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INTERNATIONAL AVIATION

Better Data on Code-Sharing Needed by DOT for Monitoring and Decisionmaking

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GAO/T-RCED-95-170

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to testify on international aviation issues. International operations are increasingly important to U.S. airlines, representing 27 percent of their traffic today compared with 21 percent in 1980. Over the last few years, we have reported on a range of issues affecting international aviation, including our recent report on code-sharing alliances between U.S. and foreign airlines, restrictions on foreign investment in U.S. airlines, problems that U.S. airlines encounter in doing business at airports overseas, and efforts by the European Union (EU) to deregulate air travel between member nations.[1] Many of these issues coalesce in the United States' relationships with its major aviation trading partners, particularly the United Kingdom, and have contributed to the difficultly in achieving more liberal agreements with those countries. Our testimony is drawn from our body of work in this area, in particular our findings concerning code-sharing's competitive impacts.[2] In summary,

-- Bilateral agreements between the United States and 72 nations often greatly restrict an airline's ability to serve foreign markets. In large part, airlines of one nation investing in other countries' airlines during the late 1980s and early 1990s and the tripling of code-sharing alliances since 1992 are efforts to secure indirectly what airlines are having difficulty getting directly--greater access to international markets. The U.S. accord with the United Kingdom, for example, allows only American and United to serve London's Heathrow Airport--the largest gateway to Europe, Africa, and the Middle East. As a result, Delta pursued the next best alternative and recently began code-sharing on Virgin Atlantic flights to and from Heathrow.

-- We found that code-sharing is an effective strategy for airlines to access traffic to and from cities that they did

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[1]<u>International Aviation: Airline Alliances Produce Benefits, but Effect on Competition is Uncertain</u> (GAO/RCED-95-99, Apr. 6, 1995), <u>Airline Competition: Impact of Changing Foreign Investment and Control Limits on U.S. Airlines</u> (GAO/RCED-93-7, Dec. 9, 1992), <u>International Aviation: DOT Needs More Information to Address U.S. Airlines' Problems in Doing-Business Abroad</u> (GAO/RCED-95-24, Nov. 29, 1994), and <u>International Aviation: Measures by European Community Could Limit U.S. Airlines' Ability to Compete Abroad</u> (GAO/RCED-93-64, Apr. 26, 1993).

[2]Code-sharing is the practice whereby one airline lists another airline's flights as its own in computer reservation systems, which are used by travel agents to book flights.

not previously serve because of (1) bilateral restrictions or (2) the economics of serving those cities with their own aircraft. The alliance between Northwest and KLM, for example, has increased their combined annual traffic by about 350,000 passengers and produced about one-third and one-fifth of their transatlantic passenger revenues respectively in 1994--gains largely achieved at the expense of other U.S. and foreign airlines. However, code-sharing has potential downsides. The increasing success of several alliances may allow them to preclude other airlines from entering markets--even though those airlines have the bilateral right to serve those routes. Likewise, code-sharing may frustrate DOT's efforts to achieve "open skies" if airlines increasingly use it as a substitute for direct access to cities to which they would like to fly. This would reduce the pressure on foreign nations to increase direct access for U.S. flights.

-- Given its effectiveness, code-sharing will play a prominent role in bilateral negotiations for the foreseeable future and any increased rights of direct access or relaxation of foreign investment limits will likely be linked to the value that governments and airlines place on code-sharing. We found, however, that DOT's capabilities to quantify and assess such issues as code-sharing were often greatly limited compared to its foreign counterparts. To address this, DOT created a new economic unit in November 1994. However, the new unit will be hindered by data limitations, such as a lack of detailed data on foreign carriers' code-share traffic traveling to and from the United States. As we reported, DOT could remedy this by, among other things, requiring that (1) U.S. airlines, as part of their regular reporting of traffic data to DOT, identify which passengers traveled on code-share flights and (2) foreign airlines involved in such alliances with U.S. airlines report data on their code-share traffic to DOT.

