a premium fare, since there are not many seats to be sold in the first place. Regional carriers have historically been most interested in catering to the business traveler, and do not usually offer as many discounted seats as a major carrier since they simply do not have as many seats on their aircraft to sell.

Figure 2.7 shows how the average one-way fare paid by U.S. passengers has shifted since 1995. Between the first quarters of 1995 and 2001 the average one-way fare increased 15 percent from $139 to $160. However, with the economic downturn and the events of September 11th, fares fell dramatically to $143 in the first quarter of 2002. Due to waning demand for business travel and increased competition from low fare carriers, the average one-way fares slid even further in 2003. Even during the recent industry downturn, due to the low cost structure, low fare carriers were able to keep fares down and put pressure on traditional carriers. Between 2004 and 2005, the average U.S. one-way fare declined nearly nine percent. However, fares increase between 2005 and 2006 rising from $132.64 to $146.19 (US DOT 2006a).
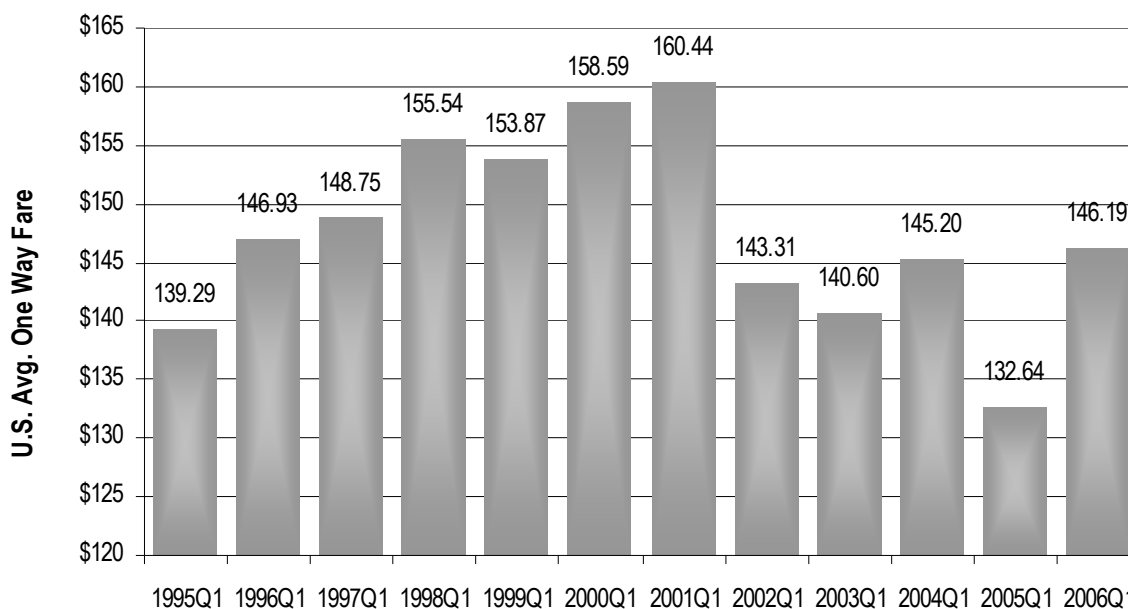
Figure 2.7
U.S. AVERAGE DOMESTIC ONE-WAY FARES

Source: US DOT 2006a.

2.1.1.5 Rising Influence of Low Fare Carriers

Southwest Airlines set the standard for providing low cost, low fare service throughout the world. Within Texas, Southwest built a strong intrastate system of air service prior to airline deregulation in 1978, which is still in place today. Southwest has gone on to establish low fare service at airports throughout the U.S. It has steadily applied its strategy and has been successful in nearly every market. However, it was only when Southwest was the only airline to turn a profit in 1990 that it became the airline to emulate. The entire industry scrutinized Southwest to see what they were doing right. Several key things standout and characterize its operations. They include:

- Select markets only with substantial local traffic that can support high frequency, point-to-point service.
- Select city pairs generally within a 1,000 mile radius, a stage length ideally suited for the Boeing 737 aircraft Southwest operates.
- Select airports that are easy to get in and out of without incurring frequent weather or air traffic delays.
- Keep employees happy and labor costs low.

Many carriers have tried to emulate Southwest to one degree or another. Continental, Delta, US Airways, and United created low cost "carriers within a carrier." The Continental Lite, Delta Express, US Airways Metrojet, and United Shuttle programs have all been subsequently abandoned because each of the carriers could not reduce operating costs to effectively compete with Southwest and other true low fare carriers. In 2003, Delta and United created low fare carriers once again. Delta introduced a new low fare carrier, Song, and United introduced Ted. Song was unable to compete effectively with Southwest and recent low fare, low cost powerhouse, JetBlue, and Delta officially disbanded Song in July 2006.

The 1990s also generated a wave of U.S. independent startups, modeled after Southwest including ValuJet, AirTran, Eastwind, Kiwi, Midway, Nation's Air, Pan Am, Reno, Morris Air, Air South, Spirit, Vanguard, Western Pacific, Pan American Airways, National, and JetBlue. Of these only AirTran, Spirit, and JetBlue survived as independent carriers. **Table 2.2** lists the surviving startups since airline deregulation. The list is extremely short.

Table 2.2
SURVIVING INDEPENDENT START-UP CARRIERS

Carrier	Date Started	Base of Operation
America West[1]	1980	Phoenix
AirTran	1994	Atlanta
Frontier	1994	Denver
JetBlue	2000	New York-Kennedy
Midwest	1984	Milwaukee
Southwest	1971	Dallas
Spirit	1989	Detroit

Source: Wilbur Smith Associates 2006.
Note: America West merged with US Airways in September 2005.

Of the survivors, at nearly 35 years old, Southwest is in a class by itself. America West had a tumultuous beginning, but emerged from Chapter 11 as a solid carrier with an extensive network. In September 2005, America West merged with US Airways. The newly formed entity, US Airways Group, constructed its business model to emulate low cost carrier operating economics. JetBlue is the most recent entrant into the industry and has showed promising beginnings, pulling through the most recent industry events with a strong financial performance. Most of the other carriers have found success offering limited, low fare service in high-density markets. Of these carriers, JetBlue, AirTran, and Southwest show the most promise for continued expansion and have each placed orders for additional jet aircraft. These carriers added 182 aircraft to their fleet in 2005 and 2006. JetBlue placed the most aggressive orders, with 65 Airbus A320s and 100 Embraer 190 100-seat regional jets (Wikipedia 2006, Southwest Airlines 2006).

Low fare carriers cater to more budget-conscious travelers by offering one class of service and saving on meals. They have simpler pricing and don't charge as much to change an itinerary. Although they too have felt the sting of industry woes, low fare carriers have fared much better than the larger network carriers. Their low cost structure has allowed their fares to remain low as well. This has helped undermine the pricing power of the major high cost carriers.

2.1.1.6 Load Factors

The higher percentage of filled seats these days does not necessarily mean the airlines will be able to make more money in the future. In theory, the lower the seat supply, the more the airlines can charge. But it is unclear right now whether travelers are willing to pay higher fares, especially since they have gotten used to low prices: the average domestic fare paid dropped almost every month between March 2001 and December 2003.

As shown in **Figure 2.8**, the breakeven passenger load factors for the major carriers are at record highs. In the late 1990s their breakeven load factor was about 66 percent. As depicted in the graph, the actual load factors were around 70 to 71 percent during the same period. This translates to profits for the airlines during the late 1990s. However, by 2001, the gap between the actual and breakeven load factors widened. Low airfares coupled with higher airline costs

have meant more seats need to be filled to avoid losses. By 2002, the breakeven load factor reached 81 percent and the actual load factor was just 72 percent, indicating the losses incurred by the airlines. United Airlines had one of the highest breakeven load factors, reaching 98.1 percent in the fourth quarter of 2002. In 2005, the breakeven load factor of (82.3 percent) was the highest value recorded. The actual load factor by major U.S. carriers has remained between 71 and 77 percent since 2002 due to cutbacks in capacity and lower airfares. The gap indicates the industry is still continuing to lose money (Air Transport Association 2006c).
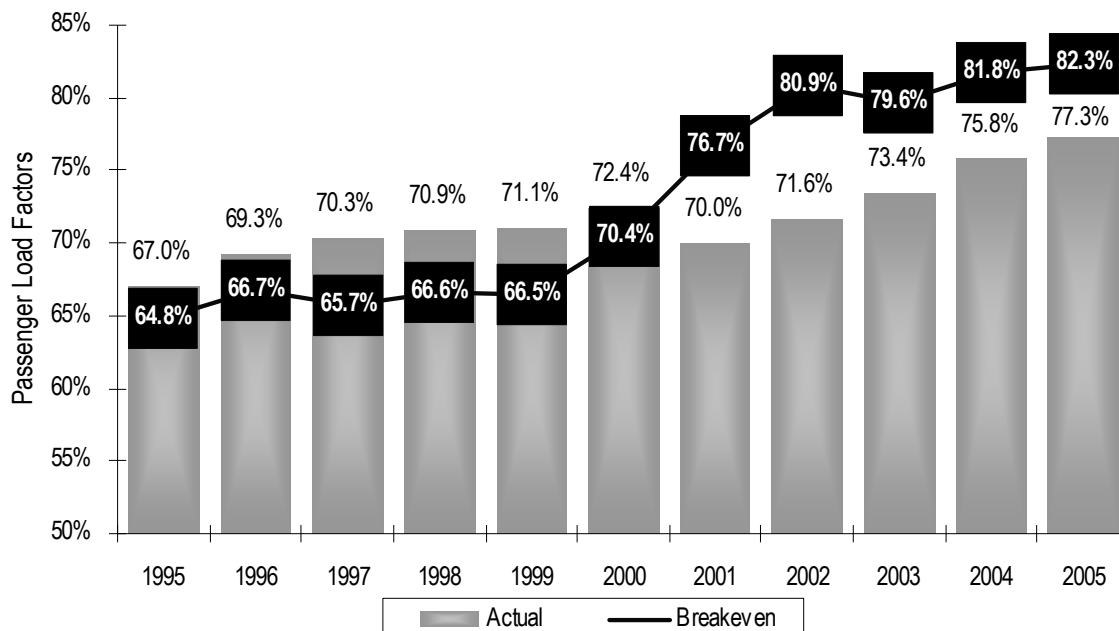
Figure 2.8
ACTUAL AND BREAKEVEN LOAD FACTORS OF MAJOR U.S. CARRIERS

Source: Air Transport Association 2006c.

2.1.2 Regional Airlines

Over the last 25 years, the nature of the regional airline industry has changed dramatically. Since airline deregulation, these airlines have had a turbulent history stemming from (1) radical changes in their mission and affiliations with major carriers; (2) their traditional role of serving smaller communities (thinner markets); and (3) higher unit costs stemming from the use of smaller aircraft. Each of these factors has contributed to the transformation of regional carriers as they operate today.

Regional air carriers have historically engaged in several distinct missions. Prior to airline deregulation, these air carriers were referred to as "commuters" and as their name suggested, they offered short haul air service within a fairly limited geographic region, usually from small cities to a metropolitan area or in a linear service pattern. Their route structure was shaped by federal regulation, small aircraft with limited range, and frequently by mail contracts, which provided a consistent flow of revenue.

Following airline deregulation, the field was wide open. The larger regional carriers went on to operate bigger aircraft and service beyond their original market areas. Among the most notable were Piedmont Aviation, Allegheny, and North Central. Between 1978 and 1986 there was unprecedented expansion of commuter airlines. Heavy investment was poured into the growth of expansive regional route systems. Airlines such as Wings West, Simmons, Britt, Metro, and Air Wisconsin provided the major carriers with a substantial amount of connecting traffic at the larger airports.

In the late 1980s, realizing the potential to deliver substantial amounts of traffic to their routes, the major carriers began to build their hub networks and entered into codeshare agreements with regional carriers. Through a codeshare agreement, regional airlines are recognized in computer reservations systems as part of the major airline's system. Customers purchasing airline tickets see only one airline in the system, providing them service to their final destination, whether they live in a large or small city. Beyond that basic definition, codeshare agreements can vary as much in their specifics as one airline does from another. Some agreements stipulate complete or partial ownership by the major carrier, while others are marketing agreements without ownership by the major. These partnerships had varying levels of success as major carriers such as Frontier Airlines, Hughes Airwest, Western Airlines, Pan American, and Republic were either acquired or went bankrupt. The regional airlines that operate today perform a critical function in the airline industry. They bring local and connecting passengers from "thin markets" into hub airports for their major partners. This feed is highly valued by the majors, who depend on this traffic to support the hub and spoke model.

With the advent of the regional jet aircraft in the mid-1990s, the nature of the regional carriers shifted again. The popularity and flexibility of the regional jet led to some of the most profitable years for regional carriers. Noticing this, major carriers purchased some of their partners including Delta, Northwest, and Continental. **Table 2.3** presents the current major and regional carrier partnerships. Some regionals are wholly-owned subsidiaries of a major airline, for example, American Eagle, established by American Airlines in 1984. Others are separate companies that work with the majors through a contractual codesharing arrangement.

Table 2.3
2006 MAJOR AND REGIONAL CARRIER PARTNERSHIPS

	Regional Partners	
Major Carrier	Wholly-Owned Subsidiaries	Affiliates
Alaska	Horizon	Big Sky
American	American Eagle	Chautauqua
	Executive	RegionsAir
		Trans States
Continental Express	ExpressJet	Cape Air
		Colgan Air
		CommutAir
		Gulfstream
		RegionsAir
Delta Connection	Comair	Atlantic Southeast
		Chautauqua
		Freedom Airlines
		Shuttle America
		SkyWest
Frontier		Great Lakes
		Horizon
Midwest Connect	SkyWay	
Northwest Airlink	Pinnacle	Big Sky
		Mesaba
United Express		Chautauqua
		Colgan Air
		GoJet Airlines
		Great Lakes
		Mesa Airlines
		Republic Airlines
		Shuttle America
		SkyWest
		Trans States Airlines
US Airways Group[1]	Air Midwest	Air Wisconsin
US Airways Express /	Mesa	Big Sky
America West	Piedmont	Chautauqua
	PSA	Colgan Air
	Republic Airlines[2]	Trans States Airlines

Sources: Alaska Airlines 2006, American Airlines 2006, Continental Airlines 2006, Delta Air Lines 2006, Frontier Airlines 2006, Midwest Airlines 2006, Northwest Airlines 2006, United Airlines 2006b, US Airways 2006b.

Notes: [1]America West Airlines merged with US Airways in September 2005.
    [2]Republic Airlines is a recently formed division of US Airways that will operate regional jet aircraft.

The major-regional carrier contracts are often on a "cost plus" basis; the major carrier pays the regional a straight fee for each flight (regardless of how many passengers are on it or how much the ticket costs) plus a fixed profit margin. The per-flight fees can range from $1,500 to $2,500 depending on the airline and the type of plane. The comfort of being a regional airline attached to a major carrier is that it provides a guaranteed income. A regional carrier's earnings are much less volatile than other airlines under the cost plus agreement. Under this kind of

agreement, the major carrier has control over routes, frequency, and fares for operation. Under a prorate agreement (or revenue share), the regional partner shares the revenue made on passengers connecting to major partner flights instead of being guaranteed a certain amount to fly the route. Under this type of agreement, the regional partner plays a role in setting fares on local routes and scheduling flights.

As the major airlines strived to cut operating costs in recent years, they increasingly have been turning to regional partners to take over short-haul routes. Beyond deploying appropriately sized aircraft, regional carriers have the corporate culture and cost structure to handle many connecting flights more cheaply than the major airlines. While the majors have frequently passed over shorter routes to regional carriers, many have been renegotiating these agreements to pay lower fees in order to cut additional costs.

2.1.2.1 Rise of Regional Jets

Comair, the commuter partner of Delta Air Lines, put the first regional jet into U.S. service in June 1993. Initially, regional jets were accepted somewhat slowly. However, since that initial introduction, the use of regional jets has increased substantially. As shown in **Figure 2.9**, regional jets accounted for two percent of all U.S. flights in August 1997, operated by seven airlines. By August 2000, 12 airlines were operating regional jets flying 10 percent of U.S. flights. Today, regional jets account for a significant portion of the traffic at most key airline hubs. Regional jet traffic now outnumbers turboprop traffic at most hub airports. Over 33 percent of all scheduled flights in the U.S. in 2004 were flown using regional jet equipment. By September 2006, regional jets gained three additional points of market share and accounted for 36 percent of all scheduled U.S. flights (*Official Airline Guide* 2006a).
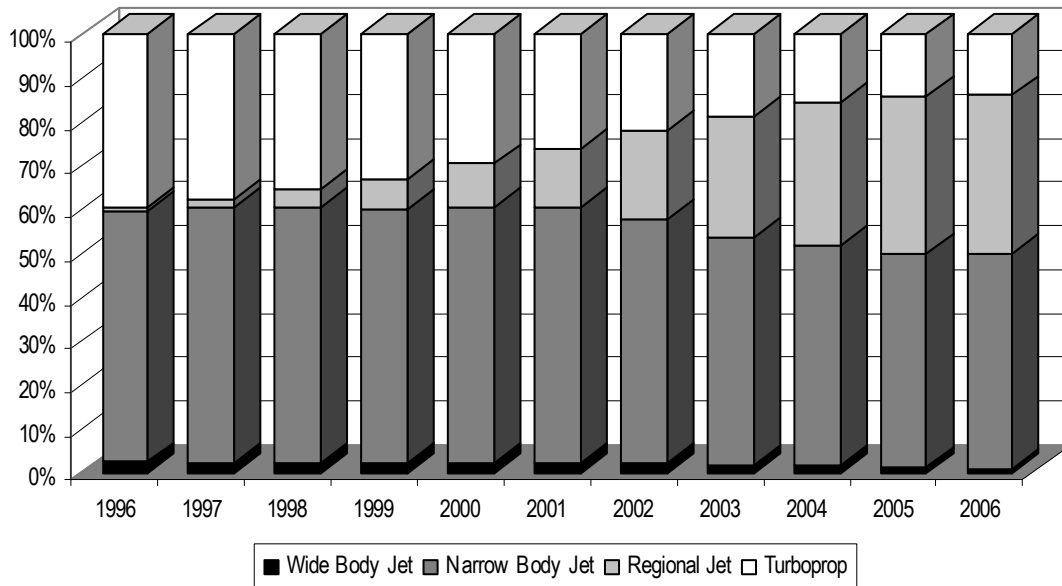
Figure 2.9
FLEET COMPOSITION OF SCHEDULED DEPARTURES
(For the month of August)

Source: *Official Airline Guide* 2006a.

The changing fleet mix of regional jets can be seen at many airports over just a one-year period. The continued growth in regional jet use is expected to drive an increase in the average seating configuration of regional airline traffic. The average regional aircraft held 18 passengers in 1986. By 1996, the average seating configuration had increased to 25 seats. In 2004, regional airline flights averaged 38 seats. The FAA expects an increase to an average of 54.9 seats by 2016 (FAA 2005)

The regional jet is the fastest growing segment of aircraft in the U.S. According to UBS Investment Research, regional airline capacity will increase 21 percent per year on average between 2001 and 2006 (American Association of Airport Executives 2003). However, the character of the regional jet flying is now shifting towards even larger 70-, 90-, and 100-seat "regional jets." Regional partners and traditional carriers slowed their orders for 50-seat and 32-seat regional jets and opting for larger regional jets that will be placed on routes that are typically served by smaller jets such as Boeing 737s and A320s.

2.1.2.2 Regional Airlines and Small Communities

Many regional carriers switched to an "all jet" fleet, replacing all of their turboprop aircraft. Many of these turboprops, especially the 19-seat aircraft, have not been put back into service. The retirement of many 19-seat turboprops due to relatively high operating costs and customer preference has made it difficult for small communities to maintain an adequate level of air service. The recent industry trends have had a significant impact on the viability of traditional regional airline service in small markets. This looks even more bleak as carriers such as Mesa

and US Airways have cut back their orders on 50-seat regional jets and place additional orders for the roomier 70- and 90-seat models.

The break-even load factors required for a regional airline to remain profitable have also gone up dramatically over the last five years. Several regional carriers use 19-seat aircraft, such as the Beechcraft 1900 used by Big Sky in Montana, to serve small markets. Many of these aircraft were replaced with 32- to 50-seat regional jet aircraft. The reasons for this replacement are customer acceptance of the larger aircraft and higher regulatory costs for all aircraft, which in turn is making it more expensive to operate the 19-seat aircraft. For these reasons, there are fewer carriers committed to providing service to small nonhub airports, especially without some type of subsidy.

While the increasing use of regional jets is a positive trend for many communities, some communities face negative impacts. Regional jets typically have higher operating costs per seat mile than turboprop aircraft. Airlines require higher load factors to break even with regional jet service than they would with turboprops because of these higher operating costs. The higher operating costs and increased load factor requirements tend to limit the feasibility of regional jet service at the smallest communities. Therefore, these markets, in all likelihood, will only be profitably served with turboprop aircraft, and may find it increasingly difficult to gain access to hubs, as carriers continue to replace their turboprop routes with more profitable regional jet routes. There seems to be little recent good news for small communities across the country.

Historically, it was noted that 10,000 annual enplanements were needed to support financially viable service by 19-passenger aircraft. This is assuming the service is operated three times a day, seven days a week, with a 50 percent load factor (which is no longer sufficient based on current costs). For a 50-seat regional jet, the most popular-sized regional jet, the same frequency at 60 percent load factor requires 33,000 annual enplanements to sufficiently support the service. As more and more turboprop aircraft are retired, smaller communities will need higher enplanement levels to support regional carrier service. Based on current and projected near-term industry trends, it is anticipated that small communities will struggle to improve the level of air service offered at their airports.

According to the Regional Air Service Initiative (RASI)[3], new regional jet service was started between 183 city pairs in 2002. Nearly half of these city pair routes did not have scheduled service. Regional jets (RJs) replaced turboprops only 18 percent of the time. Many RJ additions were to replace or supplement mainline service or to supplement RJ service already in place. Two-thirds of the new regional jet service was provided on routes that are greater than 500 miles. Historically, turboprop aircraft were placed on routes less than 500 miles. Only 15 percent of the cities served by RJs have fewer than 100,000 people living in their MSA (RASI 2003.) The regional jets' operational and economic characteristics are an excellent match for

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[3] The Regional Air Service Initiative (RASI) was formed by a group of regional aircraft manufacturers and suppliers to inform the public about regional airlines and the regional jet aircraft, as well as the role the aircraft play in the aviation industry.

midsize, high load factor markets. In June 2005, regional jet aircraft operated at 230 airports in the continental U.S. (*Official Airline Guide* 2005).

Large ratios of passenger diversion (people driving in their cars instead of flying on a commercial airline) at all but the most isolated small airports may contribute to further retirement of 19-seat aircraft in codesharing fleets. Carriers cite high relative operating costs for 19-seat airplanes, customer preferences for larger aircraft, and concentration of resources on development of regional jet markets as reasons for fleet changes. This is significant because the 19-seat aircraft has historically been the backbone of small community air service throughout the U.S. Many small communities throughout the country and in Montana cannot support larger turboprop or regional jet aircraft because of economic factors, Part 121 issues, runway length, distance to a hub, among other reasons. As more and more carriers go to an "all jet fleet" and with the continued retirement of 19-seat turboprops, it will be difficult for small communities, including some in Montana, to maintain air service without subsidy.

2.1.3   Individual Airline Trends

The airlines that currently serve Montana's airports have all been impacted by recent airline industry trends. A summary of their current operating structure and the future growth plans of each airline are discussed below.

2.1.3.1 Big Sky Airlines

Big Sky Airlines is a subsidiary of MAIR Holdings, Inc. Big Sky serves communities throughout Montana, Colorado and Idaho using 19-seat turboprop aircraft. **Figure 2.10** presents the routes currently flown by Big Sky Airlines. Big Sky serves all Montana commercial service airports, excluding Butte, Great Falls, Kalispell, and West Yellowstone. Big Sky is based in Billings, Montana, and has codeshare agreements with Northwest Airlines, Alaska Airlines, America West Airlines, and Horizon Airlines. Big Sky is a significant provider of air service under the Essential Air Service (EAS) program administered by the US DOT. In 2005, Big Sky leased 10 Beechcraft B1900D aircraft from Mesa Airlines and retired its entire Metro fleet in 2006. Big Sky recently began service under a US DOT EAS contract to provide nonstop service between Sheridan, Wyoming, Billings, and Denver. Recent service announcements by Big Sky include new daily nonstop service between Missoula and Portland and one-stop service between Helena and Portland (via Missoula). In September 2006, Big Sky discontinued air service to Great Falls and Kalispell (Big Sky Airlines 2006).
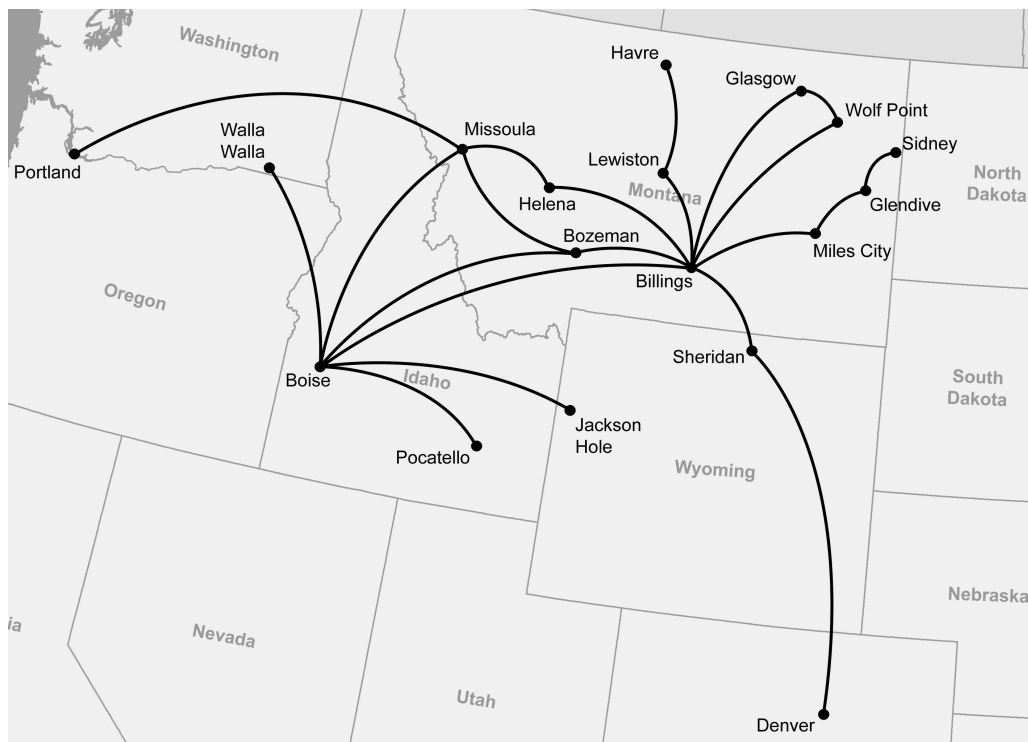
Figure 2.10
BIG SKY AIRLINES ROUTE MAP
(September 2006)

Source: Big Sky Airlines 2006.

2.1.3.2 Horizon Airlines

Horizon Airlines is a subsidiary of Alaska Air Group and serves more than 40 cities in Washington, Oregon, Idaho, Montana, California, Arizona, British Columbia and Alberta. The company is the only regional airline named to the Condé Nast Traveler Magazine's Readers Choice Awards list. Horizon has hubs in Seattle, Portland, and Boise. Horizon is a partner of Alaska Airlines and does contract flying for Frontier Airlines as Frontier JetExpress.

Horizon has a fleet of fuel-efficient aircraft including Bombardier Q400 turboprops and CRJ-700 regional jets (both with 70 seats). The aircraft are roomier and quieter than the recently retired turboprop aircraft. The longer range of the CRJ-700s and Q400s also allow Horizon to take customers to more distant markets. The new aircraft have joined the 37-seat Bombardier Q200s, which were added to the fleet in 1997 and continue to be used for shorter distances. In March 2006, the average aircraft age of Horizon's 65 aircraft fleet was just 5.6 years old. Horizon had a 12 percent capacity increase in 2005 over 2004 due to adding an additional row of seats in the Q400 aircraft increasing the number of seats to 74. In late 2006, Horizon will begin to take delivery of 13 additional Q400s. It was recently announced that these aircraft will replace the smaller Q200s, 16 of which are being transitioned out of the fleet in the next two years (Alaska Airlines 2006).

2.1.3.3 Delta and Delta Connection

Delta Air Lines operates its third largest hub operation at Salt Lake City International Airport along with its regional partner, SkyWest. To cut costs in the fall of 2003, Delta announced a restructuring of its hub in Salt Lake City. Delta's schedule and aircraft restructuring included a cut back of lagging routes, increased frequency of more profitable routes, and shifted more business to regional carriers. The number of Delta flights from Salt Lake City increased to more than 350 daily, but more routes were taken over by regional partners SkyWest and Comair. Flights on Delta mainline jets decreased from 115 to 95, as the airline redeployed mainline jets to other hubs. In Montana, Delta transitioned nearly all mainline jet service to regional partners in 2003. The carrier provides scheduled jet service from Bozeman to Atlanta once a week on a seasonal basis. Jet service is provided on Delta regional partners at Billings, Great Falls, Kalispell, and Missoula. Delta entered bankruptcy in September 2005 citing high labor costs and exorbitant fuel prices. Delta is targeting a $3 billion per year cost reduction by 2007. As for Delta's route network, the carrier will reduce domestic capacity by 20 percent and grow international routes by 25 percent. Montana airports served by Delta and Delta Connection partners have been impacted by the changes. In December 2005, Delta cut one-quarter of all flights between Salt Lake City and Montana airports (*Official Airline Guide* 2006a).

Since 9/11, SkyWest has focused on taking over mainline jet routes from Delta at the Salt Lake City hub. SkyWest has 62 regional jets and 12 Brasilias (30-seat turboprop aircraft) currently flying for Delta Connection. In 2003, Comair, another Delta Connection carrier, also began flying at Salt Lake City. In August 2005 Delta sold Atlantic Southeast Airlines (ASA) to SkyWest. ASA began flying at Salt Lake City as well shortly thereafter.

Figure 2.11 presents the current routes being served by SkyWest from Salt Lake City. Seasonal EAS service (June 1- September 30) is also provided by SkyWest between West Yellowstone and Salt Lake City but is not shown on the map. SkyWest serves seven other Montana airports (SkyWest Airlines 2006).
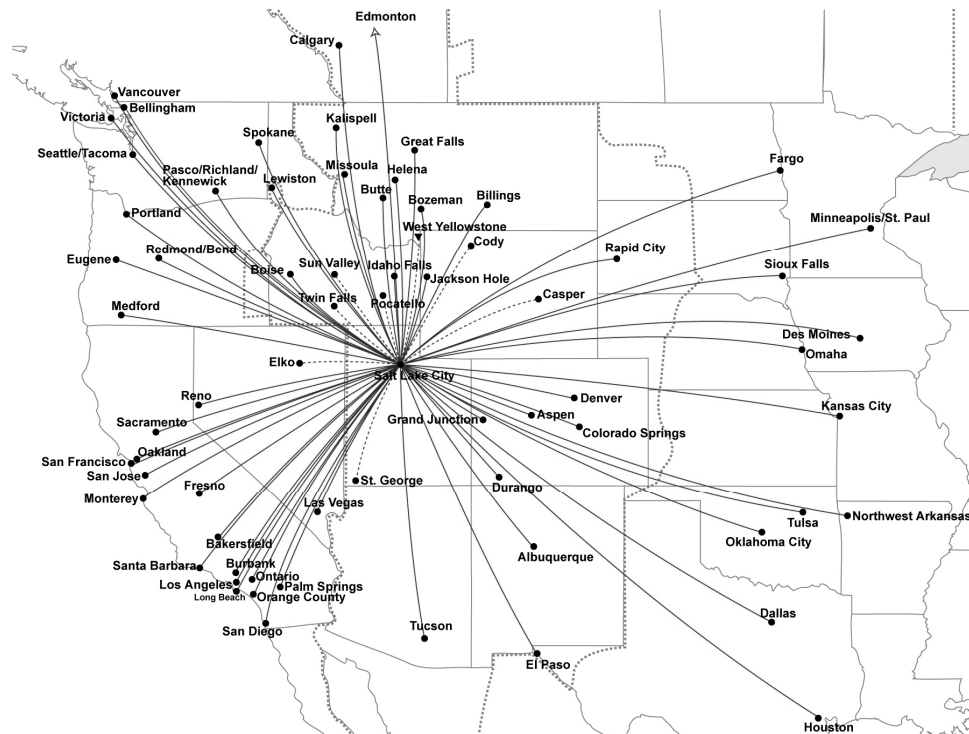
Figure 2.11
SKYWEST (DELTA CONNECTION) ROUTE STRUCTURE
AT SALT LAKE CITY INTERNATIONAL AIRPORT
(September 2006)

Source: SkyWest Airlines 2006.

2.1.3.4 Northwest and Northwest Airlink

Northwest has long provided jet service between its hub in Minneapolis and several Montana communities including Billings, Bozeman, Great Falls, Kalispell, and Missoula. In addition, in 2002, Northwest began one-stop service between Helena and Minneapolis (via Billings). This service was transitioned to nonstop service by Northwest Airlink carrier, Pinnacle Airlines, in 2003. Pinnacle currently provides daily regional jet service at Helena.

Northwest has not been exempt from the financial difficulties and rising fuel costs impacting carriers across the U.S. In September 2005, Northwest filed for Chapter 11 bankruptcy protection. The carrier has made progress on restructuring labor costs and pensions and has retired a large number of aircraft types in order to simplify its fleet. Northwest plans to focus domestically on service to markets in the "Heartland," including 68 non-hub markets in the upper Midwest. Many of these markets are served by Northwest Airlink partners Pinnacle and Mesaba. Northwest also plans to grow its Asia Pacific service.

Northwest took delivery of 22 additional regional jets in 2005 that will be flown by Pinnacle. According to an agreement with its pilots to limit the number of regional jets it leases to Pinnacle and Mesaba Airlines, Northwest Airlines will have to add a third regional partner if it

wants more 50-seat jets to its Northwest Airlink division. A new pilot union scope clause allows a third partner to fly 40 more 50-seat jets, but essentially shuts out Mesaba from any 50-seat jet flying and limits Pinnacle to 139 jets total. The scope clause still allows an unlimited number of 44-seat jets at the two existing regional affiliates, but continues to bar any Northwest Airlink partner from flying any airplane certified for more than 55 seats for either Northwest or any other mainline codeshare partner.

In October 2006, Northwest placed an order for 36 Embraer 175 and 36 Bombardier CRJ900 aircraft. These aircraft each have 76 seats with a two class configuration. Northwest will begin taking delivery on these regional jets during the second quarter of 2007. Northwest is also seeking approval to start its own regional subsidiary, called Compass Airlines. Northwest said Compass Airlines will operate the Embraers, while the Bombardier operator will be determined (Fedor 2006, Northwest Airlines 2006).

2.1.3.5 United and United Express

United Airlines suffered tremendous financial hardships after the economic downturn and 9/11. United entered bankruptcy in December 2002 and has undergone extreme cost cutting measures. The mainline carrier has reduced its fleet and replaced domestic capacity with regional jets operated by United Express carriers and shifted additional capacity to international routes. United emerged from bankruptcy in February 2006.

United and United Express partner, SkyWest, offer service between four Montana communities (Great Falls, Missoula, Bozeman, and Billings) and the Denver hub. The current routes flown by SkyWest as United Express are presented in **Figure 2.12**. Although United has struggled financially, United Express has expanded in Montana over the last five years. Historically, United has provided large jet service to one Montana community, Billings. In 2001, United Express introduced new regional jet service at Missoula and Bozeman to United's hub in Denver. Despite United's financial troubles, United Express continues to expand in Montana (SkyWest Airlines 2006).
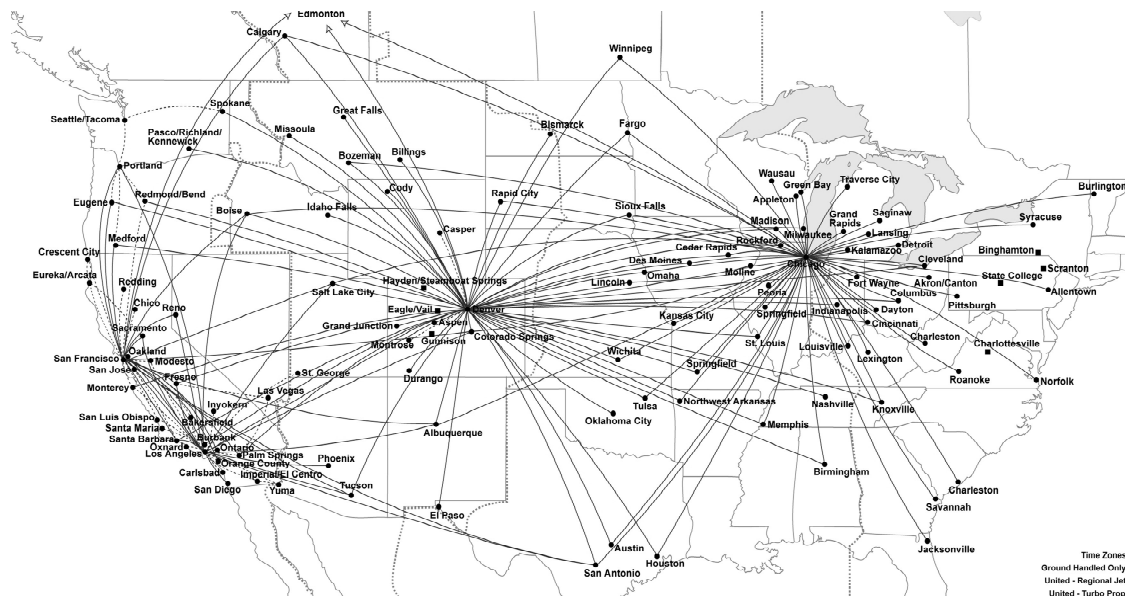
Figure 2.12
SKYWEST (UNITED EXPRESS) ROUTE STRUCTURE
(September 2006)

Source: SkyWest Airlines 2006.

Most of SkyWest's aircraft expansion for United is focused on the CRJ 700. In April 2005, SkyWest placed a firm order with Bombardier for an additional 20 CRJ700 regional jet aircraft. SkyWest has previously ordered 32 CRJ700 regional jet aircraft that are currently being delivered by Bombardier. As a result of this new order, SkyWest operated 52 CRJ700 regional jet aircraft by early 2006 in addition to 68 CRJ200 aircraft and 50 Brasilia turboprops. All of these new aircraft are being flown on behalf of United Airlines in the company's United Express operations in cites such as Chicago, Denver, Los Angeles, and San Francisco. The CRJ700 aircraft have a 66-seat configuration with six first class seats (SkyWest Airlines 2006).

SkyWest is also looking at aircraft larger than its current 66-passsenger Bombardier regional jets and already has set-up pay scales for larger aircraft. The airline is considering either additional Bombardier or Embraer aircraft with more than 70 seats.

2.1.3.6 America West/US Airways

In September 2005, America West and US Airways merged. This new entity is branded as US Airways Group. Prior to the merger, Mesa, flying as America West Express, provided nonstop regional jet service between America West's hub in Phoenix and the Montana airports of Kalispell and Billings. America West Express also provided service between Billings and Las Vegas. In January 2006, these flights were discontinued. However, US Airways (formerly America West) reintroduced daily service between Kalispell and Phoenix in June 2006. This service is seasonal and provided by a combination of Mesa (on CRJ aircraft) and US Airways (America West) on A319 jet aircraft (US Airways 2006b).

2.1.3.7 Frontier

Denver-based Frontier Airlines is the second largest carrier at Denver International Airport with a fleet of 56 aircraft and employing approximately 4,800 aviation professionals. Frontier, in conjunction with Frontier JetExpress operated by Horizon Air, operates routes linking the Denver hub to 44 destinations in 25 states. Frontier operates an all new Airbus fleet which increases efficiency and maximizes aircraft utilization. In March 2006, the aircraft in Frontier's fleet were an average of 2.6 years old. Horizon operates nine 70-seat CRJ-700 aircraft for Frontier. However, on September 6, 2006, Frontier announced that it would discontinue its relationship with Horizon. Beginning in May 2007, a newly created wholly-owned subsidiary of Frontier, Lynx Aviation, will operate 10 Bombardier Q400 aircraft and fly under the name Frontier Express. In addition to the 10 purchased aircraft, there are options for 10 additional Q400s through 2009. Frontier plans to modestly grow its Airbus fleet by 2008 (Frontier Airlines 2006).

2.1.3.8 Allegiant Air

Allegiant Air, based in Las Vegas, currently operates a fleet of 23 aircraft including three MD-87's (130 seats) and twelve MD-83's (150 seats). Allegiant Air, founded in 1997, mainly operated charter service in its early years. The company has grown its scheduled service operations over the last five years and now flies between 33 cities in the U.S. and Las Vegas. Allegiant Air also provides nonstop scheduled service between Orlando Sanford International Airport and 21 cities and between Tampa Bay-St. Petersburg and 12 cities.

Allegiant Airlines began nonstop service between Missoula and Las Vegas in March 2005. The new flights operate three times per week in the summer and two times per week the rest of the year, utilizing 150-seat MD-80 jet aircraft on the route. Allegiant noted that its market research and input from local community leaders indicated that the Missoula area will welcome the new nonstop flights and low fares to Las Vegas as an alternative to connecting flights or long drives to other airports. Three weekly flights to Billings began in March 2006. Allegiant has aggressive growth plans and recently expanded bases at Orlando Sanford International Airport and St. Petersburg. When entering a new market, Allegiant looks for strong O&D markets to Las Vegas, Orlando, or Tampa and also seeks a strong commitment from the airports it serves in terms of marketing and support (Allegiant Airlines 2006).

2.1.3.9 Charter Carriers

Several charter airlines also operate limited scheduled service to various leisure points in the U.S., including Las Vegas and Florida. These carriers follow a low fare business model, with pricing and route structures that are different from typical legacy or low fare carriers. Carriers that are currently operating as scheduled charter carriers include Sun Country, USA3000, and ATA. Sun Country operates at several Montana communities, but on an infrequent basis. In 2006, Sun Country provided service on a seasonal basis between Laughlin, Nevada, and Billings.

2.1.4   Small Community Air Service Realities

A brief perusal of the industry trends gives small communities reason to pause. Commercial air service in the U.S. is constantly changing. Since deregulation, the airline industry has been consolidating, with very few successful startup airlines. Following the recent economic downturn and events of September 11th, traditional mainline carriers are restructuring their operations. This has caused a loss of service and capacity to over 60 percent of the commercial service airports in the U.S. The carriers are constantly striving to reduce all costs, including labor, fleet, maintenance, travel agent commissions, and airport fees. With consolidation, carrier alliances, and recent economic realities, the days of multiple carriers serving a small airport are the exception rather than the rule.

Low fare airlines, which once focused largely on specific regions of the country, are increasingly going after the long-haul flights that have long been the bread and butter of the major carriers. This has been especially true during the most recent economic downturn. But what's bad for "legacy" carriers like Delta -- which due to higher costs can scarcely afford to offer such low fares -- is good for consumers, who get the benefit of falling fares.

Many of the regional carriers that were once focused on service to small communities of all sizes are evolving into small jet carriers serving a different mission altogether. As already stated, the 50- to 90-seat regional jet market is one of the few growth markets in the United States. The evolution of commuter airlines to regional jet carriers has been to the detriment of most small communities. But, as already observed, the major carriers adopt strikingly similar strategies with respect to air service. One of the largest sectors of airline cost after labor is the cost of the aircraft. Small aircraft operations may once again become economical as the market value of turboprop aircraft continues to decline, but the type of service that can be provided with turboprop aircraft may not fit the mold of historical airline activity.

Put into a historical context, the airline industry has gone through two distinct waves of regional air service. Prior to 1988, a considerable network of point-to-point service existed in many parts of the United States, linking communities within a state or region, such as New England. This type of service was almost completely replaced with a hub and spoke system. Today, the hub and spoke system is concentrating on the larger markets. With the recent success of low fare carriers, point-to-point service is again on the rise, however, the hub-and-spoke model will continue to be the preferred model for mainline carriers and their regional partners.

Perhaps a new class of carrier is once again needed that can profitably carry passengers from small communities to regional centers, hubs, or principal destinations. However, acceptance of this new type of service will require an educational process to garner approval from communities that have been served by larger, more traditional carriers in the past. The U.S. General Accounting Office (GAO) identifies several realities in the commercial air service industry today that limit small communities' abilities to improve air service. These realities

make it extremely difficult to improve small community air service without additional financial assistance (U.S. General Accounting Office 2002). They include:

- **Limited Demand and Economic Activity**: The level of air service in a community will always be limited by population size and the amount of economic activity. According to the GAO, for every additional 25,000 jobs in a county, a community received 4.8 more turboprop departures per week. For every additional $5,000 in per capita income, a community received 12.7 more weekly turboprop departures on average.
- **Current Restructuring of Industry:** It is uneconomical for mainline carriers to serve smaller communities under their current cost structure. More and more mainline routes are being shifted to commuter partners who are purchasing regional jets to serve the routes and phasing out turboprop aircraft, which are becoming more and more expensive to operate due to Part 121 regulations.
- **Continued Diversion**: There will always be an inherent level of "leakage" that will occur in a small community. It has been noted that passengers will drive up to four hours to access low fares offered at larger airports. The low fare airlines' share of domestic passengers reached 25 percent by the end of 2003, up from 14 percent 10 years prior.

Air transportation in the United States has always depended upon the support of private enterprise and public sponsors. This relationship has gone through many stages. Prior to airline deregulation, the federal government established a very high standard for air service throughout the country by regulating the routes, frequency of service, and price. Viewed as a public utility, federal, state, and local sponsors invested billions of dollars in an infrastructure to support the national air transportation system. The philosophy of building an air transportation system was similar to the political will and support that developed our nation's highway system.

For the carriers, the rate of return prior to airline deregulation was highly predictable and stable. Airline deregulation challenged almost every premise that existed concerning the delivery and pricing of air transportation. Deregulation also tested and changed forever the partnership that existed between the airline industry and the government. It would be an understatement to say that the last 30 years have been less than turbulent. That air service has remained relatively safe and reliable is a testament to strong underlying demand and the good business sense of the surviving carriers.

That said, the evolving relationship between the airline industry and its public sponsors remains tense and often illogical. Consider the following paradoxes:

- The public builds and maintains airports, but the airlines decide where to fly. The fixed assets of an airport take many years to develop. The airport often sits on valuable land and requires continual (and costly) maintenance. An airline's aircraft are highly moveable assets, enabling the airlines to be more responsive to change than airports. A

- carrier's entire fleet could turn over and change in less time than it takes to design and build a new airport runway.
- Many of the smaller airports in the United States find themselves debating the merits of continued investment in airports when commercial service eludes them. Airport sponsors, in an attempt to stabilize service and use of their facilities, have taken on active roles in the advertising and marketing of air service. Yet airports have no control over the products they are marketing.
- The federal government, by regulatory decree, strives to increase the safety of small commercial airline service. However, implementation of the Part 121 regulations for aircraft under 10 seats effectively terminates this type of commercial service.

2.1.5   Summary

Reluctantly, many passengers from small cities drive to larger airports, even if this means over a 100-mile drive each way. Alternatively, some small communities must begin to look beyond the present structure of air service in the U.S. for other options. This section presented the clues to determine a reasonable set of expectations and options for action at Montana's airports.

The airline industry trends discussed in this chapter provide the underlying basis for the analysis of Montana's air service. It is important to note that, as a dynamic industry, commercial air service will continue to evolve and it is possible that the trends will change more dramatically than anticipated in the coming years.

2.2   CARGO TRENDS

There are several identifiable economic, logistic, and security trends that are shaping the future of the air cargo industry. These trends range from industry specific to macroeconomic factors that have a direct impact on the growth and development of air cargo. Not only do these multiple factors influence the development of national and international air cargo operators and airports, they also have the potential to affect the growth and development of air commerce in the State of Montana.

This section provides an overview of air cargo industry trends, as well as issues and growth factors that are expected to impact the industry's structure, operations, and dynamics within the coming years. Understanding these factors is a key component in forecasting the core market and development potential of Montana's air cargo market. The following issues are addressed in the subsequent sections:

- Industry Consolidation.
- Modal Shift.
- Declining Availability of Belly Space.
- Boeing Forecasts.
- Current Cargo Routes in Montana.

2.2.1 Industry Consolidation

The market forces that enabled service-oriented express carriers to literally create new markets and, at the same time, divert cargo from traditional cargo channels remains. However, the explosive growth realized by integrated express carriers (FedEx, UPS, etc.) in the 1980s and 1990s has moderated. As the market continues to mature, the distinctions among players are increasingly blurred. The integrated express carriers are carrying larger packages and offering second- and third-day economy service ("deferred service"). These time-definite but more economical services have proven highly successful and represent one of the largest growth areas in the cargo business. Integrated express carriers can accommodate this deferred product business during non-peak network windows. Carriers can fly existing express air network airframes during the day and have these same aircraft in position for the core nightly express operation.

