Northwest Regional Air Service Initiative | Handbook

Small Community Air
Service Development

Northwest Regional Air Service Initiative Handbook

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AN OVERVIEW OF THE NORTHWEST REGIONAL AIR SERVICE INITIATIVE (NWRASI)

INTRODUCTION

The NWRASI is a regional program created by the Oregon Department of Aviation, Washington Department of Transportation – Aviation, Oregon Airport Management Association, Washington Airport Management Association, and the US Department of Transportation (DOT) (**Exhibit 1.1**). The purpose of the program is to assist small communities in Oregon and Washington with local air service issues.

Air service has declined and continues to decline in many communities in the Pacific Northwest. In others that have never had air service, in spite of population growth and vibrant economies, efforts to secure air service have gone unrewarded. The trends and dynamics of the airline industry that are driving the decline of air service in smaller markets are not isolated to the Pacific Northwest. What can be done? Aviation professionals in

Oregon and Washington believe that the problem must be addressed through a regional approach.

BACKGROUND

Since the deregulation of the airline industry in 1978, the structure of the US airline industry has continued to evolve. While the general public has benefited from increased competition, early predictions that small markets would suffer appear to be coming true. There are several reasons why service has declined in smaller markets. These include the transition from turboprop aircraft to regional jets, the impact of low-fare carriers, and the relationships between regional carriers and larger airlines. The fallout has produced service reductions in these markets, and the future does not bode well for a quick turnaround.

EXHIBIT 1.1 NORTHWEST REGIONAL AIR SERVICE INITIATIVE PARTNERS

US DEPARTMENT OF TRANSPORTATION

WASHINGTON DEPARTMENT OF TRANSPORTATION – AVIATION

NWRASI

OREGON DEPARTMENT OF AVIATION

WASHINGTON AIRPORT MANAGEMENT ASSOCIATION

OREGON AIRPORT MANAGEMENT ASSOCIATION
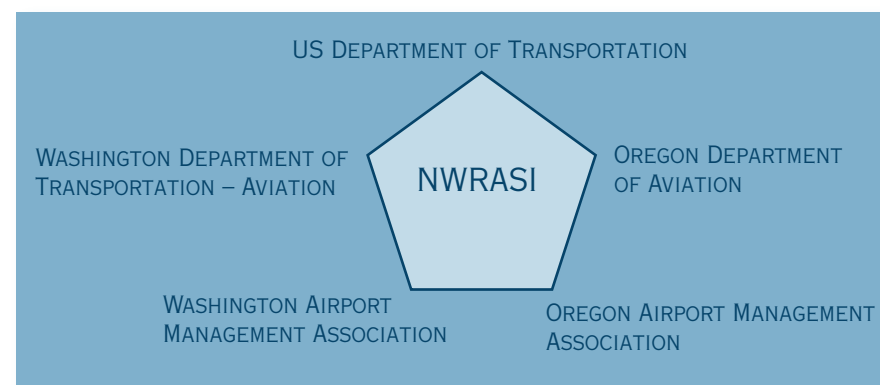
Where many small communities are concerned, the systemic nature of these problems has made it difficult for individual communities to successfully influence air service improvements. Part of the problem is that within these communities there is a lack of information about the issues and the right course of action. Simply put, the issues are often complex and "finding the handle" is sometimes difficult. The NWRASI takes a regional and/or collective approach to the issues. It also provides information and resources that smaller communities can use to evaluate their air service landscape.

NWRASI GOALS

The NWRASI goals are to:

- Improve air service to a broad section of the Oregon and Washington traveling community.

- Provide better access from secondary markets in Oregon and Washington to the national air transportation system.

- Engage small communities in Oregon and Washington in finding solutions to regional air service issues.

Air service – a critical issue for communities

Commercial air service supports the local economy and passenger activity generates the bulk of airport revenue. If the market is underserved and overpriced, the airport and the community suffer.

NWRASI PLAN

The NWRASI approach is to empower local communities through education and to develop an overall Northwest Regional Air Service strategy. More specifically:

- To provide all secondary communities in Oregon and Washington that desire air service improvements with self-help tools to understand, evaluate, and become actively engaged in air service solutions at the local level.

- To identify secondary communities in Oregon and Washington that can support enhanced or new air service.

- To develop strategies for implementing broad air service improvements across the two states.

The NWRASI proposes to accomplish the goals by implementing a creative three phase action plan (**Exhibit 1.2** below). The first phase is the development of a *Small Community Air Service Development Tool Kit*. The second phase, the Small Community Air Service Market Analysis, is a program to jointly fund the collection of critical information on air travel needs in individual communities. The third and final phase is the development of a cooperative regional approach to air service in Oregon and Washington.

PHASE I. SMALL COMMUNITY AIR SERVICE DEVELOPMENT TOOL KIT

The *Small Community Air Service Development Tool Kit* (**Exhibit 1.3** on page 3) consists of three information sources on air service and air service development:

Small Community Air Service Development DVD – This 25-minute DVD is designed to provide communities with basic information on air service and air service development. The information is presented from the perspective of smaller communities, those that are attempting to achieve air service improvements and those that have succeeded in getting service improvements. Most importantly, the DVD looks at air service development in smaller communities from an airline viewpoint. This production is intended as a first step for audiences who want information about air service development in small communities.

EXHIBIT 1.2 NORTHWEST REGIONAL AIR SERVICE INITIATIVE

NORTHWEST REGIONAL AIR SERVICE INITIATIVE

PHASE 1. AIR SERVICE DEVELOPMENT TOOL KIT

PHASE II. AIR SERVICE MARKET ANALYSIS

PHASE III. AIR SERVICE STRATEGY

Small Community Air Service Development Handbook – For those communities that want to go beyond the information presented in the Small Community Air Service Development DVD, the handbook is the next step. It digs deeper into background on the issues, the airline industry, market analysis, and air service in the Pacific Northwest.

NWRASI Mentor Program – For those people who have questions that are not answered by the DVD and handbook, the Mentor Program provides assistance from airport professionals who have experience in small community air service development. This mentor group will, if requested, assist with local presentations, field questions, and assist with the coordination of the NWRASI in individual communities. There is no cost for the assistance of a mentor beyond out-of-pocket travel expenses.

PHASE II. SMALL COMMUNITY AIR SERVICE MARKET ANALYSIS

Quality market information is the heart of all successful air service development efforts. Without it, community leaders have unsupported notions

Exhibit 1.3 NWRASI Tool kit

about local air service needs and even less of an idea about the type of air service that can be sustained. Before a community can proceed with an air service initiative, a database should be developed on local travel needs. Refer to **Section 13**, *Community Influence on Air Service Decisions* and **Section 15**, *Next Steps: Getting Involved in Solutions to Air Service Development* of this handbook for details on this topic and associated costs.

PHASE III. OREGON-WASHINGTON SMALL COMMUNITY AIR SERVICE STRATEGIES

The intent of this phase of the project is to research and evaluate strategies for securing air service improvements for communities in Oregon and Washington. These communities must demonstrate that their respective markets can support air service and have community commitment to support air service improvements. Phase III will consider the overall air service needs of smaller communities in the two-state region and evaluate alternative options and strategies for securing air service improvements.

SUMMARY OF MAIN POINTS

In summary, the NWRASI is a self-help program designed to assist smaller communities in Oregon and Washington with air service issues. It provides smaller communities in these two states with the tools to understand the issues, evaluate their respective air travel markets, and work with other communities to identify realistic strategies for achieving air service improvements. Participation in the NWRASI does not guarantee any community that their air service needs will be fulfilled. However, the NWRASI was created by aviation professionals in Oregon and Washington as a regional approach to air service issues that face most small communities in the Pacific Northwest. The probability of success of the regional approach is increased by the widespread participation of communities in both states.

AIR SERVICE CONTRIBUTIONS TO ECONOMY AND LIFESTYLE

Air service is a vital building block in the economic foundation of a community and the lifestyle of its citizens. It is the fastest way for the public to get from here to there, and much more than that, it's how business does business. It is an industry in itself with employees and suppliers, and it is an aid to education, government and tourism. It flattens the world we live in, allowing families to connect despite geographic distance, business markets to expand beyond local clientele, and culture to flourish across boundaries. Air travel has become an integral part of the American lifestyle.

CONTRIBUTION TO THE OVERALL ECONOMY

Like all industries, air service contributes to the overall economy directly through the number of individuals employed by airlines and airports, as well as the purchase of goods and services from suppliers. But air service is also used as a means towards an end by many individuals, organizations, and businesses. In this way air service adds more to the local economy than many other types of businesses.

Most importantly, air service allows businesses to run efficiently and economically by enabling employees and organizations to reach the global marketplace in hours rather than days and weeks. It expands the potential reach of governments and businesses to allow for greater collaboration of activities. There is a reason that, historically, port cities developed first, followed by communities linked by railroads. Commerce takes place between communities where there is a vital transportation link. Additionally, as travel time between communities decreases, trade increases. Time really is money.

Efficient air transportation is the essential ingredient in the success of many travel related industries. These include Web site portals, hotels, rental cars, travel agencies, and resorts. Ski resorts rely heavily on airlines to move customers in and

Time really is money.

There is a reason that, historically, port cities developed first, followed by communities linked by railroads. Commerce takes place between communities where there is a vital transportation link. Additionally, as travel time between communities decreases, trade increases.

out of isolated areas. Entire states such as Hawaii and Florida have developed their economies based on the accessibility of air service. Cities such as Las Vegas, Orlando, and Phoenix flourish, in part, because of the access provided by air transportation.

CONTRIBUTION TO LOCAL BUSINESSES

Access to convenient air service creates many opportunities for local businesses to survive and thrive. Air service opens up new trade routes and expands market areas wherever sales teams can be efficiently deployed. As an end result, air trans-

portation allows businesses to generate new revenue streams by servicing areas that would otherwise not be accessible. Thousands of small communities are now open to business representatives because they are able to fly in and out in a short period of time. Businesses need the mobility and flexibility to compete in today's global marketplace and air service provides the means for doing this.

For this reason, companies that are scouting for new site locations place air service high on their list of criteria, along with the available labor pool, state and local taxes, and incentives, to name a few. In fact,

air service is typically ranked third to fifth on the shopping list of most site location teams. Companies realize that convenient access to clients and vendors is important to their success.

CONTRIBUTION TO QUALITY OF LIFE

Air service improves the quality of life for residents in a community by providing the connections essential to a mobile society. Air transportation often determines where people can live. Many people will put down roots in one area if they can still connect with distant places for vacations, family functions, culture, education, and personal emergencies. When travel requires unreasonable time and expense, people risk becoming isolated, and those communities may cease to thrive.

SUMMARY OF MAIN POINTS

- Air service contributes directly to a community's economy the same as most businesses, through employees and purchases from suppliers.

- Air service is different from other businesses in that it also contributes indirectly. It provides efficient linkage between a community and other areas:

  – Expanded markets.

  – New revenue streams.

  – Greater collaboration between teams located distant from each other.

  – Opportunities for cultural and educational exchange.

- Air service is essential for many travel related industries, including Web site portals, hotels, rental cars, travel agencies, and resorts.

- Easy access to air service determines where many people can and want to live.

INDUSTRY STATUS AND IMPACT ON AIR SERVICE

The airline industry has taken a beating in recent years. In addition to the economic downturn of 2000 and terrorist attack of September 11, 2001 (9-11), spiraling fuel costs and increased airport and air traffic congestion have added to the industry challenges. The fallout of all of these problems has been bankruptcy reorganizations, liquidations, and mergers. It is important to note that in 2006 airlines have seen some improvements. However, uncertainty about profitability remains a dominating force. The better communities understand the challenges the industry faces, the greater likelihood they can develop strategies that address their air service needs.

AN INDUSTRY STRUGGLING FINANCIALLY

The current state of air service has evolved since deregulation in 1978. Without government protection, airlines mirror the cycles of the American economy and log profits and losses accordingly. In the bullish 1990s, airlines reaped the benefits of the surging financial markets. With the economic downturn of 2000, airlines faltered.

The terrorist attacks of 9-11, coming on the heels of the cyber bust, had a devastating effect on the airlines. The air system was shut down for days and only slowly came back on line. Airline passenger traffic plummeted. With high fixed costs (aircraft and facilities) and semi-fixed costs (trained and skilled labor, flight crew, and maintenance), there were few ways for airlines to cut costs quickly to offset lost revenues. Airlines battled to capture a larger share of a suddenly much smaller market, making raising fares impossible. The net result was that an industry poised to accommodate the air travel market promised bullish by the last half of the 1990s was hemorrhaging red ink, with no near term solutions in sight.

THE 9-11 HANGOVER

The impacts of 9-11 have been slow to dissipate. Only now, five years later, is air travel returning to pre 9-11 levels. People slowly regained confidence in our national security and economic well being. The fact that the attack was launched from the air, with passenger airlines as instruments of destruction, magnified the impact on the airline industry. In addition to the problem of confidence, almost immediately the industry and its customers had to deal with heightened security requirements and ticket surcharges.

The costs of heightened security in our nation's air system were primarily borne by the government. However, the greatly expanded security system required the airlines to revise their procedures and add training, marginally increasing costs. Surcharges were added to airline tickets to pay for airport security screenings, adding to the customers' cost as well. Though screenings were accepted as necessary, they negated two of the most important assets of air travel: convenience and speed. All of these factors added to the struggles of the airline industry and in some ways worsened its plight.

GRAPH 3.1 COST PER BARREL OF JET FUEL
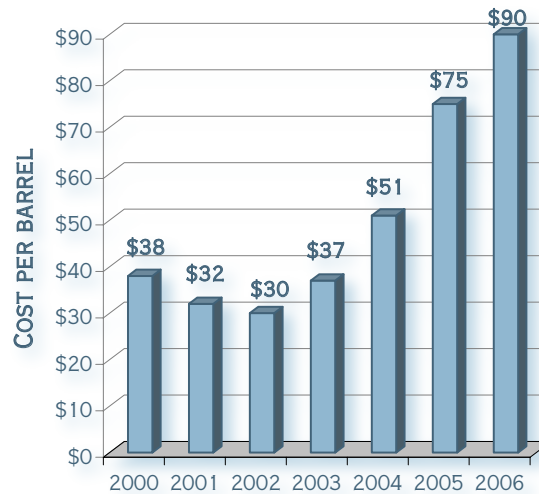
Source: Air Transport Association

THE COST OF FUEL

The escalating cost of fuel is a problem airline companies have struggled with over time. In the growth oriented 1990s, they were able to absorb cost increases with added revenues from more ticket sales. The 9-11 crisis sparked uncertainty about oil supplies from the Middle East, and oil prices surged. A wary traveling public and a struggling economy eliminated the option of passing the higher costs on to the consumer.

In the past, airlines have hedged against fuel price increases by pre-purchasing future supplies at the current price. The cost of aviation fuel increased from $38 per barrel in 2000 to $90 in 2006, an increase of 137 percent. **Graph 3.1** (above) shows the sharp rise in the price of jet fuel since 2000. At the same time, the number of airlines that could afford to pre-purchase fuel decreased. Higher fuel prices became another cost the airlines had to subtract from the financial bottom line.

INDUSTRY RESULTS (2000-2005)

It is a fact that airlines have never enjoyed large profits or sustained profitability. Most recently, the combination of depressed air travel demand and higher costs has produced financial losses which have been sustained over a longer period of time than previous downturns. Industry results tumbled from a modest $2.4 billion profit in 2000 to a projected loss of $5.6 billion in 2005. The cumulative losses for the period from 2000 to 2005 are projected to be $34.7 billion. Year by year financial results for the airline industry in these years are depicted in **Graph 3.2** (below).

Most recently, the industry has cut capacity (seats in the market) and seen improved passenger demand allowing for modest increases in airfares. Still, uncertainty remains as to when sustained profitability will be achieved.

GRAPH 3.2 US AIRLINE INDUSTRY FINANCIAL RESULTS
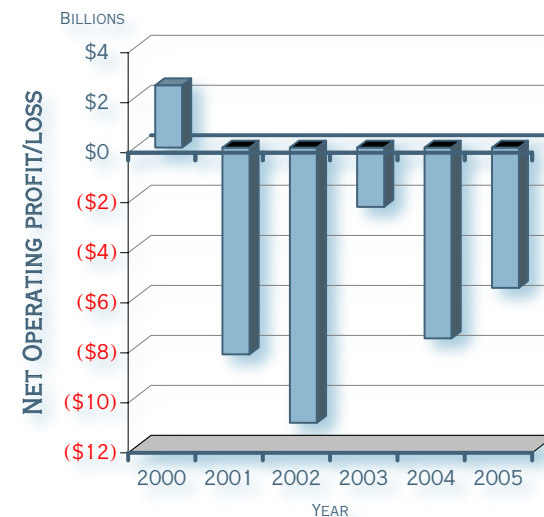
Source: Air Transport Association

Financial slump

Industry results tumbled from a modest $2.4 billion profit in 2000 to a projected loss of $5.6 billion in 2005. The cumulative losses for the period from 2000 to 2005 are projected to be $34.7 billion.

Bankruptcies

Since the airline industry deregulation in 1978, many airlines have come and gone as the industry and economy evolved. The economic woes of the 2000 through 2005 period have pushed many airlines to the brink. In spite of layoffs, wage and benefits cuts, the pruning of amenities, and emphasis of cost savings through automation, many airlines have moved into the protection of bankruptcy reorganization.

The following airlines filed for bankruptcy between 2000 and 2005:

- Aloha Airlines
- ATA Airlines
- Delta Air Lines
- Hawaiian Airlines
- Mesaba Airlines
- Northwest Airlines
- TWA (twice)
- United Airlines
- US Airways (twice)

The usual result of airline bankruptcy reorganizations is a reduction in fleet size. Going hand in hand with smaller fleets is the elimination of service in markets considered marginal, or turning these markets over to regional airlines thought more capable of being profitable. Usually this means smaller aircraft and fewer seats. In some instances it has also meant higher fares and the certain replacement of larger jet aircraft with regional jets or turboprop aircraft.

A number of airlines have ceased operations during this time period or merged with other airlines. Independence Air was launched with much fanfare as a low-fare carrier but has been liquidated. Midway Airlines, Vanguard Airlines, and National Airlines also ceased operations. Two smaller niche carriers, Hooters Air and Great Plains Airlines, have come and gone. Charter operators Southeast Airlines and Trans-Meridian Airlines are also no longer in business. America West Airlines merged with US Airways. American Airlines purchased TWA. These examples highlight the financial turbulence of the industry in recent years.

