The U.S-Gulf Carriers Dispute as a Threat to Open Skies Agreements:

Load Factor as a Criteria to Judge the Misconduct of the Open Skies Agreements

By

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Dedicated to my wife, the woman who left everything 7300 miles away to facilitate my

success. She has been supportive and helpful,

To the man and woman who sent their hearts 7300 miles with me, my father and my

mother.

And to my little princesses, Joud and Seba.

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ABSTRACT

The Open Skies Agreement was a great achievement for air transportation liberalization. Many studies have proved the Agreements' benefits to passengers, airports and airlines. However, in 2015, Delta Airlines, United Airlines and American Airlines submitted a white paper to the U.S government claiming that the three Gulf carriers, Emirates Airlines, Etihad Airways and Qatar Airways, are receiving subsidies and flooding the U.S international travel market with more than half empty flights. The Gulf carriers denied receiving any governmental support, and that alleged subsidies could not be proven or disproven. To try to determine if those carriers are operating empty flights, data was collected from the T-100 International Segment database to investigate the flood of empty flight accusation. The results revealed that the Gulf carriers experienced a huge increase in flights and passengers during the study period, and that, they were operating with a passenger load factor comparable to the U.S carriers.

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CHAPTER I - INTRODUCTION

The foundation of the Open Skies Agreements was a victory for the U.S air carriers as well as carriers from the second party countries. According to the U.S Department of State (n.d.), the Open Skies Agreements increased the number of international passengers and cargo to/from the USA. Therefore, the U.S economy has grown and produced new jobs (U.S Department of State, n.d.). Consequently, the U.S government signed more than 100 Open Skies Agreements. However, some of the major U.S air carriers lobbied, in 2015, and claimed that the expansion of the Gulf carriers is a threat to international aviation and the Open Skies Agreements in specific. The U.S carriers claimed that the Gulf carriers are subsidized state-owned carriers that are competing unfairly with other airlines ("Get the Facts on Gulf Carrier Subsidies," 2016).

In January 2015, three major U.S carriers (American Airlines, Delta Airlines, and United Airlines) had a meeting with the Obama Administration to submit, in a white paper, their findings regarding the three Gulf carriers; Emirates Airlines, Etihad Airways and Qatar Airways (Sasso, 2015). In a 60-page document, the U.S carriers presented the issue and the allegations to the Administration. The presented document was called "Restoring Open Skies: The Need to Address Subsidized Competition from State-owned Airlines in Qatar and the UAE." In this paper the three U.S carriers claimed that the three Gulf carriers are state-owned carriers and they received more than $40 billion in subsidies. In addition, the U.S carriers launched a website, http://www.openandfairskies.com/, and hired a spokesman for this campaign ("Restoring Open Skies: The Need to Address Subsidized Competition from State-owned Airlines in Qatar and the UAE," 2016). Also, the U.S carriers claimed that the Gulf carriers are

targeting U.S international routes with a massive capacity to knock off other carriers. In other words, the Gulf carriers are trying to monopolize the international aviation market.

Literature Review

According to Rhoades (2008), the first cross border aviation activity was in 1785, when Pierre Blanchard and John Jeffries crossed the English Channel to France with their balloon. At that time, the flight was triumphant. The balloons did not ignite any international concerns about crossing borders, but airplanes later did (Rhoades, 2008). World leaders recognized that airplanes are not like balloons, which are mostly for fun, but that aircraft were new technology that might be dangerous and harmful to other nations. Therefore, international laws were required to foster the development of the industry and to protect the nations' rights and interests. Consequently, the French government organized the Paris Conference in 1910 (Rhoades, 2008).

The Conference did not achieve its goal because of the clearly conflicted opinions of the attending nations' representatives. Most of the conflicts were about the rights and privileges of the sky. In 1911, the British government was the first to announce the sovereignty of their airspace. Many European nations followed the British decision. In 1919, many nations gathered in the Paris Peace Conference to negotiate some of the core issues of WWI. In a meeting known as the Convention Related to the Regulation of Aerial Navigation, the Paris Conference of 1919 declared the sovereignty of each nation over its aerospace (Rhoades, 2008).

In 1944, some of the World's leaders arrived in Chicago to discuss international air transportation. The U.S government called for open skies, with no restrictions on routes, frequencies and fares. The British position was the opposite. The British wanted

an international body to control routes, frequencies and fares. The British said that the U.S proposal was a self-interested proposal because the United States had the largest civil aviation fleet and the most advanced infrastructure in that time. However, a major turning point happened in the conference. The conference issued a document called the Five Freedoms Agreement (Rhoades, 2008). However, the Freedoms of the Air retained the principle of the nations' airspace sovereignty.

In concern for U.S international air transportation, the U.S government signed a bilateral agreement with the British government in 1946; the Bermuda Agreement. The Bermuda Agreement had fares, frequencies, aircraft size, and destination restrictions. In addition, routes were designated to specific carriers. Likewise, many other international aviation bilateral agreements had restrictions. In 1976, the British government informed the U.S government of termination of the Bermuda-I Agreement because it was more favorable to the U.S carriers than the British carriers. However, the USA continued to pursue its project to liberalize the skies (Rhoades, 2008).

The U.S project was the Open Skies Agreements. The Agreements are based on open market policy in which government interference in routes, fares, capacity and frequency is eliminated ("Open Skies Partnerships: Expanding the Benefits of Freer Commercial Aviation," 2011). The U.S government signed some Open Skies Agreements with some small countries but the first significant agreement was with the Netherlands in 1992 (Rhoades, 2008). Since that time, the U.S government has signed more than 100 agreements, see Appendix B. The USA-UAE and the USA-Qatar Open Skies Agreement were singed in 1999 and 2001, respectively. Now, over 70% of international flights

from/to the U.S airports operate through the Open Skies Agreements ("Open Skies Partnerships: Expanding the Benefits of Freer Commercial Aviation," 2011).

The U.S Department of State (2012) provides a model of the agreement text, see Appendix A. In the introductory section, the agreement clarifies the intentions of the two parties; the Government of the USA and the other government, to institute an international aviation market based on competition with no government interference or regulation. In addition, the agreement has clear targets that are to encourage air carriers to provide competitive airfares and to promote international transportation opportunities. Moreover, the agreement emphasizes that each airline has the right to determine the frequency, capacity and prices of international air transportation ("Current Model Open Skies Agreement Text," 2012).

The Major U.S Carriers

American Airlines (AA).

The root of AA was a consolidation formed in 1929 (American Airlines [AA], 2009). The consolidation was established to acquire small aviation companies and was called American Corporation. In 1930, the name was changed to American Airways and then to American Airlines, Inc. in 1934. One year later, American became the first airline operating a DC-3 in commercial operations. In 1945, American started new routes to some European countries after a merger with American Export Airlines. By 1959, American was the first airline operating a coast-to-coast route (AA, 2009).

In 2013, AA merged with U.S Airways to form the world's largest airline. The merged companies had more than 6,700 daily flights to about 330 destinations in over 50 countries. The new entity operates as AA. At that time, the new AA had over 100,000

employees worldwide (Rushe, 2013). According to the Center for Aviation (CAPA), the new entity had over 1,500 aircraft in the mainline and the regional fleet (2013). Moreover, AA had about 567 airplanes on order (Center for Aviation, 2013). The current active fleet consists of about 925 aircraft ("American Airlines Fleet Details and History," 2016). In 2015, over 118 million passengers traveled with AA (Bureau of Transportation Statistics, n.d.). Finally, AA is part of the Oneworld Alliance (AA, 2009).

Delta Airlines (DL).

The root of DL was Huff Daland Dusters, which was founded in 1924. This company was the first flying agriculture business (Delta Airlines [DL], 2016). The Daland fleet, 18 airplanes, was the largest private fleet in 1924. In 1928, C. E. Woolman bought Daland and renamed it Delta Air Service. Delta flew its first passenger flight in 1929. In 1945, the National Safety Council recognized Delta for ten years of operations without any fatalities in the crew or the passengers. In 1953, Delta's merger with Chicago and Southern Airlines gave DL its first international route to the Caribbean (Timeline of airline, 2016).

In 2000, DL started the SkyTeam Alliance with AeroMexico, Air France and Korean Air. In 2006, DL had the most destinations of any carriers in the world and had about 124 nonstop routes. DL had plans to expand its international operations, and acquired Northwest Airlines in 2008. In 2009, DL celebrated 80 years of operations by launching a partnership with Air France-KLM, which made DL the first U.S carrier operating on six continents (Timeline of airline, 2016). DL's current fleet consists of 822 aircraft from many different types, with an average age of 17 years (Aircraft Fleet, n.d.).

In 2015, DL transported over 137 million passengers (Bureau of Transportation Statistics, n.d.).

United Airlines (UA).

With a fleet of 721 mainline aircraft and 504 regional aircraft, UA is capable of serving about 340 destinations in 55 countries (Corporate Fact Sheet, 2016). In addition, UA is a member of the Star Alliance (UA, 2016). In 2015, 94.8 million passengers traveled with UA (Bureau of Transportation Statistics, n.d.). According to Marisa Garcia (2016), UA is the top U.S airline providing non-stop routes. Garcia (2016) added that 30.5 million passengers traveled with UA on the non-stop flights in 2015.

In April 2016, UA celebrated its 90th birthday (From Airmail to Biofuel - United Airlines Builds on 90 Years of Aviation Firsts, 2016). United Airlines had its origins as Varney Airmail Service in 1926 by Walter Varney. William Boeing established a new airline called Boeing Air Transportation to acquire other mail carriers, and Varney Airmail Service was included in that acquisition. The new entity was called Boeing Air Transportation. The company grew and launched new departments; airline, airplane and parts manufacture, and airports. In 1929, Boeing Air Transportations changed the name of the company to United Aircraft and Transport Corp (UATC). Later on, the three departments were separated into new enterprises: Boeing Airplane Co, United Technology and United Airlines (History of United Airlines, n.d.).

The Gulf Carriers

Emirates Airlines (EK).

Emirates Airlines was founded in 1985. The company started with two leased airplanes from Pakistan International Airlines (PIA). The first destination and the first flight was from Dubai to Karachi in the same year. In 1986 and 1987, EK introduced new destinations such as Cairo, Amman, London, Istanbul, Frankfurt and Male. EK received its first owned aircraft in 1987. The Airbus A310-304 was designed and customized to fulfill EK's vision of delivering a unique flying experience. In its 10th birthday, EK's started a new market to Africa. At that time, the fleet consisted of 34 aircraft (The Milestones in Emirates' Incredible Journey, 2016).

The year 1996 was special for EK; EK took a delivery of its first Boeing 777-200. This airplane gave EK the new capability of flying to further destinations. Therefore, EK launched a new route to Melbourne, Australia. One year later, EK obtained six more Boeing 777-200's and ordered 16 Airbus A330-200's (The Milestones in Emirates' Incredible Journey, 2016). The current fleet includes over 250 aircraft. The Boeing 777's form the largest component of the EK's fleet with 158 aircraft (Our fleet, 2016). In 2016, EK was voted the world's best airline by passengers (Skytrax, 2016). EK is not a member of any airline alliance.

Qatar Airways (QA).

Qatar Airways launched operations in1994 as a regional airline with four airplanes. In 1997, the company was re-launched and reintroduced to the world as an international airline that follows very high standards and service superiority. Qatar Airways is one of the world's fastest growing airlines. The current QA's fleet consists of

188 aircraft that operate to more than 150 destinations (The Qatar Airways Story, 2016). The fleet's average age is five years. In addition, QA has ordered about 330 aircraft (Our Fleet, n.d.). Qatar Airways joined the Oneworld Alliance in 2013 (Qatar Airways, 2015).

Etihad Airways (EA)

Etihad is the most recently established Gulf carrier to be part of the Open Skies battle. Etihad was founded in 2003 by the government of Abu Dhabi, the capital of UAE. Etihad operates to more than 100 destinations in 67 countries (Etihad Airways history and vision, 2016). Etihad holds a fleet of 125 aircraft and has standing orders for about 180 aircraft (Our fleet - Etihad Airways, 2016). Etihad is not a member of any of the three airline alliance, Oneworld, SkyTeam or Star Alliance, but has codesharing agreements with over 30 airlines (Partner airlines - Etihad Airways, 2016).

Previous Studies

The cornerstone of this case is the U.S carriers' white paper; "Restoring Open Skies: The Need to Address Subsidized Competition from State-owned Airlines in Qatar and the UAE." In this document, the U.S major carriers raised many allegations against the Gulf carriers. For instance, the U.S carriers claimed that these Gulf carriers are 100% state-owned companies. In addition, the U.S carriers argued that the Gulf carriers received more than $40 billion as subsidies. Consequently, the U.S carriers argued the competition between the two parties is not fair. Moreover, the U.S carriers asserted that the Gulf carriers are invading the U.S market with widebody airplanes to deploy more capacity (Restoring Open Skies: The Need to Address Subsidized Competition from State-owned Airlines in Qatar and the UAE, 2016).

To try to maintain an acceptable load factor, the U.S carriers claimed that the Gulf carriers are stealing passengers from the U.S and other international carriers, and not stimulating any new demand. The U.S carriers alleged that the Gulf carriers were using their countries as hubs to transport passengers from other counties by utilizing the sixth freedom of the air. Therefore, the Gulf carriers are potentially viewed as very harmful to the U.S airline industry as well as the international airline industry as a whole. On the other hand, the U.S carriers said that Gulf carriers are adding more capacity to force the U.S carriers to reduce or to forego operations on international routes. Therefore, the U.S domestic aviation market and employment would be affected.

Additionally, the U.S carriers stated that Gulf carriers are a serious threat to the U.S and other international carriers. Likewise, the U.S carriers asserted that the U.S government signed those agreements for the US interest, but the current agreements with Qatar and UAE are not. Therefore, the U.S carriers requested Congress stop the Gulf carriers' expansion in the USA by rolling back the agreements and renegotiating the Open Skies Agreements with Qatar and UAE (Restoring Open Skies: The Need to Address Subsidized Competition from State-owned Airlines in Qatar and the UAE, 2016).