Surprisingly, innovation in the industry is now taking place amongst other participants, principally the postal organizations, the freight forwarders, and less-than-truckload (LTL) companies. The postal organizations have begun to compete with and resemble the integrated carriers. In 2001, the USPS entered into a contract with FedEx to handle its express and priority product lines. Deutsche Post purchased DHL Worldwide Express, which subsequently purchased Airborne Express. In September 2005, DHL consolidated the legacy DHL and Airborne Express US air networks into one system. As part of the integration, DHL terminated air operations at its primary US hub in Cincinnati, Ohio. The primary hub for the DHL US air network is now located in Wilmington, Ohio.

Freight forwarders, anxious to carve out a role in the global transportation and supply chain management business, are also entering into a wide variety of horizontal and vertical partnerships. Panalpina, one of the largest international freight forwarders, has advanced a new business model whereby freight forwarders, on behalf of one or more shippers, use dedicated freighters to provide scheduled service to selected destinations. "Integrated forwarders" are more prevalent in transcontinental markets, controlling a significant majority of international air cargo.

As time-definite air transport has become the rule rather than the exception, shippers and consumers have grown to expect that a shipment will be handled with care and arrive at the promised time. The focus on service has made shippers and consumers more price sensitive and less mode-sensitive. This trend has opened the door to surface-based competition, particularly in the regional express markets where the line haul is less than 1,000 miles.

2.2.2 Modal Shift

The shift in focus from express to time-definite service, coupled with financial and cost-saving measures, has resulted in more extensive use of trucks on longer distance routes traditionally reserved for aircraft. This modal shift is particularly pronounced within the integrated express carrier community.

Integrated express carriers, either through acquisitions or contracts, are using trucks to provide overnight service on short-haul segments or to meet longer delivery schedules. UPS began as a trucking service and expanded into air cargo. FedEx has built extensive ground service capability through the acquisitions of RPS, Inc., Caliber Systems, Inc., American Freightways, and Viking Freight.

Passenger and cargo airlines are also using trucks as a substitute for aircraft. This Road Feeder Service (RFS) is commonly used by both domestic and international airlines, and also by some of the large domestic heavyweight integrated carriers such as BAX Global. Among the largest national suppliers of Road Feeder Service are Forward Air, Air Cargo, Inc., Towne Air Freight, and Aeroground.

Less-than-truckload (LTL) companies have also become major competitors to air freight and enjoy a significant cost advantage versus the air freight industry because of lower capital costs for equipment and lower wage scales. To compete effectively in this segment, FedEx formed its own LTL subsidiary, FedEx Freight. Other larger LTL companies competing for time-definite shipments include Consolidated Freightways, Yellow Freight System, Con-Way, and Roadway Express. LTL companies also operate using a hub-and-spoke system similar to the integrated express carriers in which several banks of trucks arrive and depart daily. The key to LTL expansion into traditional air cargo markets is not increased speed of delivery, but time-definite delivery; a service once exclusively in the domain of the integrated express carriers.

The USPS has also increased the use of trucks in the transport of mail in order to reduce costs. Trucking of mail per pound costs one-fifth of air transport cost. The USPS has made a concerted effort to truck as much mail as possible and still make time schedules. Trucking distances for priority mail and first-class mail can now be as far as 800 miles, a distance previously limited to 500 miles.

The shift to truck operations, where logistically possible, is not exclusively due to the cost benefits of ground versus air transport. In recent years, there has been a fundamental shift in supply chain thinking away from just-in-time (J.I.T.) manufacturing and lean-inventory strategies. Events from the atrocities of September 11, to natural disasters in the far east, to the 2002 dock worker strike on the west coast, have led many logistics managers and purchasing agents to pursue more regional distribution systems, as well as increase safety stock and warehouse additional inventory. This move toward a more conservative and concentrated supply chain favors trucking over air operations. With the need for speed eliminated in these "cushioned" supply chains, coupled with time-definite service now offered by many LTL truckers, the cost premium required for air cargo transport is often not justified. Whether this is a temporary trend manifested in uncertain times, or a long-term shift in logistics strategies, remains to be seen.

2.2.3   Declining Availability of Belly Space

Air cargo operations are increasingly separating from passenger airline operations with carriers Lufthansa, American Airlines, and Air France now operating separate passenger and cargo operations. Approximately 60 percent of all air cargo transported is moved in the baggage compartments of passenger aircraft. In terms of value, 34 percent of all goods traded worldwide move via air transport. An increasing number of dedicated all-cargo aircraft are now deployed to support this trade. At the same time, the amount of capacity available in the baggage compartments of passenger aircraft is decreasing (The International Air Cargo Association 2006). This change can be attributed to:

- Increased market share held by the integrated express carriers.
- Higher passenger load factors.
- Increased use of smaller regional jets.
- Security restrictions post-September 11.

Careful planning, coupled with increased use of regional jets on domestic short-haul routes, has increased the passenger occupancy of many aircraft, resulting in more weight and space requirements for passengers and their baggage, and less for cargo. Further, airlines are seeking to increase the amount of time aircraft spend in the air and to reduce gate turnaround times. This shorter turnaround affects cargo operations because shorter gate turnarounds reduce the window of time for loading and offloading cargo.

Demand for passenger aircraft belly capacity is likely to continue. However, the integrated carriers have been very successful in expanding their markets to capture freight that formerly was the exclusive domain of the heavy cargo carriers (inclusive of commercial carriers). Because of this, most projections indicate continued strong growth for the integrated carriers and a gradual decline for air cargo traveling on commercial passenger airlines, particularly in the domestic market.

2.2.4   Boeing Forecasts

Boeing provides an annual world air cargo forecast which projects growth rates and activity levels by intra-region and region-to-region pairs. Worldwide, Boeing predicts that air cargo traffic will grow at an average annual rate of 6.1 percent over the next two decades, tripling current traffic levels. However, not all regions will grow at the same rate. Asian air cargo markets are expected to grow at the most rapid rate over the forecast period. Asian air cargo is projected to grow at an 8.6 percent annual rate region wide, with the domestic Chinese market expected to grow 10.8 percent annually. The North American air cargo market will grow at a lower than average rate due to market maturity in the region (The Boeing Company 2006).

2.2.5 U.S. Domestic Air Cargo in 2005

The U.S. domestic market accounted for 93.5 percent of the total North America market, whereas domestic Canada accounted for 3.2 percent. U.S. domestic cargo tonnage grew 1.8 percent in 2002 and 0.8 percent in 2003 peaking in 2004. In 2005, however, domestic air cargo declined 2.6 percent. The U.S. domestic air cargo market has grown 31.0 percent over the past 10 years to 21.0 billion revenue tonne-kilometers (RTK). Most of the growth occurred in the express sector which comprises approximately 61 percent of the domestic air cargo market. In 2005, the express sector grew less than 0.1 percent, following 4.3 percent growth in 2004 and 2.9 percent growth in 2003. This flattening in 2005 is primarily the result of the modal shift from aircraft to trucks. Nevertheless, the express sector continues to be an important part of the U.S. domestic air cargo market, accounting for a 61 percent share of the total U.S. domestic market in 2005, while the more stable scheduled freight sector accounts for 19.3 percent of the market (The Boeing Company 2006).

2.2.6 U.S.-Canada Transborder Air Cargo in 2005

The two-way U.S.-Canada transborder market exceeded 299,000 tonnes in 2005. Northbound traffic contracted 2.6 percent in 2003, 13.0 percent in 2002, and 19.7 percent in 2001. Southbound traffic contracted 0.9 percent in 2003, 9.8 percent in 2002, and 31.4 percent in 2001. Transborder traffic declined 6.9 percent in 2005, with northbound traffic contracting 10.4 percent, following 18 percent growth in 2004 and a 2.6 percent decline in 2003. Southbound traffic grew during 2005 and 2004 by 5.5 percent and 8.8 percent respectively, following a slight decline of 0.9 percent in 2003 (The Boeing Company 2006).

Since the late 1980s, U.S. airborne exports to Canada have exceeded imports from Canada. With implementation of the 1995 Air Transport Agreement, the northbound flow of goods grew; while southbound flows remained relatively flat (FAA 2004). Northbound flow is made up primarily of small packages, computers, and general industrial machinery; primary constituents of southbound flow include telecommunication equipment, small packages, and electrical machinery.

2.2.7 The Air Cargo Industry in Montana

Integrated express operators are the predominate air cargo carriers in the State. Integrated express operators provide their customers with door-to-door service and have a national and, in most cases, worldwide network. The integrated express operators in Montana with scheduled air cargo aircraft are:

- FedEx.
- United Parcel Service (UPS).
- DHL.

UPS and DHL use Billings-Logan International Airport (BIL) as a center of aircraft operations. FedEx uses Great Falls International Airport as a regional hub. Feeder aircraft operate in and out of Billings for DHL and UPS. Many of the feeder cargo aircraft in Montana operate what is known as "long-thin" routes, in air cargo industry vernacular. Long-thin routes cover long distances with a low volume of cargo. Long-thin routes are usually operated using aircraft with low operating costs. Many of the intrastate cargo routes to and from Billings-Logan International, for example, are operated using single-engine aircraft such as the Cessna 208 (Cessna Caravan). These aircraft offer fairly quick transport and have adequate cargo capacity for the markets they serve. The following section discusses the key integrated express operators within Montana.

2.2.7.1 FedEx

FedEx brings its cargo from the national sorting hub in Memphis, Tennessee (MEM), on several Boeing 727s. FedEx selected Great Falls as its regional sort hub in 2000. The 78,000-square-foot regional hub accommodates 3,000 parcels per hour and has a maximum capability of servicing 6,000 parcels per hour. The facility also has an air cargo apron capable of accommodating six wide-body aircraft. FedEx operates smaller feeder aircraft, which fly the air cargo to other cities within the State. FedEx does truck to other points within the State, such as its Cut Bank to Great Falls route (GTF), but does not truck cargo out-of-state.

FedEx operates two air networks in and out of Montana. The weekday network has two daytime flights, which transport mail for the USPS. One aircraft flies a roundtrip operation from GTF to MEM. The other aircraft is based in Oakland (OAK) and stops in BIL on its way to Spokane; this aircraft then returns to OAK. This route is also a daytime operation and transports mail. FedEx operates express air network cargo flights from GTF to its MEM hub with narrowbody B727 aircraft. These flights operate nearly every weekday (see **Figure 2.13**). FedEx also operates a weekend air network to supplement its lift requirements. This network consists of a MEM-GTF-Calgary (YYC) route using a widebody A310 aircraft. In addition, a widebody DC10 operates MEM-Sacramento (SMF) with a stop in Great Falls, while a B727 flies the MEM-GTF-Salt Lake City (SLC) route. **Figure 2.14** identifies the weekend network routes. FedEx also operates a MEM-GTF B727 route with a stop in Omaha on the weekends. **Figure 2.15** identifies FedEx's intra-Montana feeder aircraft network, which operates during the week (FAA 2006b, Federal Express 2006).

Figure 2.13
WEEKDAY FEDEX ROUTE STRUCTURE
AT GREAT FALLS INTERNATIONAL AIRPORT

Source: FAA 2006b, Federal Express 2006.
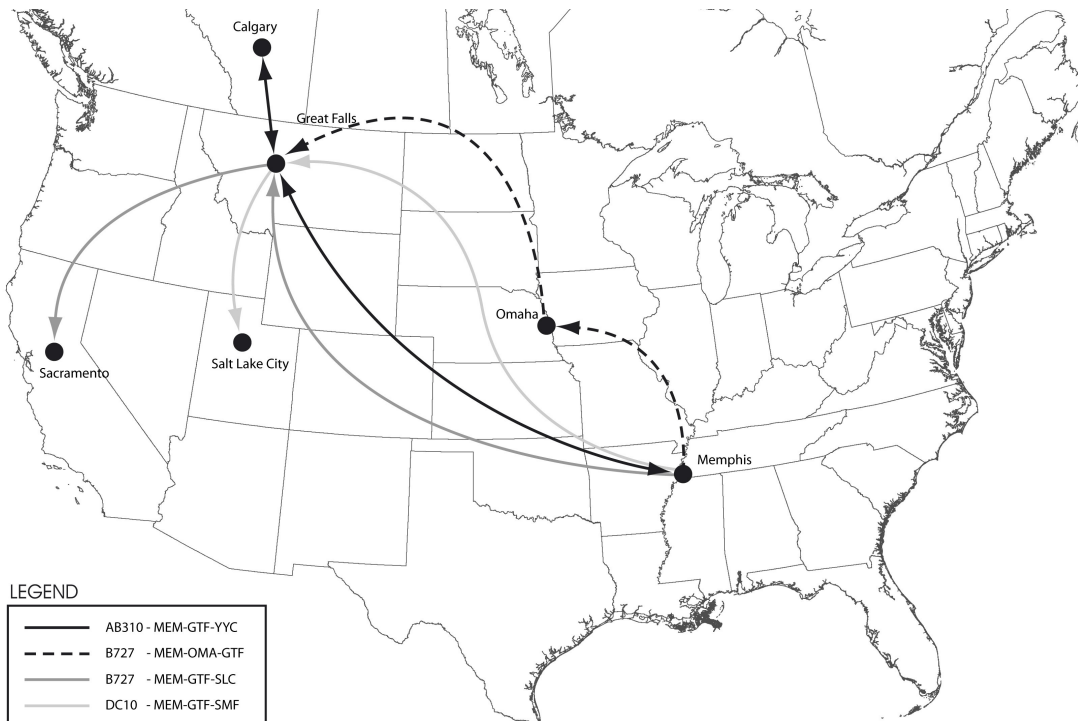
Figure 2.14
WEEKEND FEDEX ROUTE STRUCTURE
AT GREAT FALLS INTERNATIONAL AIRPORT

Source: FAA 2006b, Federal Express 2006.
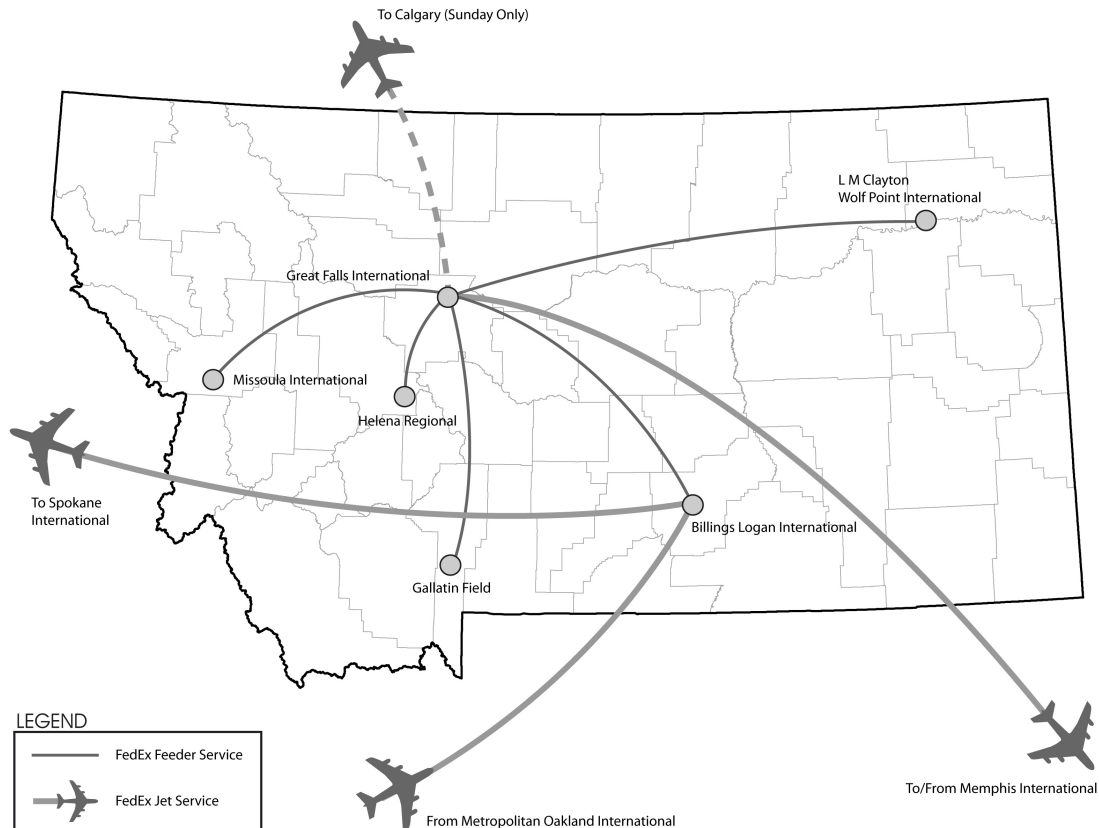
Figure 2.15
FEDEX MONTANA ROUTE STRUCTURE

Source: FAA 2006b, Federal Express 2006.

2.2.7.2 DHL

DHL centers its Montana air network operations at Billings-Logan International Airport. DHL flies one DC-9 aircraft between Billings (BIL) and its primary US express air network hub in Wilmington, Ohio. Prior to DHL's merger with Airborne Express in 2003, the operations center at Billings-Logan was operated and managed by Airborne Expresss. In addition, prior to the merger, DHL operated no scheduled aircraft in Montana. DHL used local courier services located in the State and commercial carriers such as Delta Air Lines and its affiliates to serve Montana. All Montana cargo, inbound and outbound, was transferred to airlines from DHL's Salt Lake City station. Today, DHL also flies several "feeder" aircraft to Billings, Montana. These airplanes are contracted with operators such as Ameriflight. These aircraft range in size from Cessna Caravans to Fairchild Metro IIIs. **Figure 2.16** identifies DHL's route structure. This integrated express carrier also relies heavily on trucks to service communities near Billings (Ameriflight 2006, *Official Airline Guide* 2006b).
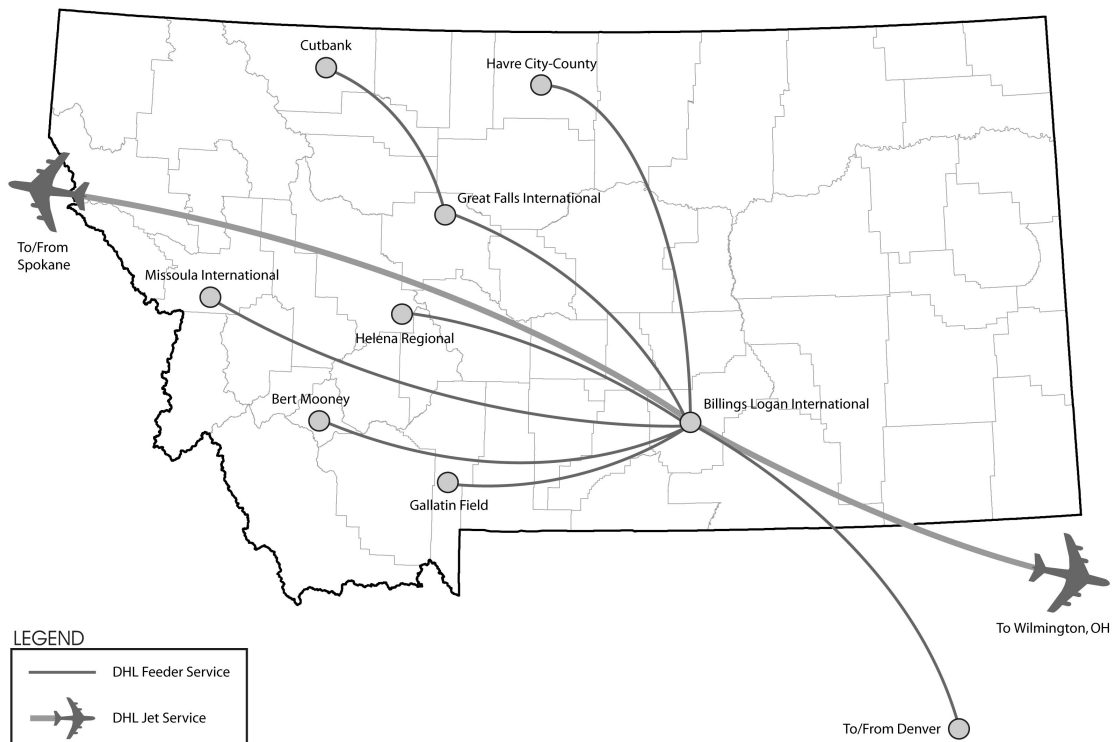
Figure 2.16
DHL MONTANA ROUTE STRUCTURE

Source: Ameriflight 2006, *Official Airline Guide* 2006b.

2.2.7.3 UPS

UPS operates an all-cargo route to and from Billings serving as a feeder aircraft for its B757. This aircraft connects Billings to the carrier's primary US air hub in Louisville, Kentucky. **Figure 2.17** identifies this route and several other all-cargo routes, which UPS operates in the State. UPS uses a non-jet feeder aircraft to operate its route structure. All intrastate routes are contracted lift. These aircraft range in size from small twin engine general aviation airplanes to larger capacity cargo aircraft such as the Cessna Caravan and Fairchild Metro III. It is interesting to note that UPS operates an aircraft from Casper, Wyoming, to Billings. In addition, UPS uses trucks to service northern portions of Wyoming from its Billings regional hub (Alpine Air 2006, FAA 2006b).

LEGEND
— UPS Feeder Service
✈ UPS Jet Service
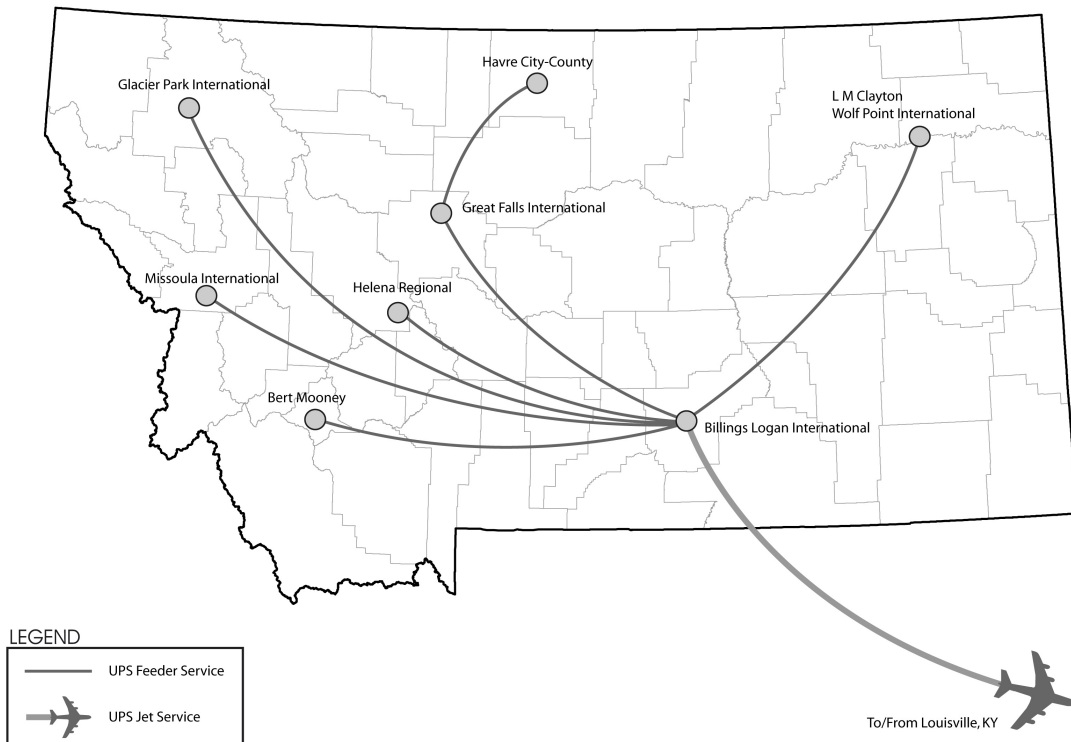
Figure 2.17
UPS MONTANA ROUTE STRUCTURE

Source: Alpine Air 2006, FAA 2006b.

2.2.7.4 AirNet Systems

AirNet Systems, Inc. is a publicly-traded company that began transporting cancelled checks for the nation's banking system. The company has since expanded to offer small package delivery services and has a hub operation at Port Columbus International Airport in Columbus, Ohio. AirNet Systems, Inc. operates a fleet of more than 120 aircraft, including 35 Learjets. AirNet serves Helena with two scheduled flights: one of these connects to Portland, Oregon and the other moves cargo to Centennial Airport (APA) in Englewood, Colorado (See **Figure 2.18**).

In addition, contracted aircraft and trucks support cargo activity with feeder aircraft arriving into Helena Regional Airport from other airports in the State. These aircraft are typically general aviation aircraft and range in size from Cessna 402s to Cessna 172s. These aircraft blend in with other general aviation operations at airports and often go unnoticed by the general public. Obtaining route information on this activity is difficult and generally frowned on by the Federal Reserve for security reasons (AirNet Systems 2006).

Figure 2.18
AIRNET MONTANA ROUTE STRUCTURE

Source: AirNet Systems 2006.

2.2.7.5 Other Air Cargo Services

Commercial airlines such as Delta, SkyWest, and Northwest offer air cargo services on their passenger aircraft. This service is "airport-to-airport" which requires the shipper and consignee to drop off and pickup the parcels to and from the airport. Space permitting, cargo is often transported in the belly of passenger aircraft. Passenger baggage has priority over freight and mail and as a result cargo is at times "bumped" from flights. In addition, with the increased use of regional jets in the Montana market, belly capacity has decreased due to the limited size of baggage compartments on these regional jets.

Freight forwarders also operate in Montana and act as a third party shippers for businesses in the State. Freight forwarders make arrangements for cargo to be transported on commercial aircraft and will collect the freight from the customers' door and deliver it to the appropriate airline at the airport. They often arrange the pickup and delivery of the freight at the destination airport. There are approximately 12 freight forwarding businesses in the State. These freight forwarders are commonly used for international cargo.

2.3   MONTANA SOCIOECONOMIC TRENDS

This section examines a number of the trends in Montana. Population, socioeconomic, and tourism data were analyzed to provide a better understanding of Montana's economic conditions, as these conditions relate to air service needs in the State. Studies of Montana's significant industries and businesses were also reviewed. The results of those research efforts are summarized below.

2.3.1   Population

For the past 10 years, the population of Montana has shown positive growth. As seen in **Table 2.4**, the growth in Montana's population slowed during the late 1990s and first few years of the new millennium, relative to population in the U.S (Woods & Poole Economics, Inc. 2006).

Table 2.4 HISTORIC POPULATION LEVELS IN MONTANA AND THE U.S.				
Year	Montana Population	Percent Change	U.S. Population	Percent Change
1995	876,553	-	266,278,393	-
1996	886,254	1.1%	269,394,284	1.2%
1997	889,865	0.4%	272,646,925	1.2%
1998	892,431	0.3%	275,854,104	1.2%
1999	897,507	0.6%	279,040,168	1.2%
2000	903,510	0.7%	282,193,477	1.1%
2001	906,098	0.3%	285,107,923	1.0%
2002	910,395	0.5%	287,984,799	1.0%
2003	917,885	0.8%	290,850,005	1.0%
2004	926,920	1.0%	293,656,842	1.0%
2005	935,670	0.9%	296,410,404	0.9%

Source: Woods & Poole Economics, Inc. 2006.

While the U.S. population increased at least one percent per year between 1996 and 2004, Montana's population grew between 0.3 percent and 1.1 percent, consistently lower than the change in U.S. population growth. For the last two years, Montana's population growth has matched the overall U.S. rate of population growth.

Over the last decade, Montana's population growth has occurred primarily in the western part of the State. There has been a large migration to the Rocky Mountain areas of the U.S., including Montana. The fastest growing counties in the State are Ravalli, Gallatin, Lewis & Clark, Flathead, and Lake. The Billings area has also witnessed recent population growth. The eastern portion of the State has seen out-migration, consistent with the overall trend of the U.S. northern plains.

Projected population levels show Montana slightly outpacing growth in the national population. From 2006 to 2009, the percent change in Montana's population is projected to

exceed the national percent change by 0.1 percent, as shown in **Table 2.5**. In 2010, Montana's population growth rate will exceed that of the U.S. by 0.2 percent. This gap widens out to 2015 with Montana's population growing 5.7 percent versus the 2010 level while the U.S. population as a whole is expected to grow only 5.0 percent (Woods & Poole Economics, Inc. 2006).

Table 2.5
PROJECTED POPULATION LEVELS IN MONTANA AND THE U.S.

Year	Montana Population	Percent Change	U.S. Population	Percent Change
2006	948,919	1.4%	300,085,843	1.2%
2007	959,882	1.2%	303,041,121	1.0%
2008	970,840	1.1%	305,995,488	1.0%
2009	981,692	1.1%	308,915,855	1.0%
2010	992,557	1.1%	311,843,984	0.9%
2015	1,049,412	5.7%	327,290,594	5.0%

Source: Woods & Poole Economics, Inc. 2006.

2.3.2   Employment

Employment levels in Montana have grown between 1.1 percent and 3.2 percent annually since 1995, as shown in **Table 2.6**. These growth rates were consistently lower than the U.S. rates from 1997 to 2000. However, in terms of employment, Montana shrugged off the recession of 2001, with an employment growth rate of 1.1 percent as compared to the national rate of 0.2 percent. In terms of employment, Montana has continued to outpace the U.S. during the economic recovery following the 2001 recession, with employment growing about 1.7 percent annually as compared to the average national rate of 0.8 percent (Woods & Poole Economics, Inc. 2006).

Table 2.6
HISTORIC EMPLOYMENT LEVELS IN MONTANA AND THE U.S.

Year	Montana Employment	Percent Change	U.S. Employment	Percent Change
1995	508,888	-	148,982,764	-
1996	522,617	3.1%	152,150,190	2.1%
1997	528,928	1.2%	155,608,203	2.3%
1998	540,308	2.2%	159,628,186	2.6%
1999	548,274	1.5%	162,955,270	2.1%
2000	559,053	2.0%	166,758,782	2.3%
2001	565,992	1.2%	167,014,631	0.2%
2002	574,596	1.5%	166,699,004	-0.2%
2003	584,005	1.6%	167,174,328	0.3%
2004	594,831	1.9%	169,880,573	1.6%
2005	605,653	1.8%	172,587,009	1.6%

Source: Woods & Poole Economics, Inc. 2006.

Montana's rate of employment growth is expected to increase around 1.7 percent each year out to 2010. Hence, population growth realized in Montana will outpace that for the U.S. as a whole

by about 0.2 percent each year. Between 2010 and 2015, Montana's population growth will exceed the U.S. average by nearly a full percentage point. It is expected that Montana's population will grow 8.2 percent during that time, as shown in **Table 2.7** (Woods & Poole Economics, Inc. 2006).

Table 2.7
PROJECTED EMPLOYMENT LEVELS IN MONTANA AND THE U.S.

Year	Montana Employment	Percent Change	U.S. Employment	Percent Change
2006	616,465	1.8%	175,246,102	1.5%
2007	627,276	1.7%	177,954,540	1.6%
2008	638,134	1.7%	180,663,082	1.5%
2009	648,929	1.7%	183,371,460	1.5%
2010	659,763	1.7%	186,079,920	1.5%
2015	713,870	8.2%	199,622,184	7.3%

Source: Woods & Poole Economics, Inc. 2006.

2.3.3 Earnings

In 2001, Montana's per capita personal income (PCPI) was $24,044 and ranked 46th in the U.S. Montana's PCPI was 79 percent of the U.S. PCPI of $30,413 (U.S. Department of Commerce). Earning levels in Montana have exhibited strong growth over the past 10 years, with annual increases as high as 5.8 percent, per **Table 2.8**. From 1996 to 2000, Montana's annual percentage increases in earning levels lagged behind those at the national level, but surged ahead during the recession of 2001 and remained ahead in the ensuing economic recovery (Woods & Poole Economics, Inc. 2006).

Table 2.8
HISTORIC EARNING LEVELS IN MONTANA AND THE U.S.

Year	Montana Earnings (billions $)	Percent Change	U.S. Earnings (billions $)	Percent Change
1995	11.5	-	4,762.7	-
1996	11.7	1.7%	4,922.9	3.4%
1997	11.9	1.7%	5,147.0	4.6%
1998	12.6	5.9%	5,498.7	6.8%
1999	13.0	3.2%	5,776.3	5.0%
2000	13.4	3.1%	6084.9	5.3%
2001	14.3	6.7%	6,146.4	1.0%
2002	14.5	1.4%	6,171.6	0.4%
2003	15.2	4.8%	6,306.6	2.2%
2004	15.7	3.3%	6,448.7	2.3%
2005	16.1	2.5%	6,591.9	2.2%

Source: Woods & Poole Economics, Inc. 2006.

Earning levels in Montana are projected to grow faster than the national average, as shown in **Table 2.9**. By 2010, Montana earnings are expected to reach $18.3 billion, averaging 2.5 percent annual growth, just slightly higher than the 2.2 percent annual growth expected at the national level (Woods & Poole Economics, Inc. 2006).

Table 2.9				
PROJECTED EARNING LEVELS OF MONTANA AND THE U.S.				
Year	Montana Earnings (billions $)	Percent Change	U.S. Earnings (billions $)	Percent Change
2006	16.5	2.7%	6,734.0	2.2%
2007	17.0	2.6%	6,883.3	2.2%
2008	17.4	2.5%	7,032.8	2.2%
2009	17.8	2.5%	7,185.4	2.2%
2010	18.3	2.5%	7,341.1	2.2%
2015	20.6	13.1%	8,168.5	11.3%

Source: Woods & Poole Economics, Inc. 2006.

The disparity between the growth in earnings and the low PCPI can be attributed to low wages and low paying industries, including retail trade and services. Between 1990 and 2000, Montana's economy has become more diversified, shifting from mining to agriculture, forestry, fishery, construction, retail trade, and service industries. The State's growing economy is largely centered in the largest cities, especially in western Montana, and their surrounding areas.

2.3.4   State Passenger and Population Comparisons

As shown in **Table 2.10**, in terms of 2000 population, Montana ranks 44th among all U.S. states. Although it is the fourth largest state in terms of land area, it has roughly the same population as Rhode Island, the smallest state in terms of land area. When the level of domestic O&D passengers among all U.S. states is compared, Montana moves up in the ranking to 38th. Montana has similar levels of outbound domestic O&D passengers as Iowa and Idaho (U.S. Census Bureau 2006, US DOT 2006a).

When the number of total statewide passengers are divided by total state population, a passengers per capita ratio was calculated for each state. Montana has a passenger per capita ratio of 1.58, the same ratio as Texas. Montana ranks 17th among all U.S. states in terms of passengers per capita. This higher ranking is due to several factors. The first factor is the State's remote location compared to other U.S. states. You must drive further distances to reach other major cities in the western portion of the U.S. as compared to states in the northeast U.S. Therefore, more residents and visitors must fly to Montana. Also, there is a limited number of competing airports out of state, which limits the amount of leakage that occurs to airports in neighboring states. On the other end of the spectrum, Rhode Island's passenger enplanement per capita tends to be higher because many of its passengers are using T. F. Green Airport to access the Boston area. This in turn lowers the ratio for Massachusetts. Another factor that leads to a higher passenger per capita ratio is higher levels of tourism related travel in Montana

compared to other states. This can also be seen in Nevada, which has a ratio of 9.28 passengers per capita.

Table 2.10
U.S. COMPARISON OF DOMESTIC PASSENGERS PER CAPITA

State	2000 Population	Population Rank	2005 Domestic Outbound O&D Passengers	Passenger Rank	Passengers per Capita	Passengers Per Capita Rank
Nevada	1,998,257	35	18,545,400	6	9.28	1
Florida	15,982,378	4	49,125,410	2	3.07	2
Colorado	4,301,261	24	12,079,910	10	2.81	3
Arizona	5,130,632	20	13,717,900	9	2.67	4
Rhode Island	1,048,319	43	2,740,920	32	2.61	5
Utah	2,233,169	34	5,283,970	22	2.37	6
Washington	5,894,121	15	11,817,280	11	2.00	7
California	33,871,648	1	61,925,630	1	1.83	8
Oregon	3,421,399	28	6,160,170	21	1.80	9
Missouri	5,595,211	17	9,807,490	14	1.75	10
Georgia	8,186,453	10	14,345,680	7	1.75	11
Illinois	12,419,293	5	21,317,090	5	1.72	12
New Hampshire	1,235,786	41	2,113,950	35	1.71	13
Minnesota	4,919,479	21	7,974,110	18	1.62	14
Massachusetts	6,349,097	13	10,206,510	12	1.61	15
Texas	20,851,820	2	32,989,440	3	1.58	16
Montana	**902,195**	**44**	**1,423,850**	**38**	**1.58**	**17**
New Mexico	1,819,046	36	2,785,790	31	1.53	18
New York	18,976,457	3	28,221,720	4	1.49	19
Maryland	5,296,486	19	7,685,320	19	1.45	20
Idaho	1,293,953	39	1,736,000	37	1.34	21
Nebraska	1,711,263	38	2,117,510	34	1.24	22
Kentucky	4,041,769	25	4,927,190	23	1.22	23
Tennessee	5,689,283	16	6,933,230	20	1.22	24
North Carolina	8,049,313	11	9,641,140	15	1.20	25
Pennsylvania	12,281,054	6	13,838,010	8	1.13	26
New Jersey	8,414,350	9	9,325,720	16	1.11	27
Vermont	608,827	49	663,220	43	1.09	28
Louisiana	4,468,976	22	4,628,140	24	1.04	29
Connecticut	3,405,565	29	3,474,780	28	1.02	30
Michigan	9,938,444	8	9,862,390	13	0.99	31
North Dakota	642,200	47	594,110	45	0.93	32
Oklahoma	3,450,654	27	3,007,430	30	0.87	33
Wyoming	493,782	51	416,720	46	0.84	34
Wisconsin	5,363,675	18	4,377,000	26	0.82	35
South Dakota	754,844	46	612,090	44	0.81	36
South Carolina	4,012,012	26	3,205,440	29	0.80	37
Maine	1,274,923	40	979,380	41	0.77	38
Ohio	11,353,140	7	8,692,900	17	0.77	39
Indiana	6,080,485	14	4,514,600	25	0.74	40
Arkansas	2,673,400	33	1,803,060	36	0.67	41
Virginia	7,078,515	12	4,147,910	27	0.59	42
Alabama	4,447,100	23	2,561,690	33	0.58	43
Iowa	2,926,324	30	1,391,890	39	0.48	44
Mississippi	2,844,658	31	1,142,440	40	0.40	45
Kansas	2,688,418	32	687,380	42	0.26	46
West Virginia	1,808,344	37	383,720	47	0.21	47
Delaware	783,600	45	0	48	0.00	48

Source: U.S. Census Bureau 2006; US DOT 2006a.
Note: Excludes Alaska, Hawaii, and the District of Columbia.

2.3.5 Clusters

Clusters are concentrations of similar businesses in a geographic area. These business concentrations benefit from economies of scale that occur when the industry reaches a critical mass in an area. The result is access to more suppliers, larger and more skilled labor pools, and a better transfer of information and knowledge as there is more interaction among the businesses in the cluster. Some clusters can achieve a level of notoriety, with Silicon Valley being a prime example. Thanks to the globalization of the new economy, more and more industries are finding it possible to cluster in more areas.

The clusters found in Montana have been identified in the report, *Montana Business Cluster Study*. This report identified six distinct industry clusters in Montana, their location, and the challenges and opportunities each faced for future growth. The following information is a summary of that report (Rosenfeld 2003).

Wood-Based Product Cluster – This cluster is comprised of companies that convert raw wood into goods such as log homes, furniture, and paper and pulp products. It includes the entire supply chain, from the logging companies and mills that harvest the raw wood, to the businesses that convert the wood into finished products.

This cluster is concentrated in western Montana, where most of the State's 23 million acres of forested land is found. Eight western counties produce approximately 75 percent of the State's lumber output. Montana is home to 79 companies that make log homes, mainly located in the western region. Transportation is vital to this cluster, both in the form of ground and air. Trucks are needed to move raw logs and disassembled log homes. Often, helicopters are needed to move harvested logs to a point where they can be loaded on trucks since logging is often performed some distance from truck accessible roads.

There are several challenges faced by the Wood-Based Product Cluster. The first is the unpredictability of the supply of in-state timber. Fluctuations in timber can force vendors to turn to out-of-state suppliers of lumber. Additionally, it raises the risk and uncertainty surrounding capital investment decisions for logging companies. The second challenge is the labor pool, which is difficult to maintain because of the physically demanding work and the seasonal nature of employment. The third challenge is the increasing cost of transportation, a necessary component of getting both timber and finished products to where they are needed.

Agri-Food Cluster – This cluster includes businesses that grow, harvest, process, package, and distribute food. Agriculture is Montana's largest industry, with farms and ranches encompassing 58.6 million acres and contributing $2 billion annually to the State's economy. More than 20 percent of the State's work force is employed by the Agri-Food Cluster. The State ranks sixth in the U.S. for wheat exports.

The Agri-Food Cluster is found predominately in the south-central, southwest, and eastern parts of the state, although bottling plants can be found in all parts of the State. The greatest

challenge for this industry in Montana is its distance from markets relative to other agriculture clusters in the U.S.

Experience Enterprise and Tourism Cluster – This cluster consists of companies that accommodate visitors and provide them with experiences while staying in Montana. Many of these experiences center on cultural tourism and ecotourism. Cultural tourism includes historical, educational, and artistic attractions. Ecotourism includes nature-related activities such as skiing, hiking, camping, and bird watching. Often, visitors to Montana partake in both types of tourism.

This cluster does not have a geographic concentration in Montana, but the character of the cluster does differ across the State. The western side of the State, which has more forests and mountains, offers more action-oriented experiences, such as skiing, snowmobiling, fishing, hunting, hiking, and camping. The east side of the State, which is flatter than the west side, offers dude ranches, rodeos, horseback riding, cultural trails, and natural history museums. Overall, this cluster employs about 8.5 percent of Montana's work force.

Transportation infrastructure tends to concentrate in the west and southwest parts of the State. Montana's development as a tourist destination is hampered by the time and cost of travel to the State. In particular, the limited number of locations that are within reasonable driving distances of airports in Montana limits air travel options and probably discourages some travelers. Montana is attempting to overcome this through marketing efforts. In cooperation with Idaho, South Dakota, and Wyoming, the Montana Promotion Division of the Department of Commerce is targeting European tourists. The Internet and resident writers that focus on Montana have also helped promote the State. Additionally, many of Montana's large cities produce free periodicals listing current cultural and entertainment events, which help visitors attend unplanned events and increase spending.

Creative Enterprise Cluster – This cluster is formed by companies that rely on producing products and services with distinctive appearance, form or content to achieve a competitive advantage. In terms of employment, it is fairly small, accounting for only 4 percent of the State's work force. While creative talent can be found throughout Montana, it is concentrated in the cities of Missoula, Bozeman, Kalispell, Livingston, and Billings, where there are a good number of creative services companies.

Colleges and universities offer good programs for this cluster, but there is a lack of support below the university level, which is not proportionate to the cluster's impacts on the economy.

Most revenue for businesses in the Creative Enterprise Cluster comes from out of state, which means these companies need marketing outlets, especially beyond U.S. borders. The growth of this cluster in Montana could benefit by using regional artwork to help develop Montana as a recognized brand, and by transferring creative ideas to products in other industries (e.g. industrial design).

Life Sciences Cluster – This cluster consists of businesses that develop, manufacture, and market medical and biological devices and equipment, as well as the firms that engage in biomedical research and clinical trial activity. Despite having no medical schools, Montana has developed several medical/bioscience research institutes, hospitals with research and clinical trials capacity, and a very strong life sciences and related-engineering presence and interest within its two major universities. Employment in this cluster has grown, increasing from 15,700 employees in 1990 to nearly 20,000 in 2000.

The Life Sciences Cluster is concentrated in the western half of the State, where nearly 90 percent of the core industry firms are found. Most of the research infrastructure can be found to the west in Missoula and Hamilton. In the north-central and eastern parts of Montana, life sciences employment is found mostly in large hospitals. Most of the Life Sciences Cluster companies use overnight delivery services and find that the existing transportation system is adequate for their needs.

Information Technology Cluster – This cluster includes businesses involved in the computer-related sectors, communications equipment, measuring/controlling devices, medical instruments, electronic components, navigation equipment, data processing services, and testing laboratories. While Montana's Information Technology (IT) Cluster is relatively small in terms of employment, it is growing at a very rapid rate. From 1990 to 2000, employment in the information technology and instruments subsector of the Information Technology Cluster grew by 230 percent. Employment in the communication services and software industries grew by 162 percent over the same time period.

Because of the importance of information transfer in the global economy, the Information Technology Cluster is critical for the development of competitive businesses. A robust Information Technology Cluster provides the support services other industries need to effectively compete.

The Information Technology Cluster is concentrated predominately in southwest Montana, with elements in the west and southcentral regions. Southwestern Montana is the only part of the State with above average employment and establishment concentrations in IT-related manufacturing industries. The west and southcentral regions focus on computer and data processing services.

The highest concentrations of information technology companies are found in Bozeman, Missoula, and Flathead Valley, with Billings emerging as an information technology center in the future. Only a few individual firms are located outside the larger urban areas of the State.

Demand for most of Montana's information technology services comes from out-of-state. In many cases, the needs of these clients can be served through the Internet or delivery companies like FedEx and UPS. However, there are situations where transportation time and costs are significant issues.

2.3.6   Tourism

Tourism and the travel industry are important economic catalysts for Montana. The State has numerous features and attractions that draw large crowds of nonresident tourists every year. Montana's numerous state parks offer visitors and residents diverse recreational opportunities, including fishing, river rafting, boating, swimming, hiking, and camping. Montana is also home to historic sites such as the Little Bighorn Battlefield and Virginia City, a preserved gold mining town. Lewis and Clark and the Corps of Discovery traveled extensively throughout Montana and there are several sites commemorating their journey.

According to the Institute for Tourism and Recreation Research at the University of Montana, the number of nonresident visitors to Montana has increased from nearly 8.4 million in 1993 to 9.8 million in 2004, an increase of more than 15 percent. In 2005, it is estimated that 10.2 million nonresidents visited Montana. The trend of increasing nonresident visitors is shown in **Figure 2.19**. Between 2000 and 2004, the increase in nonresident visitors to Montana has remained relatively flat, up 0.7 percent per year on average, especially compared to the overall domestic leisure travel pattern volumes which averaged 2.5 percent annual growth between 2000 and 2004. However, in 2005, Montana's nonresident visitors were up 4.1 percent from the previous year, mirroring the U.S. domestic leisure travel growth of 4 percent (Nickerson 2005).
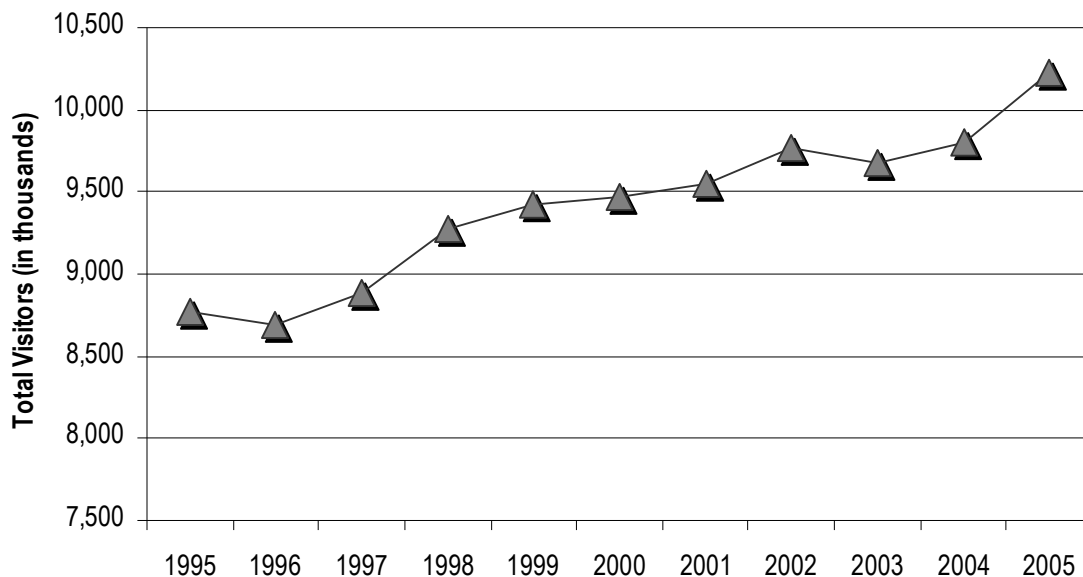
Figure 2.19
HISTORY OF MONTANA'S NONRESIDENT VISITORS

Source: Nickerson 2005.
Note: 2005 numbers are preliminary.

