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AIRLINE MERGER WAVES IN THE UNITED STATES
IS A MERGER BETWEEN AMERICAN AIRLINES AND US AIRWAYS POSSIBLE?

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ABSTRACT

Commercial airlines are an important part of the transportation industry in the United States. A better understanding of the reasons for a series of airline merger waves in the United States can help airline professionals realize the criteria and requirements of a merger. This study examined three recent U.S. airline mergers (i.e., Delta-Northwest, United-Continental and Southwest-AirTran) and deduced eight major dimensions of merger motivations, including network synergies, antitrust immunity, fleet commonality, alliance coordination, market positioning, financial benefits and shareholders' approval, union support and organizational learning. The feasibility of a hypothetical merger between American Airlines and US Airways was determined using the eight dimensions derived. Results suggested that the merger was unlikely to increase the competitiveness of the two airlines. Findings demonstrated the importance of analyzing an airline merger from different perspectives.

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Chapter 1

Introduction

Ever since the deregulation of the U.S. airline industry in 1978, there has been a gradual removal of government control over fares, routes and market entry from commercial aviation. The exposure to competition, together with issues such as energy crisis and conflicts with labor unions, put the fates of some airlines in jeopardy. As many as 26 airlines filed for bankruptcy between 1979 and early 2001. In the post-911 period, legacy carriers, such as United Airlines, US Airways, Northwest Airlines and Delta Air Lines, filed for bankruptcy one after the other. Facing the bleak outlook of the industry and economy, some of the legacy carriers started to use mergers and acquisitions (see Appendix A for definitions) to prevent themselves from being driven out of the industry.

Such phenomenon in the airline industry is not an uncommon scene in the transportation industry. The U.S. railroad industry has gone through substantial consolidation for various reasons since the nineteenth century. By analyzing previous literature, it is easy to find out the dimensions of mergers and acquisitions in the transportation industry, particularly in the airline industry. The ultimate goal of this research is to determine if the remaining two independent legacy carriers, namely American Airlines and US Airways, would be suitable for a possible merger. Otherwise, what would be the best way for these two airlines to survive under fierce competition?

This thesis is divided into six sections. First, a brief discussion of the history of mergers of the railroad industry will be offered. Second, there will be three case studies regarding the recent airline mergers in the United States. After that, the dimensions of the airline mergers and acquisitions are deduced based on the case studies. An analysis of American Airlines and US Airways will be offered next. Finally, a conclusion will be drawn based on the dimensions and analysis of the two airlines to determine if American Airlines and US Airways should merge.

Chapter 2

Railroad Industry in the U.S.

The U.S. railroad industry has gone through substantial consolidation for various reasons since the nineteenth century. In the mid-1800s, the combination of independent railroads resulted in the creation of large railroad systems to stimulate traffic and operations. The Pennsylvania Railroad System, for example, was a combination of over 600 independent railroads (Locklin, 1975). According to Brennan (1998), the U.S. railway network was overbuilt in its early years, resulting in the problem of overcapacity. As shown in Figure 1, between 1861 and 1881, the railroad network in the US nearly tripled in miles of road. There were over 250,000 miles of road in 1915. Railroad companies started to consolidate in the late 1800s for the purpose of eliminating vigorous or sometimes destructive competition. Such consolidation is known as side by side mergers.

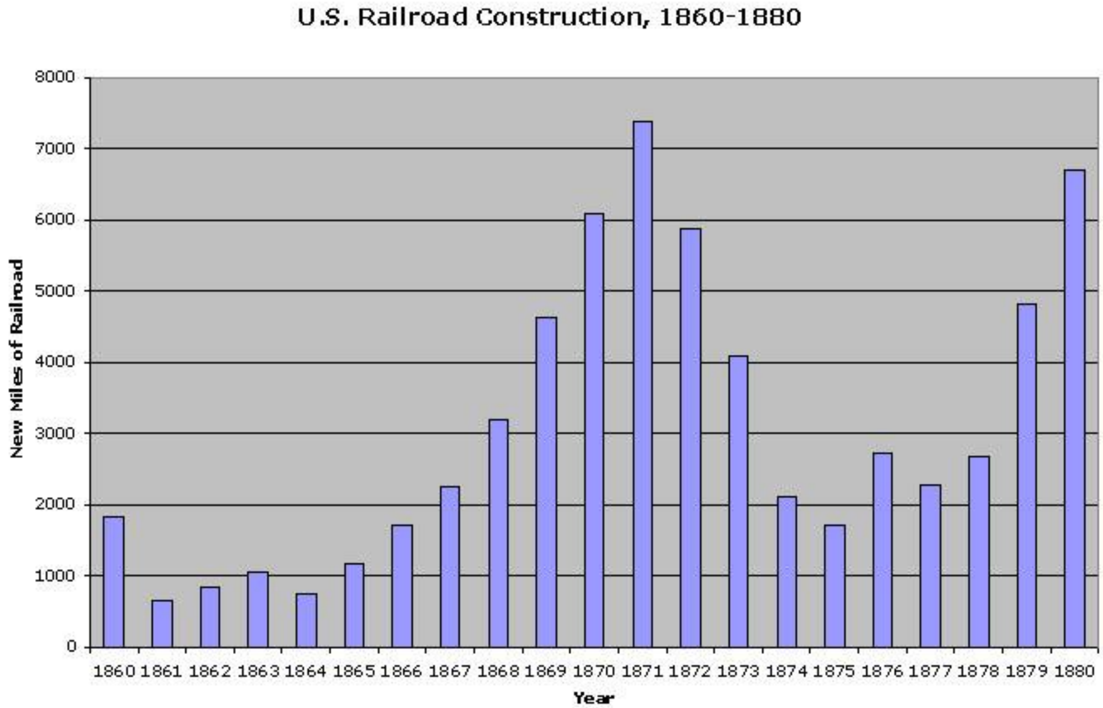

Figure 2-1 U.S. Railroad Construction between 1860 and 1880
Source: U.S. Bureau of the Census (1975)

In the past, the Interstate Commerce Commission (ICC) set the rates for rail transport. The rates were not determined by railroad companies nor upon the actual costs of service provided. Rate adjustments proposed by railroad companies were subject to the ICC's approval. The lack of control on rates made the railroad companies very vulnerable to external or inter-modal competition. After World War II, railroad companies lost much of the freight traffic to motor carriers, which had benefited from the expansion of government-funded interstate highways. There was competition from inland water carriers as well. Table 2-1 shows the trend of freight market share from 1929 to 1995. Railroads lost much of its market share to pipelines, motor and inland water carriers.

Table 2-1 Freight Market Share (Intercity Ton Miles)

Year	Rail	Truck	Inland Water	Pipelines	Air
1929	74.9%	3.2%	17.4%	4.4%	0.0%
1940	61.3	10.0	19.1	9.6	0.0
1944	68.6	5.4	13.8	12.2	0.0
1950	56.2	16.3	15.4	12.2	0.0
1955	49.5	17.5	17.0	16.0	0.0
1960	44.1	21.7	16.8	17.4	0.1
1970	39.8	21.3	16.5	22.3	0.2
1980	37.5	22.3	16.4	23.6	0.2
1990	37.7	25.4	16.4	20.2	0.3
1993	38.1	27.7	14.7	19.1	0.4
1994	39.1	27.8	14.6	18.1	0.4
1995	40.6	27.2	14.1	17.7	0.4

Source: Wilner (1997), adapted from Lim (2005)

The Staggers Act of 1980, which followed the Railroad Revitalization and Regulatory Reform Act of 1976 (4R Act), gave an impetus to the trend of consolidating railroad operations. The Staggers Act significantly reregulated the U.S. railroad industry by removing restrictive regulations and enabling railroads to be more competitive with the motor carrier and domestic water industries. It offered railroad companies greater independence from collective rate making procedures in rail pricing, service offerings, contract rates and so forth. As a result, railroad companies merged and consolidated their lines in order to remain competitive and profitable. The mergers aimed at lowering operating costs by abandoning the redundant networks and leverage efficiency, as well as allowing railroads to increase market concentration amid decreasing capacity.

The number of Class I railroads declined sharply from forty in 1980 to five in 1994: Burlington Northern Santa Fe (BNSF) and Union Pacific Southern Pacific (UPSP) in the west, CSX and Norfolk Southern (NS) in the east, and the Kansas City Southern (KCS) in the Midwest. Both horizontal ("parallel") and vertical ("end-to-end") mergers were part of this consolidation. Some recent mergers occurred in the west coast, where the number of major railroad companies was narrowed from four to two: BN merged with Atchison, Topeka and Santa Fe Railway (ATSF) to form BNSF in 1995 and UP combined with SP in 1996 to form UPSP. On the east coast, CSX and NS carved up the assets of Conrail in 1998 (Pittman, 2009).

As stated in Chapter 1, the deregulation of the airline industry also enhanced the competition within the industry. Together with the unfavorable external factors, such as 911 terrorist attacks that dramatically reduced passenger demand and rising oil prices that significantly increased costs, U.S. airlines sought for ways to sustain their businesses. Some of the airlines decided that mergers would bring positive impacts to the entire industry by reducing intra-modal competition and achieving different forms of synergy. Delta and Northwest merged in 2008 and United and Continental consolidated in 2010. Two low-cost airlines (LCC), Southwest and AirTran, determined to merge in 2010 for future growth. The next chapter offers three case studies that discuss the motivations of the recent airline mergers, so as to deduce an airline merger motivation framework for Chapter 5.