Airport and air traffic congestion

Problems with congestion at some airports are a standard part of the airline industry landscape. Congestion problems are not at the root of the airlines' current financial woes, but they play a significant role in dictating service opportunities for communities in the region and, in some cases, throughout the US. Congestion is a function of limitations on air traffic capacity and airport ground facilities, namely runways and gates. Expansion of runways and gates is expensive and involves long range planning. At some airports, lack of available land makes expansion impossible. Thus, it is difficult to increase capacity.

It is equally difficult to decrease demand. Congestion occurs primar-

ily at hub airports, where the hub and spoke route system (refer to **Section 7**) places the most activity. Chicago O'Hare, New York/La Guardia, Washington National, and New York Kennedy are the best examples. At these airports, a system of "slots" was developed to manage the demand for airplane takeoffs and landings and control the number of planes in the air. The government allocated and airlines competed for slots amid much criticism. Industry over-scheduling, however, has resulted in other, less obvious, limitations. There are no turboprop operations at Chicago O'Hare, for example, and there are caps on the number of operations permitted during peak times even though "slots" have officially been eliminated.

At present Seattle–Tacoma International Airport is in the process of adding a third runway to address airfield capacity and congestion issues. Of the hub airports that serve communities in the Pacific Northwest, San Francisco International Airport has long been a bottleneck for air traffic. The combination of bad weather and limited airfield capacity at San Francisco International Airport will continue to constrain airline operations. Previous efforts to establish north-south hubs at Reno/Tahoe International Airport (Reno Air) and San Jose International Airport (American Airlines) failed, rendering the development of an additional hub unlikely.

SUMMARY OF MAIN POINTS

- Airlines are managing risk very carefully in an environment where financial stability and corporate profitability are primary goals.

- Fuel costs have a disproportionate impact on smaller capacity aircraft flying shorter stage lengths. This is the dominant air service in the Pacific Northwest.

- The legacy of massive financial losses during the 2001 to 2005 period will be heightened attention

Skyrocketing prices affect the bottom line

In the past, airlines have "hedged" against fuel price increases by pre-purchasing future supplies at the current price. The cost of aviation fuel increased from $38 per barrel in 2000 to $90 in 2005, an increase of 137 percent.

to the economic performance of all markets and limited patience with markets perceived as under-performing.

- It is not likely that a new hub will develop that is geographically situated to serve the Pacific Northwest.

AIRLINE TYPES AND THEIR POTENTIAL FOR AIR SERVICE DEVELOPMENT

To understand the airline industry, categories that highlight similarities and differences between the main types of airlines are used. The categories have evolved over time, with terms like trunk airlines, network airlines, local service airlines, and commuter airlines used in the past. Today there are four major categories. These are legacy airlines, low-cost (sometimes referred to as low-fare) airlines, select airlines, and regional airlines. An "other category" is also presented to include carriers that do not fit into the four category classification system but provide service in the Northwest region.

LEGACY AIRLINES

In all cases, legacy airlines use hub airports to aggregate and exchange passengers, and they operate a very limited amount of point-to-point service (refer to **Section 7**). Today, the legacy airlines are the big name companies: American Airlines, Continental Airlines, Delta Air Lines, Northwest Airlines, United Airlines, and US Airways. **Table 4.1** depicts the six legacy airlines and their respective hub airports.

Legacy airlines have nonstop service between most, but not all, of their hubs and the

TABLE 4.1 LEGACY AIRLINE HUBS

LEGACY AIRLINES	MAJOR HUBS	SECONDARY HUBS
American Airlines	Chicago O'Hare	Miami
	Dallas/Ft. Worth	
Continental Airlines	Houston Intercontinental	Cleveland
	New York Newark	
Delta Air Lines	Atlanta	
	Cincinnati	
	Salt Lake City	
Northwest Airlines	Detroit	Memphis
	Minneapolis	
United Airlines	Chicago O'Hare	**San Francisco**
	Denver	Washington Dulles
US Airways	Charlotte	Las Vegas
	Philadelphia	Pittsburgh
	Phoenix	

Note: Bold font indicates a Pacific Northwest hub airport.

major Pacific Northwest airports at Portland and Seattle. Spokane also has service to Chicago and Minneapolis, but service to secondary Northwest cities like Eugene, Pasco, Spokane, Bellingham, and Redmond, when available, is based on their distance

to a specific airline's nearest hub. In these smaller communities, any service is limited to airline hubs at Denver, Phoenix, Salt Lake City, and San Francisco; all are 1,000 miles distant or less.

Because of the distant location of their hubs, American Airlines and Continental Airlines are not a factor in air service options for the Northwest. The same is true for Northwest Airlines, except that its historical presence in the area gives it some limited weight. As a result, any legacy airline discussion of Pacific Northwest air service must focus on Delta Air Lines (Salt Lake City) and United Airlines (Denver and San Francisco) and to a lesser extent US Airways (Phoenix), since they have accessible hubs.

Low-cost airlines

Low-cost carriers rank high on every community's wish list because they provide cheaper airfares. It is widely accepted that AirTran Airways, ATA Airways, Frontier Airlines, Jet Blue Airways, Southwest Airlines, and Spirit Airlines belong to this category. America West Airlines claimed membership to this category prior to their merger with the legacy carrier US Airways, and although the merged carrier category is uncertain, it is generally treated as a legacy carrier.

Among the low-cost carriers, only AirTran Airways and Frontier Airlines operate a hub and spoke system, with hubs at Atlanta and Denver, respectively. The other carriers essentially operate point-to-point service (simple origin to destination) though they may connect a limited amount of traffic. Low-cost carriers focus on major markets or secondary airports near major markets, where costs are lower. They pay lower airport operating fees at secondary airports, for example, and passengers pay less for parking. Southwest Airlines' service in the Boston market is a good example of how a low-fare airline competes for passengers in a metropolitan area while keeping its costs down. Instead of using Boston's Logan International Airport, Southwest Airlines operates at the smaller Manchester–Boston International Airport, located on the northern edge of the metro area, and Providence's TF Green Airport which draws traffic from the southern and southwestern parts of the metro area.

Though there can be some expectation of market stimulation, low-cost carriers have little interest in market development, since this can be a costly activity and is counter to their operating philosophy of minimizing costs. Market stimulation refers to generation of new airline passenger traffic by people who otherwise would not choose to travel or would make a trip in another way. In general, low-cost carriers make money by attracting existing passengers from other airlines (often from other airports) and modest market stimulation created by low fares. Carriers that operate conventional hub systems and, in the process serve smaller markets, find it difficult to compete with the lower cost structure of the low-fare airline.

In the Pacific Northwest, city pairs with the high volume, point-to-point demand needed to support low-cost carrier operations are in short supply, hence the limited presence of low-cost carriers in the area. Southwest Airlines has service at Portland, Spokane, and Seattle. Frontier Airlines serves only major Pacific Northwest markets from their Denver hub and Jet Blue Airways flies routes between Portland and New York and from Seattle to both Boston and New York. This situation is not expected to change in the foreseeable future and low-cost carriers are unlikely players in new service development in the Pacific Northwest.

SELECT AIRLINES

Another airline grouping is referred to as select carriers and consists of Alaska Airlines, Aloha Airlines, Hawaiian Airlines, and Midwest Airlines. This is a group with few defining criteria, except that they do not fit the other categories. However, this category is important to the Pacific Northwest because Alaska Airlines is perhaps the region's most important air service provider. Alaska Airlines provides north-south and point-to-point service, although it also offers limited connecting service in Los Angeles to Mexican destinations. It has a quasi hub at Seattle-Tacoma International Airport, offering connections to Alaskan points, connections to points south of Seattle, and connections to selected eastern points via a relatively short haul, Northwest feeder network. Alaska Airlines is and will remain a primary air service provider in the Pacific Northwest.

REGIONAL AIRLINES

The next level of air service provider is regional airlines. There are many regional airlines throughout the country. Generally, regional airlines operate regional jet aircraft with passenger capacities ranging from 32 to 90 seats and turboprop aircraft. Few of these airlines operate under their own names, but instead are

What is meant by market stimulation?

Market stimulation refers to generation of new airline passenger traffic by people who otherwise would not choose to travel or would make a trip in another way.

marketed and operate as codeshare partners with legacy carriers (refer to **Section 5**), using the legacy carrier name, and serving as feeder networks to their hubs. Some regional airlines are independent, while others are partially or fully owned by their codeshare partners. Historically, regional airlines traditionally lived up to their title, with air service focused within a relatively limited geographic area. However, due to their frequent codeshare arrangements, regional carriers now operate around their legacy partner's hubs, wherever that may be.

Although there are many regional carriers across the nation, only a few regional airlines serve the West and Pacific Northwest. **Table 4.2** shows the Northwest regional airlines, their respective codeshare partner airlines, and the hub airports used by regional carriers in the Pacific Northwest.

Regional airlines represent the greatest opportunity for air service development in the Pacific Northwest. Regional airline equip-

ment, either smaller regional jets or turboprop aircraft, are the right size to serve many smaller markets in the region. However, some markets in the Pacific Northwest are too small for regional jets and/or too far from hub airports (except Seattle-Tacoma International Airport) for turboprop aircraft. To the extent that demand will support service between points within the Northwest region, regional airline turboprop equipment would provide the appropriate capacity. Recently there has been a loosening

on some of the codeshare relationships, with regional airlines being allowed to operate turboprop equipment in markets at their own risks. While regional airlines are promising service providers, a note of caution is in order. There is a trend to phase out older turboprop equipment and the airlines listed in **Table 4.2** tend to operate limited aircraft types. This may make the availability of compatible aircraft an issue.

TABLE 4.2 NORTHWEST REGIONAL CARRIERS AND MARKETING PARTNERS

REGIONAL CARRIERS	MARKETING AIRLINE	HUB
Horizon Air	Alaska Airlines	Seattle
	Frontier Airlines	Denver
Skywest Airlines	United Airlines	San Francisco
		Denver
		Portland
	Delta Air Lines	Salt Lake City
Mesa Airlines	US Airways	Phoenix
		Las Vegas
	United Airlines	Denver
Comair	Delta Air Lines	Salt Lake City
Atlantic Southeast Airlines	Delta Air Lines	Salt Lake City
Great Lakes Airlines	Frontier Airlines	Denver
	United Airlines	Denver
Big Sky Airlines	N/A	N/A

Note: Big Sky Airlines codeshares with Northwest Airlines, US Airways, and Alaska Airlines (non-competitive service)

OTHER AIRLINES

The "other" category is a catchy name for carriers that provide air service in the Northwest and do not fit the other categories. Allegiant Air, Kenmore Air, Northwest Seaplanes, USA 3000, and Sun Country Airlines are the carriers included here as other airlines.

Allegiant Air operates a scheduled quasi-charter service on a less than daily basis with a primary focus on the Las Vegas and Orlando leisure markets. This airline provides some secondary service for select Pacific Northwest communities. USA 3000 and Sun Country Airlines provide similar service in other markets in the Midwest and eastern parts of the country. Kenmore Air and Northwest Seaplanes provide air service focused on the San Juan Islands of Washington. Unless there is a change in the corporate strategy of these airlines, they are not likely to be a significant factor in new or expanded Pacific Northwest air service.

SUMMARY OF MAIN POINTS

- The legacy carriers dominate the hub and spoke route systems. Delta Air Lines at Salt Lake City, United Airlines at Denver and San Francisco, and US Airways at Phoenix are the major legacy airlines in the Northwest and may provide opportunities for air service development. All of the legacy carriers serving the Pacific Northwest have declared bankruptcy in the past five years and therefore carefully calculate all risks associated with new service.

- Low-cost carriers have limited presence in the Pacific Northwest, and this is not likely to change in the foreseeable future. Their potential for new service is negligible.

- Alaska Airlines is a select carrier that serves many markets in the Pacific Northwest. It uses Seattle as a quasi hub, or jumping off point, not only to markets in Alaska but also south and east of Seattle. It will continue to be a primary carrier for the region.

- There are a number of regional airlines operating in the Northwest region, typically in codeshare agreements with legacy carriers. Deployment of regional jet equipment is at the discretion of the legacy partner. In the past, the situation has been similar with turboprop type equipment. Recently, there has been a loosening on some of the codeshare relationships, with regional airlines being allowed to operate turboprop equipment in markets at their own risk.

- The other carriers provide service to specific leisure markets and are not expected to be significant players in air service development in our area. However, Allegiant Air may provide opportunities for a select number of communities with high travel demand for Las Vegas.

THE IMPORTANCE OF AIRLINE PARTNERSHIPS

MARKETING AGREEMENTS

Marketing agreements formalize levels of cooperation among airlines and support business relationships. They can take the form of codeshare agreements, interline agreements, and global alliances. Codesharing, in its simplest form, allows one carrier to adopt the two-letter identifier of another carrier when listing its flight in the computer reservation system. An interline agreement is different. It allows airlines to honor each others tickets, making it possible for passengers to have a single source of ticketing when trips involve multiple airlines. Alliances create groupings of worldwide networks of airlines and provide seamless travel among participating members. The SkyTeam Alliance, for example, includes Delta Air Lines, Continental Airlines, Northwest Airlines, Aeroflot, Aeromexico, Air France, Alitalia, Czech Airlines, KLM, and Korean Air.

The goal of all types of marketing agreements is to increase an airline's market presence and levels of service without the capital investment typically required of internal growth. The integration of service and assets that come from marketing agreements allow participating members to compete more effectively in the global marketplace. Examples of shared airline resources include: scheduling, pricing, ticketing, baggage handling, frequent flyer programs, inventory allocation, use of airport gate facilities, and equipment. In this discussion of air service for small communities, codeshare and interline agreements are key. They are explained in more detail in the sections below.

Partnering for success

The goal of all types of marketing agreements is to increase an airline's market presence and levels of service without the capital investment typically required of internal growth.

A benefit of these agreements is the combination of assets and services, allowing members to compete more effectively in the global marketplace.

CODESHARES AND THEIR ROLE

Codeshare agreements began as simple marketing arrangements between major legacy airlines and their regional airline partners but have developed into sophisticated partnerships. Today, all the major airlines have codesharing agreements with other carriers, in most cases with several regional partners in addition to other major airlines. There are some cases where airlines own regional carriers outright, giving them greater control over service decisions and fleet plans. Agreements also exist between US airlines and foreign carriers, expanding the global reach of their route networks. Low-cost carriers have not generally found codeshare agreements compatible with their philosophy, but this is changing as the industry restructures through bankruptcy and mergers.

Codeshare agreements among airlines play a key role in the quality of air service in smaller and medium-sized communities. The majority of turboprop and regional jet operators provide service through a codeshare with a major airline partner. These partnerships are beneficial to both airlines and their passengers. The larger airline can extend its network footprint into smaller markets that it is not equipped to serve at a lower cost. At the same time, it can provide seamless service that closely approximates single airline online service. The smaller regional airline also benefits through access to more passenger traffic, constrained airport facilities, and financial support.

Travelers from small communities benefit from codeshare agreements since these agreements usually tie in each airline's pricing, scheduling, inventory allocation, and frequent flyer programs, and they improve hub airport connections between carriers. The largest benefit to small communities, however, is that codesharing usually involves publishing through-fares in most or all of larger carriers markets at a lower price than what is available through a combination of local fares. In addition, codeshare partners often have gates near each other making connections as convenient as possible. Passenger processing (e.g., reservations, check-in, seat assignment, and ticketing) is handled as if a single airline were involved.

Typically, the regional airline adopts a variation of the legacy carrier's name (e.g., American Eagle, Delta Connection, United Express), a similar paint scheme, flight attendant uniform, and product branding. This practice has become known as franchising. Since most air service in smaller markets and many medium-sized markets is provided by regional airlines, the importance of codeshare agreements to those markets is evident. Lack of a codeshare agreement with a major carrier at a large city can be a detriment to the long-term success of new service. See

Appendix B for a list of codeshare and marketing partners.

Interline Agreements

Where more formalized code-sharing agreements or alliances do not exist, interline agreements are often in place to efficiently move passengers and cargo throughout the world. These are multilateral agreements within the industry that airlines participate in to avoid making separate agreements with individual airlines. Interlining makes it possible for passengers and cargo shippers to purchase multi-flight itineraries involving any number of different operating airlines. Travel may be on several participating airlines using one ticket, but it is experienced as travel on just one carrier. Also, baggage can be checked to its final destination without the need for the passenger to transport it between each airline being flown. For example, an interlining agreement

between Delta Air Lines and United Airlines allows passengers to fly from Billings, Montana, to Incheon, Korea, with intermediate stops at Salt Lake City and San Francisco.

Under interline agreements the first carrier transfers a passenger to the second carrier to get the passenger to a destination the first carrier does not serve. For such travel itineraries, the passenger buys a single ticket, and the airline issuing the ticket makes the flight reservation for the passenger on the second airline. However, flight schedules are not necessarily well-timed, frequent flyer programs do not overlap, and there is no sharing of airline designator codes in flight reservation systems. Interline agreements are a much older industry practice and today are viewed as "entry-level" arrangements that are less valuable than codeshare or alliance relationships.

Contract and at-risk agreements

Legacy airlines that serve small communities operate hub and spoke networks (refer to **Section 7**) that connect passengers in key city airports to their final destination. This demand aggregation model allows the airline to serve many smaller markets that would otherwise not support service. Regional airlines play an important role in major air carriers' networks by feeding traffic into these key hubs from secondary communities. Most regional airlines fly under contract, also known as seat purchase agreements, for their major airline partner.

Under this arrangement the legacy airline partner assumes all of the risk and essentially contracts the flying out to its regional partner. These seat purchase agreements allow the major airline to outsource some of its flying while maintaining control over the growth of its route network, minimizing the cost associated with expansion, and retaining the revenue flown by the operator. The major airline can expand into new markets and grow its network footprint more quickly than if that same growth were funded internally.

An alternative to seat purchase agreements is at-risk flying. At-risk flying exists when the regional airline flies a city-pair route at its own expense with no guaranteed payment and assumes all the risk of success or failure. Often the flying involves a revenue-sharing agreement with a major airline for passengers traveling beyond the hub city, continuing their trip on a major carriers' flight. Under this arrangement, the regional airline operator keeps all the profit from flying passengers between the two city pairs but shares the revenue with its major airline partner for passengers flying beyond the city-pair. This benefits the major airline partner because incremental revenue from travelers going beyond the city-pair can be added at almost no expense.