On the other hand, Emirates responded to the white paper in a 200 page document (EK Response, 2015). In this document, EK denied receiving any subsidies or violating the U.S-UAE Open Skies Agreement. In addition, EK claimed that because EK is operating in a superior commercial method, EK is very successful airline on its own merits, not because it received any subsidies. EK asserted that the geographic location of Dubai and the long-haul flight model support the efficiency of the operations. Likewise,

Dubai is located in the heart of many developing countries that are under-served by air carriers. Additionally, EK emphasized that it has the potential for success by having a new and young fleet, a low unit cost, and a unique air service (EK Response, 2015).

In the same document, EK claimed that EK is not harmful to the U.S aviation industry and that the U.S market witnessed a growth after the EK's entry. Likewise, EK emphasized that EK is not targeting the U.S carriers' international routes. And, EK (2015) emphasized that the evidence is the growth in the U.S carriers' transatlantic traffic. EK (2015) also claimed that the harm allegations are not analyzed or proven. In addition, EK said that the U.S government is the proper entity to decide or to judge the harm allegation. Moreover, EK raised a question about the U.S carriers' record revenues in comparison to the growth of the Gulf carriers' operations to the USA. With regards to subsidies, EK claimed that the U.S carriers received different forms of support from the U.S government totaling more than $100 billion. Finally, EK said that the U.S carriers want protectionism over competition and the U.S Congress should reject those claims (EK Response, 2015).

Qatar Airways also commented on this issue. At first, QA emphasized that QA serves destinations that have never been served by U.S carriers such as the city of Cochin. In addition, QA claimed that the Gulf Region and the Indian subcontinent were ignored by the U.S and EU carriers. Like EK, QA insisted on the ideal geographical location of Qatar and being close to about 60% of the world's population. Moreover, QA was not competing with any U.S carriers on nonstop routes, but QA is a feeder to AA since they are all in Oneworld Alliance. QA also claimed that the U.S carriers raised

those allegations to direct the traffic through EU airports, so their EU partners would

benefit ("Comments of Qatar Airways," 2015).

In the same document, QA explained that the financial items the U.S carriers

called subsidies are not. However, those items are viewed in the aviation industry as

benefits. Indeed, U.S carriers and their EU carriers had received the same benefits. In

addition, as a consequence of Chapter 11, U.S benefited more than $30 billion from

bankruptcy cost savings since 2002. On the other hand, QA claimed that QA, EK, and

EA are not the only state-owned airlines, but many U.S carriers' partners are also state-

owned airlines, such as the Star Alliance members Air India and Turkish Airlines. In

addition, DL celebrated the expansion of its partnership with China Eastern, which is

heavily subsidized. In the end, QA suggested that the US government should not freeze

the agreement because this might affect the world's view of the US business ("Comments

of Qatar Airways," 2015).

As a partner of this case, Etihad Airways also reacted like EK and QA. EA (2015)

issued a response and submitted it to the U.S government. EA praised the 20 years of the

U.S Open Skies Agreements. In addition, EA asserted that from Open Skies Agreements

travelers benefit more than four billion dollars, annually, and would benefit more by

signing more agreements. Moreover, the domestic and international travelers flying from

the USA had directly benefited from the Agreements. With those agreements, those

consumers had more destinations, better services and lower fares. EA also said that the

U.S carriers preferred their own interest to the public interest (Etihad Airways Response

to Claims Raised About State-owned Airlines in Qatar and the UAE, 2015).

In addition, EA asserted that EA is a state-owned airline like many other airlines in the airline alliances, SkyTeam, Oneworld and Star Alliance, but is not a subsidized airline. However, subsidies are not prohibited by the US-UAE Open Skies Agreement, EA asserted. On the other hand, EA emphasized that the U.S carriers failed to prove any harmful impact on the U.S carriers or the U.S aviation industry at large. Additionally, EA referred to Delta's testimony to the House Financial Service Committee about the withdrawal from the Indian market. In that testimony, Delta asserted that the main reason behind that move was Air India purchase of American manufactured airplanes, which placed Delta in head to head competition with Air India's low air fares ("Etihad Airways Response to Claims Raised About State-owned Airlines in Qatar and the UAE," 2015).

Moreover, EA claimed that the U.S carriers raised those allegations on behalf of their EU partners as well. EA added that the U.S carriers spent time and money investigating the Gulf carriers just to distort the Gulf carriers' reputation. In addition, EA claimed that the allegations are not accurate and did not stand on solid ground. The U.S government designed and signed the Open Skies Agreements to liberalize the market, so passengers, airlines and the aviation industry at large could benefit. Finally, EA requested the U.S government terminate those allegations (Etihad Airways Response to Claims Raised About State-owned Airlines in Qatar and the UAE, 2015).

In 2015, Dresner, Eroglu, Hofer, Mendez and Tan published a study titled "The Impact of Gulf Carriers Competition on U.S. Carriers." The study examines the expansion of the Gulf carriers' operations to the USA and their implications for the U.S airlines. The paper asserted that the growth of the Gulf carriers is well covered by the media, but very few academic studies focused its light on this matter. Dresner et al.

(2015) examined the impact of Gulf carriers on passenger volume and airfares. The paper concluded that the U.S-Middle East traffic volume had some growth in volume and a reduction in fares since the Gulf carriers started operating to the U.S market (Dresner et al, 2015). On the other hand, Dresner et al. (2015) asserted that U.S carriers experienced a very tiny loss of traffic.

The Center for Aviation (CAPA) (2015) issued two articles analyzing this case. In the first article, "US-Gulf Airlines Dispute Part 1," the Center for Aviation discussed the opposing European points of view. The International Airline Group (IAG), which owns British Airways and other European airlines, thinks that any protection to the U.S carriers is more significant than any subsidies. In addition, IAG believes that suspending or renegotiating the Open Skies Agreements would move the industry 30 years back. On the other hand, Air France-KLM and Lufthansa think that the US-Gulf carriers' dispute should be resolved because it affects them. The airlines diverted their hubs from European airports to the Gulf airports, so EU airlines lost the opportunity to connect passengers to the USA (Center for Aviation, 2015). The second article raised a very critical question: who owns the passengers? According to the Center for Aviation (2015), passengers would fly with the airline that offers lower fares and better service. Finally, the article concluded that the Gulf carriers have the geographical location, network and the lower costs on their side (Center for Aviation, 2015).

Lobbenberg, Kumar and Thomas (2015) conducted a study about the US-Gulf Open Skies debate. First, Lobbenberg et al. (2015) asserted that Lufthansa, Air France-KLM and Air Canada raised the same allegations against the Gulf carriers. They started this lobby a long time before the U.S carriers and asked their governments to limit the

Gulf carriers' routes and operations. In addition, those airlines support the U.S carriers' position. On the other hand, other U.S airlines, such as Alaska and JetBlue, IAG and consumers' groups stand by the Gulf carriers (Lobbenberg et al., 2015). Regardless of the unproven harm to the U.S carrier, Lobbenberg et al. (2015) emphasized that freezing the Gulf carriers' expansion in the USA or renegotiating the Agreement are very harmful to the international aviation industry. Many other countries around the world would reconsider their efforts in liberalizing the aviation industry. Such a move would affect tourism, global commerce and consumers (Lobbenberg et al., 2015).

In 2016, the Center for Aviation issued a new follow up article. In the article "After the White Paper. Time for the U.S Major Airlines and Gulf Carriers to Kiss and Make up," the Center for Aviation (2016) asserted that U.S carriers are the largest beneficiaries of the Open Skies Agreements. In addition, according to the U.S Travel Association, in 2014, the Gulf carriers transported 1.1 million passengers to the USA, which contributed about four billion dollars to the U.S GDP (Center for Aviation CAPA, 2016). Moreover, Center for Aviation (2016) emphasized that the United States is the leading country in aviation liberalization with over 100 Open Skies Agreements, but this case raised many questions about the future of the global aviation industry liberalization. The Center for Aviation (2016) cited a speech of the Greater Orlando Aviation Authority that said that without the Open Skies Agreements the Orlando airport would not be receiving any international visitors and that would affect local tourism as well as thousands of jobs.

In another article, the Center for Aviation (2016) underlined the advantages of aviation market liberalization. According to the Center for Aviation (2016), market

liberalization is always good for consumers. It lowers the fares and gives more options in term of connectivity. Therefore, many countries around the world copy the U.S experience in liberalizing the aviation market. However, the US-Gulf carriers' dispute might stop liberalization efforts. For instance, because of this case and the EU airlines' voice to restrict the liberalization agreements, EU slowed its momentum in advancing the liberal market. On the other hand, the EU airports' voice urged EU for more liberalization agreements (Center for Aviation, 2016).

Important Updates

According to Ben Mutzabaugh (2015), Delta would start to reduce its daily flight to Dubai to four or five flights a week. The reduction was justified with the overcapacity on the U.S routes. In addition, a representative of Delta stated that Gulf carriers flooded the U.S market with seats (Mutzabaugh, 2015). On the other hand, United Airlines stated that it would stop all its nonstop flights from Washington to Dubai in 2016 (Reuters, 2015). Therefore, currently, Delta is the only U.S carrier operating to the Gulf countries.

As mentioned previously, the Obama administration rejected the U.S airlines' request to freeze or renegotiate the Open Skies Agreements with Qatar and UAE. However, the U.S carriers are very eager to raise this issue again with the new administration. On November 9, 2016, the U.S carriers lobby issued a statement that indicated their wish to have a meeting with the President-elect Trump to brief him about this case and the risks associated with it ("Statement from the Partnership for Open & Fair Skies on the Election of Donald Trump," 2016). Jill Zuckman (2016), spokesperson for the Partnership for Open & Fair Skies said, "We look forward to working with President Trump and his team to enforce these agreements and protect American jobs –

something that the Obama administration failed to do." ("Statement from the Partnership for Open & Fair Skies on Emirates' Route to Newark," 2017). In addition, Delta CEO Ed Bastian (2017) said that U.S airlines have many issues to raise to the new administration including the Gulf carriers' issue. Bastian (2017) added that U.S carriers are competing with governments, not regular airlines. Therefore, the U.S government should protect U.S jobs (as quoted by Karp, 2017). On the other hand, Brian Sumers (2017), believes that any modification to the agreements might impact other businesses such as FedEx.

Importance of the Topic and Statement of the Problem

As discussed in above, aviation liberalization elevated the industry to a new horizon. The Open Skies Agreement that the U.S government signed with Netherlands, in 1992, marked the foundation of a new era in the aviation industry. According to InterVISTAS Consulting Inc.'s study (2015), "The Economic Impact of Air Service Liberalization," there are about 320 bilateral liberalization agreements, all in the form of the Open Skies Agreement. Those agreements have benefits for consumers and the world economies. For consumers, liberalization lowers prices and provides more connectivity options. Concerning the economic impact, those agreements generated more than 24 million jobs and contributed about $490 billion in the last 20 years. In addition, after liberalization countries experienced an air traffic growth of 12% to 35% in comparison to previous years (InterVISTAS Consulting Inc., 2015).

Therefore, rolling back or freezing the US-Gulf Open Skies Agreements would be a serious threat to the aviation industry. Many airlines have updated their fleets to supply the new markets' demand. On the other hand, many airports also updated their infrastructure to service new carriers. Protectionism was an old burden that the aviation

industry celebrated demolishing. However, the US-Gulf carriers dispute questions on the future of the international aviation industry. Are those allegations right? Should countries stop liberalizing aviation? As discussed previously, this case is a cornerstone and a very critical topic to the international aviation market.

Research Questions

Rob Brinton (2015) wrote an article in Forbes Magazine addressing this dispute. In the article, Brinton (2015) stated the belief that the Gulf carriers are flooding the aviation market with a massive capacity to get rid of any other competitors. The U.S carriers also expressed this belief on their campaign's website. To attempt to provide clarity to this situation, this study will attempt to answer the following research questions:

1. What are the passenger load factor averages of the Gulf and the U.S carriers on flights between the USA and the Gulf region? What are the passenger load factor averages of the other airlines on flights to/from the USA and their countries of origin?

2. In term of passenger load factor, how did the Gulf carriers perform compared to the other carriers?

3. Did the Gulf carriers operate to/from the USA with low load factors?

4. Are the Gulf carriers' affecting other foreign airlines in term of load factor as well?

5. Is there a correlation between the Gulf carriers' expansion and load factor rates?

CHAPTER II – METHODOLOGY

This study uses a casual-comparative quantitative research methodology. This type of research compares numerical data of two groups or more (Gay et al., 2012). McMillan (2004) added that this method is non-experimental because the phenomena or the studied problem has occurred before the time of the study. In other words, data existed before the time of the study. This methodology is proper for this study because the collected data is numerical. Moreover, in this study, the main variable, the dependent variable, is the load factor; some references call it passenger load factor. Therefore, through this study load factor and passenger load factor refer to the same concept. According to the Dictionary of Transportation Terms (n.d.), passenger load factor is the percentage (%) of occupied seats verses the available seats. As can be seen in Figure 1, airlines' average load factor load factor was 80.4% in 2015 for both international and domestic markets, which was an all-time high (IATA, 2016). In 2015, the average load factor for international air transportation was 79.7%, as can be seen in Figure 2 (IATA, 2016). However, load factor varies geographically, as revealed in Figure 2.
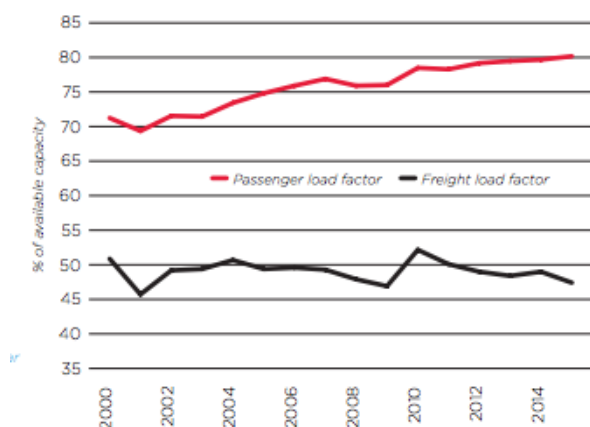
Figure 1. *Airlines Passenger and Freight Load Factor.*

Note. The figure was adopted from "IATA Annual Review 2016", 2016. Retrieved from https://www.iata.org/publications/Documents/iata-annual-review-2016.pdf