Chapter 3

Case Studies

Merger of Delta Air Lines and Northwest Airlines

The Delta and Northwest merger was announced on April 25, 2008. It claimed to be the largest U.S. airline deal in history. After the all-stock merger, the new giant airline has more than 800 jets, 75,000 employees, 6,400 daily flights, and nearly $32 billion in annual revenue. The merger further strengthened the relationship between Delta and Northwest as both airlines have been members of SkyTeam Alliance for several years. The combined enterprise is worth approximately $18 billion. The merger was said to result in $2 billion a year in revenue gains and cost savings.

The merged company keeps the Delta brand name and is based in Atlanta, where Delta has been headquartered since 1941. Edward Bastian, the President of Delta Air Lines, announced in the merger call that there would be no capacity cuts, no job cuts and no hub closures as a result of this end-to-end merger. The one-time integration cost no more than $1 billion and it took twelve to twenty-four months to complete the merger process.

Motivations

One of the primary motivations for both Delta and Northwest to merge was that the new Delta would be able to achieve "network synergy" through getting access to new markets possessed by Northwest. Northwest, once known as Northwest Orient, operated on a hub and spoke system with hubs in Amsterdam, Detroit, Memphis, Minneapolis and Tokyo, as illustrated in Figure 3-1. The airline has been one of the leading trans-Pacific carriers for decades. Northwest acquired the "fifth freedom" at Tokyo Narita International Airport in 1947 and began serving destinations in east and southwest Asia through its hub in Tokyo. Northwest also has a sizable trans-Atlantic market share through an alliance with KLM Royal Dutch Airlines. The partnership started in 1993 and it allowed Northwest to expand its network into Europe while giving KLM greater reach in North America. Northwest flew passengers from hubs in the continental U.S. to Amsterdam and passengers could then transfer to flights operated by KLM to other destinations in Europe. In terms of the domestic market, Northwest Airlines had a strong domestic presence in the Central and Midwest U.S.

Figure 3-1 Northwest Airlines Hubs
Source: Swartz (2011) (See Appendix B for IATA Airport Codes)

Figure 3-2 Delta Air Lines Hubs
Source: Swartz (2011)

On the other hand, Delta had an extensive domestic network in the Northeast, South and West. As shown in Figure 3-2, Delta's hubs include Atlanta, New York-JFK, Cincinnati, Salt Lake City, Paris Charles de Gaulle; its focus cities include Los Angeles and Washington D.C. Internationally, Delta possesses one of the most extensive Latin American and Caribbean networks from its hub in Atlanta. Similar to Northwest, Delta has a close partnership with Air France and maintains a European hub in Paris Charles de Gaulle Airport.

The end-to-end merger of Delta and Northwest added about 1,000 city pairs in the new system. Therefore, with major hubs in Atlanta, Detroit, Minneapolis, New York, Paris, Amsterdam and Tokyo, the new Delta is allowed to join the two big airlines with complementary routes and create a globally diverse network. According to Edward Bastian, the President of Delta Air Lines, the new Delta's "network synergies" will be worth $700 - 800 million a year by 2012, through the new Delta's nine-hub network, as listed in table 3-1.

Table 3-1 List of Hubs of the New Delta Air Lines

Airport	Area Served	Type/ Region	Airline Hub Before Merger
Amsterdam Schipol Airport	Europe	European hub in conjunction with partner KLM	Northwest
Cincinnati/ Northern Kentucky International Airport	Cincinnati, OH	Secondary Midwest hub	Delta
Detroit Metropolitan Wayne County Airport	Detroit, MI	Primary Midwest hub	Northwest
Hartsfield-Jackson Atlanta International Airport	Atlanta, GA	Largest hub, headquarters	Delta
John F. Kennedy International Airport	New York, NY	International gateway	Delta
Narita International Airport	Tokyo, Japan	Asian hub	Northwest
Memphis International Airport	Memphis, TN	Secondary Hub	Delta
Minneapolis-Saint Paul International Airport	Minneapolis, MN	Third largest hub, ex-headquarters of NW	Northwest
Paris Charles de Gaulle Airport	Paris, France	European hub in conjunction with partner Air France	Delta
Salt Lake City International Airport	Salt Lake City, UT	Secondary East Coast hub	Delta

The fact that both airlines shared very few overlapping routes between networks helped gain the approval for the merger from the U.S. Department of Justice (DOJ). Delta would need the approval of the DOJ, which determines whether the merger violates antitrust laws, in order to complete the merger process. This investigation process usually takes months to complete. Of the one thousand city pairs that Delta and Northwest collectively serve, they only competed on twelve routes. Among these routes, eight of them have at least two other competitors serving the same market. Therefore, the merger did not necessarily lessen competition, a major concern of the DOJ. The merger was eventually approved by the DOJ after six months of investigation. The DOJ stated that the merger was "likely to produce substantial and credible efficiencies that will benefit U.S. consumers, and is not likely to substantially lessen competition." (Moylan, 2008)

Efficiency can be achieved by matching aircraft with routes in the expanded network. Table 3-2 lists the aircraft used by Delta and Northwest. Delta has been a loyal customer of Boeing aircraft. It mainly uses Boeing B737s, B757s and McDonnell Douglas MD-88s and MD-90s for short-haul routes; B767s and B777s for long-haul and international routes. On the contrary, Northwest used McDonnell Douglas DC-9, Airbus A320s and Boeing B757s for domestic operations and B747s and A330s for international destinations. The combined airline would need to manage nine different aircraft types.Although Delta and Northwest do not share a common fleet, which may result in competitive disadvantage to the airline, each of them brings aircraft that complement the combined fleet. A larger diverse fleet allows the new Delta to have the flexibility to reallocate the aircraft on the routes best suited for the specific aircraft types. In other words, given a fleet that is comprised of aircraft ranging from 100 to 403 seats, the new Delta is now able to better match capacity with demand and to adjust for seasonal demand shifts. For example, Northwest has the largest aircraft (B747 with 403 seats) in the combined fleet and these jumbos can be moved to Atlanta, which is Delta's major international hub and currently the number one airport in the United States in terms of volume of passengers and number of flights, for long-haul routes that require a bigger capacity. Delta expected to reallocate 50 percent of the international fleet and 10 percent if the domestic fleet to improve profitability. For example, some of the ex-Northwest's B 747s were pulled from the trans-Pacific routes and put on the routes between Atlanta and

European cities during summer peak seasons for its capacity. The airline also expected to generate $300-$400 million a year in net savings by reducing overhead and better matching aircraft range capabilities with geographic locations of the hubs.

Table 3-2 Delta and Northwest Fleet

Delta	**Northwest**
Boeing 777	Boeing 747
Boeing 767	Airbus 330
Boeing 757	
McDonnell Douglas MD-90	Airbus 320
McDonnell Douglas MD-88	Douglas DC-9
Boeing 737	

The lack of fleet commonality also helps with the integration process because the airline does not have to merge a large number of maintenance programs. With the acquisition of Northwest's facilities, Delta gained additional hangar capacity and skills to handle Airbus aircraft. It thus becomes the largest airline maintenance, repair and overhaul (MRO) company in North America (Compart, 2010).

Merger of United Airlines and Continental Airlines

On February 2008, immediately after the merger announcement of Delta Air Lines and Northwest Airlines, the media reported that United Airlines (United) and Continental Airlines (Continental) were having negotiations for a potential merger. On April 28, after UAL Corporation, the parent company of United Airlines, had announced worse-than-expected earnings, Continental Airlines consequently decided to terminate the merger discussion. Lawrence Kellner, CEO of Continental, and Jeffery Smisek, the President of Continental, stated in a letter to Continental employees that the risks of the merger outweighed the potential rewards. Although Continental Airlines intended to remain as an independent carrier, the management of Continental revealed to the media that they were evaluating global airline alliances (see Appendix A for definition) and considering alternatives to SkyTeam, which was comprised of Continental, Delta and Northwest. The merger of Delta and Northwest within SkyTeam would marginalize Continental because the new Delta's route network would be in direct competition with Continental. In summer 2008, Continental formally exited SkyTeam and joined Star Alliance.

Meanwhile, after failing in negotiations with Continental Airlines, United started merger discussions with US Airways. The proposal was shelved in late May 2008 due to pilot union objections and US Airways' poor financial performance and overlapping of markets (Schoffield, 2008). In early 2010, United was again looking for a merger partner. It approached both US Airways and Continental. On April 22, Doug Parker, CEO of US

Airways, stated that the board of directors of US Airways had decided to discontinue the merger discussions after an extensive review and careful consideration.

The United-Continental merger was announced on May 3, 2010. The merger was consummated by a stock-swap transaction value at approximately $8 billion. United shareholders would own 55 percent of the equity in the combined entity and Continental shareholders would hold 45 percent. The combined entity surpassed Delta as the world's largest airline in terms of available seat miles (ASMs). On October 1, 2010, Continental Airlines became a wholly owned subsidiary of UAL Corporation, the parent of United Airlines. At the closing of the merger, UAL Corporation changed its name to United Continental Holdings Inc. Both United and Continental remained separate airlines until a single operation certificate was granted by the FAA for the new United Airlines. The consolidated airline was to be called United. It would be based in United's home in Chicago, while Houston would be the largest hub. The fleet of 721 mainline aircraft wears the United name with Continental's "globe" tail and blue and gray livery. The reason for keeping United's name is that United has a better brand recognition globally, albeit Continental was voted as the one of the best value domestic airlines. The one-time costs of the merger are expected to be $1.2 billion over a period of three years. Glenn Tilton, former United President, Chairman and Chief Executive Officer (CEO), became the Chairman of the United Continental Holdings Inc; Jeff Smisek, former Continental's President and CEO, became the Director, President and Chief Executive Officer. The new United would carry 144 million passengers a year to 378 destinations worldwide from its ten-hub network. The airline would employ approximately 89,000 people in the U.S. and abroad.