Table 5.1 illustrates some of the contract partnerships that have formed between regional and major airlines.

In most cases, the major airline controls the actions of the regional airline, or contract partner. The number of aircraft flying, routes served, flight schedules, pricing, and inventory allocation are all handled by the major airline. The contract partner becomes the operator of the service usually flying under the brand of its major partner. These types of contracts are essentially risk-free for the contract carrier, as guaranteed profit margins are negotiated regardless of the success or failure of the service being flown.

Small communities should be aware of the various existing partnerships and that the type of partnership in place dictates who makes the air service decisions. Benefits to small communities from marketing agreements include improved access to the global transportation network, more coordinated schedule connectivity at hub cities, lower prices than combining itineraries, and a seamless travel experience.

Summary of the main points

- Various types of agreements exist between airlines. These include codesharing, interlining, contracting, and alliances.

- Codesharing, interlining, contracting, and alliances differ from each other, but all are designed to improve the air travel experience and make participating airlines more appealing to potential customers.

- The type of agreement dictates who makes air service decisions (major partner or regional airline).

- Small communities benefit from airline marketing agreements in several ways, including lower prices, improved schedules, and seamless travel.

Table 5.1 Regional airline partnerships

| | MAJOR AIRLINES | | | | | | |
	UNITED AIRLINES	DELTA AIR LINES	US AIRWAYS	AMERICAN AIRLINES	NORTHWEST AIRLINES	ALASKA AIRLINES	FRONTIER AIRLINES
Skywest Airlines	X	X					
Mesa Airlines	X	X	X				
Republic Airlines	X	X	X	X			
Air Midwest			X				
American Eagle				X			
Mesaba Airlines					X		
Pinnacle Airlines					X		
Horizon Air						X	X

KINDS OF AIRCRAFT AND THEIR FIT WITH SMALL COMMUNITIES

Airlines build their fleets based on a variety of factors. They consider purchase or lease costs, operating costs, passenger demand in existing and potential markets, the stage length between city-pairs, the price passengers are willing to pay, and the number of frequencies, among other factors. Generally, they look for the right mix for revenue maximization. This section reviews the type of aircraft that are being used in small communities today and a brief overview of their economics.

AIRCRAFT ECONOMICS

The type of aircraft that an airline elects to use in a market, to a large extent, determines its chances of profitability and how the airline will price its tickets. Understanding the role aircraft economics play in air service decisions provides perspective and a measure of reality for community driven air service development efforts.

First, there is a significant difference in the operating economics of jet versus turboprop aircraft. Jet aircraft are most efficient operating at higher altitudes on longer stage lengths (distances). Turboprop aircraft are more efficient than jet aircraft operating at lower altitudes and shorter stage lengths. This is one reason that smaller communities, with short distances to hub airports, are served by turboprop aircraft. Jets, even smaller regional jets, are not efficient on short stage lengths. Likewise, as the stage length increases, airlines are reluctant to use turboprop aircraft that are less efficient on long-haul flights.

Second, different aircraft types have different passenger seating capacities. In general, the more seats an aircraft has, the lower unit cost (cost per seat mile). This is an especially important point where ticket pricing is concerned. Simply put, on a unit cost basis, airlines must charge more for tickets on aircraft with lower seating capacities. Smaller markets that are served with smaller aircraft, jet or turboprop, will not realize tickets prices comparable to larger markets with bigger aircraft and higher seating capacities.

To a large degree, the size of the market determines the seating capacity of the aircraft and frequency (flights per day) operated by an airline. In a nutshell, larger markets can support larger aircraft. In today's environment with high fuel costs, it is typical for an airline to need 65 percent to 70 percent of its seats filled on a flight to break even on costs. Right-sizing aircraft to the market is critical to airline profitability.

When shopping for airline service, communities need to carefully consider which airlines have the type and size aircraft that can profitably serve

their market. Also, smaller communities that have regional jet or turboprop service are not going to realize the "cheap tickets" that are especially attractive to local leisure travelers. Understanding the realities of aircraft economics goes a long way in identifying service options and crafting an effective business case for air service initiatives.

MATCHING AIRCRAFT TO MARKETS

As mentioned above, numerous factors affect the type of aircraft that is ultimately placed in a market. Airline managers making service decisions must consider their available aircraft, distance between city pairs, competition, operational constraints of airports, as well as passenger demand and other elements.

Maximizing passenger revenue and minimizing operating costs for any market can be a delicate balancing act requiring right-sized aircraft. Densely populated markets can accommodate larger aircraft. However, passenger preference may be spread out throughout the entire course of a day limiting the size of aircraft to be used at any given time. For example, theoretically it would be most profitable for United Airlines to operate six or seven daily Boeing 747 aircraft between San Francisco and Los Angeles. Instead, United

TABLE 6.1 REGIONAL AIRLINES FUTURE AIRCRAFT ORDERS/ OPTIONS (NEW AIRCRAFT)

AIRCRAFT	TYPE	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	TOTAL
CR7	RJ	7	35	27	32	21	2	0	0	0	0	124
CR9	RJ	5	7	5	0	0	0	0	0	0	0	17
CRJ	RJ	2	7	19	24	43	26	19	18	18	19	195
E70	RJ	1	12	12	13	12	12	2	8	8	9	89
E90	RJ	18	26	26	26	26	27	26	26	18	18	237
ER3	RJ	0	0	0	0	0	0	0	0	0	0	0
ER4	RJ	4	3	6	1	0	0	0	0	0	0	14
ERD	RJ	3	6	7	6	6	6	6	0	0	0	40
FRJ	RJ	0	0	0	0	0	0	0	0	0	0	0
Total	RJ	40	96	102	102	108	73	53	52	44	46	716
BEH	TP	0	0	0	0	0	0	0	0	0	0	0
D38	TP	0	0	0	0	0	0	0	0	0	0	0
DH4	TP	2	5	6	4	4	1	0	0	0	0	22
DH8	TP	0	0	0	0	0	0	0	0	0	0	0
EM2	TP	0	0	0	0	0	0	0	0	0	0	0
J41	TP	0	0	0	0	0	0	0	0	0	0	0
SF3	TP	0	0	0	0	0	0	0	0	0	0	0
Total	TP	2	5	6	4	4	1	0	0	0	0	22
All	TP	42	101	108	106	112	74	53	52	44	46	738

Source: BACK Aviation Solutions, April 4, 2006
Note: See Appendix A for aircraft codes

Airlines operates a mix of 17 smaller aircraft, with nearly half the capacity of a Boeing 747, to accommodate passenger demand for frequency. In smaller markets, an airline may weigh the benefit of operating two daily 70-seat regional jets versus three 50-seat regional jets (or two daily 74-seat turboprops versus four daily 37-seat turboprops). Depending on the market's demand for frequency, an airline tries to find the right aircraft mix to maximize revenue.

To achieve cost efficiencies, regional airlines limit the number of aircraft types in their fleet. Where new service is concerned, potential service providers may not have the optimum aircraft or even an acceptable aircraft to serve a particular market. In other instances, they may have the appropriate aircraft, but the market is detached from the rest of its service (route system) and can not be operationally supported.

On the community side, runway length, airport altitude, and seasonally high temperatures may impact whether or not a particular type of aircraft can serve the market. This issue has been especially problematic for smaller airports that transition from turboprop to regional jet service. Many types of regional jets require more runway length and are more operationally sensitive to higher temperatures than their turboprop predecessors.

JET VERSUS TURBOPROP ORDERS AND REPLACEMENTS

Regional airlines, once referred to as commuter airlines, have become the primary air service providers for smaller markets and many medium-sized markets. Regional airlines are the sole operators of turboprop aircraft and the primary operators of regional jet aircraft with less than 100 seats. Current orders are for larger regional jet aircraft and a few large turboprops (e.g., the 74-seat de Havilland Dash 8-Q400). **Table 6.1** shows a timeline of US regional aircraft orders and options between calendar years 2006 and 2015.

The message in **Table 6.1** is that, with the exception of 22 de Havilland Dash 8-Q400 turboprop aircraft on the order/option books

EXHIBIT 6.1 REGIONAL JET AND TURBOPROP ORDER TRENDS

Source: BACK Aviation Solutions, April 2006

REGIONAL AIRLINE FLEET TRENDS

The composition of regional airline fleets has changed dramatically since the mid-1990s. There has been marked decline in regional airline turboprop fleets. By 2006, few turboprops with 40 or more seats remain. They have been replaced by 40- to 50-seat regional jets and newer technology 74-seat de Havilland
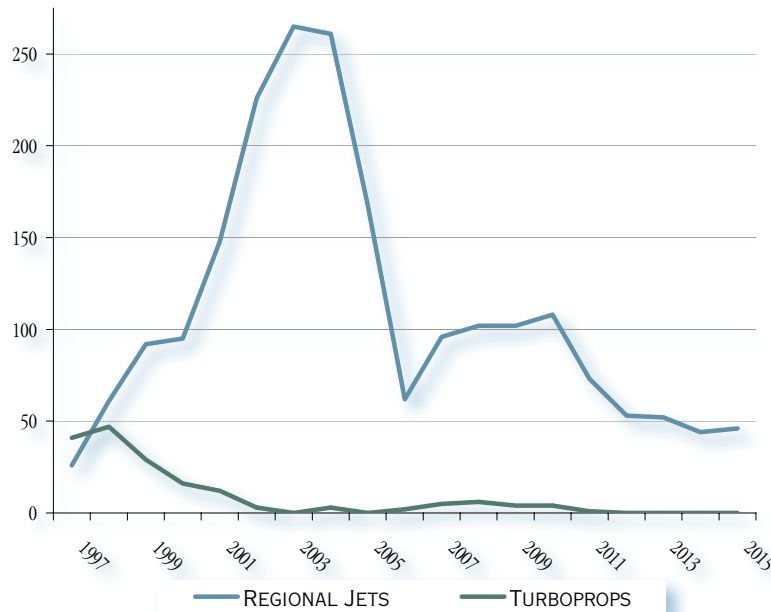
for Horizon Air, there are no other orders and/or options for turboprop aircraft through 2015. Also, future orders for regional jets favors larger 70- and 90-seat aircraft types.

Dash 8-Q400 turboprops. As smaller turboprops (less than 40 seats) have been rapidly retired from airline fleets, there are no new replacements being manufactured. At this time, regional jet aircraft seating 40 to 50 or more passengers are dominant in regional airline fleets. Smaller 37- to 50-seat regional jets are also being dropped in favor of larger aircraft with higher seating capacity and better economics. As a result, smaller communities with limited passenger demand are running out of air service options. **Exhibit 6.1** above shows the aircraft order trends in the regional airline industry.

SERVICE PROVIDERS AND AIRCRAFT

Virtually all aircraft with less than 100 seats are operated by regional airlines today. There are many aircraft in this category. Each regional airline typically operates one to four types. Nearly all of these aircraft are flown in conjunction with a major airline under a codeshare arrangement (refer to **Section 5**). A list of regional airlines and their codeshare partners is provided in **Appendix B**. **Table 6.2** (next page) summarizes regional airlines' turboprop fleets by type of equipment and number of aircraft in the fleet as of April 2006. **Table 6.3** (page 23) provides a similar break down for regional jet equipment. **Appendix A** provides a listing of the aircraft designator codes and seating capacities.

NORTHWEST REGIONAL CARRIER FLEET TRENDS

There are four main regional airlines that operate in Northwest markets: Big Sky Airlines, Horizon Air, Mesa Airlines, and SkyWest Airlines. Additionally, Atlantic Southeast Airlines, Comair, and

Shuttle America operate occasional flights in the Pacific Northwest to Salt Lake City on behalf of Delta Air Lines; however, the majority of these airlines' operations are on the East Coast and other parts of Delta Air Lines' route network.

The fleets of each of the Pacific Northwest's four main regional airlines is described below and where possible fleet numbers have been updated to reflect June 2006 information.

Horizon Air, the largest operator in the Northwest, is a sister carrier of Alaska Airlines under the Alaska Air Group, Inc. and operates 48 turboprops and 21 regional jets (as of April 2006). Twenty-eight of Horizon Air's turboprops are 37-seat de Havilland Dash 8-Q200 series and

the other 20 are 74-seat de Havilland Dash 8-Q400 series aircraft. All of Horizon Air's regional jets are 70-seat CRJ-700s. Horizon Air is in the process of phasing out their 37-seat de Havilland Dash 8-Q200 aircraft and replacing them with 74-seat de Havilland Dash 8-Q400 aircraft. Aside from 22 de Havilland Dash 8-Q400s, and one CRJ-700 Horizon Air currently has no other aircraft on order.

Horizon Air's transition from 37-seat to 74-seat turboprop aircraft may adversely impact smaller markets that cannot support the greater seating capacity. However, the higher speed of the 74-seat de Havilland Dash 8-Q400 aircraft allows it to efficiently operate longer distances which may open opportunities for service between larger markets

in the Pacific Northwest and Los Angeles. Horizon Air is not expected to increase the use of regional jets in the Pacific Northwest.

As of June 2006, Big Sky Airlines operated a fleet of 10 Beechcraft 1900D aircraft with 19 seats. In the near term, Big Sky Airlines plans to add 10 aircraft of the same type to their fleet. This growth along with Big Sky Airlines' focus on smaller markets in the Pacific Northwest appears to provide opportunities for service improvements in smaller communities.

SkyWest Airlines primarily operates as United Express and Delta Connection in the Northwest. As of June 2006, SkyWest Airlines operated 62 Embraer 120 turboprop aircraft with 30 seats. Fifty Embraer 120s are operated as United Express into United Airlines' hubs, and 12 are operated as SkyWest Airlines out of Salt Lake City with a Delta Air Lines' codeshare agreement. Recently, United Airlines relinquished control over some Embraer 120s being flown as United Express. SkyWest Airlines will begin flying those aircraft as SkyWest Airlines while maintaining a codeshare with United Airlines in most markets (refer to **Section 5**). At present, SkyWest Airlines has no plans to acquire additional turboprops.

TABLE 6.2 REGIONAL AIRLINE TURBOPROP FLEETS – APRIL 2006

OPERATOR	TURBOPROPS													
	AT7	BEH	BES	CNC	DH4	DH8	DHT	EM2	J31	J32	J41	SF3	SWM	TOTAL
Air Midwest		19												19
American Eagle												28		28
Atlantic Southeast Airlines	12													12
Big Sky Airlines		9											5	14
Boston-Maine Airways									20					20
Colgan Air		11										37		48
Commutair		18												18
Great Lakes Aviation		22						5						27
Gulfstream International Airlines		25						7						32
Horizon Air					20	28								48
Kenmore Air Harbor				6										6
Mesa Airlines						16								16
Mesaba Airlines												52		52
Piedmont Airlines						59								59
RegionsAir										12				12
Scenic Airlines		2	1				12							15
Shuttle America												1		1
Skyway Airlines		11												11
Skywest Airlines								64						64
Trans States Airlines											11			11
Total	12	117	1	6	20	103	12	76	20	12	11	118	5	513

Source: BACK Aviation Solutions, April 4, 2006
Note: Carriers serving Pacific Northwest markets are highlighted in dark blue. See Appendix A for aircraft codes.

Table 6.3 Regional Airline RJ fleets – April 2006

Operator	Regional Jets								
	CR7	CR9	CRJ	E70	ER3	ER4	ERD	FRJ	Total
Air Wisconsin			70						70
American Eagle	25				39	108	59		231
Atlantic Southeast Airlines	35		107						142
Chautauqua Airlines					15	63	15		93
Comair	27		139						166
Expressjet Airlines					30	239			269
GoJet Airlines	10								10
Horizon Air	21								21
JetBlue Airways				10					10
Mesa Airlines	15	38	56			36			145
Mesaba Airlines			2						2
MidAtlantic Airways				15					15
Pinnacle Airlines			121						121
PSA Airlines	14		35						49
Republic Airlines				4					4
Shuttle America				38					38
Skyway Airlines								10	10
Skywest Airlines	55		126						181
Trans States Airlines						48			48
US Airways				9					9
Total	202	38	656	76	84	494	74	10	1634

Source: BACK Aviation Solutions, April 4, 2006
Note: Carriers serving Pacific Northwest markets are highlighted in dark blue.
See Appendix A for aircraft codes.

In addition to the turboprops, SkyWest Airlines operates 123 CRJ-200 aircraft with 50 seats and 57 CRJ-700 aircraft with 70 seats. These aircraft are operated for United Airlines and Delta Air Lines, primarily at their hubs in Denver, San Francisco, Los Angeles, and Salt Lake City. SkyWest Airlines plans to order additional 70-seat regional jets.

As SkyWest Airlines continues to grow their regional jet fleet, larger communities in the Pacific Northwest may realize service improvements. However, since United Airlines and Delta Air Lines control all service decisions on these aircraft, communities in the Pacific Northwest will compete for these aircraft with other markets throughout the country. At present, all of SkyWest Airlines' Embraer 120 turboprop activity in Pacific Northwest is limited to United Express.   As these aircraft are eliminated from SkyWest Airlines' fleet, communities that now benefit from that service may experience service reductions.

Mesa Airlines operates flights from the Pacific Northwest to Phoenix and Las Vegas on behalf of their codeshare partner US Airways (formerly America West Airlines) and to Denver on behalf of United Airlines. From Northwest markets, Mesa Airlines operates 50-seat CRJ-200 aircraft and 90-seat CRJ-900 aircraft. US Airways is using a small number of Mesa Airlines' 50-seat CRJ-200s in Phoenix and Las Vegas. United Airlines is using a combination of Mesa Airlines' 50-seat and 70-seat regional jets in Pacific Northwest markets. Mesa Airlines is ordering additional CRJ-700 and CRJ-900 aircraft to fly for these airlines. Unfortunately, these 70- and 90-seat aircraft tend to be too large for smaller markets in the Northwest.

Summary of main points

- Communities need to carefully consider which airlines have the type and size aircraft that can profitably serve their market.

- Most small communities are served by regional carriers that operate turboprop and regional jet aircraft with less than 100 seats.

- Regional carriers are phasing out turboprop aircraft in favor of regional jets with higher seating capacity. Many small markets cannot support the extra seats that come with regional jets.