Air passenger market detail - January 2016

	World share [1]	January 2016 (% year-on-year)				2015 (% year-on-year)			
		RPK	ASK	PLF (%-pt) [2]	PLF (level) [3]	RPK	ASK	PLF (%-pt) [2]	PLF (level) [3]
TOTAL MARKET	100.0%	7.1%	5.6%	1.1%	78.8%	6.5%	5.6%	0.6%	80.4%
Africa	2.2%	11.0%	7.1%	2.5%	71.3%	3.1%	1.4%	1.1%	69.5%
Asia Pacific	31.5%	10.4%	7.9%	1.8%	78.5%	8.7%	6.7%	1.4%	78.6%
Europe	26.7%	4.0%	2.1%	1.4%	77.9%	5.1%	3.9%	0.9%	81.7%
Latin America	5.4%	5.1%	4.6%	0.4%	82.8%	6.8%	6.5%	0.2%	79.9%
Middle East	9.4%	10.5%	12.8%	-1.6%	77.9%	10.1%	12.6%	-1.7%	76.7%
North America	24.7%	4.3%	2.9%	1.1%	80.7%	4.3%	3.8%	0.4%	84.0%
International	63.6%	7.3%	5.9%	1.0%	78.8%	6.6%	5.9%	0.5%	79.7%
Africa	1.9%	12.1%	8.2%	2.5%	71.3%	3.3%	1.5%	1.2%	68.7%
Asia Pacific	17.4%	10.3%	7.6%	2.0%	79.2%	8.3%	6.5%	1.3%	78.2%
Europe	23.8%	4.2%	2.6%	1.2%	78.8%	5.0%	3.8%	1.0%	82.6%
Latin America	2.9%	8.9%	7.8%	0.8%	82.5%	9.4%	9.2%	0.1%	80.1%
Middle East	9.1%	10.9%	12.9%	-1.4%	77.8%	10.5%	13.2%	-1.8%	76.4%
North America	8.5%	2.4%	1.3%	0.8%	80.3%	3.2%	3.1%	0.1%	81.8%

Figure 2. *Air Passenger Market Detail.*

Note. The figure was adopted from "IATA Air Passenger Market Analysis", 2016. Retrieved from http://www.iata.org/whatwedo/Documents/economics/passenger-analysis-jan-2016.pdf

Participants and Instrument Used

The six airlines, the U.S and Gulf carriers, as introduced in Chapter One are the main participants in this study. In addition, a third group of other 5 selected airlines was developed to make the comparison and the study more comprehensive. Those additional airlines are from other countries that have Open Skies Agreements with the United States. Thus, the study has three groups which will be compared as can be seen in Table 1.

Table 1. *Airlines Groups for the Study.*

U.S Carriers	Gulf Carriers	Other Carriers
American Airlines	Emirates Airlines	Air India
Delta Airlines	Etihad Airlines	Air Jordan
United Airlines	Qatar Airways	Austrian Airlines
		Ethiopian Airlines
		Korean Airlines

Design

To examine the research questions, load factor is a critical variable, as discussed in the previous chapter. If the Gulf carriers are operating with a very low load factor as the U.S carriers have claimed, then the U.S carriers' allegations might be proved. In proposing the research's main Null and Alternative Hypotheses, the U.S airlines' point of view is the Null because they raised this case. The Null Hypothesis is a statistical statement that might be examined statistically to reveal a relationship or a difference (McMillan, 2004). Therefore, the Null and Alternative Hypotheses are as follow:

Null Hypothesis: Gulf carriers are not operating to the USA with low load factor and are not flooding the market with overcapacity.

Alternative Hypothesis: Gulf carriers are operating to the USA with a low load factor and flooding the market with overcapacity.

Data Collection

The data required for this research was retrieved from the database of the Bureau of Transportation Statistics. The Bureau of Transportation Statistics has a specific database for air carriers, which is called the T-100 International Segment. The Bureau of Transportation Statistics started to collect data in this data bank in 1999 on a monthly base. It includes U.S carriers and any International carrier operating to/from the USA or any of its territories. The database carries only non-stop flights. To retrieve data from the database, the researcher conducted many inquiries on the T-100 International Segment dataset as shown in Figure 3.

Figure 3. *T-100 International Segment Interface*.

For each inquiry, the researcher utilized a geography filter and a year filter. The result of an inquiry indicates information about all commercial airlines' flights, and on-demand charters between the United States and the specified geography filter. For instance, if the geography filter is Dubai and the year filter is 2010, then the result would indicate flights by U.S carriers, UAE carriers, other international carriers, and on-demand carriers from different countries. The data collection procedure executed 88 inquiries to get the required data for this study.

Each result was downloaded as an MS Excel file. Tables in the file contain the number of flights, the number of passengers, the type of aircraft, the airports' codes and other fields as shown in Figure 4. The retrieved data was filtered to include only the

flights to/from the USA and the origin cities of the Gulf carriers. Data of each geography filter were combined in one Excel sheet. Then, the row datasets were filtered and cleaned up to provide a suitable dataset for this study.

Figure 4. *Downloaded Row Data.*

Data Analysis

The first phase of data analysis was to calculate load factors for each leg of each flight for the 11 airlines. The study utilizes the formula seen in Figure 5 to calculate load factor. The formula was applied to the collected data in the MS Excel file as shown in Figure 6 and Figure 7.

$$Load\ Factor = \frac{Number\ of\ carried\ passenger * distance}{Avalable\ seat * distance} * 100\%$$

$$LoadFactor = \frac{203 * 1200}{285 * 1200} * 100\% = 71.22\%$$

Figure 5. *Load Factor Formula.*

Note. Jadhav, A. (2016). Airline Metrics: Passenger Load Factor. Retrieved January 10, 2017, from http://airlinegeeks.com/2016/01/29/airline-metrics-passenger-load-factor/

Figure 6. *Load Factor Calculations 1.*

Figure 7. *Load Factor Calculations 2.*

Then, for each group, a descriptive statistic was utilized. Since the study examined different groups, a two-tail t-test was applied to accept or reject the main research hypotheses. The t-test is a statistical test examining the means of two groups (McMillan, 2004). The groups in this study are the U.S carriers, the Gulf carriers and the other airlines group; those groups are identified in the introductory section. The t-test was used to examine the mean of the load factors between group pairs.

In addition, a Pearson correlation coefficient was utilized to investigate the relationship between the different groups. According to Hauke and Kossowski (2011), Pearson correlation is "the measure of the strength of the linear relationship between such variables." In other words, this test attempts to draw a line through the data to see how strongly the two variables are related. The result of Pearson correlation coefficient is the r value. The *r* value might range from -1 to 1. The closest r =1 indicates the strongest

positive correlation, while the r = -1 indicates very strong negative correlation, as seen in

Table 2. The value r = 0 indicates no correlation between the variables. In other words, a

positive correlation means if variable x increases variable y also increases, with the

opposite being true for negative correlation. Therefore, this test was utilized to examine

the impact of the Gulf carriers' expansion on the other groups and other relationships.

Table 2. *Strength of Correlation.*

-1	Perfect negative relationship
Close to -1	Strong negative relationship
0	No relationship
Close to 1	Strong positive relationship
1	Perfect positive relationship

CHAPTER III – DATA ANALYSIS

Load Factor Calculations

As discussed in the Chapter 2, load factor or passenger load factor is a measure of the utilized seats on an airplane. The T-100 International Segment does not provide the load factor averages. So, load factors were calculated as described in Chapter 2 for each flight, and for the year-to-year average. The U.S carriers' load factor averages included only flights from/to the USA and the Gulf countries. On the other hand, the Gulf carriers' and the other carriers' average load factors included the flights from/to the USA and the country of origin of each airline.

As indicated in Table 3 and Figure 8, AA has never operated to/from UAE or Qatar in the eight year period from 2008 to 2015. Therefore, the average LF of the U.S airlines includes only Delta and UA. Table 3 indicates that Delta has always operates with the highest passenger load factor. For instance, Delta's highest LF was 90.1%, which was the highest LF in the table. On the other hand, the lowest LF was 60.39%, which was scored by Ethiopian Airlines. In term of Gulf carriers, the lowest passenger load factor was 68.3%, which was scored by QA in 2008. Moreover, the figure reveals that, in most cases, airlines operated with an LF around 70%. In this table, 51.25% of the load factors were in the 70% range, 33.75% were in the 80% range, 13.75% were in the 60% range, and 1.25% was in the 90% range. In other words, the majority of participant airlines' load factor in this study were around 70%. Finally, neither Gulf carriers nor other carriers operated more than half-empty as illustrated in Table 3 and Figure 8.

Table 3. *All Participants Airlines Load Factor.*

Year	AA	Delta	UA	EA	EK	QA	Ethiopian	Air India	Austrian Airlines	Korean	Air Jordan
2008	Ø	87.62	64.9	78.2	77.7	68.3	65.11	61.03	76.75	78.62	73.89
2009	Ø	84.14	65.92	75.12	76.28	69.11	60.39	72.26	82.32	75.31	67.73
2010	Ø	87.47	80	84.48	83.77	76.02	72.59	73.97	78.46	80.47	73.38
2011	Ø	85.13	82.37	83.66	74.57	79.54	83	72.39	78.28	76.23	72.49
2012	Ø	90.1	82.92	86.53	84.85	83.5	75.83	77.63	84.09	77.46	73.36
2013	Ø	89.96	82.08	79.18	83.64	81.99	69.59	78.91	87.33	76.07	72.34
2014	Ø	87.49	76.04	79.28	81.71	75.29	74.61	69.46	85.9	70.97	70.3
2015	Ø	85.5	72.74	79.67	75.49	78.58	75.68	75.47	80.08	71.19	66.84

Note. AA does not fly to the Gulf region. Therefore, AA is not included in the U.S

carriers load factor average and the data analysis.
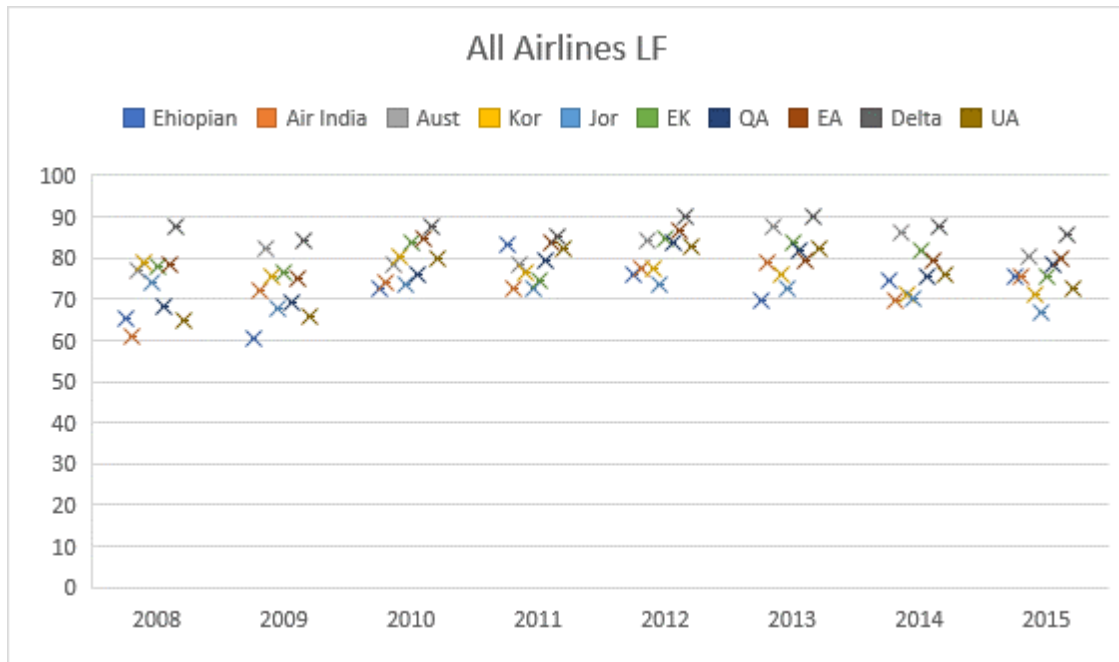
Figure 8. *All Participants Airlines Load Factor.*

Table 4 indicates the average passenger load factor for each group for the previously explained destinations. The U.S carriers, as a group, operated with the highest load factor for each year examined in this study. The second rank is for the Gulf carriers, and then the other airlines. The Gulf carriers lowest load factor was 73.5%, in 2009.

Table 4. *Airlines Groups Load Factor.*

Year	U.S Airlines Av LF	Gulf Airlines Av LF	Other Airlines Av LF
2008	76.26	74.73	71.08
2009	75.03	73.50	71.602
2010	83.73	81.42	75.774
2011	83.75	79.25	76.478
2012	86.51	84.96	77.674
2013	86.02	81.60	76.848
2014	81.76	78.76	74.248
2015	79.12	77.91	73.852
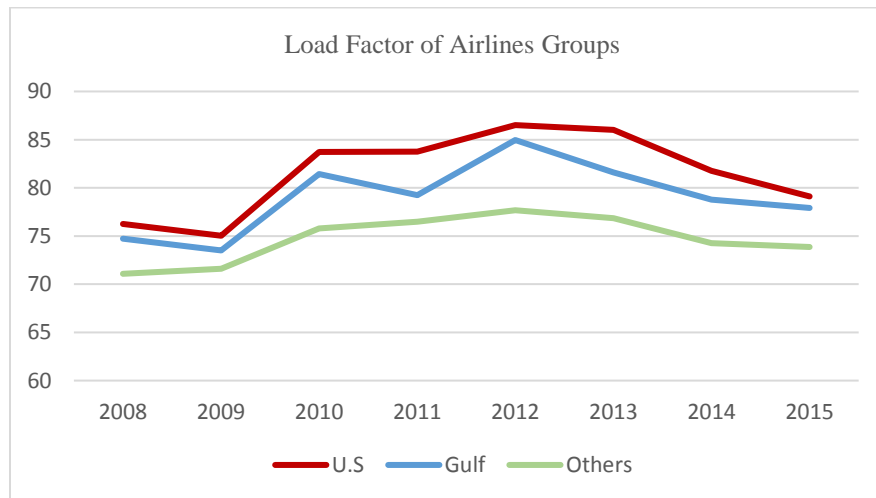
Figure 9. *Load Factor of Airlines Groups.*

Descriptive Statistics of the Airlines Groups' Load Factor

The descriptive statistics of the U.S carriers LF, over eight years, reveals that the average LF was 81.52%. The minimum and the maximum LF are 75.03% and 86.5 %, respectively. The descriptive statistics for the Gulf carriers' LF, over eight years, reveals that the average LF was 79.02%. The minimum and the maximum LF were 73.5% and 84.96 % respectively. The descriptive statistics for the other carriers' LF, over eight years, reveals that the average LF was 74.69%. The minimum and the maximum LF were 71.08% and 77.67%, respectively.