Motivations

According to Shannon (2011), Continental was being marginalized by its domestic SkyTeam partners in the mid-2000s, namely Delta and Northwest. The announcement of the merger between Delta and Northwest in 2008 gave Continental an impetus to reevaluate its identity within SkyTeam. As Continental was planning to exit SkyTeam in 2008, the airline was seeking another airline alliance or other form of partnership for growth and financial and operational support. Continental joined Star Alliance in 2008. The merger of United and Continental was to strengthen the partnership between the two airlines for various reasons.

The merger was expected to improve both the airlines' financial situations. It was estimated the merger would to result in annual synergies totaling $1 to $1.2 billion. The annual cost of synergies would be between $200 million and $300 million and estimated revenue synergies to total between $800 and $900 million. The combined company would generate annual revenue of approximately $29 billion. Having suffered from net income loss three out of the past five years, both United and Continental were convinced that the merger would bring in not only synergies, but also financial rewards in the long-run.

Both United and Continental shared a complementary network. United possessed domestic hubs across the contiguous United States and Continental concentrated its operations in the South, East and Midwest. Figure 3-3 exhibits the hubs of United before the merger in 2010. United had five major hubs in the U.S. Washington Dulles International Airport in the east; Chicago O'Hare International Airport in the Midwest;

Denver International Airport in the Rocky Mountain area; and Los Angeles International and San Francisco International on the west coast. United also uses Tokyo Narita International Airport as an Asian hub. Continental has hub operations in Newark International Airport on the east coast, Cleveland in the Midwest and Houston in the south. Continental also has a small Pacific hub in Guam Antonio B. Won Pat International Airport, through its wholly-owned subsidiary Continental Micronesia. Figure 3-4 illustrates the geographical locations of Continental's hubs. The new United possesses a ten-hub network, as shown in Table 3-2. Through the hubs, the new United serves 378 airports with 5,811 daily departures and an estimated 144 million passengers per year.

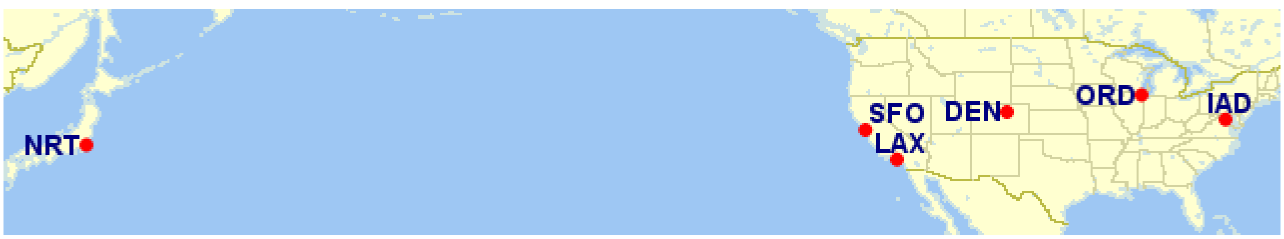

Figure 3-3 United Airlines Hubs
Source: Swartz (2011)

Figure 3-4 Continental Airlines Hubs
Source: Swartz (2011)

Table 3-3 List of Hubs of the New United Airlines

Airport	Area Served	Type/ Region	Airline Hub Before merger
Antonio B. Won Pat International Airport	Guam	Pacific hub	Continental
Cleveland Hopkins International Airport	Cleveland, Ohio	Midwest hub	Continental
Denver International Airport	Denver, Colorado	Western hub	United
George Bush Intercontinental Airport	Houston, Texas	Largest hub, primary gateway to Latin America	Continental
Los Angeles International Airport	Los Angeles, California	Secondary West Coast hub	United
Narita International Airport	Tokyo, Japan	Asian hub	United
Newark Liberty International Airport	Newark, New Jersey, New York metropolitan area	Main East Coast hub	Continental
O'Hare International Airport	Chicago, Illinois	Second largest hub	United
San Francisco International Airport	San Francisco, California	Main West Coast hub	United
Washington Dulles International Airport	Northern Virginia Washington, D.C.	Secondary East Coast hub	United

The merger of United and Continental strengthened the airline's domestic and international presences. The new United possesses leading market share in the top domestic markets in the U.S. It has hub operations in four of the ten most populated metropolitan areas in the U.S., namely New York, Los Angeles, Chicago and Washington D.C. These metropolitan hubs are crucial to United because the large population and business activities offer a strong demand for origin and destination (O&D) markets between the metropolitan regions. Furthermore, there is a higher percentage of business travelers in the metropolitan areas. Business travelers traditionally have an inelastic demand for travelling and are willing to pay a higher premium for a better time schedule and quality services. Although they only account for thirty percent of the passenger traffic, business travelers account for fifty percent of the industry's revenue. This is especially prominent in regional routes, since business travelers account for as much as seventy percent of the regional jets passengers capacity, according to Standard & Poor's Airlines Industry Survey (Corridore, 2009). Having operational hubs in these metropolitans enables United to offer passengers more convenient regional and international connections. Thus, United has more ability to attract and retain these business travelers.

In terms of the international network, the new United is able to combine the strengths from both United and Continental to maintain strong presences in the trans-Pacific, trans-Atlantic and Latin American markets. United is one of the two American air carriers that maintains a hub operation in Tokyo Narita Airport. The other carrier is Delta, which acquired the operations from Northwest. Together, with Continental's Micronesia network, United is able to achieve competitiveness in the intra-Asia market against Delta. According to Corridore (2009), many U.S. airlines regard international markets as a source of growth. The long-haul nature of these routes tends to have higher average fares and lower unit costs. They are also more profitable than domestic flights in the U.S. Although United had a large Asian presence around East Asia, Continental would add two new, important, countries to the network – namely India and Israel. This will increase the new United's Asian network to 18 cities – with Delhi, Mumbai and Tel Aviv newly added.

United and Continental shared few overlapping routes and it helped in getting the DOJ's approval for the merger. Of the 340 destinations that the two airlines serve collectively, only fourteen routes overlapped. Although the number of overlapping routes was few, some analysts stated that the merger could raise antitrust concerns in terms of the large proportion of market share that United and Continental share. The new United enjoys seven percent of international market share and twenty-one percent of domestic capacity, which is the largest proportion followed by Delta's twenty percent. Furthermore, the combined airlines would have a forty percent market share at San Francisco International, thirty-five percent at Chicago O'Hare, sixty-four percent at Houston Intercontinental and fifty-five percent in Newark Liberty International in New York area (Mouawad & de la Merced, 2010). In order to gain the approval from the DOJ, Continental agreed to lease 18 pairs of takeoff and landing slots at Newark Liberty International to low-cost carrier Southwest Airlines as a resolution to competition concerns. Before the merger, United and Continental operated 442 daily round-trip flights at Newark Liberty International. According to Hunter Keay, an airline analyst at Stifel, Nicolaus & Company, the concession to Southwest is a very small price to pay to get the deal done (Mouawad et el., 2010). The merger was eventually approved by DOJ on August 27.

Table 3-4 United and Continental Fleet

United	Continental
Airbus A 319	
Airbus A 320	
	Boeing B 737
Boeing B 747	
Boeing B 757	Boeing B 757
Boeing B 767	Boeing B 767
Boeing B 777	Boeing B 777

Another motivation for United and Continental to merge was that the combined airline was able to achieve cost savings through fleet commonality. Table 3-3 illustrates the common mainline fleet that United and Continental share. According to Clark (2006), different forms and degrees of fleet commonality contribute to quantifiable cost savings. The cost savings can be divided into two parts: introductory costs and day-to-day costs. Introductory costs involve spare provisioning, crew training and ground support equipment. The latter two have more prominent cost savings effects.

First, crew training incurs a huge cost to an airline. Every airline has to manage individual groups of pilots according to their ratings and type of aircraft that they operate. When a pilot needs to migrate from one type of aircraft to another, one must undergo a twenty-five-day transition training called type-rating course. A B777 type rating course costs approximately $17,000 per person. Since both United and Continental operate a common fleet of Boeing 737s, 757s, 767s and 777s, a Continental pilot with B777 ratings need not undergo training in order to operate a United B777. Therefore, the fleet commonality not only allows the airline to better allocate flight crew resources, but also saves the cost of cross-type training.

Second, ground support equipment refers to the facilities at the terminal that are required to support a particular type of aircraft. The common fleet can achieve outstation savings depending on the intensity of use and the degree to which aircraft from the same family serve the same routes. The cost savings would be even more prominent if one of the airlines has already invested in compatible ground support equipment that is available to use in an airport. For example, United does not need to invest in extra group support equipment when a United B 737 flies into Houston Intercontinental Airport because it can enjoy the common facilities and terminals previously acquired by Continental.

The fleet commonality advantages also extend to the engineering and technology deparments where a high degree of commanlity is found. Although some of the aircraft types use different brands of engines across the United-Continental combined fleet, the aircraft can still share common spare parts and information systems. The majority of United’s fleet uses engine manufactured by International Aero Engines and Pratt and Whitney while Continental mainly uses engines produced by CFM International, Rolls-Royce and General Electric. The airline thus can reduce spare inventory costs and maintenance overhead.