-- Data problems handicap DOT's efforts to place a value upon the access rights to the U.S. market that it relinquishes to foreign governments in exchange for improved access or code-sharing rights in foreign markets. Thus, the agency is limited in its ability to ensure the (1) protection of consumers' interests, (2) equitable treatment of competing U.S. airlines in negotiating for and awarding limited access rights, and (3) most effective use of its negotiating leverage--accommodating foreign airlines' desire to serve the U.S. market. Likewise, it is hindered in its ability to place a value on other factors that may be negotiated during bilateral talks. For example, DOT granted Northwest and KLM immunity from U.S. antitrust laws in conjunction with the 1992 "open skies" accord with the Netherlands.[3] Immunity allows Northwest and KLM to jointly develop fares and integrate operations without fear of legal challenge. However, DOT has not assessed the value of immunity to foreign carriers or determined whether it should be available to other alliances when the other nation allows for significantly increased access to its aviation markets.

In the past few months, DOT has made some progress in opening foreign markets, such as reaching an agreement with the Canada that greatly increases U.S. airlines' access to the Canadian market. Nevertheless, DOT continues to face several fundamental challenges, such as negotiating for increased access to restricted markets with nations that are often protecting one or two national carriers. By improving its ability to quantify the value of direct access and code-sharing rights and to analyze emerging trends, DOT will be better positioned to negotiate with its foreign counterparts, such as the British, and reach agreements that yield maximum benefits for consumers.

BACKGROUND

In contrast with the relatively mature domestic market, international service has been a key growth area for U.S. airlines. Between 1987 and 1994, the number of passengers flying on U.S. airlines internationally increased by 53 percent while domestic traffic increased by only 15 percent. The airlines' ability to further tap this potential is restricted by most of the 72 bilateral agreements between the United States and other countries--a situation unlike the domestic market where airlines' decisions concerning routes, flight frequencies, and fares are deregulated.

DOT has attempted to "export" our deregulated environment by working with foreign nations to eliminate bilateral restrictions. It has achieved mixed results, concluding agreements with Canada and several smaller countries that substantially reduce or eliminate restrictions. However, most major U.S. aviation trading partners, including the United Kingdom and Japan, have maintained--and in some cases added--extensive limitations on U.S. airlines' access to and beyond their markets. Others, such as France and Thailand, have renounced their accords with the United States because their flag carriers were continuing to lose market share to U.S. airlines. DOT has also had mixed results in eliminating U.S. airlines' problems in doing business at overseas airports.

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[3]The antitrust laws prohibit contracts and agreements that restrain trade. This would include agreements between competitors to set prices.

In its efforts to open foreign markets, DOT faces several challenges. It generally must negotiate with nations that are often protecting national flag carriers that usually have much higher costs than U.S. airlines. A study by the EU, for example, found that the operating costs of major European airlines were about 50 percent higher than the costs of major U.S. airlines in 1992. DOT must also balance the competing and often conflicting interests of U.S. airlines--nearly all of which want to serve Heathrow from various points in the United States--while protecting consumers' interests.

CODE-SHARING ALLIANCES ARE THE LATEST EFFORT OF AIRLINES TO OVERCOME A RESTRICTIVE GLOBAL AIR TRANSPORT ENVIRONMENT

While DOT has tried to negotiate with other nations to eliminate bilateral restrictions, U.S. and foreign airlines have pursued various strategies in their attempts to overcome bilateral restrictions and economic constraints that limit their international growth. In the late 1980s and early 1990s, some airlines invested in airlines from other nations to gain increased access to foreign markets. For example, British Airways acquired 24.6 percent of USAir and pushed for relaxing the 25 percent limit on foreign investment in U.S. airlines. Current legislative proposals would raise the limit to 49 percent. In 1992, we reported that raising the limit could give U.S. airlines, particularly those in financial difficulty, greater access to needed capital, thus enhancing their domestic competitive position. However, we noted that if it chose to relax the limit, the Congress might consider limiting eligibility for greater investment to investors from nations willing to exchange improved access to their markets for greater opportunities to invest in U.S. airlines.

Recently, airlines have pursued code-sharing alliances, which require DOT's approval and reapproval on a periodic basis, as the preferred vehicle for gaining access to another nation's market. From January 1992 through December 1994, the number of alliances between U.S. and foreign airlines increased from 19 to 61. Code-sharing occurs when an airline, by agreement, uses its two-character designator code (e.g., "NW" for Northwest) to market flights operated by another airline as its own in computer reservation systems (CRS). Code-sharing is most often used to show connecting flights as occurring on one airline, allowing airlines to "feed" their flights to and from gateway cities with passengers traveling to and from nongateway foreign cities that they do not serve with their own aircraft. (See figs. 1 and 2.) The airlines do not fly to these cities because of bilateral restrictions or the cost of providing direct service is too high relative to passenger demand. In general, foreign governments have been more willing to grant U.S. airlines authority for code-sharing than to remove limits on U.S. airlines' ability to directly serve their markets.