In addition, Table 5 indicates that the U.S group operates above the IATA international air transportation load factor, which is 79.7%. Moreover, Table 4 reveals that the minimum eight-year average load factor in the three groups was 71.08%, which is 8.62% lower than an all-time high load factor but still above the 70% threshold. However, in 2015, all three groups operated below the international air transportation load factor, as shown in Figure 10.

Table 5. *Descriptive Statistics for the Airlines Groups.*

Group	Mean	Minimum	Maximum
U.S Carriers	81.52	75.03	86.51
Gulf Carriers	79.02	73.5	84.96
Other Carriers	74.69	71.08	77.67
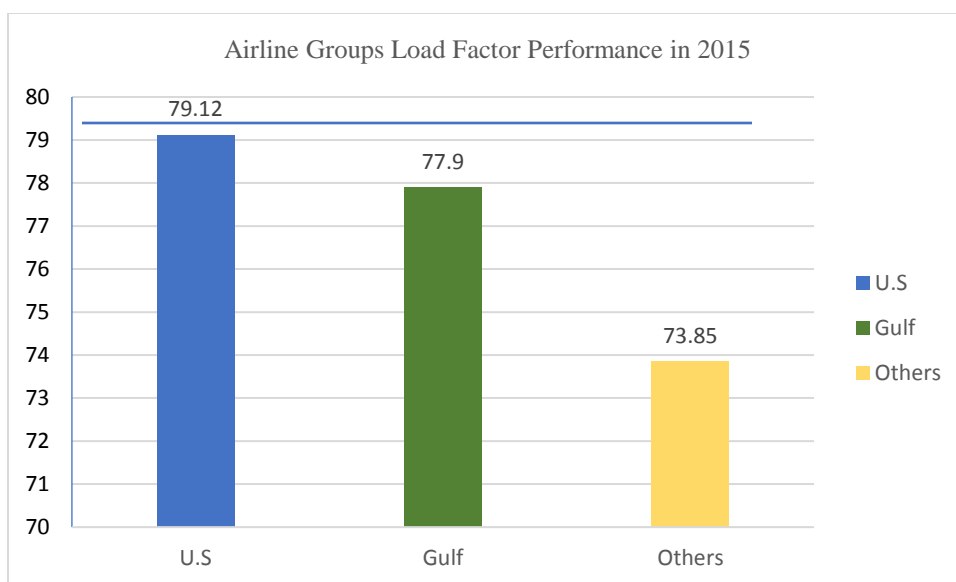
Figure 10. *Airline Groups Load Factor Performance in 2015.*

Note. Horizontal line is the 2015 IATA international air transportation passenger load factor, which was 79.7%.

Gulf Carriers' Performance Compared to the Other Carriers

As can be seen in the previous tables, over the eight year period, the mean LF of the three groups, collectively, was 78.41 Therefore, the U.S carriers' mean LF was 3.11% above the groups average, the Gulf carriers' LF was 0.61% above the world average and the other airlines' LF was below the world average LF by 3.72%. Figure 9 shows LF development of the three groups. Figure 9 reveals that the U.S carriers always maintained the highest load factor, then the Gulf carriers in the second rank and finally the other carriers. However, even the other airlines group did not operate under the 70% threshold.

In 2008, the Gulf carriers operated 4415 to/from the USA and their countries of origin. This number of flights had a double-digit growth rate for most of the years, as can be seen in Table 6. In 2015, the number of flights had grown to more than 19,000 flight

between the USA and the Gulf carriers' countries of origin. At the same time, the number

of passengers on these flights jumped from less than one million passengers to 5.4

million passengers, as seen in Figure 11.

Table 6. *Gulf Carriers' Growth in Flights and Passengers.*

Year	Flights	Growth	Passengers	Growth
2008	4415	27.5%	996,559	42%
2009	6271	42%	1,408,321	41%
2010	7540	20%	1,896,140	34.6%
2011	8740	15.9%	2,153,495	13.6%
2012	9292	6.3%	2,547,151	18.3%
2013	10694	15%	3,018,726	18.5%
2014	14992	40%	4,174,366	38.3%
2015	19221	28%	5,429,804	30.1%
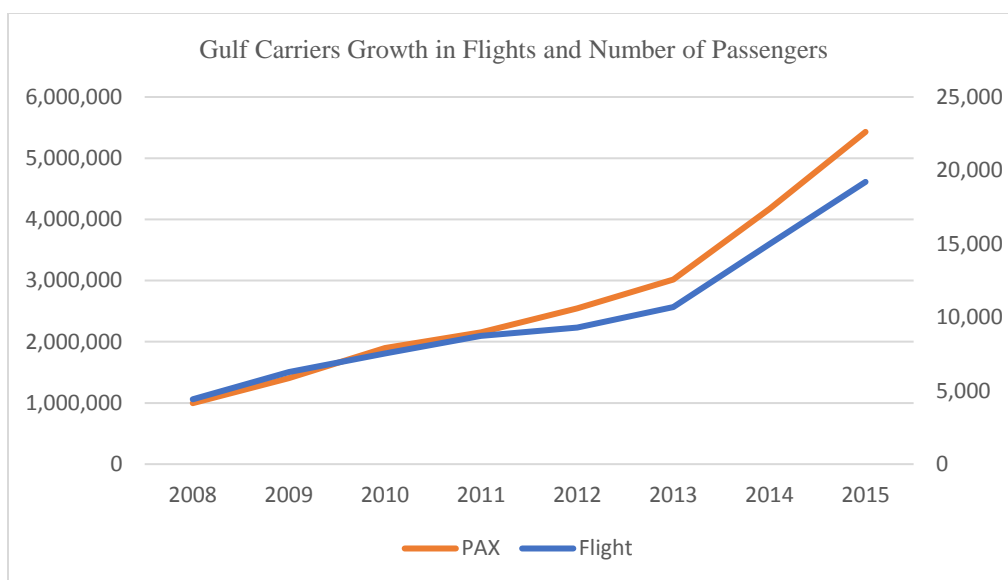
Figure 11. *Gulf Carriers' Growth in Number of Flights and Number of Passengers to the US Market.*

Table 6 indicates the three groups' performance in term of the number of passengers each year. Table 6 also reveals that the Gulf carriers have had the strongest growth in the number of passengers, while the U.S and the other carriers maintained a modest growth. Table 6 and Table 7 also show that the group of the three Gulf carriers injected more than 5.4 million passengers into the U.S air transportation system in 2015. In addition, the U.S carriers experienced a decline in the number of passengers traveling to/from the Gulf countries, while the other two groups had a positive growth, in 2015.

Table 7. *Number of Passengers.*

Year	Others	Gulf	U.S
2008	3,573,155	996,559	153,700
2009	3,408,321	1,408,321	167,854
2010	3,601,899	1,896,140	176,886
2011	3,685,176	2,153,495	165,411
2012	3,822,783	2,547,151	175,998
2013	3,932,009	3,018,726	175,820
2014	4,009,209	4,174,366	178107
2015	4,088,326	5,429,804	157,722

Two-Sample t-Test for the Main Hypothesis

The next data analysis step was integrated to answer the third research question. This step compared the Gulf carriers' mean passengers load factor the U.S carriers' mean passengers load factor over the eight year period.

Null Hypothesis: Gulf carriers are not operating to the USA with low load factor and are not flooding the market with overcapacity.

Alternative Hypothesis: Gulf carriers are operating to the USA with a low load factor and flooding the market with overcapacity.

By assuming that the eight years U.S and Gulf carriers' load factors data was normally distributed a two-sample T-test was conducted to examine the main hypothesis.

As can be seen in Table 8, the *t*-value = 1.23983 with the *p*-value = 0.235. Considering the 0.05 significance level and the *t* critical value =2.144, the result

is not significant at $p < .05$ and $t > 2.144$. This means there is no statistically significant difference between the two groups, leading to the acceptance of the Null Hypothesis. In other words, there is no significant gap between the Gulf carriers' load factor and the U.S carriers' load factor. The result also emphasizes that the Gulf carriers are operating with acceptable load factor

Table 8. *t-Test: Two-Sample Assuming Equal Variances.*

	U.S	*Gulf*
Mean	81.52375	79.01916667
Variance	18.66240536	13.98438016
Observations	8	8
Pooled Variance	16.32339276	
df	14	
t Stat	1.23982465	
P(T<=t) one-tail	0.117710156	
t Critical one-tail	1.761310136	
P(T<=t) two-tail	0.235420312	
t Critical two-tail	2.144786688	

Pearson Correlation to Examine Carriers' Performance

A Pearson Correlation was utilized to examine the positive or negative

relationship between carriers' load factor performance. The positive or negative

relationship might indicate that Gulf carriers are affecting or not affecting other carriers.

For this data analysis step, the Gulf carrier' load factor data would be compared to the

U.S carriers' load factor data. Then, the Gulf carriers' number of passengers' data would

be compared to the U.S carriers' data.

As can be seen in Table 9, the Pearson correlation test resulted in, $r = 0.9556$.

This result indicates a strong positive correlation, which means that high X variable

scores go with high Y variable scores (and the opposite). In other words, when the Gulf

carriers experienced an increase in load factor the U.S carriers also increased their load

factor. Figure 12 shows the scatterplot of the relationship.

Table 9. *Correlation (relationship) between Gulf Carriers' LF and U.S Carriers' LF.*

r value	0.9556
The value of R^2, the coefficient of determination	0.9132
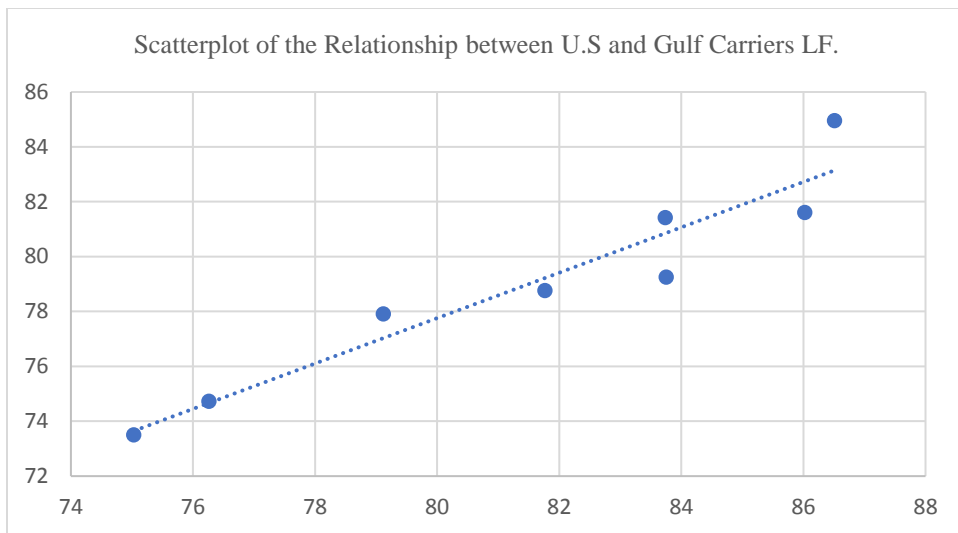
Figure 12. *Scatterplot of the Relationship between U.S and Gulf Carriers' LF*.

Figure 13 shows the development of the U.S carriers' and the Gulf carriers' passengers load factor. The figure also illustrated the strong correlation between the two variables. As can be seen in Figure 13, the U.S and the Gulf carriers experienced development, whether incline or decline, over the eight years except in 2013.
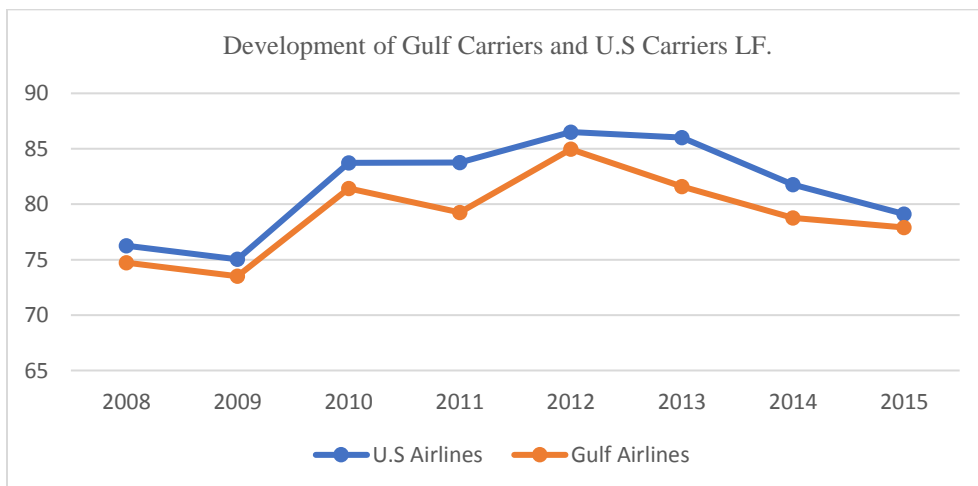
Figure 13. *Development of Gulf Carriers' and U.S Carriers' LF*.