- There are a host of factors that influence the type of aircraft used in a market. These include available aircraft types, stage length, passenger demand/preferences, and airport constraints.

- Fleet trends for regional carriers serving the Pacific Northwest may pose challenges for small community air service development initiatives.

THE AIRLINE HUB AND SPOKE ROUTE SYSTEM

The national air transportation system consists of a network of airline routes. There are basically three different components: hub and spoke systems (where passengers connect from one flight to another flight on the same airline), routes connecting from one airline to another airline at secondary airports like Boise or Spokane, and point-to-point nonstop routes. In this discussion, a hub airport is the designation for a central point in a major airline's distribution system. The Federal Aviation Administration's (FAA) classification of airports (non-hub, small hub, medium hub, and large hub) does not apply in this context. The airline hub and spoke route systems represent the "nerve centers" of the industry, and access to a hub is how small communities get quality service.

The hub and spoke structure is employed by most large airlines and has enabled all but the smallest communities to have scheduled air service and, in many cases, competitive service. The concept is simple. Small numbers of passengers from outlying communities (spoke cities) fly to a larger population center or hub city where they are re-distributed to multiple flights and flown to their destination. This multiplier or lamination effect essentially allows for

EXHIBIT 7.1 PRIMARY AIRLINE HUBS IN THE US

EXHIBIT 7.2 SALT LAKE CITY HUB AND SPOKES
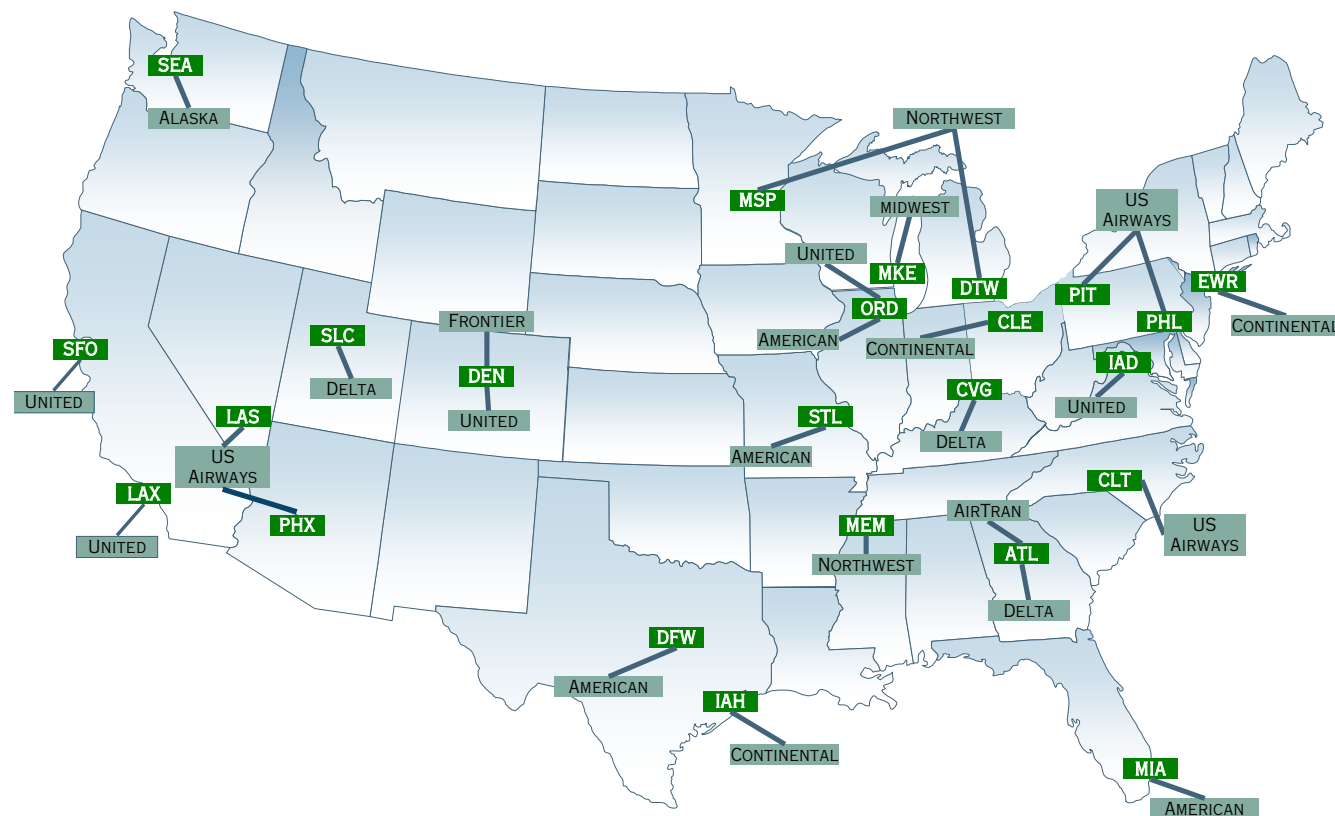
service between points that do not have enough traffic to support it on their own. It can also allow for more frequent service than would otherwise be possible. **Exhibit 7.1** on the previous page shows the primary airline domestic hub locations.

The airline routes across America are essentially a series of hub and spoke networks augmented by point-to-point service. This is illustrated in **Exhibit 7.2**, which shows Delta Air Lines' Salt Lake City hub with its connecting routes, and Redmond, Oregon, as a spoke.

In other industries this traffic consolidation method is used by freight companies to bundle small shipments into carload lots, cutting costs significantly, and by tour operators who assemble people in one location to launch a trip. A net result in the airline industry is that smaller communities, with a limited number of air travelers, can have connecting air service to points around the globe. Through the airlines hub and route system, they have multiple connecting opportunities. They often get competitive pricing as well.

HUBS AND SECONDARY AIRPORTS SERVING THE NORTHWEST

Hub airports that serve the Northwest region include Seattle, Salt Lake City, San Francisco, Denver, and Phoenix. Large airports like Boise, Portland, and Spokane are not used by major airlines as hubs, but rather serve as spokes to airlines' primary hubs. In some instances, they also

provide entry to the national transportation system for smaller communities unable to support service to primary airline hubs. For the purpose of this discussion, these non-hub airports will be termed secondary airports.

Table 7.1 (page 27) presents the primary hubs serving the Northwest. The secondary airports are also very important in the Northwest

air service system. They are shown in **Table 7.2** (page 28).

Both airline hub airports and secondary airports are essential for air service in the Northwest. They offer different opportunities and limitations, however, and communities need to consider these when thinking about air service improvements. Getting passengers to hub airports where multiple destinations

Table 7.1 Primary Airline Hubs Serving the Northwest (June 2006)

Hub	Hub Daily Departures	Hub Carriers	Hub Carriers Daily Departures	Important Non-Hub Carrier Service
Seattle	483	Alaska Airlines/ Horizon Air (54 markets)	282	Nonstop connecting service to other airline hubs. International nonstop service (7 markets), Hawaii nonstop service (5 markets), Transcontinental nonstop service (2 markets), Southwest Airlines nonstop service (11 markets).
Salt Lake City	453	Delta Air Lines (107 markets)	348	Nonstop connecting service to other airline hubs. International nonstop service (1 market), Transcontinental nonstop service (1 market), Southwest Airlines nonstop service (15 markets).
San Francisco	448	United Airlines (65 markets)	320	Nonstop connecting service to other airline hubs. International nonstop service (23 markets), Hawaii nonstop service (1 market), Transcontinental service (2 markets).
Phoenix	643	US Airways (91 markets)	320	Nonstop connecting service to other airline hubs. International nonstop service (5 markets), Hawaii nonstop service (2 markets), Transcontinental nonstop service (2 markets), Southwest Airlines nonstop service (39 markets).
Denver	858	Frontier Airlines (51 markets) United Airlines (102 markets)	Frontier: 160 United: 460	Nonstop connecting service to other airline hubs. International nonstop service (5 markets), Transcontinental service (2 markets), Southwest Airlines nonstop service (5 markets).

Source: OAG Flight Guide – North America, June 2006

The air travel market is a relatively mature market with limited opportunities to stimulate traffic. Successful entry into a new market often relies heavily on diverting traffic from an incumbent carrier or, in some cases, from another airport, which can be costly. The tendency is for airlines to stick to their areas of strength or areas where there is little competition.

are available online tends to provide a better quality service that is more convenient and cost competitive for the customer. There are times when the secondary airports are a better option. This includes when markets have enough passengers to make the destination alone profitable, and when connecting flights offer the right mix of destinations and price.

Strengths and weaknesses of airlines across regions

Airline route systems normally serve some portions of the country better than others. Stated another way, legacy airlines are likely to serve all major population centers but the quality of their service may be greater in the general proximity of their hub airports. Airlines are well aware of their geographic strengths and are reluctant to expand into other

airlines' strongholds or areas where they are known to be weak. The tendency is to expand only in areas where an airline has market identity or there is a relative vacuum in service. To do otherwise, they have to overcome loyalty to the frequent flyer programs of the more established airlines and to establish a market presence. To accomplish this, airlines must invest in an effective marketing campaign. With the current emphasis on cost containment, they are reluctant to spend these kinds of market development funds.

TABLE 7.2 SECONDARY (NON-AIRLINE HUB) AIRPORTS IN THE NORTHWEST (JUNE 2006)

AIRPORT	TOTAL DAILY DEPARTURES	AIRLINE	AIRLINE DAILY DEPARTURES	NONSTOP MARKETS	OTHER NOTABLE SERVICE
Portland	277	American Airlines	7	2	Hawaii service (1 market)
		Alaska Airlines/ Horizon Air	130	29	International service (3 markets)
		Continental Airlines	7	2	Transcontinental service (1 market)
		Delta Air Lines	13	3	
		US Airways	9	3	
		Northwest Airlines	9	4	
		United Airlines	50	9	
		Southwest Airlines	38	12	
		Other	14	7	
Boise	90	Alaska Airlines/ Horizon Air	24	8	
		Delta Air Lines	9	2	
		Big Sky Airlines	9	7	
		United Airlines	16	4	
		Southwest Airlines	18	7	
		Other	14	6	
Spokane	61	Alaska Airlines/ Horizon Air	24	4	
		Delta Air Lines	5	1	
		United Airlines	9	3	
		Southwest Airlines	15	6	
		Other	8	4	

Source: OAG Flight Guide – North America, June 2006

SUMMARY OF MAIN POINTS

- The airlines' hub and route systems are highly efficient for moving people around the world.

- There are numerous hub airports across the US. With their hub and route system, however, airlines do not serve all geographic areas equally.

- Hub airports and secondary airports are not equal in terms of what they offer "spoke" communities.

- Getting passengers to hub airports where they have multiple destinations available online tends to provide better quality service.

- Service to secondary airports, like Boise or Spokane, may be preferred when there is a sufficient volume of traffic to make it profitable or when it provides easy access to a hub airport.

GENERAL AVIATION ALTERNATIVES TO AIRLINE SERVICE

When discussing air service, almost everyone immediately thinks about service provided by one of the name-brand airlines: American Airlines, Delta Air Lines, or others. This is not unusual since these airlines carry the bulk of the air travelers. But air travel is also provided by the general aviation (GA) segment of the airline industry. By and large, GA encompasses all aviation other than scheduled airline flights and military aviation. It includes everything from weekend recreation flyers to crop dusters to commercial aircraft operators that transport passengers. It is a broad and often confusing classification of aircraft and aircraft operators.

Within the GA classification there are commercial operators that provide an alternative passenger service to the standard airline service. Many of these alternatives exist today and new types are in various stages of development. These air travel alternatives and their use in small communities is the subject of this section of the *Small Community Air Service Development Handbook*.

AIR TRAVEL REGULATIONS

Within the Federal Aviation Regulations (FARs) there are two sets of rules that govern the commercial transportation of passengers by air. FAR Part 121 applies to commercial airlines (like Horizon Air) that fly aircraft with 10 or more seats on a scheduled basis. FAR Part 135 regulations apply to relatively small air carriers (such as Kenmore Air) operating scheduled service with aircraft that have less than 10 seats. The non-scheduled transportation of passengers is also covered in FAR Part 135 and includes a mix of GA operators providing non-scheduled service.

For communities engaged in air service development, it is important to note that FAR Part 121 regulations are significantly more stringent than FAR Part 135. For example, FAR Part 121 has higher standards for crew training, aircraft maintenance, aircraft systems, and flight operations. Smaller airlines with less than 10 seats may opt for the less rigorous regulations contained in FAR Part 135, because there is a significant incremental cost in complying with FAR Part 121 regulations.

ALTERNATIVES TO AIRLINE SERVICE

Today there are multiple methods air travelers can use for travel not provided by a regularly scheduled airline. Although some of these methods have had success in their respective niches, none have proved successful for broad use by the traveling public in smaller markets. The following list includes both old and new concepts for alternatives to airline service:

Air charter – Generally, the catch-all term "air charter" includes executive charter, jet charter, and air taxi operations. Aircraft charter businesses provide on-demand flights to thousands of customers daily throughout the US and the world. Charter

aircraft range from single-engine two passenger aircraft to transoceanic jets. The bulk of the businesses that provide these services operate under FAR Part 135. Air charter business-es, in some form, are found at most airports throughout the US. High passenger costs are the downside of this alternative.

Fractional aircraft ownership – Over the past 25 years the air travel demands of the corpo-rate world have fostered the develop-ment and growth of the fractional aircraft ownership industry. Much like the "time-share" concept in the real estate industry, fractional aircraft ownership programs normally involve the up-front purchase of flight hours on a particular type of aircraft. However, unlike time-share property owners, fractional aircraft owners can use the aircraft anytime. They are able to use the aircraft on-demand and their flight hours are deducted from their account. Although fractional programs have had great success meeting the high-end travel demands of corporations, businesses, and some individuals, it is not a model that can be applied to the needs of the general public in smaller communities.

Air taxi – Air taxi programs combine the idea of smaller aircraft with a more flexible taxi approach to scheduling flights. In 2002, selected communities in Oregon participated in a nationally recognized air taxi program. SkyTaxi was a blend of an airline and a charter company that primarily served destinations in Oregon, Washington, and Northern California. SkyTaxi used four pas-senger Cessna 414 aircraft. Individu-als, private entities, or local govern-ments could invest in a SkyTaxi franchise. Using a dispatch system similar to a ground taxicab service, passengers called for an aircraft to pick them up at a given location and fly them to another community[1].

SkyTaxi's plan was to bring mod-estly priced air service, comparable to regional carriers serving spoke airports, to communities with small airports. SkyTaxi was not successful. However, the concept has merit for small communities.

Very Light Jet (VLJ) program – Today several engine and aircraft manufacturers are compet-ing to be first to market with new aircraft being termed "very light jets" or VLJs. Eclipse Aviation Corpora-tion is one of the first manufacturing companies to pursue this oppor-tunity. They are estimated to have FAA-type certification for their Eclipse 500 aircraft completed by the end of June 2006. Eclipse has

been working closely with NASA and its Small Aircraft Transport System (SATS) program to reevaluate air transportation in the US. The goal of the SATS program is to provide a safe travel alternative that will reduce public travel time by 50 percent in 10 years and by over two-thirds in 25 years at equivalent highway systems costs. The concept is an air taxi that will allow companies to provide fast point-to-point air travel. By traveling on an air taxi, passengers are free to use small, uncrowded airports near their homes to reach their destinations[2].

- Where air service regulations are concerned there are two things that communities should keep in mind. First, there is a difference in the regulations and smaller airlines may opt for less rigorous regulations. Second, there is a significant incremental cost in complying with FAR Part 121 regulations.

- Although some alternative methods of air transportation have had success in their respective niches, none have proved successful for broad use by the traveling public in smaller markets.

- Very Light Jets (VLJs) may provide limited opportunities for smaller communities.

Overall, the success of VLJ air taxi service remains in question. The concern is whether air taxi operations can achieve enough demand to control costs, while meeting clients' desires for nonstop, point-to-point, on-demand service. VLJs also have limited range capabilities and small cabins that seat approximately four passengers. Given the long-recognized aversion of many passengers to comparatively larger 19-seat turboprop aircraft and higher costs per seat, acceptance of these aircraft remains unclear.

By the end of 2007, the aviation industry is expected to see three different models of VLJs certified and delivered to the market. These are the Cessna Mustang, Eclipse 500, and Adam A700. In addition, Diamond Aviation's single engine D-Jet and Honda's unusual twin jet are other serious entries into the VLJ market.

SUMMARY OF MAIN POINTS

- FAR Part 121 regulations apply to all scheduled airlines operating aircraft with more than 10 seats. FAR Part 135 applies to scheduled airlines operating aircraft with less than 10 seats and non-scheduled operators including charters and air taxis.

[1]Source: US General Accounting Office (GAO) Report to Congressional Requestors, "Factors Affecting Efforts to Improve Air Service at Small Community Airports", January 2003.

[2]Source: – "Spinoff 2002", NASA Office of Aerospace Technology, Commercial Technology Division, 2002

AIRPORT FACTORS IN TRANSITIONING TO COMMERCIAL AIR SERVICE

In general, commercial airline service requires improvements specific to airport infrastructure and compliance with related government regulations and guidelines. This section addresses how an airport with no commercial airline service assesses its needs and transitions to accommodating commercial airline operations and passengers.

AIR CARRIER AIRPORTS

Generally, airports in the US are divided into two categories: those that are used by regularly scheduled commercial airlines and those that are not. Among the several thousand airports in the US there are approximately 508 airports that serve regularly scheduled commercial air carriers. These airports range in size. Some serve smaller communities like North Bend, Oregon, and Pullman, Washington. Others are mega complexes, like Seattle–Tacoma International Airport that serve large metropolitan communities. These airports vary in scale, complexity, and type of aircraft that use them. However, they share the distinction of serving the airlines that cater to the hundreds of millions of air travelers who use regularly scheduled commercial airline service each year. In addition these airports, generally referred to as commercial service airports, are also used by GA aircraft, charter operators, military aircraft, and air cargo services.

Differences between airports with regularly scheduled commercial flights and those which

only service private, charter, military, and/or cargo operators include:

• Requirements and standards

• Operational rules

• Security procedures and restrictions

• Facilities (airfield, security, and terminal)

In general, the facilities required to handle commercial airline operations and the associated passenger traffic are considerably greater than non-commercial service airports.