Figure 1: British Airways' Access to the U.S. Market Prior to Code-Sharing Alliance With USAir

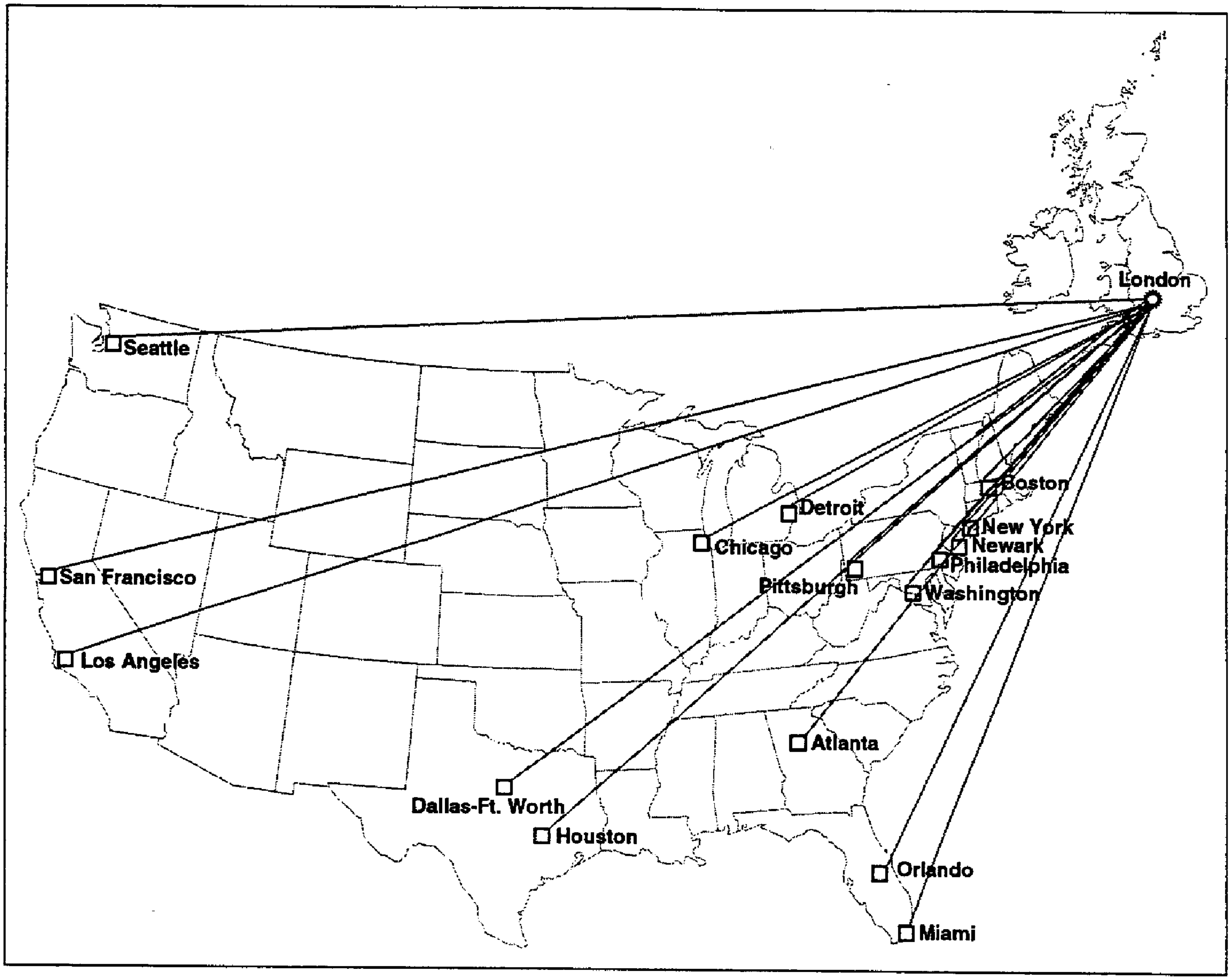