Southwest's Acquisition of AirTran

Southwest Airlines (Southwest) is the largest domestic airline in the U.S in terms of passengers carried domestically in 2010, according to ATW (Scheduled Passengers Carried, n.d.). Based in Dallas, Texas, Southwest started service in 1971 and is also the first low-cost carrier (LCC) in the United States. Unlike the legacy carriers, which adopt a hub-and-spoke network system, Southwest uses a point-to-point network that connects 72 cities in the U.S. With more than 35,000 employees system-wide, Southwest now operates a fleet of 538 Boeing 737 aircraft and offers more than 3,400 flights a day (Southwest Airlines, 2011). In 2010, Southwest celebrated its 38th year of consecutive profitability.

Based in Orlando, Florida, AirTran Airways (AirTran) is another low-cost carrier that provides services between Eastern and Midwestern cities of the U.S. and the Caribbean. AirTran is a successor of ValuJet which was founded in 1992 by former Southern Airways' executives and pilots, mechanics and flight attendants from the defunct Eastern Air Lines. Contrasting to Southwest, AirTran maintains hub operations in Hartsfield-Jackson Atlanta International Airport in Georgia, and General Mitchell International Airport in Milwaukee, Wisconsin. The airline has also developed focus cities in Orlando International Airport in Florida and Baltimore Washington International Airport in Maryland. It employs over 8,500 employees and offers more than 700 flights daily.

On September 27, 2010, Southwest announced that it would acquire AirTran Holdings Inc., the parent company of AirTran, for $1.4 billion. It is the first major merger among U.S. low-cost carriers. Upon closing, an AirTran shareholder would own about seven percent of the combined company. Although the two airlines remain operating independently before the close of the merger, Southwest plans to integrate AirTran into the Southwest brand and ultimately obtain a Single Operating Certificate within 18 – 24 months after closing the acquisition. Different functions of AirTran, such as reservation and ticketing systems, website, frequent flyer program, would be integrated gradually into Southwest's systems. The AirTran fleet would wear the Southwest logo, colors and configuration.

Southwest and AirTran are currently awaiting clearance on the proposed merger from the DOJ. The two airlines anticipate the merger to close during the second quarter of 2011.

Motivations

Obtaining a bigger and wider network was the major reason that Southwest decided to acquire AirTran. If the merger is approved by the DOJ and other regulators, Southwest will be able to create the most expansive network of any low-cost carrier in the nation and leap-frog Southwest's strength by entering key business markets in the U.S.

First, the acquisition of AirTran enables Southwest to gain access to a number of business centers in the U.S. that it has not served or under-served because of slot control.

These cities include Atlanta (Hartsfield-Jackson International, ATL), Washington D.C. (Regan National, DCA), Boston (Logan International, BOS) and New York (LaGuardia, LGA). Southwest currently does not fly to ATL and DCA. Southwest has obtained a total of fourteen slots (seven departures and seven arrivals) at LGA from defunct ATA in 2009. It connects passengers between LGA and Chicago Midway and Baltimore International.

Although Southwest strategically positions itself as a low-cost carrier and offers a single economy class across its fleet, it has been trying to lure business travelers recently since they account for the greatest portion of the airline's revenues and tend to travel more frequently. Business travelers are willing to pay more money and have more brand loyalty than leisure travelers (Sealover, 2010).

In late 2007, Southwest introduced Business Select, which allows passenger to pay in order to be one of the first fifteen people to board the plane. In order to make up for the lack of airport lounges, the airline refurbished gate areas, installed more comfortable seating and added stations for charging laptop batteries to cater to business travelers' needs. In addition, in 2010, Southwest installed WiFi service and revamped the frequent-flier program to attract more business travelers. The new frequent-flier program, called Rapid Rewards, enables members to accrue points based on dollars spent on Southwest flights instead of miles flown. Unlike other airlines' frequent-flier programs, there are no seat restrictions, capacity controls or blackout dates. To give more incentives for business travelers to fly on Southwest and enroll in Rapid Rewards, the program introduced membership tiers and offers international flights by other carriers as redemption rewards.

Southwest has been known for flying to secondary or smaller airports that are further away from major cities in an effort to reduce operation costs and travel delays. Though the addition and expansion of the major business cities may inevitably involve higher costs, it helps gain market presences by attracting business travelers to fly on Southwest. For example, although both Southwest and AirTran maintain a strong market presence at Baltimore-Washington International Thurgood Marshall Airport (BWI), the addition of Regan National Airport (DCA) in Washington, D.C. would undoubtedly attract even more business travelers to fly on Southwest, because of its proximity to downtown Washington D.C.

Among these cities, gaining access to ATL has the most strategic significance to Southwest. To begin with, Hartsfield-Jackson International is the busiest airport in the U.S. and in the world in terms of passenger volume. Both Delta and AirTran maintain a hub at ATL. Delta is the leading player with more than fifty-eight (58) percent of market share (2010 December data), followed by AirTran with about seventeen (17) percent. Southwest has never served ATL since its operations began in 1971. With the purchase of AirTran, Southwest will, for the first time, compete directly with Delta on its home turf at ATL (Reed & Charisse, 2010). In fact, ATL is so significant that Bob Jordan, Southwest's executive vice president of strategy and planning, stated in a media conference that ATL could turn out to be the largest city in the Southwest network in a reasonable amount of time (Yamanouchi, 2010).

Furthermore, Southwest will expand its service to an additional thirty-eight (38) destinations through the absorption of AirTran. Among them, there are a number of international destinations. AirTran currently serves seven cities in the Caribbean, Mexico and Latin America out of ATL. In other words, Southwest will begin international services for the first time in its forty years of history and compete with Delta on some of the domestic routes and near-international markets. It is remarkable because Southwest has been following its unique business model that only provides no-frills domestic services.

Although there are nineteen routes that are overlapping for Southwest and AirTran, these routes are concentrated in Baltimore-Washington International Thurgood Marshall Airport (BWI) and Orlando International Airport (MCO). It thus raises the question of monopoly brought by the proposed merger between Southwest and AirTran. At BWI, AirTran and Southwest will have a post-merger market share of just over sixty percent; the next closest competitor, Delta, has seven percent. Table 3-4 lists the overlapped routes currently served by the two airlines. Eight of the routes originating from Baltimore will be fully monopolized by the post-merged Southwest. According to Diana Moss, the Vice President and Director of American Antitrust Institute, post-merger concentration would be excess of 9,000 HHI[1] in the monopoly airport-pair markets, which exceeds the thresholds for potential danger specified in the Department of Justice/Federal Trade Commission Horizontal Merger Guidelines (Moss, 2010).To

[1] Herfindahl-Hirschman Index (HHI) is used to measure market concentration for purposes of antitrust enforcement. A market is regarded as “unconcentrated” if the post-merger HHI is below 1500. The market is “moderately concentrated" for HHI value between 1500 and 2500. When the HHI is higher than 2500 , that means the market is "highly concentrated” (Chin, 2010).

combat this problem, Southwest may need to divest some of the routes departing from BWI in order to obtain the approval from DOJ.

Table 3-5 List of Overlapping Routes between Southwest and AirTran

Southwest and AirTran overlap on 19 non-stop routes. Their combined share of scheduled seats in September 2010:

Route		**Share**
Baltimore	Boston	80%
Baltimore	Fort Lauderdale	100%
Baltimore	Indianapolis	100%
Baltimore	Jacksonville	100%
Baltimore	Orlando	100%
Baltimore	Milwaukee	100%
Baltimore	New Orleans	100%
Baltimore	Tampa	100%
Baltimore	Fort Myers, Fla.	100%
Chicago Midway	Fort Myers, Fla.	100%
Indianapolis	Tampa	100%
Las Vegas	Milwaukee	79%
Orlando	Buffalo	72%
Orlando	Columbus, Ohio	100%
Orlando	Indianapolis	100%
Orlando	Chicago Midway	100%
Orlando	Milwaukee	73%
Orlando	Philadelphia	44%
Orlando	Pittsburgh	100%

Source: Hansen and Stoller (2010)

Because of the complementary network and partial fleet commonality, Southwest estimates that the combination of the two airlines will potentially bring in annual net synergies of more than $400 million (Southwest Airlines, 2011). As shown in Table 3-5, both airlines use an all-Boeing fleet. Southwest currently operates a fleet of 548 Boeing 737 jets. AirTran, with 138 jets, utilizes two types of aircraft: Boeing 717-200s and Boeing 737-700s. Since Southwest's establishment, it has been using the one-model-fleet tactic in order to minimize operation and maintenance costs. With only one airplane model in Southwest's fleet, pilots and mechanics need to be trained on this particular kind of airplane. It also simplifies the fleet management and decreases inventory, record keeping and maintenance costs since fewer technical manuals, tools and spare parts are needed (Boeing Media, 2002).

Table 3-6 AirTran and Southwest Fleet

AirTran			Southwest		
Fleet Type	**Quantity**	**Seats**	**Fleet Type**	**Quantity**	**Seats**
Boeing 717-200	86	117	Boeing 737-300	171	137
Boeing 737-700	52	137	Boeing 737-500	25	122
			Boeing 737-700	352	137

The acquisition will give Southwest a two-model fleet (Boeing 737s and Boeing 717s) for the first time in Southwest's history. The combined fleet will consist of 404 Boeing 737-700s, 137 Boeing 737-300s, 25 Boeing 737-500s, and 86 Boeing 717s. In addition to that, in September 2010, AirTran had fifty-one (51) B737-700s on order and the delivery of these aircraft would begin in spring 2011. Since both Southwest and AirTran share a type of aircraft in common (Boeing 737-700), the combined Southwest will be able to allocate these aircraft across a larger network without having to retrain its current pilots. However, the Boeing 717s, which can seat 117 passengers, is a smaller aircraft compared to Boeing 737s and requires different pilot training and spare parts. Nonetheless, Southwest regards the addition of this aircraft type as an opportunity of growth rather than diseconomies of scale. Southwest CEO Gay Kelly stated that

Southwest would retain those mostly leased and relatively young 717s to serve smaller markets, which Kelly identified as a growth opportunity (Combart, 2010). AirTran currently uses B 717s on service to small communities that require less frequency and capacity.