In term of number of passengers, a Pearson correlation test was also utilized to examine the relationship between the Gulf carriers' expansion and the U.S carriers' number of passengers. As can be seen in Table 10, the value of R is 0.11. Although technically a positive correlation, the relationship between the variables is weak because the nearer the value is to zero, the weaker the relationship. Figure 14 shows the scatterplot of the relationship

Table 10. *Correlation between Gulf Carriers' and U.S Carriers' Number of Passengers.*

R value	0.11
The value of R^2, the coefficient of determination	0.0121
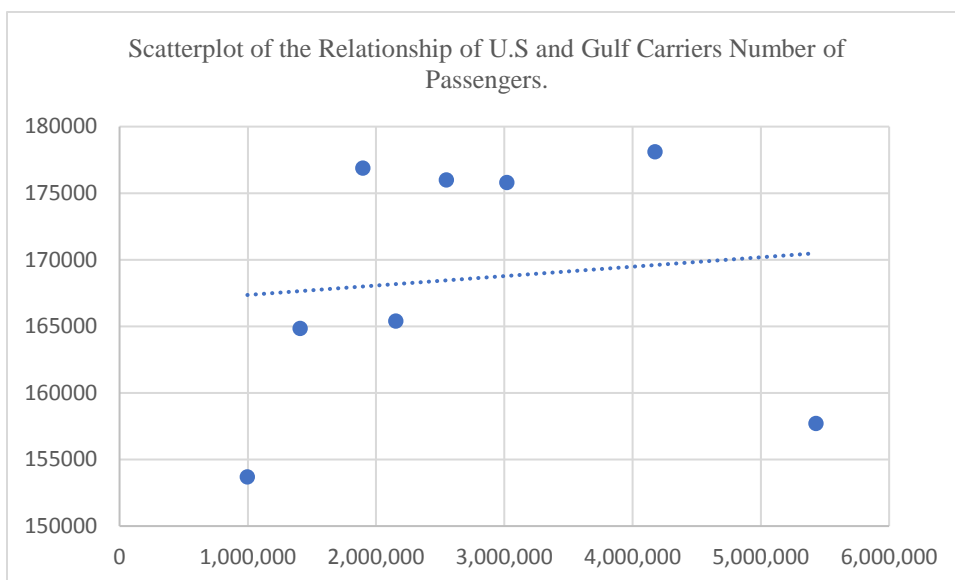
Figure 14. *Scatterplot of the Relationship of U.S and Gulf Carriers' Number of Passengers.*

Correlation between Gulf Carriers' LF and Other Carriers' LF

For this data analysis step, the Gulf carrier' load factor data would be compared to the other carriers' data, and the other carriers. Then, the Gulf carriers' number of passengers' data would be compared to the other carriers and the other carriers.

A Pearson correlation test was also utilized to examine the relationship between the Gulf and the other carriers load factors. As can be seen in Table 11, the test resulted in *r* value is 0.9406. This is a strong positive correlation, which means that high X variable scores go with high Y variable scores (and the opposite). That means, the Gulf carriers and the other carriers experienced a load factor increase or decrease in the same period as illustrated in Figure 15 and Figure 16.

Table 11. *Correlation (relationship) between Gulf Carriers' LF and Other Carriers' LF.*

r value	0.9406
The value of R^2, the coefficient of determination	0.8847
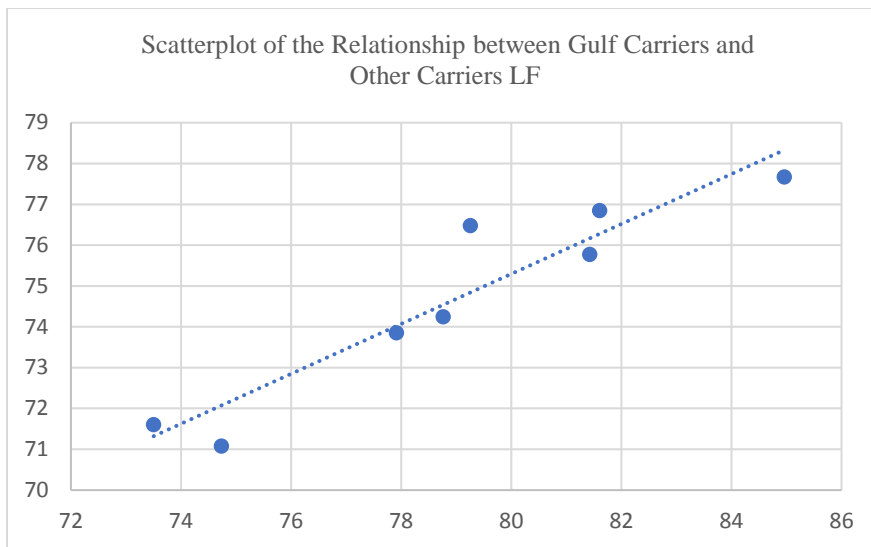
Figure 15. *Scatterplot of the Relationship between Gulf Carriers' and Other Carriers'*

LF.

Figure 16 shows the development of the Gulf carriers' and the other carriers'

passengers load factor. The figure also illustrated the strong correlation between the two

variables
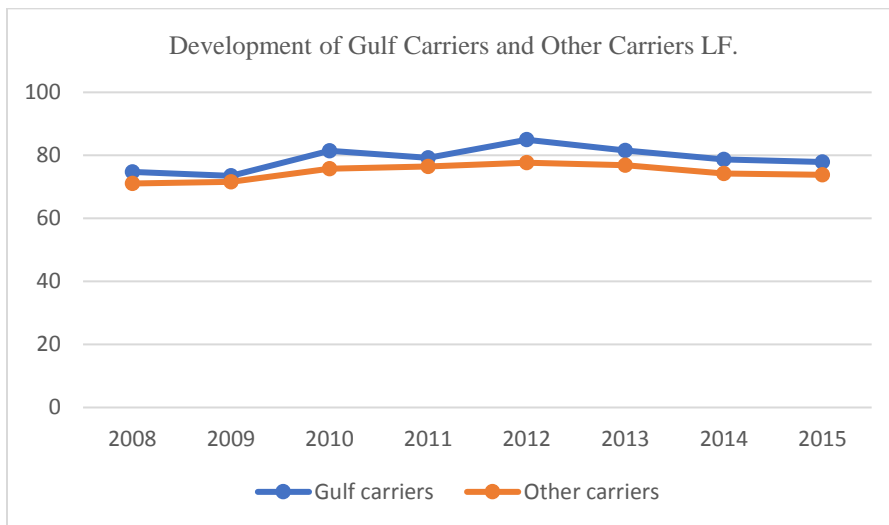
Figure 16. *Development of Gulf Carriers' and Other Carriers' LF.*

Regarding the number of passengers, a Pearson correlation test was also utilized to examine the relationship between the Gulf carriers' expansion and the other carriers' number of passengers. As can be seen in Table 12, the value of r is 0.919. This is a strong positive correlation, which means that high X variable scores go with high Y variable scores. Figure 17 shows the scatterplot of this relationship.

Table 12. *Correlation between Gulf Carriers' and Other Carriers' Number of Passengers.*

r value	0.919
The value of R^2, the coefficient of determination	0.8446
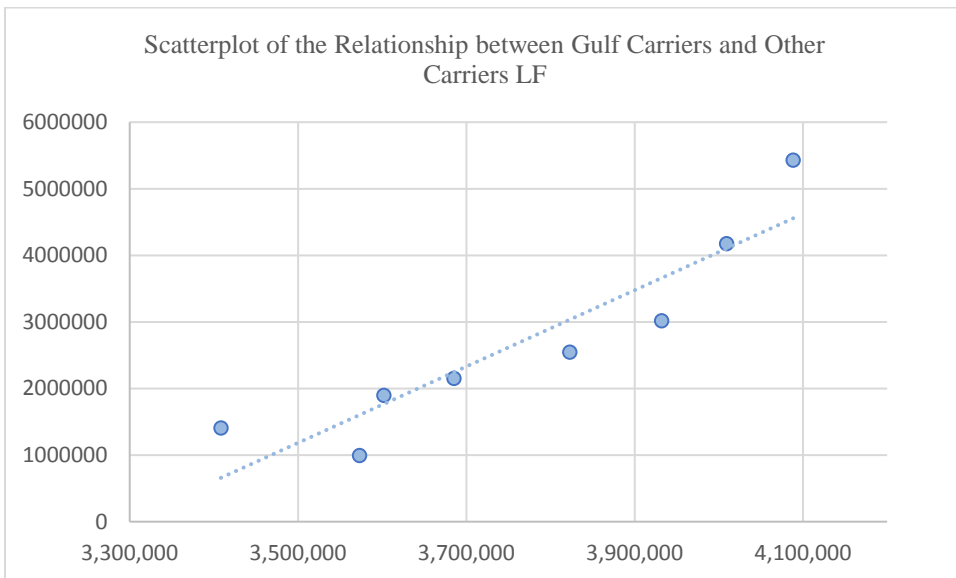
Figure 17. *Scatterplot of the Relationship between Gulf Carriers' and Other Carriers' LF.*

Correlation to Examine Relationship between LF and the Gulf Carriers' Expansion.

Additionally, the Pearson Correlation text was utilized to examine the Gulf carriers' expansion and Gulf carriers' load factor. For this step in the data analysis, the Gulf carriers load factor was compared with the number of passengers and the number of flights.

Table 13 shows the results of the correlation between the Gulf carriers' load factor and the number of passengers. The value of *r* is 0.2297. Although it is a positive correlation, the relationship between the variables is weak because the closer the value is to zero, the weaker the relationship. Figure 18 shows the scatterplot of this relationship.

Table 13. *The Relationship between Gulf Carriers' LF and Number of Passengers.*

r value	0.2297
The value of R^2, the coefficient of determination	0.0528
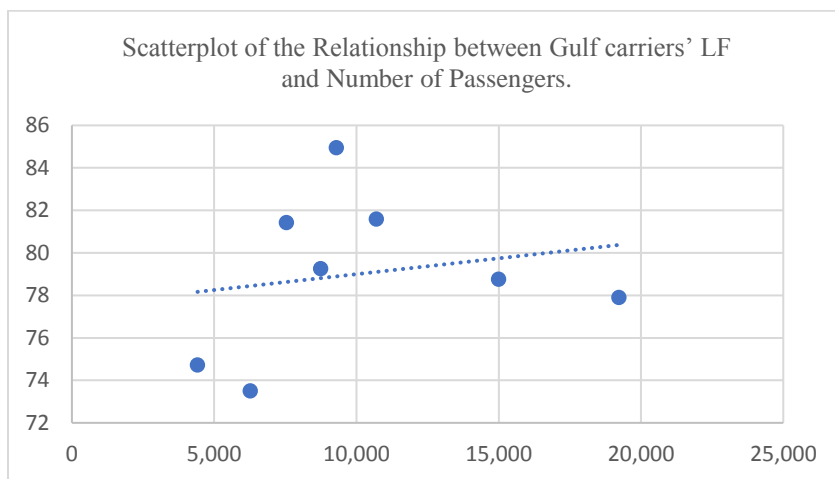
Figure 18. *Scatterplot of the Relationship between Gulf Carriers' LF and Number of Passengers.*

Figure 19 shows the development of the Gulf carriers' passengers load factor and the number of passengers. The figure reveals that the Gulf carriers experienced a constant growth in number of passengers over the eight years. On the other hand, load factor was trending down since 2012.
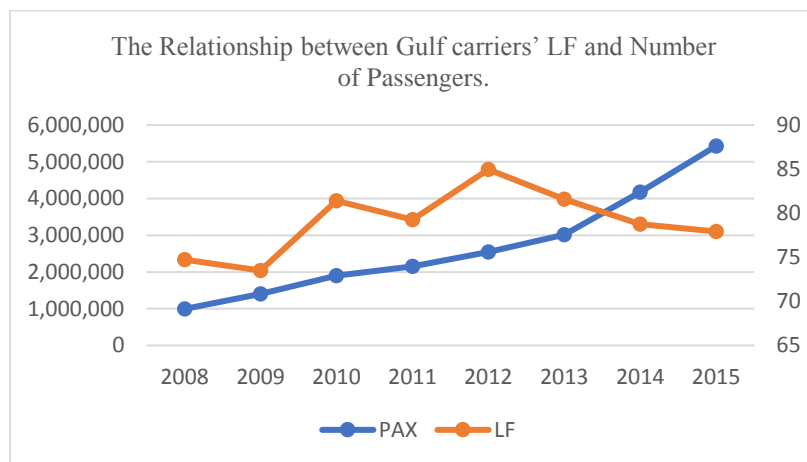
Figure 19. *The Development of Gulf Carriers' LF and Number of Passengers.*

Table 14 shows the results of the correlation between the Gulf carriers' load factor and the number of flights. The value of *r* is 0.1928. While it is technically a positive correlation, the relationship between the variables is weak because the closer the value is to zero, the weaker the relationship. Figure 20 shows the scatterplot of this relationship.