It is possible, but not easy, for a non-commercial service airport to make the changes and facility improvements necessary to accommodate regularly scheduled commercial airline operations. The key to making the transition is planning. At the top of the list is coordination with the FAA and the Transportation Security Administration (TSA). These two federal agencies work with airports to identify specific items that need to be addressed in the conversion from a non-commercial service airport to a commercial service airport. In most cases, the airport will need to make modifications

and improvements to existing airfield, terminal and security facilities. Additionally, airports making the switch will be required to modify their procedures and operations directives and/or guidelines to conform to federal regulations and guidelines.

Each airport is, to some degree, unique. Accordingly, the specifics and costs associated with the changeover to a commercial service airport will vary from airport to airport. It is not unusual for the transition to take 12 to 24 months or longer where facility improvements are involved. With this in mind, airport owners and operators interested in making the jump from a non-commercial service airport to a commercial service airport are prudent to investigate the infrastructure and regulatory requirements early in the process. Ideally, it should follow the air service market analysis.

REGULATORY REQUIREMENTS

Within the US, FAR Part 139 governs the certification and operation of airports that serve scheduled operations of commercial air carriers that use aircraft designed for more than nine passenger seats. Also, FAR Part 139 applies to airports that serve unscheduled operations of air carriers operating aircraft designed to carry at least 31 passengers. Separate from airport operations (FAR Part 139), the controlling federal regulation for airport security is the Code of Federal Regulations Part 1542 (CFR Part 1542). These two regulations, along with the FAA's Advisory Circular program for airports, embody the federal regulations and guidelines for commercial service airports.

Wading through the regulations to determine the steps necessary to move an airport into compliance with FAR Part 139 and CFR Part 1542 can be

a daunting task. As a first step, contacting the FAA Certification Compliance Office is the starting point for learning about FAR Part 139 regulations. This office has FAR Part 139 responsibility for airports in both Washington and Oregon, as well as other airports in the FAA's Northwest Mountain Region. It is located at FAA Northwest Mountain Region, Airports Division, ANM-600, 1600 Lind Avenue, SW, Renton, WA 98055-4056, phone 425-227-2600.

The TSA controls matters related to airline passenger security. Airports located in Oregon can contact the Federal Security Director at TSA's Portland office by phone at 503-889-3071 for guidance. For Washington airports, there are two contacts. Airports that are located in the Seattle area should contact the Federal Security Director at 206-834-2433. All other airports in Washington can get assistance by calling the Spokane office of the Federal Security Director at 509-455-3302. One final point on

airport security: The formal request to transition a non-commercial service airport to commercial service status must come from the airline, not the airport.

AIRLINE AND PASSENGER REQUIREMENTS

Airlines and air travelers require specific kinds of airport passenger terminal facilities. Airlines need offices and ticket counters, baggage handling spaces, ramp space for aircraft parking, and employee auto parking spaces. Airline passengers require processing and service areas: ticketing, secu-

rity screening, secure hold rooms, loading bridges, baggage claim, bathrooms, and auto parking lots. Nothing on these lists is surprising. However, the burden of providing these facilities falls on the airport operator and/or the community. Usually, some share of terminal spaces and improvements end up leased by airline tenants, but airline lease fees seldom cover costs.

There are a couple of routes for evaluating terminal requirements. FAA Advisory Circulars[1] are an excellent resource for engineers and planners investigating the topic. Guidance from the FAA can be accessed by phoning the FAA Northwest Mountain Region – Airports Division and speaking with one of the FAA Airport Engineers. Airport planning consultants are another resource for information on terminal issues, as well as airfield and security topics. On the airline side, most airlines have a property manager that works with airports on terminal needs. Smaller airlines may not have a designated property manager, but all have someone that fills the role. Whether the terminal facilities contemplated are completely new, an expansion of existing buildings, or a remodel of space within an existing structure, it is critical to bring all of the stakeholders into the planning process as early as possible. These include airlines, TSA, FAA, and other tenants.

Airport facilities – transition from general aviation to commercial service

Regulatory and air passenger requirements needed to upgrade from a GA airport to a commercial service airport have been carefully reviewed. This section provides a more detailed review of key airport facilities needed to support the various demands that would be imposed by commercial air carrier activity. Keep in mind that this information is provided as an example not a template. The following facilities are included in this overview: airfield; passenger terminal building; and airport access, circulation, and automobile parking.

Airfield

There are many airfield factors to consider when switching from a GA airport to a commercial service airport. The following list presents key airfield areas and related needs:

- The runway length must be assessed to determine the capability to support commercial air service. The type of aircraft to be used is critical in determining FAA requirements. In addition, required runway length is a factor of the airport's mean high temperature for the hottest month of the year, elevation, and the length of haul performed by aircraft operating on that runway.

- The airfield must be completely enclosed by fencing and gates. At a minimum, fencing in the vicinity of the passenger terminal must meet FAR Part 139 standards (eight feet). All vehicle gates must remain closed except when vehicles are passing through them. All gates, including pedestrian gates for GA pilots and passengers, will need locks.

- Pavement strength may need to be increased.

- If scheduled service includes jets, the runway may need to be grooved.

- Grading along the edge of pavement may be required to meet the maximum permitted drop-off (three inches).

- The airport may need to add side stripes and edge lights along taxiways.

- Airfield signs and markings may need to be upgraded.

- Security lighting for the commercial apron may need to be added.

- Depending upon the type of aircraft used by the airline, existing hold lines and aircraft parking positions may need to be moved to accommodate longer wings or higher tail height.

- If aircraft de-icing is an issue, facilities to apply the fluid and handle the waste must be created.

- A wildlife hazard plan may need to be prepared and active management of wildlife implemented. Tall fencing to keep out deer may be needed. Filling ponds on and/or near the airport may also be required.

- Aircraft rescue and fire fighting (ARFF) requirements also must be considered. ARFF requirements are determined based on several factors. One of those factors is the ARFF Index, which is determined by the length of air carrier aircraft and average number of daily departures. ARFF services will likely be provided by either airport operations staff or the local fire department staff.

- At smaller airports, early morning departures and late arrivals are normal so that business people can get out and back in one day. The airport may need to increase the hours in which operations staff are present.

- The addition of commercial flights may have a significant effect on noise contours. Even if they do not, regular early departures and late arrivals may create a public relations issue for the airport. Also, commercial aircraft may not fly the same pattern as existing GA. New areas may be regularly over flown.

- Generally, an airport can expect the FAA's Part 139 inspector to be more rigorous on maintenance items than the airport has experienced with other FAA staff. It is important to get the FAA Part 139 inspector involved as soon as possible to minimize issues.

PASSENGER TERMINAL BUILDING AND AIRCRAFT GATES AND APRON

Several areas must be considered in the passenger terminal building and aircraft gates and apron. The following specific areas are discussed below:

- Airline space

- Public space

- Concessions

- Support space

- Aircraft gates and aprons

As an example, the amount of terminal space required by functional area was estimated for annual demand levels of 20,000, 40,000, and 60,000 passenger enplanements. These are presented in **Table 9.1** (next page). Factors used to estimate space requirements by functional area are discussed in the following sections.

AIRLINE SPACE

Airline space consists of the ticket counter and ticket counter area, airline offices, the passenger queuing areas, passenger holdroom, baggage handling, and baggage claim area. In the example in **Table 9.1** and using planning guidelines set forth in FAA Advisory Circular 150/5360-9, *Planning and Design of Airport Terminal Building Facilities at Nonhub Locations*, it is estimated that 12 linear feet of airline ticket counter and 1,400 square feet of airline office space would be required to accommodate 34 Peak Hour Enplaned Passengers (PHEP). At the 60,000 annual enplanement threshold, 20 linear feet of airline ticket counter and 2,000 square feet of airline office space would be required. Areas such as the passenger holdroom and baggage claim

would require slightly more space at the 60,000 annual enplanement threshold than at the 20,000 and 40,000 thresholds.

PUBLIC SPACE

A number of elements make up public space in an airport terminal. Some of these elements are directly related to peak hour passenger volumes, while some are a percentage of the total estimated square footage of the terminal building. Public space within a terminal building consists of lobby and waiting areas, restrooms, a meeting room, and public circulation areas. FAA AC 150/5360-9 recommends 750 square feet of lobby and waiting area for 34 PHEPs and 1,000 square feet for 68 PHEPs. Circulation space consisting of 20 to 30 percent of the gross terminal area is also recommended. At annual passenger enplanement thresholds of 20,000 and 40,000, requirements of approximately 3,000 square feet are called for. At the 60,000 threshold, approximately 3,500 square feet of circulation space would be required. Restrooms and a public meeting room could be expected to occupy approximately 600 and 800 square feet of terminal space, respectively.

TABLE 9.1 FACILITY REQUIREMENTS FOR COMMERCIAL AIR SERVICE

The measurements given in this chart are in square feet unless noted otherwise.	REQUIREMENTS AT ANNUAL ENPLANEMENT LEVELS		
	20,000	40,000	60,000
Peak hour enplaned passengers	34	34	68
Peak hour deplaned passengers	34	34	68
Total peak hour passengers	68	68	136
	FUNCTIONAL AREA REQUIREMENTS		
AIRLINE SPACE			
Airline ticket counter (LF)	12	12	20
Airline offices & outbound baggage	1,400	1,400	2,000
Ticket counter queuing area	200	200	400
Passenger holdroom	750	750	1,000
Baggage claim conveyor (LF)	22	22	28
Baggage claim area	600	600	750
Subtotal airline space	2,950	2,950	4,150
PUBLIC SPACE			
Lobby and waiting area	750	750	1,000
Public circulation	3,000	3,000	3,500
Restrooms	600	600	600
Public meeting room	800	800	800
Subtotal public space	5,150	5,150	5,900

	FUNCTIONAL AREA REQUIREMENTS, CON'T.		
CONCESSIONS			
Rental car counter (LF)	12	12	18
Rental car offices	240	240	360
Rental car queuing area	60	60	90
Restaurant	1,000	1,000	1,000
News, gift, and other	350	350	350
Subtotal concessions	1,650	1,650	1,800
SUPPORT SPACE			
Airport administration offices	1,000	1,000	1,000
TSA Offices	1,000	1,000	1,000
Security Screening	200	200	200
Mechanical and maintenance areas	2,200	2,200	2,600
Storage	750	750	750
Subtotal support	5,150	5,150	5,550
Total gross square feet	14,900	14,900	17,400
Aircraft gates	1	1	2
Aircraft apron (SY)	2,500	2,500	5,000
Public parking spaces	50	90	120
Employee parking spaces	25	30	35
Rental car parking spaces	15	15	20
Total parking spaces	90	135	175

Sources: FAA Advisory Circular 150/5360-9, *Planning and Design of Airport Terminal Building Facilities at Nonhub Airports.* Mead & Hunt, Inc., January 2004.
* LF=linear feet, SY=square yard

CONCESSIONS

Concessions would most likely consist of rental car, restaurant, and news and gift services. It is recommended that 12 linear feet of rental car counter and 240 square feet of space for rental car offices be provided at the 20,000 and 40,000 annual enplanement thresholds. This recommendation increases to 18 linear feet of counter and 360 square feet of office space at the 60,000 passenger enplanement threshold. Restaurant and news and/or gift shops would occupy 1,000 and 350 square feet of terminal space, respectively.

SUPPORT SPACE

Support space required within the terminal building includes airport administration offices, TSA offices, security screening areas, and mechanical, maintenance, and storage space. An example of space requirements for these functional areas is also presented in **Table 9.1** (previous page). FAA design standards indicate that approximately 1,000 square feet of office space would accommodate airport management staff. For all passenger enplanement thresholds covered in the example, it is recommended that the TSA be provided with 1,000 square feet of office space and 200 square feet for passenger screening. In addition to these areas, approximately 15 percent of the gross terminal area should be set aside for mechanical and maintenance areas. This equates to approximately 2,200 square feet at the 20,000 and 40,000 annual passenger enplanement thresholds and 2,600 square feet of space for the 60,000 annual passenger enplanement threshold. It is also recommended that 750 square feet of space be allocated for storage and other supplies.

AIRCRAFT GATES/APRON

Apron requirements for regional and/or commuter aircraft were estimated for purposes of this example based on an average of 2,500 square yards per gate per aircraft parking position. This area accounts for aircraft parking and maneuvering as well as extra areas for service vehicles and separation between aircraft and tugs. As shown in **Table 9.1**, with scheduled air service, an airport would require a minimum of 2,500 square yards of terminal apron space through the 40,000 annual passenger enplanement threshold and a minimum of 5,000 square yards at the 60,000 passenger enplanement threshold. This would allow adequate apron space should two aircraft need access to the terminal at one time. Additionally, it is recommended that loading bridges be installed for passenger convenience.

AIRPORT ACCESS, CIRCULATION, AND PARKING

This section addresses surface transportation and parking requirements based on the examples of projected air service demand. The following components were analyzed:

- Airport access
- Airport circulation
- Automobile parking

AIRPORT ACCESS

An airport access road should provide a direct and uninhibited route to the airport entrance road. It should have clear signage that directs people to the terminal building.

AIRPORT CIRCULATION

The airport entrance road should consist of a boulevard that provides air carrier passengers direct access to the front of the terminal building. Signage on this road should clearly indicate locations of the passenger terminal building, rental car, and employee and public parking areas. A curbfront should also be available for those wishing to drop off and pick up passengers at the door.

AIRPORT PARKING

Airport parking should be located in close proximity to the terminal building. Smaller communities in the Pacific Northwest are origin and destination airports. This means that the airport will experience a higher volume of automobile parking requirements because passengers will be leaving from or terminating their flight at the airport. As shown in **Table 9.1** (page 37), it is recommended that 50, 90, and 120 public parking spaces be provided in each of the 20,000, 40,000, and 60,000 annual passenger enplanement scenarios, respectively. The number of required employee parking spaces would vary from 25 to 35, depending on the number of annual passenger enplanements. The number of required rental car spaces would also increase from 15 required spaces at the 40,000 annual passenger enplanement threshold to 20 spaces at the 60,000 threshold.

SUMMARY OF MAIN POINTS

- Airports that serve regularly scheduled air carrier operations must meet a specific set of standards regarding operating requirements, security, and facilities. These are different from airports that do not accommodate regularly scheduled air carriers.

- It is possible, but often costly, for a non-commercial service airport to make the changes needed to serve regularly scheduled commercial airline operations.

- Communities contemplating upgrading their airport to serve scheduled air carrier operations should begin the process early and involve all stakeholders.

- There are many elements to consider when making the decision to upgrade from a GA airport to a commercial service airport.

- Each airport will vary depending on the facilities currently available for GA.

- Areas to consider include the airfield, the passenger terminal building, aircraft gates and/or apron, airport passenger access, circulation, and automobile parking. Each of these areas includes numerous subsets to consider.

- It is important to get the FAA Part 139 inspector involved as soon as possible to minimize issues.

[1]AC/1505360-9, *Planning and Design of Airport Terminal Facilities at Non-hub locations*; 150/5360-13, *Planning and Design Guidance for Airport Terminal Facilities*

HOW AIRLINES MAKE DECISIONS

PROCESS

Currently, there are numerous communities competing for limited aircraft resources, and competition for new markets is fierce. Communities wanting new or additional air service begin the process by analyzing their air travel needs and determining what destinations are viable. An air service market study (refer to **Section 13**) identifies key information: the alternate airports travelers are using, where passengers are traveling to, which markets and airlines should be targeted, and true market passenger numbers by destination. The air service market study is the first step in identifying new service opportunities and the airlines that may be able to fill the need.

With a completed air service market study in hand communities are ready to approach targeted airlines and begin a dialogue. Communities typically contact airline planners directly if relationships have been established. Annual industry air service conferences are another place where face-to-face meetings occur. Airline planners will make their own initial market assessment. If they decide to pursue the market further, a meeting at the airline's corporate headquarters may follow, with community representatives and key airline decision makers, including airline hub managers and the department director or vice president. The focus of these discussions will be on true market size, community profile, route forecast, and any community risk-sharing incentives such as cost abatements, revenue guarantees, and marketing programs.

Money talks

Profitability is the most important criteria when airlines evaluate a potential market. To arrive at a market forecast and to accurately assess the profit potential, airlines consider scores of published Department of Transportation data.

Airline route planners are often inundated with new market requests. They have to assess which markets price out and make sense and which do not. New market analysis begins with an airline planner making a baseline route profitability forecast, which is then revised with internal and external inputs regarding passenger retention, frequent flyer needs, and corporate sales agreements. Meetings and discussions with the local community can help influence airline planners and convince them that a profitable opportunity exists. Site visits can also help the airlines assess the market and allow the community to present its case.

The final service decision usually moves up the airline's chain of command from route planner to planning director and then to department vice president for final consideration. Airline service decisions involve the evaluation of multiple criteria on the part of the airline planning team as they strive to balance hard data and qualitative factors. The process is part science and part art. New markets are often debated and scrutinized internally then ranked among the new market consideration set for the final go/no-go decision. **Table 10.1** (following page) illustrates some of the key considerations for new service decisions.

Profitability is the most important criteria when airlines evaluate a potential market. To arrive at a market forecast and to accurately assess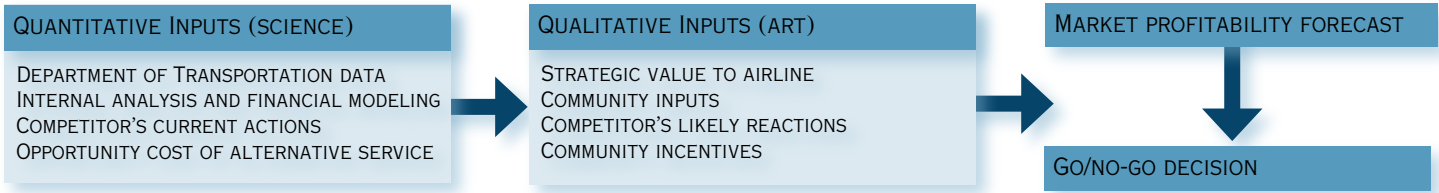 the profit potential, airlines consider published DOT data that includes detailed travel itineraries; community market studies to determine true market size;

Table 10.1 Airline new market assessment

QUANTITATIVE INPUTS (SCIENCE)	QUALITATIVE INPUTS (ART)	MARKET PROFITABILITY FORECAST
Department of Transportation data Internal analysis and financial modeling Competitor's current actions Opportunity cost of alternative service	Strategic value to airline Community inputs Competitor's likely reactions Community incentives	
		Go/no-go decision

the opportunity cost of using assets in an alternate market with potential for more profit; internal analysis on the cost of providing the service and on frequent flyer needs and the ability to attract a new customer base; the current competitive landscape; and how proposed new service will be received by potential customers (e.g., aircraft type, convenience of schedule, frequent flyer program, assigned seating, first class compartment, destinations offered).