Financially, the airlines expected the acquisition would result in a 15 percent pretax investment return upon full realization of estimated net synergies and excluding one-time acquisition and integration costs (Southwest Airlines, 2011). When comparing the two airlines' revenues and costs, both carriers attained positive net incomes in year 2010 after a setback in 2009, as shown in Table 3-6. Despite Southwest being a much larger airline, AirTran managed to keep the cost per available seat miles (ASM) lower than Southwest. Cost per ASM is calculated by dividing operating revenue by available seat miles.

Table 3-7 Revenues and Costs of AirTran and Southwest (4 quarters ending Q3 of 2010)

	AirTran	Southwest
Operating Revenue (millions)	2,572	11,702
Operating Cost (millions)	2,418	10,763
Operating Profit/Loss (millions)	154	939
Net Income (millions)	54	443
Passenger Yield (cents)[2]	11.91	14.14
Revenue per ASM (cents)[3]	10.71	12.03
Cost per ASM (cents)[4]	10.07	11.06

Source: Research and Innovative Technology Administration (2011)

Another reason for the acquisition is that both Southwest and AirTran have a strong culture for providing low-cost but high-quality services. The Airline Quality Rating (2011) ranked AirTran as the best overall performance of the sixteen largest U.S. carriers in 2010. AirTran had the best mishandled baggage rate of all airlines rated two years in a row, with only 0 .6 mishandled bags per 1,000 passengers. Southwest, on the other hand, achieved to have the lowest consumer complaint rate, 0.27 per 100,000 passengers in 2010. In addition, both AirTran and Southwest attained an above-average on-time arrival percentage. One explanation for Southwest being able to achieve on-time percentage is that Southwest tends to fly to airports that are further away from the cities to avoid delays due to congestion.

Chapter 4

Dimensions of Airline Mergers

This chapter will summarize and discuss the dimensions and common motivations found in the three most prominent major airline mergers found in recent years, as discussed in the previous chapter.

1. Network Synergy

Network synergy refers to the effect of allowing a consolidated airline to combine the strengths of each carrier and maintain a much broader network. It can be exemplified by the Delta and Northwest merger. Before the merger, Northwest did not have a significant presence in the Latin America markets but possessed an Asian hub in Tokyo, Japan. Delta, on the other hand, has a large number of routes connecting Latin America, the Caribbean and Mexico through its Atlanta hub, though it only serves a small number of destinations in the Far East. The combination of Delta and Northwest route networks is complementary to each other's weaknesses. The new Delta is now able to connect passenger from Asia to Latin America through its more extensive network acquired from Northwest. In addition, network synergies from international routes are even more desirable. According to Corridore (2010), international routes generate a disproportionately high level of revenue passenger-miles than domestic flights because of the longer average flight length.

2. Overlapping of Routes (Antitrust Approval)

The number of overlapping routes is vital to the success of an airline consolidation for the reason that all airline mergers are subject to regulatory approval, particularly the Department of Justice Antitrust Division. The Division reviews and evaluates contemplated mergers to determine if they may lessen competition. The goal of antitrust enforcement is to protect consumers by maintaining competitive markets, which produce high quality and low prices (McDonald, 2005). According to Clayton Act § 7, mergers and acquisitions that may substantially lessen competition in the U.S. market are prohibited. The Antitrust Division performs antitrust analysis, which includes examination of all the city pairs in which the merging carriers offer service. It then identifies the overlapping city pairs and calculates pre-merger and post-merger market shares against competitors. In addition, the Division scrutinizes the “relevant market”, which refers to the market shares of different market segmentations, such as business versus leisure travelers and direct versus indirect routes. The possibility of entry is also taken into anticompetitive consideration because it is directly related to the level of competition. In other words, if an airport is under slot control, entry to the market by a competitor will be less likely and it will consequently result in less competition. With less competition, the merging carriers will have greater ability to control, or even raise, the market prices.

If the analysis demonstrates that the contemplated merger will cause significantly less competition, DOJ will seek to block the anticompetitive mergers in court in order to maintain competitive markets in the U.S. According to an economic research done by Benkard, Bodoh-Creed and Lazarev (2010), a merger between two major hub carriers leads to increased entry by the other hub carriers, and can lead to substantial increased entry by low cost carriers. Both effects offset some of the initial concentrating effects of the merger.

3. Fleet Commonality

According to Holloway (1997), fleet commonality refers to the presence in an airline's fleet of family of airframe derivatives and/ or engine derivatives. Examples of aircraft family include Boeing 737 New Generations (B 737-600/700/800/900) and Airbus 320s (A 318/319/320/321). Reducing the number of aircraft types can effectively lower the costs of training, ground equipment and inventory management. Aircraft from the same "family" share a common design and thus an extensive amount of spare parts can be used interchangeably. The airline that uses a single aircraft family, therefore, is able to leverage its competitiveness by lowering investment and inventory carrying costs than otherwise.

Fleet commonality brings in air crew training or scheduling flexibilities through common type ratings and/ or cross-crew qualification (CCQ). A family of aircraft usually shares a common type-rating, which means that these aircraft can be flown on a single license certification. Given an airline is equipped with a number of variants in a common “family”, common type rating offers the flexibility of assigning aircraft and rostering pilots according to different payload-range capabilities and passenger demand (Holloway, 1997). For instance, US Airways simplified its regional fleet in early 2000s by ordering new Airbus 320s family to replace older Boeing 727s, 737s, McDonnell Douglas 80, Douglas DC-9-30 and Fokker F100s. As a result, the number of aircraft types decreased from five to one. With only one mainline short to medium haul aircraft type (A 320s family), US Airways is able to move crews easily between types depending on passenger or cargo demand.

Cross-crew qualification was developed by Airbus Industrie that allows pilots from one subfleet or aircraft family to operate another subfleet after completing conversion training. Since most of Airbus aircrafts are developed from a common design concept, there are a lot of similarities between the subfleet in terms of cockpit configurations and handling characteristics. Because of the similarities between aircraft types, it takes less time to complete the transition from one Airbus family to another as compared to a regular conversion course, which takes about twenty-five days. It takes eleven days to convert from A320 to nA330; 13 days for A 320 to A340; 11 days for A340 to A320; 3 days from A330 to A340; and one day from A340 to A330.

4. Alliance Coordination

From the three airliner mergers mentioned in the case studies, two of the mergers were involved with global alliances. Delta and Northwest were members of Skyteam before the merger; United and Continental were members of Star Alliance. These airlines had had interline or code-share agreements on a large number of flights pre-merger. A merger further enhances the competitive positions for these airlines, according to Isatrou and Oretti (2007).

A. Enhancing efficiency by Economies of Scope

Airlines within an alliance tend to share terminal facilities at each other's' hubs. These terminal facilities include check-in counters, boarding gates, baggage handling and VIP lounges. Mergers between alliance members can further exploit the cost-side economies of scope by streamlining airport operations through consolidating gates and terminal facilities. The synergy is especially profound at the hub airports when mergers increase the range of services available from a hub.

When each of the merging carriers possesses hub operations, each of them will channel more traffic through and between the hubs in order to feed passengers to the spokes. Because of the increasing density of flights getting in and out of the hubs, it makes sense to establish a major maintenance operation at the hubs. The fixed costs of establishing maintenance facilities can spread across a larger number of aircraft, resulting in lower average cost.

B. Reducing Overcapacity

Although some flight schedules are coordinated within airlines in the alliance to some extent, multiple flights offered by multiple airlines may contribute to the problem of overcapacity. A merger, however, can effectively reduce competition by eliminating redundant routes that used to be served by both carriers. This will eradicate the problem of overcapacity and increase load factor.

5. Marketing Positioning

It is necessary for airline to examine their potential partners' market positioning. In other words, it is rational for an airline to merge with a carrier that targets the same group of customers. For example, Southwest is traditionally a low-cost carrier (LCC). The airline specifically stated that AirTran would be a good fit for a merger because of its profound low-cost branding. The combined carrier, thus, can integrate their brandings more easily once the merger is completed.

6. Financial Benefits and Shareholders' Approval

Achieving financial stability and prosperity is undoubtedly one of the most important goals of an airline. Airlines not only need to ensure the operations are financially viable in the short-term, but also are responsible for providing returns for shareholders in the long-term. Although financial benefits would not be materialized until after the completion of the merger, airlines take the potential cost synergies into account when they evaluate a possible merger. In order to complete an acquisition process, one needs to acquire the consent of the majority of the shareholders. The higher the percentage of "in-favor" vote, the more confidence and recognition the shareholders have towards the merger. Therefore, merging airlines must show to the shareholders that the merger will lead to increase profitability and sustainability.

7. Union Support

Labor unions are undoubtedly one of the key stakeholders in an airline merger. They not only represent a vast majority of employees, but also have the ability to alter a company's decision on merger issues. For instance, the failure of the US Airways – United merger in 2008 was partly due to the objection of union groups. To complicate the situation, an airline needs to deal with multiple union groups that represent different departments and job functions.