Table 14. *The Relationship between Gulf Carriers' LF and Number of Flights.*

r value	0.1928
The value of R^2, the coefficient of determination	0.0372
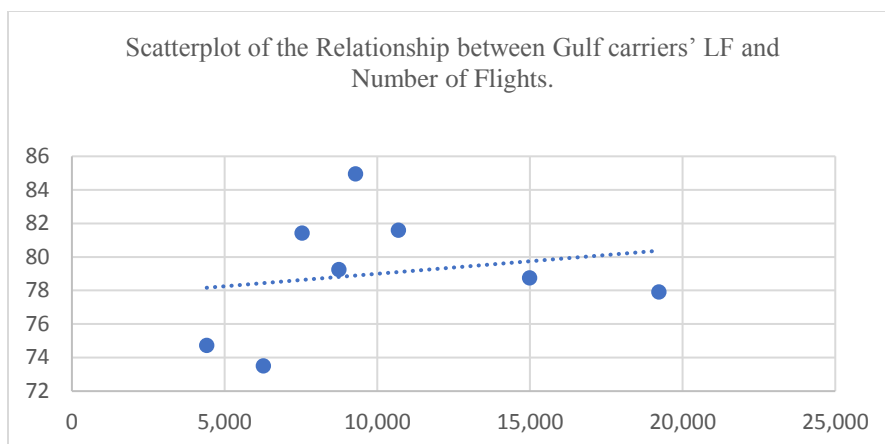
Figure 20. *Scatterplot of the Relationship between Gulf Carriers' LF and Number of Flights.*

Figure 21 shows the development of the Gulf carriers' passengers load factor and the number of flights. The figure reveals that the Gulf carriers experienced a constant growth in number of passengers over the eight years.
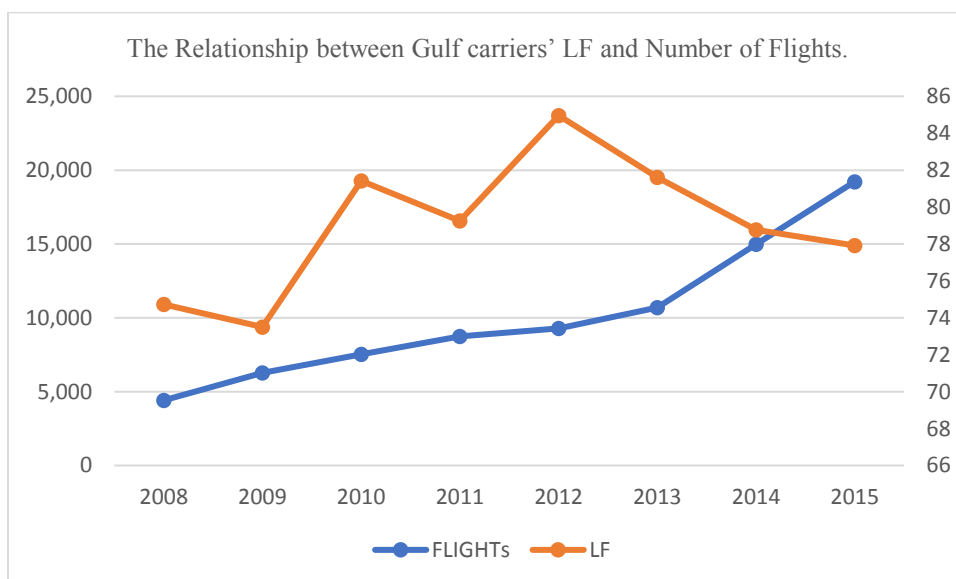
Figure 21. *Development of Gulf Carriers' LF and Number of Flights.*

CHAPTER IV – DISCUSSION AND CONCLUSION

The primary goal of this study was to investigate the 3 major international U.S carriers' accusations against the Gulf carriers. The U.S carriers claim that the Gulf carriers are flooding the U.S international air transportation market with flights that are more than half empty to crowd out other competitors. A number of research questions were developed to investigate the situation. In order to answer these research questions, a set of statistical tests were conducted to achieve a good understanding of the Gulf carriers' impact on the U.S market. The results of the statistical tests were used to answer the research questions that were stated in Chapter I.

Research Question 1 Discussion

What are the passenger load factor averages of the Gulf and the U.S carriers on flights between the USA and the Gulf region? What are the passenger load factor averages of the other airlines on flights to/from the USA and their countries of origin?

Table 5 reveals that over the time period examined, the U.S carriers always operated with the highest load factor, the Gulf carriers were ranked second and the other airlines were third. The mean load factors for the U.S carriers, the Gulf carriers and the other carriers were 81.52%, 79.02% and 74.69%, respectively. As a group, the lowest load factor experienced was 71.08%, which was operated by the other airlines group. Individually, Delta Airlines always operated with the highest load factors, as illustrated in Table 3. In the period from 2008 to 2015, Delta's average load factor was 87.1%. Over the eight year period, the lowest load factor was 60.39%, which was scored by Ethiopian Airlines in 2009. Finally, Table 3 reveals that American Airlines never operated between the USA and the two Gulf countries; Qatar and UAE.

Research Question 2 Discussion

In term of passenger load factor, how did the Gulf carriers perform compared to the other carriers?

The Gulf carriers' lowest load factor was 73.5% in 2009. In the same year, the U.S carriers scored their lowest load factor, which was 75.03%, as revealed in Table 4. At the same time, all three Gulf carriers operated with a higher load factor than United Airlines and some airlines from the other airlines group. The average load factor of the United Airlines was 75.87%, while Emirates Airlines, Qatar Airways and Etihad Airways average load factors were 79.75%, 76.54% and 80.76%, respectively. Finally, the Gulf carriers maintained a load factor above 70% over the eight year period.

Research Question 3 Discussion

Are the Gulf carriers flooding the U.S markets with flights with low load factor rates to kick out the U.S carriers from international routes?

To answer this question, a two-sample t-test was conducted to examine the study's main hypothesis, as follows:

Null Hypothesis: Gulf carriers are not operating to the USA with low load factor and are not flooding the market with overcapacity.

Alternative Hypothesis: Gulf carriers are operating to the USA with a low load factor and flooding the market with overcapacity.

A two-sample t-test compared the difference between the means for the U.S and the Gulf carriers and, as described in Chapter 3, the results indicate no difference between the means of the two groups. The difference between the U.S carriers' mean, 81.52%,

and the Gulf carriers' mean, 79.02%, is only 2.5%, which is not a statistically significant difference.

Furthermore, the Gulf carriers' number of flights jumped from 4415 flights in 2008 to more than 19,000 flights in 2015. On the other hand, some people might consider this growth a flood of flights. However, the massive growth of flights was associated with a massive growth of passengers as discussed in Chapter 3. Also, the Bureau of Transportation Statistics (2016) released that the total number of international enplanements was 199.3 million passengers in 2015. The U.S carriers handled 102.2 million passengers with a market share of 51.3%, while, foreign carriers handled 97.1 million passengers with a market share of 48.7%. The Gulf carriers' market share of the total enplanement was 2.7% and from the foreign carriers' segment was 5.5%.

Research Question 4 Discussion

Are the Gulf carriers' affecting other foreign airlines in term of load factor as well?

As discussed in this chapter and the previous chapter, among the three groups, the Gulf carriers had the highest growth in the number of passengers. For a better understanding of the Gulf carriers' impact on other carriers, the researcher utilized the Pearson Correlation to study the relationship between the three groups. For instance, the r value = 0.95 for the U.S-Gulf carriers' load factor, which indicates a strong positive correlation. In other words, both groups experienced increases or decreases in load factor in the same years, which indicates that the Gulf carriers are not affecting the U.S carriers. This relationship is well illustrated in Figure 12 and Figure 13. When comparing the Gulf and the other carriers load factor, the r value = 0.94, which means that this result also has

the same indications. Moreover, both results emphasized that the Gulf carriers' expansion did not affect other airlines' operations.

In term of passengers, the *r* value of the U.S-Gulf carriers' number of passengers equals 0.11, which is a weak positive correlation. However, the collected data reveal that Delta reduced flights to UAE in 2014 and 2015, which might affect the *r* value. On the other hand, the *r* value of the Gulf-Other carriers' number of passengers equals 0.919 that indicates a strong positive correlation. In fact, the other carriers maintained a constant growth in the number of passengers in the whole period except 2009. Therefore, it appears the Gulf carriers did not affect other carriers, but they compete with other carriers to satisfy the high demand of air transportation to/from the USA.

Research Question 5 Discussion

Was there a correlation between the Gulf carriers' expansion and load factor rates?

Also, a Pearson Correlation was utilized to understand the relationship between the load factor and the increased numbers of flights and passengers. As mentioned previously, in 2008, the Gulf carriers operated 4415 flight to/from the USA, the total number of passengers was 996,559 passengers. In 2015, the Gulf carriers operated 19,221 flights, the total number of passengers reached 5.4 million passengers. This question analysis investigated the relationship between those two variables and the load factor.

Regarding the Gulf carriers' load factor and number of flights relationship, the *r* value = 0.1928, which is a weak positive correlation. The second comparison is between Gulf carriers' load factor and the number of passengers. For this relationship, the *r* value = 0.2297, which is also a weak positive correlation. The trend lines for those relationships

go slightly up as shown in Figure 19 and Figure 21. However, after achieving their

highest load factor in 2012, the Gulf carriers are experiencing a decline in load factor, but

they still operate with an acceptable load factor.

Limitations

This study investigated the U.S carriers' accusation against the Gulf carriers of

flooding the U.S international travel market with flights that have very low passenger

load factor. The collected data covered a limited segment of the Gulf carriers' operations

to the USA because the T-100 International Segment database includes only the non-stop

flights to/from the USA. The Gulf carriers operate flights to the USA from some

European countries by utilizing the Fifth Freedom of the Air. Such flights are not

included in the dataset of the study because they are not between the airlines' origin

country and the USA.

In addition, the T-100 International Segment database does not carry information

like airfares, unit cost, or breakeven passenger load factor. Many other variables would

add to the value of the study such as breakeven load factor, operating margins, net profit

per passenger, revenue per available seat-kilometer (RASK), or cost per available seat-

kilometer (CASK). The comparison between RASK and CASK might solve the mystery

of the subsidies. IATA provides some financial performance analysis, but the analysis

covers regions not airlines. Finally, the researcher had an access to a public information

only.

Future Studies

As discussed in the literature review, there were no academic studies found that investigated this dispute before this study. Therefore, this dispute and related topics might be a rich soil for future studies. Future studies might include replicating this study with a more comprehensive dataset to cover all flights both direct and transit, and studies that integrate financial variables such as unit cost, RASK, CASK and operating margins. A government entity, such as the Department of Transportation, the Department of State or the Congress Transportation Committee, should conduct a comprehensive assessment of the over 20 years experience with the Open Skies Policy. Finally, studies might be conducted about the potential impact of freezing the Open Skies Agreements on many aspects of the aviation industry including U.S carrier, international carriers, flight schools, cargo, aircraft manufacturers, and trade and commerce.

Conclusion

The U.S air transportation market has historically led the way with aviation liberalization. Many countries around the world have followed the U.S in moves in to liberalize the market and expose it to the consumers' demand. Many countries have also followed the U.S. and signed Open Skies Agreements. In 2017, the USA has 120 open skies partnerships ("Open Skies Partnerships: Expanding the Benefits of Freer Commercial Aviation," 2017), while the total number of Open Skies Agreements was more than 320 agreement in 2015 (InterVISTAS Consulting Inc., 2015). Additionally, Open Skies Agreements have direct and indirect benefits to the aviation industry and the U.S. economy at large. Open Skies agreements brought direct international traffic to

destinations like Las Vegas, Orlando, Denver, Detroit and Salt Lake City ("Open Skies Partnerships: Expanding the Benefits of Freer Commercial Aviation," 2017).

Concerning governmental support and fair competition, the Gulf carriers denied receiving any government support. Willie Walsh, the CEO of International Aviation Group (IAG), disagreed with many European airlines executives as well as U.S. executives. He mentioned that he did not notice any evidence that the Gulf carriers received governmental support (McGinley, 2014). He also added that the Gulf carriers integrate a smart business model. In another interview, Walsh emphasized that the figures and evidence the U.S carriers submitted in their White Paper are not accurate (Sumers, 2016). Some U.S carriers, such as JetBlue and Hawaiian Airlines, also do not believe that Gulf carriers benefit from government subsidies. Those airlines encouraged the U.S government not to roll back the agreements because that might impact the U.S economy, lower the number of international tourists and harm supply (Silk, 2015). Saj Ahmad (as quoted by McGinley, 2014) claimed that if the U.S and the European carriers spent the time and money they spent on this dispute on updating their business models they would be more profitable.

Based on the data analysis in this study, the Gulf carriers are not flooding the U.S market with more than half empty flights, but they are operating to/from the USA with a very acceptable and respectful load factors, as discussed previously. Furthermore, Gulf carriers are fueling traffic at many U.S airports and for some U.S airlines. For instance, JetBlue CEO Robin Hayes said that JetBlue started a new route from Boston to Detroit because Emirates started to operate to Boston. He added that with the Gulf carriers' expansion airlines like JetBlue started to operate to destinations that might not have been

on their route map expansion many years (Jansen, 2015). Further, the U.S commercial airline industry, as well as many other industries such as tourism, cargo, flight schools, and aircraft manufacturers, might also be affected. Therefore, it is recommended that major U.S carriers and the U.S government should stop their contention of unfair practices by Gulf State carriers.

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APPENDICES

APPENDIX A – CURRENT OPEN SKIES AGREEMENT MODEL

January 12, 2012

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AIR TRANSPORT AGREEMENT

BETWEEN

THE GOVERNMENT OF

THE UNITED STATES OF

AMERICA AND

THE GOVERNMENT OF

[country]

——————————

The Government of the United States of America and the Government of [country] (hereinafter, "the Parties");

Desiring to promote an international aviation system based on competition among airlines in the marketplace with minimum government interference and regulation;

Desiring to make it possible for airlines to offer the traveling and shipping public a variety of service options, and wishing to encourage individual airlines to develop and implement innovative and competitive prices;

Desiring to facilitate the expansion of international air transport opportunities;

Desiring to ensure the highest degree of safety and security in international air transport and reaffirming their grave concern about acts or threats against the security of aircraft, which jeopardize the safety of persons or property, adversely affect the operation of air transportation, and undermine public confidence in the safety of civil aviation; and

Being Parties to the Convention on International Civil Aviation, done at Chicago December 7, 1944;

Article 1

Definitions

For the purposes of this Agreement, unless otherwise stated, the term:

1.   "Aeronautical authorities" means, in the case of the United States, the Department of Transportation and in the case of [country], the [appropriate entity], and any person or agency authorized to perform functions exercised by the Department of Transportation or said [appropriate entity];

2.   "Agreement" means this Agreement and any amendments thereto;

3.   "Air transportation" means the public carriage by aircraft of passengers, baggage, cargo, and mail, separately or in combination, scheduled or charter, for remuneration or hire;

4.   "Airline of a Party" means an airline that has received its Air Operator's Certificate (AOC) from and has its principal place of business in the territory of that Party;

5.   "Convention" means the Convention on International Civil Aviation, done at Chicago December 7, 1944, and includes:

        a. any amendment that has entered into force under Article 94(a) of the Convention and has been ratified by both Parties, and

        b. any Annex or any amendment thereto adopted under Article 90 of the Convention, insofar as such Annex or amendment is at any given time effective for both Parties;

6.   "Full cost" means the cost of providing service plus a reasonable charge for administrative overhead;

7.   "International air transportation" means air transportation that passes through the airspace over the territory of more than one State;

8.   "Price" means any fare, rate, or charge for the carriage of passengers, baggage, or cargo (excluding mail) in air transportation, including surface transportation in connection with international air transportation, charged by airlines, including their agents, and the conditions governing the availability of such fare, rate, or charge;

9.   "Stop for non-traffic purposes" means a landing for any purpose other than taking on or discharging passengers, baggage, cargo, or mail in air transportation;

10.   "Territory" means the land areas, internal waters, and territorial sea under the sovereignty of a Party; and

11.   "User charge" means a charge imposed on airlines for the provision of airport, airport environmental, air navigation, or aviation security facilities or services including related services and facilities.