These travelers to Montana are an important source of economic activity to the State. In 1992, nonresident visitors spent more than $1.4 billion in Montana, accounting for 7.2 percent of the State's gross state product. Nonresident visitor expenditures increased to more than $1.9 billion

in 2004 (see **Figure 2.20**). The Institute for Tourism and Recreation Research at the University of Montana estimated that nonresidents spent $2.08 billion in 2005 (Nickerson 2005). Much of this increase in recent years can be attributed to cost-of-living adjustments.
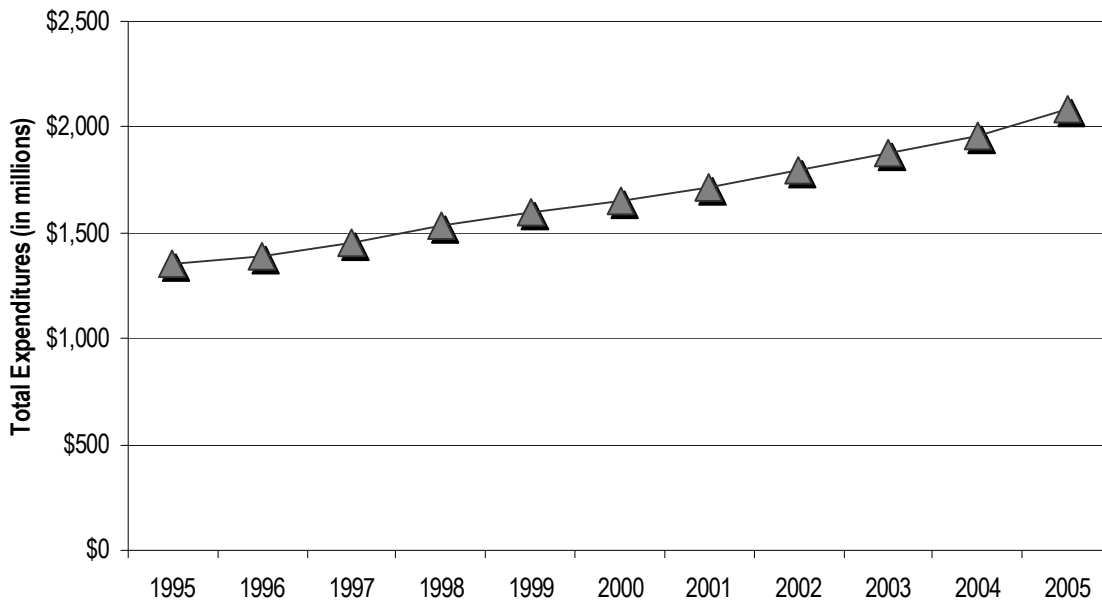
Figure 2.20
ANNUAL TRAVEL EXPENDITURES IN MONTANA (in millions of $s)

Source: Nickerson 2005.
Note: 2005 numbers are preliminary.

Montana's tourist activity provides capital inflows across industries. In terms of value added, **Exhibit 2.21** depicts the contribution by industry during 2004. In total, these visitors spend $1.93 billion throughout the State of Montana (Nickerson 2005).
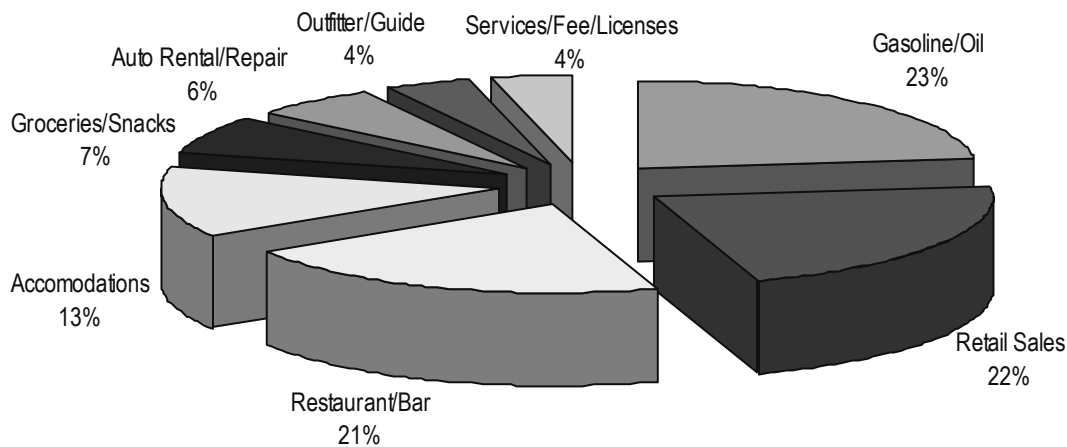
Figure 2.21
NONRESIDENT TRAVEL EXPENDITURES IN MONTANA
(2004)

Source: Nickerson 2005.

Since 2000, Montana's tourism industry has grown at a slower rate versus the U.S. as a whole. In total, the number of visitors traveling to Montana increased 2.48 percent between 2000 and 2004. For the U.S. as a whole, total tourist activity increased 10.49 percent between 2000 and 2004. **Table 2.11** provides the visitor profiles for Montana and the U.S. for the years 2000 through 2004 (Nickerson 2005).

Table 2.11
NONRESIDENT VISITOR TRENDS FOR MONTANA AND THE U.S.
(2000-2004)

Montana Nonresident Travel Volume			U.S. Domestic Leisure Travel Volume (millions of person trips)		
Year	Visitation	% Change	Year	Visitation	% Change
2004p*	9,700,000	0.30%	2004	956,500,000	2.90%
2003	9,670,000	-1.00%	2003	929,500,000	1.90%
2002	9,767,000	2.30%	2002	912,300,000	1.90%
2001	9,552,000	0.90%	2001	895,500,000	3.40%
2000	9,465,000		2000	865,700,000	
2004 vs 2000	**235,000**	**2.48%**	**2004 vs 2000**	**90,800,000**	**10.49%**

Source: Nickerson 2005.

Note: 2004 visitor numbers represent estimates.

Compared to other nearby states, Montana is losing ground in the number of rooms sold. In 2004, Montana's year-over-year change in this category was actually negative, with the number of rooms sold in 2004 actually 0.4 percent lower than the 2003 level. **Table 2.12** provides the year-over-year percent changes in rooms sold for Montana, Idaho, Wyoming, South Dakota, North Dakota, and Colorado (Smith Travel Research 2005).

Table 2.12
PERCENT CHANGE FROM PREVIOUS YEAR IN ROOMS SOLD
(2000-2004)

Fiscal Year	Montana	Idaho	Wyoming	South Dakota	North Dakota	Colorado
2004	-0.4%	5.3%	0.0%	1.2%	3.5%	4.4%
2003	0.2%	-0.5%	1.5%	2.1%	6.1%	-1.0%
2002	2.2%	2.9%	4.3%	4.7%	-1.8%	-1.8%
2001	-1.4%	-3.2%	1.1%	0.5%	1.1%	-2.4%
2000	3.0%	2.5%	3.9%	-0.2%	2.1%	6.3%
5 Year Average	**0.7%**	**1.4%**	**2.2%**	**1.7%**	**2.2%**	**1.1%**

Source: Smith Travel Research 2005.

Compared to its peer states, Montana's advertising expenditures are not keeping pace. Rival states such as Colorado, North Dakota, South Dakota, Wyoming, and Idaho are devoting more money to promoting tourism. **Table 2.13** compares the State Advertising and Sales Promotion Budgets for Montana and its peers (Nickerson 2005).

Table 2.13
TOURISM OFFICE DOMESTIC ADVERTISING AND SALES PROMOTION BUDGETS
(2000-2004)

Fiscal Year	Montana	Idaho	Wyoming	South Dakota	North Dakota	Colorado
2003-2004*	$2,505,480	$1,452,300	$2,275,996	$3,866,000	$1,939,533	$8,471,749
2002-2003	$2,308,718	$1,230,000	$2,395,015	$3,036,000	$1,939,533	$3,318,734
2001-2002	$2,572,412	$1,069,065	$2,484,750	$2,484,000	$881,143	$4,171,999
2000-2001	$2,336,900	$1,112,000	$3,626,113	$3,052,000	$931,143	$4,193,504
1999-2000	$2,140,121	$1,294,535	$1,514,037	$2,443,000	$472,391	$4,360,000
Expenditures 2004 vs 2000	**$365,359**	**$157,765**	**$761,959**	**$1,423,000**	**$1,467,142**	**$4,111,749**
% Change 2000-2004	**17%**	**12%**	**50%**	**58%**	**311%**	94%

Source: Nickerson 2005.
Note: *Projected.

The majority of Montana's tourist activity occurs during the summer months. **Table 2.14** provides the 2001 tourist activity details (Nickerson 2002).

Table 2.14
MONTANA VISITOR EXPENDITURE TRENDS
(2001)

Category	Spring 2001	Summer 2001	Fall 2001	Winter 2001	2001 Total	Spring 2001 % of Total	Summer 2001 % of Total	Winter 2001 % of Total
Total # of Groups	579,300	2,267,140	N/A	801,562	3,648,002	16%	62%	22%
Group Size	1.97	2.5	N/A	2.4				
Number of Nights in Montana	3.04	4.2	N/A	3.07				
Average Daily Expenditures	$95.98	$109.51	N/A	$110.94				
Total Expenditures ($000s)	**$169,028**	**$1,042,753**	**N/A**	**$273,004**	**$1,484,785**	**11%**	**70%**	**18%**

Source: Nickerson 2002.

The primary purpose of trip for Montana's Spring, Fall, and Winter visitors is that they are simply passing through the State. Business travelers make the majority of their trips to Montana during the Winter months. **Table 2.15** provides the percentage of each type of trip made by purpose and season (Nickerson 2002).

TABLE 2.15
MONTANA VISITOR PRIMARY TRIP PURPOSE
(2001)

Purpose	Spring	Summer	Fall	Winter
Vacation	23%	52%	29%	23%
Visiting Family and Friends	14%	15%	23%	16%
Passing Through	47%	21%	34%	29%
Business	11%	7%	7%	18%
Shopping	1%	1%	4%	6%
Other	4%	4%	3%	8%

Source: Nickerson 2002.

In terms of state of residence, the majority of Montana's tourists reside in Washington. Other top states include: California, North Dakota, Idaho, Minnesota, and Wyoming. **Table 2.16** presents travelers by place of residence (Wilton and Nickerson 2004).

Table 2.16 PLACE OF RESIDENCE FOR MONTANA VISITORS (2001)	
State	Percent of Visitors
Washington	12%
California	9%
North Dakota	7%
Idaho	6%
Minnesota	5%
Wyoming	5%
Colorado	4%
Oregon	4%
Utah	4%
Alberta	4%
Arizona	3%
Texas	3%
Wisconsin	3%
Florida	2%
Illinois	2%
Michigan	2%
New York	2%
Pennsylvania	2%
British Columbia	2%
Other	19%

Source: Wilton and Nickerson 2004.

2.3.6.1 Montana's Tourism and Recreation Strategic Plan

Recognizing the importance of tourism to the State's economy, Montana's tourism and recreation industry developed its most recent strategic plan to consider future actions to ensure the success of tourism in Montana. The plan sought to develop strategies that compliment other statewide and local economic development efforts through sustainable tourism that is consistent with the values of Montanans. The plan noted that approximately half of all commercial airline passengers flying to and from Montana in 2001 were nonresidents. Without tourism, Montana could lose a significant portion of its current airline service, negatively affecting other business sectors and economic development efforts (The Hingston Roach Group, Inc. 2002). The plan has the following three action areas:

- **Managing Information:**
  - Build awareness: tourism & lodging tax.
  - Tracking & research.
  - New ads & promotion: state, regions – public relations, packaging of tourism and recreation products.
  - Develop Montana niche in focused markets such as winter recreation, meetings and conventions, heritage and culture.

- **Managing (Use of) Assets:**
  - Balance between asset protection & visitor/business needs.
  - Access to public/private lands.
  - Transportation system & signs.
  - Good stewardship of natural/historic/cultural assets, some limits.
  - Visitor information/interpretation.
  - Enhanced communities, facilities.
- **Creating Teams:**
  - Linkages between agriculture & tourism.
  - Partnerships to address asset management.
  - Business assistance.
  - Entrepreneurial opportunities.
  - Funding partnerships/other sources.
  - Enhanced "edu-structure".
  - Effective plan implementation.

2.3.7   Summary

Montana has a promising economic future.   Projections of future demographic and socioeconomic trends show that the State is expected to at least keep pace with the rest of the nation, and possibly even outperform the national averages in certain years.   These growth trends will help fuel economic growth.

Among the six clusters identified within Montana, several stand out as potential growth industries. The Agri-Food Cluster is responsible for a large part of the State's employment and gross state product, so it is expected that it will continue to play a major role in the State's economy.

The Experience Enterprise and Tourism Cluster capitalizes on the State's natural resources and appeals to eco-tourists. However, a lack of transportation infrastructure may hurt the State's prospects for increasing its Experience Enterprise and Tourism Cluster. Other clusters deem the existing transportation system adequate for their needs. However, as the economy grows, the demand for transportation, and particularly air transportation, will grow and long-term planning is required to meet that demand, as many currently congested airports around the country are learning.

Finally, the Information Technology Cluster has shown extremely strong growth in Montana. The sharing and distribution of information increases in importance as the economy depends more and more upon computers. Montana is well positioned to take advantage of growth in this industry.

Data collected from visitors to Montana clearly indicate that tourism is a significant contributor to the State's economy. Despite long distances involved, travelers come to Montana to vacation

and visit family and friends. Improved air service could help to lower the distance barriers and increase the number of visitors coming to Montana.

3.0   IMPACT OF FEDERAL INITIATIVES

Airports and airlines are governed by the U.S. Department of Transportation (US DOT), primarily through the Federal Aviation Administration (FAA). Through various regulations contained in the Federal Aviation Regulations (FAR), as well as in the Code of Federal Regulations (CFR), airports and airlines must meet certain standards and comply with regulations. In addition to the US DOT and FAA, the newly created Transportation Security Administration (TSA) also governs airports and airlines in the area of security. Each of these agencies is ultimately affected by policy decisions that provide guidance in how the agency's functions are carried out.

Public policy has played a key role in shaping the ways that air service is delivered in the U.S. There is little doubt that Airline Deregulation in 1978 permanently altered the course of modern day air service. However, even more recently, public policy has impacted air service within the United States and, in particular, air service for small communities. This section highlights some of the most important public programs and regulations that have affected air service to smaller communities in Montana.

Four specific federal initiatives or programs have and will continue to impact each of Montana's commercial service airports. These initiatives or programs include the following:

- Essential Air Service.
- Small Community Air Service Development Program.
- Transportation Security Administration.
- FAR Part 139.

These four programs' histories, as well as their potential to impact Montana's commercial service in the future, are discussed in the following sections.

3.1   ESSENTIAL AIR SERVICE (EAS)

The Essential Air Service Program has, over the years, served as a federally sponsored program to provide subsidy for air service to remote communities in the United States. The EAS program was established in 1978 to sustain air service at small airports following airline deregulation. The program's intent was to guarantee small airport access to a hub airport and, thus, to the national transportation system.

3.1.1   Background of the EAS Program

Under the EAS program, the US DOT is authorized to declare a community eligible for essential air service. US DOT also specifies the frequency of service and the hub(s) to which service will be provided. Usually the closest medium or large "hub airport" is selected and a community is

guaranteed at least 10 weekly round-trips. If revenues from the service do not cover costs, the carriers providing service can apply for a subsidy.

The original program was authorized for 10 years, however, Congress continues to fund the EAS program currently through 2008. The program has, in the past, been severely restricted by funding cutbacks and federal legislation that limited eligibility for subsidy. The US DOT and Related Agencies Appropriation Act of 1994 prohibited "the use of funds for airports in the contiguous 48 states within 70 highway miles of a hub airport or airports that receive passenger subsidies greater than $200 per passenger and that are less than 210 miles from the nearest hub"(U.S. General Accounting Office 1994).

Under the EAS program, every two years, the US DOT requests proposals from carriers interested in providing service at EAS-eligible communities. When selecting a carrier to serve a community, the US DOT considers each carrier's subsidy requirements as well as four other factors:

- Service reliability.
- Contractual and marketing agreements with a larger carrier at the hub.
- Interline arrangements with a larger carrier at the hub.
- Community view and recommendation.

In 2001, the EAS program's funding was increased from $50 million to $113 million, partly as a result of the events of September 11, but also due to the inadequate funding of the program to meet the carriers' rising costs. The current EAS program provides subsidies to air carriers serving small communities that meet certain criteria (such as being at least 70 miles from a large or medium-sized hub airport, except in Alaska and Hawaii). The number of passengers served annually has fluctuated in recent years, as well as the subsidy per passenger, which has ranged from about $5 to $500. Congress has directed that these subsidies not exceed $200 per passenger unless the community is more than 210 miles from the nearest large or medium-sized hub airport.

3.1.2 Essential Air Service (EAS) in Montana

There are eight airports in Montana that currently participate in the EAS program, Glasgow, Glendive, Havre, Lewistown, Miles City, Sidney, West Yellowstone, and Wolf Point. Two carriers serve Montana under EAS. Big Sky provides nonstop service between most of the communities and Billings, including seven of the eight. SkyWest is the other carrier who strictly serves West Yellowstone to Salt Lake City under the EAS contract.

Table 3.1 presents the current level of subsidy the carriers receive to serve the airports and the expiration date of the carrier contracts. As shown, all Montana communities in the EAS program are located great distances from the nearest medium or large hub airport. Carriers currently receive more than $7 million combined in EAS subsidies to provide service to the eight communities (US DOT 2006d).

Table 3.1
MONTANA ESSENTIAL AIR SERVICE SUBSIDIES

EAS Community	Nearest L/M Hub	Miles (L/M)	Nearest Small Hub	Miles (S)	Order Number	Expiration Date of Rate Term	Annual Subsidy May, 2006
Glasgow	Denver	724	Billings	280	2005-12-20	2/29/08	$922,103
Glendive	Denver	604	Billings	223	2005-12-20	2/29/08	$922,103
Havre	Salt Lake City	674	Billings	248	2005-12-20	2/29/08	$922,103
Lewistown	Denver	558	Billings	125	2005-12-20	2/29/08	$922,103
Miles City	Denver	529	Billings	146	2005-12-20	2/29/08	$922,103
Sidney	Minneapolis	653	Billings	273	2005-12-20	2/29/08	$1,306,313
West Yellowstone	Salt Lake City	315	Idaho Falls	107	2006-3-29	9/30/07	$247,122
Wolf Point	Denver	698	Billings	293	2005-12-20	2/29/08	$922,103
						Total	**$7,086,053**

Source: US DOT 2006d.

Glasgow, Glendive, Havre, Lewistown, Miles City, Sidney, and Wolf Point are solicited as a single order. According to the December 20, 2005 US DOT order, Big Sky was reselected to continue to provide subsidized essential air service at these seven communities through February 2008. In total, Big Sky will receive annual subsidies of nearly $7.1 million. This service consists of the following weekly roundtrip flights, each with 19-seat Beech 1900 aircraft:

- 17 Sidney-Billings.
- 1 Sidney-Glendive-Miles City-Billings.
- 11 Glendive-Miles City-Billings.
- 12 Glasgow-Wolf Point-Billings.
- 12 Havre-Lewistown-Billings.

In June 2006, SkyWest continued seasonal operations between West Yellowstone and Salt Lake for the 19th consecutive year. Two round-trip flights are scheduled each day using a 30-passenger Embraer Brasilia turboprop aircraft. Dates of operation are June 7th through September 30th. Also, in 2005 SkyWest began operating one additional round-trip flight between West Yellowstone and Salt Lake City on Saturdays and Sundays. SkyWest receives $247,122 as an annual subsidy from the US DOT to provide the seasonal service (US DOT 2006d).

3.1.3 Future of Essential Air Service

The US DOT noted that due to increased funding and decreased enplanements between 1995 and 2002, the per passenger subsidy increased from $79 to $229, a nearly 200 percent increase (U.S. General Accounting Office 2003a). In its current form, the Essential Air Service program has several weaknesses that have focused scrutiny on the program's effectiveness including:

- The FAA definition of a hub airport does not refer to a carrier's connecting hub. Rather, it refers to any medium or large hub airport as defined by total domestic enplanements.

EAS routings contribute to either expensive interline connections or multi-stop service if access to the EAS code-sharing partners is required.

▪ The FAA requirement to operate 19-seat aircraft within Part 121 regulations has hastened the retirement of these aircraft from the U.S. fleet. Fewer airlines are willing or interested in serving as an EAS carrier.

▪ EAS communities charge that service is not always conveniently timed, reliable, or sufficiently advertised to attract local passengers.

Regardless of its shortcomings, the EAS Program provides Montana's rural communities with a powerful tool in maintaining current levels of air service. However, the continuance of this assistance is not guaranteed. The Essential Air Service Program will continually be evaluated with an eye toward either reducing the scope of assistance offered or restricting the eligibility of certain airports, particularly those closer to larger or hub airports. The rationale for possible cutbacks in service points and total dollars awarded is attributed to the high cost per passenger of providing subsidized air transportation through the EAS program. The program was intended to be transitional, giving communities and airlines time to adjust to deregulation, more than a quarter of a century ago. Because of continuing financial pressure on the aviation industry, about 37 communities have been forced into the EAS program since 9/11. As of May 2006, the EAS program ensured commercial air service to 115 communities.

Several other items have been up for discussion regarding EAS in recent years. The cost-sharing criteria that may be imposed on EAS communities are contingent on their distances from the nearest hub airports. Communities within 100 miles of large-hub airports, 75 miles of small-hub airports, or 50 miles to airports with jet service would lose commercial air service and get only half of their previous funding for surface transportation use. Communities that lie fewer than 210 miles from large or medium hubs would be required to contribute 25 percent of the cost of the service. Communities more than 210 miles away would be required to contribute 10 percent of the cost of the service. While none of these things have been enforced, EAS security and changes continue to be considered.

The President has proposed EAS budget cuts in recent years, but the program has been fully funded based on Congressional ruling. That it has survived Congressional scrutiny each year suggests that sufficient political will exists to perpetuate this program or another with the same intent, but that is by no means assured.

3.1.4   Impacts on Montana EAS Airports

In June 2004, US DOT requested additional input from communities with EAS subsidized air service regarding how the cooperation of federal, state, and local efforts could help to improve the EAS program. The Montana Department of Transportation, Aeronautics Division and Montana Governor's Essential Air Service Task Force responded to the US DOT's request and provided the following suggestions regarding the EAS program:

- ▪ Increase the contract terms for the carrier providing the EAS service. Most aircraft lease commitments are longer than two years.
- ▪ Continue marketing assistance by carriers, which should also be increased to allow better advertising and promotion by the communities.

Due to the rural location of the Montana EAS communities, it is extremely important for these communities to continue to have access to the national transportation system through the EAS program. The costs to airlines for providing service to small communities and the airports for supporting service has increased dramatically in recent years due to new regulations imposed by the FAA. These increased costs are subsequently discussed and will continue to push the federal costs of funding the EAS program even higher.

3.2   SMALL COMMUNITY AIR SERVICE DEVELOPMENT PROGRAM

As a result of implementation of the new Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR-21), many changes in federal airport funding and even air service have resulted. While the majority of AIR-21 addresses issues such as airport development, funding, and FAA management reform; Title II of the Act specifically addresses "airline service improvements."   There are two subtitles within Title II that have the ability to impact communities in Montana.   The first subtitle, Subtitle A, addresses policies for small communities. Within this subtitle is the Small Community Air Service Development Program (SCASDP). The purpose of the original pilot program was to improve air carrier service to airports that were determined to have insufficient service. The word "pilot" has now been dropped as the program has continued (US DOT 2006c).

3.2.1 Program Requirements

Unlike the EAS program, the communities, not the airlines, receive the funds and the communities develop a program that best serves their air service needs. The program uses an application process to select up to 40 communities or consortia of communities to participate. No more than four communities or consortia of communities may be in the same state. The types of assistance can include subsidizing service and marketing and promotion of air service in the community. The Title does say that "direct financial assistance" will be provided, but that the assistance for an air carrier is limited to three years. The criteria for participation in the application process include:

- ▪ Airport must be smaller than a "small hub" airport (defined by enplanement levels).
- ▪ Airport must have insufficient air carrier service.
- ▪ Airport must have unreasonably high air fares.
- ▪ Airport should demonstrate need for participation in the program based on characteristics such as geographic diversity or unique circumstances.

Priorities for participation in the program are given to communities or consortia that:

- Have air fares that are higher than the average air fares for all communities.
- Provide a monetary match for the assistance program other than from airport revenues.
- Establish a public-private partnership to promote air carrier service.
- Provide benefits from the assistance to a broad segment of the traveling public whose access to the national air transportation system is currently limited.

One factor heavily considered when SCASDP grants are awarded is demonstrated local commitment. This commitment is in part gauged by non-federal funding pledged, in addition to the federal grant that a community or consortia is requesting. If, for example, a community requested a $750,000 federal grant, a minimum pledge of $75,000 to $100,000 in local funds would likely be needed to support their proposal. Some states provide funding assistance to communities seeking to secure a SCASDP grant. In most instances, state financial assistance has been offered in the form of matching funds. If state funds were available to match the local financial pledge, this could give the community an added advantage in grant selection.

An appropriation of $20 million was approved for fiscal years 2002 through 2005 to fund the program. Since the program has been initiated, five rounds of grants have been issued. In November 2005, funding of up to $10 million during the 2006 fiscal year was approved for the program. Like the EAS Program, the continuation of this program is not assured.

3.2.2 Types of Awards

The US DOT has supported many different types of programs to enhance a community's air service. The examples below illustrate some of the grants that have been awarded to implement air service improvements at communities throughout the country. The success of the grant awards has varied. Several communities have not been successful in even using the grant funds for their intended purpose while others received new air service that could not be sustained.

3.2.2.1 Service Upgrade

Following September 11, 2001, capacity was reduced by almost half at **Lynchburg Regional Airport.** The Lynchburg Air Service Development Partnership worked closely with the Chamber and Airport to secure a $500,000 SCASDP grant along with a $100,000 local match. These funds were used as a revenue guarantee to Delta for providing new jet service for one year. With the guarantee in place, Delta replaced three daily departures to Atlanta on Brasilia turboprop aircraft with Bombardier CRJ aircraft, beginning in May 2003 (U.S. General Accounting Office 2005).

Northwest Airlink changed two one-stop flights to Minneapolis/St. Paul to nonstop flights at **Rhinelander-Oneida County Airport** with the assistance of a $590,000 SCASDP grant. The grant covered the airline's risk and enplanements jumped 20 percent (The Boyd Group 2005).

3.2.2.2 Lower Fares

Sarasota-Bradenton International Airport used the successful award of a $1.5 million SCASDP grant to land AirTran service to Atlanta. The grant will be used as a revenue guarantee for Air Tran service. After years of service declines and falling enplanements, Sarasota witnessed a drop in fares and a subsequent increase in enplanements (The Boyd Group 2005).

A $350,000 SCASDP grant was awarded to **Friday Harbor Airport** to reduce fares offered by the three airlines serving San Juan Island. Through the program, the carriers are offered $60 off a round-trip fare or $25 off a one-way ticket on the Seattle/San Juan Island route (Hahn 2005).

3.2.2.3 New Routes

Arnold Palmer Airport in Latrobe, Pennsylvania lost all air service due to US Airways cutbacks at Pittsburgh. With the help of a SCASDP grant, the airport used a revenue guarantee to obtain new Northwest Airlink service to Detroit (The Boyd Group 2005).

Wilkes-Barre/Scranton International Airport also received a $625,000 SCASDP grant to assist in obtaining new service to Detroit on Northwest Airlink and new service to Boston on Continental Connection (U.S. General Accounting Office 2005).

Daytona Beach International Airport used $740,000 in SCASDP funds combined with an aggressive local marketing effort to land twice daily Continental Connection service to Newark. Strong support and usage of this service led to the addition of a third daily flight to Newark plus new nonstop service to Cleveland (Wolinetz 2004).

The Sun Valley/Ketchum area received $400,000 in 2002 as a two-year grant to underwrite air service by Horizon Airlines between Los Angeles and **Friedman Memorial Airport** in Hailey with a new 74-passenger De Havilland Q400 turboprop. Horizon lost $850,000 on the route in the first year of service and the federal subsidy was exhausted. The service however continued through 2005 on a seasonal basis, subsidized by a private company in Sun Valley associated with the ski resorts (Wolinetz 2004).

With the assistance of a $500,000 grant for a revenue guarantee, Horizon Air began nonstop service at **Arcata/Eureka Airport** offering two flights per day - one direct and one with a stop in Redding - to and from Los Angeles. Each flight carries 74 passengers on a Q400 airplane (Gibbs 2004).

Lake Havasu City received a $403,000 SCASDP grant in 2002 for the development of new service to Los Angeles. Under a revenue guarantee agreement, Mesa began flying between Lake Havasu City and Ontario in the summer of 2003. In addition, Mesa offered an additional nonstop service flight between Lake Havasu City and Phoenix. The service to Ontario lasted just three months due to low ridership and the additional Phoenix service was pulled just nine months later (U.S. General Accounting Office 2005).

3.2.2.4 Staff

Abilene Regional Airport received a 2002 SCASDP grant for $85,000 to establish a formal business development program and hire an air service development manager. The program assisted in the successful recruitment of Continental Connection, the airport's second carrier, and enplanements jumped 47 percent in 2003 (Wolinetz 2004).

3.2.2.5 Marketing

In West Virginia, several communities teamed together to promote airports regionally. The **Beckley** and **Lewisburg** airports will share a $300,000 SCASDP regional marketing grant. The airport managers believe their project can result in 9,000 new passengers between the two airports within a year. The **Morgantown** and **Bridgeport** airports will share a $327,000 grant to create a marketing campaign to capture new passengers and lower fares (Senator Jay Rockefeller Press Office 2004).

A $200,000 SCASDP grant will be used to market and support existing air services at the University of Illinois's **Willard Airport**. In early 2004, the community committed funds to bring Delta Air Lines to Willard, whose airport designation is CMI. The grant will augment funds committed by the partnership for the "FlyCMI" campaign structured to promote the airport (Unger 2004).

3.2.2.6 Aircraft Purchase

Big Sky Airlines provided nonstop service between **Casper and Gillette and Billings** with help from $1 million in federal and local funding to buy a 19-seat Fairchild Metro III plane to fly the routes. Natrona County and Campbell County each contributed $250,000 and the US DOT contributed $500,000. The service lasted just 10 months as the carrier estimated losing $50,000 to $60,000 a month on each route. One of the reasons cited for the poor enplanement levels was that it was difficult to book flights through Casper and Gillette because travel agents' computers would not show the availability of the Big Sky flights (American Association of Airport Executives 2005).

3.2.2.7 Other

The City of Hot Springs, Arkansas received a $195,000 SCASDP grant in 2003 to initiate the $80 Traveler Rebate Program. Under this program, travelers fill out and submit a questionnaire along with a copy of proof of using Mesa's Air Midwest Airlines service at **Hot Springs Memorial Field Airport** to and from Dallas/Fort Worth to receive a rebate. This program was initiated in June 2005 (City of Hot Springs 2005).

A consortium of five rural communities in **Arizona** received a $1.5 million grant for one carrier to provide service to each of the communities, under a contract maintained by the Arizona Department of Transportation. The implementation of the program was intended to address

many of the air service deficiencies and issues that have been encountered by these five airports over the past several years including: declining enplanement trends, historically high airfares, lack of marketing by carrier, and lack of coordination by carrier regarding service changes. The program also included combining EAS funds with the SCASDP program to serve the five-airport consortium. Great Lakes was selected from responding airline proposals that met the needs of the state's rural airports. Incentives for the carrier and an extensive marketing effort were also key components of the program (U.S. General Accounting Office 2005).

3.2.3   Montana Awards

Several Montana airports have submitted proposals to the US DOT for the SCASDP. In 2003, Cut Bank International Airport, which currently does not have air service, received a grant to determine the feasibility of attracting and providing air service. According to initial study results, there is enough demand to support commercial airline service, especially given the community's proximity to Glacier National Park. In 2004, Butte received a $360,000 grant to quantify the demand associated with its market area and recruit an additional carrier. Two additional Montana communities have been successful in receiving SCASDP funding in the last two years. In 2005, Great Falls received $220,000. A primary use for this funding was to support an aggressive marketing campaign targeting inbound visitors that are currently using competing airports to access north central Montana. In 2006, Kalispell applied for and was awarded $450,000 in grant funding under the SCASDP. This money will be used to increase air service to Northwest Montana and add a new service and a new market in Montana. The grant will assist Kalispell in its efforts to secure regional jet service to a new destination. Specifically, the $450,000 will be used to fund a revenue guarantee for the air service provider, assist with start-up costs, and pay to market the enhanced air service opportunity at Kalispell (Glacier Park International Airport 2006).

3.3   TRANSPORTATION SECURITY ADMINISTRATION (TSA)

The Transportation Security Administration (TSA), created in response to the terrorist attacks of September 11, 2001, is an agency of the Department of Homeland Security that follows the Aviation and Transportation Security Act guidelines. The Aviation and Transportation Security Act (ATSA) was enacted by Congress as Public Law 107-71, 115 Stat. 597, and signed into effect on November 19, 2001, by President George W. Bush. The ATSA established the Transportation Security Administration within the US DOT and moved the TSA agency to the Department of Homeland Security in March 2003.

ATSA required TSA to make a number of improvements to aviation security. The improvements included that, by November 19, 2002, screening of individuals and property in the U.S. would be conducted by TSA employees and companies under contract with TSA. ATSA required enhanced qualifications training and testing of individuals who perform screening functions. ATSA required that federal law enforcement officers be present at screening locations.

The TSA issues and administers Transportation Security Regulations (TSRs) which are codified in Title 49 of the Code of Federal Regulations (CFR), Chapter XII, parts 1500 through 1699. Many TSRs are former rules of the Federal Aviation Administration (FAA) that were transferred to TSA (Portions of 14 CFR parts 91, 107, 108, 109, 121, 129, 135, 139, and 191) when TSA assumed FAA's civil aviation security function on February 17, 2002. TSRs first appeared in the published version of the CFR in 2003.

Since November 2001, TSA has been continually changing with current events that take place, molding it into an efficiently running operation that provides security and freedom for people and business. Change is seen as positive within the organization, by keeping incidents to a minimum with no person knowing all the procedures of TSA. The goal of TSA is to keep strict security that continually becomes less intrusive to people.

The organization structure is already in the process of changing. When TSA was started in 2001, the estimates of the number of employees needed at airports were all based on assumptions. The TSA organization was created from scratch, with no guidance from previous organizational creation similar in size and function. With a few years of operation underway, TSA is starting to streamline its organizational chart.

The TSA security procedures are regularly changing with new technology. Most of the security changes have been the result of actions, and TSA is constantly restructuring into an efficient organization. Technology is moving towards less human involvement in security checks and more computer involvement. In Montana, the Explosives Detection System (EDS) machines will be used to enhance the Explosive Trace Detection (ETD) machines used for baggage checks, which will allow more efficient service and continually growing capacity of passengers.