The International Association of Machinists and Aerospace Workers' (IAM) Union represents more than 110,000 flight attendants, customer service agents, reservation agents, ramp service personnel, mechanics and related airline industry workers in the U.S. Air Line Pilots Association Union (ALPA) is the largest airline pilot union in the world and is chartered by the AFL-CIO. These unions actively participate in the merger process by voicing their opinions and concerns and negotiating with the airlines involved.

Based on the three recent U.S. airline mergers or acquisitions, the unions have the following concerns:

A. *Seniority List and Collective Bargaining Agreement*

Seniority lists play a remarkable role in a pilot's career. Jeff Lamb, Senior Vice President of Southwest Airlines, stated that seniority lists at Southwest and AirTran appeared to be the biggest issues looming over the integration of the two airlines. According to Jones (2011), seniority lists not only determine the relative seniority standing between employees, which directly influences the compensations and schedules of pilots, but also determine whether a pilot can keep his/her job in times of furlough. Airlines usually start from the bottom of the list, or pilots with less seniority, when it undergoes a furlough. The financial disparity between pilots at the same carrier can be $1 million or more because of seniority (Jones, 2011). Because of the presence of seniority, there is “no portability of labor” (Bachman, 2009). If a pilot moves from one airline to another, his/her seniority from the original airline will not be recognized by the new employer. He/she will have to forgo his/her seniority when he/she joins a new company and be at the bottom of the seniority list.

In times of a merger between two airlines, pilot groups from each carrier would organize a merger committee, which would be responsible for the negotiation of seniority integration. Since each member of the committee advocates for the respective pilot group, it becomes challenging to reach a common ground regarding seniority integration. As a result, arbitration will be used in order to obtain a legally binding decision. Since the collective bargaining process may take an extensive period of time, this may potentially impact the integration process of the merging airlines.

B. Compensation Difference

According to Standard & Poor’s credit analyst Baggaley (2008), when two merging carriers have different levels of compensation, the lower-paid employees’ compensation will be increased to match that of the carrier with higher pay, in order to buy labor groups' cooperation. For example, Delta raised its pilots' salaries after merging with Northwest.

C. Job security

The labor unions are concerned with the job security of their union members during and after the merger. The unions would support the merger if the carriers can promise job security and demonstrate the long-term sustainability of the combined airline.

8. Organizational Learning

Organizational learning is defined as the capacity or processes within an organization to maintain or improve performance based on experience (Nevis, DiBella, & Gould, n.d.). In an airline merger context, carriers need to resolve their differences or contradictions and adapt to the new operations and information. In other words, each airline in a consolidation process has an opportunity to learn from each other, in terms of corporate culture, management philosophy, communication method and so forth. The management is required to estimate and evaluate the differences between the organizations when choosing a partner and ensure the learning process of the new identity would bring positive impact to the company. One example is that Delta has been fostering an open and direct communication culture between management and employees. When Delta and Northwest requested their employees to comment on the working culture they would prefer for the merged carrier, Northwest's unions strongly opposed the survey and stated that dealing directly would destroy their organization. Therefore, to avoid an organization being divided, the management needs to take necessary steps to slowly integrate the functional areas in a harmonious way and be able to complement each other's strengths and weaknesses. Table 4-1 summarizes the eight dimensions.

Table 4-1 Summary of Airline Mergers Dimensions

Mergers / Dimensions	Delta + Northwest	United + Continental	Southwest + AirTran
Network Synergy	Yes	Yes	Southwest: point-to-point; AirTran: hub-and-spoke
Overlapping of Routes (Antitrust Approval)	Very few (Yes)	Very few (Yes)	Very few (Pending)
Fleet Commonality	Little	Some extent	Some extent
Alliance Coordination	Members of SkyTeam	Members of Star	Not applicable
Market Positioning	Legacy Carriers	Legacy Carriers	Low-cost Carriers
Financial Benefits and Shareholders' Approval	$2 billion a year in revenue gains and cost savings	$1-1.2 billion, $800- $900 million incremental revenue	$400 million synergy
Union Support	Yes	Yes	Yes
Organizational Learning	Internal Communication	Branding Recognition	Mixed-model Strategies

Chapter 5

An Analysis of American Airlines and US Airways

In this section, it is going to determine if American Airlines (American) and US Airways would be a good fit for a merger, using the dimensions found in Chapter 4.

US Airways

US Airways was first established in 1939 as All American Aviation and began airmail service in western Pennsylvania and Ohio Valley. The airline changed its name to Allegheny Airlines in 1953. The company acquired a number of regional airlines in late 60s and early 70s, and Allegheny Airline continued to grow. After the Airline Deregulation Act was passed, the airline changed its name to USAir in 1979. Piedmont Airlines became part of the USAir group in 1987. Pacific Southwest Airlines (PSA) was absorbed by USAir and it was the largest merger in airline history in 1989. USAir started serving international destinations with wide body jets as a result of the merger. In 1993, the airline entered an alliance agreement with British Airways. As a part of the agreement, USAir relinquished its London route. However, the two airlines exited the partnership in 1997. The airline adopted the current name, US Airways, in 1997. US Airways filed Chapter 11 bankruptcy reorganization in 2002, and did it again in 2004 because of rising fuel prices and intense competition. US Airways became a member of

Star Alliance network in 2004. United was one of the founding members of Star in 1997. American West merged with US Airways and formed the new US Airways in 2005. After suffering losses for two consecutive years, US Airways recorded a full year 2010 net profit excluding special items of $447 million, the second highest profit in the company's history (US Airways, n.d.).

US Airways is headquartered in Tempe, Arizona, with hub operations at Phoenix (Sky Harbor International Airport, PHX), Charlotte (Douglas International Airport, CLT) and Philadelphia International Airport (PHL). Ronald Regan Washington National Airport (DCA) is a focus city of US Airways' network. In late 2010, the three hubs and a focus city accounted for 99 percent of the carrier's capacity. At present, US Airways owns a fleet of 341 aircraft that is comprised of Airbus A 320 family (A319, A320 and A321), A 330s, Boeing B737s, B757s, B767s and Embraer E190s.

In 2009, US Airway and Delta reached an agreement on swapping the slot pairs in Washington National (DCA) and LaGuardia (LGA). The original proposal was that US Airways would transfer 125 pairs of slot at LGA to Delta in exchange for 42 slots from Delta at DCA. US Airways would terminate its operations through Piedmont Airlines at LGA and hand-over the gates and terminal facilities to Delta as a part of the agreement. US Airways would add 15 destinations at DCA once the proposal was approved. However, in March 2011, the Department of Transportation (DOT) stated that the proposal needed to divest 14 slots at DCA and 20 slots at LGA to incumbent or new entrant carriers in order to obtain the approval. The airlines are currently waiting for the final ruling from the DOT.

According to Schofield (2010), facing problems of overcapacity and financial losses in recent years, US Airways has put forward airline consolidation. US Airways CEO Doug Parker stated that consolidation was needed for the long-term viability for the entire industry. The airline believed it would be the best way to trim excess supply from the U.S. industry and put it on track for long-term financial health. In response to the Delta and Northwest merger in 2008, US Airways was in merger talks with United. The pairing eventually did not succeed owing to union objections, US Airways' poor financial performance and potential objections from U.S. DOJ (Schofield, Mating Dance, 2008). The Washington D.C. market would have been affected the most had the merger between United and US Airways come true. The two carriers dominated the Washington metropolitan area's market. United accounts for 70 percent of Dulles traffic while US Airways shares as much as half of the traffic at Regan National. Combined, the carriers would have an overwhelmingly 63 percent of market share, which would have drawn antitrust concern from the authorities. US Airways and United came back to the merger talk again in 2010, before losing it to Star fellow Continental.

Although US Airways was left on the sideline, Parker indicated that the loss of a rival would result in capacity cuts that would benefit the entire industry. He also expressed consolidation would still be possible in the market. There are a number of factors that give US Airways an impetus to seek a merger partner.

Firstly, US Airways' hubs and networks are not as strong as other major carriers from a revenue standpoint. According to the Research and Innovative Technology Administration of Bureau of Transportation Statistics (2010), US Airways' hubs were ranked at 6^{th} (Phoenix), 8^{th} (Charlotte), and 15^{th} (Philadelphia), in terms of volume of passengers. Since these three hubs are not traditional business centers, it is harder for US Airways to attract business travelers who generally prefer direct flights out of metropolitan cities. The lack of business travelers' demand results in lower revenue as the "80/20 rule" applies. In other words, although business travelers account for a smaller percentage of airline traffic, they contribute much higher revenue to the airlines not only because they are willing to pay more for a flexible schedule and premium services, but they are also frequent travelers and tend to have higher loyalty to an airline than coach passengers. US Airways' CEO Parker indicated that the airline needed to combine assets with another carrier to make up for its weakness (Schofield, 2010).

Second, there may be a concern of growth in US Airways' current alliance. US Airways is a part of Star Alliance, which was partially founded by the recently-merged United Airlines. United and Continental expected the merger to be completed in 2012. Analysts are concerned if US Airways would be able to sustain its position in the alliance after the United-Continental merger. This is similar to what happened to Continental in 2008. Continental was relegated by the alliance after Delta and Northwest consolidated. As a result, Continental left SkyTeam and joined Star Alliance the same year. According to Scott Kirby, US Airways President, US Airways would want to depend on its relationship with other Star airlines, though it would consider switching to another alliance if the Star ties could not be strengthened (Schofield, 2010).