Additional considerations include:

- The strategic value of the market based on the airline's network and whether yield premiums can be expected.

- Likely reaction of incumbent carriers and how those competitors will react to new entrants in the marketplace (e.g., is the market size sufficient to ensure profitability for all carriers or will incumbent carriers retaliate to keep new entrants out?).

- Local community support and insight on the need for new or additional service.

- Tangible commitment from the local business community to support the service, to minimize losses during the new market start-up phase.

Considerations and timeline

After all of the analysis and debate, airlines then rank potential markets according to their level of risk. Here, strong results from a community market analysis are critical in helping make the case for new service; the lower the perceived level of risk, the greater the chance of implementing new service.

Airlines make a large investment in new service; the cost of purchasing a jet can be millions of dollars. Airlines assume all of the risk and absorb any losses, but they also keep any profits. The local community benefits immediately regardless of

an airline profit or loss because new air service improves links to the transportation network, allowing commerce to thrive. Communities should be prepared to treat air service development as any other form of economic development. By sharing the risk and investing in the service, they ensure the continuation of the economic benefits that come from having convenient access to the transportation system.

Air service development is like other types of economic development in that it often takes time for success. The timeline from initial contact to new service implementation can be several months or several years. The lead time for new service implementation varies depending on each airline's aircraft availability, strategy, and each market's perceived risk. The process can take many directions and go through a cycling process.

Summary of main points

- Know your market and what is realistic and sustainable.

- Be aware that air service development is competitive.

- Influence decision makers by having credible insight and analysis.

- Differentiate your market from other markets the airline is considering.

- Be prepared to partner with airlines to minimize their risk during the critical start-up phase of new service.

Essential Air Service

Prior to passing the Airline Deregulation Act in 1978, Congress established the Essential Air Service (EAS) program. The program was designed to protect communities with low passenger traffic levels that could face loss of air service as airlines elected to shift operations toward larger, more profitable markets. The program established a federal subsidy administered by the DOT to help these communities retain a link to the national transportation system.

Under this program, Congress instructed the DOT to interpret the law and establish procedures for providing subsidized service to eligible communities. The DOT considers several factors and criteria in a competitive bid process for EAS subsidized service. These criteria include the hub through which the community is linked to the national network, routing, frequency, aircraft type, number of intermediate stops to the hub, code-shares available, and community preferences.

Eligibility

When the Airline Deregulation Act was enacted on October 24, 1978, any community receiving scheduled air service from a certificated carrier on that date was considered an eligible EAS community. Over the years Congress and the DOT have worked to improve the EAS program and increase its efficiency, mostly by eliminating service guarantees and subsidy support for communities that are within a reasonable drive of a major hub airport. Today, to be eligible for subsidized service, communities located in the 48 continental states must meet three general requirements.

1. They must have received scheduled commercial passenger service as of October 1978.

2. May be no closer than 70 highway miles to a medium or large hub airport.

3. They must require a subsidy of less than $200 per person (unless the community is more than 210 highway miles from the nearest medium or large hub airport, in which case no average per-passenger dollar limit applies).[1]

For an EAS eligible community to receive subsidized service, the last carrier serving the community must submit a 90-day notice of intent to suspend air service to the DOT. During that 90-day period, the DOT tries to find a carrier willing to enter the market on a subsidy-free basis. If successful, the DOT allows the incumbent airline to discontinue service once the incoming carrier initiates service. If the DOT is unable to secure subsidy-free replacement service, a request for proposals is issued to all interested carriers and the DOT proceeds with a carrier selection decision. During the process, the incumbent airline may not suspend service until a replacement carrier begins

service. However, the incumbent carrier is eligible for compensation for being held in the market after the end of its original 90-day notice period.

BIDDING

If no air carrier is willing to serve an EAS eligible community on a subsidy-free basis, the DOT is required to solicit proposals for subsidized service. Carriers interested in providing subsidized service must submit a proposal detailing their subsidy needs. The DOT reviews all proposals to ensure they include all required criteria and meets with applicants to finalize each proposal. After finalizing the proposals, the DOT provides the community with each proposal and solicits community comments and preference. A carrier is then selected by the DOT on the basis of several factors, including community preference, the level of subsidy required, the quality of the proposed service (e.g., frequency, aircraft type, available codeshares), the applicant's financial stability, and the applicant's experience in providing reliable scheduled air transportation.

EAS-subsidized contracts normally last two years. At the end of the contract period, the DOT will either: (1) renegotiate a rate for continuation of service with the incumbent carrier and publish this tentative subsidy rate to show cause (which may be responded to by any interested air carriers), or

(2) solicit proposals as described above. Thus, air carriers wishing to participate in the program have recurring opportunities to propose to provide EAS at communities of interest to them[2].

PROGRAM STATUS AND TRENDS

The EAS program was intended to last only 10 years; however, it was renewed for another 10 years in 1987 (scheduled to end on September 30, 1998) and made permanent in 1996. Over time, funding for the program fluctuated. In 2005, subsidy levels exceeded $100 million, and 2006 bidding indicates another increase in subsidy requirements.

In 1980, EAS programs assisted 400 communities. By 2005, the number had decreased to 150 communities. Even though costs had risen, trends between 1995 and 1999[3] showed the number of passengers served by the EAS program declined by four percent from 617,000 to 590,000[4]. On average, there were approximately three passengers per flight, mostly on 19-seat aircraft. Because of increased costs and fewer passengers using the service, Congress regularly scrutinizes the program.

Regional EAS status

As of March 2006, two communities in the Pacific Northwest were receiving EAS subsidy, including Pendleton, Oregon, and Moses Lake, Washington. Pendleton's subsidized service is on Horizon Air to Portland and Moses Lake/Ephrata's service is operated by Big Sky Airlines to both Portland and Boise.

Over time, the program has faced numerous obstacles that prevented it from becoming successful and led to its continued struggle. The following are current issues for the EAS program:

- Increased costs to commuter airlines of complying with the commuter safety rules contained in FAR Part 121 became effective in March 1997.

- A declining interest in smaller turboprops by airlines as they attempt to create a mix of aircraft they need for their entire system. Airlines can make more money and be more efficient with larger turboprop and regional jet aircraft, leaving EAS markets with limited options.

- Increased landing fees and terminal rents at many large hub airports.

- Spiking fuel costs, which have eroded the five percent profit margin EAS carriers are permitted.

- An influx of low-cost carriers at distant airports that have caused small community air passengers to drive to larger airports to access improved air service and lower airfares.

These trends are affecting EAS markets as well as small communities with unsubsidized air service that are also struggling to keep air service.

EAS eligible communities in the Pacific Northwest

The following 15 communities in Oregon and Washington are currently eligible for EAS subsidy:

OREGON
- Bend/Redmond
- Eugene
- Klamath Falls
- Medford
- North Bend/Coos Bay
- Pendleton
- Portland

WASHINGTON
- Moses Lake/Ephrata
- Pasco/Kennewick/Richland
- Pullman
- Seattle
- Tacoma
- Walla Walla
- Wenatchee
- Yakima

As of March 2006, two communities in the Pacific Northwest were receiving EAS subsidy, including Pendleton, Oregon, and Moses Lake, Washington. Pendleton's subsidized service is on Horizon Air to Portland and Moses Lake/Ephrata's service is operated by Big Sky Airlines to both Portland and Boise. The other 13 communities have not lost commercial air service.

Summary of main points

- The EAS program was designed to protect some communities served by certificated carriers from losing air service as the airline industry entered deregulation.

- To be eligible for the EAS subsidy today, a community must meet three requirements:

  – They must have received commercial passenger service prior to October 1978.

  – They must be at least 70 highway miles away from a medium or large hub airport.

  – They must require a subsidy of less than $200 per person (unless the community is more than 210 highway miles from the nearest medium or large hub airport, in which case no average per-passenger dollar limit applies).

- The last carrier serving an EAS eligible community must submit a 90-day notice of intent to suspend air service to the DOT. The carrier may not leave the market until the DOT has found a replacement carrier (unsubsidized or subsidized). After the 90-day notice period expires, the incumbent is entitled to compensation until a replacement carrier begins service.

- EAS subsidized contracts normally last two years and are based on competitive bids that meet multiple criteria.

- The EAS subsidy provides only a minimum level of air service.

[1] The average subsidy per passenger does not equate to a specific portion of a passenger's ticket price paid for by the EAS funds. Ticket pricing involves a complex variety of factors relating to the demand for travel between two points, the supply of available seats along that route, competition in the market, and how air carriers choose to manage and price their available seating capacity. Source: "Options to Enhance the Long-Term Viability of the Essential Air Service Program," GAO-02-997R Essential Air Service, August 30, 2002

[2] Source: DOT, Office of Aviation Analysis, Essential Air Service Program

[3] At the time of this report, EAS passenger numbers beyond 1999 were unavailable.

[4] The change in number of passengers served varied widely by community. (Source: "Future of the Small Community Essential Air Service Program," House of Representatives, Committee on Transportation Infrastructure, Subcommittee on Aviation)

AIR SERVICE DEVELOPMENT IN SMALL COMMUNITIES

POST 9-11 ENVIRONMENT AND COMPETITION FOR AIR SERVICE

Why is the competition for air service in smaller communities increasing? To understand the post 9-11 airline environment for small communities engaged in air service initiatives one must first have the big picture on the airline passenger traffic: how much of the total pie is generated by smaller communities? In 2004 there were 508 commercial service airports in the US that enplaned at least 2,500 passengers. They ranged in size from the small airports that handle several thousand passengers a year to the very large that accommodate millions of air travelers. The FAA divides all of these airports into five categories based on passenger enplanements (**Table 12.1**).

Airports like Boise and Spokane are classified as small hub airports, while larger airports like Seattle–Tacoma International Airport are classified as large hub airports. The number of airports that fall in the lower three classifications (small hub, non-hub, and non-primary) is 442 or 87 percent of the total. Collectively, all of these smaller airports only produce 11 percent of the total enplaned passengers. In short, smaller airports produce a relatively small share of airline passenger traffic. And like most businesses, when times are tough, airlines focus on markets that generate the bulk of their business.

For the US airline industry, the events of 9-11 turned already deteriorating financial trends into record losses. Even today, five years later, the airline industry has not recovered (refer to **Section 3**). In this environment, to say that the airlines are "risk averse" is an understatement. At the same time, airlines are reducing the turboprop aircraft fleet that has been the workhorse aircraft for hundreds of smaller communities. As the smaller turboprop aircraft have been winnowed from airline fleets they have been replaced with larger regional jet aircraft that, in many instances, are too large for many smaller markets. The result has been the loss or reduction of air service in scores of smaller communities.

Community leaders across the US realize the link between community economic activity and air service. In our world, air travel is the preferred vehicle of commerce. Accordingly, service reductions and losses and the threat thereof have energized many community leaders to aggressively solicit service improvements from air carriers. It is this combination of conditions that have dramati-

TABLE 12.1 FAA CY 2004 ENPLANEMENTS BY AIRPORT TYPE

TYPE	# OF AIRPORTS	# OF ENPLANEMENTS	% OF TOTAL
Large hub	30	484,948,605	69.2
Medium hub	36	135,856,287	19.4
Small hub	73	58,474,469	8.3
Non-hub	235	20,800,159	3.0
Non-primary airport	134	645,737	0.1
Total	**508**	**700,725,257**	**100.0**

Source: www.faa.gov/airports_airtraffic/airports/planning_capacity/passenger_allcargo_stats/passenger

cally altered the competitive environment for air service in smaller markets.

US Department of Transportation Small Community Air Service Development Program

Driven by the factors mentioned in the previous section, in 2001 the US Congress enacted the Small Community Air Service Development Pilot Program (SCASDPP) as part of the Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (AIR 21). The SCASDPP was authorized to fund up to 40 air service development grants per year for airports classified as small hub, non-hub, or non-primary. The intent was to provide cash resources to smaller communities for the enhancement of air service with a supplemental goal of generating creative air service development techniques and methods that could possibly be used by other communities. The program was, in effect, an air service development incubator.

Although the initial legislation authorized funding from 2001 through 2005, money for the program was not realized until 2002. In 2003, new legislation, the Vision – 100 Century of Aviation Reauthorization Act, reauthorized the program through 2008 titled the Small Community Air Service Development Program (SCASDP) effectively removing it from pilot program status. From 2002 through 2005, $20 million annually was appropriated by Congress for small community air service development, but in 2006, funding for the program was halved to $10 million. Beyond 2006, it is not clear whether the program will continue to receive federal funding.

What is the SCASDPP?

The Small Community Air Service Development Pilot Program was authorized to fund up to 40 air service development grants per year for airports classified as small hub, non-hub, or non-primary.

In the first five years of the program the DOT received 542 grant applications and awarded 151 grants. In 2002 there were 180 grant applications and, as airports that had received grants in previous years dropped out of the running, the number of applications fell to 84 in 2006. Two features of this program stand out. First, it is extremely flexible. Communities are encouraged by the DOT to investigate new ways of acquiring and supporting air service initiatives. Second, program guidelines require a high level of community involvement in the funding and execution of air service development plans.

Over the years, SCASDP grants have ranged from $20,000 to $1.6 million and communities have used funds to support a wide range of initiatives. The outcome has been mixed, in part due to the volatile airline environment. There have been many successes where communities have acquired new or improved existing air service. However, it is clear that where small community air service development is concerned, there is no magic bullet. Often funding for air service support programs is not the key. Aircraft availability, larger financial issues, bankruptcy of carriers, competitive issues, and timing are all part of the equation.

A copy of the SCASDP (Docket OST-2006-23671) can be accessed on line at http://dms.dot.gov. Michael W. Reynolds, Acting Secretary of Aviation Internal Affairs, heads the office within DOT that is responsible for this program. The phone number is 202-366-5392. Airports and/or communities interested in participating in this program can get quick information via the NWRSAI Mentor Program (refer to **Section 14)**.

Barriers-to-entry

In all markets, but especially smaller markets, there are barriers-to-entry that inhibit the success of air service initiatives. New air service ventures are always risky, but more so in smaller markets. Smaller communities have a smaller passenger base. This makes any fragmentation of the market problematic for the airline that is attempting to capture enough passengers to make a profit. Understanding and addressing the barriers-to-entry can make the difference between success and failure of an air service project.

The following is a description of the typical air service barriers-to-entry in small markets:

Proximity to a larger competing airport

More often than not, smaller airports find themselves competing for passengers with larger airports that have more service options and lower airfares. How far people will drive to access the benefits of the larger airport varies depending on a number of factors including highway congestion, presence of a low-fare carrier (e.g., Southwest Airlines and AirTran Airways), and nonstop service. Also, the type of travel, leisure or business, makes a difference. Business flyers are more inclined to opt for the local airport for convenience, while people who are going on vacations or personal travel will drive long distances to get a cheap ticket.

Travel habits

People who travel by air often have developed related habits that may continue to influence their travel decisions even after new service is in the community. They may, out of habit, have used a particular airline or flight many times and do not consider new air service options. Likewise, travel agents have booking habits that influence how their clients travel. In small markets that experience significant air service improvements, it is not unusual for local citizens to drive greater distances to another airport simply because that is the way they have always done it. Travel habits are an important driver of air travel purchase decisions.

Frequent Flyer programs

Often referred to as "the most powerful product loyalty program ever created," airline frequent flyer and/or mileage award programs are an especially high hurdle to clear in smaller markets where competing service is provided by an air carrier with a long-standing frequent flyer program. Many air travelers, especially business flyers, make purchase decisions with the idea of accumulating miles that can be exchanged for personal travel. It is also true that for an airline to be successful in smaller markets, it must capture a significant share of the business flyers. This is a daunting task if a competing incumbent carrier has a dominant share of the business community enrolled in its mileage award program.

Name or service awareness

It seems all too simple, but in the past air service initiatives have failed because potential customers do not know that service is available. This happens because airlines, particularly the legacy car-

riers, spend little if any marketing resources to promote service in smaller markets. Their marketing budgets are aimed at larger, high-density markets where the bulk of their customer base resides. But, the promotion of air service initiatives in smaller communities is a critical element for successful air service development programs.

In addition to the typical barriers-to-entry described above, air service initiatives can face other obstacles that affect success. Whatever the situation, community involvement in understanding and addressing the issues head-on is often the determining factor in successful air service ventures in small communities.

Exhibit 12.1 Air service development process

Air service development process

During the years since the 1978 deregulation of the airline industry, an informal process has developed for air service development in small communities. In the early years, communities that wanted air service improvements would send their local politicians and airport manager to airline headquarters to beseech airline managers to add service. Sometimes this worked, and often it did not. As communities began to understand the importance of air service to their local economies, the risk associated with air service initiatives, and how airline managers make service decisions, the air service development process became more analytical and businesslike. Today, whether large or small, communities engaged in air service development must make the "business case" for the service.

Each air service development effort is unique, and it is typical for successful initiatives to take 12 to 36 months to realize service. Understanding the relevant issues and conditions associated with each air service exercise will, to a large degree, not only increase the chances of success but determine the process. Accordingly, the process represented in **Exhibit 12.1** and the following steps are provided as a guide for community air service development.

Market analysis

A market analysis is a quantitative evaluation of the air travel passenger market for the geographic region that could reasonably be served by the local airport. The analysis includes all air travel for a specific period of time, typically one year, to all destinations (refer to **Section 13**).

IDENTIFICATION OF SERVICE GAPS AND OPPORTUNITIES

An evaluation of the market analysis points out gaps in air service and market opportunities. For example, if the market analysis identified that 50 percent, 30,000 passengers per year, of the community's traffic to San Francisco was traveling via auto to a competing airport to originate the air travel portion of their trip, this would be a service gap and a possible opportunity. Likewise, this information would point to airlines in the region that have the capability to fill the gap. By the end of this step, service needs and options are prioritized for further action.