3.3.1   TSA in Montana

The Aviation and Transportation Security Act (ATSA) created a position entitled the Federal Security Director (FSD) within TSA to provide supervision and have overall responsibility for airport security. The FSD works with the airports, local law enforcement, airlines, and other stakeholders to ensure the highest level of security, and also is the face of TSA in the region as the first point of contact when a security issue arises. Montana currently has one Federal Security Director assigned to Billings-Logan International Airport. The FSD oversees security at eight commercial service airports. The seven large commercial airports in Montana with TSA security located at the airport are Billings-Logan International Airport, Billings; Gallatin Field Airport, Bozeman; Bert Mooney Airport, Butte; Helena Regional Airport, Helena; Great Falls International Airport, Great Falls; Glacier Park International Airport, Kalispell; and Missoula International Airport, Missoula. Yellowstone Airport is only open during the summer months and is the eighth airport in Montana that has TSA security full-time while the airport is open. The TSA organization chart for Montana is shown in **Figure 3.1** (Obert 2005).

```
                        FEDERAL SECURITY DIRECTOR (FSD)
                           STATE OF MONTANA (BILLINGS)


         ASSISTANT                 DEPUTY                    DEPUTY
  (FEDERAL SECURITY DIRECTOR)  (FEDERAL SECURITY DIRECTOR)  (FEDERAL SECURITY DIRECTOR)
  BILLINGS LOGAN INTERNATIONAL   HELENA REGIONAL          MISSOULA INTERNATIONAL
       BILLINGS, MONTANA         HELENA, MONTANA            MISSOULA, MONTANA


              DEPUTY                   DEPUTY                    DEPUTY
      (FEDERAL SECURITY DIRECTOR)  (FEDERAL SECURITY DIRECTOR)  (FEDERAL SECURITY DIRECTOR)
         BOZEMAN, MONTANA       GREAT FALLS INTERNATIONAL   GLACIER PARK INTERNATIONAL
                                  GREAT FALLS, MONTANA        KALISPELL, MONTANA


    GALLATIN FIELD            BERT MOONEY              WEST YELLOWSTONE
   AIRPORT, BOZEMAN          AIRPORT, BUTTE        AIRPORT, WEST YELLOWSTONE
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Figure 3.1
TSA ORGANIZATION CHART FOR MONTANA

Source: Obert 2005.

Billings, Missoula, Helena, Great Falls, Bozeman, and Kalispell each have a Deputy FSD located at the airport. The Deputy FSD has the same tasks as the lead FSD but at a local level. Some of the tasks of the Deputy FSD include examination of the status of the local airport screening procedures to identify problem areas and to improve efficiency or security; function as the local stakeholder concerning screening and regulatory concerns; encourage and enable employees to develop and implement new ideas; and use all local resources in implementing new TSA directives and the standard operating procedures. The Deputy FSD at Bozeman also oversees security procedures at the airport in Butte, and during the summer months oversees airport security in West Yellowstone.

FSD staff support functions consolidated under one hub administrative support staff even though staff members are geographically separated. The FSD staff support all Montana airport screening operations.

The majority of TSA staff is security screeners. Staff size is unique depending on the size of the airport and the number of passengers using the facility. A percentage of the TSA staff in Montana is part-time employees. **Table 3.2** presents the number of checkpoints, security lanes, and the number of screening officers at each commercial service airport in Montana. West Yellowstone airport is staffed by TSA's National Screening Force (Obert 2005).

Table 3.2
TSA CHECKPOINTS AND SCREENERS
AT MONTANA COMMERCIAL SERVICE AIRPORTS

Airport	Security Checkpoints	Total Security Lanes	Number of TSA screeners
Billings-Logan International	1	2	53
Gallatin Field	1	2	51
Bert Mooney	1	1	13
Helena Regional	1	1	21
Great Falls International	2	2	35
Glacier Park International	1	1	32
Missoula International	1	1	41
Yellowstone (National Security Force)	1	1	5

Source: Obert 2005, Morrison-Maierle 2005.

3.3.2   Commercial Service Airports (including West Yellowstone)

As discussed in Chapter One, the commercial service airports in Montana have been divided into two categories: larger Commercial Service Airports and EAS Airports. This section describes passenger and baggage security available at Commercial Service Airports and Yellowstone Airport.

TSA covers many areas at a commercial airport. The Aviation and Transportation Security Act (ATSA) states that all commercial flight baggage shall be inspected. Seven of Montana's commercial airports currently have physical baggage checks using Explosive Trace Detection (ETD) devices. Air carriers are responsible to check a percentage of cargo under the plane. Any chartered flight over a takeoff weight of 95,000 pounds is required to ensure that the individuals and their accessible property are screened before boarding. Passenger screening is performed by TSA certified screeners and is equivalent to the screening for commercial flight passengers.

Several of the Montana commercial airports recently received or will soon receive Explosives Detection System (EDS) machines, which are large x-ray machines that screen the bags with a conveyer belt running through the EDS. Between 120 and 180 bags can be checked per hour with an EDS machine, which helps the larger airports in the country quickly attend to the passengers while maintaining security.

The impact TSA has had on most Montana commercial airports is the limited terminal space to place TSA within the baggage and screening areas. Some of the Montana airports are remodeling their terminals to add space for the TSA screeners and baggage area. Terminal changes planned at each of the airports, based on survey information, are shown on **Table 3.3** (Morrison-Maierle 2005).

Table 3.3
TSA TERMINAL CHANGES
(September 2006)

Airport	Changes to Terminal to Accommodate TSA Equipment	Cost
Billings-Logan (Billings)	Increase passenger screening area, which includes 2 lanes with magnetometer and x-ray machines. Increase the size of the baggage inspection and terminal ticket counter for the ETD machines.	Over $1 million
Gallatin Field (Bozeman)	Increase passenger screening area, which includes 2 lanes and carry-on baggage screening. Also, increase the size of baggage checks behind ticket counters (need enough room for 8 ETD's).	$250,000
Bert Mooney (Butte)	Increase lobby area and boarding area to hold TSA passenger screening. Currently TSA is taking up both areas and everything is a tight squeeze. TSA screening area needs to increase along with an increase in baggage area.	$400,000
Helena Regional (Helena)	Recently remodeled the whole airport. The airport has a single lane check point, which provides additional TSA screening area as needed. All TSA bag screening is now behind airline operations area.	Not provided
Great Falls International (Great Falls)	Currently there is enough room for all the TSA security procedures at the airport. There are two security check points located at the east and west concourses of the airport.	None
Glacier Park (Kalispell)	Increase in passenger screening area and area for the ETD machines to check baggage.	$100,000
Missoula International (Missoula)	Increase terminal area to include room for TSA equipment and personnel.	Over 1 million
Yellowstone (West Yellowstone)	Minor accommodation changes	Minimal

Source: Morrison-Maierle 2005.

All airports, excluding Helena and Great Falls, will need terminal expansion or remodeling within the next few years. Helena completed remodeling of its terminal building in 2005. In the spring of 2006, Helena installed a new jetway that provides climate controlled access to the aircraft serving the airport. Missoula will complete a terminal expansion in December 2006. This project will relocate the checkpoint out of the middle of the terminal and will add approximately 16,000 square feet to the terminal. Gallatin Field is modifying the area between the airline ticket counters and baggage belt to accommodate three EDS machines. The modification will involve removing some conveyor belts and adding electrical capability for the new machines. This culminates the efforts from two years ago to move ticket counters out seven feet to provide checked baggage screening after passenger check-in and accommodate future changes in the explosive detection process. Great Falls had a large enough terminal before the TSA security began to hold all of the new employees and security check points there. The other commercial airports have a remodel or terminal expansion plan that will begin within the next few years.

3.3.3   EAS Airports, Excluding West Yellowstone

The seven EAS communities in Montana served by Big Sky currently do not have TSA security located in their local airport terminals. The seven airports in Montana include Glendive, Miles City, Havre, Lewistown, Wolf Point, Sidney, and Glasgow. Currently, these seven EAS airports all fly into Billings-Logan International Airport and use a reverse screening process, which includes passengers getting bused from the flight to the outside of Billings-Logan International Airport TSA screening. This allows the passengers connecting onto other commercial flights to go through the complete screening process. This has been inconvenient for connecting passengers who must pick up their luggage when they get off the aircraft at Billings and recheck it once they are dropped off at the main terminal entrance. In addition, Big Sky Airlines is currently paying for this shuttle service from their aircraft to the main terminal entrance. The added cost of providing this service has been burdensome to the carrier over the last few years.

The seven airports have met with the FSD, staff from the Montana Department of Transportation Aeronautics Division, and congressional staff to discuss facilitating TSA employees for screening at these airports. Installing full TSA screening at EAS airports would eliminate the need for reverse screening at the commercial airports in Montana. However, based on the TSA's limited budget, installing full TSA screening at EAS airports is not going to happen in the foreseeable future. In September 2006, the TSA announced that it would not put federal screeners in place at the seven Montana EAS airports that currently use reverse screening procedures. In lieu of putting screeners at these airports, the TSA must formulate alternate security plans. These plans will include recommendations for improved security measures and for cargo and passenger screening. In addition, a timeline and associated cost analysis will be prepared. With these plans, more convenient security processes can be established without actually staffing the airports with federal screeners (Straub 2006).

3.4   FEDERAL AVIATION REGULATION PART 139

The FAA issues certain airports with airline service operating certificates as required under 14 CFR Part 139 [Title 14, Code of Federal Regulations (CFR), Part 139 (14 CFR Part 139]. Airport operating certificates serve to ensure safety in air transportation. To obtain a certificate, an airport must agree to certain operational and safety standards and provide for such things as firefighting and rescue equipment. These requirements vary depending on the size of the airport and the type of flights available. The regulation, however, does allow the FAA to issue certain exemptions to airports that serve few passengers yearly and for which some requirements might create a financial hardship (FAA 2000).

3.4.1   Part 139 Criteria

Part 139 requires the FAA to issue airport operating certificates to airports that meet the following criteria:

- Serve scheduled and unscheduled air carrier aircraft with more than 30 seats.
- Serve scheduled air carrier operations in aircraft with more than 9 seats but less than 31 seats.

This Part does not apply to airports at which air carrier passenger operations are conducted only because the airport has been designated as an alternate airport.

If the FAA finds that an airport is not meeting its obligations, it often imposes an administrative action. It can also impose a financial penalty for each day the airport continues to violate a Part 139 requirement. In extreme cases, the FAA could revoke the airport's certificate or limit the areas of an airport where air carriers can land or takeoff.

The FAA issued a final rule effective June 4, 2004, that revised Part 139 and established certification requirements for airports serving scheduled air carrier operations in aircraft designed for more than 9 passenger seats but less than 31 passenger seats. The final rule revised the airport certification process to incorporate all airports covered by the authorizing statute, including those serving scheduled, smaller air carrier aircraft (10 to 30 seats). Under this changed certification process, the FAA reclassified airports into four new classes, based on the type of air carrier operations served.

Under the new FAR Part 139, there are 15 air carrier airports in Montana. Seven are Class I, one is a Class II, and seven are Class III. The classifications are shown in **Table 3.4** (FAA 2004).

Table 3.4
MONTANA PART 139 CLASSES

Associated City	Class	Associated City	Class	Associated City	Class
Butte	I	West Yellowstone	II	Glendive	III
Billings	I			Miles City	III
Bozeman	I			Harve	III
Great Falls	I			Lewistown	III
Helena	I			Wolf Point	III
Missoula	I			Sidney	III
Kalispell	I			Glasgow	III

Source: FAA 2004.

On June 6, 2000, the FAA published a Notice of Proposed Rule Making (NPRM), entitled "Certification of Airports, Docket No. FAA-2000-7479". The NPRM proposed to revise Chapter 14 Code of Federal Regulations (CFR) Part 139 and Part 121. The original comment period was for 120 days but was extended at the request of comments from the public to November 3, 2000.

The NPRM was accompanied by the economic analysis that was entitled "Initial Regulatory Evaluation, Regulatory Flexibility Determination, International Trade Impact Assessment, and Unfunded Mandates Assessment, for Notice of Proposed Rulemaking, Title 14 CFR Parts 121, 139, Certification of Airports". This regulatory evaluation was completed March 9, 2000 and examined the economic impacts of the rule change that affected all civilian airports originally certificated under Part 139 (approximately 560 airports), the airports not certificated that served scheduled air carrier operations conducted in 10 to 30-passenger seat aircraft (about 40 airports), as well as approximately 90 Department of Defense airports certificated under Part 139.

Changes in the final rule principally involve the revision of existing airport classifications and the creation of a new class. This new class of airports (Class III) was designed to cover airports that serve scheduled air carrier operations conducted in 10 to 30-passenger seat aircraft, while the existing certificated airports were reorganized into Classes I, II, and IV. In addition, all existing Airport Certification Manuals (ACMs) were to be revised or new ACMs prepared. Those airports with existing Airport Certification Specifications were required to convert to Airport Certification Manuals.

Most of the cost of the rule change has been associated with the improvements to safety and operational requirements, one of which is the expansion of aircraft rescue and firefighting (ARFF) services. These services are expected to mitigate accidents at airports receiving 10 to 30 seat aircraft scheduled service at airports not currently certificated, and at other airports where ARFF coverage is currently not required for this size of aircraft. Other safety and operational requirements with additional costs in the revision of Part 139 include multiple changes in provisions for snow and ice control, wildlife management, and training.

The Regulatory Analysis estimated present value of the total cost of the final rule over a 10-year period nationally would be approximately $74.5 million which included training, additional emergency response protection, wildlife management, and an updated airport certification manual.

The expected benefit of the rule change was enhanced aviation safety, particularly with respect to airports serving scheduled passenger service in aircraft with 10 to 30 seats. It was estimated that the cost of two accidents of a 30-seat scheduled passenger aircraft could more than cover the total cost of rule change.

3.4.2   Part 139 Implementation Schedule

The effective date of the revised rule was June 9, 2004 (120 days after publication of the final rule). All compliance dates listed in the revised regulation are based on this date. Once airport operators have submitted revised airport certification manuals (ACMs), the FAA will contact these operators to discuss whether additional action is needed and to what extent they can continue to serve air carrier operations until a new airport operating certificate is issued. However, airport operators must be in compliance with revised requirements of Part 139 when they submit a revised or new ACM, unless another compliance date is specified in the regulation. For example, Class III airport operators have additional time to illuminate certain runway and taxiway signs. Depending on the local circumstances of each airport, the FAA might approve alternative compliance dates for certain safety requirements (as specified in the FAA-approved ACM) that vary from airport to airport.

3.4.2.1 Class I Airports

Class I airport operators had until December 9, 2004, to revise their current ACM and submit it to FAA for approval.

3.4.2.2 Class II Airports

Class II airport operators had until June 9, 2005, to convert their current airport certification specifications (ACS) into airport certification manuals (or revise their current ACM) and submit them to the FAA for approval. These operators also have additional time to comply with certain Part 139 requirements, as follows:

- June 9, 2006, to comply with emergency planning requirements.
- June 11, 2007, to comply with aircraft rescue and fire fighting (ARFF) requirements.

3.4.2.3 Class III Airports

Operators of Class III airports had until June 9, 2005, to develop and submit ACMs to the FAA for approval. These operators also have additional time to comply with certain Part 139 requirements, as follows:

- June 9, 2006, to comply with emergency planning requirements.
- June 11, 2007, to comply with airfield sign illumination requirements.
- June 11, 2007, to comply with ARFF requirements.

3.4.2.4 Class IV Airports

Operators of Class IV airports had until June 9, 2005, to convert their current airport certification specifications into ACMs (or revise their current ACM) and submit them to the FAA for approval. These operators also have additional time to comply with certain Part 139 requirements, as follows:

- June 9, 2006, to comply with emergency planning requirements.
- June 11, 2007, to comply with ARFF requirements.

3.4.3   Part 139 Implementation Costs

As previously noted, the FAA estimated the economic impact associated with the Part 139 rule change. They created three categories for estimating costs broken down into one-time capital expenditures and annual recurring basis. The three categories include the costs associated with the following:

1. Preparing the Airport Certification Manual revisions (Part 139, Sections B-C).
2. Airport operational changes (Non-ARFF) (Part 139, Sections D).
3. Changes for Aircraft Rescue and Fire Fighting (ARFF) and the Airport Emergency Plan.

There are no Class IV airports in Montana, therefore no cost information was included.

3.4.3.1 One-Time Capital Costs

The FAA estimated that one-time capital costs associated with the cost of preparation of the Airport Certification Manual revision were as follows:

- Class I- $500
- Class II- $2,500
- Class III- $13,000

The one-time capital costs associated with airport operational changes (non-ARFF related) were estimated as follows:

- Class I- $500
- Class II- $3,300
- Class III- $5,200

The one-time capital costs associated with ARFF and the Airport Emergency Plan were estimated as follows:

- Class I- $400

- Class II- $3,000
- Class III- $51,000

3.4.3.2 Annual Recurring Costs

The annual recurring costs for the preparation of the ACM revision were estimated as follows:

- Class I- $1,000
- Class II- $2,500
- Class III - $1,200

The annual recurring costs associated with airport operational changes (non-ARFF related) were estimated as follows:

- Class I- $2,000
- Class II- $5,000
- Class III- $5,000

The annual recurring costs associated with ARFF and the Airport Emergency Plan were estimated as follows:

- Class I- $5,500
- Class II- $7,500
- Class III- $108,000

From the information provided by the FAA, cost estimates which include both one-time capital expenditures and first year annual costs divided into operational costs and ARFF costs were estimated. **Table 3.5** presents the cost estimates. It is clear from a review of Table 3.5 that the financial impact falls primarily on Montana's Essential Air Service airports.

Table 3.5
MONTANA PART 139 COMPLIANCE COSTS
(ONE-TIME CAPITAL AND FIRST YEAR ANNUAL RECURRING COSTS)

Associated City	Class	ACM	Operations	ARRF & Airport Emergency Plan	Total
Butte	I	$1500	$2500	$5900	$9900
Billings	I	$1500	$2500	$5900	$9900
Bozeman	I	$1500	$2500	$5900	$9900
Great Falls	I	$1500	$2500	$5900	$9900
Helena	I	$1500	$2500	$5900	$9900
Missolua	I	$1500	$2500	$5900	$9900
Kalispell	I	$1500	$2500	$5900	$9900
West Yellowstone	II	$5000	$8300	$10,500	$23,800
Glendive	III	$14,200	$10,200	$159,000	$183,400
Miles City	III	$14,200	$10,200	$159,000	$183,400
Harve	III	$14,200	$10,200	$159,000	$183,400
Lewistown	III	$14,200	$10,200	$159,000	$183,400
Wolf Point	III	$14,200	$10,200	$159,000	$183,400
Sidney	III	$14,200	$10,200	$159,000	$183,400
Glasgow	III	$14,200	$10,200	$159,000	$183,400

Source: Wilbur Smith Associates 2005.

It is important to note that the ARFF costs that would be incurred can be expected to vary widely across airports that would meet the definition of Class III. This variation results from differences in current ARFF capabilities and air carrier schedule differences across airports. It will also vary depending on whether Class III airport operators elect to comply with the requirements of the proposed amendments to Part 139 by meeting Index A of Part 139 or by proposing and obtaining the administrator's approval of an alternate plan that provides a comparable level of safety. Because there is no way to determine which Class III airport operators will elect which alternative, the analysis is based on the costs of meeting Index A.

3.4.4   Follow-on Part 139 ARFF Issues

Operators of Part 139 airports are required to provide aircraft rescue and fire fighting (ARFF) services during air carrier operations that require a Part 139 certificate. While the revised Part 139 does update some ARFF requirements, there are still some ARFF requirements that the FAA may need to revise.   The FAA is working with a joint government/industry Aviation Rulemaking Advisory Committee (ARAC) to review all Part 139 ARFF standards. As this work is ongoing, the FAA has decided to wait to comprehensively update all ARFF standards.

Where appropriate, the FAA will consider providing limited exemptions from some or all prescribed ARFF requirements on a case-by-case basis for airports with infrequent or smaller air carrier operations. The authorizing statute allows the FAA to exempt certain airport operators

from all or some ARFF requirements (certificated airports that have less than one-quarter of 1 percent of the total number of annual passenger boardings). It also allows the FAA to adopt regulatory alternatives for commuter airports (Class III airports) that are "least costly, most cost-effective or the least burdensome" but provide comparable safety at all certificated airports (FAA 2004).

While the revised Part 139 requires all certificated airports to provide some level of ARFF service, the FAA has revised the regulation to address the following:

- Better exercise of its statutory authority to provide appropriate exemptions from some or all prescribed ARFF requirements.
- Establish alternative ARFF compliance measures for airports serving only smaller air carrier aircraft (Class III airports) that may be unable to provide the same level of ARFF services required of airports serving large air carrier operations.

The FAA will consider any petition for exemption from ARFF requirements that is submitted in the manner outlined in the final rule (see Part 139.111). However, varying airport operations, sizes, and local circumstances make it difficult to generalize what exemptions will be granted, so exemptions will be determined on a case-by-case basis. If an exemption is granted, it will be for a limited time, and the FAA will periodically review the conditions warranting the exemption to determine if it is still needed.

The revised Part 139 allows operators of Class III airports to either comply with Index A ARFF requirements or comply with alternate ARFF requirements that provide a comparable level of safety. These alternate ARFF requirements require the following:

- Must be approved by the FAA.
- Include provisions for prearranged emergency response services.
- Ensure that emergency responders are familiar with air carrier schedules, airport layout, and airfield communications.

These alternative ARFF compliance measures may be those identified in the airport emergency plan required under § 139.325, airport emergency plan.

Airport operators may obtain federal financial assistance to help comply with the new requirements of revised Part 139. The Airport Improvement Program (AIP) and the Passenger Facility Charge (PFC) program provide millions of dollars each year for airport planning, development, noise reduction, capacity, and other projects. Some of this money may be used to purchase safety equipment needed to comply with Part 139 requirements. More information on federal financial assistance available to airport operators may be obtained by contacting the local Airport Districts Office or the Northwest Mountain Region office of the FAA (FAA 2006c).

3.5   OTHER REGULATORY ISSUES

In October 1996, President Clinton signed the FAA Reauthorization Act. As part of that legislation, new Part 121 regulations were established that essentially raised the required standards for airports and air carriers operating aircraft that seat over 10 passengers. The new regulations were designed to improve the safety and security of operations. It covered issues such as the following:

- Trained personnel.
- Inspection and compliance programs.
- Airport security.
- Minimum runway and taxiway lighting, markings, and signage.
- Emergency plans.
- Navigational aids.

Many of the new standards for operating small aircraft had been in place for aircraft with more than 30 seats. For regional airlines and airports that handled only aircraft with 30 seats or less, the new regulations meant higher safety and security standards. The new regulations also significantly increased operating costs on aircraft with fewer than 20 seats. The cost of complying with the more stringent safety standards made 19-seat aircraft more costly to operate. As a consequence, many of the regional carriers replaced their 19-seat aircraft in an effort to reduce costs and complexity of operations and maintenance. These aircraft have been the mainstay of Essential Air Service operations and service to small communities throughout the United States. As of August 2006, Big Sky Airlines served seven rural Montana airports with a fleet of nine Beechcraft 1900 aircraft.

The high expense associated with Part 121 regulations threatens commercial service at small communities throughout the country served by 19-seat aircraft. The Montana Department of Transportation, Aeronautics Division and the Governor's Essential Air Service Task Force noted the following issues related to the FAA's Part 121 regulation that impact the EAS communities in Montana:

- The weight and balance for the average baggage weights requires weight surveys every few years. The new weight and balance requirements reduce the payload for the 19-seat aircraft and decrease the number of seats available.
- The 19-seat aircraft used by Big Sky is unable to be retrofitted to transport human remains and still permit the carriage of baggage and cargo due to the cargo netting requirements and compartments.
- New avionics requirements (such as TAWS) and other equipment upgrades to aircraft are not reasonable and difficult for carriers to fund and comply with.

3.6   SUMMARY

All of the federal initiatives impact airline service in Montana and throughout the U.S. While it is the intent of the FAA and US DOT to improve the safety of airline service, the costs of these initiatives have impaired the ability of airlines to serve small communities at a profit. There are currently no specific initiatives in place to assist carriers in improving airline service to small communities.

4.0   AIR SERVICE OPPORTUNITIES AND CHALLENGES

Commercial airline service is a dynamic industry that continues to evolve. There is an inherent relationship between airlines and airports wherein the private sector provides the public airport with a service, but also requires the public to seek service from the private sector. In today's airline environment, airlines are struggling to survive crises such as fuel prices, low yields, and security issues. These struggles have reduced opportunities for growth into new markets with airlines delaying new aircraft orders and requiring guarantees that any new service is profitable.

Despite the struggles, airlines are initiating service to new points or expanding frequencies to cities they already serve. As part of this study, the opportunities for improvement, as well as the challenges that will be faced are examined. In order to determine opportunities, an examination of the demand for air service must first be conducted. The demand can then be compared to airline service level needs. The opportunities for airline service between Montana and Canada are also examined, as are cargo airline service enhancements. It is recognized that air service contributes to the economy of Montana; a quantification of the economic impact, including business reliance, is included in this analysis. This analysis was completed in 2005 based on survey data. Finally, challenges to air service improvements in Montana are summarized to provide a global view of the issues facing Montana. These issues are documented in the following sections:

- Air Service Demand Analysis.
- Opportunities for Improved Air Service.
- Air Cargo Demand Analysis.
- Air Cargo Opportunities.
- Economic Benefits and Business Reliance on Commercial Service.
- Strategies for Improvements in Relationship to Other Montana Initiatives.

4.1   AIR SERVICE DEMAND ANALYSIS

Through airport and airline records, it is possible to identify the number of passengers using existing commercial service airports in Montana. This enplanement information is available on both a current and a historical basis, as presented in Chapter One of this report. Passengers are recorded at each airport as enplanements and deplanements. An enplanement is defined as a passenger boarding a commercial air carrier; a deplanement is a passenger exiting a commercial air carrier. Enplanements are typically used as the measurement of an airport's demand levels. Airport-specific enplanement records do not, however, identify the total level of demand that may actually be associated with each airport's market area. This is because some passengers leave the local airport market area and board aircraft at other more distant, competing airports. The phenomenon whereby airline travelers leave their local market area to begin their airline travel from another more distant airport is referred to as passenger leakage or erosion.

In order to determine the level of service that can realistically be supported by each airport, it is necessary to understand the factors that impact demand. Three factors have been identified that impact the level of demand that is generated in each community for airline service; these three factors are as follows:

- Market area.
- Influence of airline service provided at competing airports.
- Socioeconomic trends supporting air service.

By evaluating these three factors, a demand profile can be prepared. The demand profile provides a means to identify the level of demand for commercial airline travel actually being generated (referred to as unconstrained demand), versus the level of demand actually being served by each airport. From the demand profile, an estimate of the potential level of enplanements in each market can be made. This potential level of demand is then used in the analysis of air service enhancement opportunities to give the communities realistic expectations of future air service.

Accessibility to the Montana study airports was examined. Accessibility helps to define an airport's catchment or market area. An airport's market area corresponds to the geographic area the airport serves and therefore equates to the airport's service area. Travel time, or the amount of time it takes for a prospective traveler to reach an airport, is a standard measure of accessibility. Accessibility was used in this analysis to define the theoretical airport market area for each of the Montana study airports.

4.1.1   Market Areas

Without a detailed survey effort, it is difficult to know the true market area and demand associated with an airport's market area. However, general planning studies have shown that, on average, commercial air service passengers are willing to drive a maximum of 60 minutes to an airport with regional/commuter service and 90 minutes to an airport with major/national service. These standard driving times are exceeded in many Montana communities where passengers travel greater distances and endure longer driving times to reach airports that are perceived to provide adequate air service. This is not only common in Montana, but in other western states.

As discussed in Chapter One, the commercial service airports in Montana have been divided into two categories: larger Commercial Service Airports and EAS Airports. **Figure 4.1** presents the theoretical market areas for Montana's airports. As shown, 90-minute drive times were prepared for the Commercial Service Airports and 60-minute drive times for the EAS Airports. The drive times were developed using Geographic Information Systems (GIS) to show overlaps and gaps in service coverage. Nearly 93 percent of Montana's population is located within these theoretical service areas.
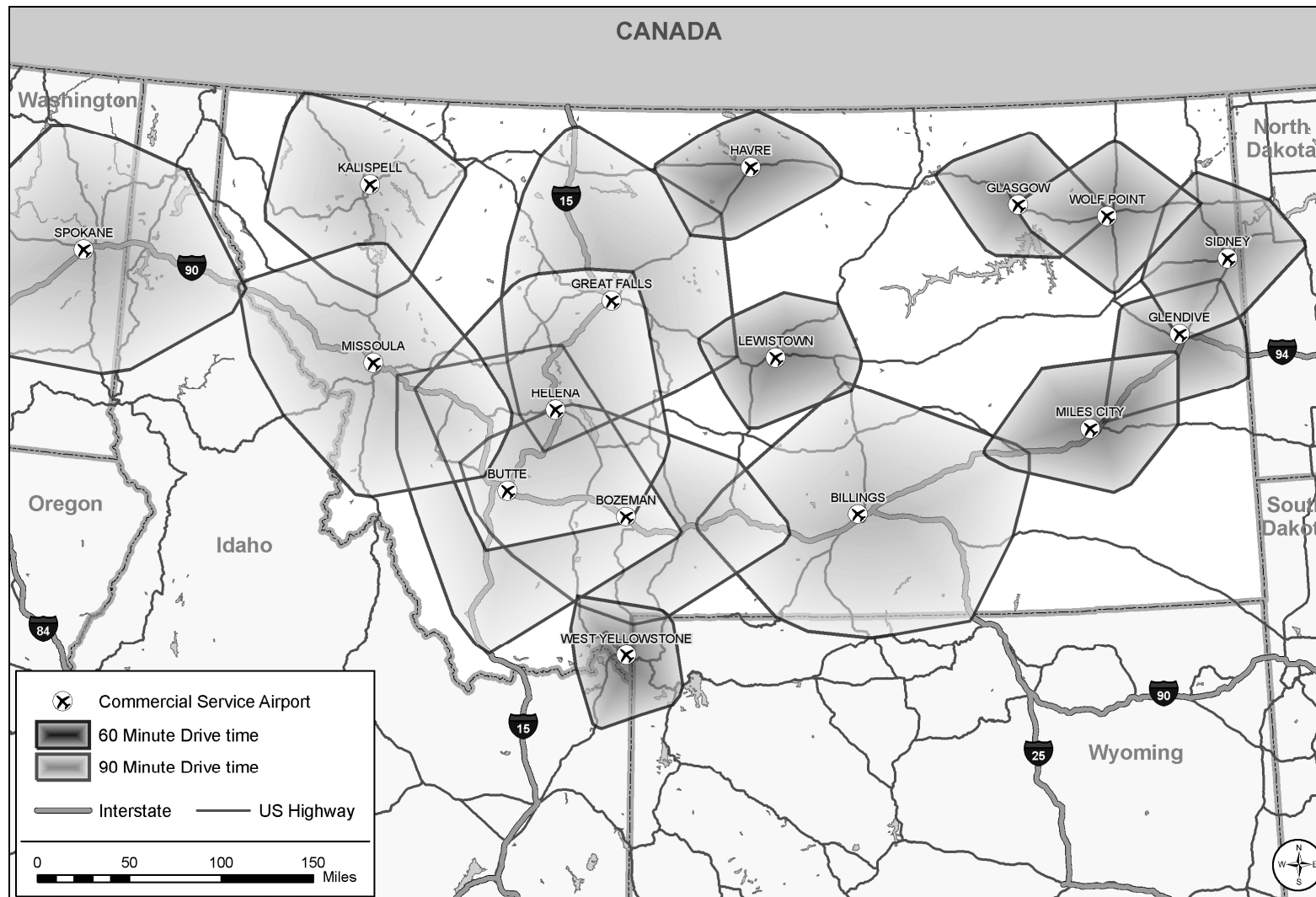
Figure 4.1
THEORETICAL DRIVE TIME COVERAGE TO MONTANA COMMERCIAL SERVICE AIRPORTS

Source: Wilbur Smith Associates GIS 2005.

Note: These drive times are theoretical based on assumptions of 90 minutes for the larger airports and 60 minutes for the EAS airports. Actual market area coverage may be larger or smaller than the area defined here.

The market areas of the EAS airports on the eastern side of the State are overlapping, especially between Glasgow and Wolf Point, and Sidney, Glendive, and Miles City. The Havre, Lewistown and West Yellowstone service areas are fairly independent, providing coverage in these areas, without overlapping existing service areas of the Commercial Service Airports. The 90-minute service areas of Helena, Great Falls, Bozeman, and Butte overlap significantly. Within a 90-minute drive of Helena, residents can also reach Bozeman, Butte, and Great Falls. Passengers near the center of the Butte 90-minute service area can reach Bozeman and Helena, and can almost reach Missoula. These overlapping service areas indicate that passengers are likely leaving their local service area to drive to a more distant, yet not too distant, airport to obtain scheduled airline service. In cases of overlapping service areas, issues such as carriers, schedule times, flight frequencies, and aircraft fleet are significant to the passengers who are looking for scheduled airline service.

It is important to note that the definition of theoretical market areas does not consider the influence of competing airports. Because of the proximity of larger, competing airports, many of the airports' actual market areas are much smaller, especially those airports served by a single airline with less than three flights per day. The larger airports with more service naturally attract passengers from distant locations due to better service choices, larger equipment types, and more nonstop service. The largest alternate airports that influence market areas are within Montana. The closest larger airports outside the State include Idaho Falls and Spokane. Therefore, it is likely that most of the air service demand being generated within Montana is being served within Montana.

4.1.2   Demand Profile

As previously noted, the phenomenon whereby airline travelers leave their local market area to begin their airline travel from another more distant airport is referred to as passenger leakage or erosion. Even with the isolation of many of Montana's airports, the airports experience some level of passenger leakage to in-state and out-of-state airports.

4.1.2.1 Enplanements per Capita

In 2005, over 1.4 million passengers enplaned flights at Montana airports. This includes residents and visitors who used commercial airlines to fly into Montana for business and pleasure. Comparing enplanement trends to population, Montana's enplanements per capita ratios have increased since 1999 (see **Table 4.1**). This indicates that the growth in enplanements has been faster than the growth in population during this time period (MDT 2006, Woods & Poole Economics, Inc. 2006).

Table 4.1
STATEWIDE ENPLANEMENTS PER CAPITA RATIOS
(1999-2005)

Year	Montana Population	Statewide Enplanements	Enplanements Per Capita Ratio
1999	897,507	1,210,859	1.35
2000	903,510	1,239,137	1.37
2001	906,098	1,275,104	1.41
2002	910,395	1,321,726	1.45
2003	917,885	1,326,868	1.44
2004	926,920	1,411,212	1.52
2005	935,670	1,503,089	1.61
Jan. 2006 – Jun. 2006*	467,835	655,610	1.40

Sources: MDT 2006, Woods & Poole Economics, Inc 2006.
Note: *WSA estimate using 50 percent of Montana's 2005 population and statewide enplanements from January 2006 – June 2006.

Enplanements per capita ratios are useful in estimating the number of actual air travelers that might be associated with the market areas. When analyzed nationally, the average number of origin and destination (O&D) passengers (excluding connecting passengers) per enplanement is just under 1.5. In 2005, the statewide Montana ratio slightly exceeded the U.S. ratio. However, for the first six months of 2006, Montana's enplanements per capita ratio is trending below the U.S. average. High ratios are usually associated with markets that draw a substantial amount of visitor travel or markets that are served by a low fare or low cost carrier. For markets that fall well below the national ratio, substantial passenger leakage to a competing market or markets may be occurring. Limited economic activity and business travel also contributes to a low ratio.

Table 4.2 presents the 2005 enplanements per capita ratios for each of the Commercial Service and EAS airports in Montana. The population located within each airport's theoretical market area is shown in Figure 4.1. When there is overlap of market areas, the population located within the overlap is double counted. This overlap in market area populations limits an airport's ability to capture additional demand associated with their market area.

Table 4.2
ENPLANEMENTS PER CAPITA RATIOS
AT EACH OF MONTANA'S COMMERCIAL SERVICE AIRPORTS

Airport	Drive Time Population	Enplanements (2005)	Enplanements per Capita
Commercial Service Airports			
Billings	171,354	398,037	2.32
Bozeman	176,903	335,679	1.90
Butte	214,513	41,853	0.20
Great Falls	163,143	160,878	0.99
Helena	226,015	93,218	0.41
Kalispell	102,176	190,964	1.87
Missoula	182,757	266,597	1.46
EAS Airports			
Glasgow	11,751	1,774	0.15
Glendive	11,582	934	0.08
Havre	23,472	1,526	0.07
Lewistown	13,482	748	0.06
Miles City	15,774	1,175	0.07
Sidney	17,157	3,401	0.20
West Yellowstone	2,309	4,366	1.89
Wolf Point	16,204	1,939	0.12

Sources: U.S. Census Bureau 2006, MDT 2006.

As shown above, the enplanements per capita ratios vary for each airport. The highest ratios can be found at Billings, Bozeman, Kalispell, and West Yellowstone. Billings and Bozeman are large population centers and have large business communities supporting air service. West Yellowstone and Kalispell attract a large number of tourists. There is significant overlap in the market areas shown in Figure 4.1, resulting in drive time populations that are significantly higher than the actual market area for airports such as Bozeman, Butte, Great Falls, and Helena.

By comparing individual airport ratios to the national and state averages, the relationship between the demand for commercial air service in each market and the population of the market area can be determined. For the purpose of this research assignment, this relationship was considered as part of the process to establish airport-specific estimates of potential demand levels.

Typically when developing estimates of potential demand, total unconstrained demand is first identified. Unconstrained demand represents the total level of demand that would theoretically occur if each airport's frequency, price, and quality of service were maximized. Each market's unconstrained demand level is comprised primarily of its current passenger leakage, and to a lesser extent "latent" demand that could be stimulated through improved service. Latent demand includes those travelers who now drive versus fly and those who do not fly because

they find the service unacceptable in some way (i.e., price, frequency, reliability, aircraft size, etc.) In order to identify total unconstrained demand, a detailed survey effort of each airport's market area or ticket purchase analysis must be completed. These detailed efforts were not completed as part of this research project. However, the research conducted in this study gives insight into the following:

- The amount of leakage that is currently occurring at each airport in the State.
- The factors at each airport that have potential to stimulate latent demand.

4.1.2.2 Statewide Passenger Leakage

While each of the airports in Montana has an associated level of unconstrained passenger demand, service is not likely to be provided to a level, especially in the smaller markets, that will attract 100 percent of this unconstrained demand. Even with realistic service improvements, some level of passenger leakage will continue.

4.1.2.2.1 Factors Influencing Passenger Leakage

Factors such as price, schedule, reliability of service, proximity of other airports, and even weather can all affect how many travelers actually use airline service. These factors are generally referred to as "sensitivity" factors. These factors impact travelers in various ways. Discretionary travelers generally have the highest propensity to leave their local market area and drive to a more distant departure airport. Depending upon the time involved and the advantages gained, non-discretionary or business-related travelers will also leave the local market area for their airline departures.

Low Fares. The availability of discount fares is one of the most important factors considered by air travelers when selecting a departure airport. Montanans as a whole have had little access to low airfares in the past. However, low fare and low cost carriers are continuously expanding the cities they serve and the larger airports in the State may be able to attract low fare service in the future. Low cost carrier Frontier currently serves the Billings market. At smaller airports, the use of 19-seat aircraft limits the number of discount fares available to travelers. For example, if a carrier allows 15 percent of the aircraft seats to be discounted at the lowest excursion fare rate, this means there are 21 seats on a MD-88 (142 total seats), but only three low fare seats on a 19-passenger aircraft.

Number of Flights. Studies in the psychology of air travelers have shown that the total number of flights offered is the highest-rated factor in the passenger's decision-making process. This is particularly true for business travelers. Airline schedules that offer high departure frequencies and conveniently timed flights can often draw passengers from one market to another. The rural airports in Montana that have commercial airline service through the Essential Air Service program have just two flights a day. This limited schedule deters many local air travelers from using their local airport.

Nonstop Service.   Nonstop service is also an important decision-making factor.   Many passengers often choose to leave the local market area to obtain nonstop versus connecting service on their departure flight. Passengers will bypass the local airport to travel to the large airport with a high volume of nonstop service to avoid connections and, sometimes, regional/commuter aircraft. When a passenger must wait for a connecting flight, longer than it takes to drive to the connecting airport, they often times forgo flying out of the local airport and begin their trip at the airport where they would have made the connection. This is especially true for Montana travelers located near an EAS airport, where they often drive to Billings to begin a trip rather than fly out of their local airport.

Frequent Flyer Loyalty.   Airline loyalty, as driven by a passenger's vested interest in a particular carrier's frequent flyer program, often influences a passenger's decision-making process as it relates to selecting a departure airport. Passengers may drive to a competing airport to continue to build equity in their established frequent flyer program. Loyalty to frequent flyer programs has also proved to be a formidable obstacle to new carriers who attempt to initiate service in an established carrier's market.

4.1.2.2.2 Current Passenger Leakage in Montana

At the seven Commercial Service Airports in Montana, out-of-state passenger leakage is limited due to the remoteness of the State compared to larger commercial service airports. The closest large hub airport to many airports in the State is Salt Lake City International Airport or Denver International Airport, over 300 miles away. Passenger leakage is also occurring in the western most part of Montana (to Spokane) and the eastern most part of the State (Williston, Minot, and Bismarck). Based on this assessment, unless there are large increases in socioeconomic factors, overall air service and enplanements in the State can be expected to mirror population growth. However, instate leakage occurs frequently at several airports, especially where there is an overlap of market areas. If a Montana airport can "recapture" passengers associated with its market area, it will often be at the detriment of another Montana airport.

Table 4.3 shows the level of air passenger leakage occurring at each of Montana's Commercial Service and EAS airports. Several airports have limited passenger leakage (Billings, Bozeman, Great Falls, Kalispell) due to the higher level of service compared to competing airports. At these airports, the potential to "recapture" market area passengers that currently begin their trips at alternate airports is minimal. Passengers located within the Butte market area frequently bypass the local airport and drive to Bozeman, Helena, or Missoula due to the higher level of service, better airfare, or other reasons. At the EAS airports in the State, much leakage is occurring due largely to the minimal levels of service offered at the smaller communities. Passengers at Sidney, Lewistown, Miles City, Glendive, Wolf Point, and Glasgow frequently drive to Billings to begin their airline travel.

Table 4.3
LEVEL OF PASSENGER LEAKAGE
OCCURRING AT EACH OF MONTANA'S COMMERCIAL SERVICE AIRPORTS

Category Airport	Current Leakage Levels	Top Leakage Airports
Commercial Service Airports		
Billings	Low	-
Bozeman	Low	Billings, Helena
Butte	High	Bozeman, Missoula
Great Falls	Low	Billings, Bozeman
Helena	Moderate	Bozeman, Great Falls
Kalispell	Low	Spokane, Missoula
Missoula	Low	Spokane
EAS Airports		
Glasgow	High	Billings
Glendive	High	Billings, Bismarck
Havre	High	Great Falls
Lewistown	High	Billings, Great Falls
Miles City	High	Billings
Sidney	High	Billings, Williston, Minot
West Yellowstone	High	Bozeman, Jackson
Wolf Point	High	Billings, Williston, Minot

Source: Wilbur Smith Associates 2006.

4.1.2.3 Potential for Increased Latent Demand

Besides the recapture of market area air travelers, strong socioeconomic forces will also support an airport's ability to sustain additional airline service and enplane more passengers. Each community in Montana with a commercial service airport supports varying levels of population, business activity, and tourism. Increases in a local area's business activity or tourism will increase the local airport's propensity to support additional commercial airline service.

Table 4.4 presents the relative level of population, business activity, and tourism supported by each of the communities in Montana with commercial airline service. Each community received a rating of high, moderate, or low in terms of the level of activity that the community currently supports. Another factor used to analyze an airport's potential to capture additional passenger demand was the distance to competing airports. If an airport was farther from competing airports and had limited overlap of its market area, the airport received a high ranking. Airports with limited market area overlap (as shown in Figure 4.1) included Billings, Kalispell, Havre, Lewistown, and West Yellowstone.

Table 4.4
FACTORS IMPACTING AIR SERVICE DEMAND STIMULATION
AT EACH OF MONTANA'S COMMERCIAL SERVICE AIRPORTS

Airport	Population Centers	Economic/ Business Centers	Tourism Gateways	Limited Market Area Overlap	Weighted Average (1.0-5.0)
Commercial Service Airports					
Billings	H	H	M	H	4.5
Bozeman	M	H	H	L	3.5
Butte	M	M	L	L	2.0
Great Falls	H	M	M	M	3.5
Helena	M	M	M	L	2.5
Kalispell	M	H	H	H	4.5
Missoula	H	H	M	M	4.0
EAS Airports					
Glasgow	L	L	L	M	1.5
Glendive	L	L	L	M	1.5
Havre	L	L	L	H	2.0
Lewistown	L	L	L	H	2.0
Miles City	L	L	L	M	1.5
Sidney	L	L	L	M	1.5
West Yellowstone	L	L	H	H	3.0
Wolf Point	L	L	L	M	1.5

Source: Wilbur Smith Associates 2006, US Census Bureau 2006.
Note: H=High (Weight=5); M=Moderate (Weight=3); L=Low (Weight=1).

The rankings in Table 4.4 were each weighted with a score of 5 for high, 3 for moderate, and 1 for low. These rankings were then averaged to determine an overall rank of an airport's propensity to support additional service and capture additional demand. Each airport's potential demand is discussed below.

4.1.2.4 Potential Demand Estimates at Commercial Service Airports

This section provides details on estimates of potential demand – that is, how many enplanements might be expected at Montana airports given real-world conditions in the current or near term, assuming changes are made to the airport's air service. It is fully recognized that airports are not able to capture 100 percent of their unconstrained demand; diversion of passenger demand occurs in nearly every market in the U.S. Therefore, it is important to estimate what level of demand could likely be captured based on various service scenarios, which is referred to as potential demand. It is worth noting that, if an airport's market area (as presented in Figure 4.1) overlaps with other market areas, their potential for capturing demand is diminished.

Over the last 10 years, statewide enplanements have grown at over three percent per year. This growth (slightly above the national average) can be expected to continue into the future unless fundamental shifts that expand the State's business community occur. In understanding each airport's propensity to recapture passenger leakage and stimulate additional demand, estimates of a range of potential demand at each Montana airport can be developed. In addition to the factors discussed above, there are also other factors that impact each airport. It is important to note that even though a potential level of enplanements is identified, the actual implementation of new service and increased enplanements will be controlled by airlines.

Billings. Billings is the most populated city in Montana, with nearly 147,000 residents. It is also the State's largest trade and service center, especially in the health care, banking, and business services sector. The Billings enplanements per capita ratio is higher (2.3) than the estimated 2006 State ratio of 1.4 and national ratio of 1.5. Due to its large level of nonstop service and the availability of low fare service to Denver, the actual market area of Billings International is much larger than the theoretical market area. The number of enplanements at Billings has grown rapidly over the last five years. In 2005, Billings enplaned more than 398,000 passengers. In the first six months of 2006, however, enplanements were down 0.1 percent from the same period of 2005 (MDT 2006). During that year, America West pulled out of the market and Delta decreased service. The airport's propensity to support increased demand is one of the highest in the State with a 4.5 out of 5 ranking (as shown in Table 4.4), however, current leakage is limited. It is estimated that the airport's potential demand is 450,000 to 480,000 annual enplanements.

Bozeman. The City of Bozeman has more than 33,500 residents and the population of Gallatin County exceeds 78,000. Gallatin County has a strong and growing economy with 198 manufacturing companies. This area is also one of the State's largest centers for technology-related companies (Gallatin Development Corporation 2006). Bozeman also is a tourism gateway due to its proximity to Yellowstone National Park, ski resorts, and other outdoor recreational activities. The Bozeman enplanements per capita ratio is 1.9, higher than the estimated 2006 statewide average of 1.4 and the national ratio of 1.5. Enplanements have risen more than 38 percent between 2000 and 2005. In 2005, total enplanements at Bozeman's Gallatin Field reached 335,679 passengers. In the first six months of 2006, however, enplanements were down 4.3 percent from the same period of 2005 (MDT 2006). Gallatin Field's propensity to support increased air service is a 3.5 out of 5.0. Even though there is a great deal of overlap of market area with Butte and Helena, it is estimated that the airport has the potential to currently support 385,000 to 415,000 enplanements. Due to current service levels and socioeconomic factors, Bozeman captures a large number of the passengers in the overlapping areas of the Helena and Butte market areas.

Butte. Butte has suffered declining employment and population levels since 1999 as the community shifts away from the mining industry towards more service sectors. The population of the City and County of Butte-Silver Bow is nearly 33,000 residents. Due to the proximity of Missoula, Bozeman, and Helena and the overlap of market areas, the enplanement per capita

ratio at Butte was just 0.20, well below the estimated 2006 State average of 1.4 and national average of 1.5. In 2005, 41,853 passengers enplaned at Butte. In the first six months of 2006, however, enplanements were down 17.2 percent from the same period of 2005 (MDT 2006). It appears that Butte may potentially be able to support between 55,000 and 70,000 annual enplanements. Of all the Commercial Service Airports, Butte has one of the lowest propensities to support additional service with a 2.0 in a 1.0 to 5.0 scale. The level of competition for passengers with other State Commercial Service Airports will continue to be intense.

Great Falls. Great Falls is the third most populous city in Montana with over 56,000 residents. The economy in Great Falls is driven largely by the presence of Malmstrom Air Force Base and its role as a regional trade center. The enplanements per capita ratio at Great Falls is 0.99, well below the 2006 estimated State average of 1.4 and the national average of 1.5. The reason for this lower ratio can be explained by its limited access to tourist activities and limited number of manufacturing companies which typically rely more heavily than other industries on commercial air service. There is also overlap of its 90-minute drive time market area with Helena, just 90 miles south of Great Falls. Due to these reasons, it is anticipated that the enplanements per capita ratio will continue to remain below the State average, unless these conditions are changed. Annual enplanements at Great Falls International reached 160,878 passengers in 2005. In the first six months of 2006, however, enplanements were down 9.2 percent from the same period of 2005 (MDT 2006). It is estimated that the potential annual enplanements for Great Falls International Airport would range between 190,000 and 230,000.

Helena. Helena is the State capital and the federal, state, and local government provides one in three local jobs. Helena has a city population of over 27,000 residents and a regional population (Gateway Region) of over 72,000. The enplanements per capita ratio for the Helena Regional Airport market area is 0.41. This ratio is significantly below the 2006 estimated State average of 1.4 and the national average of 1.5. The main reason for the low ratio is due to the overlap of the 90-minute drive time market area with Great Falls International and Gallatin Field. In 2005, enplanements reached 93,218 passengers. In the first six months of 2006, however, enplanements were down 6.3 percent from the same period of 2005. The current potential annual enplanements for Helena Regional are estimated to be between 115,000 and 130,000. Due to the overlap of market areas with other Commercial Service Airports, Helena Regional will continue to be in competition with them for new service.

Kalispell. Kalispell is considered the gateway to Glacier National Park and the Flathead Lake region, and it supports a growing business community. The enplanements per capita ratio for Glacier Park International Airport is 1.87, above the 2006 estimated State average of 1.4 and the national average of 1.5. In 2005, the airport enplaned 190,964 passengers, up over seven percent from 2004. In the first six months of 2006, however, enplanements were down 13.6 percent from the same period of 2005 (MDT 2006). Kalispell supports seasonal service by US Airways (formerly America West) and there is limited overlap of market areas with Missoula. Kalispell has one of the highest propensities in the State to support additional service and enplanements

with a rating of 4.5 out of 5.0. The potential annual enplanements at Kalispell are estimated to be in the range of 240,000 to 270,000.

Missoula.   Missoula is the second largest city in the State with nearly 63,000 residents. Missoula supports the University of Montana, the area's largest employer.   The city is also considered the western Montana trade and service center, and has a large health care sector as well as many paper and wood manufacturing companies. The enplanements per capita ratio at Missoula is 1.46, right in between the 2006 estimated State average of 1.4 and the national average of 1.5. In 2005, Missoula's enplanements totaled 266,597 total passengers. In the first six months of 2006, however, enplanements were down 2.0 percent (MDT 2006).   Missoula competes for passengers with Kalispell, Butte, and Helena, as well as Spokane who is served by Southwest Airlines. Missoula has a high propensity to support additional service and increase enplanements based on a rating of 4.0 out of 5.0 (see Table 4.4). It is estimated that Missoula has the potential to capture between 340,000 and 370,000 enplanements.

4.1.2.5 Potential Demand Estimates at EAS Airports

Due to the limited population and business activity found in all of the communities served by an EAS airport, the potential for increased enplanements is extremely limited. Also, potential enplanements are limited by the level of service they currently receive, as outlined by the US DOT's Essential Air Service "Order for Selecting a Carrier and Establishing Subsidy Rates." Each of the airports served by Big Sky Airlines in the State receives just 12 weekly one-stop or nonstop flights to Billings. SkyWest operates EAS service between West Yellowstone and Salt Lake City, offering seasonal service on 14 weekly flights. There is much passenger leakage occurring at each of the EAS airports in Montana. In total, enplanements at EAS airports increased 18.4 percent between 2004 and 2005. This indicates the positive effects that marketing and lower fares have on stimulating additional enplanements, even in the smallest communities. Six of the seven EAS airports demonstrated positive year-over-year enplanement growth between 2004 and 2005. Enplanements at Lewistown Municipal declined 1.3 percent between 2004 and 2005. For the first six months of 2006, enplanements at EAS airports were down 13.9 percent compared to the first six months of 2005. This can be attributed to higher air fares offered by Big Sky. One EAS airport, Dawson Community Airport in Glendive, posted positive enplanement growth during the first six months of 2006. Enplanements at this airport increased 3.3 percent versus the first six months of 2005 (MDT 2006).