This brings us to question which airline alliance should US Airways turn to if the airline decided to leave Star. At present, there are three major global airline alliances: Star Alliance, oneworld and SkyTeam. Each of the remaining four legacy carriers (United, Delta, American and US Airway) is a member of one of the alliances. United was one of the founders of Star in 1997 and US Airways joint Star later in 2004; American established oneworld with four other global carriers in 1999 and Delta founded SkyTeam in 2000. Northwest was a member of SkyTeam before merging into Delta; Continental used to be a member of SkyTeam but the carrier switched to Star after the Delta-Northwest merger. Since, both SkyTeam and Star have mega carriers in their memberships, namely Delta and United respectively, oneworld would be the most logical choice for US Airways if it chose to leave Star. In addition, airline analysts argued that the U.S. airline industry can only support three large network airlines (Mifsud, Bonilla, & Cordle, 2010) due to overcapacity. Among the four legacy carriers, US Airways and American Airlines are the two airlines that have not undergone mergers in recent years (even though US Airways merged with America West in 2005 and American bought TWA in 2001). If the analysts' commentary is true, a merger between US Airways and American Airlines makes sense. However, is American Airlines a good fit for US Airways?

American Airlines

American Airlines (AA) was established in 1934 by a consolidation of a number of young aviation companies. During the 1950s and 1960s, AA began European services and became the first airline in the U.S. offering coast-to-cost jet services. In 1979, the airline moved its headquarters from New York to Dallas, Texas. The American Eagle Airlines, which is a subsidiary that offers regional services connecting smaller communities and AA's hubs, was introduced in 1984 to further strengthen AA's hub-and-spoke network. AA formed oneworld alliance with four other airlines in 1999, followed by AA's acquisition of Trans World Airlines (TWA) in 2001. During the 2000s, airlines in the U.S. were challenged by rising fuel prices and economic downturn. Although AA's financials had been in the red in six out of the past eight years and the airline suffered a $2.1 billion loss in 2008, AA is the only airline out of the legacy carriers that did not file for Chapter 11 bankruptcy. Recently, AA proposed for a joint-venture business on trans-Atlantic market with oneworld partners British Airways, Iberia, Finnair and Royal Jordanian. The proposal was approved by both the European Union and U.S. Department of Transportation (DOT) in July 2010.

AA currently operates a mainline fleet of 619 aircraft. American Eagle, a wholly-owned subsidiary of AA, has 281 aircraft. In AA's fleet, McDonnell Douglas 80 makes up the largest part of its fleet. Although they are in the process of being replaced by more fuel-efficient Boeing 737s, the large quantity MD-80s are exerting a higher cost burden to AA. There are five AA hub operations in New York (JFK) in the Northeast, Miami International (MIA) in the Southeast, Chicago O'Hare International (ORD) in the Midwest, Dallas/ Fort Worth International (DFW) and Los Angeles International (LAX) on the West Coast. The airline calls this five-hub network the "cornerstone strategy", which refers to the fact that AA is able to cover the most important business markets in the U.S. These hubs also connect international destinations in Asia, South America and Europe to the U.S. In 2011, 98 percent of AA's available seats originated from these hubs, up from 88 percent a few years ago.

Although AA's CEO Gerard Arpey indicated in an interview that merger was not the only cure for solving some of the industry's financial challenges, there could be a couple of factors that may give AA an incentive for a possible merger in the future (Campbell, Jonas, & McNulty , 2010). First of all, AA has significantly higher debt and labor costs compared to competitors since some of the legacy carriers filed for bankruptcy and underwent financial restructuring since 2001. Also, because of the recent economic downturn, it made the capital market more inaccessible for AA to deal with its debt. A merger may potentially bring in cost synergies and alleviate AA's financial burden.

In addition, analysts forecasted that the network carriers would shrink to 53 percent of the total domestic capacity by the end of 2010, from 92 percent in 1992 (Mifsud, Bonilla, & Cordle, 2010). It would be essential for airlines to consolidate in order to lower capacity, reduce costs and achieve operational efficiency. Furthermore, before the merger wave started, AA was the number one carrier in the U.S. in terms of scheduled passenger-kilometers flown. However, the mergers facilitated United and Delta to become the number one and two carriers in the domestic U.S. market. It made AA the number three carrier, followed by US Airways at number four. If AA decided to merge with US Airways, the combined carrier would then be able to regain the number one position.

Analysis of a Possible Merger of US Airways and American Airlines

The framework in Chapter 4 will be used to determine if US Airways and American Airlines would be a good fit for a merger.

First, there are network synergies to some extent between US Airways and AA. Assuming there are no hub closures if US Airways and AA merges, the consolidated carrier will form an eight-hub network across the contiguous U.S. Each of the two airlines has different strengths and weaknesses in terms of network. AA offers extensive services to destinations in Mexico, Central America, the Caribbean and South America from its hubs in Dallas/Fort Worth and Miami; while US Airways has a huge market presence along the East Coast, especially in Philadelphia (38 percent of market share) and Washington National (almost 22 percent of market share). US Airways also has a leading market share in Phoenix and (38.25 percent of market share) and Charlotte, NC (at 56.17 percent).

Unlike the merger between Delta-Northwest, a merger between US Airways and American Airlines will be similar to a side-to-side merger, instead of an end-to-end. Although the merging airlines may have a small number of overlapping routes, there is a concern that the two airlines may be able to monopolize the Northeast markets. Both carriers have a significant presence in the Northeast region. If the two carriers choose to consolidate, the combined airline will possess dominant market share in the Northeast region, being the leading player in Boston, New York LaGuardia, Philadelphia and Washington National. Table 5-1 shows the current market share of US Airways and American Airlines in the major airports in the Northeast U.S. As mentioned in previous chapters, all airline mergers are subject to regulatory approval. It is likely that the DOJ would reject the merger proposal if the analysis shows the merger would bring in monopoly.

Table 5-1 US Airways' and American Airlines' Market Shares at Major Northeast Airports

Airports	Market Share (Ranking)	
	US Airways	American Airlines
Boston Logan International	13.04% (3)	12.78% (4)
New York LaGuardia	8.63 (3)	17.24 %(2)
New York John F. Kennedy International	Not in Top Five	15.18% (3)
Philadelphia International	38.2% (1)	4.02% (5)
Washington National	21.64% (1)	13.33% (3)

Source: Source: Research and Innovative Technology Administration (2011)

Since US Airways does not serve any destinations in the Far East by its equipment at present, AA is able to complement the US Airways' network with its four major Asian destinations. However, from AA's perspective, US Airways may not be able to offer what AA truly needs – highly business-driven international destinations. One of the few things that US Airways may be attractive to AA is that US Airways has established US Airways Shuttle which provides hourly flights between Boston Logan, New York LaGuardia and Washington Reagan. The frequent flight schedule and proximity of the airport to business city centers are the strategies to draw high-fare paying business travelers. In terms of domestic operations, some analysts argue that some of the hubs, such as New York, Philadelphia, and Los Angeles and Phoenix, may be too close to each other geographically. Figure 5-1 illustrates the geographical locations and proximity of the hubs of US Airways and American Airlines. As the consolidated carrier may have acquired too much market power in a region, the merger may cause less competition and violate antitrust laws.

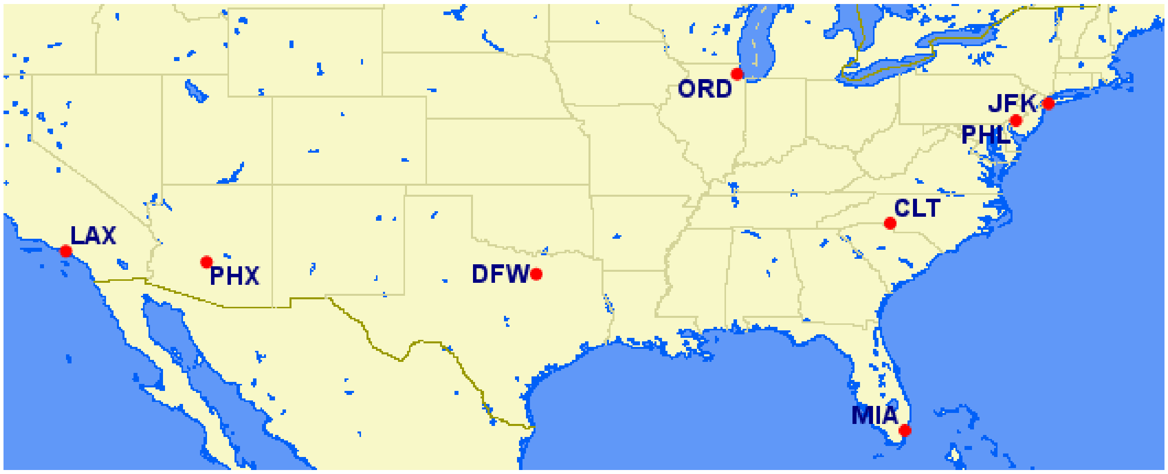

Figure 5-1 US Airways and American Airlines Hubs
Source: Swartz (2011)

Second, the two airlines share minimal fleet commonality. As mentioned, US Airways mainly uses Airbuses medium to long haul services and Embraer jets for regional services. On the other hand, Boeing jets account for the majority of American's fleet. Table 5-2 shows the mainline fleets of US Airways and American Airlines. Although both airlines have a sizable amount of Boeing 757s and 767s, fleet synergies cannot be maximized as the B757s from the two airlines use different engines and US Airways plans on replacing its B767s with A330s. Also, both airlines operate B737s but the US Airways' B737s are of the older generation, they have different cockpit configurations and not much training and cross-training costs can be saved should the US Airways and American share their fleets. Besides, US Airways plans on replacing B737s with A320s and Embraer regional jets in the near future. Furthermore, both airlines are in the process of simplifying their fleet portfolio. If the two carriers merge, the combined fleet will be comprised of four airplane manufacturers. As a result, more parts and spare inventory will be needed and that may even give rise to diseconomies of scale.