COMMUNITY EDUCATION AND INVOLVEMENT

In most cases, successful air service development exercises in smaller markets take the commitment and involvement of community leaders and organizations like the chamber of commerce and/or an economic development corporation. Engaging local organizations and leaders in air service discussions and the implications of the previous two steps will establish the community base needed to go forward with an airline presentation and, if necessary, a related community support program.

AIRLINE MANAGEMENT PRESENTATION/ PROPOSAL

In order to make the community's case for air service, two to five community representatives attend a meeting with the responsible airline staff members, usually airline planners. In making the business case for air service, the airline presentation and/or proposal usually includes (1) a description of the community (demographics, economics, and business activity), (2) an overview of the air service

market, (3) service, passenger volume, and financial projections, and (4) a risk mitigation package proposed by the community.

AIRLINE NEGOTIATIONS AND AGREEMENT ON SERVICE

After meeting with the airline it may take months or even years before the airline reaches a decision to serve a market. During that time any number of things may happen. The community may meet with the airline several times, have further negotiations regarding the community support package, or be told that the project has been put on hold until the airline takes delivery of more aircraft. Whatever the case, the communities should plan on further discussions after the initial meeting.

IMPLEMENTATION OF SERVICE AND THE COMMUNITY SUPPORT PROGRAM

Depending on the type of service and the specifics of the community support program, the community may have its hands full prior to the service start date. For example, if the community support package includes a start-up marketing component, advertising may begin as early as 90 days prior to the inauguration of service. Likewise, airports that must make facility modifications to accommodate new or improved service need to plan accordingly.

PERFORMANCE TRACKING

After the inauguration of service the task of performance tracking begins. Here there are a couple of considerations to keep in mind. First, tracking passengers, load factors, and airfares may identify a problem in time to make corrections. Often, airlines do not make communities aware of a problem until the problem has gone on for some time, so communities need to be proactive

about flagging problems and offering help. Second, high performance numbers may indicate the need for schedule or capacity adjustments. Third, it is important to track the performance of all air carriers not just the new carrier. Doing so will provide perspective on how new service may be affecting incumbent airlines. The bottom line is that a community puts a lot of time and resources into a successful effort to recruit new service. It only makes sense to track performance and make sure the investment pays off.

SUMMARY OF MAIN POINTS

- Smaller airports generate a relatively small share (11 percent) of the total passenger traffic. It is not surprising that airlines are not focused on possible opportunities in these markets.

- Increased risk and decreased air service options for smaller markets have increased competition for air service between communities.

- Airline managers often view smaller markets as high risk due to the size of the market and the influence of barriers-to-entry.

- Communities engaged in air service development must make the business case for the service they desire.

- It is typical for community-driven air service initiatives to take 12 to 36 months to reach a successful conclusion.

COMMUNITY INFLUENCE ON AIR SERVICE DECISIONS

In the current air service environment most of the challenges faced by smaller communities are not going to solve themselves. Whether or not a community elects to pursue air service improvements on its own usually depends on the importance of air service to the community, the chance of success, and available resources.

Communities that decide to challenge the status quo and seek air service improvements can expect the process to resemble economic development exercises that seek to bring new jobs to town by recruiting corporations. Both require up-front analysis, may take from six months to several years to bear fruit, typically include competition between communities, and, more often than not, entail incentives. It can be an arduous process, but if successful, it can result in enhanced air service and, more importantly, a stronger economic base for the community. This section lays out what the community brings to the discussion: community members who are movers and shakers, incentives to address airline risk, and local market analysis showing a need for new service.

COMMUNITY ROLE

The role of the community in air service initiatives in smaller markets cannot be over emphasized. Why is it so important? With few exceptions, it is the community not the airline that takes the initiative in smaller markets. It only makes sense that smaller markets get less airline attention. There are fewer passengers and less revenue.

Apart from market size issues there are two important facts about smaller markets that diminish airline attention. First, airlines typically make service decisions based on historical data on pas-

senger traffic. If there is no historical passenger data then the community is not considered for service. This is why smaller communities that have undergone significant growth in population and/or economic activity frequently go unnoticed by air carriers. Communities must make these new service opportunities known to airline managers to receive the attention they warrant.

Second, airline managers consider smaller markets higher risk than larger markets. In short, the pie is smaller and the barriers-to-entry (refer to **Section 12**) are significant. Because smaller markets make up such a small share of an airlines' overall passenger volume, the marketing dollars devoted by airlines to these markets is miniscule. The past is full of examples of airlines that have gone into smaller markets without marketing support for new service, only to pull service after a few months because the passengers did not materialize. Today, communities seeking service improvements must convince airline decision makers not only that the market has the required passenger and revenue potential but that the community is committed to supporting the service when the airline comes to
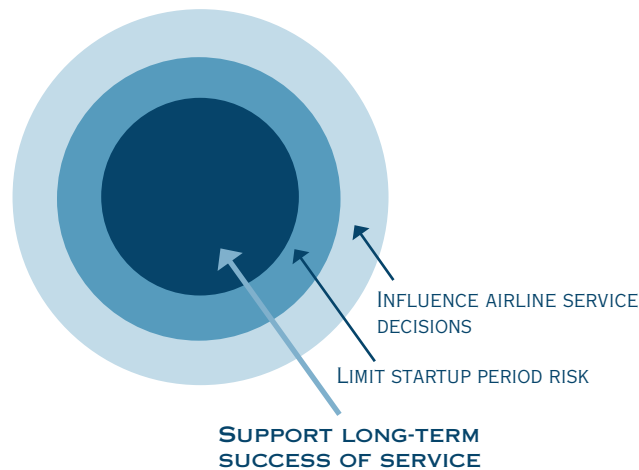
town. Examples of types of tangible community commitments are discussed later in this section.

Within smaller communities, the local business community should be the most engaged group in air service improvement. The participation of local business leaders in air service development exercises is key for several reasons. In most small communities the success of air service initiatives depends on the support of the business community. Why? In general there are two groups of air travelers, leisure and business. In small communities most leisure travelers drive to larger competing airports for lower airfares while business flyers will use local service. Business flyers are willing to pay for convenience; hence, they are the backbone of the air service market in small communities. Since business flyers have a vested interest in local air service, often they are willing participants in air service development programs. Additionally, since business flyers are considered high-value customers by airlines, their participation in air service improvement efforts has a lot of sway with airline managers. Accordingly, all air service related meetings with airline managers should include representatives from the local business community.

AIRLINE RISK MITIGATION

In every air service market there are conditions and barriers-to-entry that tend to inhibit the success of air service initiatives and this is especially true for smaller communities (refer to **Section 12**). Limited airline resources and the need for smaller communities to maintain or improve local air service have increased competition for air service. These factors have spurred interest in community sponsored air service support programs and related

EXHIBIT 13.1 AIRLINE INCENTIVE GOALS

INFLUENCE AIRLINE SERVICE DECISIONS

LIMIT STARTUP PERIOD RISK

SUPPORT LONG-TERM SUCCESS OF SERVICE

airline incentives. Generally, airline incentives should have one or more of the following three goals: (1) influence the target airline to improve local air service, (2) minimize the time it takes for the air carrier to achieve break even, and (3) support the long-term success of air service improvements in the local market (refer to **Exhibit 13.1**).

The idea that communities can leverage various types of incentives for air service improvements is not new. Shortly after the deregulation of the airline industry in 1978, communities began to dabble in attracting commercial air service. For example, in the early 1980s, Washington Dulles International Airport, 19 miles from Washington D.C., hired its first air service marketing staff and began to court airlines. In 1981, this airport was under-served, enplaning approximately 2.3 million passengers per year. Airlines responded to Washington Dulles International Airport's marketing efforts by adding service. At least in part because of marketing, by the end of 1989, its passenger traffic had jumped to 10.4 million passengers.

Today, many airports in the US engage in air service development efforts and marketing. Airline incentives are a tool that can be used by a community in an air service development program, but it must be applied in the right situation to be effective. What works for one community will not necessarily work in another community. Airline incentive programs must bridge the gap and address the needs of both the airline and the community.

With regard to airport support for air service development efforts, it is important to understand the restrictions placed by the federal government on the use of airport-generated funds. Federal regulations limit the use of airport-generated revenue to expenditures associated with the operation of the airport. Within this limitation, an airport can use airport-generated revenue for conducting air service related research, air service proposals, and marketing the airport's air service. However, airports are restricted from using airport revenue

to pay for airline operating costs. The regulations do allow airports to temporarily waive airport related fees (e.g., landing fees) in return for air service improvements. The federal restriction on the use of airport revenue is, in many cases, the reason that non-airport funds and/or SCASDP funds (refer to **Section 12**) must be used to fund certain types of airline incentives.

TYPES OF AIRLINE INCENTIVES

Airline incentives take many forms including airline revenue guarantees, cash payments, marketing support, airport fee waivers, facility improvements, and travel banks. Air service development programs often include a mix of incentives that are provided to the target airline or in support of the desired airline service. In return for an airline providing service, these programs often include one or more of the following incentives:

AIRLINE REVENUE GUARANTEE

With this type of incentive, the airline is guaranteed it will generate a specified amount of revenue from ticket sales associated with the new service. If the airline does not meet the target revenue, the local entity providing the guarantee makes a cash payment to the airline for the shortfall. The terms and guarantee periods associated with these agreements vary widely. Revenue guarantees are provided to limit the airline's risk associated with the service provided. Generally, airline managers favor revenue guarantee incentives. The downside of this type of incentive is that it does not motivate the community to use the new service.

CASH PAYMENT AND/OR SUBSIDY

With a cash payment or subsidy, the airline is paid a specified amount by the local entity for providing service. The payment is not tied to the revenue generated from the service. The number of cash payments can vary from a single payment to monthly installments. From the community's perspective, the downside of cash payments or subsidies is that the community pays the airline the agreed upon amount regardless of how the airline performs in the market. In addition, this type of incentive does not motivate the community to use the new service.

MARKETING SUPPORT

By far, the most used airline incentive is community and/or airport provided marketing support. Community air service marketing programs range from advertisements in the local newspaper to well planned multimedia advertising and promotion programs with six figure budgets. In many cases, the local community is responsible for the planning, production, and implementation of the entire program. In other instances, the airline handles the production and placement of advertising and a local entity pays the associated invoices. With regard to new air service offerings, these programs provide name and service awareness needed by the general public. This is especially important in smaller markets where airlines do not typically spend money on marketing new service.

The weakness of this incentive is that it typically reaches only half of the market. With the exception of resort areas, typically 40 to 60 percent of the total passengers in a market are inbound passengers who originate outside of the community that has the new air service. When possible, it is desirable to enlist airline assistance in at least highlighting the new service in their frequent flyer communications. Though not without its shortcomings, marketing support remains an important incentive tool.

AIRPORT FEE WAIVERS

Airports can waive airline fees and charges (e.g., landing fees, terminal rent) associated with the use of the airport in return for air service improvements. Such waivers must be for a limited period, typically no longer than 12 months. Although airport fees are a relatively small part of an airline's total operating cost, as the financial difficulties of the airline industry have evolved airport fee waivers have become an important and integral part of airline incentive programs.

PLEDGES OF SUPPORT

Because business travel is critical to the success of most air service initiatives, airlines are always concerned about the amount of support they will

get from local businesses. To give the airline some assurance of local support, communities often provide letters from area businesses stating they will use the service if it is available. Unfortunately, there are cases where airlines have initiated service based on these pledges of support, at least partially, only to find little follow through on the promise to use the new service. More often than not, this happens because competitive forces in the market influence ticket purchase decisions in favor of the incumbent airlines. Factors like frequent flyer programs, travel agency relationships with incumbent airlines, and existing corporate purchase agreements with these same airlines all serve to maintain the status quo. The upshot is that airline managers are distrustful of community promises and/or pledges of support.

Travel bank

Travel banks capitalize on the airline's interest in business travelers. Instead of local businesses

Exhibit 13.2 How a Travel Bank works
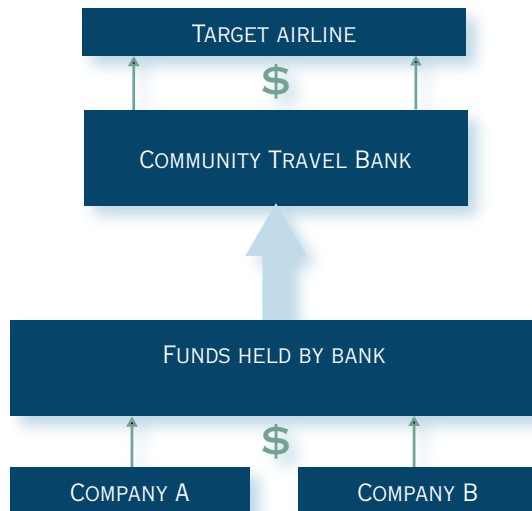
promising to use the new service, local businesses deposit funds into a bank account that can only be used for purchasing tickets on the target airline (refer to **Exhibit 13.2**). This has the effect of providing the new airline with local passengers regardless of the barriers-to-entry that may exist in the market. The effectiveness of travel banks at influencing local passenger traffic in favor of the new airline is dependent on the number of local businesses participating in the travel bank program and the total dollars committed by participating companies. Travel banks are grassroots incentive programs that require a highly motivated business community for success.

Ground handling services

In order to provide air service to a community, an airline must have provisions for ticketing, baggage, and ground handling of aircraft. All of these require equipment and personnel at the airport. In most cases, airlines elect to provide for these needs with their own equipment and manpower. At smaller airports that are served by smaller regional airlines, these ground handling costs on a per passenger basis may be relatively high. In some cases, from a cost standpoint, it makes sense for a single provider to serve all of these airlines thereby reducing the duplication of personnel and equipment. As an incentive to airlines, the trend is toward the airport providing more ground handling and airport services. Overall, the concept is to reduce airline-operating costs at the airport in order to make the airport more attractive (less expensive) to airlines.

Facility improvements

For most new air service, the airline will incur the cost of upgrading the space that it will occupy in the airline passenger terminal building. These responsibilities vary from airport to airport, but it is typical for the airline to cover the cost of installing phones and computer lines, ticket counter inserts, baggage handling equipment, arrival/departure boards, passenger hold room counters and equipment, and company logos and signage. Depending on the airline's personnel requirements and/or the layout of the terminal building, the airline may absorb the expense of remodeling their terminal spaces to meet its needs. These costs can be considerable and much of the expense is a sunk cost for the airline. Often, as part of an airline incentive package, the airport will agree to cover all or part of the cost of modifying the airline passenger terminal facility to meet the needs of the new airline. In some cases, airports have also provided financial support for the relocation of airline equipment and personnel associated with new air service offerings.

Communities continue to investigate various ways to attract and support local airline service improvements. The types of incentives detailed above cover the most common types of incentives in use today. However, there is a wide mix of other types of airline incentives that include community funded training programs for airline personnel, locally provided aircraft hangars, airline designation as a "preferred provider" by state agencies, and the purchase of ground support equipment.

Examples of airline incentive programs

Across North America, literally hundreds of communities are engaged in air service development efforts and the majority of these programs include airline incentives. The following are examples of incentive programs created by communities to attract and support air service improvements.

Modesto, CA – SkyWest Airlines

In June 2006, SkyWest Airlines initiated service between Modesto and Los Angeles, Califoria. SkyWest Airlines is operating four daily flights with the 30-seat Embraer 120 aircraft (turboprop). Modesto's incentive program had three primary components: (1) a one-year, $550,000 revenue guarantee, (2) a $105,000 community funded marketing program, and (3) airport fee waivers totaling $45,000. This is an aggressive program that provides an alternative to the existing San Francisco service for a catchment area of more than 1.2 million people.

Redding and Eureka/Arcata, CA – Horizon Air

In April 2005, Horizon Air began twice daily service between these two California communities to Los Angeles, CA with 74-seat de Havilland Dash 8-Q400 aircraft. The two communities were awarded a 2004 SCASDP grant that provided $500,000 for the revenue guarantee element of the community support package for Horizon Air. In addition to the revenue guarantee, they provided a community funded marketing program of $81,000.

Redmond, OR – Delta Air Lines

In March 2005, Delta Air Lines began service between Redmond and Salt Lake City. The community support program associated with this air service initiative included a revenue guarantee of $500,000 funded by a SCASDP grant, a $640,000 travel bank, and an extensive $250,000 marketing program. The marketing program was funded by a cooperative effort of the State of Oregon, Redmond, Oregon, and Salt Lake City International Airport. This service was so successful that Delta Air Lines elected to add a third flight in December 2005.

Eugene, OR – Delta Air Lines

On February 24, 2004, Delta Air Lines announced nonstop jet service between Eugene and Salt Lake City. The service began May 1, 2004. The Eugene Airport created its third successful travel bank in support of this air service initiative. Eugene's proposal to Delta Air Lines also included a revenue guarantee and a marketing program. Delta Air Lines added a third round-trip in February 2005.

Incentives

By far, the most used airline incentive is community/airport provided marketing support. Community air service marketing programs range from advertisements in the local newspaper to well planned multimedia advertising and promotion programs with six-figure budgets.

Market Analysis

Purpose of market analysis in an air service initiative

Market analyses serve to educate airline planners on local community issues such as the number of passengers driving to alternate airports and how existing travel habits affect true market size. These are local issues that unless brought to their attention, airlines would not be aware of. If existing air service is minimal or non-existent in a market, then airline route planners may not see a market's true potential, as that information will not show up in the easily accessible industry data.

Airlines simply do not have enough internal resources to conduct the due diligence needed on every market that is presented to them. It is incumbent upon smaller communities particularly to provide insights on passenger diversion and local business development. The expectation from many airline planners is that small communities need to convince them that a market exists and is in need of service. Airline planners typically do not contact small communities inquiring about new service opportunities. It is the community that must be prepared to knock on the airline's door to convince them that a profitable opportunity exists and why service in their community should be considered.

A market analysis provides valuable insight on a community's true market size and viable levels of air service and destinations. Detailed outcomes of the study include which alternate airports travelers are using, where passengers are traveling to-and-from, which airlines they are using, and what the

passenger volumes are by destination. Service gaps and opportunities for multiple airlines are identified. This information is the basis for identifying air service opportunities and future forecasts associated with air service initiatives.

DESCRIPTION OF RESOURCES AND PROCESS

Data for analysis comes from several industry sources including Marketing Information Data Tapes (MIDT), schedule data such as Official Airline Guide (OAG), and DOT Airline Reports. These kinds of data provide insight into the market's potential and may identify trends that are important for airline planners in understanding the true air service market. Likewise, they provide context for evaluating air service needs including appropriate capacity levels and potential new service opportunities.