The enplanements per capita ratio at all EAS markets, excluding West Yellowstone, are well below the 2006 State average of 1.4 and the national average of 1.5. The EAS airport ratios range from 0.06 to 0.20. The airports with nonstop service to Billings (Sidney, Lewistown, Miles City, and Wolf Point) have a higher propensity to recapture a higher level of passengers than those airports that have one-stop service (Havre, Glendive, and Glasgow). Due to the larger market area population of Havre, it is also believed to be able to capture additional passengers. It is estimated that West Yellowstone could capture between 6,000 and 6,500 annual enplanements

(even though they only have seasonal service) due to its proximity to the national park and the easy access it provides to tourists.

According to Big Sky Airlines, it takes about 8,800 annual enplanements for a carrier to financially breakeven on 12 weekly flights on a 19-seat aircraft. With this in mind, it is important to realize that all of the EAS airports in Montana would not be able to support unsubsidized air service, even if the number of enplanements at each airport increased significantly.

4.2 OPPORTUNITIES FOR IMPROVED AIR SERVICE

All but the largest communities across the U.S. have struggled to gain new and maintain existing air service. Airlines are operated today similar to many business ventures; the end goal is to return a profit to the shareholders who own the airline. While air transportation is considered a vital part of a community's infrastructure and services, the airlines are private, for-profit companies, and do not provide air transportation simply as a service, but must make money with their capital equipment, i.e., aircraft. It has become increasingly difficult for airlines to make money in the industry over the last few years due to regulatory costs, weakened demand for air travel, higher fuel costs, and low fare carrier pressure. The last chapter showed that many communities throughout the U.S. have tried to improve their air service situation with varying levels of success. It has proven to be extremely difficult to gain improved air service without financial guarantees.

The study's analysis shifts to reviewing and evaluating Montana's ability to support additional economically self-sustaining scheduled air service. While the commercial airline industry factors affecting air service were discussed in Chapter Two, *U.S. Airline Industry Trends*, the obstacles to improving air service at Montana's airports are discussed in this section. The potential service levels, as well as the options for air service improvements are also addressed.

4.2.1 Obstacles to Improving Air Service

There are many things that make it difficult for communities throughout the U.S. to improve air service. The current state of the airline industry and the pressure for all carriers to reduce costs are some of the toughest forces working against small communities. Carriers are unwilling to assume any risk when entering a new market or increasing airline service. It also has become increasingly expensive to operate turboprop aircraft over the last 10 years; these aircraft have historically been used in Montana markets, furthering the negative impact on the EAS markets. The following are issues specific to Montana which impact air service development:

Limited local population base. The population needed to support regional jet service is said to be upwards of 100,000. In addition, low fare carrier Southwest generally will enter new markets with market area populations upwards of 500,000 people. The limited market area population base of Montana may deter traditional scheduled carriers from entering the market. It would be

difficult for the communities to support unsubsidized service on larger aircraft based on these factors.

Limited number of carriers available to serve the markets. Although all airlines in the U.S. have struggled financially over the last few years, low fare carriers have managed to prosper much more than the traditional major carriers. The financial difficulties of making an airline successful have caused several airlines to go out of business in the last 10 years and few startup airlines have entered the market place, especially small carriers operating smaller aircraft This has limited the options for Montana airports when pursuing new air service.

Distance to airline hubbing operations. The remote location of Montana has minimized leakage to out-of-state airports, but it has also limited air service access to airports with airline hubbing operations. Compared to the East Coast, there are very few hubs that are within proximity of Montana airports, especially those that can comfortably be served with smaller regional jet aircraft. Airlines are using small jets to provide nonstop flights between cities that are too far apart to be served by turboprops but lack sufficient passenger demand to support non-stop jet flights. These flights are often up to 1,500 miles and 2 ½ hours long, which many passengers would prefer not to fly.

Passenger perceptions of high airfares. Many market area passengers believe that the air service offered at Montana airports is unaffordable and the airfares offered are too high. Many local passengers do not have a reasonable perception of the costs associated with driving versus flying. The public must be educated in order to help change these perceptions.

State of the airline industry. Since 9/11, carriers have struggled to turn a profit. According to the Air Transport Association, U.S. airline losses for 2005 approached $6 billion (Air Transport Association 2006a). Delta and Northwest filed for Chapter 11 bankruptcy protection in September 2005. In an effort to reduce operating costs, Northwest will reconfigure its fleet by replacing older less fuel efficient aircraft with new regional jets. Also in September 2005, America West and US Airways merged, creating the US Airways Group. Prior to this merger, US Airways had filed for Chapter 11 bankruptcy protection twice in just over two years. United Airlines emerged from bankruptcy in February 2006 after operating under Chapter 11 protection for more than three years. Still, there is little room for carriers to assume the risk of entering new markets.

4.2.2   Additional Air Service That Can Be Supported

To a reasonable level, passengers associated with Montana's airport service areas will respond to higher quality service and lower airfares, and will begin to use the airports with greater frequency. Inherent to this scenario is the assumption that passengers (both residents and visitors) will decrease the frequency with which they leave the local market areas to use more distant airports. It is unlikely that an airport can retain all of its passenger demand due to a variety of reasons including fares, convenience, and airline schedules. This section discusses

the level of service that the Commercial Service Airports could likely support based on the airline economics of offering additional service.

4.2.2.1 Airline Decision Making and Service Level Needs

Airlines are generally free to enter and exit airports at-will in the deregulated airline environment. Decisions are made about entering new markets and moving equipment to different routes based on several factors. Through discussions with airline personnel, including airline route planners, the most important factors considered are the availability of aircraft equipment and the rate of return that could be expected on that equipment when flying a selected route. Airlines look for several key components when analyzing a community for potential service; these components include:

- Population.
- Business and industrial activity.
- Historical air travel statistics.

The anticipated growth in these factors is also considered. Internal airline forecasts of a community's potential make or break the possibility of air service. Each community can influence these airline predictions to a degree, but the right combination of these factors must exist in order for a community to be considered in the airline planning process.

The number of passengers required to make airline service economically self-sustaining depends on many things, but is generally considered to be a factor of the cost of providing the service with a specific aircraft type versus the revenue from the service. The amount of revenue generated by passengers through fares is somewhat limited by the number of passengers that can be accommodated on the airplane. In general terms, operating a large jet aircraft costs more than a small twin-engine propeller aircraft. The key to comparing costs, however, is more importantly looked at in terms of the cost per seat to carry each passenger.

Every airline has what is referred to as a break-even load factor. This factor is the percentage of the seats the airline has in service that it must sell at a given yield, or price level, to cover its costs. Since revenue and costs vary from one airline to another, so does the break-even load factor. Escalating costs push up the break-even load factor, while increasing prices have just the opposite effect, pushing it lower. On average, the break-even load factor for the regional airline industry in recent years has been over 50 percent; the major/national airlines typically need an average load factor over 60 percent to break-even using large jet aircraft. It is estimated that with the current price of fuel, the major/national airlines may need load factors in the 80 percent range to break even. Airlines typically operate very close to their break-even load factor. The sale of just one or two more seats on each flight can mean the difference between profit and loss for an airline on that flight segment.

With increased seating capacities also comes a higher break-even load factor in order for the service to be profitable. Historically, when regional carriers operated many 19-seat aircraft, they looked to operate a minimum of three departures per day and generally required a 50 percent load factor to break even. Over the last few years, the break-even load factors have risen tremendously due to the high cost structure of the major airlines, which includes the rising price of fuel and increased operating costs of small aircraft. **Table 4.5** presents a listing of the typical route economics associated with various types of aircraft, based on aircraft size and market load factors. It is important to note that in Montana, two daily round trips on a year-round basis are considered typical as opposed to other areas of the U.S. where three roundtrips are standard.

Table 4.5
TYPICAL ROUTE ECONOMICS FOR OPERATING AIRLINE SERVICE

Aircraft Size (Seats)	Load Factor Required	Minimum Number of Daily Roundtrips	Required Number of Annual Enplanements
126 (Jet)	75+%	2 to 3	69,000 to 105,000
50 (Regional Jet)	60-65%	2 to 3	22,000 to 33,000
37 (Dash 8 Turboprop)	60-65%	3	24,000 to 27,000
32 (Saab 340, Dornier 328)	60-65%	3	20,000 to 23,000
19 (Beech 1900)	70-75%	3	14,000 to 16,000

Source: Wilbur Smith Associates 2006.

With 19-passenger aircraft, assuming the service is operated with three daily frequencies, seven days per week with a 70 to 75 percent load factor, over 14,000 annual enplanements are required to support the service. For 50-passenger regional jet aircraft, assuming twice daily service and a 60 percent load factor, roughly 22,000 annual enplanements are required to minimally support the service. As fuel prices and other costs increase, the load factor required for the service trends higher as well.

Another crucial factor in determining the feasibility of service to hub airports from spoke cities is the distance of the hub airport to the spoke city. Turboprop aircraft traditionally served spoke cities that fell within a 300-mile range. This distance was utilized primarily due to the operating characteristics of the turboprop aircraft and was generally kept to less than two hours enroute. Regional jets are now being operated on stage lengths as far as 1,100 miles. These aircraft have changed the service capabilities of regional carriers and the nature of commuter service in general.

4.2.2.2 Opportunities for Improved Service in Montana – Commercial Service Airports

As stated earlier in this report, the airline industry is in a constant state of flux and Montana's commercial service airports have felt the impact of this instability. When this study was initiated, low fare carrier, America West Express had just started service at two airports in the State and Delta was expanding service at its hub in Salt Lake City. Nearly all the airports in the State experienced record high enplanements in 2005. However, the merger of US Airways and America West and the bankruptcies of Delta and Northwest in late 2005, led these carriers to reevaluate their Montana routes. The newly merged US Airways pulled service at Billings and dropped to seasonal service at Kalispell. In restructuring attempts to exit bankruptcy and cut costs, Delta dropped one-quarter of its flights and capacity at Montana airports in late 2005. Enplanement levels at many of the airports in Montana have declined in the first six months of 2006. The ability of bankrupt carriers such as Delta and Northwest to expand in Montana is limited, especially in the near term.

The opportunities for Montana's commercial service airports to add new service continue to shrink. However, several of Montana's Commercial Service Airports appear to be able to support increased air service. Even when local obstacles to improving air service and the overall state of the airline industry are taken into consideration, Montana can still support additional service if significant effort is made by the local community and the State in order to pursue and secure this service.

It is possible for several of the communities to change passenger perceptions of local air service to help gain new air service in the community and in turn reverse some of the leakage currently occurring. It will take the entire community's support of additional service in order to guarantee its success, likely including monetary guarantees.

Based on the level of demand identified for the markets, the state of the aviation industry, and local obstacles, several of Montana's communities may be able to support additional flights. Examination of the top domestic origin and destination markets in Montana is useful to determine if there are additional opportunities for air service enhancement. These markets show where the highest level of traffic exists and point to where opportunities may lie. **Table 4.6** depicts the top markets for all Montana airports combined (US DOT 2006a). The top markets for each of the individual Commercial Service Airports (for 2005) can be found in *Chapter 1, Air Service Overview*.

Table 4.6
TOP 25 DOMESTIC OUTBOUND O&D PASSENGER MARKETS
ALL MONTANA AIRPORTS

2005 Rank	Destination City / *Airport*	Code	2005 Outbound O&D Passengers	% of Total	Passengers Per Day Each Way
1	Salt Lake City	SLC	104,171	7.6%	285
2	Seattle	SEA	84,060	6.1%	230
3	Denver	DEN	80,373	5.8%	220
4	Los Angeles Area		71,943	5.2%	198
	Los Angeles	*LAX*	*32,084*	*2.3%*	*88*
	Orange County	*SNA*	*22,521*	*1.6%*	*62*
	Ontario	*ONT*	*11,498*	*0.8%*	*32*
	Burbank	*BUR*	*4,964*	*0.4%*	*14*
	Long Beach	*LGB*	*876*	*0.1%*	*2*
5	Las Vegas	LAS	53,181	3.9%	146
6	Washington D.C. Area		50,626	3.7%	138
	Reagan National	*DCA*	*20,112*	*1.5%*	*55*
	Dulles	*IAD*	*16,571*	*1.2%*	*45*
	Baltimore	*BWI*	*13,943*	*1.0%*	*38*
7	Minneapolis	MSP	49,823	3.6%	137
8	San Francisco Bay Area		48,327	3.5%	132
	San Francisco	*SFO*	*21,134*	*1.5%*	*58*
	San Jose	*SJC*	*14,381*	*1.0%*	*39*
	Oakland	*OAK*	*12,812*	*0.9%*	*35*
9	Phoenix	PHX	45,771	3.3%	125
10	New York Area		38,436	2.8%	106
	Newark	*EWR*	*18,506*	*1.3%*	*51*
	LaGuardia	*LGA*	*13,323*	*1.0%*	*37*
	Kennedy	*JFK*	*6,607*	*0.5%*	*18*
11	Portland	PDX	37,595	2.7%	103
12	Atlanta	ATL	33,252	2.4%	91
13	Chicago-O'Hare	ORD	29,930	2.2%	82
14	Dallas/Ft. Worth	DFW	29,419	2.1%	81
15	San Diego	SAN	26,317	1.9%	72
16	Orlando	MCO	22,995	1.7%	63.
17	Houston Area		20,550	1.5%	56
	Houston-Bush	*IAH*	*20,404*	*1.5%*	*56*
	Hobby	*HOU*	*146*	*0.0%*	*0.4*
18	Sacramento	SMF	20,477	1.5%	56
19	Boston	BOS	19,017	1.4%	52
20	Philadelphia	PHL	17,849	1.3%	49
21	Anchorage	ANC	16,060	1.2%	44
22	Detroit	DTW	14,856	1.1%	41
23	Kansas City	MCI	12,812	0.9%	35
24	Tampa	TPA	12,301	0.9%	34
25	St. Louis	STL	11,863	0.9%	33
	Total—Top 25 Markets		**952,004**	**69.2%**	**2,609**
	Total—All Other Markets		**424,046**	**30.8%**	**1,161**
	Total—All Markets		**1,376,050**	**100.0%**	**3,770**

Source: US DOT 2006a.

Figure 4.2 depicts the U.S. destination region of passengers originating at all Montana airports in 2005. The map confirms several interesting features about statewide travel patterns (US DOT 2006a):

- Nearly 30 percent of the passengers originating at Montana airports were destined for an airport in the southwestern U.S. Salt Lake City is the number one market. Part of the reason this is so high is due to a reporting discrepancy that does not account for the final destination when a passenger is making an online connection on a commuter carrier such as SkyWest. More than 12 percent of the passengers were destined for airports in California alone. Los Angeles, San Francisco, San Diego, and Sacramento are among the top 20 O&D markets.

- Between 10 and 13 percent of Montana travelers are destined for one of five regions: Northwest, Northeast, Midwest, South Central, and Southeast. Nearly one-quarter of the State's domestic passengers are destined for an airport along the East Coast of the U.S.

- In the Northwest, over six percent of the local passengers are traveling to Seattle. Portland is ranked 11th in O&D destinations for passengers originating at Montana airports. Anchorage is also a top destination in the Northwest U.S.

- Thirteen (13) percent of O&D passengers are destined for airports in Northeast U.S. The Washington D.C. area (including Baltimore), New York City, Boston, and Philadelphia are top northeastern U.S. markets. Montana airports have no nonstop service to destinations in Northeast U.S. and connecting cities to Eastern U.S. destinations are limited to Minneapolis, Salt Lake City, and Denver.

- Eleven (11) percent of the passengers are destined for airports in Midwestern states. Chicago, Detroit, and St. Louis are top Midwestern markets from Montana.

- Twelve (12) percent of the passengers are destined for airports in South Central states. Denver, Dallas, and Houston are top South Central markets from Montana airports.

- Ten (10) percent of the statewide passengers are destined for markets in Southeast U.S. Top 25 O&D markets located in southeastern U.S. include Atlanta, Orlando, and Tampa. There is no nonstop service between Montana and any markets in Southeast U.S.
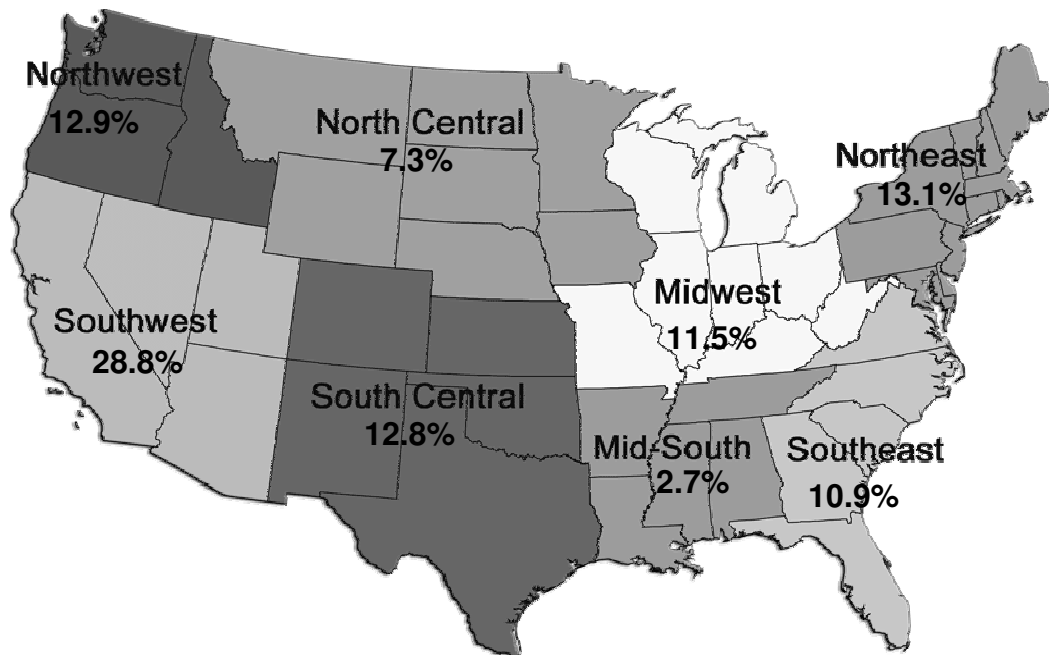
Figure 4.2
DOMESTIC OUTBOUND O&D PASSENGER MARKETS, BY REGION
ALL MONTANA AIRPORTS

Source: US DOT 2006a.

Based on this analysis, the State should continue to pursue the best opportunities to improve service to its largest destination region, Southwest U.S. It is also important to improve the State's connection to the Midwest and eastern parts of the U.S. Improved service to Northwest's hub in Minneapolis and United's hub in Denver, and new service to hub airports in Chicago (United or American), Cincinnati (Delta), or Atlanta (Delta) present the best options for new service.

Based on the market size and demand estimates, it appears that several of Montana's airports can support additional aircraft service. As the State's population, employment, and tourism continue to grow, there should be opportunities for current carriers to add flights in the short term. Other improvements that the airports can pursue include new routes, improved scheduling, pricing parity, and one-stop flights. It should be noted that, if an airport is successful in adding or improving their air service, it may impact another Montana airport negatively in terms of loss of enplanements or even loss of service. Airports will always be in competition when pursuing new air service opportunities.

4.2.2.2.1 Additional Flights on Current Routes

Airports in Montana should build strong relationships and have frequent open dialog with their incumbent carriers. Often, air service development efforts overlook the current service and ensuring the existing carriers are profitable in their routes. It is important to understand each airport's market and its ability to support financially viable service, especially if new service is

pursued. Each market can only support a maximum level of service without providing some form of subsidy. In some cases, if new service is initiated, it may result in a loss of existing service such that the capacity of airline seats in the market matches the demand generated. It has been noted that many of Montana's commercial airports have lower average load factors than the carriers are looking for in today's operating environment. Airports in Montana should pursue the following based on their evaluation of the market's potential:

- **Billings**
  - One daily nonstop flight to Minneapolis operated by Northwest Airlink on CRJ aircraft. Northwest Airlines currently provides two nonstop daily flights between Billings and Minneapolis on Airbus 319 aircraft.
  - Expand scheduled service to Chicago on United. This service is currently offered on a seasonal basis.
  - Additional flights to Las Vegas on Allegiant Air.
  - Additional flights to Denver on Frontier Jet Express.
- **Bozeman**
  - Nonstop CRJ flights to Minneapolis on Northwest Airlink. Northwest currently provides service on two scheduled Airbus aircraft each day.
  - Monitor the ridership of new once daily seasonal Atlanta-Bozeman service to try to add several weekly flights on more than a seasonal basis.
- **Butte**
  - Upgrade current one-stop service to Seattle on Horizon Air to nonstop service.
- **Kalispell**
  - Upgrade current one-stop service to Minneapolis to nonstop service.
  - Additional nonstop service to Seattle (upgrade one-stop service).
  - Work with US Airways to see what can be done to establish year-round daily service to Phoenix.
- **Great Falls**
  - Supplement existing service to Minneapolis with CRJ service.
  - One additional nonstop flight to Denver on United Express (three total).
- **Helena**
  - Additional nonstop CRJ flights to Minneapolis on Northwest Airlink.
- **Missoula**
  - Additional flights to Las Vegas on Allegiant Air.
  - Supplement existing service to Minneapolis with CRJ service.
  - Expand weekend only service to Chicago on United Express.

4.2.2.2.2 Equipment Upgrades

With the increased use of the regional jet in the last 10 years, 50-seat regional jets have replaced many of the flights that were once operated by larger jet aircraft. Large jets continue to be used along highly-traveled, longer routes. As the 70-seat regional jet becomes more popular and airlines order the 100-seat Embraer jet, there may be opportunities for Montana airports to work

with carriers to upgrade the equipment currently flying certain routes. For example, United Express has plans to substantially increase its fleet of CRJ 700 aircraft. Billings, Missoula, Bozeman, and Great Falls should work closely with United Express to see if there are opportunities to upgrade their service to Denver.

4.2.2.2.3 Improved Timing of Schedules

The airports should work closely with their current carriers to ensure two things in terms of improved schedules. First, many passengers tend to drive to a competing airport to begin their flights if their layover is going to be greater than two hours. The timing of the flights to and from Montana airports should be monitored and timed closely with airline hubbing banks to ensure connecting times of less than two hours. The second timing issue is the first departing flights out of Montana airports and final arriving flights into Montana airports should be early/late enough to accompany passengers' connections.

4.2.2.2.4 Pricing Parity

Fares are the major concern of local passengers at Montana airports. Pricing parity with competing airports should continue to be sought in order to encourage local travelers to fly from their local market area. In 2005, Butte, Helena, and Kalispell all had average fares above the statewide average. The State and each airport should monitor the airfares to the community's top O&D destinations as well as competing airports to ensure their fares reasonably compare to the competing airports. If the fares out of a Montana airport are excessive compared to a competing airport, the airport should bring this information to the attention of the carriers in order to suggest an adjustment to the fares to a more reasonable level to ensure the passengers are using their airline and not driving to a competing airport or out of State. The EAS airports should also work closely with Big Sky and SkyWest to ensure the fares are reasonable.

4.2.2.2.5 One-Stop Flights

An additional service improvement for the airports would be to work with existing carriers to pursue same plane one-stop flights to each airport's top O&D markets. Many carriers utilize these one-stop flights for marketing purposes. For example, United Express currently offers one-stop service between Billings and Minneapolis via Denver. Delta currently offers one-stop service between Bozeman and Los Angeles (LAX) via Salt Lake City. Many passengers find this one-stop service convenient, knowing that they can remain on the same airplane the entire flight. Each of the Commercial Service Airports should pursue one-stop service opportunities to top O&D markets, including Los Angeles area airports, San Francisco area airports, and Washington D.C. area airports.

4.2.2.2.6 New Markets

Under the current state of the airline industry, few carriers, including regional carriers, are adding new service to small communities, even if passenger demand is there. Carriers have been adding new routes and capacity to larger communities that are able to fill airplanes easiest. In addition, orders for the 50-seat regional jet are declining as carriers are shifting their focus to the 70-seat regional jet, which has been used to supplement jet service to large and medium-sized communities. The aircraft currently on order by many regional carriers are often being used to replace service by mainline carriers that are retiring jet aircraft instead of entering new markets. This being said, with appropriate community support in the form of ridership and guarantees to offset the risk of startup, there may be opportunities for Montana to gain new service in the long-term. Although new service may not come as quickly or easily for Montana communities, the aviation industry is in a constant state of flux and better opportunities may quickly materialize in the future.

Based on the O&D and demand analysis, opportunities for new market development exist for Montana airports. Because many carriers are phasing turboprop aircraft out of their fleet and with the distance to other hub airports, airports need to support at least two to three daily flights on regional jet aircraft to any new market. Service on 50-seat regional jet aircraft requires a minimum annual enplanement base of approximately 22,000 to 35,000 for viability.

Several markets and carriers appear to have potential for being new nonstop markets for Montana airports. The airports should work with carriers serving the State to see if opportunities exist in their route planning. There are three types of carriers that can be analyzed for future air service opportunities in Montana. They are 1) traditional carriers with ties to the hub and spoke system, 2) low fare low cost carriers, and 3) point-to-point carriers such as Big Sky.

Due to the limited number of hub airports located in the western U.S. compared to those in eastern and Midwestern portions of the U.S., Montana's options for new service to a hub are reduced. In addition, traditional carriers are hesitant to enter small and medium-sized markets without minimized risk through financial guarantees. According to O&D analyses, it appears that Montana airports should pursue better linkages to the eastern half of the U.S. through the commuter partner of traditional carriers as well as strengthen connections to Southwest U.S. Montana airports should pursue opportunities to the following hub airports:

- **Chicago** - Both American and United have hubs at Chicago-O'Hare and offer many connecting opportunities to the eastern half of the U.S. There may be an opportunity for their regional partners to serve the Commercial Service Airports in Montana.
- **Cincinnati** - Cincinnati is Delta's second largest hub and the base of its regional partner Comair; both offer excellent connections to the Midwest, Northeast, and Southeast regions. Although recent announcements of the carrier scaling back service at

Cincinnati and its entrance into bankruptcy may deter the carrier from expanding in the short-term, there may be additional opportunities in the longer term.

- **Atlanta** - Atlanta is Delta's largest hub. Delta has recently announced seasonal service between Atlanta and Bozeman during the ski season on 150-seat B737 aircraft. Several local resorts and the Big Sky Chamber are helping to ensure the profitability of the service through a revenue guarantee. There may be additional opportunities for other airports to gain service to Atlanta based on the success of the Bozeman service. It is in the best interest of the State to monitor the success of this service.

- **Los Angeles** – The Los Angeles area is the fourth largest O&D market for Montana (see Table 4.6). The market includes demand served by five Los Angeles area airports, with Los Angeles International capturing the largest percentage of the O&D travelers. Los Angeles serves as a mini-hub for United. There may be opportunities for United Express to serve Montana markets either on a seasonal or year round basis due to the high O&D levels. There may also be opportunities for Montana communities to work with other carriers to provide service to Los Angeles area airports.

- **Denver** - United Express currently serves the Great Falls market with nonstop service to its hub in Denver. Although most of the Commercial Service Airports in Montana currently have United Express service to Denver, there may be an opportunity for Kalispell to gain new service to Denver as well. In addition to United, Denver is also base to Frontier Airlines and Southwest Airlines has expanded its operations to include Denver. Frontier has also announced plans to expand its fleet with 70-seat Q-400s, a large turboprop aircraft that will be used to supplement their other large jet aircraft fleet. These somewhat smaller aircraft may present opportunities for either equipment upgrades or new service, depending on the market. In the future there may be additional low fare carrier opportunities between Montana and Denver.

- **Phoenix** - US Airways (America West) previously provided service between Billings and Phoenix. United currently provides one-stop service between Billings and Phoenix via Denver. In addition, it appears several other Montana communities could support Phoenix service.

- **Dallas/Ft. Worth** - Dallas/Ft. Worth is American's largest hub and has excellent connecting capabilities to the South Central and Southeast U.S. markets. Montana markets with strong O&D connections should pursue service on American Eagle to Dallas/Ft. Worth (Billings, Bozeman, and Missoula).

Low fare carriers have witnessed relative success, while traditional carriers have struggled with getting costs under control. The pricing pressure the low fare carriers have placed on the traditional carriers has strengthened their presence at markets across the country. Low fare carriers have entered 66 percent of U.S. markets with over 100,000 residents. However, these larger markets are getting saturated with low fare carriers, which are always looking for new opportunities to expand. These carriers, including Frontier, Southwest, AirTran, and JetBlue have succeeded in the past by flying one type of aircraft. However, as they expand, several carriers have plans to add smaller equipment to their fleet. This smaller equipment type may

provide new opportunities in the future to bring additional low fare service to Montana. The opportunities that should be pursued in the low fare airline realm include:

- **Frontier** – Bozeman, Kalispell, Missoula.
- **Other** - Monitor other carrier fleets and route planning including JetBlue, AirTran, Southwest, and Virgin America (expected to begin operations in early 2007). US Airways should also be watched closely. The carrier intends to operate with a low cost business model. However, the long-term ability to be true "low fare" carrier remains uncertain.

Several carriers may offer an opportunity for additional point-to-point service in Montana. Big Sky, Horizon, and other smaller carriers are open to serving single routes that do not tie into a carrier's larger hub networks. Markets served by these carriers need to have a strong O&D base, due to the inconvenience to passengers to connect to an off-line carrier. Big Sky Airlines in Billings offers Montana airports a unique opportunity to provide point-to-point service to other airports, due to the smaller equipment size they operate and the limited ties to larger traditional carriers. Big Sky is open to operating and trying new routes with its fleet of 19-seat Beech 1900 aircraft and can work closely with a community to begin new service on routes less than 500 miles. These markets include Spokane, Calgary, Boise, and potentially others. In the last few years Horizon has worked closely with ski resorts in Sun Valley to provide subsidized service to California. There may also be an opportunity for Montana communities to work with Horizon to get air service to western U.S. points on larger aircraft.

4.2.2.3 Considerations at Montana's EAS Airports

As previously noted, all of the existing EAS markets in Montana are currently operating well below the passenger levels required to support unsubsidized airline service. All EAS markets, with the exception of West Yellowstone, currently have service to Billings. Once passengers reach Billings, they can choose to board any carrier serving the market to connect to another destination. Many passengers are bound for Billings since it is the State's largest city and economic center, but most fly to Billings to connect to another airline flight for transportation to another destination.

While Billings is considered a "connecting hub" because this is where Big Sky passengers connect to other flights, the airport is not a true airline hub. An airline hub is one in which the airline operates a high frequency of service such as Denver, Salt Lake City, or Minneapolis. These airline hubs provide more opportunities for direct service since they typically serve many destinations from their hubs. However, due to the distances to these hubs, the type of aircraft used by EAS carriers, and the fact that many of these flights are linked, the Billings hub continues to appropriately serve the State's EAS markets.

4.2.3 Canadian Airline Service

Due to its proximity to the Canadian provinces of Alberta and Saskatchewan, the possibility of new air service links between Montana and Canada has been an ongoing effort by local, State, and provincial officials. Prior to deregulation, Western Airlines provided scheduled nonstop and one-stop service between several Montana communities and Calgary on B727 aircraft. Canadian Airlines offered the most recent service in 1988 between Great Falls and Calgary.

There is an important business and tourism link between Montana and Canada. Among all Canadian cities, Calgary has the highest projected gross domestic product (GDP) and historic employment growth. In addition, Calgary has the lowest provincial tax rate in Canada and no provincial sales tax. In Calgary, while oil and gas is the largest industry, high-tech, service industries, and light manufacturing are all making significant inroads into the local economic base.

From the results of the statewide business survey that was administered, it appears that just a small amount of business travel is currently conducted between Canada and Montana. Also, when transborder service is analyzed, only a small amount of air travel is generated between Canada and Montana. In 2002 (the most recent time period available), just over 8,200 passengers enplaned flights at Montana airports that were destined for Canadian airports (see **Figure 4.3**). About 31 percent of the passengers to Canada originated in Billings, while 24 percent of the passengers originated in Bozeman and 18 percent in Missoula. The top destinations were Vancouver (31 percent), Toronto (26 percent), and Montreal (11 percent) (Statistics Canada 2005).
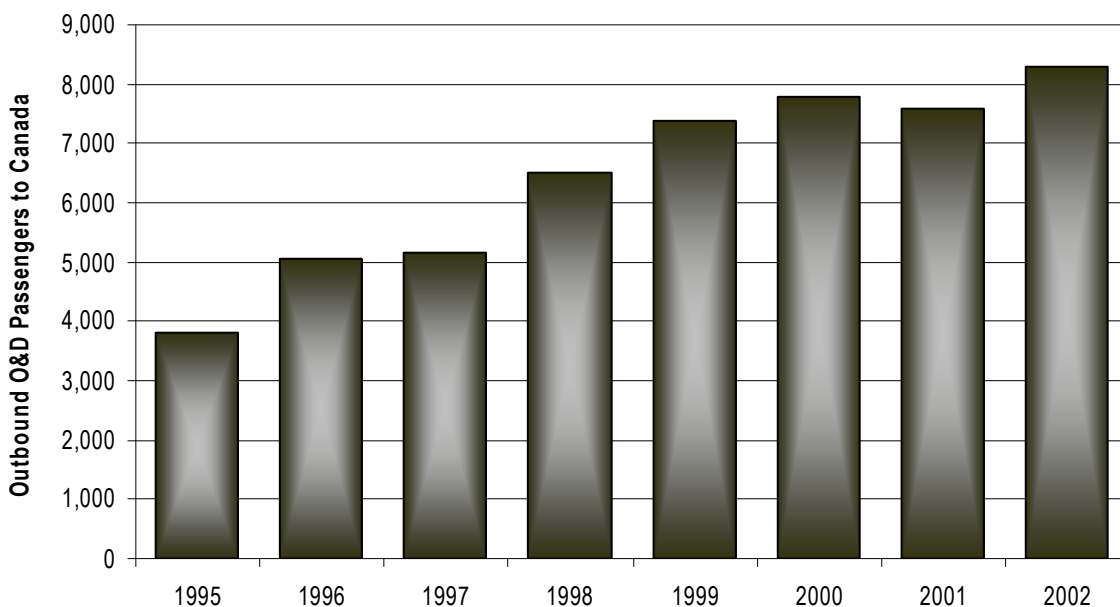
Figure 4.3
OUTBOUND O&D PASSENGERS BETWEEN MONTANA AND CANADA

Source: Statistics Canada 2005.
Note: 2002 is the most recent data available.

The level of current passengers flying between Montana and Canada limits future air service opportunities, especially by jet aircraft. Below are recommendations for potential air service improvements between Montana and Canada:

- Communities and the State should continue to monitor the linkages between various cities that may be able to support strong O&D markets as well as connecting passenger opportunities.
- There should be an annual meeting between interested parties to discuss where opportunities lie.
- Due to its aircraft fleet (19-seat Beech 1900) and flexibility of being a small carrier with limited ties to a larger carrier, Big Sky Airlines presents the best opportunity for improved service and linkages to Canada.

4.3   AIR CARGO DEMAND ANALYSIS

Air cargo activity in Montana reflects the demand for air cargo services within the State. Air cargo will continue to be accommodated by passenger airlines as well as integrated express carriers. Air cargo is directly tied to the State's economy as well as future economic development activity. This section identifies economic development and its ties to air cargo, which industries in the State have the greatest need for air cargo services, how airports benefit

from and compete for air cargo demand, as well as infrastructure improvements airports can consider to prepare for the future. This section is presented as follows:

- Economic Development.
- Industries Requiring Just-In-Time Shipments.
- Montana-Specific Clusters.

4.3.1 Economic Development

Air cargo is generated by demand for transportation of material from Point A to Point B in an expeditious manner. Logistics managers must justify the use of air cargo since it is greater in cost than shipping via truck, rail, or water transport. In order to understand more fully how air cargo is generated in an airport's market area, a review of air cargo demand is required. Several factors are involved in the logistics decision process whether or not to move material via air cargo. These factors include:

- Cost of transporting the material.
- Level of service commitment to the customer.
- Value of the material.
- Magnitude of the time-sensitivity of the material.

4.3.2 Industries Requiring Just-in-Time Shipments

Companies using logistics services, such as integrated express carriers, are usually divisions of large or medium-sized companies that generally do not have an in-house logistics function. These companies have determined that a cost reduction or long-term cost avoidance can be obtained by outsourcing their logistics program. These companies typically handle high-value, time-sensitive products. In addition, they have high inventory turnover, short product life cycle, and rapid stock rotation. They typically require high levels of service, that is, rapid transit of material and on-time performance. Cost efficiency is paramount to transportation. Under these conditions, the focus is on overall reliability, time, and cost of the movement from the point of origin to ultimate destination across all transportation modes. Shippers want goods to move faster and less expensively. To provide *door-to-door* service to shippers under these parameters, all elements of the move must be optimized.

Industries which benefit from increased speed of distribution or better stock availability commodities being shipped via air cargo are:

- Aeronautics - Equipment & Parts.
- Automotive - Equipment & Parts.
- Pharmaceuticals.
- Computers & Computer Components.
- Diagnostic Equipment.

- Medical Equipment.
- Software.
- Textiles – Garments.
- Perishables - Flowers, Fruit, Vegetables, & Fish.
- Economically perishables - Printed Material.
- Telecommunications Equipment - Cell Phones, Pagers.
- Photographic Film.

All of the commodities identified above are high in value, relatively light weight, and are time critical. However, not all of these attributes need to apply to one shipment. For example, several containers of fresh fish will be heavy and bulky, but due to the perishable nature and high-value of the product, it is often cost efficient to transport fish via air cargo.

4.3.3 Montana-Specific Clusters

Six distinct industry clusters in Montana were identified in a previous chapter which indicates a trend in the State's economic development. Several of these clusters have a high propensity to use air cargo in day-to-day logistics activity. **Table 4.7** identifies Montana's industry clusters and the propensity of these clusters to use air cargo.

Table 4.7
MONTANA INDUSTRY CLUSTER
PROPENSITY FOR AIR CARGO USE

Industry Cluster	Propensity For Air Cargo Use
Wood-Based Product Cluster	Low
Agri-Food Cluster	Moderate
Experience Enterprise and Tourism Cluster	Low
Creative Enterprise Cluster	Moderate
Life Sciences Cluster	High
Information Technology Cluster	High

Sources: Rosenfeld 2003, Wilbur Smith Associates 2006.

Wood-Based Product Cluster. This industry produces heavy bulky commodities which are typically trucked short distances to the final delivery point. Occasionally, a log home kit may be trucked to the Port of Seattle and shipped to Alaska but this is the exception and not the rule. Tools and machinery used in this industry also tend to be heavy and bulky and are also trucked. Saw blades are occasionally shipped via air cargo from manufacturers and blade sharpening businesses.

Agri-Food Cluster. This cluster includes businesses that grow, harvest, process, package, and distribute food. It is noteworthy to point out that this industry cluster was identified in a 2002 economic development study for Great Falls International Airport and the *High Plains*

Development & Port Authority as one of ten industry clusters suitable for development along with air cargo development at the airport. Products such as frozen meals using local beef and wheat production could be produced then shipped via air cargo to Asian markets. The report indicates a certain variety of wheat grown in the area bodes well in microwaveable products and produces a crispy texture.

Experience Enterprise and Tourism Cluster. This cluster is a service industry and does not generate high demand for air cargo services. Document transport would be the most common use of air cargo for this cluster when it is utilized.

Creative Enterprise Cluster. The arts community uses air cargo on occasion to fulfill business orders. The holiday rush period (October through December) is when the greatest demand for air cargo services are required for this cluster.

Life Sciences Cluster. As indicated in the previous chapter, the Life Sciences Cluster is concentrated in the western half of the State, where nearly 90 percent of the core industry firms are found. Most of the Life Sciences Cluster companies use overnight delivery services on a regular basis for their logistics needs. The Life Sciences cluster frequently requires overnight transport of samples and specimens for testing as well as medication for patients. Demand for inbound and outbound services is usually equal, which air cargo carriers prefer to insure aircraft are fully utilized to and from the market.

Information Technology Cluster. The Information Technology (IT) Cluster consists of companies that manufacture electronic components and products; develop software applications; and provide computer and data processing services. Also included are intermediary technology producers such as those who develop and manufacture optical and analytical instruments. Bozeman, Missoula, and Flathead Valley have the highest concentrations of IT companies, and Billings appears to be an emerging center in the south central region. Only a few individual firms are located outside the larger urban areas of the State. Kalispell is home to Semitool and its 1,500 employees. Semitool is a world leader in the design, development, manufacture, and support of high performance wet chemical processing equipment for use in fabrication of semiconductor devices.

The Information Technology Cluster is highly dependent on air cargo services for shipping nationally and internationally. However, software is increasingly being "transported" via the Internet. Computer hardware and peripheral lightweight, high-value products are commonly shipped via air cargo.

Market Summary. The Life Sciences Cluster and the Information Technology clusters have the greatest potential for increasing air cargo demand in the State. Airports in proximity to these clusters should coordinate with economic development officials and air cargo carriers to insure their infrastructure accommodates both air cargo and cluster logistics needs.

4.4   AIR CARGO OPPORTUNITIES

4.4.1 On-Airport Air Cargo Activity

Air cargo activity on airports varies in scale and complexity. Air cargo activity on an airport can be divided into the following four distinct types; these functional types are not mutually exclusive:

- Air cargo hub (regional or national).
- International gateway.
- Intercontinental hub.
- Local market station.

Air Cargo Hub. A hub/sort facility can operate independently of the surrounding market area and local demand for air cargo service. At an air cargo hub, the majority of the material to transit the hub/sort facility has an origin and destination that does not coincide with that airport's surrounding market area. In effect, the hub generates artificial demand for air cargo facilities and operations at the host airport. Hubs range in size from a national hub, such as FedEx's Memphis hub, to a regional hub such as UPS's Rockford, Illinois facility. FedEx operates a small regional hub at Great Falls International Airport which services portions of Canada, all of Montana and parts of northern Idaho. DHL and UPS use Billings for hubbing operations as well, but on an even smaller scale.

International Gateway. To a certain extent, an air cargo international gateway is similar to a hub airport in that the international gateway airport is not reliant on the surrounding market area to generate sufficient material to justify operations. The international gateway functions as a consolidation, distribution, and processing point for international air cargo. As with the air cargo hub, much of the material moving through an international gateway airport does not originate and is not necessarily destined for the gateway airport's surrounding market area. Airports considered International Gateways include New York's JFK, Miami International and Los Angeles International. Among Montana's airports, Great Falls International is in the best position to attract international air cargo traffic. However, Montana does not have the potential to be an International Gateway in the foreseeable future.

Intercontinental Hub. An intercontinental hub connects two or three continents by air cargo and passenger aircraft and can be located in relatively remote parts of the world away from dense populations. These airports offer cargo hub capability as well as aircraft service centers for aircraft needing to refuel and change crews. Ted Stevens-Anchorage International Airport is a good example of an Intercontinental Hub as well as Dubai and Singapore. Airports in Montana do not have the potential to be an Intercontinental Hub in the foreseeable future. This is due to a mature air cargo market in North America and a well-established network of "fortress" hubs and gateways along the west coast.

Local Market Station. The criteria for a local market station, or direct air cargo service (origin and destination [O&D] service to an airport's surrounding market area) generally coincide with large population centers where there is a concentration of industry, consumers, commerce, and transportation infrastructure. Often referred to as a "node" within a cargo carrier's network, the local market station is the simplest and most common type of air cargo facility. These airports represent the "end of the spoke" in a hub-and-spoke air carrier network. For airport-to-airport service providers, the local market station represents the origin or destination point for the cargo they are transporting. **Table 4.8** shows local market station4 activity at Montana airports.

Table 4.8 AIR CARGO CARRIERS CURRENTLY SERVING MONTANA			
Market	**Express Carrier(s)**		
Kalispell	FedEx	DHL	UPS
Butte	FedEx	DHL	UPS
Helena	FedEx	DHL	UPS
Missoula	FedEx	DHL	UPS
Great Falls	FedEx	DHL	UPS
Bozeman	FedEx	DHL	UPS
Billings	FedEx	DHL	UPS
Wolf Point	FedEx		
Havre	FedEx	DHL	UPS
Cut Bank			UPS
Sidney			UPS
Glasgow			UPS
Lewistown			UPS
Glendive			UPS
Malta			UPS

Source: Wilbur Smith Associates 2006.

The sole function of a direct local air cargo service facility is to collect outbound air cargo and distribute inbound air cargo to the airport's surrounding market area. In order to make direct air cargo service economically feasible, the airport's surrounding market area, or "catchment area," must generate enough inbound and outbound traffic and revenue to offset an air carrier's operational costs at that airport.

4.4.2   Evolution of Air Cargo at Airports

As air cargo demand grows in an airport market, the size, type, and number of aircraft will change to meet the increases in air cargo demand. The demand for an all cargo B727-100 will

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4 Local market stations may be located off airport, but cargo is trucked from the station in town to the airport where it is ramp-transferred on the airport from truck to aircraft.

not usually happen without first having demand for smaller aircraft or trucks. Air cargo markets progress usually in some form of the following order:

- 14' - 53' Truck to hub or nearby airport.
- Bulk Aircraft for short routes with low weight: B18, C210.
- Bulk Aircraft for short routes with high weight: SH330, SH360, Casa 212, F27.
- Bulk Aircraft for long routes with low weight: C208A, C208B.
- Bulk Aircraft for long routes with high weight: S227L (Metro II), S227H (Metro III).
- Containerized AC for short routes with high weight: Convair 240, 580, or 600.
- Containerized AC for intermediate routes with high weight: DC9-15, DC9-30.
- Containerized AC for long routes with high weight: B727-100, B727-200.
- Containerized AC for long Domestic routes with very high weight: DC8-73, A300.
- Containerized AC for International routes: DC8-73, DC10, B747.

As changes to the demand for lift take place, airport management must be able to accommodate changes in aircraft type through growth and development of airport facilities. Some of these changes happen at a fairly rapid pace as demonstrated in **Table 4.9**. In this example, an integrated express operator with Boise (BOI) service in 1990 was transporting material to and from Salt Lake City (SLC) to BOI five days a week using a co-loaded, low-gross Fairchild Metro (S227L). Co-loaded aircraft share the capacity and costs of operation with other carriers. As the Boise market grew, the express cargo carrier increased the size of the aircraft in 1995 going from a Low Gross Metro to a High Gross Metro. In 1998, two High Gross Metros were needed to move packages to SLC and in 1999 a higher capacity aircraft (F27) replaced the two Metros. In 2000, the airline began operating a B727-100 into the BOI airport. As Table 4.9 indicates, within a 10-year period, an air carrier went from operating a small turboprop cargo aircraft to a containerized jet aircraft.

Table 4.9 AIRCRAFT REQUIREMENTS FOR EXPRESS CARRIER AT BOISE AIR TERMINAL/GOWEN FIELD			
Year	Aircraft Type	Number of Aircraft	Lift Capacity
1990	S227L*	1	3,000
1991	S227L	1	3,000
1992	S227L	1	3,000
1993	S227L	1	3,000
1994	S227L	1	3,000
1995	S227H	1	3,500
1996	S227H	1	3,500
1997	S227H	1	3,500
1998	S227H	2	7,000
1999	F27	1	9,000
2000	B727-100^	1	12,000

Source: Wilbur Smith Associates 2006.
Notes: *In 1990, the S227L was shared with other carriers.
^The B727-100 has a capacity of 36,000 pounds, but the BOI station was assigned 12,000 pounds of capacity since the aircraft stopped in SLC to pick up 24,000 pounds of material on its way to the hub in the Midwest.

As cargo and passenger operations separate, different airports may be used for each, giving rise to the development of cargo operations at general aviation airports and perhaps eventually evolving into an all cargo airport. At a time when many full-service airports are facing increasing demands to support passenger operations and increased airside congestion, use of alternative regional or secondary airports is increasingly attractive. These airports become attractive if they allow carriers to serve the same (or larger) markets with greater efficiencies and cost savings. Examples of secondary airports that have successfully attracted cargo operations include Long Beach-Daugherty Field, CA; Huntsville, Alabama; Bradley International, CT; Manchester, NH; T.F. Green Airport, RI; and Stewart, NY.

4.4.3 Airport Competition

Airports compete with other airports for aviation business, much like other facilities such as shopping malls compete with one another for vendors. Successful airports attract passengers and cargo from their own market area as well as neighboring market areas. Hub airports have the added benefit of not only origin and destination cargo traffic but also "transiting" cargo from other parts of the region, country, and world through the airport. Some airports are more successful than others due to a host of factors which impact demand for aviation services. The factors include the airport's location in proximity to demand, proximity to other nearby airports offering similar services and facilities, airport facilities and their ability to meet current and future aviation demand, access to the airport, environmental issues, and community support of the airport and its aviation activity.

4.4.4 Airport Activities and Facility Requirements

In order for an airport to be successful it must have facilities which will meet the demand or needs of the airport's users. Airports require adequate runway length and width to meet the critical aircraft which will use the airport on a regular basis. Runway length requirements are dictated by the types of aircraft expected to use the airport, as well as other operational factors such as engine type, distance to destination, take-off weight, and temperature factors. Taxiways and their separation distances from the runway are also key facilities impacting the size and type of aircraft operating at an airport. Aircraft apron must be able to accommodate aircraft requiring service and storage as well as be able to withstand the weight of the heaviest aircraft anticipated to operate at the airport. Terminal space and warehouses for cargo operations are also factors considered by airlines and aircraft owners. Automobile parking for passengers and airport employees must also meet demand and roadways to the airport must be able to accommodate automobiles and cargo trucks. For large commercial service airports, immediate access to interstate-type highways is nearly always mandatory.

Airports within Montana compete with each other for air cargo activity. Billings International Airport has been successful in attracting and retaining DHL and UPS regional hubs while Great Falls International Airport has attracted and retained FedEx's regional hub. These airports have been successful in attracting these integrated express carriers due to their location, local air cargo demand and airport facilities with the capabilities of accommodating large commercial aircraft. Other airports in the State compete with each other as well as these regional hubs. Helena Regional Airport has no FedEx air cargo activity due to its proximity to Great Falls making trucking more economical, while an airport near Billings such as Frank Wiley Field in Miles City does not have UPS air cargo activity. FedEx, UPS, and DHL will continue to use feeder aircraft on "long-thin" routes using piston engine and turboprop aircraft. Passenger airlines compete with the integrated express carriers and will utilize belly space in aircraft to transport air cargo.

4.4.5 Intermodal Shift

The shift in focus from express to time-definite service, coupled with financial and cost-saving measures, has led to the increasing use of trucks on longer distance routes traditionally reserved for aircraft. This modal shift is particularly pronounced within the integrated express carrier community.

Integrated express carriers, either through acquisitions or contracts, utilize trucks to provide overnight service on short-haul segments or to meet longer delivery schedules. UPS began as a road service and expanded into air cargo. FedEx has built extensive ground service capability through the acquisitions of RPS, Inc., Caliber Systems, Inc., American Freightways, and Viking Freight.

Passenger and cargo airlines are also using trucks as a substitute for aircraft. This Road Feeder Service (RFS) is commonly used by both domestic and international airlines, and also by some of the large domestic heavy-weight integrated carriers such as BAX Global. Among the largest national suppliers of Road Feeder Service are Forward Air, Air Cargo, Inc., Towne Air Freight, and Aeroground.

Less-than-truckload (LTL) companies have also become major competitors to air freight and enjoy a significant cost advantage over the air freight industry because of lower capital costs for equipment and lower wage scales. To compete effectively in this segment, FedEx has recently formed its own LTL subsidiary, FedEx Freight. Other larger LTL companies competing for time-definite shipments include YRC Worldwide and Con-Way. LTL companies also operate using a hub-and-spoke system similar to the integrated express carriers in which several banks of trucks arrive and depart daily. The key to LTL expansion into traditional air cargo markets is not increased speed of delivery, but time-definite delivery, a service once exclusively in the domain of the integrated express carriers.

The U.S. Postal Service (USPS) has also increased the use of trucks in the transport of mail in order to reduce costs. The USPS has made a concerted effort to truck as much mail as possible and still make time schedules. Trucking distances for priority mail and first-class mail can now be as far as 800 miles, a distance previously limited to 500 miles.

The shift to truck operations, where logistically possible, is not singularly due to the cost benefits of ground versus air transport. In the past one to two years, there has been a fundamental shift in supply chain thinking away from just-in-time (J.I.T.) manufacturing and lean-inventory strategies. Events from September 11, to natural disasters in the far east, to the 2002 dock worker strike on the West Coast, have led many logistics managers and purchasing agents to pursue more regional distribution systems, as well as increase safety stock and warehouse additional inventory. This move toward a more conservative and concentrated supply chain favors trucking over air operations. With the need for speed eliminated in these "cushioned" supply chains, coupled with time-definite service now offered by many LTL truckers, the cost premium required for air cargo transport is often not justified. Whether this is a temporary trend manifested in uncertain times or a long-term shift in logistics strategies, remains to be seen.

The increasing use of trucks in air cargo operations underscores the need for air cargo airports to be linked to the interstate system. Air cargo operators are increasingly looking at airport connectivity to the highway system when evaluating the suitability of an airport for intensive air cargo operations. One prominent LTL carrier, Forward Air, has located hubs on-airport at Rickenbacker International in Columbus, Ohio, and Kansas City International in Missouri.

Trucking always presents itself as an economical alternative to air cargo. It is interesting to point out, however, that due to Montana's relative geographic isolation that trucking may not always be a viable alternative to the integrated express carriers. Interviews of FedEx

management at the Great Falls regional hub indicated that FedEx does not truck outside of the State. All packages and parcels are flown in FedEx aircraft. UPS, on the other hand, is primarily a trucking firm. Priority packages and parcels are transported by aircraft but the majority of cargo is transported by truck.

4.4.6 Air Mail Trends

Another primary user of air cargo lift is the USPS. The USPS has the difficult task of transporting mail in a timely and efficient manner and doing so within budget constraints. As a result of less capacity in domestic passenger aircraft and increased costs in transporting mail, the USPS has reevaluated its use of air transport and has had a major paradigm shift in logistics. This paradigm shift has resulted in the following:

- A reduction of staff and budgets, yet moving more mail per employee.
- The formation of alliances with the air cargo industry.
- Increased reliance on trucking.

In the past, USPS formed several business alliances and capacity agreements with multiple all-cargo carriers, blurring the distinction between postal and private delivery. However, in August 2001, FedEx and the USPS initiated an exclusive strategic alliance. Through a business agreement, the USPS allows FedEx to locate FedEx overnight service collection boxes at post offices nationwide and FedEx, in turn, provides space on FedEx airplanes for the transportation of Express Mail, Priority Mail, First-Class Mail, and some International mail. This deal has brought FedEx approximately 4 million pounds of mail each day, enough to fill 40 DC-10-30 freighters. The USPS's goal through the alliance is to obtain more reliable service, reduce costs, and manage cost growth in future years. The USPS has determined that it needs to use one integrated national air transportation network with a highly reliable transportation supplier rather than an assortment of air transportation providers. As a result of the FedEx – USPS contract, Great Falls International Airport has seen a significant increase in air mail activity. In August 2006, the USPS announced plans to continue its alliance with FedEx through 2013 (Campanelli 2006).

The alliance, coupled with post-September 11[th] security measures, is also reducing the volume of mail formerly carried by commercial passenger airlines, cutting into a source of belly freight revenue that has already been eroded by the increasing use of electronic alternatives to mail and by lower revenue-generating contract rates the USPS pays the airlines. The USPS also relies more heavily on trucking than it has historically. First class mail received at a USPS facility will be trucked if the destination is within 800 miles; mail destined for points beyond the 800 mile radius is flown.

4.4.7 Preparing for the Future

In order to be prepared for future air cargo growth, several steps should be taken by airports in the State with air cargo activity. Air cargo facility development should include the following when planning for air cargo activity at an airport in order to make it "user friendly" to the air cargo industry:

- Adequate facilities and space for:
  - Cargo storage.
  - Air cargo building(s) with truck bays and docks.
  - Forklift maneuverability.
  - Container storage.
- Adequate ramp space:
  - Lighted ramp for night operations.
  - Clearly marked aircraft parking pads and taxiways.
  - Security fence to prevent loss.
  - Secured gates that allow ease of entry for cargo vehicles.
  - Access for aircraft and extensive trucking operations.
- Ability to handle special cargo:
  - Perishables.
  - Live animals.
  - Dangerous goods.
  - High value items.
  - Oversized or irregular cargo (non-conveyables).
- Support Services:
  - Aircraft handling (maintenance, repair, fueling, etc.).
  - Security.
  - Fire fighting facilities (ARFF).
  - FAA Air Traffic Control Tower.

Other airport-related criteria include an adequate communications infrastructure; sufficient power, sewer, and water; adequate local labor supply; acceptable trucking times to major cities; an environmental program to deal with issues such as noise, drainage, glycol recovery, etc.; employee parking; contributions of capital investment for new facilities; low airport rates; local financial incentives; and a positive community attitude. Depending upon the air carrier, the relative importance of the criteria listed above will vary significantly.

4.4.8 Foreign Trade Zones

A Foreign Trade Zone (FTZ) designation provides an advantage for businesses seeking to store or stage cargo, repackage or repair merchandise, and assemble or test products. It has long been thought that the FTZ designation would draw corporate activity in one or more of these activities.

For example, UPS and Gateway Computers have a relationship that is particularly appropriate to take advantage of an FTZ designation. In this model, Gateway contracts with UPS to ship and service their computers. When a Gateway computer owner has a problem, the call for service is directed to UPS. UPS picks up the computer in need of service and ships it to the UPS hub, which houses a service center. UPS employees perform the diagnostics and repair it, and then ship the computer back to the customer. Gateway is completely out of the circuit when it comes to repair and service of its computers and can concentrate on development and sales. UPS maintains a 24-hour workforce to ensure an expedient turnaround with most of the computers being picked up, serviced, and returned within 30 hours. Unfortunately, to date there has been very little of this type of activity in Montana.

The FTZ is also attractive to air carriers operating international flights. Fuel purchased within the FTZ is exempt from federal excise taxes. For example, federal fuel (Jet A) taxes total $0.219 per gallon and Montana State fuel taxes total $0.04 per gallon. Jet A fuel (retail cost including all taxes and fees) at a Montana commercial service airport is approximately $4.00 per gallon (MDT 2006). This price can effectively be reduced 6.3 percent to about $3.75 per gallon for international flights utilizing a FTZ. These savings are a marketable benefit to commercial operators with significant international traffic

4.5   ECONOMIC BENEFITS AND BUSINESS RELIANCE ON COMMERCIAL SERVICE

4.5.1 Overview

A comprehensive analysis of Montana's commercial air service must include some discussion of the economic benefits brought to the State by the operation of airlines serving its communities. As discussed earlier in this document, the U.S. commercial airline industry is currently experiencing a financial and operational downturn. It is important to know how reliant the State's economy is on the commercial aviation industry so that appropriate planning may be in place to address changes to the State's transportation system. In addition, many Montana businesses rely on commercial service to run their businesses successfully. This has been measured as well through a statewide survey of businesses.

Every citizen of Montana benefits from a healthy air service system. Commercial airline service speeds commerce, encourages leisure travel, and connects distant communities efficiently. Indeed, in a large state like Montana, comprehensive air service is not a luxury but a necessity.

This section details the typical economic impact calculation process, provides estimates of the impact of commercial airline service to the State's economy, and provides examples of other benefits of good airline service. This analysis was completed in July 2005.

The State's business reliance on commercial airline service is also discussed here.

4.5.2   Economic Impact Theory

There are three basic measures of economic impacts: employment, payroll, and output. In the context of this study, employment measures the number of full-time-equivalent jobs that are related to the operation of airlines at Montana's airports. Similarly, payroll measures the annual wages and benefits paid to these employees. Finally, output is the term used to describe the dollar value of the goods and services produced by these employees.

It is tempting to evaluate the economic impact of an industry strictly among the number of employees, amount of payroll, or value of goods and services (also known as output) produced directly by the firms involved in that industry. However, when a business operates in a community, the economic impacts of that business spread beyond that particular firm and into the region's economy.

For example, when a manufacturing business locates in a city, it employs a number of workers and buys supplies and raw materials from vendors. The employment, wages, and output resulting from these activities is known as the *first-round economic impact*.

However, the total economic impact of this manufacturing company includes another component, the *secondary economic impact*. Secondary impacts result from the re-spending of wages and business income in other sectors of the economy. In the example of the manufacturing company above, the firm's employees and vendors receive compensation for their labor and materials. These groups require inputs as well – groceries, housing, and so forth for employees, and raw materials, labor, and supplies for the firm's vendors. The re-spending in other sectors in turn generates further impacts in yet more sectors. In this way, the initial spending by the manufacturing firm can be said to "ripple through" all other sectors of the economy.

Therefore, the *total economic impact* of a business or industry includes both the initial first-round impacts resulting directly from the business' activities, and the secondary impacts that arise from other sectors via the "ripple-through" re-spending.

4.5.2.1 Methodology

To compile an economic impact study for a State's aviation system, typically three discrete steps are undertaken. These steps are:

1. **Data collection** – A wide variety of financial and operational data is collected via surveys from and meetings with airport managers, airport tenants, transient pilots, visiting passengers, and local businesses. The collected business data includes information on each establishment's employment, payroll, sales revenues, and taxes paid. The passenger and pilot surveys include data on expenditures and activities while

visiting the area. These data are compiled into a comprehensive database for use in subsequent steps.

2. **Impact estimation** – After organizing and categorizing the collected data, the first-round impacts are calculated. Using a dataset known as impact multipliers (typically produced for a specific location by either the U.S. Department of Labor, Bureau of Labor Statistics or by a number of private firms), the secondary "ripple-through" impacts are calculated.

3. **Validation and quality control** – Once the total economic impacts of an airport are calculated, they are checked against the researcher's expectations and against similar airports in other regions. Once accuracy is assured, the resulting impact estimates are compiled and documented.

4.5.2.2 Estimation of the Economic Impact of Commercial Air Service in Montana

For this study, the typical economic impact study process outlined above was modified. Using averages and ratios derived from studies in similar states, ranges of estimates of economic impacts for Montana's system of commercial service airports were established. The broad ranges of these estimates are shown in **Table 4.10**.

Table 4.10 STATEWIDE ECONOMIC IMPACT RANGES			
Range Endpoint	Employment	Payroll ($)	Output ($)
Low	18,039	418,420,300	888,453,400
High	33,618	890,484,800	1,685,673,700

Source: Wilbur Smith Associates 2006.

As shown in Table 4.10, estimates of employment arising from the operation of commercial airline service in Montana range from 18,000 to 33,600 jobs statewide. Similarly, total payroll for these jobs is estimated between $418.4 million to $890.5 million, and output estimates range from $888.5 million to $1.69 billion.

In order to narrow the estimates of these impacts from these broader ranges, two classes of airports were identified. These classes are defined in Montana as the State's eight Essential Air Service airports, and the State's seven Commercial Service Airports. By segmenting the airports into these classes, a closer examination of the trends and growth at the State's airports may be made. The airports in each class are identified in **Table 4.11**.

Table 4.11
AIRPORT CLASSES

Essential Air Service	Commercial Service
Glasgow	Billings
Glendive	Bozeman
Havre	Butte
Lewistown	Great Falls
Miles City	Helena
Sidney	Kalispell
West Yellowstone	Missoula
Wolf Point	

Source: Wilbur Smith Associates 2006.

Through a similar process as described for the statewide estimates, ratios from studies in states with similar air service were applied to activity data from Montana's airports. This procedure resulted in the estimate ranges shown in **Table 4.12**.

Table 4.12
AIRPORT CLASS-SEGMENTED ECONOMIC IMPACT RANGES

Class	Range Endpoint	Employment	Payroll	Output
EAS Airports				
	Low	329	8,460,300	20,701,800
	High	725	18,478,900	40,275,300
Commercial Service Airports				
	Low	21,937	551,603,200	1,166,142,900
	High	31,639	780,834,200	1,714,345,000

Source: Wilbur Smith Associates 2006.

The nature of Montana's geography and population combined with the structure of – and the population's dependence on – its transportation system leads to the following conclusions regarding the economic impacts of air service within the State:

- The Montana airports with service supported by the Essential Air Service program are likely to produce economic impacts that are larger than similar airports in other states. Due to the relatively spread-out nature of these eight Montana cities, there is a greater reliance on air service by individuals and businesses in EAS cities in Montana than in other states. Therefore, the estimates of economic impacts arising from commercial airline service in these cities are assumed to tend toward the high end of the EAS estimates.

- The seven Commercial Service Airports in Montana typically serve population and commerce centers that are smaller than those in the studies used to derive these estimates. Further, these seven Montana airports lack among them a major connecting hub (such as Salt Lake City, Denver, or Minneapolis) which might force the estimates of

economic impacts higher. For these reasons, it is appropriate to use the lower estimates of economic impacts at these Commercial Service Airports.

As a result of these observations and analyses, the economic impact of commercial airline service in Montana amounts to approximately 22,700 full-time equivalent jobs, which earn a combined payroll of more than $570 million. The total value of the output of the industry in Montana is estimated at over $1.2 billion. These figures are summarized in **Table 4.13**. It should be noted that the impacts shown in Table 4.13 arise from the operations of scheduled air carriers at Montana's airports and other associated enterprises, such as concessions, rental car companies, airline service providers, and so forth. These impacts do not include those arising from other types of on-airport businesses, such as general aviation, manufacturing, airport management, or government enterprises.

Table 4.13
TOTAL ECONOMIC IMPACT ESTIMATES
(2005)

Industry Component	Employment	Payroll	Output
Essential Air Service Airports	725	18,478,900	40,275,300
Commercial Service Airports	21,937	551,603,200	1,166,142,900
Total Economic Impacts	22,662	570,082,100	1,206,418,200

Source: Wilbur Smith Associates 2006.

4.5.3   Business Usage of Montana Air Service

Surveys provide a means for determining the adequacy of the existing scheduled air service, and identify and measure business reliance on commercial air service in Montana. A business survey was administered as part of this research project to help identify travel patterns for businesses that rely on commercial air service. Data was also sought from businesses regarding the number of trips and origins of clients or vendors who travel to Montana via commercial air service.

The business survey questionnaire was developed and mailed to 1,521 businesses, government institutions, and industries in Montana. The survey was conducted in April 2005. Surveys were only sent to organizations with 50 or more employees in certain industries that are more dependent on commercial air service including manufacturing, healthcare, and tourism. Of the total mail-out, 313 surveys were filled out and returned. This resulted in a response rate of 21 percent, which is considered excellent for a survey of this nature. The results of business survey questionnaire are detailed in **Appendix A** and summarized below.

Figure 4.4 summarizes the number of survey respondents by zip code. Survey respondents were located throughout the State, however as would be expected, the largest numbers of respondents were located in Montana's larger cities; Billings, Bozeman, and Kalispell.
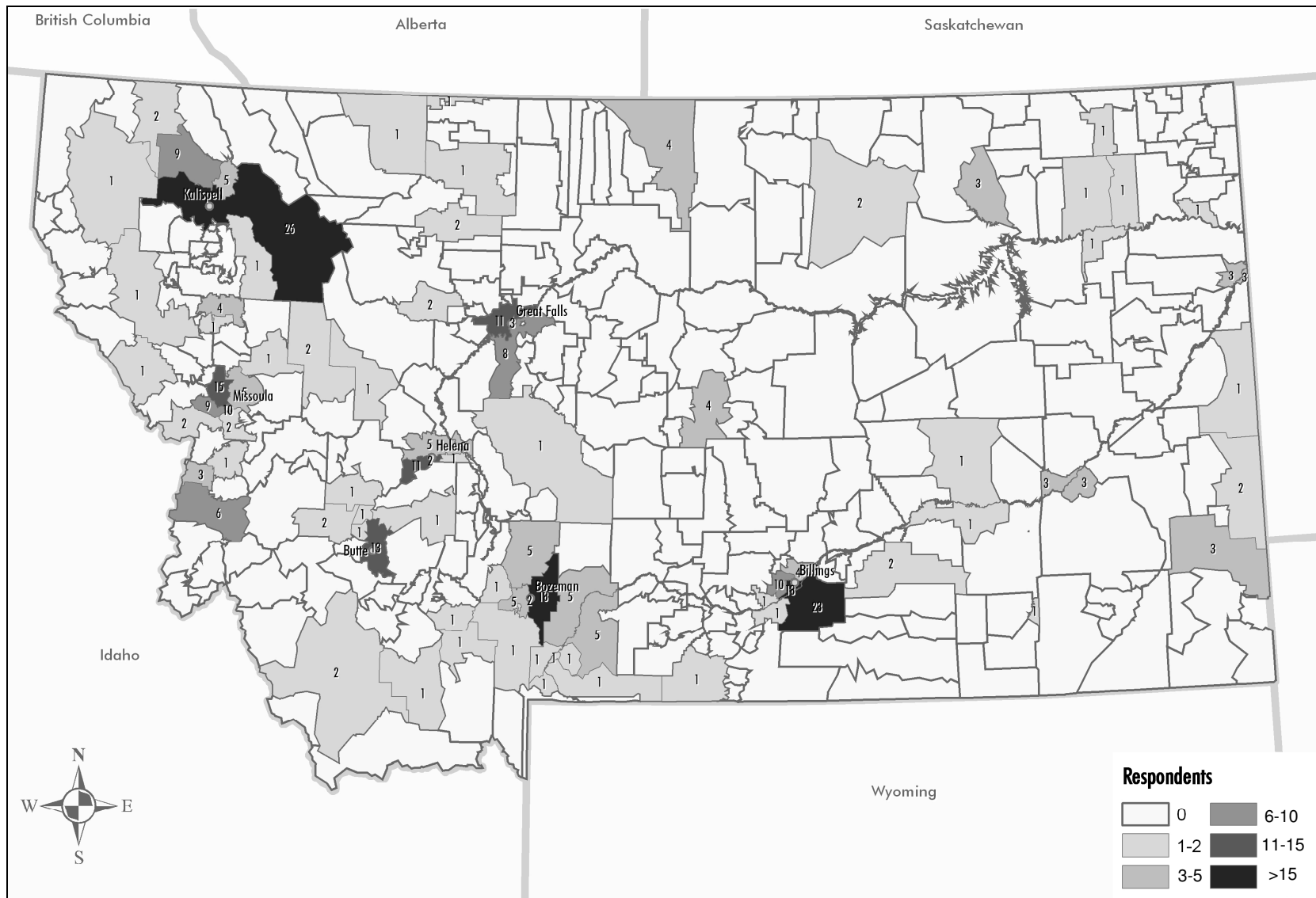
Figure 4.4
NUMBER OF SURVEY RESPONDENTS PER ZIP CODE AREA

Source: Wilbur Smith Associates 2006.

Businesses responding to the survey covered a wide range of employment types and included manufacturers, construction, service industries, banking and finance, government, retail sales, agriculture, and wholesale trade. **Table 4.14** summarizes the types of Montana businesses that responded to the survey by North American Industry Classification System (NAICS) codes. Businesses in the Health Care and Social Assistance, and Retail Trade categories represented the largest numbers of respondents, while businesses in the Mining and Educational Services were the least represented.

Table 4.14
SURVEY RESPONDENTS BY 2002 NAICS CODE

NAICS Code	Total	Percent of Total
62 Health Care and Social Assistance	51	16.3%
44-45 Retail Trade	39	12.5%
31-33 Manufacturing	34	10.9%
72 Accommodation and Food Services	29	9.3%
52 Finance and Insurance	24	7.7%
54 Professional, Scientific, and Technical Services	22	7.0%
42 Wholesale Trade	18	5.8%
51 Information	17	5.4%
71 Arts, Entertainment, and Recreation	16	5.1%
23 Construction	15	4.8%
48-49 Transportation and Warehousing	13	4.2%
92 Public Administration	12	3.8%
56 Administrative and Support and Waste Management and Remediation Services	7	2.2%
22 Utilities	4	1.3%
11 Agriculture, Forestry, Fishing, and Hunting	3	1.0%
53 Real Estate and Rental and Leasing	3	1.0%
81 Other Services	3	1.0%
21 Mining	2	0.6%
61 Educational Services	<u>1</u>	<u>0.3%</u>
	313	100.0%

Source: Wilbur Smith Associates 2006.

Many of the responding firms support Montana's tourism industry, including 27 lodging establishments. An additional 20 firms or organizations are related to Montana tourism including outfitters, parks, retail shops, ski resorts, and golf courses. Also, 42 of the respondents were healthcare related firms, operating hospitals, long-term care facilities, or doctor's offices.

Respondents were asked to indicate the number of full-time and part-time people their business employs. Of the 303 businesses that answered this question, a total of 22,229 full-time and 7,026 part-time employees were represented in the survey results. On average, the employees at

responding businesses took 55 commercial airline trips per year. In addition, 233 respondents reported a total of $3.98 billion in annual gross sales volume for 2004, and 222 respondents reported a total annual payroll of $708 million for 2004.

Businesses were also asked to indicate their percentage of gross sales related to exports. Because many of the businesses that responded were in the Service and Retail Trade sectors, very few noted that they export goods. Among the 25 businesses who responded, an average of 33 percent of their total annual sales, or $222 million, was estimated to be related to exports. Responses ranged from 1 percent for an oil refinery to 100 percent for a hospitality company.

Results from the survey were summarized for the entire State and are presented in Appendix A, by numerical question.

There are a number of findings and conclusions from the survey that need to be emphasized. First, it must be recognized that Montana's distance from major population and economic activity centers greatly increases the State's reliance on commercial air service. Many respondents noted that due to the remote location, air service is a critical part of their company's success. Many of the businesses that responded support the tourism industry in Montana. Businesses related to tourism are highly dependent on commercial air service to access visitors from places around the world. It is not feasible for many visitors to travel to Montana via other modes of transportation due to the remoteness of the State. Additional options and access to hubs for visitors are keys to increasing tourism around the State.

The State's reliance on commercial service for medical needs is also important to note. Whether for medical emergency or access to physicians, the remote areas need to access larger metropolitan areas quickly to support their patients' needs.

Many respondents also noted that the intrastate network of air service provided by Big Sky is important to their business and that intrastate service should be maintained and expanded. Top destinations in Montana include Billings and Helena.

There is also very little leakage related to business travel occurring to out-of-state airports. Only 2 percent of the trips noted by respondents are originating at out-of-state airports. Spokane draws the largest number of out-of-state passengers in western Montana due to the availability of low fare service by Southwest Airlines. Other airports used by Montanans for business purposes include Calgary, Salt Lake City, and North Dakota airports.

4.6 STRATEGIES FOR IMPROVEMENTS IN RELATIONSHIP TO OTHER MONTANA INITIATIVES

Population growth is seen mostly in only a few counties, which include Yellowstone County, Missoula County, and Cascade County. New service jobs in business, legal, architectural, and management services are increasing, which will increase demand for air travel and traffic in parts of the State. If there is more demand due to businesses, an increase in commercial flights will take place in certain Montana areas.

With the growth of businesses and online ordering, trucking and truck-air transportation services have increased in the State of Montana. FedEx, UPS, DHL, and other shipping companies have started to use air transportation, which still requires a truck to deliver and pick up the shipment from the aircraft. Air transportation is becoming steadily more important with the shipping of lightweight, high value goods. The economic growth trends relate to the increase in truck-air service and air transportation service.

Tourism affects air transportation and it has been shown in recent surveys that tourism is up in the State of Montana. The park tourism has not gone up in the past five years during the summer season, but the winter skiing activities have gone up in the State to increase the need for air service.

Economic development in the State of Montana is tied directly to commercial air service. Large corporations look at commercial air service in a city to choose whether the city is large enough to support the business, which includes large box stores, national chain stores, and restaurants. Air service should be a top priority for Montana economic development.

There are several statewide initiatives that support the future development of commercial air service. TranPlan21 and the Montana Tourism and Recreation Strategic Plan are two such initiatives.

4.6.1 TranPlan 21

Montana Department of Transportation (MDT) developed a policy plan in 1994 and 1995 called the TranPlan 21. The TranPlan 21 was last updated in 2002 to keep the goals of MDT current, continue to address Montanans priorities, and update statistics with population and travel information.

There are several goals that were developed by TranPlan 21 including Roadway System Performance, Economic Development, Traveler Safety, Access Management, Land Use Planning, Bicycle and Pedestrian Transportation, and Public Transportation. Under the Economic Development goal, there were several action items related to air service (Montana Department of Transportation 2003). They include:

- **Policy Goal A**: Preserve the efficient functioning of the transportation system used by Montana's export-oriented ("basic") industries to access regional, national, and international markets.
  - **Action A.6**: Provide technical support to Montana communities and airport operators to preserve the federal Essential Air Service Program in cooperation with the Governor's Task Force. MDT, in cooperation with the Governor's Essential Air Service Task Force, will advocate for the continuation of Essential Air Service passenger subsidies.
- **Policy Goal C**: Support state and local economic development initiatives to maximize new economic opportunities.
  - **Action C.4**: Identify airport improvements and statewide aviation strategies that will support economic development as part of Montana's continuous statewide aviation planning program. In order to help accomplish this, it was noted that MDT and Montana airport operators will analyze passenger, freight, and business-related general aviation to identify economic development strategies.
  - **Action C.5**: Provide state-level leadership to evaluate whether there are possibilities for reducing the cost and increasing the frequency and reliability of out-of-state travel. MDT, airport operators, industry representatives, and other stakeholders will study industrial trends and market opportunities to develop strategies for ensuring Montana has the air transportation services required for economic diversification.

All commercial air service within the State is demand driven. Once there are more businesses, people, tourists, and travel the air service will improve with full flights and demand for air transportation. Most Montanans currently are located within one county from a Commercial Service or Essential Air Service airport. The locations of air service are available and flights are available, but options and prices at the airports are limited. Americans like to customize and Montanans don't have sufficient amounts of options for flight carriers, times, and prices.

To support the action items noted above, TranPlan 21 identifies the need to compare Montana's air service to other states and examine opportunities for enhancing air service. A comparison of the level of passengers and fares in Montana versus other U.S. states was provided in Chapter One and a socioeconomic comparison can be found in Chapter Two. The final chapter will address statewide and local initiatives in other states to improve air service. The outcome of this analysis will develop strategies to ensure air transportation services to develop and maintain economic diversification.

4.6.2   Montana Tourism & Recreation Strategic Plan 2003-2007

Tourism is a large contributor to Montana's economy. The *Montana Tourism & Recreation Strategic Plan 2003-2007* outlines actions to continue to improve and build on Montana's tourism and recreation industry. Montana's Tourism and Recreation Industry notes that successful implementation of the plan will result in economic development and improved quality of life for Montana residents. There were three main action areas in the plan, including Managing Information, Managing Assets, and Creating Teams (The Hingston Roach Group 2002).

The State recognizes that air service development and a growing tourism industry go hand in hand. Several actions outlined in the plan are directed to improving this relationship. They include the following:

- Coordinate and maximize benefits of State, regional, private advertising, and promotion. The State, regions, airports, and airlines should work closely to develop a Fly Montana campaign.
- Create new tourism products through packaging; convenience sells. Packaging should include airline tickets and materials promoting the use of the local airport.
- Refine/create Montana niche in focused markets. This should include promotion of convenient State air service to convention/meeting attendees, winter recreational visitors, and heritage/cultural travelers.
- Identify partnerships that can help address tourism, business, and service needs. Partnerships with local airports and airlines are critical in the promotion of statewide tourism.

4.7   SUMMARY

This chapter provided insight into the statewide demand for improved commercial airline service and air cargo service in Montana. The numerous opportunities for improvements were also outlined. With a thorough understanding of the opportunities, challenges, and economic benefit of commercial air service in Montana, a statewide plan will be developed in Chapter Six to guide the State in implementing and pursuing the opportunities outlined in this chapter.

5.0   AIRPORT INFRASTRUCTURE AND INTERMODAL NEEDS

The Federal Aviation Administration (FAA), State of Montana, and individual cities and counties have invested heavily in Montana's airport infrastructure to ensure the continued viability and growth of aviation in the State, as well as contribute to the State's economy. The investments have been not only in airside facilities such as runways and taxiways, but also in terminal facilities, roadways, parking facilities, and others that comprise an airport's infrastructure. If the airport is eligible for FAA funding, which means it is included in the National Plan of Integrated Airport Systems (NPIAS) that includes commercial and general aviation airports, FAA funding can be used to pay for many of these facilities. In the past, the FAA limited its participation to what it called non-revenue producing facilities. In other words, if the facility being constructed could be used to generate revenue for the airport sponsor, the FAA would not participate in its funding. This has recently changed but the FAA is still evaluating what revenue-producing facilities it is willing to fund on an airport-by-airport basis.

The infrastructure of an airport is typically considered to be part of the community, similar to roads, bridges, and water treatment facilities. Without airport infrastructure, access to the national transportation system is limited, especially quick access that is afforded by air travel. Airports are used by residents, visitors, and businesses to provide safe and efficient travel for both passengers and goods. While an airport in and of itself is not the sole generator of travel demand, the provision of the fastest mode of transportation is critical to many communities. Demand for air travel, both commercial service and general aviation, continues to grow despite the downturn experienced in 2001. Airport infrastructure is a necessary component of a community's growth initiatives.

As part of this research project, an evaluation of the airport infrastructure and its health, as well as recommendations related to improvements needed for the expansion of air service was conducted. This evaluation is summarized in the following sections:

- Airside Facilities.
- Terminal Facilities.
- Navigational Aids and Weather.
- Intermodal Facilities.
- Capital Improvement Plans.

5.1   AIRSIDE FACILITIES

Airside facilities are defined as those facilities used by aircraft and include runways, taxiways, and ramp areas. The need for airside facilities is determined based on the type of aircraft that operate at the airport. In general terms, each aircraft type has specific runway length requirements. Typically, the heavier the aircraft is and the more seats it has, the longer the runway length that is required to accommodate the aircraft. Other factors such as the altitude

of the airport and the mean maximum daily temperature also affect runway length requirements.

In addition to runway length requirements, operators, whether they are commercial airlines, charter carriers, businesses, or private pilots, have certain needs related to instrumentation at the airport, fuel provision, or other services that determine which airports they choose to operate at. Commercial airlines typically have the most significant requirements since they are regulated more stringently by the government, including the U.S. Department of Transportation (US DOT) and the FAA. These requirements address not only airline, but also airport requirements including airfield, terminal, and security issues. While the US DOT and the FAA do not regulate runway length requirements, all-weather capabilities (including navigational aids), and terminal space requirements; these regulatory agencies rely on the commercial airlines to provide service in a safe manner, ensuring that the airports the airlines operate at meet their airline-specific guidelines for airport infrastructure and services based on the aircraft types that the airline operates at the airport.

Each aircraft type is categorized using an FAA coding system. This coding system, referred to an Airport Reference Code (ARC), categorizes airplanes based on approach speed and wingspan. The ARC defines the design and layout parameters for an airport including runway width, taxiway width, shoulders width, object free area length and width, and many other design standards. The ARC has a letter designation for the aircraft approach category, using A to E, which represents the speed of the largest aircraft using an airport from 91 knots to 166 knots, respectively. Following the letter designation, the design group has a Roman number designation, using I to VI, which represents the largest wingspan of an aircraft at an airport from 49 feet to 214 feet (FAA 1989). An example of the ARC from the current Bert Mooney Airport (Butte) Airport Layout Plan (ALP) is for Runway 15-33, which is classified as ARC C-III (Morrison-Maierle 2005). The C-III designation provides design parameters for aircraft design group III (wingspan 79 feet up to but not including 118 feet) and approach category C aircraft (speed 121 knots or more but less than 141 knots).

All airports have a designated critical aircraft, which is usually the largest aircraft using the airport. In some cases the critical aircraft is smaller than the ARC. For example, at the Billings-Logan International Airport (Billings), the ARC is D-IV, which identifies the dimensional parameters for all the runway and taxiway lengths and widths. The critical aircraft at the Billings Logan International Airport is a Boeing 727, which falls under ARC C-III (Morrison-Maierle 2005). In this case, the Boeing 727, although not the heaviest aircraft, induces the highest stress on the airport pavements and therefore is used for the design of the commercial runways, taxiways, and commercial aprons.

Each of the study airports was evaluated to determine the largest aircraft that could be accommodated with the runway length. The airport's longest runway, ARC, critical aircraft (if known), and largest aircraft currently using the airport is shown in **Table 5.1** (Morrison-Maierle 2005).

Table 5.1
MONTANA'S COMMERCIAL SERVICE AND EAS AIRPORT RUNWAYS

Airport	Longest Primary Runway	Airport Reference Code (ARC)	Critical Aircraft	Largest Aircraft Currently Using Airport
Commercial Service Airports				
Billings	10L-28R 10,500' X 150'	D-IV	Boeing 727	Boeing 757 C-IV
Bozeman	12-30 9,000' X 150'	C-III	Boeing 737-800	Boeing 737 C-III
Butte	15-33 9,000' X 150'	C-III	Boeing 727-200	Boeing 737 C-III
Great Falls	3-21 10,500' X 150'	D-IV	DC 10-20	Boeing 757 C-IV
Helena	9-27 9,000' X 150'	C-III	Boeing 727-200	Boeing 737 C-III
Kalispell	2-20 9,000' X 150'	C-III	Boeing 727	Air Bus A-320 C-III
Missoula	11-29 9,500' X 150'	C-IV	Boeing 757	MD-80 C-III
EAS Airports				
Glasgow	12-30 5,000' X 100'	B-II	Beech Airliner 1900-C	Beech Airliner 1900-C
Glendive	12-30 5,704' X 100'	B-II	Beech King Air	Beech Airliner 1900-C
Havre	5,205' X 100'	B-III	Beech Airliner 1900-C	Beech Airliner 1900-C
Lewistown	7-25 6,100' X 100'	B-II	Beech Airliner 1900-C	Beech Airliner 1900-C
Miles City	4-22 5,680' X 100'	B-II	Beech King Air	Beech Airliner 1900-C
Sidney	1-19 5,705' X 100'	B-II	Beech Airliner 1900-C	Beech Airliner 1900-C
West Yellowstone	1-19 8,400' X 150'	C-III	Boeing 727-200	Embraer – Brasilia
Wolf Point	11-29 5,087' X 100'	B-II	B200 King Air	Beech Airliner 1900-C

Sources: Morrison-Maierle 2005.

It should be noted that Bert Mooney Airport (Butte) and Helena Regional Airport also accommodate Casino Express flights; Casino Express operates Boeing 737 aircraft (*Official Airline Guide* 2006a). These flights are not regularly scheduled flights; instead they use these airports around three to five times per year. The two airplanes frequently used at these airports are the Q400-Dash 8 (ARC C-III) and the Canadair Regional Jet (ARC D-II). Aircraft approach categories C and D have the same runway design standards, but the standards increase as the airplane design group goes from I to VI. The Q400-Dash 8 (ARC C-III) is the largest aircraft frequently used at these two airports.

As stated above, aircraft approach categories are broken into two groups of design standards, categories A and B and categories C and D. All of Montana's Commercial Service Airports are designed with design standards for categories C and D. Missoula Regional has an ARC C-IV and currently only has a C-III aircraft utilizing the airport. The design criteria that are different from a C-III to a C-IV include runway width, runway shoulder width, and runway blast pad width which all increase to 50 feet, 5 feet, and 60 feet, respectively.

The majority of EAS Airports are designed with design standards for categories A and B. Big Sky Airlines, which currently serves seven of the eight EAS Airports, flies a Beechcraft 1900-C (ARC B-II). All these airports are currently designed to standards, except for Havre City-County Airport. Havre is currently designed to ARC B-III, which lengthens the runway shoulder width, the runway blast pad width, the runway blast pad length, the runway safety area width, the runway safety area length, and the runway object free area. The other EAS Airport, Yellowstone Airport, is served by SkyWest and currently has an ARC larger than the typical commercial aircraft utilizing the airport. Due to West Yellowstone's location as a tourist destination, private jets do utilize the airport that are likely ARC C-III.

5.2   TERMINAL FACILITIES

A terminal facility is a structure where people using commercial airlines, chartered airlines, or some form of air travel receive client service before and after the flight. Many characteristics are looked at in designing a terminal and sizing certain areas. All of the Commercial Service Airports and EAS Airports are classified by the FAA as non hub airports (less than 244,333 enplanements per year in 2005), except for Billings-Logan International Airport, which is classified as a small hub airport (244,333 to 1,221,663 enplanements per year in 2005). Hub classifications are based on the number of enplanements the airport has per year. All terminal facility design and planning information is described and taken from the FAA Advisory Circular 150/5360-13, Planning and Design Guidelines for Airport Terminal Facilities (FAA 1988).

Passenger characteristics at an airport include two types of passengers; the business purpose passenger and the tourists or personal passenger. Business passengers are considered experienced in flying and typically arrive at the airport just prior to flight time, and do not spend a lot of time within the terminal. The tourist passengers typically arrive much earlier for a flight and use the services provided within the terminal during their wait. Each airport examines the needs of its passengers, passenger characteristics, and the services being used in its evaluation of future terminal facility needs.

Many parties need to be involved in the initial design of a terminal facility. The contribution of airport management, airlines, concessionaires, and the consultant for the airport need to assemble survey data, questionnaires, forecasts, and day and peak hour activity at the airport. Space requirements and layout options are required for estimating costs and developing financial plans.

Forecasts for an airport are obtained by using the current airport master plan, the FAA-published Terminal Area Forecasts, or they can be developed by the Air Transport Association (ATA). Terminals are planned, sized, and designed to accommodate peak passenger demands for a selected forecast period. The average day/peak month (ADPM) is a method of converting planning statistics to a daily demand. First, a peak month of enplanements is found and taken as a percentage of the annual enplanements. Applying the peak month percentage to the enplanements forecast will result in the peak month forecast for the year being developed. The average day of the peak month is found by dividing the peak month forecast by the number of days in the month.

Peak hourly activity is sometimes needed to plan the size of terminal facility areas. Peak hour operations may be as high as 12 to 20 percent of daily total operations but as schedules of flights increase, the passenger flow tends to spread out through the day. Some peaking will always occur with airlines and passengers. There are two procedures for determining design peak hour activity; one involves the use of aircraft movement data and load factors and the other involves the use of the most recent data on peak hour demands at the airport under study. The first procedure can be obtained from the airline to develop a hypothetical design day activity table. The second procedure can be obtained from airline records of hourly enplanements and deplanements (total passengers) during the most recent peak month. If no information is available from the airlines, then a study for two weeks can be done and then adjusted upward proportionately to correspond with the most recent peak month activity. The two peak factors are used by planners and architects to size the terminal facilities.

The Transportation Security Administration (TSA) now requires space within the terminal to conduct security checks, passenger screening, and baggage screening. More airports are finding that passengers check in their bags and receive their plane tickets before heading straight to security; there is no need to eat at restaurants and shop in stores outside of the screening check point. Screening can be a long process and generally takes more time at larger airports. More passengers are now quickly going through the screening check point early and waiting for the flight inside the secure area. Commercial airports' stores, concessions, and restaurants are moving into the secure areas for passengers. Lobby areas are becoming larger by the loading gate with more people waiting for the arrival of flights. For terminal facilities in Montana, there has been a need at a few commercial airports to increase the lobby space behind the screening check point and add a concession area for the passengers who arrive early.

For the purpose of this report, Montana's airports have been classified into two categories; Commercial Service Airports and EAS Airports. All Montana airports that have been classified as Commercial Service Airports have a terminal that provides baggage claim, TSA screening, a lounge area for waiting, restaurant/coffee shop, and rental car facilities (Morrison-Maierle 2005). All terminals except for Butte have a gift shop. All of the Commercial Service Airports supply fuel and all have at least one Fixed Based Operator located at the airport for general aviation and charter flight service. All Commercial Service Airports have an air traffic control tower except for Bert Mooney Airport in Butte. Some airports need to increase their lounge areas and boarding areas. All of the Commercial Service and EAS airports responded to a survey to

determine how much was being spent on TSA terminal remodeling, as well as if terminal expansion was required. The survey results are shown below in **Table 5.2** (Morrison-Maierle 2005).

Table 5.2
MONTANA'S COMMERCIAL SERVICE AND EAS AIRPORT
TERMINAL REQUIREMENTS TO ACCOMMODATE TSA AND PASSENGER INCREASE

Airport	Cost of Terminal Expansion (TSA personnel or equipment)	Cost of Terminal Expansion (Increase in Passengers)
Commercial Service Airports		
Billings	Over $1 Million	Over $1 Million
Bozeman	$100,000 to $500,000	None
Butte	$100,000 to $500,000	$500,000 to 1 Million
Great Falls	None	None
Helena	None	None
Kalispell	Over $1 Million	None
Missoula	Over $1 Million	None
EAS Airports		
Glasgow	$50,000 to $100,000	$100,000 to $500,000
Glendive	None	None
Havre	None	None
Lewistown	$50,000 to $100,000	$500,000 to $1 Million
Miles City	None	None
Sidney	None	None
West Yellowstone	None	None
Wolf Point	$20,000 to $50,000	None

Sources: Morrison-Maierle 2005.

Currently, the EAS Airports do not have TSA operations within the airports. As shown in Table 5.2, not all of the EAS Airports need terminal remodels to accommodate TSA operations. Billings-Logan International Airport is the hub location for Big Sky Airlines and the only commercial airport that has Montana's EAS service. All of the EAS service in Montana, except for West Yellowstone, flies through Billings where the passengers are reverse screened if they are leaving on a connecting flight. The reverse screening process takes place at Billings because currently none of the EAS Airports have TSA screening procedures. If TSA was added at the EAS Airports (other than West Yellowstone) it would ease passenger transitions to other flights by continuing on the secure side of the airport without the reverse screening process once in Billings.

Most Commercial Service Airports have either had a terminal remodel within the last few years or are planning a terminal remodel within the next five years (Morrison-Maierle 2005). The terminal remodel will update many new space requirements to accommodate TSA security, the new baggage checks, and add passenger loading bridges. All of the Montana Commercial Service Airports have the facilities to accommodate any airlines but with some of the

commercial airports operating in small cities, the passenger demand does not warrant significant expansion.

5.3   NAVIGATIONAL AIDS AND WEATHER

Navigational aids are divided into two categories:

- Visual aids; such as runway lighting, airport beacons, obstruction lighting, and Precision Approach Path Indicator (PAPIs).
- Instrument navigational aids; such as Non-Directional Beacons, Very High Frequency Omnirange (VOR), or Instrument Landing System (ILS).

A precision approach is a standard instrument approach procedure that provides an electronic glideslope or glidepath to a runway end. The glideslope or glidepath can be provided by an Instrument Landing System (ILS), a Microwave Landing System (MLS), or Precision Approach Radar (PAR) system. Every Commercial Service Airport has at least one runway with an ILS that provides a precision approach (FAA 2006b). The ILS supplies pilots with an electronic guidance for aircraft alignment, descent gradient, and position until visual contact confirms the runway location.

The precision approach runway is broken into three categories. Category I is an instrument runway served by ILS and visual aids for approaches to a decision height (ceiling height) in the air of not less than 200 feet, with a visibility of not less than 0.5 miles or Runway Visual Range (RVR) of 2,400 feet. A Category II runway has a decision height in the air of not less than 100 feet and a RVR of 1,200 feet. The best flying minimums an airport can have is a Category III with no decision height being applicable; the aircraft is able to use visual aids during the final phase of landing without being able to visually see the runway. There currently are no Category III runways in Montana; however, Great Falls International Airport is in the process of installing the first one (Morrison-Maierle 2005).

Commercial airline aircraft rely on precision approach runways if there is inclement weather near the airport. The instrument landing approach will provide information to allow the airlines to fly below the storm clouds within visual site of the runway. If the aircraft still has no visual of the runway for a Category I and II instrument approach by the decision height or ceiling height, the flight will have to divert to the nearest commercial airport or make a decision that is in the best interest of the airlines, commercial service, and passengers. All of Montana's Commercial Service Airports currently have a Category I or II precision approach on one or more runways (FAA 2006b).

A nonprecision approach is a standard instrument approach procedure in which no electronic glideslope is provided. Some examples of navigational aids used for a nonprecision approach include Very High Frequency Omnirange (VOR), Tactical Air Navigation (TACAN), Nondirectional Beacon (NDB), Localizer (LOC), Airport Surveillance Radar (ASR), Landing Distance Available (LDA), Simplified Directional Facility (SDF), or Global Positioning System

(GPS). Non-precision approaches in the state of Montana are used primarily at EAS Airports and general aviation airports (FAA 2006b). The VOR and NDB are currently the navigational aids used most often at Montana airports. However, as the GPS approach system is more widely implemented, VOR and NDB usage will be phased out.

All of Montana's Commercial Service Airports have Navigational Aids (NAVAIDS) for at least one of the main runways for the commercial aircraft to operate on. **Table 5.3** shows the ILS Runway, the approach minimum ceiling height for the ILS runway, the approach minimum visibility distance for the ILS runway, and the approach minimum category (Morrison-Maierle 2005).

Table 5.3 PRECISION APPROACH RUNWAYS				
Airport	ILS Runway	Minimum Ceiling Height	Minimum Visibility Distance	Aircraft Category
Billings	10L	200 feet	½ mile	C
	28R	250 feet	1 mile	C
Bozeman	12	200 feet	½ mile	C
Butte	15	960 feet	3 miles	C
Great Falls	3	200 feet	½ mile	C
Helena	27	200 feet	½ mile	C
Kalispell	2	200 feet	½ mile	C/D
Missoula	11	1,350 feet	5 miles	C/D

Sources: FAA 2006d, Morrison-Maierle 2005.

5.4 INTERMODAL FACILITIES

Intermodal refers to the connection of different modes of transportation and/or transferring people or freight from one mode of transportation to another at facilities such as airports, terminals, and stations. Intermodal transportation to an airport can include rail access, bus systems, and aircraft. Some larger cities have light rail systems that take passengers from town/parking garages to the airport terminal. Intermodal freight movement occurs by roads, rail, air, water, and pipeline through truck-rail terminals, airports, marine terminals, and pipeline terminals.

Intermodal facilities are required at airports as passengers and cargo arrive at the airport by some form of transportation. Rail or bus systems are convenient for mass transit systems with thousands of passengers; this allows transportation to the front of the terminal without worrying about parking, walking long distances, and paying higher prices for parking garages on airport property. In Montana everything is on a smaller scale and people like the convenience of having a car parked right out the front door of the terminal and being able to drive home. Most Montanans drive to the airport, carpool to the airport, take a cab to the airport, or are dropped off at the airport by vehicle modes of transportation. The only commercial airport with a city bus system that has a drop off point at the airport is Great Falls (Morrison-Maierle 2005).

Every commercial airport in Montana has cargo services, while the level of service varies widely. Some of the cargo carriers in Montana include Northstar Air Express, FedEx, UPS, DHL, and Corporate Air (*Official Airline Guide* 2006b). The airports rely on trucks to deliver mail and packages to the airplanes and be there ready to unload it at the final destination. Other intermodal facilities needed to service air cargo include efficient roadways, aviation ramps or aprons, and some airport terminal facilities. For most Montana airports, trucks have to come onto the ramp to unload the cargo. Great Falls International Airport is the only airport with a FedEx sorting facility on airport property. The Airbus 300 aircraft unloads directly to the building instead of a truck. The FedEx trucks meet at the sorting facility to truck the cargo to the distribution point (Morrison-Maierle 2005).

All commercial airports handle cargo and mail service from the truck to the aircraft differently. Every airport has road access to the aircraft through an automatic gate, which allows the trucks onto the ramp. Great Falls International Airport has a completely separate road and entrance for the cargo and mail trucks, and a separate ramp for the aircraft to use on the opposite side of the airport terminal building. Most commercial airports have the cargo and mail trucks enter through a gate used by general aviation or business park offices to access the general aviation ramp. The truck access road is in most cases separate from the main terminal traffic entrance road. No cargo or mail truck is allowed near commercial aircraft, the commercial apron, or the terminal building. Most trucks are allowed onto the general aviation ramp to load the cargo and mail into the aircraft without a separate transfer step. Helena Regional Airport has a cargo room, which is used by the trucks for some cargo and mail to eliminate the truck traffic out on the ramps. All cargo operations are independent to the airport, and every airport has modified their procedures to fit the needs of the cargo delivery trucks while maintaining security at the airport (Morrison-Maierle 2005).

5.5 PART 139 REQUIREMENTS

Part 139 requirements were discussed in Chapter 3 with the basic requirements at the airports being operational and safety standards. The airports also need to meet requirements such as firefighting, rescue equipment, and airport certification manual (ACM). These requirements vary depending on the size of the airport and type of flights available.

There are 15 air carrier airports in Montana that are part of the Part 139 compliance; 7 are in Class I, 1 is in Class II, and 7 are in Class III (FAA 2004). The classifications and descriptions are explained in Chapter 3. The seven airports in Class I include Bert Mooney Airport (Butte), Billings Logan International, Gallatin Field Airport (Bozeman), Great Falls International, Helena Regional, Missoula International Airport, and Glacier Park International Airport (Kalispell). All of these commercial airports in Class I meet Part 139 requirements.

The one airport in Class II is the West Yellowstone Airport. As of August 2006, this airport was in compliance with the Part 139 requirements. The seven airports in Class III are Glendive, Miles City, Havre, Lewistown, Wolf Point, Sidney, and Glasgow. All seven Class III airports have a project planned within the next five-year Capital Improvements Plan to bring the

airports within compliance of Part 139. **Table 5.4** shows the projects that are planned to bring the airports within Part 139 compliance (Morrison-Maierle 2005).

Table 5.4 CAPITAL IMPROVEMENT PROJECTS RELATED TO PART 139 COMPLIANCE		
Airport	Capital Improvement Project	Estimated Completion Date
Glasgow	ARFF Truck	2007
Glendive	Runway Signage	2006
Havre	ARFF Truck	2008
Lewistown	ARFF Truck	2007
Miles City	ARFF Truck	2006
	Rehab. Medium Intensity Runway Lighting (MIRL)	2008
	REILs on Runway 12-30 and Runway 4-22	2008
Sidney	Rehab. MIRL on RW 1-29	2009
	Rehab. Lighted Signs – Both RWs	2009
West Yellowstone	ARFF Truck	2007
Wolf Point	Taxiway Guidance Signs	2006
	ARFF Truck	2007

Sources: Morrison-Maierle 2005.

All of the Class II and III airports are planning on meeting the Part 139 requirements by the years required for each class. The ACMs were due to the FAA by June 9, 2005; the Emergency Plans were due by June 9, 2006; and the ARFF requirements must be met by June 9, 2007. Some airports may need to purchase ARFF trucks earlier than planned to meet the ARFF truck deadline of 2007.

5.6   CAPITAL IMPROVEMENT PLANS

The Capital Improvement Plan for Montana is a five-year plan of projects needed at the airports to maintain the pavement serviceability, bring airports within Part 139 compliance, upgrade equipment, signage, or remodel/expand a terminal building. The capital improvement plans for the Montana commercial airports include everything from snow removal equipment to runway/taxiway reconstruction to terminal remodel. All of the Commercial Service Airports plan to reconstruct or rehabilitate their taxiways, runways, or air carrier ramp to maintain a high level of function and safety for the aircraft within the next five years.

There are two terminal projects planned within the next five years; a remodel project at the Missoula International Airport and either a remodel or new terminal building at the Bert Mooney Airport in Butte. Helena Regional Airport completed its terminal remodel projects. Improvements included installation of a second passenger loading bridge on the second level of the terminal building for commuters and refurbishing the existing passenger loading bridge. The Commercial Service Airports with terminal remodel needs within the next five years are not necessitated by airline needs or changes to attract new airlines. Most of the planned terminal remodeling is required due to the increasing number of passengers which require

expanded lobby areas, larger areas for security needs, more area for security check points, and secure areas beyond the security check point (Morrison-Maierle 2005).

Other capital improvement projects that will improve airline service are runway deicing fluid applicator truck (Billings), reconstructing the air cargo road and air cargo ramp (Kalispell), upgrade control tower equipment (Bozeman), and install medium intensity approach lighting system (MALSR) on Runway 15 (Butte).

All of the EAS Airports are maintaining their pavements with maintenance projects on all pavements, which include crack sealing, fog sealing, and new pavement marking; or rehabilitation/reconstruction of runways, taxiways, or aprons. Other non-pavement projects include runway lighting improvements, snow removal equipment, land acquisition, upgrade fuel systems, and building revenue producing hangars (Morrison-Maierle 2005).

Most of the EAS Airports have an adequate terminal for the demand currently experienced at the airport or anticipated within the next five years. Only a few EAS Airports have a terminal expansion or remodel in their capital improvements. Sidney is planning a terminal expansion, Lewistown is planning a terminal building remodel to make it more energy efficient and handicap accessible, and Glasgow is planning a terminal building remodel with a sewer and water upgrade. Sidney is the largest EAS Airport in Montana and with the increasing demand will need to increase the size of their terminal within the next five years. The remodel projects are necessary to provide more room for security and TSA if the decision is made to start screening at Montana's EAS Airports, and to provide more room for the passengers of the commercial flights. Essentially the terminal remodels are not needed to meet the airlines needs or attract new airlines, but more for the future needs of the passengers and security.

With Montana's weather consisting of extremely cold winters and hot summers, the preservation of the pavements is a constant task for the airports. Every airport in the state of Montana in the next five years has some kind of pavement maintenance, rehabilitation, reconstruction, or expansion project on their runways, taxiways, or aprons. Terminal remodel or construction is necessitated to provide more room for TSA security, an update of facilities to include current Americans with Disabilities Act (ADA) rules, or increase in terminal size due to increasing numbers of passengers.

Table 5.5 shows the Commercial Service and EAS airport funding needs for the next five years. The items shown below are the pavement maintenance projects and the terminal service projects that will improve passenger service. The table below does not reflect the projects that do not affect airline service such as airport security fencing, land acquisition, snow removal equipment, and general aviation hangar development (Morrison-Maierle 2005).

Table 5.5
AIRLINE RELATED CAPITAL IMPROVEMENT PROJECTS (2005-2010)

Airport	Year	Terminal	Parking	Safety Area	Runway/ Taxiway	Approaches	Apron Area	TSA
Billings	2005				$1,500,000			$1,300,000
	2006	$3,200,000			$1,300,000		$2,300,000	
	2007				$3,900,000			
	2008				$1,100,000			
	2009				$4,300,000			
Bozeman	2005				$281,000		$671,000	
	2006	$225,000						
	2007				$413,000		$1,895,000	
	2008		$2,307,000					
	2009	$211,000			$1,474,000			
Butte	2006	$133,000		$1,047,000				
	2007	$2,632,000						
	2008	$2,632,000						
	2009				$1,619,000	$829,000	$364,000	
	2010						$2,443,000	
Great Falls	2006				$27,000,000			
	2007				$2,500,000			
	2008				$2,500,000			
	2009						$2,000,000	
Helena	2006	$605,000	$137,000					
	2007				$2,692,000			
	2008							
	2009				$1,113,000			
	2010						$1,113,000	
Kalispell	2006				$1,880,000			
	2007				$211,000		$1,972,000	
	2008						$5,796,000	
Missoula	2005				$433,000			
	2006	$4,100,000		$3,105,265			$1,105,263	
	2007				$3,263,159			
	2008		$1,926,066					
	2009				$437,965		$2,543,229	
	2010						$1,510,557	
Total Commercial		**$13,738,000**	**$4,370,066**	**$4,152,265**	**$57,917,124**	**$829,000**	**$23,713,049**	**$1,300,000**
Glasgow		$215,000			$3,604,000		$3,000	
Glendive					$1,316,000		$133,000	
Havre					$312,000			
Lewistown		$2,481,000			$2,668,000		$182,000	
Miles City					$1,227,000		$286,000	
Sidney		$1,627,000			$1,403,000	$135,000	$1,233,000	
West Yellowstone					$100,000		$1,016,000	
Wolf Point					$203,000		$32,000	
Total EAS		**$4,323,000**	**$0**	**$0**	**$10,833,000**	**$135,000**	**$2,885,000**	**$0**
Total		**$18,061,000**	**$4,370,066**	**$4,152,265**	**$68,750,124**	**$964,000**	**$26,598,049**	**$1,300,000**

Sources: Morrison-Maierle 2005.