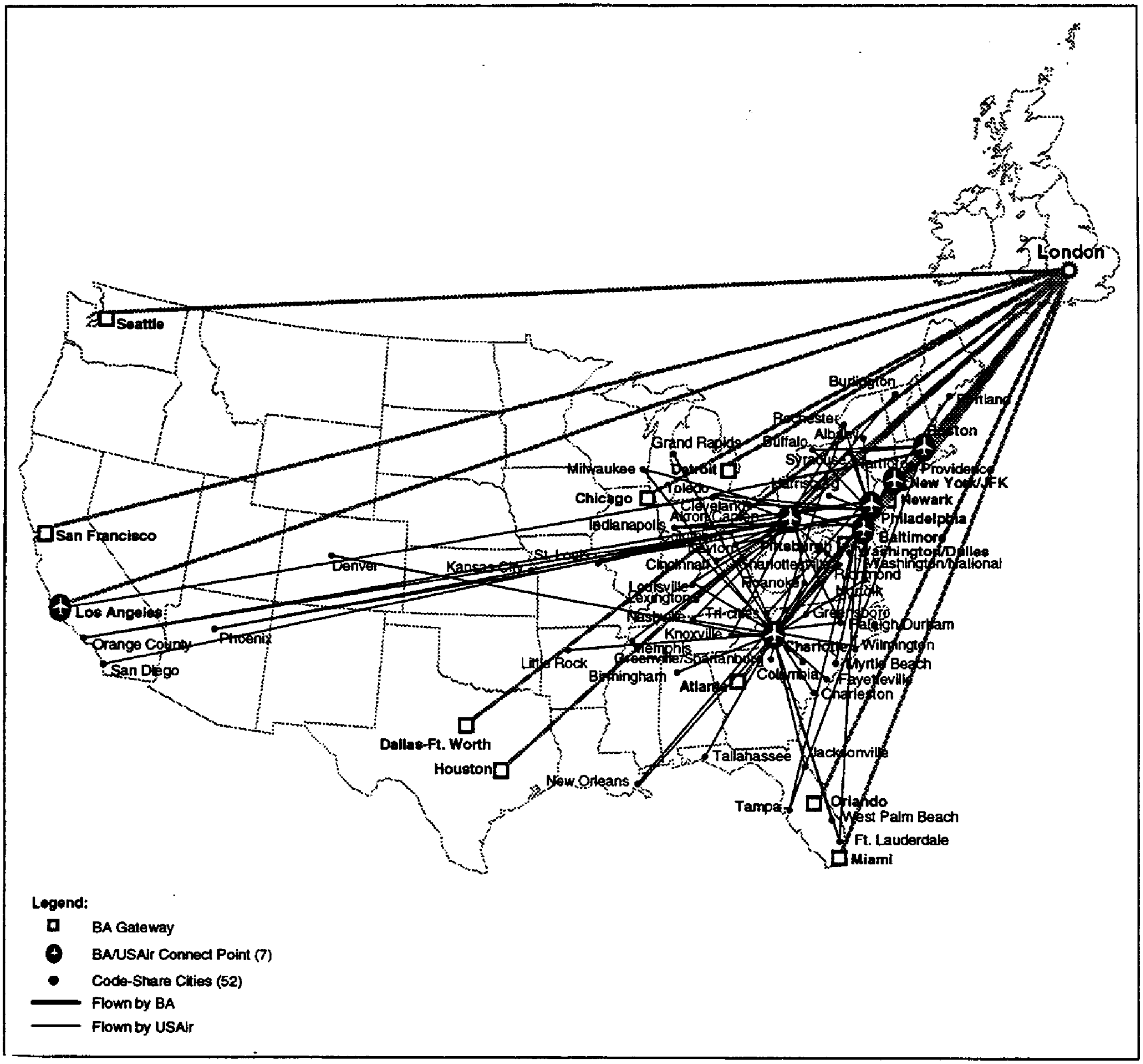


Figure 2: British Airways' Access to the U.S. Market After Implementing Code-Sharing Alliance With USAir