Airline planners have access to the same information but often lack the time and resources to conduct the analysis themselves on all potential markets. Route forecasters will run similar analyses on markets that they find time for, but, without local input, they may be unaware of the unique issues that can affect the outcome of the market forecast. A negative market forecast is excluded from the potential new market consideration set.

In addition to data analysis, surveys of local business leaders and business flyers are important sources of information. Business travelers typically purchase higher value tickets and generate more per passenger revenue for airlines than do leisure

fliers. A business travel survey provides information on the travel habits, ticket prices, method of purchase, and airline preferences related to air travel in the local business community. Surveys illuminate the air travel interests and preferences which are important to future airline discussions. Airlines do not have the time or resources to conduct local business surveys themselves and so rely on the community's input.

FUNDING

Market studies can be funded from several sources including the local airport's general budget, the local municipality's economic development budget, grants used for air service development, or unique taxing districts. Small communities typically have the most need for market studies but often have the fewest available resources to fund market studies.

Air service development can be time consuming and expensive as various market opportunities need to be analyzed for different air carriers. The opportunities that pass the initial screening then need to be presented to the targeted airlines for closer scrutiny (refer to **Section 12**).

SUMMARY OF MAIN POINTS

- Communities must take initiative in small markets and be prepared to face significant competition for air service.

- The group that needs to be most engaged in air service efforts is the business community because its support is essential to air service success. All air service related meetings with airline managers should include local business representatives.

- Small communities are high risk, and, in most cases, airlines will require Northwest communities to provide an airline incentive package for air service improvements.

- Airline incentives take many forms, and an effective air service incentive program should include a mix of incentives.

- Airline incentives are a tool and are not one size fits all.

- Airline incentive programs can creatively bridge the gap between the needs of both the airline and the community.

- Market studies provide airline planners with insights on local issues such as passenger diversion, true market size, and business activity that they might not otherwise be aware of.

- Airlines often lack the resources to take a detailed look at all possible markets.

- Business travel surveys also provide valuable insights into a market's potential and what the local business traveler desires.

- Community provided market studies help communities, as well as airline planners, develop realistic solutions for air service gaps in smaller markets.

NWRASI MENTOR PROGRAM

INTRODUCTION

The *Small Community Air Service Development Tool Kit* is a self-help program designed to provide essential information about air service development for small communities in the Northwest. It includes this Handbook and a more general overview contained in a DVD. It is not expected that these two resources will answer all questions a community member or airport professional will have about air service initiatives in Oregon and Washington.

A mentor program is a third instrument in the *Tool Kit*. It is sponsored by NWRASI and staffed by the professional airport management associations in Oregon and Washington using volunteers who have experienced air service development first hand in their own communities. They have mastered the basic concepts and also learned valuable lessons that only working through the process can teach. Mentors are available to field questions, assist with local presentations, and help coordinate the NWRASI in individual communities. Mentors can also act as sounding boards for communities interested in pursuing air service improvements.

An outline of the NWRASI *Tool Kit* is presented in **Table 14.1**. It shows the three levels of support with the Mentor Program as a way for communities engaged in any phase of an air service effort to consult with an experienced professional.

The implementation and staffing of the NWRASI Mentor Program is made possible by the volunteer efforts of the mentors. Related out-of-pocket expenses for mentoring activities (particularly travel expenses) will be the responsibility of the community using the services, Oregon Airport Management Association or Washington Airport

TABLE 14.1 TOOL KIT RESOURCES

TOOLKIT	PURPOSE
DVD	Provides general information on air service issues.
Handbook	Gives information on the airline industry, airline service development decisions, small community service issues, and the community's role in air service development.
Mentor Program	Provides a team of airport professionals to answer questions, offer first-hand experience on air service development, and act as sounding boards for ideas for air service improvements.

Management Association, or a combination thereof. Mentors are from communities located around both states so that travel cost can be kept to a minimum. Communities interested in taking advantage of the Mentor Program should contact Ann Crook at the Klamath Falls Airport 541-883-5373, director@ klamathfallsairport.com.

NWRASI Mentors are:

- Ann Crook – Klamath Falls, OR

- Bob Noble – Eugene, OR

- Buck Taylor – Yakima, WA

- Carrie Novick – Redmond, OR

- Jeff Robb – Port Angeles, WA

- Robb Parish – Pullman, WA/Moscow, ID

- Todd Woodard – Spokane, WA

NEXT STEPS: GETTING INVOLVED IN SOLUTIONS TO AIR SERVICE DEVELOPMENT

This *Small Community Air Service Development Handbook* presents a broad range of information related to air service, both on a national level and more specifically for the Northwest. It lays out the critical factors that make air service increasingly difficult for small communities to access and improve. Now that you have gotten to the last section of this handbook, the logical question is, "Where do we go from here?"

The NWRASI consists of three phases. A brief overview of the process is outlined in **Exhibit 15.1**.

Phase I is a *Tool Kit* to help individual communities understand the complex issues that contribute to air service problems in the Northwest. Phase II and III move deeper into the process towards finding solutions. In these phases of the program, communities will need to actively participate. Communities wanting to get hands-on into the NWRASI process can do so by using the contact information in **Section 14** of this handbook and making a commitment. The following is an overview of Phase II and III.

EXHIBIT 15.1 NWRASI

PHASE I. INFORM
(DVD, HANDBOOK, MENTORS)

PHASE II. ANALYZE
(COMMUNITY AIR TRAVEL MARKET STUDIES)

PHASE III. STRATEGIZE
(DEVELOPMENT OF A REGIONAL APPROACH TO AIR SERVICE NEEDS)

PHASE II. SMALL COMMUNITY AIR SERVICE MARKET ANALYSIS

As discussed in **Section 13**, the starting point for all successful air service development is an air travel market analysis. As a beginning step, communities need to develop a database on local travel needs. Accordingly, all communities participating in Phase II and III of the NWRASI must provide current (no more than two years old) air travel market data. The NWRASI provides a way for participating communities to contract for the collection of quality, consistent information (passenger volume and destinations) which will be used to evaluate their needs and strengths related to air service.

Communities participating in the NWRASI must agree to fund the full cost of the air service market data collection and agree to participate as a private partner in the public-private partnership built into the DOT SCASDP grant that funded a portion of this project. Funds used to pay for the air service market analysis must qualify as non-airport participation or, in other words, must come from a non-airport source. The community private partner will assist with the market study as needed, participate in meetings and activities of the NWRASI, and work with a NWRASI mentor to educate and involve the broader community.

For the purposes of the NWRASI, community air travel market information must be consistent so that it can be used in the development of a regional air service unified approach. To ensure consistency, all of the individual community air service market data will be collected by the project's air service consultant. The consultant will determine the

best data collection methods for each community included in this analysis.

In some cases, MIDT data will be acquired and used to build the air travel database. In other cases, MIDT data may be judged to be insufficient and the air service consultant will estimate passenger numbers and destinations by using economic or other models. In cases where communities have current data on their air service market, the air service consultant will review and determine if the data is consistent with the program. Each community will fund its air service market study, and the total cost for the collection of this information is $5,000 per market.

Phase III. Oregon-Washington Small Community Air Service Strategies

The purpose of this third phase of the project is to research and evaluate strategies for securing air service improvements for communities in Oregon and Washington that can demonstrate their respective markets can support air service and have community commitment to support air service improvements. Communities that have participated in Phase II and taken the initiative to assess their air service markets will be considered for inclusion in this evaluation. This third phase looks at the problems using a regional approach. It will consider the overall air service needs of smaller communities in the two-state region and evaluate alternative options and strategies for securing air service improvements. The information and strategies generated in this phase will be used by members of the NWRASI in a follow-up action plan.

Summary of main points

- Communities that want to get involved must commit to participate in Phases II and III of the program.

- Phase II includes the collection and analysis of air travel data for all NWRASI communities. The cost for participation in Phase II is $5,000 for each community.

- Phase III utilizes the information collected in Phase II and supplemental industry data to evaluate the overall air service potential of the two-state region and develop options and strategies for securing service to communities in Oregon and Washington.

- Communities that wish to participate in the NWRASI should contact a NWRASI Mentor (refer to **Section 14**).

APPENDIX A

AIRCRAFT DESIGNATOR CODES AND SEATS

AIRCRAFT NAME	CODE	SEATS
Aerospatiale-Alenia ATR 72-100/200	AT7	72
BAE Jetstream 31 (BAE 3100)	J31	19
BAE Jetstream 32/32EP (BAE 3200)	J32	19
BAE Jetstream 41 (BAE4100)	J41	30
Beechcraft 1900/1900C/C-12J	BES	19
Beechcraft 1900D	BEH	19
Canadair CRJ100/200/440 (CL-600-2B19)	CRJ	50
Canadair CRJ701 (CL-600-2C10)	CR7	70
Canadair CRJ900 (CL-600-2D24)	CR9	90
Cessna 208/208A Caravan	CNC	9
Cessna 208B Grand Caravan	CNC	9
DHC-6 Twin Otter 100/200/300	DHT	19
DHC-8-100 /E-9A	DH8	37
DHC-8-200	DH8	37
DHC-8-300	DH8	37
DHC-8-400	DH4	74
Dornier 328JET/Envoy 3 (328-300)	FRJ	37
Embraer 170 (ERJ 170-100)	E70	70
Embraer 190 (ERJ 190-100)	E90	90
Embraer EMB-120 Brasilia	EM2	30
Embraer ERJ 135 (EMB-135ER/LR)	ER3	37
Embraer ERJ 140 (EMB-135KE/KL)	ERD	44
Embraer ERJ 145 (EMB-145)	ER4	50
Saab 340A	SF3	34
Saab 340B/340BPLUS	SF3	34
Swear. SA227AC/BC MIII HI MTOW	SWM	19

Source: BACK Aviation Solutions, April 2006

REGIONAL AIRLINE CODESHARE AND MARKETING PARTNERS

REGIONAL AIRLINE	CODE SHARE AND MARKETING PARTNERS
Air Midwest	US Airways
	Midwest Airlines
Air Wisconsin	US Airways Express
American Eagle	American Airlines
	Continental Airlines
	Delta Air Lines
Atlantic Southeast Airlines	Delta Air Lines
Big Sky Airlines	Alaska Airlines
	America West/US Airways
	Northwest Airlines
Boston-Maine Airways	Pan Am Clipper Connection
Chautauqua Airlines	American Connection
	Delta Connection
	United Express
	US Airways Express
Colgan Air	US Airways Express
Comair	Delta Connection
Commutair	Continental Connection
Expressjet Airlines	Continental Express
GoJet Airlines	United Express
Great Lakes Aviation	Frontier Connection
	United Connection
Gulfstream International Airlines	Continental Connection
	United Connection
Horizon Air	Alaska Airlines
	Northwest Airlines
	Continental Airlines
	Delta Air Lines
Kenmore Air Harbor	Kenmore Air Express
Mesa Airlines	America West/US Airways Express
	United Express

Mesaba Airlines	Northwest Airlink
MidAtlantic Airways	US Airways Express
Piedmont Airlines	US Airways Express
Pinnacle Airlines	Northwest Airlink
PSA Airlines	US Airways Express
RegionsAir	American Connection
Republic Airlines	American Connection
	Delta Connection
	United Express
	US Airways Express
Scenic Airlines	Scenic Airlines
Shuttle America	US Airways Express
	Delta Connection
Skyway Airlines	Midwest Connect
SkyWest Airlines	Delta Connection
	United Express
Trans States Airlines	American Connection
	United Express
	US Airways Express

Source: Regional Airline Association, April 2006 and Official Airline Guide
Note: Carriers serving Pacific Northwest markets are highlighted in dark blue.

GLOSSARY

AIR SERVICE MARKET ANALYSIS/STUDY (TRAVEL MARKET ANALYSIS)

A quantitative evaluation of the air travel passenger market for the geographic region that could reasonably be served by the local airport. The analysis includes all air travel for a specific period of time, typically one-year, to all destinations.

AIRLINE DEREGULATION ACT

Act, signed into law on October 28, 1978, designed to remove government control from commercial aviation.

AIRLINE REVENUE GUARANTEE

Type of incentive used to bring new air service into a community. The airline is guaranteed it will generate a specified amount of revenue from ticket sales associated with the new service. If the airline does not meet the target revenue, the local entity providing the guarantee makes a cash payment to the airline for the shortfall.

AT-RISK FLYING

A type of marketing agreement where a regional airline flies a city-pair route at its own expense with no guaranteed payment and assumes all the risk of success or failure, often involving a revenue-sharing agreement with a major airline.

CODE OF FEDERAL REGULATIONS PART 1542 (CFR)

The controlling federal regulation for airport security.

CODESHARE(S), CODESHARE PARTNERS, CODESHARE AGREEMENTS

A marketing practice in which two airlines share the same two-letter code used to identify carriers in the computer reservation systems used by travel agents.

DIVERSION

Passengers who do not use the local airport for air travel, but instead use a competing airport to originate the air portion of their trip.

ENPLANEMENT

A passenger boarding a commercial aircraft.

ESSENTIAL AIR SERVICE

Government subsidized airline service to rural areas of the US for communities that had air service prior to the Airline Deregulation Act of 1978, but subsequently lost air service.

FAR PART 139

Governs the certification and operation of airports that serve scheduled operations of commercial air carriers that use aircraft designed for more than nine passenger seats.

FRANCHISING

A common practice among codeshare partners whereby the regional airline adopts a variation of the legacy carrier's name, similar paint scheme, flight attendant uniform, and product branding.

FREQUENT FLYER PROGRAM

Airline marketing programs designed to win customer loyalty by giving them points for each mile flown. Points can be cashed in later for free

flights or upgrades in cabin service or, in some instances, non-airline services or items.

GLOBAL ALLIANCE

Global airline codeshare arrangements allowing a passenger to seamlessly travel around the world. In general, airlines participating in global alliances attempt to coordinate schedules, share frequent flyer programs, transfer baggage from origin to destination, share terminal space, and allow access to airport lounges for passengers who are a member of any of the alliance carriers programs, all in an effort to provide added convenience to the individual traveler. The three major airline global alliances are OneWorld, Star Alliance, and SkyTeam.

HUB

An airport used by an airline as a transfer point to get passengers to their intended destination. It is part of a hub and spoke model, where travelers moving between airports not served by direct flights change planes en route to their destination. Also an airport classification system used by the FAA (e.g., non-hub, small hub, medium hub, and large hub.

HUB AND SPOKE SYSTEM

A system for deploying aircraft that enables a carrier to increase service options at all airports served by the system. It entails the use of a strategically located airport (the hub) as a passenger exchange point for flights to and from outlying towns and cities (the spokes).

INTERLINE AGREEMENT

Contractual or formal agreements between airlines governing such matters as ticketing and baggage.

JET AIRCRAFT

Aircraft with jet engines.

LARGE HUB

An airport with one percent or more of total US annual passenger boardings.

LEGACY AIRLINE

The category assigned to the six large hub and spoke airlines with nationwide route networks.

LONG-HAUL FLIGHTS

A flight of more than four hours.

LOW-COST AIRLINE

A category of airlines that has emerged since deregulation which offer low fares, minimal amenities, and serve primarily high volume markets.

MAJOR MARKETS

Densely populated cities or regions that support service to large hub and medium hub airports.

MARKET STIMULATION

The generation of new airline passenger traffic by people who otherwise would not choose to travel or would make the trip in another way.

MEDIUM HUB

A hub with at least 0.25 percent but less than one percent of total US annual passenger boardings.

MIDT

Acronym for Marketing Information Data Tapes provided by the Global Distribution Systems.

NON-HUB

An airport with more than 10,000 but less than 0.05 percent of the total US annual passenger boardings.

NON-PRIMARY AIRPORT

An airport with at least 2,500 and no more than 10,000 annual US passenger boardings.

ONLINE

Transferring to another flight on the same airline (including express affiliates).

POINT-TO-POINT SERVICE

Nonstop service that does not stop at an airline's hub and whose primary purpose is to carry local traffic rather than connecting traffic.

REGIONAL AIRLINE

Airlines that specialize in serving smaller markets with smaller aircraft normally in association with a larger airline.

REGIONAL JETS

A small, jet-engined airliner designed to seat between 35 and 100 passengers.

SEAT PURCHASE AGREEMENTS

A contractual arrangement between a regional airline and a larger airline whereby the regional airline is paid to operate (fly) a route at a predetermined price. The major airline normally assumes all risk of success or failure but is able to maintain control over the schedule, network, and pricing. Seat purchase agreements allow major airlines to expand quickly with lower costs than internally funded operations.

SECONDARY AIRPORTS

Airports near major markets (cities) but are normally not the preferred airport of choice for that market by most travelers due to certain inconveniences such as location or frequency and aircraft (size) limitations.

SELECT AIRLINE/CARRIER

A category of airlines providing unique air service and frequently limited to select geographic areas.

SLOTS

At congested airports landing and take-off times (called slots) are allocated for use to specific airlines.

SMALL COMMUNITY AIR SERVICE DEVELOPMENT PROGRAM (SCASDP)

Grant program administered by the DOT to address air service issues in small communities.

SMALL HUB

An airport with at least 0.05 but less than 0.25 percent of the total US passenger annual boardings.

THROUGH-FARES

The fare to a destination reached by traveling through a connecting airport.

TRANSPORTATION SECURITY ADMINISTRATION (TSA)

Agency formed immediately after 9-11 as a component of the Department of Homeland Security to oversee the nation's transportation systems.

TRAVEL BANK

A travel bank is a grass roots air service support program funded by local businesses. Travel bank funds are deposited in a bank account that is restricted to the purchase of tickets on the target airline. Travel banks are designed to overcome some of the barriers-to-entry that exist in smaller markets.

TRUE MARKET

The true market is the total number of air travelers, including those who are using a competing airport, in the geographic area served by the local airport. The true market estimate includes the size of the total market as well as estimates for specific destinations.

TURBOPROP AIRCRAFT

A type of engine that uses a jet engine to turn a propeller. Turboprops are often used on regional and business aircraft because of their relative efficiency at speeds slower than, and altitudes lower than, those of a typical jet.

Written and produced by

MEAD
&HUNT

For more information, please contact Ann Crook at Klamath Falls Airport (541) 883-5373, director@klamathfallsairport.com.