As shown, the majority of the Commercial Service Airport capital improvements are for rehabilitation/reconstruction of the runways and taxiways. Great Falls International Airport has identified $27,000,000 for the upgrading of the primary runway and NAVAIDs to accommodate a Category III ILS system. Every Commercial Service and EAS airport has included a runway/taxiway reconstruction, expansion, or rehabilitation project to keep the pavements in good condition for the airlines.

The Commercial Service Airports that are remodeling their terminal buildings are adding space to provide more sufficient areas for TSA security, passengers, and new airline services, if needed. The areas to be remodeled would include ticket lobby areas, lounge areas, security check point areas, baggage claim areas, passenger loading bridges, and/or a whole airport remodel. Bert Mooney Airport in Butte is planning on conducting a whole terminal remodel or possibly new terminal construction. The EAS Airport terminals need to be brought up to date to meet current ADA regulations and increase in size as passenger demand increases.

6.0   RECOMMENDATIONS AND IMPLEMENTATION PLAN

Nearly all small and rural communities throughout the U.S. have experienced a decline in the level of air service offered, especially as the airline industry has struggled to maintain profitability in recent years. As stated in previous chapters, the current state of the commercial airline industry makes it difficult for small communities to retain current air service and enplanement levels. It has become more expensive to serve small airports throughout the country and unless communities are committed to the success of air service, financially and otherwise, improved air service may not be a reality. It is important that each community approaches its air service with the recognition that action is needed, especially at the local level. The action needed starts with the development of a strategy that is specific to the community based on the issues facing that community.

This chapter outlines actions that can be considered by Montana's communities in their air service efforts, as well as opportunities and costs, and potential monitoring efforts.   The following are summarized as part of this chapter:

- Carrier air service development process.
- Best practices.
- Opportunities and costs of implementation.
- Monitoring and performance tracking.

6.1   CARRIER AIR SERVICE DEVELOPMENT PROCESS

The air service development process should not be something that is just being initiated by Montana's airports, but should be an ongoing effort that is undertaken by every airport on a consistent basis. It is vitally important that the air service development process start with the existing carriers serving the market. Relationships should be maintained between the airport, community leaders, and staff from the existing carriers at both the local station level as well as at the airline corporate level. Frequent communication between the community and the airlines is necessary to ensure that all parties are aware of issues, both positive and negative, concerning the viability of the existing airline service. Many airports have regular meetings with their station managers to keep the lines of communication open. During these meetings, airport and airline requests can be discussed, including the needs of the community for larger aircraft, schedule changes, lower fares, and terminal building and airside improvements from the airline's perspective. By maintaining open and regular lines of communication, the airlines and the airport can work together throughout the process to improve service and increase the passenger base. If the existing service is not being supported, it is often difficult to pursue new service with a new airline.

In terms of new airline service, through discussions with airline personnel, including airline route planners, the most important factors considered by airlines are the availability of aircraft equipment and the rate of return that could be expected on that equipment when flying a

selected route. In recent years, the availability of incentives to reduce the risk of airlines entering new markets has also been added as a requirement in order to be considered for new service, especially to smaller markets.

Airlines look for several key components when analyzing a community for potential service; these components include:

- Population.
- Business and industrial activity.
- Historical air travel statistics.

The anticipated growth in these factors is also considered. Airlines such as Southwest have a general rule of not initiating service to communities with populations of less than one million; this is not to say they do not serve these communities but it is a standard that they typically follow. Other airlines have noted that they consider factors such as hotel chains in the market; their market share in the geographic region; distance to competing airports, including those with low fare or low cost airline service; and seasonality issues in their decision-making process.

Airline planners are constantly reviewing the performance of their existing markets, while also evaluating the potential for service to new markets. Typically, airlines prepare their schedules on a rotating six-month basis to consider seasonality, equipment changes, and community performance issues. In October, airlines typically initiate planning for the following spring. While the schedule can be adjusted during the six-month period, airlines must ensure that their equipment, both existing and new equipment coming on line through aircraft orders, is being utilized to the fullest potential and that the service is returning a profit.

It is important for all airports to recognize that while service may be feasible according to the demand numbers, carriers may not have the equipment (aircraft) or be willing to take a risk to provide improved service in the near term. Initiatives to improve air service are generally not overnight successes. A typical response time for a carrier to actually begin new or improved service to a community, once the opportunity has been identified, can take years. Community-specific studies are only the first of many steps that need to be taken to address air service issues and concerns.

It is possible that an opportunity may be viable for one route or airline, where it is not as profitable for another airline due to route planning, aircraft availability, or financial standing. Airline representatives noted the following elements are analyzed in route planning before an airline enters a market:

- Gauge local customers' response. Would the community and visitors be committed to using the service?

- Determine route structure and airport's willingness to streamline local costs. What is the most cost-effective way to structure the service?
- Identify current service at the airport. Will the new service be affected by competition?
- Determine tactics for awareness. How can we get local passengers to fill up the planes?

Airlines are consistently besieged by communities requesting new or improved service. It is important that the community seeking service has the technical and backup data to support the request to the airline. Information presented in this study, as well as data collected by individual airports, serves as the first step in collecting the technical data, but more local data is needed to provide the airline with sufficient information to make a determination regarding potential service. It is also important that the community focus on the issues from the airline's perspective; will serving this market, adding flights, or adding new aircraft types be a profitable venture?

A marketing package can be prepared to highlight the information airlines are looking for in a concise format. The following information should be included in an initial airline package:

- Geographic market area.
- Demographic or socioeconomic growth.
- Top industries and businesses.
- Tourism.
- Recent local developments and positive community information.
- Top O&D markets.
- Estimates of demand to new markets.
- Survey results, especially leakage estimates.
- Incentives available to airline.

Once data is submitted to the airline and the request has been made, follow-up visits to the airline's headquarters are typically the next step in the process. It is important to set up meetings with both the marketing or mainline carrier as well as the regional partner. As part of these meetings, it is important to bring persons to the meeting who are frequent airline travelers and are willing to support the service being sought. While politicians and chamber of commerce representatives can help portray the community's airlines service needs, airline users and large businesses that rely on air travel are more important for this type of meeting.

Once marketing materials have been sent and meetings have been arranged, the community should continue to send monthly updates to existing and prospective carriers. These updates could include status of growth in the community (especially new industries or expansions), passenger comments, and any new information the community has that may positively impact the prospective carrier. Ongoing communication and the establishment of working relationships with airline representatives are very important to ensure the community's commitment to the success of the service.

There are a number of other items communities must pursue to attract additional air service. They include:

- Open doors to the community for the airlines; introduce key travel agents, businesses, and chamber and economic development representatives.
- Secure and maintain corporate commitments.
- Ensure facilities meet performance and technical needs.
- Offer airport incentives for new service including reduced landing fees and lease/rent waivers.
- Offer additional support from the community, including financial incentives and revenue guarantees.
- Provide cooperative marketing.
- Actively support existing service.

6.2   BEST PRACTICES

Many U.S. communities have tried to turn around the decline in commercial air service through studies, marketing, travel banks, revenue guarantees, reduced airport fees, subsidies, or other efforts. The General Accounting Office (GAO) published "Factors Affecting Efforts to Improve Air Service at Small Community Airports" in January 2003. The GAO report noted that financial efforts by communities to sustain air service have been proven to be the most effective, but do not guarantee success.

The GAO interviewed 98 small community airports to determine the level of effort to improve or sustain air service and reviewed 12 communities' efforts in depth. The level of effort was classified into three categories. First, over 75 percent of the communities that were interviewed had prepared some type of air service study. Approximately 78 percent conducted marketing efforts to increase local usage. The third category is financial incentives. Approximately 45 percent of the airports interviewed offered some kind of financial incentives to carriers to provide or maintain a certain level of service. In today's struggling commercial airline environment, more and more carriers are looking to airports to help them minimize the financial risk to maintain or improve air service. Several of the efforts detailed in the GAO report are described below (U.S. General Accounting Office 2003a).

In addition to the federal level initiates that were discussed in Chapter 3 (Essential Air Service and Small Community Air Service Development Program), states and local communities have undertaken varying approaches in assisting with air service retention and development. These approaches have had both positive and negative results and are summarized below.

6.2.1 State Level

6.2.1.1 Maryland: Regional Air Service Development Program

In July 2000, Maryland passed a law that allowed the state to subsidize new air service in order to establish an intrastate network connecting underserved regions with Maryland's largest airport, Baltimore/Washington International Airport. The state appropriated $4.25 million to subsidize intrastate air service for a 2-year period. Hagerstown and Cumberland were chosen by the state to participate in the program. The communities did not contribute matching funds. Due to the small size of the markets, it was recommended by the state that 8-seat aircraft be used to serve the markets. However, the communities chose to use a carrier with 19-seat aircraft because they feared that smaller aircraft would not be acceptable to air travelers in their communities.

Maryland Aviation Administration selected Pan Am Clipper Connection carrier Boston-Maine Airways to provide commuter service connecting Hagerstown and Cumberland with Baltimore/Washington International. Boston-Maine Airways began operations in December 2001 with 19-seat Jetstream J31 aircraft. The carrier provided three daily weekday flights and two daily flights on weekends. Flights originated in Cumberland, stopped in Hagerstown, and went on to Baltimore/Washington International.

The subsidized service ended in June 2003, 18 months after it was started and the $4.25 million was spent. The flights drew an average of two passengers from Cumberland and Hagerstown aboard each 19-passenger plane, far below the 45 percent passenger load factor needed to break even. The airports cited several reasons for the low usage by their communities, including Pan Am's lack of a codeshare agreement with a major carrier, which would have allowed for more convenient connections at Baltimore/Washington International. Another reason cited for the low usage was that the airline was not part of the national airline reservation system, making it difficult to book tickets through a travel agent or on travel websites. The GAO noted several other possible reasons for the low enplanements including a lack of community support and too large of an aircraft used to serve the airports (U.S. General Accounting Office 2003a).

6.2.1.2 Michigan: Air Service Development Program

Michigan's Aviation Services Division of the Michigan Department of Transportation, Bureau of Aeronautics (MDOT) has undertaken an expansive air service program to help stabilize and expand commercial air service in the state. The program has three categories of projects that are eligible for state funding, namely capital improvement and equipment, carrier recruitment and retention, and airport awareness. The state funding is made available through the state's aviation fuel tax collection and airports must pay local matching funds. The capital improvement and equipment category allows air carrier airports to apply for funding for projects that are not eligible for other grants such as terminal improvements and security equipment. The carrier recruitment and retention category provides funding for studies to

identify and document air service needs, including identifying state and local subsidy needs that may be necessary to preserve or increase air service. The airport awareness category provides funding for projects that promote public awareness and increase community involvement related to air service and the role of the airport in the community. However, only airports enplaning fewer than 150,000 passengers are eligible for this category of funding. According to the GAO, Michigan awarded over $1.3 million to 16 small airports for marketing and carrier recruitment between 1998 and 2002. The level of money made available for air carrier recruitment and retention varies each year.

Pellston Regional Airport in northern Michigan serves the resort area of Mackinac Island. Northwest Airlink offers three daily flights to Detroit on Saab 340 aircraft. About 50 percent of the market drives to Traverse City to begin air service, because of lower fares and more flight options. Pellston has received over $100,000 in state funds for marketing since 1998. The local Air Service Task Force helped raise the additional $12,000 in matching funds. Pellston has developed various TV, radio, and newspaper marketing campaigns using the state's "Fly from Nearby" slogan. The airport manager notes that enplanements have remained relatively unchanged over the last few years, despite the industry downturn and credits the marketing campaign (U.S. General Accounting Office 2003a).

6.2.1.3 New Mexico: Air Service Assistance Program

In 1999, the New Mexico legislature appropriated $500,000 to create an Air Service Assistance Program. By 2002, a total of $900,000 was appropriated by state legislature and the program has been reauthorized through 2007. This program was designed to provide new and/or improved regional air service between small communities and hub airports in the southwest U.S. The major elements of this program included:

- Two or more eligible recipients shall submit a single application to the Aviation Division designating a single eligible recipient as the lead fiscal agent to administer the grant.
- The maximum single award was $200,000.
- Eligible recipients must provide a minimum of 50 percent match in order to receive the grant.
- Eligible recipients must procure the airlines services through the competitive sealed proposal process in accordance with New Mexico procurement code.

As part of the program, communities were encouraged to work together to develop a partnership to pursue improved airline service. Several consortiums of airports worked together and received state funding towards improved air service. The partnerships included Taos and Los Alamos; Taos and Ruidoso; and Carlsbad, Hobbs, and Roswell.

Taos and Los Alamos partnered to obtain service from Rio Grande Air based in Taos in August 1999. Taos was without service for 13 years before local community officials, including the mayor, decided to make air service a top priority for economic development of the area. Rio

Grande Air used 9-seat Cessna single engine aircraft. The state awarded a $100,000 grant in January 2000, which was matched by the Town of Taos, the Village of Taos Ski Valley, and the County of Los Alamos to continue service to Albuquerque and awarded an additional $79,000 grant to begin service to Durango. The historic enplanements are shown in **Figure 6.1**. Unfortunately, service to Los Alamos was discontinued in February 2001 due to low ridership (U.S. General Accounting Office 2003a).
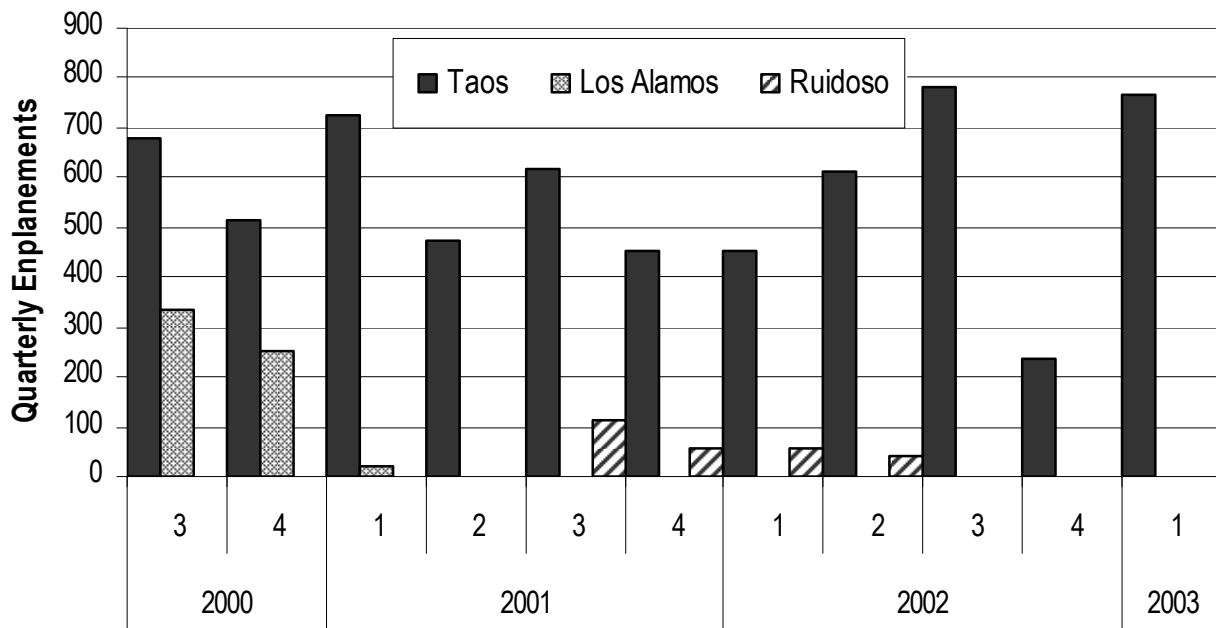
Figure 6.1

ENPLANEMENTS AT TAOS, LOS ALAMOS, AND RUIDOSO

Source: U.S. General Accounting Office 2003a.

Taos also partnered with Ruidoso to get state funding to help fund service between Taos, Ruidoso, and Albuquerque on Rio Grande Air. Ruidoso did not have air service prior to the entrance of Rio Grande Air. In October 2001, the consortium was awarded a $190,000 state grant. Ruidoso provided $150,000 in matching funds, while Taos and the Village of Taos Ski Valley provided an additional $50,000. The consortium also teamed to apply for and win a US DOT Small Community Air Service Development Pilot Program grant, to help subsidize the Rio Grande Air service and provide extensive marketing within the communities to increase enplanements. Ruidoso later pulled out of the consortium because it felt the community would be better served with nonstop service to El Paso instead of Albuquerque. The subsidy amount in the grant ($500,000 for both communities) would not cover service between Ruidoso and El Paso. Rio Grande Air discontinued all service at Ruidoso in May 2002. Taos received the entire US DOT grant and state matching funds of $200,000. Taos also contributed $200,000 to the implementation of the program.

In the summer of 2003, Rio Grande Air provided service between Albuquerque and Taos and Albuquerque and Alamogordo. Annual enplanements at Taos, the only airport with continuous service over the last few years, remained relatively unchanged, showing little growth or decline. Rio Grande Air had difficulty sustaining air service without subsidy. The GAO report cited several problems Rio Grande Air had to overcome including inclusion in the reservation system used by travel agents and travel websites and limited codesharing abilities. This service has been discontinued.

In November 2004, another carrier, Westward Airways, began service at Taos, Las Cruces, Gallup, and Alamogordo. However, this service was discontinued just nine months later. According to airline representatives, the carrier expected to make $210,000 a month but brought in just $80,000. This shortfall, combined with high fuel prices, eventually caused Westward to go out of business.

A consortium of New Mexico airports in the southeastern part of state also used state funding to assist in increasing air service for their communities. Carlsbad, Hobbs (Lea County), and Roswell joined together to seek additional service to one or more hub airports within a 500-mile radius of the communities. Each of the communities had nonstop service on Mesa Airlines to Albuquerque already in place. Using $200,000 in state funding and $300,000 in local matching funding, the three communities solicited carriers to provide the new service. Only one carrier, Big Sky, responded to the RFP and in October 2000, Big Sky provided service between the three communities and Denver and Dallas on 19-seat Metro aircraft. Three months after the service was initiated, Big Sky exhausted the $500,000 in state and local funding and sought additional funding from the communities. Roswell and Carlsbad did not provide further funding because they felt the service was unreliable, with one-third of the flights cancelled due to weather or mechanical reasons. The service to these communities was discontinued in March 2001. Although Hobbs continued to pay Big Sky $35,000 a month in subsidy, the funding eventually ran out and Big Sky discontinued service to Hobbs in January 2002 (U.S. General Accounting Office 2003a).

6.2.1.4 Wyoming: Air Services Financial Aid Act

Noting the importance of commercial air service to future economic development in the state, the State of Wyoming wanted to stop declining levels of air service and enplanements at airports in the state. The Wyoming Legislature enacted the Wyoming Air Services Financial Aid Act in March 2003. Under the Act, $3 million was appropriated for the Wyoming Business Council to enhance air service in the state. The Wyoming Business Council was given the responsibility to contract with air carrier(s) to increase air service levels or lower airfares. Using financial incentives, the state hopes to increase enplanements at Wyoming airports and increase ridership between Wyoming and regional airport hubs. An additional $3 million is proposed in the 2007 budget to continue this program. It has been noted, however, that marketing is critically needed to enhance the success of the program (Wyoming Business Council 2004).

In August 2005, the Wyoming Consortium, consisting of all the state's commercial service airports, was selected as one of the 37 communities in the US Department of Transportation's (US DOT's) fiscal year (FY) 2005 Small Community Air Service Development Program (SCASDP). An area of 98,000 square miles and approximately 500,000 residents puts the State of Wyoming in a unique position in terms of air service (U.S. Census Bureau 2006). Coupled with the negative perceptions of present air service, high airfares, and declining levels of acceptable service, the Wyoming Department of Transportation and its 10 commercial service airports developed a strategic marketing plan aimed at specific distinctive passenger market segments. With federal ($800,000) and state ($3,225,000) appropriated funds and public-private partnership resources, Wyoming airports will aggressively market air service to their domestic and international tourists, booming energy business travelers, Native American business travelers, and the increasing retired population. Focusing on consistent short-term objectives; widespread, diverse media and internet advertising will be effective in reaching these targeted markets with a new, collective branding approach (Wyoming Department of Transportation 2005).

6.2.1.5 Arizona SCASDP and EAS Combination

Arizona currently has four airports that participate in the federal Essential Air Service (EAS) program. These four airports are currently served by one carrier, Great Lakes Airlines. These four markets are connected to Phoenix via 19-seat Beechcraft 1900 aircraft (US DOT 2006). Arizona's EAS and other small communities have realized a significant decline in passenger activity since the initiation of code-sharing by US Airways (formerly operated on behalf of America West by Mesa Airlines) in the 1990s. With declining enplanement levels and an inability to capture the attention of their incumbent airlines to address the issue, the communities came together to seek changes to Arizona's rural air service.

In June 2003, the Arizona Department of Transportation (ADOT) submitted a proposal to the US DOT as part of the FY 2003 Small Community Air Service Development Program. This proposal was selected for a grant award in October 2003. ADOT's proposal called for combining EAS at four communities, adding a fifth community funded through SCASDP, and soliciting a carrier to serve all five communities. It was thought that by having one airline provide service to all five communities and with the carrier reporting to ADOT that the communities could be more effective in working with the airline to address issues as a group as opposed to a single airport. ADOT agreed to serve as the sponsor to work with the selected airline and the communities to ensure the program was operated efficiently and cost-effectively. In addition to combining the funding for service guarantees, the proposal called for marketing funds and the creation of a carrier incentive program to help increase passenger levels at all five of the airports.

The first step in the process was to develop a request for proposals from interested carriers to serve the five markets. This process was very involved as it required approval by the US DOT, Arizona Attorney General's office, and ADOT. Once solicited, proposals were received from

four airlines. These proposals were reviewed in depth and it was determined that two of the carriers met the needs of the communities and "best and final" offers were solicited from these two carriers. Great Lakes was finally selected to serve the five communities and initiated service to the first community in March 2005. The short term success of the program is mixed with two communities expressing displeasure and the other three showing positive signs of growth. As of October 2006, the marketing program is underway and the carrier incentive program had not yet been evaluated.

6.2.2 Local Level

The GAO report noted several factors behind successful air service improvement efforts of communities. All of the communities the GAO studied had a driving force or catalyst behind air service improvements efforts, such as a local official or state organization. Another factor is community consensus that air service is a priority and should be invested in for the success of the community as a whole.

6.2.2.1 Mobile, Alabama – New Business Model

Following September 11, 2001, United Airlines pulled out of the Mobile market. At the time, US Airways, who also served the market, relied on United to provide ground handling and equipment. In order to retain US Airways service, the Mobile Airport Authority decided to manage US Airways ground services. The new "business model," which would cost the airport approximately $26,000 a month, had several components, including:

- Airport staffing of ground handling operations (nine employees in November 2002), including checking in passengers and baggage, selling tickets, and marshalling aircraft into parking positions.
- Ground handling equipment including carts and tugs.
- Fees per turn of $315 payable by the airline.

Currently only US Airways is using this service, although it is available to all carriers. In 2002, Mobile received a US DOT Small Community Air Service Development Pilot Program grant to purchase the ground handling equipment and fund the program for one year (U.S. General Accounting Office 2003a).

6.2.2.2 Pensacola, Florida – Travel Bank

Although Pensacola enplaned over a half a million people in 2001 and had nonstop service to several hub airports, the airport experienced a great deal of leakage to neighboring airports at Ft. Walton Beach and Mobile due to higher airfares. In August 2001, AirTran, which was operating at Ft. Walton Beach at the time, approached Pensacola in order to compare the cost of operating out of Pensacola versus Ft. Walton Beach. Ft. Walton Beach was undergoing a terminal expansion and AirTran's costs were going to rise. Pensacola jumped at the chance to

land a low fare carrier and quickly developed the travel bank program in the community. Over a three-week period, the airport and local officials persuaded 327 businesses and individuals to pledge $2.1 million toward travel on AirTran for a 2-year period. The program was set up through a local bank and the businesses were given credit cards for travel on AirTran. The businesses dedicated a portion of their travel budgets toward travel on AirTran. If businesses did not spend the dedicated funds over the two years, the remaining funds were transferred to AirTran and vouchers for future travel were given to the businesses.

In addition to the travel bank program, Pensacola also offered AirTran reduced airport fees, moving costs, and marketing. Pensacola covered the difference in operational costs between Pensacola and Ft. Walton Beach ($375,000) as well as moving costs of $39,000. The airport also provided a large marketing staff and provided marketing funds of $50,000 per year to AirTran.

The service was considered to be successful as fares at Pensacola dropped dramatically (down over 70 percent to Atlanta and down 30 percent overall) and enplanements reached nearly 820,000 in 2005; up from just over half a million enplanements in 2001. The service is currently self-sustaining and AirTran now offers five daily departures between Atlanta and Pensacola (Pensacola Regional Airport 2006). Other communities that have worked with AirTran through the travel bank program include Tallahassee, Wichita, and Newport News (U.S. General Accounting Office 2003a).

6.2.2.3 Eugene, Oregon – Travel Bank

Even though the airport had nonstop service by three carriers to four destinations, Eugene had been experiencing heavy leakage of local residents to Portland, Oregon. According to the GAO, in 1998, United and partner United Express had 71 percent of the market share of passenger traffic at Eugene. Local officials felt that if they could offer more local competition, lower fares and increased local ridership would ensue.

Eugene has set up three successful travel banks to introduce increased competition in the market. The first travel bank was used to secure three daily CRJ flights operated by America West to Phoenix. This service was initiated in September 1999. Through the travel bank program, the community and the airline worked to develop the amount of funds needed to support the new service. Local businesses in the community were then asked to pledge future travel dollars to the new service and sign an agreement to use the service. The local businesses had two years to use the funds that were pledged. After that time, vouchers for travel on America West were given to the companies for use for one additional year. If not used after 12 months, the money went directly to the airline. Eugene also committed $300,000 in marketing funds to promote the new service over a two-year period. The second travel bank program was initiated in September 2000. This program helped land two daily departures to Los Angeles on Horizon Airlines on 70-seat CRJ700 airplanes. By 2001, United's market share had fallen to 58 percent and overall average fares had been lowered. The third travel bank program began in May 2004 for daily service to Salt Lake City on Delta. Eugene businesses pledged $560,000 in

travel bank funds in addition to a $400,000 revenue guarantee offered by the City of Eugene and $225,000 in marketing funds supplied by the Eugene Airport and Salt Lake City Airport (U.S. General Accounting Office 2003a).

6.2.2.4 Waterloo, Iowa – Revenue Guarantee

Since September 11, 2001, Waterloo went from three carriers serving the airport to one. After years of declining enplanements and service levels, the City of Waterloo decided to take a risk and do something about it. Local residents were repeatedly driving to Cedar Rapids and Des Moines to access lower airfares and jet service. The city worked with existing carrier, Northwest, to secure competitive airfares and jet service to Minneapolis. The city had to guarantee Northwest $868,000 a month in revenue with the airline agreeing to make local airfares competitive with the fares offered at nearby airports. The city would have to make up any monthly shortfall in revenue, with a maximum subsidy capped at $1 million. Regional jet service was started at Waterloo in May 2003. In total enplanements reached 45,000 in 2003, the same level experienced when three carriers served the market. Six months later, the revenue guarantee had not been touched and the service was extremely successful, with 90 percent load factors. For the first quarter of 2006, enplanements at Waterloo were 28 percent below 2005 levels (Waterloo Regional Airport 2006). This decline is a result of reduced air service provided on Northwest Airlines as the carrier restructures its operations under Chapter 11 bankruptcy protection. The carrier currently provides five daily turboprop flights between Waterloo and its Minneapolis hub (Northwest Airlines 2006).

6.2.2.5 Scottsbluff, Nebraska – New Start-Up Carrier

Geographically, the state of Nebraska is approximately 450 miles wide east to west, with one major east – west artery along I-80. The consequence of such geography is great distances and travel times between population centers. Scottsbluff is the most remote from the state's population centers in Lincoln and Omaha, presenting a minimum seven-hour drive each way. The state previously had intrastate air service linking the largest communities along the North Platte River with Lincoln and Omaha. This service was provided by GP Express (an EAS-funded scheduled charter airline) and operated from 1987 to 1995. The airline operated one round-trip per day, eastbound in the morning and westbound in the afternoon, with stops at Scottsbluff, North Platte, Grand Island, Lincoln, and Omaha. Scottsbluff proposed a local venture know as Westward Airways, which replicated the service. With the help of a $950,000 US DOT Small Community Air Service Development Program grant, coupled with private stock placement, debt, and operating revenues, Westward Airways began two daily round trips along the "River Run" beginning in May 2004. However, citing high fuel prices and low ridership, the airline ceased operations in July 2005 (Holsinger 2005).

6.2.2.6 Lynchburg, Virginia – Revenue Guarantee/Equipment Upgrade

Following September 11, 2001, United discontinued service between Lynchburg Regional Airport and Dulles; while US Airways cut back service to Pittsburgh and Charlotte. Capacity was reduced by almost half. The Lynchburg Air Service Development Partnership, formed by the Lynchburg Chamber of Commerce, is comprised of CEOs of companies in the region that spend more than $20 million annually for air travel. This partnership worked closely with the chamber and airport to secure a $500,000 US DOT Small Community Air Service Development Pilot Program grant along with a $100,000 local match. These funds were used as a revenue guarantee to Delta for providing new jet service for one year. With the guarantee in place, Delta replaced three daily departures to Atlanta on Brasilia turboprop aircraft with Bombardier CRJ aircraft, beginning in May 2003 (U.S. General Accounting Office 2003a). In spite of its Chapter 11 bankruptcy filing in September 2005, Delta continues to provide air service between Lynchburg and its Atlanta hub with three daily departures on CRJ 100 aircraft (Delta Air Lines 2006).

6.2.2.7 Rockford, Illinois – Community Pledges

Rockford had been without passenger service since June 2001 until TransMeridian Airlines entered the market. Previously, the airport had tried for years to position itself to low fare airlines as an alternative to the congested airports in Chicago. As part of its air service development efforts, a new scheduled charter carrier was poised to begin serving the Northwest Chicagoland Regional Airport with service to Orlando and Las Vegas. This carrier, TransMeridian Airlines, had one concern; there was lack of community support. In order to show support, the airport asked all community members to pledge $10 each in order to reach its goal of $250,000 in marketing funds in 20 days. This money would be used to market the new service. The airport pledged an additional $250,000 to support the marketing efforts. The carrier in turn would offer $69 one-way fares to the community. Nearly 4,500 individuals and 450 businesses contributed to the campaign and donated nearly $270,000 within 20 days. The money was appropriated for a marketing campaign that included billboards, print and broadcast media, direct mail, and a travel agency incentive program. The campaign focused on the "Chicagoland's low cost, hassle-free airport, with free parking." TransMeridian initiated air service in August 2003. In September 2005, this carrier declared bankruptcy and left the market. However, as of October 2006, Rockford is served by four passenger carriers: Allegiant Air, Apple Vacations, Festival Airlines, and United Airlines (Collier 2003).

6.2.2.8 Augusta, Georgia – Comprehensive Advertising Campaign

In the summer of 2003, Augusta executed an advertising blitz to curtail passenger leakage to Hartsfield-Atlanta International Airport and Columbia Metropolitan Airport and restore enplanements to pre-September 11th 2001 levels. The entrance of Continental to the market in Spring 2003 increased seats and flights at Augusta Regional and the airport wanted to strongly promote the airport as the new service was getting underway. The advertising campaign

included print, radio, television, and billboard promotion. The campaign focused on the convenience of using the hometown airport and used slogans such as "Fly There, Fly Home." In addition, the airport implemented a free parking program and frequent flyer bonus points to reward passengers for using Augusta Regional Airport (Solee 2003).

6.2.2.9 Paducah, Kentucky & Jamestown, New York – Marketing Efforts - Fax Program

Barkley Regional Airport in Paducah, Kentucky and Chautauqua County/Jamestown Airport each has marketing efforts in place to stop local passenger leakage of business travelers. Airport officials in Paducah developed a weekly fax distribution to area chambers of commerce, economic development offices, area businesses, and other local frequent flyers. The faxes provide information on ticket prices to the top 20 O&D destinations, fare comparisons with Nashville International Airport, the top competing airport, and airline schedule changes. This information is also included in the chamber of commerce's weekly fax to 800 local businesses. Similarly, officials at Chautauqua County/Jamestown Airport send a weekly fax to 69 local manufacturing companies relaying the fares and service changes at their airport compared to those at competing airports, namely Buffalo (Denton 2003).

6.2.2.10 Massena, New York – Airport Re-Branding

Although the Town of Massena is served by US Airways Express, the service does not adequately support the needs of the region. Furthermore, market research indicates that local passenger traffic leaks to Canadian airports with extremely high airfares, as well as to larger New York airports with extensive, often inconvenient, drive times, for the convenience of many more scheduling and connection options. Massena, together with numerous public and private partners, formed a regional Task Force to undertake research, planning and development initiatives, marketing strategies, and funding possibilities. A $400,000 SCASDP grant in 2005 and local matching funds enables the Task Force to analyze airport and airline potential, negotiate with airlines and vendors to secure more suitable air service, and aggressively market and re-brand Massena Airport (Town of Massena and St. Lawrence Valley Air Task Force 2005).

6.2.2.11 Bradford, Pennsylvania – Creative Marketing

Bradford and other towns in north central Pennsylvania have shown diligent commitment to improving the quality of Bradford Regional's air services. Since current EAS-subsidized air service by Colgan Air commenced in 2004, passenger enplanements, as well as overall passenger satisfaction, have steadily increased. Colgan Air, operating as US Airways Express, currently provides three daily departures from Pittsburgh to Bradford on 34-seat Saab 340 turboprop aircraft. Partnerships among the airport authority, the prominent local travel agency, and Colgan Air launched a widely successful collective marketing campaign in the region, and have begun to recapture passenger leakage to larger airports, as well as obtain new passenger traffic by way of unique incentives to travel agents who book flights from Bradford. Local media and billboard advertisements further encourage local travelers to fly from Bradford

Regional. Bradford received a SCASDP grant for $220,000 in 2005 to support further initiatives. The consortium of regional airports and towns has also successfully raised substantial matching funds to sustain the marketing and incentive campaigns (Bradford Regional Airport Authority 2005).

6.2.2.12 Oregon – Washington Consortium – Self-Help Program

Faced with similar air service issues in their local areas, more than 10 small, non-hub airports in Washington and Oregon joined together to address them collectively through the successful application to participate in the US DOT's SCASDP. The issues were quite typical of small communities; extremely high airfares, lack of non-stop service, limited connection options, and current reduction of turboprop fleets. The Oregon-Washington consortium's solution, however, was not typical. The consortium asserts that to effectively address the air service problems unique to small communities, local officials and users must first fully grasp the dynamics of the air service environment. Their action plan, funded at $250,000, in part, calls for communities to become actively engaged in discussions and strategy development facilitated by self-help tool kits comprised of presentations, articles, examples, and handbooks explaining the many aspects of the airline industry. The mentorship program involves state transportation and airport managers supporting the airports in developing resolutions to their issues. Local public and private resources, which have collaborated on many projects, have been generous in funding ongoing market research and analysis across the region. Further grants will enable the consortium to secure and disseminate more research findings to the area airports (Oregon Department of Aviation 2005).

6.3   OPPORTUNITIES AND COSTS OF IMPLEMENTATION

Air service and air cargo opportunities and the challenges to obtain improvements were identified in Chapter Four. It is important to note that these improvements are based largely on the ability of carriers to be profitable. The strategies and initiatives for air service and air cargo are discussed below. Guidance for state and local leaders to improve air service and air cargo is outlined.

Due to the ever-changing nature of the industry, nearly all of the recommended initiatives should be pursued in the near term (next five years). It is extremely difficult to discuss specific long-term initiatives given the state of the airline industry and the constant change in status of airlines. The study's long term recommendations are focused on the monitoring of air service and air cargo trends, carrier plans, and shifts in service so the state and communities can take advantage of emerging opportunities.

6.3.1   Air Service Initiatives

In terms of air service, unless a market is proven, small and medium-sized communities need to have the local and state support in place and incentives (financial and other) to offer potential

carriers before many carriers will even consider entering a market. The state and local communities need to be well organized and have a good understanding of their markets to ensure the most effective pursuance of local air service improvements. State and local initiatives that present opportunities for air service enhancement are outlined below. State and local air service work plans and the range of costs (as applicable) to implement the air service initiatives are summarized in **Tables 6.1** and **6.2**.

Table 6.1
STATE AIR SERVICE WORK PLAN

Alternative/Option	Description	Potential Cost Estimates
Continue to Support EAS	Support continuation of EAS program and support the Governor's Task Force.	No Cost
Develop a Statewide Air Service Committee	Provides insight and support into new statewide programs.	No Cost
Create a Policy Statement	Develop policy to support commercial service in the state.	No Cost
Team with State Universities	Utilize state university resources to develop marketing materials, surveys, and other research.	No Cost
Coordinate with other State Agencies	Coordinate closely with other state agencies including tourism and economic development to ensure team effort to promote air service in the state and across the country.	No Cost
State Air Service Development Program		
State fund to match federal SCASDP grants	Leverages federal grants. Only feasible if airport wins federal SCASDP grants. Could increase the ability of Montana airports to be awarded SCASDP grants. Local support imperative to successful grant. State funding support part of other successful SCASDP applications.	Varies, but at least $100,000 per airport per year recommended for a maximum of $400,000 annually. Duration ongoing as long as federal program in place. Administrative cost vary, depending on proposal.
State subsidies or revenue guarantees to airlines	Depends on airline willingness. Could decrease leakage and help stabilize markets. May be difficult to determine which airports are eligible to participate in this program. For airline to be eligible, service would have to be new/additional service to airport and to MT (could not decrease current service in elsewhere in MT to get subsidy). Could offer additional financial incentives for new instate service.	$1.0-$2.0 million per new airline service per year. Duration: Two-year airline contract required, at end of contract service is either self-supporting or carrier may exit agreement. Administrative cost is moderate to high.
Statewide marketing campaign	Two-fold campaign for instate and out-of-state marketing. Could be coordinated with other state agencies. Should include TV, billboard, radio, magazine, and internet materials.	$500,000-$1.0 million per year. Should be an annual campaign. Moderate to high administrative costs.
Marketing support to airports	Develop statewide marketing materials that can be used by all airports. Provide lump sum or per passenger marketing assistance to all airports in state.	$10,000-$100,000 per airport per year. Should be available each year. Low to moderate administrative costs.
Additional airport studies/surveys	Help airports further determine total demand and passenger needs. Assist in development and administration of annual surveys. Assist airports in developing airline marketing materials.	Up to $5,000 per year per airport for survey development and administration (try to get university assistance). Matching funds for additional studies could reach $50,000. Low to moderate administrative costs.

Table 6.2
LOCAL AIR SERVICE WORK PLAN

Alternative/Option	Description	Estimate of Potential Costs
Local Support		
Air Service Task Force	Identify a local catalyst for change. Makes ownership of air service development a community commitment, not just airport.	No costs
Identify target market and build consensus	Key local businesses that are dependent on local air service. Frequently monitor changes in business, air service needs. Monthly meetings with key local organizations. Frequent recognition of air service and improvements in press.	Limited costs
Work with incumbent carriers	Keep lines of communication open with current carriers. Understand where they stand financially overall and in market. Offer airport assistance where needed. Provide marketing assistance.	Limited costs
Hire an air service development coordinator	Airport employee would be responsible for promoting airport in community organizing community support for new service, airline marketing, surveying.	$40,000-$60,000 per year per coordinator
Airline Marketing/Incentives		
Airline marketing	Develop marketing package for airlines, attend meetings, and send monthly updates on community changes. Level of effort varies by carrier.	Costs vary. Moderate to high administrative costs.
Revenue Guarantees/Subsidies	Helps take risk out of starting new service. Service must still be sound, viable route for airlines. Does not guarantee long term service, market must still be proven.	$500,000-$3 million per year, depending on carrier, equipment type used, and details of arrangement. Moderate administrative costs. High if travel bank.
Provide free ground handling, terminal/counter space, gate leases, landing fees, etc.	Provides up-front savings to airlines. May help get new routes started. Could act as a recruitment tool for airports. Many airports have attempted such incentives, with limited or no success. Airlines may reject because of need to control services provided. Airport could lose income from rates and charges.	Station costs and first year operating costs $50,000-$250,000. Costs for subsequent years of operation $20,000-$100,000 annually per airport, number of additional years unknown. Administrative costs moderate.
Passenger Marketing		
Program to advertise to passengers	Return on investment from increased demand uncertain. Funds for airports to market to passengers, both visiting and residents. Lower fares at competing airports may result in continued passenger leakage in spite of program.	$25,000-$200,000 per airport annually; duration annual and indefinite. Administrative costs low.

Table 6.2 (continued)
LOCAL AIR SERVICE INTIATIVES

Alternative/Option	Description	Estimate of Potential Costs
Program to adapt to customer needs	Provide additional specialized customer service programs such as greeters and golf cart valets. Return on investment from increased demand uncertain. Funds for airports to provide extra customer services to passengers, both visiting and residents. Lower fares at competing airports may result in continued passenger leakage in spite of program.	$50,000-$100,000 per airport annually; duration annual and indefinite. Administrative costs low.
Passenger Incentives		
Passenger rebates to use local airport	Development of a cash rebate program to increase loyalty to the local airport. Increases small airport usage. Funds require increase as passenger use increases. More costly than direct subsidy to airlines. Could have limitations such as business travel only, certain fares only.	Example: $50 rebate per ticket for Billings could cost $20M per year. Duration indefinite. Administrative costs high.
Frequent Flier bonus miles program	Buy bulk frequent flyer miles from airline. Airline or airport would administer and reward passengers originating at local airports with 1,000 additional miles into frequent flyer account. Additional miles can be purchased in bulk at $0.22 per mile. Goal is to increase passenger usage of local airports.	$1.0-$5.0 million per airport per year, based on current enplanements and FF purchasing rules. Duration unknown, most likely a multi-year program. Administrative costs high.

Source: Wilbur Smith Associates 2006.

6.3.1.1 State Initiatives

The review of other state's air service initiatives previously presented is not considered to be wholly comprehensive. However, this review is indicative of some of the actions that have been and are currently being taken in an effort to improve commercial airline service throughout the U.S. These programs have had varying degrees of success, but most state officials agree that without some funding to support these air service programs, it is difficult to change the air service environment for many small communities.

Montana should consider implementing some of these approaches to improve air service throughout the State. The State of Montana stands to benefit economically if the opportunities for improving air service identified in this study can be implemented. As part of the TranPlan 21, MDT adopted several policies to preserve and improve transportation's role in economic development in the State. One goal under the economic development initiative is to support state and local economic development initiatives to maximize new economic opportunities. Under this goal, the plan outlined the following actions related to air service improvements:

- Identify airport improvements and statewide aviation strategies that will support economic development as part of Montana's continuous statewide planning process.
- Provide state-level leadership to evaluate where there are possibilities for reducing the cost and increasing the frequency and reliability for out-of-state air travel.

This study provides suggestions for State level actions to support and improve air service and the economic development of the communities in the State as well as the State as a whole. Follow-on efforts should focus on coordination with various interested parties and determining the feasibility of providing additional funding for air service activities. Montana law governs the State funds available to the Montana Department of Transportation. The following initiatives are proposed for consideration on the State level to support commercial airline service and the State's airports.

6.3.1.1.1 Continue to Support EAS and the Governor's Essential Air Service Task Force

MDT should continue to support the State's Essential Air Service (EAS) airports and support the continuation of the federal EAS program through the task force. Montana's Governor's EAS Task Force consists of representatives from seven of Montana's EAS points, State representatives, and the congressional delegation. The task force should also work closely with the EAS carriers in the State to make sure the service is reliable and fares are reasonable. In addition, the EAS task force should provide assistance as needed to support the EAS airports in obtaining TSA baggage and passenger screening.

6.3.1.1.2   Develop a Statewide Air Service Committee

In addition to the EAS Task Force, the State should consider supporting a statewide air service committee or task force that discusses improvements at all commercial service airports in the State. The 15 airports in the State can provide insight into the State programs that would be beneficial to their airports and how the State can assist with air service development. In addition, State tourism and economic development representatives could also be committee members to ensure that all State funding sources and programs are considered to support air service in the State.

6.3.1.1.3   Create a Policy Statement

The Montana Department of Transportation or the Legislature should consider development of a policy statement that supports air service development for its communities. This will be useful in future political arenas wherein funding is at stake.

6.3.1.1.4   Fund a State Air Service Development Program

State-funded programs have had varying degrees of success to improve air service throughout the U.S. Montana should consider the creation of a funding source to financially assist airports with air service development. This program could support all commercial airline service in the State. The types of programs that appear to be reasonable for Montana include:

- Provide matching grants to conduct additional studies and analyses of passenger demand and air service opportunities.
- Provide matching grants for airports submitting proposals to the US DOT in the Small Community Air Service Development Program.
- Develop a statewide marketing campaign that includes TV, radio, newsprint ads, and brochures to promote the local airports.
- Develop a statewide marketing campaign to advertise the state's airports out of state in top O&D markets.
- Provide funds to airports for local marketing programs.
- Develop educational tools to teach communities about the airline industry dynamics; provide airports with schedule and O&D passenger data.
- Sponsor annual passenger surveys at each of the commercial service airports in order for the communities and the state to have a better understanding of changes in demand and the needs of passengers.
- Provide revenue guarantee assistance or subsidies to carriers for additional service at airports in theSstate.
- Work with carriers to offer discounted fares.
- Offer carriers incentives for improved or new intrastate service.

This list should not be considered exhaustive. The State should work closely with the Commercial Service and EAS airports to ensure a program that will be the most useful for them.

State funding has been obtained in a variety of different ways. MDT should work with other state agencies and legislative representatives to put together the most appropriate, well-organized effort and program to support air service enhancements. Other states have used the following methods to secure air service development program funding:

- Work through the State legislature to appropriate funds either for the MDT Aeronautics Division, State economic development agency, or Montana Chamber to administer a statewide program.
- Set aside funds from the State's aviation fuel tax or pass an additional fuel tax to support new air service enhancements.

6.3.1.1.5 *Work with State Universities*

State universities provide valuable resources for the state agencies to work closely with and utilize. For example, at the University of Montana, the Institute for Tourism and Recreation Research works closely with the State to deliver research on the travel industry in Montana. MDT could work with a university to provide support for its air service initiatives, including studies, the development of surveys, marketing materials, etc.

6.3.1.1.6 *Coordinate with Other State Agencies*

MDT should keep other State groups and agencies abreast of changes in commercial service at Montana's airports. MDT should work closely with the following agencies and groups to ensure the State's commercial service airports are a part of their initiatives and marketing efforts:

- Montana Department of Commerce, Promotions and Business Resources Division.
- Economic Development Advisory Council.
- Governor's Tourism Advisory Council.
- Montana Innkeepers.
- Travel Montana.
- BizMT Business Portal.
- Montana Small Business Development Centers (SBDC).
- Governor's Office.
- Montana State Legislature.

6.3.1.2 Local Initiatives

Commercial air service is dynamic and continually changing. Changes in the air service environment for the airports in Montana including airline decisions regarding equipment, fares, additional airline connecting banks, and routes to be served will continue to occur, impacting findings related to this analysis. It is important that each of the communities supporting commercial airline service has a sincere interest in improving their service and that the information presented in this study is used as the basis for developing an individual action plan. As such plans are prepared, it is important that the airports and communities recognize obvious limitations that may need to be addressed related to plan implementation.

For the purpose of this study, the airports in Montana are grouped into two categories: larger Commercial Service Airports and EAS airports. The recommended actions that can be pursued by Montana commercial service airports are discussed in three sections, namely, initiatives to be pursued by all airports, initiatives for Commercial Service Airports, and EAS Airport initiatives.

6.3.1.2.1   All Montana Commercial Service Airports

6.3.1.2.1.1   Local Catalyst and Air Service Task Force

Local involvement is crucial to any successful air service program. While some governmental funds are available to help provide the physical facilities needed by the carriers and even possibly to assist with some support of service, local patronage and support is the number one factor that makes commercial air service viable. Before a community decides how to proceed with an action plan for air service, it must decide what priority it places on commercial air service and what type of air service is considered acceptable to the local users.   This prioritization process is one that needs to be considered not just at the airport level, but by the community as a whole in conjunction with airport representatives.

The GAO noted that nearly every successful air service development effort in recent years had a local catalyst working for the improvements. Local communities should consider establishing some type of a task force, committee, or panel that would represent airport, business, political, economic development, and other interests to help identify how the community can best initiate and sustain commercial air service. The commitment expressed by the members of this group is important to the potential for success in air service development in this community. If the members of the task force are not committed, it will be difficult to gain commitment from the rest of the community that is not as aware of the issues involved with air service development. The commitment must include working with the airport director who is first in the line of communications with the airlines (U.S. General Accounting Office 2003a).