Article 2

Grant of Rights

1.   Each Party grants to the other Party the following rights for the conduct of international air transportation by the airlines of the other Party:

a.   the right to fly across its territory without landing;

b.   the right to make stops in its territory for non-traffic purposes;

c.   the right to perform international air transportation between points on the following routes:

(i)   for airlines of the United States, from points behind the United States via the United States and intermediate points to any point or points in [country] and beyond; [and for all-cargo service, between [country] and any point or points;]

(ii)   for airlines of [country], from points behind [country] via [country] and intermediate points to any point or points in the United States and beyond; [and for all-cargo service, between the United States and any point or points;] and

d.   the rights otherwise specified in this Agreement.

2.   Each airline of a Party may, on any or all flights and at its option:

a.   operate flights in either or both directions;

b.   combine different flight numbers within one aircraft operation;

c.   serve behind, intermediate, and beyond points and points in the territories of the Parties in any combination and in any order;

d.   omit stops at any point or points;

e.   transfer traffic from any of its aircraft to any of its other aircraft at any point;

f.   serve points behind any point in its territory with or without change of aircraft or flight number and hold out and advertise such services to the public as through services;

g.   make stopovers at any points whether within or outside the territory of either Party;

h.   carry transit traffic through the other Party's territory; and

i.   combine traffic on the same aircraft regardless of where such traffic originates;

without directional or geographic limitation and without loss of any right to carry traffic otherwise permissible under this Agreement, provided that, [with the exception of all-cargo services,] the transportation is part of a service that serves a point in the homeland of the airline.

3.   On any segment or segments of the routes above, any airline of a Party may perform international air transportation without any limitation as to change, at any point on the route, in type or number of aircraft operated, provided that, [with the exception of all-cargo services,] in the outbound direction, the transportation beyond such point is a continuation of the transportation from the homeland of the airline and, in the inbound direction, the transportation to the homeland of the airline is a continuation of the transportation from beyond such point.

4.   Nothing in this Article shall be deemed to confer on the airline or airlines of one Party the rights to take on board, in the territory of the other Party, passengers, baggage, cargo, or mail carried for compensation and destined for another point in the territory of that other Party.

5.   Any airline of a Party performing charter international air transportation originating in the territory of either Party, whether on a one-way or round-trip basis, shall have the option of complying with the charter laws, regulations, and rules either of its homeland or of the other Party. If a Party applies different rules, regulations, terms, conditions, or limitations to one or more of its airlines, or to airlines of different countries, each airline of the other Party shall be subject to the least restrictive of such criteria. Nothing in this paragraph shall limit the rights of a Party to require airlines of both Parties to adhere to requirements relating to the protection of passenger funds and passenger cancellation and refund rights. Except with respect to the consumer protection rules referred to in this paragraph, neither Party shall require an airline of the other Party, in respect of the carriage of traffic from the territory of that other Party or of a third country on a one-way or round-trip basis, to submit more than a notice that it is complying with the applicable laws, regulations, and rules referred to in this paragraph or of a waiver of these laws, regulations, or rules granted by the applicable aeronautical authorities.

Article 3

Authorizations

Each Party, on receipt of applications from an airline of the other Party, in the form and manner prescribed for operating authorizations and technical permissions, shall grant appropriate authorizations and permissions with minimum procedural delay, provided:

    a. substantial ownership and effective control of that airline are vested in the other Party, nationals of that Party, or both;

    b. the airline is qualified to meet the conditions prescribed under the laws and regulations normally applied to the operation of international air transportation by the Party considering the application or applications; and

    c. the other Party is maintaining and administering the provisions set forth in Article 6 (Safety) and Article 7 (Aviation Security).

Article 4

Revocation of Authorization

1.   Either Party may revoke, suspend, limit, or impose conditions on the operating authorizations or technical permissions of an airline where:

    a. that airline is not an airline of the other Party under Article 1(4);

    b. substantial ownership and effective control of that airline are not vested in the other Party, the other Party's nationals, or both; or

    c. that airline has failed to comply with the laws and regulations referred to in Article 5 (Application of Laws) of this Agreement.

2.   Unless immediate action is essential to prevent further noncompliance with subparagraph 1c of this Article, the rights established by this Article shall be exercised only after consultation with the other Party.

3.   This Article does not limit the rights of either Party to withhold, revoke, suspend, limit, or impose conditions on the operating authorization or technical permission of an airline or airlines of the other Party in accordance with the provisions of Article 6 (Safety) or Article 7 (Aviation Security).

Article 5

Application of Laws

1.   The laws and regulations of a Party relating to the admission to or departure from its territory of aircraft engaged in international air navigation, or to the operation and navigation of such aircraft while within its territory, shall be complied with by such aircraft upon entering, when departing from, or while within the territory of the first Party.

2.   While entering, within, or leaving the territory of one Party, its laws and regulations relating to the admission to or departure from its territory of passengers, crew or cargo on aircraft (including regulations relating to entry, clearance, aviation security, immigration, passports, customs and quarantine or, in the case of mail, postal regulations) shall be complied with by, or on behalf of, such passengers, crew or cargo of the other Party's airlines.

Article 6

Safety

3.   Each Party shall recognize as valid, for the purpose of operating the air transportation provided for in this Agreement, certificates of airworthiness, certificates of competency, and licenses issued or validated by the other Party and still in force, provided that the requirements for such certificates or licenses at least equal the minimum standards that may be established pursuant to the Convention. Each Party may, however, refuse to recognize as valid for the purpose of flight above its own territory, certificates of competency and licenses granted to or validated for its own nationals by the other Party.

4.   Either Party may request consultations concerning the safety standards maintained by the other Party relating to aeronautical facilities, aircrews, aircraft, and operation of airlines of that other Party. If, following such consultations, one Party finds that the other Party does not effectively maintain and administer safety standards and requirements in these areas that at least equal the minimum standards that may be established pursuant to the Convention, the other Party shall be notified of such findings and the steps considered necessary to conform with these minimum standards, and the other Party shall take appropriate corrective action. Each Party reserves the right to withhold, revoke, suspend, limit, or impose conditions on the operating authorization or technical permission of an airline or airlines of the other Party in the event the other Party does not take such appropriate corrective action within a reasonable time and to take immediate action, prior to consultations, as to such airline or airlines if the other Party is not maintaining and administering the aforementioned standards and immediate action is essential to prevent further noncompliance.

Article 7

Aviation Security

1.   The Parties affirm that their obligation to each other to protect the security of civil aviation against acts of unlawful interference forms an integral part of this Agreement. Without limiting the generality of their rights and obligations under international law, the Parties shall in particular act in conformity with the provisions of the Convention on Offenses and Certain Other Acts Committed on Board Aircraft, done at Tokyo September 14, 1963, the Convention for the Suppression of Unlawful Seizure of Aircraft, done at The Hague December 16, 1970, the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal September 23, 1971, and the Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal February 24, 1988.

2.   The Parties shall provide upon request all necessary assistance to each other to prevent acts of unlawful seizure of civil aircraft and other unlawful acts against the safety of such aircraft, of their passengers and crew, and of airports and air navigation facilities, and to address any other threat to the security of civil air navigation.

3.   The Parties shall, in their mutual relations, act in conformity with the aviation security standards and appropriate recommended practices established by the International Civil Aviation Organization and designated as Annexes to the Convention; they shall require that operators of aircraft of their registry, operators of aircraft that have their principal place of business or permanent residence in their territory, and the operators of airports in their territory act in conformity with such aviation security provisions.

4.   Each Party agrees to observe the security provisions required by the other Party for entry into, for departure from, and while within the territory of that other Party and to take adequate measures to protect aircraft and to inspect passengers, crew, and their baggage and carry-on items, as well as cargo and aircraft stores, prior to and during boarding or loading. Each Party shall also give positive consideration to any request from the other Party for special security measures to meet a particular threat.

5.   When an incident or threat of an incident of unlawful seizure of aircraft or other unlawful acts against the safety of passengers, crew, aircraft, airports or air navigation facilities occurs, the Parties shall assist each other by facilitating communications and other appropriate measures intended to terminate rapidly and safely such incident or threat.

6.   When a Party has reasonable grounds to believe that the other Party has departed from the aviation security provisions of this Article, the aeronautical authorities of that Party may request immediate consultations with the aeronautical authorities of the other Party. Failure to reach a satisfactory agreement within 15 days from the date of such request shall constitute

grounds to withhold, revoke, suspend, limit, or impose conditions on the operating authorization and technical permissions of an airline or airlines of that Party. When required by an emergency, a Party may take interim action prior to the expiry of 15 days.

Article 8

Commercial
Opportunities

1.   The airlines of each Party shall have the right to establish offices in the territory of the other Party for the promotion and sale of air transportation.

2.   The airlines of each Party shall be entitled, in accordance with the laws and regulations of the other Party relating to entry, residence, and employment, to bring in and maintain in the territory of the other Party managerial, sales, technical, operational, and other specialist staff required for the provision of air transportation.

3.   Each airline shall have the right to perform its own ground-handling in the territory of the other Party ("self-handling") or, at the airline's option, select among competing agents for such services in whole or in part. The rights shall be subject only to physical constraints resulting from considerations of airport safety. Where such considerations preclude self-handling, ground services shall be available on an equal basis to all airlines; charges shall be based on the costs of services provided; and such services shall be comparable to the kind and quality of services as if self-handling were possible.

4.   An airline of a Party may engage in the sale of air transportation in the territory of the other Party directly and, at the airline's discretion, through its agents, except as may be specifically provided by the charter regulations of the country in which the charter originates that relate to the protection of passenger funds, and passenger cancellation and refund rights. Each airline shall have the right to sell such transportation, and any person shall be free to purchase such transportation, in the currency of that territory or in freely convertible currencies.

5.   Each airline shall have the right to convert and remit to its country and, except where inconsistent with generally applicable law or regulation, any other country or countries of its choice, on demand, local revenues in excess of sums locally disbursed. Conversion and remittance shall be permitted promptly without restrictions or taxation in respect thereof at the rate of exchange applicable to current transactions and remittance on the date the carrier makes the initial application for remittance.

6.   The airlines of each Party shall be permitted to pay for local expenses, including purchases of fuel, in the territory of the other Party in local currency. At their discretion, the airlines of each Party may pay for such expenses in the territory of the other Party in freely convertible currencies according to local currency regulation.

7.   In operating or holding out the authorized services under this Agreement, any airline of one Party may enter into cooperative marketing arrangements such as blocked-space, code- sharing, or leasing arrangements, with

    a. an airline or airlines of either Party;

    b. an airline or airlines of a third country; [and

    c. a surface transportation provider of any country;]

provided that all participants in such arrangements (i) hold the appropriate authority and (ii) meet the requirements normally applied to such arrangements.

8.   Airlines and indirect providers of cargo transportation of both Parties shall be permitted, without restriction, to employ in connection with international air transportation any surface transportation for cargo to or from any points in the territories of the Parties or in third countries, including to and from all airports with customs facilities and to transport cargo in bond under applicable laws and regulations. Such cargo, whether moving by surface or by air, shall have access to airport customs processing and facilities. Airlines may elect to perform their own surface transportation or to provide it through arrangements with other surface carriers, including surface transportation operated by other airlines and indirect providers of cargo air transportation. Such intermodal cargo services may be offered at a single, through price for the air and surface transportation combined, provided that shippers are not misled as to the facts concerning such transportation.

Article 9

Customs Duties and
Charges

1.   On arriving in the territory of one Party, aircraft operated in international air transportation by the airlines of the other Party, their regular equipment, ground equipment, fuel, lubricants, consumable technical supplies, spare parts (including engines), aircraft stores (including but not limited to such items of food, beverages and liquor, tobacco, and other products destined for sale to or use by passengers in limited quantities during flight), and other items intended for or used solely in connection with the operation or servicing of aircraft engaged in international air transportation shall be exempt, on the basis of reciprocity, from all import restrictions, property taxes and capital levies, customs duties, excise taxes, and similar fees and charges that are (a) imposed by the national authorities, and (b) not based on the cost of services provided, provided that such equipment and supplies remain on board the aircraft.

2.   There shall also be exempt, on the basis of reciprocity, from the taxes, levies, duties, fees, and charges referred to in paragraph 1 of this Article, with the exception of charges based on the cost of the service provided:

a. aircraft stores introduced into or supplied in the territory of a Party and taken on board, within reasonable limits, for use on outbound aircraft of an airline of the other Party engaged in international air transportation, even when these stores are to be used on a part of the journey performed over the territory of the Party in which they are taken on board;

b. ground equipment and spare parts (including engines) introduced into the territory of a Party for the servicing, maintenance, or repair of aircraft of an airline of the other Party used in international air transportation;

c. fuel, lubricants, and consumable technical supplies introduced into or supplied in the territory of a Party for use in an aircraft of an airline of the other Party engaged in international air transportation, even when these supplies are to be used on a part of the journey performed over the territory of the Party in which they are taken on board; and

d. promotional and advertising materials introduced into or supplied in the territory of one Party and taken on board, within reasonable limits, for use on outbound aircraft of an airline of the other Party engaged in international air transportation, even when these materials are to be used on a part of the journey performed over the territory of the Party in which they are taken on board.

3.   Equipment and supplies referred to in paragraphs 1 and 2 of this Article may be required to be kept under the supervision or control of the appropriate authorities.

4.   The exemptions provided by this Article shall also be available where the airlines of one Party have contracted with another airline, which similarly enjoys such exemptions from the other Party, for the loan or transfer in the territory of the other Party of the items specified in paragraphs 1 and 2 of this Article.

**Article
10**

**User
Charges**

1.   User charges that may be imposed by the competent charging authorities or bodies of each Party on the airlines of the other Party shall be just, reasonable, not unjustly discriminatory, and equitably apportioned among categories of users. In any event, any such user charges shall be assessed on the airlines of the other Party on terms not less favorable than the most favorable terms available to any other airline at the time the charges are assessed.