Table 5-2 US Airways and American Airlines Fleet

US Airways			American Airlines		
Fleet Type	**Quantity**	**Seats**	**Fleet Type**	**Quantity**	**Seats**
Airbus 319	93	124	Boeing 737-800	128	148/160
Airbus 320	72	150	Boeing 757-200	124	188/182
Airbus 321	51	183	Boeing 767-200ER	15	168
Airbus 330-200	7	258	Boeing 767-300ER	58	225
Airbus 330-300	9	293	Boeing 777-200ER	47	247
Boeing 737-300	20	126/134	McDonnell Douglas MD-80	247	140
Boeing 737-400	40	144			
Boeing 757-200	24	176/190			
Boeing 767-200ER	10	204			
Embraer 190	15	99			

American Airlines is currently a member of oneworld but US Airways is a member of Star. As compared to the framework used in Chapter 4 showing that both Delta and United merged with alliance partners, a merger between American Airline and US Airways may be less possible. If the two carriers did decide to consolidate, it would be most likely that either one of them would need to leave its alliance and join the other. One may argue that the situation of US Airways is very similar to what Continental experienced. The merger of two of Continental's SkyTeam partners gave Continental an impetus to leave SkyTeam and join Star, and to merge with United. For US Airways, the consolidation of its Star partners (United and Continental) may weaken US Airways' significance in the alliance network. Whether US Airways will leave the Star Alliance or not, the fact that US Airways and AA are currently in different alliances means that the two carriers do not have the antitrust immunity to jointly operate their network, which is a crucial impetus to an airline merger. In addition, alliance members tend to share facilities and resources in the airport.US Airways and AA currently do not have any integration in terms of ground operation due to different alliance affiliation. Although a merger of the two airlines allows significant reduction in costs through eliminating redundant resources, it may cause severe labor issues, which will be discussed shortly.

As far as marketing positioning is concerned, US Airways and American Airlines do not necessarily share the same marketing strategies. While US Airways focuses on maintaining a low cost structure since its merger with America West, AA has a strong emphasis on providing world-class services to premium business travelers. When US Airways merged with America West in 2005, the management deliberately cut costs by reducing the airline fleet, idling gates and jobs and benefits. US Airways managed to turnaround from loss to record a profit the next year. On the other hand, AA in recent years aims at expanding its alliance partnership with international carriers to share revenue, marketing expenses and frequent-flier programs. The ultimate goal of AA is to fortify its “cornerstone” business hubs and attract high-fare international business travelers.

The potential financial benefits are primarily based on the cost savings of a merger. Though it may be difficult to quantify the financial benefits of the hypothetical US Airways- American Airlines merger, one can assume that the two airlines may achieve less synergy in cost savings than their counterparts. It is because it would be most likely a side-by-side merger but few of the redundant resources can be saved due to the differences in fleet operations and lack of the prerequisite alliance partnerships.

Both US Airways and AA have faced union or labor issues in the past. US Airways' labor union was one of the stakeholders that objected to United's proposal of acquiring US Airways in 2000 because of the anticipated antitrust concerns. On the other hand, since AA has not filed for bankruptcy, the airline has not been able to reduce labor cost through restructuring. Although AA has kept all other costs competitively low, a large portion of the cost goes to labor. According to Bloomberg data, AA's cost to fly a seat mile in the first half of 2010 was 12.76 cents, making the airline the highest cost to fly among the legacy carriers (Schlangenstein, 2010). Since the two airlines have redundant facilities and resources, a merger may inevitably lead to furlough or dismissals of employees. Given the airlines have relatively powerful labor union present, labor issues will be one of the biggest hurdles that US Airways and AA need to deal with if they decide to merge. Both US Airways and AA went through a number of mergers or acquisitions in history. The two airlines can learn from each others' success or failure experiences and comprehend the necessary changes required in the context of corporate culture.

Chapter 6

Conclusion

Although both US airways and American Airlines have strengths and weaknesses that are complementary to each other to a certain extent, a merger between the two airlines may not be the best option for both airlines because of limited network and fleet synergies, potential antitrust concerns, lack of alliance synergy, differentiation in marketing positioning, and potential union and labor issues.

A recommendation is that US Airways and American Airlines can seek some form of cooperation or partnerships that enables the two carriers to remain competitive without much integration. One of the major goals of the recent airline consolidation is to reduce the overcapacity. In order to achieve this objective, the two airlines can establish interline or codeshare agreements on smaller markets or even on services between the hubs to facilitate and channel traffic. This is similar to the early stages of an airline alliance. Although US Airways and American Airlines are affiliated with different alliances, a minor joint venture between airlines is not uncommon. A key significance to this partnership is that it does not require huge capital investment and provides an opportunity for both airlines to get to know each others' operations and cultures to evaluate if a further integration would be possible, while the airlines are still independent to each other and affiliated to their own alliances.

Appendix A

Definitions

Merger

According to Britannica Encyclopedia, a merger refers to a corporate combination of two or more independent business corporations into a single enterprise, usually the absorption of one or more firms by a dominant one. Different ways of accomplishing a merger include one firm buying the other's assets with cash or its securities or one firm purchasing the other's shares by issuing its stock to the other firm's stockholders in exchange for their shares in the acquired firm (Encyclopædia Britannica, n.d.)

There are two common types of mergers: horizontal (side-by-side, parallel) and vertical (end-to-end). In a horizontal merger, the companies are in direct competition and share the same product lines and markets (Investopedia, n.d.). The formation of GlaxoSmithKline is an example of a horizontal merger. It was created in 2000 by the combination of two pharmaceutical companies, Glaxo Wellcome and SmithKline Beecham, in 2000. A vertical merger is a consolidation of firms that have actual or potential buyer-seller relationships. A company merging with its supplier is an example of a vertical merger.

Acquisition

An acquisition is similar to a merger, except it is one firm purchasing another with cash, with stock, or with a combination of the two.. There is no exchange of stock or consolidation as a new company. In 2008, PNC Financial Services acquired Cleveland based National City Bank for US$5.2 billion in PNC Stock.

Strategic Alliance

A strategic alliance is a relationship between two or more companies that cooperate or collaborate to achieve goals that they collectively agreed upon. There is no transfer of ownership between the companies and thus each member of an alliance remains as an independent organization. Joint venture, equity investment and non-equity alliances are some common forms of strategic alliances.

Mergers, acquisitions and alliances are all actions that companies use to attain economies of scale, efficiencies, and enhanced market viability.

Legacy Carriers

It refers to the airlines that had had established interstate network before the Airline Deregulation Act of 1978. A typical legacy carrier offers higher level of services that are absent in low-cost carriers, such as complimentary meals, in-flight entertainment systems and airport lounges. There are six legacy carriers nowadays: American Airlines, Continental Airlines, Delta Air Lines, United Airlines and US Airways.

Low-cost Carriers (LCC)

It generally refers to airlines that offer low-fare services. These airlines are also known as no-frills or budget carriers. It was a business model first created by Southwest Airlines in 1970s. Most LCCs use only one type of aircraft to lower the operation cost and fly to more remote airports to avoid delays and for cheaper landing fees. The LCCs maintain a low-fare structure by eliminating complimentary services or charge passengers for an additional cost for services.

Appendix B

International Air Transportation Association (IATA) Airport Codes

IATA Airport Code	Name of Airport (Location)
AMS	Amsterdam Airport Schiphol (Netherlands)
BWI	Baltimore/Washington International Thurgood Marshall Airport (Baltimore, Maryland)
CDG	Paris-Charles de Gaulle Airport (France)
CLE	Cleveland Hopkins International Airport (Ohio)
CLT	Charlotte Douglas International Airport (North Carolina)
CVG	Cincinnati/Northern Kentucky International Airport (Hebron, Kentucky)
DAL	Dallas Love Field Airport (Texas)
DCA	Ronald Reagan Washington National Airport (Arlington County, Virginia)
DEN	Denver International Airport (Colorado)
DFW	Dallas/Fort Worth International Airport (Texas)
DTW	Detroit Metropolitan Wayne County Airport (Michigan)
EWR	Newark Liberty International Airport (New Jersey)
GUM	Antonio B. Won Pat International Airport (Guam)
IAD	Washington Dulles International Airport (Dulles, Virginia)
IAH	George Bush Intercontinental Airport (Houston, Texas)
JFK	John F. Kennedy International Airport (Queen's County, New York)
LAX	Los Angeles International Airport (California)
LGA	LaGuardia Airport (East Elmhurst, New York)
MCO	Orlando International Airport (Florida)
MEM	Memphis International Airport (Tennessee)
MIA	Miami International Airport (Florida)
MKE	General Mitchell International Airport (Wisconsin)
MSP	Minneapolis-Saint Paul International Airport (Minnesota)
NRT	Narita International Airport (Greater Tokyo, Japan)
ORD	Chicago O'Hare International Airport (Illinois)
PHL	Philadelphia International Airport (Pennsylvania)
PHX	Phoenix Sky Harbor International Airport (Arizona)
SFO	San Francisco International Airport (California)

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