We found that code-sharing often produces substantial added traffic and revenues for partners. Most importantly, strategic alliances, those that involve code-sharing on a large number of routes and thereby link airlines' route networks, are producing substantial traffic gains for partners. Three of the alliances entered into to date can be considered strategic--Northwest/KLM, USAir/British Airways, and United/Lufthansa. These have generated large increases in passenger traffic for the partners because their alliances involve (1) code-sharing on numerous routes covering a wide geographical area and (2) a great degree of operating and marketing integration. Northwest and KLM data show, for example, that their annual traffic has increased by about 350,000 as a result of their alliance, producing an increase in their combined transatlantic market share from 7 percent in 1991 to 11.5 percent in 1994 and yielding between $125 million and $175 million for Northwest (about one-third of its transatlantic passenger revenues) and $100 million for KLM (18 percent of its transatlantic passenger revenues) in 1994. Alliances that involve code-sharing on a more limited number of routes have also resulted in increased traffic for partners, though at much lower levels than strategic alliances. Although most gains come at the expense of other airlines, some come from new traffic stimulated by competition among alliances and between alliances and other airlines.

Code-sharing, however, has several potential downsides. First, we found that CRSs often list the same code-share flight option multiple times. Three listings of the same code-share flight can push a competing flight option--which often has the same fare and a similar elapsed time from departure to arrival--to the second CRS display screen. (See attachment I.) We found such crowding out in nearly 20 percent of the cases we reviewed. This limits competition because travel agents--who book 80 percent of all flights--book options that are listed on the first CRS screen 90 percent of the time. To address this, the EU in 1993 limited to two the number of times a code-share flight can be listed in European CRSs. We have recommended that DOT follow the EU's lead.

Second, in its November 1994 policy statement on international issues--in which it supported code-sharing--DOT cautioned that the increasing success of several broad alliances may give those alliances sufficient competitive muscle to preclude other U.S. airlines from entering markets where a successful code-share arrangement is in place. As a result, code-sharing's long-run impact on competition, and thus fares, is uncertain. Third, it is unclear whether foreign governments whose airlines are already benefiting from a strategic alliance will allow nonaligned U.S. airlines increased access to their market in the future. Similarly, code-sharing may work to frustrate DOT's efforts to achieve "open skies" if airlines increasingly use it as a substitute for direct access to cities to which they would like to fly, thereby reducing the pressure on foreign governments to remove bilateral restrictions. The U.S. accord with the United Kingdom, for example, allows for only American and United to serve London's Heathrow Airport. DOT's negotiators have been unsuccessful at opening up access to Heathrow for other U.S. airlines. As a result, Delta pursued the next best alternative and now code-shares on Virgin Atlantic flights to and from Heathrow. According to many airline representatives, DOT's recent approval of the Delta/Virgin alliance reduced the pressure on the United Kingdom to increase

U.S. access to Heathrow and has made it more difficult to negotiate a deal that accommodates the desires of several U.S. airlines to serve Heathrow.

DESPITE EFFECTIVENESS OF CODE-SHARING, SIGNIFICANT BARRIERS REMAIN THAT INHIBIT U.S. AIRLINES' INTERNATIONAL GROWTH

Although all seven of the major U.S. airlines that fly internationally have entered code-sharing alliances, significant barriers remain that limit their ability to serve key foreign destinations with their own aircraft. In Europe, U.S. airlines' routes and number of flights to, from, and beyond such major aviation trading partners as Germany and the United Kingdom are limited by accords. Besides limiting the number of U.S. airlines that can serve Heathrow, for example, the U.S.-U.K. accord does not allow American and United to serve Heathrow from their main hubs (Dallas and Chicago, respectively). In 1993, we reported that liberalization efforts by the EU could limit U.S. airlines' ability to compete in the EU. The EU's measures, for example, prohibit non-EU airlines from introducing fares lower than existing ones on routes within the EU. U.S. airlines also face restrictions in the Pacific Rim. Delta, for example, must rope-off sections of seats on flights to and from Thailand and fly them empty to avoid exceeding capacity limits.

Furthermore, we reported in 1994 that U.S. airlines serving key overseas airports also face problems in doing business that foreign airlines operating in the United States do not experience or experience to a much lesser extent. In general, we found that these problems affect all airlines--U.S. and non-U.S. alike--except the national flag carrier, creating a home-country advantage for that carrier. Many European airports, for example, prohibit U.S. and other airlines from conducting their own ground handling services, such as checking in passengers and baggage handling. Instead, only the airport authority and/or the national carrier can provide these services, at a cost greater than if U.S. airlines performed these services for themselves.