2.   User charges imposed on the airlines of the other Party may reflect, but shall not exceed, the full cost to the competent charging authorities or bodies of providing the appropriate airport, airport environmental, air navigation, and aviation security facilities and services at the airport or within the airport system. Such charges may include a reasonable return on assets, after

depreciation. Facilities and services for which charges are made shall be provided on an efficient and economic basis.

3.   Each Party shall encourage consultations between the competent charging authorities or bodies in its territory and the airlines using the services and facilities, and shall encourage the competent charging authorities or bodies and the airlines to exchange such information as may be necessary to permit an accurate review of the reasonableness of the charges in accordance with the principles of paragraphs 1 and 2 of this Article. Each Party shall encourage the competent charging authorities to provide users with reasonable notice of any proposal for changes in user charges to enable users to express their views before changes are made.

4.   Neither Party shall be held, in dispute resolution procedures pursuant to Article 14, to be in breach of a provision of this Article, unless (a) it fails to undertake a review of the charge or practice that is the subject of complaint by the other Party within a reasonable amount of time; or (b) following such a review it fails to take all steps within its power to remedy any charge or practice that is inconsistent with this Article.

Article 11

Fair Competition

1.   Each Party shall allow a fair and equal opportunity for the airlines of both Parties to compete in providing the international air transportation governed by this Agreement.

2.   Each Party shall allow each airline to determine the frequency and capacity of the international air transportation it offers based upon commercial considerations in the marketplace. Consistent with this right, neither Party shall unilaterally limit the volume of traffic, frequency, or regularity of service, or the aircraft type or types operated by the airlines of the other Party, except as may be required for customs, technical, operational, or environmental reasons under uniform conditions consistent with Article 15 of the Convention.

3.   Neither Party shall impose on the other Party's airlines a first-refusal requirement, uplift ratio, no-objection fee, or any other requirement with respect to capacity, frequency, or traffic that would be inconsistent with the purposes of this Agreement.

4.   Neither Party shall require the filing of schedules, programs for charter flights, or operational plans by airlines of the other Party for approval, except as may be required on a non- discriminatory basis to enforce the uniform conditions foreseen by paragraph 2 of this Article or as may be specifically authorized in this Agreement. If a Party requires filings for information purposes, it shall minimize the administrative burdens of filing requirements and procedures on air transportation intermediaries and on airlines of the other Party.

Article 12

Pricing

1.   Each Party shall allow prices for air transportation to be established by airlines of both Parties based upon commercial considerations in the marketplace.

2.   Prices for international air transportation between the territories of the Parties shall not be required to be filed. Notwithstanding the foregoing, the airlines of the Parties shall provide immediate access, on request, to information on historical, existing, and proposed prices to the aeronautical authorities of the Parties in a manner and format acceptable to those aeronautical authorities.

Article 13

Consultations

Either Party may, at any time, request consultations relating to this Agreement. Such consultations shall begin at the earliest possible date, but not later than 60 days from the date the other Party receives the request unless otherwise agreed.

Article 14

Settlement of Disputes

1.   Any dispute arising under this Agreement, except those that may arise under Article 12 (Pricing), that is not resolved within 30 days of the date established for consultations pursuant to a request for consultations under Article 13 may be referred, by agreement of the Parties, for decision to some person or body. If the Parties do not so agree, either Party may give written notice to the other Party through diplomatic channels that it is requesting that the dispute be submitted to arbitration.

2.   Arbitration shall be by a tribunal of three arbitrators to be constituted as follows:

        a. Within 30 days after the receipt of a request for arbitration, each Party shall name one arbitrator. Within 60 days after these two arbitrators have been named, they shall by agreement appoint a third arbitrator, who shall act as President of the arbitral tribunal;

        b. If either Party fails to name an arbitrator, or if the third arbitrator is not appointed, in accordance with subparagraph a of this paragraph, either Party may request the President of the Council of the International Civil Aviation Organization to appoint the necessary arbitrator or arbitrators within 30 days. If the President of the Council is of the same nationality as one of the

Parties, the most senior Vice President who is not disqualified on that ground shall make the appointment.

3.   The arbitral tribunal shall be entitled to decide the extent of its jurisdiction under this Agreement and, except as otherwise agreed, shall establish its own procedural rules. The tribunal, once formed, may at the request of either Party recommend interim relief measures pending its final determination. If either of the Parties requests it or the tribunal deems it appropriate, a conference to determine the precise issues to be arbitrated and the specific procedures to be followed shall be held not later than 15 days after the tribunal is fully constituted.

4.   Except as otherwise agreed or as directed by the tribunal, the statement of claim shall be submitted within 45 days of the time the tribunal is fully constituted, and the statement of defense shall be submitted 60 days thereafter. Any reply by the claimant shall be submitted within 30 days of the submission of the statement of defense. Any reply by the respondent shall be submitted within 30 days thereafter. If either Party requests it or the tribunal deems it appropriate, the tribunal shall hold a hearing within 45 days after the last pleading is due.

5.   The tribunal shall attempt to render a written decision within 30 days after completion of the hearing or, if no hearing is held, after the last pleading is submitted. The decision of the majority of the tribunal shall prevail.

6.   The Parties may submit requests for interpretation of the decision within 15 days after it is rendered and any interpretation given shall be issued within 15 days of such request.

7.   Each Party shall, to the degree consistent with its national law, give full effect to any decision or award of the arbitral tribunal.

8.   The expenses of the arbitral tribunal, including the fees and expenses of the arbitrators, shall be shared equally by the Parties. Any expenses incurred by the President of the Council of the International Civil Aviation Organization in connection with the procedures of paragraph 2b of this Article shall be considered to be part of the expenses of the arbitral tribunal.

Article 15

Termination

Either Party may, at any time, give notice in writing to the other Party of its decision to terminate this Agreement. Such notice shall be sent simultaneously to the International Civil Aviation Organization. This Agreement shall terminate at midnight (at the place of receipt of the notice to the other Party) at the end of the International Air Transport Association (IATA) traffic season in effect one year following the date of written notification of termination, unless the notice is withdrawn by agreement of the Parties before the end of this period.

Article 16

Registration with ICAO

This Agreement and all amendments thereto shall be registered with the International Civil Aviation Organization.

Article 17

Entry into Force

This Agreement shall enter into force on the date of signature.

Upon entry into force, this Agreement shall supersede [specify].

IN WITNESS WHEREOF the undersigned, being duly authorized by their respective Governments, have signed this Agreement.

DONE at _____, this _____ day of _____, 20 , in two originals, in the English and _____ languages, both texts being equally authentic.

FOR THE GOVERNMENT OF THE UNITED STATES OF AMERICA:

APPENDIX B - OPEN SKIES PARTNERS

Released by the Bureau of Economic and Business
Affairs Washington, DC
January 21, 2017

	P	**Application**	**Date**	**All-Cargo 7ths**
1.	Netherlands[1]	In Force	10/14/92	--
2.	Belgium[1]	Provisional	3/1/95	--
3.	Finland[1]	In Force	3/24/95	--
4.	Denmark[1]	In Force	4/26/95	--
5.	Norway[1]	In Force	4/26/95	--
6.	Sweden[1]	In Force	4/26/95	--
7.	Luxembourg[1]	In Force	6/6/95	Yes
8.	Austria[1]	In Force	6/14/95	--
9.	Iceland[1]	In Force	6/14/95	Yes
10.	Switzerland	In Force	6/15/95	Yes
11.	Czech Republic[1]	In Force	12/8/95	Yes
12.	Germany[1]	Provisional	2/29/96	Yes
13.	Jordan	In Force	11/10/96	--
14.	Singapore[2]	In Force	1/22/97	Yes
15.	Taiwan	In Force	2/28/97	--
16.	Costa Rica	In Force	5/8/97	--
17.	El Salvador	In Force	5/8/97	Yes
18.	Guatemala	In Force	5/8/97	Yes
19.	Honduras	Provisional	5/8/97	Yes
20.	Nicaragua	In Force	5/8/97	Charter Only
21.	Panama	In Force	5/8/97	Yes
22.	New Zealand[2]	In Force	5/29/97	Yes
23.	Brunei[2]	In Force	6/20/97	Yes
24.	Malaysia	In Force	6/21/97	Yes
25.	Aruba	In Force	9/18/97	Yes
26.	Chile[2]	In Force	10/28/97	Yes
27.	Uzbekistan	In Force	2/27/98	Yes
28.	Korea	In Force	4/23/98	--
29.	Peru	In Force	6/10/98	Yes
30.	Netherland Antilles	In Force	7/14/98	Yes
31.	Romania[1]	In Force	7/15/98	--
32.	Italy[1]	Provisional	11/11/98	--
33.	U.A.E.	In Force	4/13/99	Yes
34.	Pakistan	In Force	4/29/99	Yes
35.	Bahrain	In Force	5/24/99	Yes
36.	Tanzania	Provisional	11/3/99	Yes

37.	Portugal[1]	In Force	12/22/99	Yes
38.	Slovak Republic[1]	In Force	1/7/00	Yes
39.	Namibia	C&R[3]	2/4/00	--
40.	Burkina Faso	In Force	2/9/00	Yes
41.	Turkey	In Force	3/22/00	--
42.	Gambia	In Force	5/2/00	Yes
43.	Nigeria	Provisional	8/26/00	Yes
44.	Morocco	In Force	10/5/00	Yes
45.	Ghana	In Force	10/11/00	Yes
46.	Rwanda	In Force	10/11/00	Yes
47.	Malta[1]	In Force	10/12/00	Yes
48.	Benin	N/A	11/28/00	Yes
49.	Senegal	In Force	12/15/00	Yes
50.	Poland[1]	In Force	5/31/01	Yes
51.	Oman	In Force	9/16/01	Yes
52.	Qatar	Provisional	10/3/01	Yes
53.	France[1]	In Force	10/19/01	Yes
54.	Sri Lanka	In Force	11/1/01	--
55.	Uganda	In Force	6/4/02	Yes
56.	Cabo Verde	In Force	6/21/02	Yes
57.	Samoa[2]	In Force	7/4/02	Yes
58.	Jamaica	In Force	10/30/02	--
59.	Tonga[2]	In Force	9/19/03	Yes
60.	Albania	In Force	9/24/03	Yes
61.	Madagascar	Provisional	3/10/04	Yes
62.	Gabon	In Force	5/26/04	Yes
63.	Indonesia	C&R[3]	7/26/04	Yes
64.	Uruguay	In Force	10/20/04	Yes
65.	India	In Force	1/15/05	Yes
66.	Paraguay	In Force	5/2/05	Yes
67.	Maldives	In Force	5/5/05	Yes
68.	Ethiopia	In Force	5/17/05	Yes
69.	Thailand	In Force	9/19/05	Yes
70.	Mali	In Force	10/17/05	Yes
71.	Bosnia And Herzegovina	In Force	11/22/05	Yes
72.	Cameroon	Provisional	2/16/06	Yes
73.	Cook Islands[2]	In Force	2/28/06	Yes
74.	Chad	Provisional	5/31/06	Yes
75.	Kuwait	In Force	8/30/06	Yes
76.	Liberia	In Force	2/15/07	Yes
77.	Canada	In Force	3/12/07	Yes
78.	Bulgaria[1]	Provisional	4/30/07	--
79.	Cyprus[1]	Provisional	4/30/07	--

80.	Estonia[1]	Provisional	4/30/07	--
81.	Greece[1]	Provisional	4/30/07	--
82.	Hungary[1]	Provisional	4/30/07	--
83.	Ireland[1]	Provisional	4/30/07	--
84.	Latvia[1]	Provisional	4/30/07	--
85.	Lithuania[1]	Provisional	4/30/07	--
86.	Slovenia[1]	Provisional	4/30/07	--
87.	Spain[1]	Provisional	4/30/07	--
88.	United Kingdom[1]	Provisional	4/30/07	--
89.	Georgia	In Force	6/21/07	Yes
90.	Australia	In Force	2/14/08	Yes
91.	Croatia	In Force	3/13/08	Yes
92.	Kenya	In Force	5/30/08	--
93.	Laos	In Force	10/3/08	Yes
94.	Armenia	In Force	10/6/08	Yes
95.	Zambia	In Force	3/16/10	Yes
96.	Israel	In Force	4/23/10	--
97.	Trinidad & Tobago	In Force	5/1/10	Yes
98.	Barbados	In Force	7/1/10	Yes
99.	Japan	In Force	10/25/10	--
100.	Colombia	In Force	11/11/10	--
101.	Brazil	N/A	12/3/10	--
102.	Saudi Arabia	In Force	4/18/11	--
103.	St. Kitts	In Force	11/28/11	Yes
104.	Montenegro	In Force	12/5/11	Yes
105.	Suriname	In Force	6/21/12	--
106.	Sierra Leone	In Force	6/26/12	Yes
107.	Macedonia	In Force	8/23/12	Yes
108.	Seychelles	In Force	12/12/12	Yes
109.	Yemen	C&R[3]	12/12/12	Yes
110.	Guyana	In Force	3/25/13	Yes
111.	Bangladesh	C&R[3]	8/15/13	Yes
112.	Botswana	In Force	12/12/13	Yes
113.	Equatorial Guinea	In Force	8/7/14	Yes
114.	Burundi	C&R[3]	11/18/14	Yes
115.	Togo	In Force	4/7/15	Yes
116.	Serbia	In Force	5/29/15	Yes
117.	Ukraine	In Force	7/14/15	Yes
118.	Côte d'Ivoire	In Force	10/20/15	Yes
119.	Azerbaijan	In Force	4/6/16	Yes
120.	Curaçao[4]	N/A	9/26/16	Yes

1 The U.S.-EU Air Transport Agreement, signed April 30, 2007, was provisionally applied March 30, 2008 for all
27 European Union Member States at that time. Norway and Iceland became party to the U.S.-EU agreement pursuant to an agreement signed and provisionally applied June 11, 2011.

2 Multilateral Agreement on the Liberalization of International Air Transportation

3 Applied on the basis of comity and reciprocity

4 The agreement is between the United States and the Kingdom of the Netherlands, in respect of Curaçao