Since the value of commercial air service extends into a community well beyond the airport and its physical boundaries, the community may wish to broaden the personnel and financial resources available to pursue air service opportunities by reaching out to other established local groups and beyond to other communities that could benefit from improved commercial air

service. This broader base of support may be represented on the task force, committee, or panel established to provide input on air service needs and priorities. This broad base of support and the commitment of the air service group are highly valued by airlines and is one of the factors airlines look for in examining their service opportunities.

6.3.1.2.1.2   Identify and Monitor Target Audience and Build Consensus

An important factor in determining the level of demand being generated is to know the people in an airport's market area who regularly rely on air service, especially to meet business needs. Annual surveys of local businesses and travel agencies can be used to gather this data to see if changes occur in the demand for airline travel. Business travelers are typically the backbone of successful local air service. These travelers have a more frequent need to use commercial air service and are generally willing to pay a fare that allows the carriers to operate at a profit. In addition to local businesses that rely on commercial air travel, there are also businesses who have customers or suppliers who reach them by air. Many airports have found it advantageous to compile a database of businesses that either use or rely on the local airport today or that use air service to reach the local community to do business. Development of a strong rapport with local businesses that use air service is an important part of any follow-on air service initiatives enacted on the local level.

Several ways other communities are building local consensus and keeping businesses engaged include:

- Individual meetings and presentations to local businesses.
- Presentations at Chamber of Commerce, economic development, or other community groups.
- Monthly or quarterly newsletters.
- Weekly faxes announcing fares at local airports compared to competing airports.
- Frequent newspaper articles highlighting the airport.
- Community drawings for dinners.

Participation by top business travelers in airline meetings is crucial. Airlines like to know that these air travelers and their annual budget for airline travel are there to support the service they are considering. The airlines will be looking to secure these travelers to ensure their success in the market.

6.3.1.2.1.3   Work with Incumbent Carriers

In any air service development plan, working with the incumbent carriers should be a top priority. As previously discussed, many airports have regular meetings with their station managers to keep the lines of communication open. During these meetings, airport and airline requests can be discussed, including the needs of the community for larger aircraft, schedule changes, and lower fares, as well as terminal building and airside improvements from the airline's perspective.

Open communication between airports and airlines has proven more and more difficult. One reason for the difficulty is the operating agreement between mainline or legacy carriers and their regional partners. For example, while SkyWest operates the route and hires the local station manager and staff in Billings, Delta makes decisions on all scheduling and fares on the flights to Salt Lake City. Airports and communities must work with two separate, although related, airlines to address the concerns of the airport and the community. Montana airports should continue to strive to work with legacy carriers to have input into fares and schedules while it should also work with regional partners to address personnel issues, reliability, and other passenger concerns.

6.3.1.2.1.4   Marketing and Community Education

Education of travel agencies, passengers, politicians, businesses, and community organizations is one of the keys to successful air service development. A local action plan must contain an educational program that is geared to stressing the importance of using the local airport. The economics of using the local airport versus a competing airport, as well as the costs to the consumer in using competing airports are revealed in a drive-fly analysis. Using data provided in this study, as well as additional analyses, an educational program can be developed to present this data to the local community and build the support needed to form the foundation for local air service initiatives.

6.3.1.2.1.4.1   Drive-Fly Analysis

One of the challenges presented to local operators of small to mid-sized airports is to retain air travelers from their immediate service areas. Too often, air travelers are lured by lower fares or higher service levels to drive to an alternate larger airport to begin the air portion of their trip. This is called the "drive-fly" phenomenon in this study and the term refers to the passenger leakage suffered by local airports to larger nearby airports. This cycle has hurt smaller airports by decreasing demand for airline service locally. This in turn causes the local airline(s) to cut back the number of available seats, which in turn reduces the service choices from the local airport. The reduction in service choices spurs another round of passenger leakage and the cycle is repeated. For some airports with only one carrier, this cycle has led to the elimination of airline service from the local community altogether. Centralization, much like health care and shopping malls, has been the key to lowering unit costs, and as such, has been used increasingly by airlines to consolidate air service at centralized hubs.

In addition to lower fares, larger airports naturally attract drivers from distant locations due to better service choices, larger aircraft equipment types, and potential non-stop service. The business survey of local communities revealed that airports such as Billings, Spokane, Salt Lake City, and Denver attract drivers from distances as far as five hours away. This attraction is not necessarily just because of price differences, but rather, because of greater service frequencies and nonstop destinations, convenience, poor reliability of local service, and the use of larger aircraft at the hub airport.

In order to better equip local airports to deal with the drive-fly phenomenon, a comparison of the driving costs versus the flying costs for each of the commercial service airports should be prepared. Often, travelers do not consider the entire cost of driving to an alternative airport to begin the air portion of their trip. The drive-fly analysis gives a full breakdown of those costs, so that each community's constituent base can be better informed. Survey analysis is typically used to determine which airports suffered drive-fly leakage and which airports were the recipients of that leakage. In order to reflect the true cost of driving to another airport to begin the air portion of a trip, various components should be used, including:

- Mileage Cost.
- Time Cost.
- Parking Fees.
- Airline Fares.
- Automobile Travel Time.
- Airline Travel Time.

6.3.1.2.1.4.2   Advertising and Promotion

By identifying the focus of the local market, a realistic target audience for media and print ads can be established. Marketing campaigns beyond the geographic limitations of the local market area may not be useful unless the airport feels this market is untapped and presents potential for growth. Passenger and business survey results can be used to help target the geographic bounds of the audience the airport is likely to impact.

Advertising is an important part of an effective air service marketing strategy. While most marketing is typically focused on local travelers, attention should also be given to travelers coming into the market from other areas. For most airports, trying to attract business travelers should receive the highest priority in an advertising effort. Methods such as billboards, print ads in the newspaper, and radio/TV spots are used by many airports to publicize and market their air service.

While the carriers sometimes have a budget to advertise air service, most of the carriers are not using their own resources to market air service at the small community level. In most cases, the carriers in small communities rely on the local airport to advertise if any advertisement is done at all. Advertising efforts can present an opportunity for a cooperative and joint effort between the airport and its airlines. This cooperative effort is considered by the airlines to be critical, especially when new or improved service is initiated to the local airport.

In addition to these traditional forms of advertising, there are other methods that have been successfully implemented to help "sell" air service to the local community. Trade and convention shows, promotion of local tourist activities, and regular news articles provide a means for keeping the public informed and aware of the air service that is available locally. The more positive information that is disseminated about the airport, and air service in particular, the more likely the chances for capturing demand for air service.

6.3.1.2.1.5   Additional Financial Assistance

When the airports in the state are pursuing air service improvements, the communities should consider applying for a Small Community Air Service Development Program (SCASDP) grant from the US DOT. Since 2002, the US DOT has awarded approximately $20 million per year to up to 40 U.S. communities for improved air service development strategies. Great Falls Airport Authority was awarded $220,000 in 2005 from the SCASDP program to fund an air service marketing program that included local marketing and marketing to inbound tourists; $30,000 in local matching funds was also made available. Butte was awarded a $360,000 SCASDP grant in 2003 to develop an air service strategic plan that included market analysis and a marketing program. Local matching funds of $110,000 were also provided. In 2006, Kalispell was selected to receive $450,000 of grant money from the SCASDP program to initiate service to Denver on the CRJ 700 aircraft (US DOT 2006).

The SCASDP grants are typically awarded in the summer of each year. The communities should consider developing a proposal to submit to the US DOT for a grant to assist in these air service initiatives. The communities must show the support of the community in its proposal through local matching funds. The guidelines for eligibility were discussed in Chapter Three.

In addition to the federal government, Montana airports should work closely with the Montana Department of Transportation to determine the potential for future assistance in air service development efforts, whether it is for matching funds for SCASDP grants or local marketing assistance.

6.3.1.2.2   *Commercial Service Airports*

Each of the Commercial Service Airports in Montana appear to have the ability to attract and support additional service, however, it is also important that they focus attention and efforts on improving their existing commercial air service. The process by which an airport would approach an airline to add new service was discussed in detail previously. This section outlines the types of incentives the airports in Montana can offer to carriers.

6.3.1.2.2.1   Hire an Air Service Development Coordinator

Every commercial service airport manager/director is tasked to run an entire airport from operations to air service to parking facilities to general aviation needs. Air service development is not an airport manager's issue; it's an entire community's issue. It is extremely difficult for an airport manager to coordinate and frequently engage in building community support, compiling data, and developing marketing materials while running the airport. An air service development coordinator should be considered in order to assist in some of the action items outlined in this chapter. The number one goal of the air service development coordinator would be to keep the pulse of the community and air service front and center in the public's view to ensure its success at the airport. The air service coordinator job description can include the following:

- ▪ Builds community relations and promotes airport to community; regularly speaks at regional public functions, meets with local businesses regarding their air service needs and issues.
- ▪ Researches, compiles, and analyzes data involving aviation-related business prospects; compiles information to foster aviation contacts; oversees marketing mailings and pursues interested contacts; compiles and evaluates local and regional economic statistics to evaluate its impact on the airport.
- ▪ Works closely with consultants to identify air service deficiencies and opportunities and develop proposals to increase air service within the region.
- ▪ Responds to advertising, marketing, economic, general information, and regional inquiries concerning domestic and international passenger services and air cargo service; works closely with media to provide positive press pieces on the airport.
- ▪ Serves as liaison with local airline station managers (both passenger and cargo), tenants and public agencies, and regional contacts to ensure appropriate coordination and responsiveness in accommodating the region's air service needs and future growth.

6.3.1.2.2.2   Revenue Guarantees/Subsidy Arrangements

In order to pursue the air service opportunities identified in Chapter Four, the Montana Commercial Service Airports should investigate providing a revenue guarantee to the airlines. When contemplating a form of guarantee or subsidy to support new air service, serious consideration should be given prior to agreement. While these arrangements usually start off focusing on the positives of having air service for the community, most subsidy programs are generally only successful as long as the subsidy is provided.

There are various forms of subsidy including revenue or seat guarantees, "escrow" accounts, straight payment, and advance purchase ticket accounts. In general, these subsidy arrangements require airports to guarantee the airline will make a certain profit level regardless of the type or level of service that is provided. In principal, these agreements are structured such that the airline agrees to provide so many daily trips from the local airport to another airport in return for a set fee. In the case of seat guarantees and escrow accounts, the community uses the subsidy as an account. On a monthly basis, the number of passengers who utilized the service is compared to the number of guaranteed seats and if the actual number is less than the guaranteed level, money is taken out of the account to pay the carrier the difference. Some larger airlines require a set payment amount, regardless of how many passengers use the service.

As discussed in the best practices section of this chapter, revenue guarantees at other communities have ranged from $500,000 to $3 million per year. Typically, local agencies and businesses are asked to contribute to a revenue guarantee agreement to show their commitment to using the new service. This is a large commitment needed by the community. When these funds are being solicited, it is necessary to have a strong local catalyst that can meet with the businesses and educate them on the importance of their contributions. Several communities have also been able to secure US DOT SCASDP grants to assist with the revenue guarantee.

A few airlines have also agreed to initiate new service to airports with commercial air service using the advance purchase ticket accounts or "travel banks." In this subsidy format, local passengers, primarily large businesses, are requested to purchase tickets from the airline or at least buy so much in airline travel certificates to ensure use of the new service. This subsidy form is more of a start-up approach to ensure the feasibility of the service during the critical start-up phase. This approach has proven successful in several cities; however, it is difficult and expensive to administer which causes some airlines to avoid this program. The US DOT has not allowed travel banks to be used as a local match in recent years.

It is important that as part of any subsidy program the airports consider the following:

▪ Ensure the type of aircraft being operated by the carrier is acceptable to the target ridership. As a general rule; the smaller the aircraft, the lesser the degree of ridership. Ensure the agreement identifies specific aircraft types to be operated.
▪ A minimum operating period of two years should be part of any agreement. This length of time is needed for a carrier and the community to make a complete evaluation as to whether a particular service will work. Any legal agreements should limit the community's financial exposure to that identified as being associated with profitable service for a 24-month period. The community may wish to consider a clause that would release them from financial responsibility at the end of the first six months or year, if anticipated passenger ridership does not materialize.
▪ The community also needs to have input related to the carrier's schedule. Flights need to be offered to meet the traveler's needs. If service is provided to a connecting hub airport, flights should be timed to meet departing banks, including sufficient connecting time. If flights are not timed to meet these banks or other airline departure times, ridership levels will not be sufficient to maintain service.
▪ An agreement should include some form of advertisement program to support the service. Whether provided by the local community or the airline, it is important to get the word out about new service and to promote it heavily with frequent air travelers including large area businesses.

6.3.1.2.2.3   Other Airline Incentives

Many airports across the country recognize that assistance to offset costs associated with the initiation of new service is critical. Airports are competing for service with communities all over the country. Incentives may give an airport a competitive edge over another competing market. Montana airports may want to also offer cash incentives and operational credits to new and incumbent carriers to increase airline service. These incentives may include:

▪ Cash for marketing support for a new entrant providing service.
▪ Waive landing fees for a period of time (1st six months to one year of service).
▪ Absorb common use or shared costs, including common security, skycap, tug drive, and law enforcement charges (1st six months to one year of service).
▪ Offer additional incentives for identified target markets.

- Offer facility start-up assistance in covering all or part of approved design and construction costs associated with new or updated facilities.
- Facilitate meetings between airlines and local businesses.
- Provide a custom mailing to travel agents and businesses in the community announcing new service.
- Highlight new service in a monthly or quarterly airport newsletter.
- Compose and distribute press releases announcing service additions.
- Provide announcement on airport website.
- Facilitate inaugural events in coordination with an airline's commencement of service.

6.3.1.2.2.4   Passenger Incentives

Communities across the U.S. have investigated ways to provide incentives to their passengers; theorizing if demand increases, increases in service will follow. These are typically considered at airports where a lot of leakage is occurring to competing airports. Although leakage, especially to out-of-state airports, occurs on a more limited basis in Montana, the airports may want to consider providing passenger incentives. These types of incentives include:

- Cash rebate to passengers using the local airport. In Huntington, West Virginia, the airport developed a program to pay business travelers $100 rebates for using the local airport. Businesses had to register for the program and only certain fare codes would qualify.
- Frequent flyer mileage rewards such as double miles for originating at local airports.

6.3.1.2.2.5   Vacation Packages

There appears to be an opportunity for the communities to work with various groups to develop tour packages that can be marketed throughout the world. Air service to Montana could be promoted as part of package deals. The communities should work with the following groups to gauge the interest in promoting the community and local air service through vacation packages:

- Neighboring communities.
- National parks and recreational areas.
- Airlines, including incumbent carriers as well as other scheduled and charter carriers.
- Local hotels, motels, and B&Bs.
- Ground transportation including rental car and tour bus companies.
- Local and national tour operators.
- Other groups including web-based tour packagers.

6.3.1.2.3   EAS Airports

The EAS airports and representative communities should work with State and national elected officials to ensure the future success of the US DOT's EAS program. Over the last four years,

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the future of the program has been in jeopardy. President Bush has investigated ways to cut back the deficit and to do this, has suggested modifying or deleting the EAS program. A few of the modifications that have been suggested include a local match for federal funds or an airport's exclusion from the program based on distance from a hub airport.

The EAS communities need to frequently express support for the EAS program and ensure that representatives in the legislature know the importance of the program to their constituency. It is likely that the program may change in the future; the communities need to work closely with elected officials to make sure these changes are in the best interest of the communities.

In addition, the EAS airports served by Big Sky should work closely with TSA and the airline to bring in passenger and baggage screening to their local airport. The airports should make sure the facilities are in place to properly provide the screening. This will lead to more seamless travel in Billings and eliminate the need to go through security again.

The EAS airports served by Big Sky should also work closely with the airline to determine the airline's ability to increase the codeshare agreements it has with other carriers so passengers can earn frequent flyer miles with other carriers. The airports should work with Big Sky to offer occasional fare sales and "day trip to Billings" fares and packages.

6.3.2   Air Cargo Initiatives

6.3.2.1 State Initiatives

Future air cargo activity in the State of Montana is tied to several important factors which will propel air cargo growth. As stated previously, air cargo is typically comprised of high-value, light-weight, time-sensitive products. Montana needs to foster an economic environment which will attract and retain firms which have a propensity to use air cargo. Several steps can be taken by the State to develop its air cargo market. These are discussed below.

6.3.2.1.1   *Continue Economic Development of Communities in the State*

Air cargo growth in Montana is tied to growth in economic development activity. Economic development is a platform based on the ability of a state to retain and expand businesses, the ability of a state to attract businesses, and a state's ability to foster entrepreneurship. Economic development practitioners and studies indicate that a much greater economic impact can be achieved if states and local communities focus on and take care of existing businesses. The reasons for this approach include the following:

- 40 to 90 percent of new jobs created come from existing businesses.
- It is less costly to retain an existing job than to attract a new business/jobs.
- Provides a means of establishing economic development priorities.
- Provides an opportunity for improved communication with the business community.

- Provides immediate response to business issues and concerns.
- Import replacement through existing businesses reduces economic leakage and increases local direct employment.
- Provides a key resource for developing strategic priorities for downtown revitalization, community and economic development projects.

Building relationships with the business community through a structured and systematic approach can lead to quick economic development wins as well as more effective economic development and planning strategies.

Business attraction and recruitment was once considered the main approach to economic development. Because of the high costs of economic development marketing, attraction is often the most expensive approach to economic development. The attraction of new businesses into an economy may quickly increase the tax base, jobs, and diversity of the local economy. Business attraction is the most publicized and visible economic development tool because it creates many jobs at one time and because of the use of incentives and marketing.

Targets of attraction efforts include advanced manufacturers, high technology firms, biomedical firms, retail and service sector employers, and corporate headquarters. Business attraction programs use marketing to promote an area's favorable business climate, tax incentives, skilled workforce, quality of life, and other location factors important to specific businesses.

A state must also be able to innovate, start, grow and attract new firms continually to augment the diversity of its economic base and replace larger, older firms that may stagnate, exit, or even disappear. In today's economy, entrepreneurial capacity and behavior are often prime drivers of economic growth and job creation. Entrepreneurs are necessary visionaries of the economic potential of new technologies and how to apply them to business concept innovations. Regional economic dynamism is epitomized by fast-growing, entrepreneurial companies. For a state to be successful over the long haul, it has to have capable entrepreneurs. The very foundation of the theory of clustered economies rests upon the dynamic rejuvenation capability of the cluster.

6.3.2.1.2   *Prepare the State for the New Global Economy*

In addition to economic development, businesses in Montana will require connectivity to an increasing global economy. Global economic integration is creating profound changes in the economic structure of businesses, industries, countries, regions, and metropolitan areas. Technological advances have lowered transportation, telecommunications, and computational costs; increasing the ease of global information flows. In our globalized economy, opportunities for success are strengthened by a company's ability to meet international quality standards, tap into multinational distribution networks, access cutting edge innovations, and locate in those communities that provide the best environment to exploit international opportunities.

States and regions must link to the global economy. Industry clusters linked to the outside world offer access to an industry's best practices and latest developments. A state's global orientation ensures expanding markets for its firms. Each city's network of public and private institutions plays a key role in determining a community's competitiveness — maximizing the rate of return on assets.

6.3.2.1.3 *Improve U.S. Customs Service on Airports*

Currently, there are four airports in Montana, Great Falls International, Glacier Park International, Helena Regional, and Butte Airport, identified by the U.S. Customs Service as staffed by a Customs Border Patrol (CBP) Officer. Great Falls International Airport is a Service Port while Glacier Park International and Butte Airport are Port of Entries. A Service Port is a CBP location that has a full range of cargo processing functions, including inspections, entry, collections, and verification. Ports of entry are responsible for daily port specific operations. Port personnel are the face at the border for most cargo and visitors entering the United States. Here, CBP enforces the import and export laws and regulations of the U.S. federal government and conducts immigration policy and programs. In June 2006, U.S. Customs and Border Patrol announced plans to expand operations at Great Falls International Airport. This Air Branch will support a maximum of five aircraft and 30 employees (U.S. Customs and Border Patrol 2006).

6.3.2.1.4 *Continue Development of Foreign Trade Zones (FTZs) in the State*

Two FTZs are located in the State of Montana. FTZ Number 88 is located at and operated by Great Falls International Airport, while FTZ Number 187 is located in Toole County and is operated by Northern Express Transportation, Inc. in Shelby, Montana. The FTZ designation provides an advantage for businesses seeking to store or stage cargo, repackage or re-label merchandise, repair merchandise, and assemble or test products. It has long been thought that the FTZ designation would draw corporate activity in one or more of these activities.

For example, United Parcel Service (UPS) and Gateway Computers have a relationship that is particularly appropriate to take advantage of an FTZ designation. In this model, Gateway has contracts with UPS to ship and service their computers. When a Gateway computer owner has a problem, the call for service is directed to UPS. UPS picks up the computer in need of service and ships it to the UPS hub which houses a service center. UPS employees perform the diagnostics and repair then ship the computer back to the customer. Gateway is completely out of the circuit when it comes to repair and service of its computers and can concentrate on development and sales. UPS maintains a 24-hour workforce to ensure an expedient turn-around with most of the computers being picked up, serviced, and returned within 30 hours. Unfortunately, to date there has been very little of this type of activity in Montana.

The FTZ is also attractive to air carriers operating international flights. Fuel purchased within the FTZ is exempt from federal excise taxes. Given that Great Falls International Airport is located within an FTZ, air cargo firms such as FedEx can benefit from this tax exemption.

6.3.2.2 Airport Initiatives

There are also various air cargo initiatives that can be taken on the local level. These are discussed below.

6.3.2.2.1   Infrastructure

Air cargo development requires an airport infrastructure which supports the industry in both the airside and landside facilities. Airports must support the industry by providing simple tasks such as keeping runways, aircraft aprons, and access roads free of snow, and be willing and capable to make significant airport facility improvement investments so air cargo carriers can expand activities. For example, Great Falls International Airport is making a $29 million runway upgrade. This capability will allow planes to take off and land in virtually all weather conditions. This investment will not only provide improved service for FedEx, which has a regional hub servicing Montana and Canada at the airport, but could boost the Great Falls airport as a potential site for a whole new set of businesses according to development officials. In 2006, the Great Falls International Airport proceeded with a $6 million project installing CAT III ILS at the airport. With the only Category III ILS runway in the state, Great Falls International Airport is poised to support further cargo development. This infrastructure investment makes Great Falls International more competitive in the international air cargo marketplace (Black 2006).

6.3.2.2.2   Other Airport Initiatives

Several airports in the State could pursue additional air cargo development opportunities. These opportunities include the following:

- Billings-Logan International Airport and Great Falls International Airport should continue to position their respective facilities to retain the regional hubs of integrated express operators UPS, DHL, and FedEx.
- Airport management could encourage FedEx to use Great Falls International, and UPS and DHL to use Billings, as regional hubs for Western Canada cities such as Vancouver, Calgary, and Edmonton.
- Billings-Logan International Airport could consider development of an on-site FTZ. The airport could utilize the benefits of an FTZ by affiliating with another FTZ in the state and becoming a sub-zone of that FTZ to see if the return would be significant enough to endure the expense and effort it would take to become a stand-alone Foreign Trade Zone.
- Billings-Logan International Airport should consider coordination with the federal government to establish a U.S. Customs Service Port at the airport. This would benefit integrated express cargo carriers at the airport in providing service to and from Canada.
- Local economic development officials need to develop an economic base that requires air cargo on a consistent basis. Anchor businesses need to be located or developed near airports in order to generate air cargo demand.

6.4 MONITORING AND PERFORMANCE TRACKING

Due to the ever-changing nature of the aviation industry, it is important for the State and the airports to remain abreast of the changes occurring in the airline industry, the State, their community, and at the airports. The initiatives discussed above address the near-term items that could be pursued by the State and Montana commercial service airports. This section describes the program that could be adopted and data collected by MDT and the airports to monitor and track performance. This monitoring and tracking should assist the development of long term strategies to improve air service in the State.

6.4.1 State Monitoring and Performance Tracking

MDT should track certain statewide performance measures in order to continue to adjust their marketing strategy in the future. It is important to monitor the overall health of air service to see if the State is gaining or losing due to in-state diversion or if Montana is losing travelers to out-of-state markets. The State should compile the data on a monthly, quarterly, and annual basis in order to track the performance of the airports and state as a whole. The State currently works closely with the airports to get passenger data on a monthly basis. Other data, including that from the US DOT's *O&D Survey* and the *Official Airline Guide*, can be gathered from a consultant or purchased directly from the sources or a company that packages these sources such as BACK Aviation and Data Base Products. The State's program should track the following data:

- Air Passengers (sources include airport management records, US DOT, and Air Passenger Origin-Destination Survey).
  - Total passengers (enplaned and deplaned) by month.
  - Historic air passenger levels.
  - Top 25 domestic Origin/Destination (O&D) markets.
  - Passenger traffic by airline.
  - Passenger traffic growth by airline/ airlines ranked by passenger traffic.
  - Montana ranking by O&D passengers and fares among all U.S. states.

- Aircraft Operations (sources include airport management records and *Official Airline Guide*).
  - Total aircraft operations (takeoffs and landings).
  - Historic aircraft operations levels.
  - Cities served nonstop.
  - Aircraft landings by airlines.
  - Departing seats (total and by destination).
  - Average seats per flight.

- Air Cargo (sources include airport management records, US DOT, and Schedule T-100).
  - Total air cargo.
  - Historic air cargo levels.

- Air freight volume by airline.

- Industry Trend Watch (sources include Air Transport Association, airline websites, and aviation news sites).
  - Airline fleet changes, orders.
  - Low cost carrier expansions.
  - Changes in airline costs, including fuel, labor, etc.
  - Airline mergers, bankruptcies, and financial reporting.
  - Hub airport changes.
  - Airline break-even load factors.
  - FAA and Boeing forecasts.
  - Changes in cargo trucking.
  - Cargo industry consolidation.
  - EAS program changes.

- Socioeconomic Trends (sources are state specific).
  - Statewide and regional population.
  - Statewide and regional employment.
  - Statewide and regional earnings.
  - Statewide and regional tourism trends and visitor trends.
  - Changes in non-resident visitors.
  - Monitor new business startups and where they are occurring.

In addition to the above items, the State should also monitor the US DOT program and the changes proposed to the program including funding cuts. The State should work closely with the Governor's EAS Task Force to ensure future funding for Montana's eight EAS airports.

6.4.2   Individual Airport Monitoring and Performance Tracking

Montana's commercial service airports should also monitor the data and trends. The airports should use the data presented in Chapter One as a baseline for collecting and monitoring air service trends. In addition to the items listed above, the airports also need to monitor the pulse of the local air travelers. Airports need to know where demand is coming from, what issues passengers have that might be able to be resolved, where passengers want service to, and what passengers and the community are willing to do to improve local air service. It is important to continue to routinely gauge the demand for air travel in individual markets. Local surveys are key to really understanding an airport's market, to track what air service improvement efforts are working, and to determine what passengers are looking for.

6.4.2.1 Ongoing Business Air Service Needs Analysis

In order to gauge the level of air travel demand, it is important for each airport to have a representative who routinely speaks to groups with business-related membership to determine their needs. Surveying could be conducted as part of these meetings to provide a regular basis

of information for examining local air service demand. In addition to speaking with these groups, the local chamber of commerce or economic development association in each community should be coordinated with to determine how the lack of air service impacts their ability to attract and sustain economic activity in the local community. Records regarding company inquiries and specific issues should be maintained for use in airline marketing. These records are invaluable and have not historically been maintained. The availability of this data when pursuing a carrier or discussing the needs with local political entities are integral to supporting the case for improved commercial air service.

6.4.2.2 Passenger Surveys

In order to have a better understanding of the travel patterns of its residents and visitors, annual week-long passenger surveys should be administered at each airport in the state. Although passenger surveys do not capture data on passengers that are leaving the local market area to use other commercial airports, they provide other valuable information that should be monitored. The following information should be collected as part of the passenger survey:

- Trip start location (city/town of residence or destination).
- Trip purpose.
- Method of ticket purchase.
- Destination today and destinations over the year.
- Number of trips per year/ per household.
- Top factors influencing their airport choice.
- Desired changes in air service.
- Arrival mode choice (private vehicle, rental car, taxi, etc.).
- Where passenger parked (if different lots).
- Other information that is pertinent including facility information, visitor spending information, etc.

6.4.2.3 Fare Watch Program

It is a fact that airports compete with other airports for many of the same passengers. Smaller airports will continue to lose some passengers to the larger airports that have higher levels of service. This is a difficult situation to change. Each airport must be aware of the conditions at the competing airports, especially as it relates to fares and service changes. Recognition of changes in parking fees, hotel agreements, etc., are important to understanding the reasons for leakage and the opportunities that may exist to reduce or reverse leakage. A local fare watch program can be instituted through in-house means (possibly Internet-based) or local travel agents wherein a list of average fares to the market's top 10 origin and destination (O&D) cities is collected on a monthly basis. As appropriate, this information can then be publicized if it presents well for the local community or it can be used in discussions with the incumbent carrier to get parity with competing airports. Some airports use a fare watch program and distribute the information on a weekly basis to businesses and other travel agencies to alert them of the fares in the local market and their competitiveness with other markets.

6.4.2.4 Reliability

In addition to the fare watch program, individual airports should initiate a program that monitors canceled and delayed flights. Reliability of service has been a problem for many small communities. If passengers are inconvenienced by cancelled or delayed flights, this tends to impact their decision the next time they are deciding to travel from the local airport or drive to an alternate airport. The individual airports should monitor the level of and reasons for delays and cancellations. This information can be collected from the Air Traffic Control Tower if there is a tower at the airport or from the airline station manager. **Table 6.3** presents the types of information that can be collected. If the problem is airline-related, such as mechanical, crew, or aircraft availability, the airport needs to work closely with the airline to resolve the issue. If reliability has improved, the airport should publicize the on-time performance of the airline to relay to the public the improvements and help change their perceptions of poor airline reliability.

Table 6.3
EXAMPLE DATA TO COLLECT TO MONITOR AIRLINE RELIABILITY

Monthly Reliability	Carrier #1
No. of Scheduled Departures	60
ATC	
Crew	1
Holiday Reduction	
Maintenance	
Weather	2
Airfield	
Other	
Total Flights Operated	57
Completion Factor	95%
On-time Departures	**51**
0-15 minutes late	4
16-30 minutes late	1
31-60 minutes late	
60+ minutes late	1
Lost Bag Claims	**18**
Passengers Arriving Without Bags	0.9%

Source: Wilbur Smith Associates 2006.

6.5   SUMMARY

It is widely recognized that commercial air service has a direct link with a community's ability to maintain jobs and to compete for economic development opportunities. Commercial air service in and of itself, however, cannot sustain a community economically. Air service is one of many factors that an employer evaluates when making decisions related to keeping jobs or bringing jobs to a particular community. Air service cannot change the local economy by itself.

Montana airports need to target efforts to provide the best — but most realistic in terms of economic viability — commercial air service they can provide. The airports' local air service efforts should be focused to formulate an air service plan that meets specific needs. The State should also support the communities' air service needs with an air service development program.

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APPENDIX A
BUSINESS SURVEY SUMMARY RESULTS

1. Please estimate the total number of airline trips per year taken by your company's Montana based employees:

Among the 313 surveyed businesses, a total of 17,256 trips per year were made by Montana based employees. This represents an average of 55 trips per responding company.

2. For these airline trips, please indicate which airport(s) are being used by the employees to start their commercial airline trips using percentages:

Figure A1.1 represents the percent usage of airports in Montana for business related trips by Montana based employees. Kalispell, Billings, and Great Falls were the most often used airports for originating business travel among the surveyed businesses.

Figure A1.1
USAGE OF MONTANA AIRPORTS FOR BUSINESS TRIPS
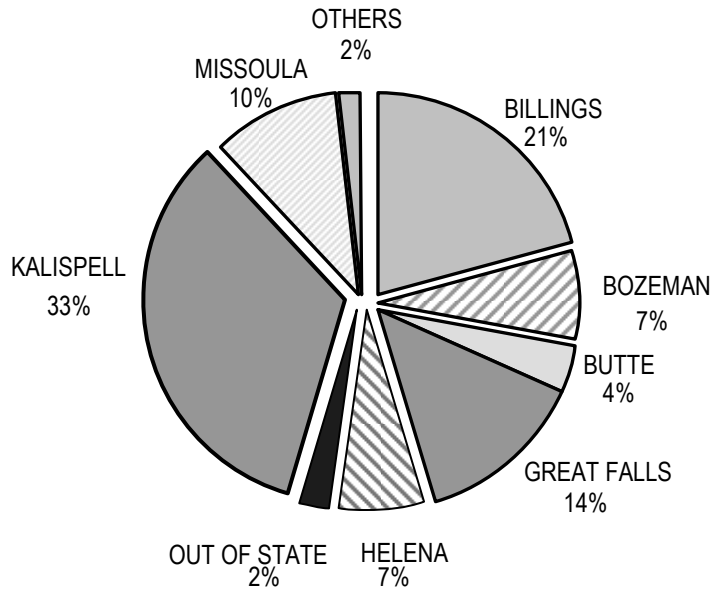
3. If you answered Question 1, what percent of airline trips are:

__% International travel+ __% Domestic travel= 100% OF AIRLINE TRIPS

Of the respondents to this question, over 98 percent of airline trips were domestic travel with almost 2 percent of airline trips being international.

4. Please estimate the percentage of your business activity that depends on the availability of commercial service airports in Montana.

The purpose of this question was to quantify the direct relationship between employment and sales to the availability of scheduled commercial air service. This relationship differed by location and level of available air service. However, throughout the entire study region, businesses perceive the important need for airline service and connectivity to clients and vendors.

Among the 227 business who responded to this question; an average of 35% of all businesses activity is dependent on the availability of commercial service airports in Montana.

Table A1.1 categorizes respondents by NAICS code, and shows each business category's dependence on the availability of commercial service airports. Businesses in the Mining category had the highest average percentage. However, several businesses related to tourism in the Accommodation and Food Services category reported that 80% - 100% of their business relied on the availability of Commercial Service Airports in Montana.

Table A1.1
PERCENT OF BUSINESS ACTIVITY DEPENDENT ON MONTANA COMMERCIAL SERVICE AIRPORTS

NAICS Category	Average Percentage
Mining	85%
Real Estate and Rental and Leasing	65%
Information	58%
Professional, Scientific, and Technical Services	54%
Wholesale Trade	47%
Manufacturing	39%
Accommodation and Food Services	38%
Arts, Entertainment, and Recreation	37%
Construction	37%
Retail Trade	34%
Public Administration	29%
Utilities	28%
Finance and Insurance	25%
Health Care and Social Assistance	19%
Transportation and Warehousing	15%
Other Services	14%
Administrative and Support and Waste Management and Remediation Services	13%
Agriculture, Forestry, Fishing, and Hunting	15%

5. Do any of your clients or vendors use commercial air transportation to visit your Montana business site?

☐ **Yes _____ Estimated Air Trips/Year?**
☐ **No**

From where? (Please list the top 3 locations):

This question was designed to identify the importance of air transportation to a community from an outside location. Many of the business connections to a community come from outside the region. Many clients and vendors of local businesses must fly to the region to buy or sell goods to or from local producers.

Of the 313 businesses who responded, 276 or 88 percent indicated that clients or vendors utilize commercial air service to visit their businesses in Montana. Businesses that responded "yes" were asked to estimate the number of commercial air service trips per year their clients or vendors made to Montana. On average, 60 trips per business were made by clients and vendors to Montana yearly. Table **A1.2** contains the average number of trips per NAICS category that clients and vendors made to the businesses surveyed in Montana. Businesses in the Professional, Scientific, and Technical Services

category had the highest average number of trips, while business in the Other Services category had lowest average number of trips.

Table A1.2
AVERAGE NUMBER OF TRIPS PER NAICS CATEGORY

| NAICS Category	Number of Respondents	Total Annual Trips	Average Annual Trips
Professional, Scientific, and Technical Services	21	4,382	209
Mining	1	200	200
Public Administration	11	1,192	108
Manufacturing	30	2,618	87
Real Estate and Rental and Leasing	3	250	83
Health Care and Social Assistance	46	3,652	79
Educational Services	1	75	75
Utilities	3	205	68
Finance and Insurance	24	1,150	48
Information	17	652	38
Wholesale Trade	18	568	32
Transportation and Warehousing	10	306	31
Retail Trade	38	1,133	30
Agriculture, Forestry, Fishing, and Hunting	3	80	27
Construction	13	216	17
Accommodation and Food Services	27	395	15
Administrative and Support and Waste Management and Remediation Services	7	77	11
Arts, Entertainment, and Recreation	13	87	7
Other Services	3	18	6
Total	289	17,256	60

Respondents were asked to list the top three origins of clients or vendors visiting their business in Montana via commercial air service. The cities of Denver, Seattle, and Salt Lake City have direct Commercial Service flights to Montana and were the most common origins for clients and vendors traveling to Montana business sites. **Table A1.3** summarizes the number of times each location was listed in the top three client and vendor origins.

Table A1.3
TOP THREE CLIENT AND VENDOR ORIGINS

Origin		Origin	
Denver	71	New York	11
Seattle	62	Florida	10
Salt Lake City	56	Europe\Asia	9
California	48	Boise	6
Montana	42	North Dakota	5
Minneapolis	42	South Dakota	4
Washington	29	Canada	4
Chicago	24	Albuquerque	3
Texas	20	Canada	3
Portland	19	Kansas City	3
East Coast	14	Las Vegas	3
Atlanta	13	Michigan	3
Los Angles	13	Missouri	3
Phoenix	12	Wisconsin	3
Washington D. C.	12	Other	12

Figure A1.2 summarizes client and vendor origins by U.S. region. Cities and States in the Southwest region of the U.S. were most frequently listed by respondents, while cities and states in the Mid-South region had the lowest number of responses.

Figure A1.2
**CLIENT AND VENDOR ORIGINS BY REGION**
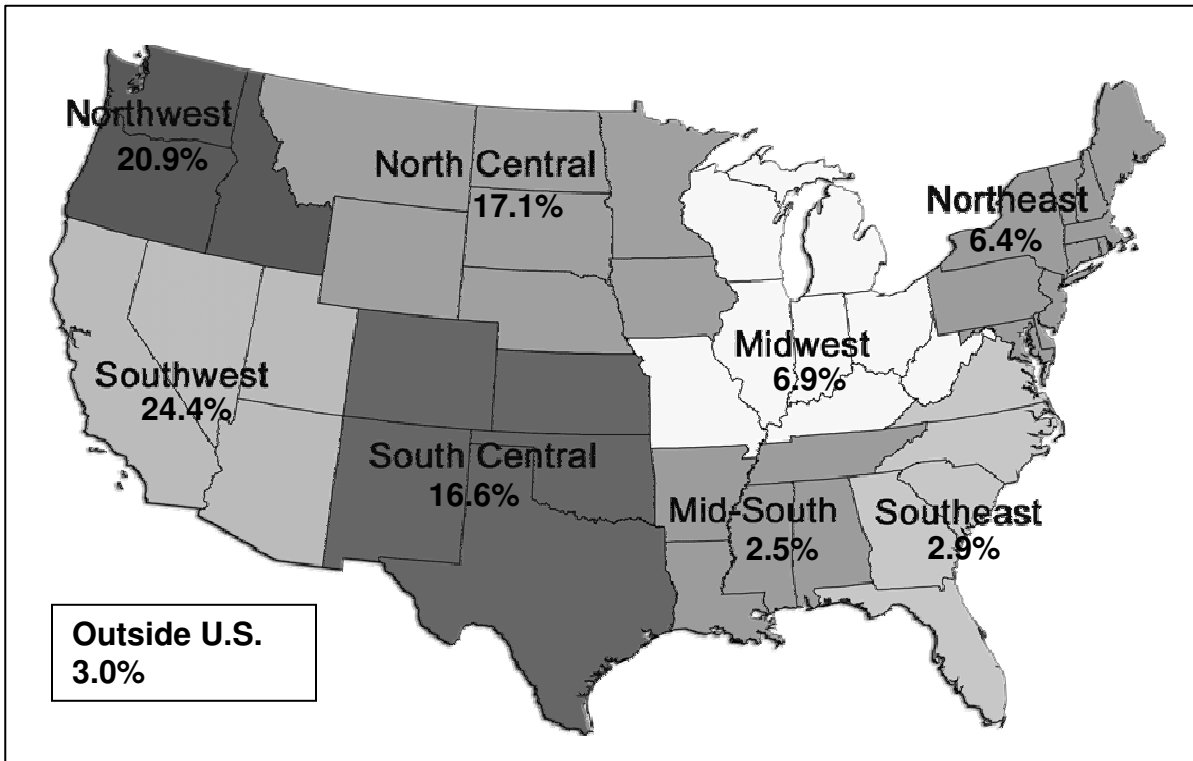
6. What type of air cargo service does your business use (check all that apply):
- ☐ **None**
- ☐ **Documents less than 2 pounds**
- ☐ **Parcels 2 to 70 pounds**
- ☐ **Freight greater than 70 pounds**

Of all the businesses responding, 78 percent indicated that their businesses utilized some form of air cargo service to send and receive parcels. 13 percent of businesses utilize all three types of air cargo service. This indicates that businesses in Montana have a heavy reliance on air cargo service. **Figure A1.3** summarizes the responses received.

Figure A1.3
TYPES OF AIR CARGO SERVICE UTILIZED BY MONTANA BUSINESSES
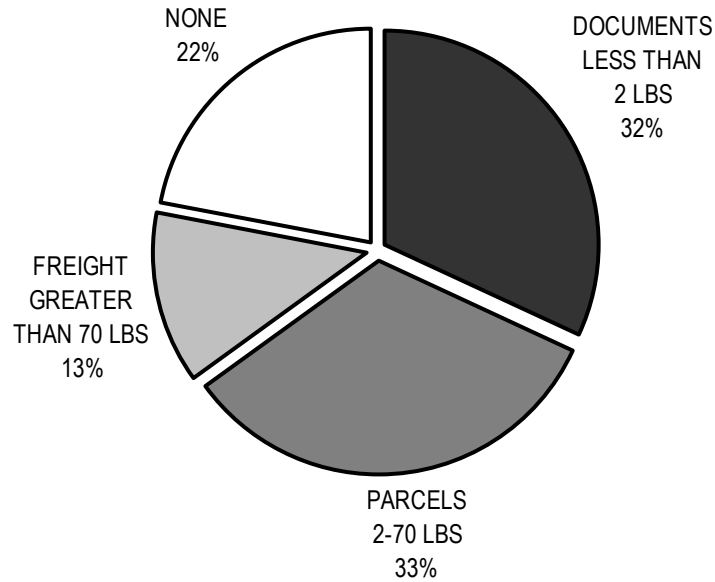
7. Please indicate other ways commercial air service airports and aviation in Montana are used to help your business.

Survey respondents noted many ways that commercial air service supports their businesses. The comments are listed below and are sorted by type: general business needs, medical, or tourism-related. It appears that many respondents understand the importance of air service not only to the success of their business, but also to the economic growth of the state as well.

General Business Needs:
- Fast turn around product exchange for customer support
- Overnight delivery of documents and equipment parts
- Businesses and tourists use air service to reach Montana's distant borders
- Aviation is an essential service for our northeast Montana business. Our business uses air travel to attend conferences, prospective candidates to attend job interviews, to attend training and bring trainers to us, as well as attend meetings. Air travel is an economic necessity for rural business.
- National companies need connections between the largest Montana communities to serve their business. Difficult for companies to locate here now.
- Overnight deliveries and regular delivery of our supplies
- Because most of our clients are located outside of Montana, we need air service for travel to job sites, for client interface, and educational purposes. We also have offices in other states and air travel is needed to bring managers from other offices here for our meetings or other business purposes.

- We use a lot of consultants who need to fly in to provide service.
- Access to clients and suppliers.
- Items shipped and received (UPS) from our vendors are "rushed" so we may help our air customers quicker.
- We sometimes use private charter service for our business.
- We are very dependent on air service to help us stay connected with our other sites in other states as well as with our national affiliations. We depend on it to ship items between sites as well.
- We view the high cost of air travel in/out of Missoula as a major constraint to business expansion in MT. We increasingly fly in/out of Spokane and are expanding our WA operations rather than those in MT. Air freight in/out of Missoula is also poor.
- Easy access for customers to visit our plant and quick transportation to visit raw material suppliers, to make to out of state business meetings, to visit sites of new technology, and for emergency breakdown services (technical support).
- More intrastate flights needed - can't go anywhere in Montana from Bozeman (i.e. Spokane, Missoula, Kalispell, Billings, Helena, Great Falls).
- We have chartered planes to deliver equipment on an emergency basis.
- Good service is critical to many of our customers. We need adequate and competitive air service.
- We need more competition among carriers. Rates are very high out of Missoula.
- Vendors to service or install new equipment.
- Travel is very important to our business. If we could not travel efficiently out of Kalispell, we would have to relocate.
- Montana's Federal Reserve is located in Helena. The Fed plane picks up the banks 265 days a year and returns 265 days a year.
- Accessibility, especially to Billings is a big plus. Having Big Sky Air available inside Montana is also a big plus. Most of our vendors fly into Billings or Missoula, then drive across the state.
- I fly to business meetings in SLC 5 times per year. Flying allows me to go to SLC and come back in the same day.
- Commercial air freight is the most important to our business.
- Shipping of material to trade shows and expediting just in time material.
- Overnighting products to our company. We also rely on tourism.
- Improved transportation stimulates economic activity which helps our economy and improves our business as a commercial bank.
- We send 200+ clients on trips to places such as Hawaii and Mexico.
- We rely on UPS, FedEx, and others to deliver to and from our clients. We have no clients in Montana - 100% of our income is from out of state.
- We miss the 6am flight to SLC. Now the earliest we can leave GTF is 7:30am and we miss an important connecting flight in SLC.
- Out of state businesses have Montana owners and managers that live in Montana and commute and vacation in Montana.

- Good service to Billings is important for new business entries into our territory. Without it, they would not locate here. Tourism-lots of people land in Billings and go from there.
- We need more competitive fares to better compete with Spokane, WA market. (The fares are 60% less than Missoula and we're less than 200 miles apart.)
- Airline magazine advertising.
- We mainly use air travel to get to conferences, training, and out of state meetings.
- Shipping seafood into the state.
- Material delivery, representative visits for electrical contractors association and sales reps on parts and communications, document delivery - FedEx very important.
- Delivery of equipment and material. More vendor contact.
- We send 200-400 packages with FedEx every day.
- The Great Falls Tribune is dependent on local economic growth. Good air travel is a key element in attracting economic development.
- Missoula has very good air service
- Transportation of checks to and from Helena Federal Reserve Bank; customers who are second home owners in Montana; travelers who visit and decide to live here
- Customer support, supplies are shipped via air.
- We need more businesses to locate in our market. Without good air service, this is very unlikely to happen.
- Parts for commercial equipment.
- Transportation for training.
- Parts for equipment are usually sent by air.
- We have our own airplane and own rental property at the airport
- Daily UPS and FedEx shipments and deliveries.
- We live in remote Eastern Montana. Having Sidney's airport makes it easier for business partners to meet with us here saving us money so we don't have the expense of traveling from our location to theirs.
- We need air transportation to educate employees and our software vendors and regulators need it to reach us.

Medical:
- We fly veteran patients to Salt Lake City, Denver, Seattle, and other locations. Lack of air service that accommodates on-board oxygen for our patients is an extreme hardship.
- We often need overnight services (parts to fix equipment). We would not be able to provide the quality care without air service.
- Lifeflight to Glasgow, Billings, and Great Falls - sometimes direct to Salt Lake City burn center. We have several physicians that fly here to see patients. We have several management/accounting firms who fly here once or twice a year.

- Availability of air service to transport patients to us or to other providers.
- We use local air service for business trips, sales reps fly in to see us, and out of state corporation employees fly in to see us.
- Visiting specialists fly into our airport; patients are flown to Great Falls and Billings; maintenance personnel must fly in to service leased equipment.
- Rapid access to needed supplies and equipment.
- We are in desperate need of emergency medical evacuations via air.
- We rely on air service for: 1) physician recruitment/executive recruitment; 2) attendance at seminars and conferences; 3) legal panels; 4) legislation on state and federal levels.
- More choices of where to fly out. We contract for psychiatrist services and would like the availability to fly doctors around the state.
- We rely on Med flights and private fixed wing to transport patients. We are in a rural location and traumas must be flown out.
- Education and communication.
- Patients in critical condition are airlifted to Billings. Visiting physicians fly in for the day to see local patients. Blood supplies or patient samples are rushed to Billings via commercial carriers.
- Patients flown from eastern Montana for services provided my MSH. Patients normally fly via charters to Anaconda airport.
- Physician recruitment - bringing potential physicians into Helena and physicians continuing education seminars out of state.
- We have employees use Big Sky Airlines as well as families visiting patients during the year. We also have a number of business clients use Big Sky out of Billings or Helena.

Tourism:
- We have many people that inquire about coming then do not when they look at airfares and connecting flights to reach Montana.
- Lots of tourists that we service come into Bozeman for final destination at Big Sky. Also having multiple options to direct hubs (Seattle, Minneapolis, Denver, Salt Lake City) is vital.
- Brings in tourists, future residents, and developers that end up doing business with us.
- To transport international students for employment at our business.
- Our business would benefit greatly with increased airline service to the Flathead area with a competitive airline. It's like being held hostage to fly in here!
- Campers and staff arrive from around the country.
- Bring in golfers for various activities other than golf. Fact that air service is available within minutes of the course is critical not only to course but entire Butte and Anaconda area.

- We have a larger group of out of state customers who fly to Montana to recreate. We are often a first destination for them to get outfitted before they enter the field.
- To get tourists into the state.
- International travelers who rent RVs or motor homes or supplies will use our campgrounds. This is very dependent on how well foreign economies are doing. (Japan and Germany are down - most foreign travelers have dropped the last 4-5 years.)
- Visitors to both Bighorn Canyon NRA and Little Bighorn Battlefield use air transportation to visit park areas. It is unknown the exact numbers.
- 100s of our clients fly into Billings, rent cars to get to Big Horn River and lodges that provide fishing and hunting trips.
- Providing tourism for our resort community to continue producing a strong growing economy.
- Our business is 75% tourism based and air service to Bozeman is crucial to 50% or more of our customers.
- Provide a viable option for our customers to get to our place of business.
- This is our #1 source of business during the ski season and summer travel.
- Most people come in to Bozeman and come and see Yellowstone Park.
- Support us in parking fees when we pick up or drop off our guests.
- Bring tourists in to Glacier and West Yellowstone, as well as Big Sky. More articles about area in travel magazines needed. Flights are expensive and difficult to access due to our isolated locale.
- We are a hotel; many of our guests fly into Montana.
- Difficult to estimate dependence since we are in the tourism industry and a huge portion of our clients/visitors visit Montana via commercial airline. Also use service for shipping of artifacts via FedEx or UPS.
- 90% of our clients fly into Glacier International Airport in Kalispell. We would lose our national clientele if we didn't have good commercial air service.
- As a hotel, it is difficult to determine which of our guests fly into Montana then rent a car. International visitors may come from a variety of airports. Tourism in general relies on air service. It must be of great efficiency and frequency. Availability within Montana needs to be improved.