LIMITED DATA ON CODE-SHARING UNDERCUTS DOT'S ABILITY TO BUILD UPON RECENT BREAKTHROUGHS

In the past 6 months, DOT has been successful in liberalizing accords with several nations and taken several other positive steps to improve U.S. airlines' ability to compete abroad. In November 1994, for example, DOT initiated negotiations with Canada and nine smaller European nations. These efforts resulted in the February 1995 accord with Canada that expanded opportunities for U.S. airlines to Canada and increased competition and lowered fares in such markets as Washington, D.C.-Montreal. Likewise, they yielded agreements with the nine nations that all bilateral restrictions will be removed.[4] In November 1994, DOT also issued the first U.S. policy statement on international aviation since 1978 and has moved out quickly to act on our recommendation that it collect and analyze information on U.S. airlines' doing-business problems to better monitor and address them.

Despite the positive trends, DOT is not well positioned to deal with the more difficult and complex aviation negotiations with Germany, Japan, and the United Kingdom. This is because DOT's capabilities to analyze such trends as code-sharing are often limited compared with those of its foreign counterparts, who have access to their own carriers' data as well as much of DOT's data.[5] In 1991, for example, DOT gave British carriers extensive access to the U.S. market through code-sharing in exchange for substituting American and United for TWA and Pan Am as the two U.S. carriers allowed to serve Heathrow. Many U.S. airline representatives have criticized the deal because they believe the value of extensive code-sharing rights granted to British carriers (1) outweighs the value of allowing two U.S. airlines to serve Heathrow in place of two other U.S. airlines and (2) contrasts greatly with the severe restrictions on U.S. airlines' access to Heathrow. DOT conducted little analysis of the value of code-sharing prior to concluding this deal, while we found that the British were analyzing the potential benefit of code-sharing as early as March 1989.

Acknowledging that it needed to greatly improve its analytical capabilities and better prepare U.S. negotiators, DOT created the Office of Aviation and International Economics in November 1994. However, the new office's ability to carry out its mission will be greatly hindered because of data limitations. For example, the data reported by U.S. airlines to DOT from a sample of their tickets do not identify passengers who traveled on code-share flights and, in some cases, which airline actually operated a code-share flight. Likewise, the office will be handicapped because DOT does not collect detailed data from foreign airlines' tickets on flights between the United States and foreign countries. In its review of the Northwest/KLM and USAir/British Airways alliances for DOT, a consultant noted that such shortcomings in DOT's data greatly limited its ability to analyze code-sharing and stated that

[4]The nine smaller European nations are Austria, Belgium, Denmark, Finland, Iceland, Luxembourg, Norway, Sweden, and Switzerland.

[5]Some data collected by DOT are confidential and not publicly available for 3 years.

"if DOT wants to monitor the effects of international code-sharing on airlines and consumers, it should consider expanding the reporting requirements for code-sharing operations, particularly those of foreign carriers."[6]

As a result of these weaknesses, DOT's new office will be limited in the extent to which it can accurately value access rights that DOT relinquishes to foreign governments in exchange for improved access or code-sharing rights in foreign markets and fully analyze emerging trends in this increasingly global industry. In light of these limitations and the potential downsides to code-sharing, we recommended in the report being released today that DOT (1) require that U.S. airlines, as part of their regular reporting of traffic data to DOT, identify which passengers traveled on code-share flights and that they take steps to ensure that they report which airlines actually operated those flights, (2) require foreign airlines involved in such alliances with U.S. airlines to report data on their code-share traffic to DOT, and (3) direct the new office to analyze DOT's existing data and the detailed data mentioned above to determine if the U.S. airline industry or consumers have been negatively affected before reapproving the broader alliances and any other alliance that the agency deems significant.

These data problems also hinder DOT's ability to place a value on other considerations involving access to markets. For example, the agency has yet to determine, in light of the Northwest/KLM experience, the value of antitrust immunity or whether immunity should be potentially available for other alliances in markets that allow for significantly increased access for U.S. airlines. Immunity allows Northwest and KLM to jointly develop fares. As a result, they can quickly enact fare reductions to attract traffic. DOT granted Northwest and KLM immunity in 1992 in conjunction with the "open skies" accord with the Netherlands and in the hopes that the major European aviation trading partners would follow suit in seeking open skies. They did not. Many representatives of U.S. and foreign airlines and foreign government officials have expressed concern about the competitive impacts of allowing only one alliance to have antitrust immunity, which allows partners to, among other things, jointly set fares without fear of legal reprisal. They also expressed interest in obtaining immunity for their alliance. Noting these sentiments, several U.S. airline representatives maintained that the success of the Northwest/KLM alliance presented DOT with a new "carrot" in its efforts to obtain open skies. Nevertheless, others objected to such an approach,

[6]A Study of International Airline Code-Sharing, Gellman Research Associates, Inc., Dec. 1994.

stating that U.S. antitrust laws protect consumers and prevent anticompetitive behavior; therefore, they continued, it does not make sense to remove these protections in the hopes of increasing competition.

CONCLUSIONS

DOT's recent successes have created momentum and spawned renewed hope that U.S. airlines' will have improved access to key foreign markets in the future. However, the challenges facing DOT are stiff as foreign governments are often unwilling to permit increased competition between their national airlines and lower cost U.S. airlines, while U.S. airlines often disagree as to what DOT's strategy should be. The international environment has also become increasingly dynamic with airlines forming a growing number of alliances to create global and regional route networks. Given the success of such alliances, it is likely that code-sharing will continue to play a prominent role in bilateral negotiations and any increased rights of direct access or relaxation of foreign investment limits will be linked to the value that governments and airlines place on code-sharing. As a result, it is important that DOT be on an equal footing with its foreign counterparts and build on the lessons learned from the 1991 negotiations with the British. Without addressing its data problems, however, DOT will be limited in its ability to effectively negotiate for increased U.S. access to foreign markets and in its ability to keep abreast of the increasingly global industry, monitor code-sharing's impact on competition and fares, and equitably accommodate the competing desires of U.S. airlines.

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Mr. Chairman, this concludes our prepared statement. We would be glad to respond to any questions that you or any member of the Subcommittee may have.

CROWDING OUT OF FLIGHT OPTION FROM THE FIRST CRS SCREEN AS A RESULT OF SEVERAL LISTINGS OF THE SAME FLIGHT OPTION

CRS Screen-Worldspan:

(Screen One)

		Airline	Number	Origin	Destination	Leaving	Arriving	
Flight option involving code-sharing	1	LH	2423	TXL	FRA	1125A	1235P	
	2	LH	6430	FRA	ORD	130P	420P	
		LH	6430	UNITED AIRLINES				Actual operator of LH6430
Same option using code-sharing to list a different way	3	UA	3647	TXL	FRA	1125A	1235P	
	4	UA	941	FRA	ORD	130P	420P	
		UA	3647	DLH LUFTHANSA				Actual operator of UA3647
	5	DI	7045	TXL	DUS	1135A	1240P	
	6	AA	157	DUS	ORD	130P	405P	
Same option listed a third time (as interline connection)	7	LH	2423	TXL	FRA	1125A	1235P	
	8	UA	941	FRA	ORD	130P	420P	

(Screen Two)

		Airline	Number	Origin	Destination	Leaving	Arriving
Competing flight option "crowded out" to second screen	1	LH	2628	TXL	DUS	1115A	1220P
	2	AA	157	DUS	ORD	130P	405P
	3	UA	3645	TXL	FRA	1025A	1130A
	4	UA	941	FRA	ORD	130P	420P
		UA	3645	DLH LUFTHANSA			
	5	LH	2419	TXL	FRA	1025P	1130A
	6	LH	6430	FRA	ORD	130P	420P
		LH	6430	UNITED AIRLINES			
	7	KL	144	TXL	AMS	1150A	110P
	8	KL	615	AMS	DTW	240P	515P
	9	KL	8175	DTW	ORD	655P	717P
		KL	8175	NORTHWEST AIR			

TXL: Berlin
FRA: Frankfurt
DUS: Dusseldorf
ORD: Chicago

Note: Request was for travel from Berlin to Chicago departing around noon on Saturday, December 10, 1994.

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