Airline Globalization: A Canadian Perspective

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I. INTRODUCTION

Today, code-sharing arrangements between Canadian airlines are commonplace in domestic and transborder markets. In the 1990s and beyond, code-sharing will play a role in the competitive strategies of international airlines, unless the world community adopts a code of conduct on computer reservation systems. Since traffic can be diverted from a flag carrier, these arrangements will likely be a contentious issue in bilateral negotiations, particularly where one nation fears "globalization". But, what is code-sharing? Code-sharing is a marketing arrangement whereby one airline's designator code is shown on flights operated by another airline. Two-letter designator codes are provided by the International Civil Aviation Organization to identify the world's airlines on passenger tickets, airport information boards, computer reservation systems and airline guides.

The purpose of this paper is two-fold. First, it provides an understanding of code-sharing. Second, it provides a general analysis of the opportunities and challenges for Canadian carriers in the international market.

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The paper is organized as follows: Section 2 outlines the policy position of the Canadian and the U.S. government as well as the European Economic Community, while section 3 discusses the ways in which an international code of conduct could become legally binding. Section 4 then describes existing code-sharing operations. Sections 5 and 6 discuss the advantages and disadvantages for airlines respectively, while section 7 discusses the disadvantages for consumers. Finally, sections 8 and 9 analyze opportunities and challenges for Canadian carriers in the international market respectively.

II. GOVERNMENT POLICY

A. CANADA

In 1984, Canadian Pacific Air Lines[1] (CP) and AirBC established the first domestic code-sharing arrangement whereby the "CP" code was shown on AirBC's flights between Vancouver and other British Columbian points. Since that time, code-sharing has become an essential element of marketing alliances between regional and large carriers in the Canadian airline industry.[2]

Quite surprisingly, the Canadian government has yet to issue a policy direction with respect to the use of shared airline designator codes. The policy branch of Transport Canada, however, is currently formulating a proposal which should be released by the summer of 1990. If the proposal is adopted, a Ministerial direction would then be referred to a House of Commons Standing Committee. Although subsection 23(2) of the National Transportation Act, 1987[3] (NTA) is vague, the Committee would likely hear submissions from interest groups and make recommendations to the Cabinet.

In the interim, the National Transportation Agency (Agency)[4] intends to scrutinize code-sharing operations pursuant to section 18 of the Air Transportation Regulations which impose the following licensing conditions:

(a) the licensee shall, on reasonable request therefor, provide transportation in accordance with the terms and conditions of the license and shall furnish such service, equipment and facilities as are necessary for the purposes of that transportation;

(b) the licensee shall not make publicly any statement that is false or mis-

1. In December 1986, PWA Corporation purchased Canadian Pacific Air Lines, who now carry on business as Canadian Airlines International.

2. Canadian Partners are Air Atlantic, CalmAir, Ontario Express and TimeAir, while Air Canada Connectors include Air Alliance, AirBC, Air Nova, Air Ontario, Air Toronto and NWT Air.

3. On January 1, 1988, the National Transportation Agency replaced the Canadian Transport Commission.

4. S.O.R./88-58. (Standing Orders Regulations)

leading with respect to the licensee's air service or any service incidental thereto; and

(c) the licensee shall not operate a domestic service or an international service or represent, by advertisement or otherwise, the licensee as operating such a service under a name and style other than that specified in the license.

While no guidelines have been issued, the NTA appears to follow those proposed by its predecessor, the Air Transport Committee (ATC), in March of 1987.[5] The purpose of the guidelines was to make the public aware of air carriers providing transportation services under a shared code.

Under section 1 of part IV of the guidelines, a Canadian and foreign air carrier could share designator codes only if the arrangement was first approved in writing by the ATC. Similarly, today, international, and not domestic, code-sharing operations require prior governmental approval. The reason behind prior governmental approval lies in protection of the interests of the public. This is accomplished through administrative means established by the ATC including, for example, "underlying route authority".[6] The NTA may, however, grant an exemption from the statutory requirement to hold a license if route authority is provided by the Minister of Transport. In March 1990, an application by City Express for approval of a code-sharing operation with Continental Airlines, (originally denied in January), was granted by the NTA on the basis that the Minister of Transport had provided the necessary authority to the U.S. air carrier to operate air service between Toronto and Newark including connecting services via Toronto, from Ottawa and Montreal.[7]

With respect to disclosure requirements, the operating carrier has to be identified in computer reservation systems and elsewhere.[8] In particular, section 2 states that the identity of the air carrier actually performing the service should be disclosed: (a) prior to reservations and ticketing; (b) on passenger tickets; (c) on timetables, industry guides, electronic or manual information boards, reservation systems, and other information devices used by carriers; and (d) in media advertising.

Even though disclosure regulations have not been prescribed, both Canadian Airlines International (CAI) and Air Canada comply with these initial ATC proposals. First, all code-sharing flights are identified with an

5. AIR TRANSPORT COMMITTEE, GUIDELINES CONCERNING THE USE OF SHARED AIRLINE DESIGNATOR CODES (File 32-107), issued March 28, 1987.

6. Underlying route authority means the flag carrier holds an operating license on the international route. A proposed operation will be deemed in the public interest where both applicants hold underlying route authority, and the government of the foreign applicant deals with Canada on a reciprocal basis.

7. Orders 1990-A-131/132.

8. *Id.*

asterisk or a circle in the airlines' timetables (eg. CP* 123). Second, a list of code-sharing flights is submitted, upon request, to the Official Airline Guide (OAG) and the ABC World Airways Guide (ABC), which also use an asterisk to identify these flights.[9] Third, in both Pegasus (CAI) and Reservec (Air Canada), the flight availability screen identifies code-sharing partners of the host airline, while the direct link between the two computer reservation systems (CRSs) displays the competitor's code-sharing partners. And fourth, the identity of the operating carrier is disclosed in media advertising. However, no Canadian carrier provides disclosure on airport information boards and passenger tickets, although boarding passes identify the Canadian partner or Air Canada connector in the space reserved for class of service. In addition, airline reservation agents are not instructed to inform consumers in reservation transactions.[10]

B. United States

While a relatively new concept in Canada, code-sharing arrangements in the U.S. domestic airline industry date back to 1967. Since the move to jet aircraft was uneconomical on low-density routes, Allegheny Airlines (now USAir) turned over these routes to commuter carriers who agreed to use the "AL" code. Unlike today, the primary object was not to gain market access, but to provide replacement service. Under Civil Aeronautics Board Regulations,[11] the airline retained responsibility to ensure that service was maintained on former routes. Since that time, however, deregulation coupled with technological innovations have forced airlines to seek allies. In fact, between 1984 and 1989, the number of U.S. domestic code-sharing partnerships increased from only a few[12] to fifty-seven.[13]

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9. OAG and ABC are situated in Illinois and England respectively.

10. It is interesting to note that airline reservation agents tend to disclose the identity of the operating carrier when turboprop aircraft are used and the passenger is elderly. Air Canada Reservation Agent.

11. On January 1, 1985, the CAB was dissolved and its remaining functions were absorbed by the Departments of Transportation and Justice.

12. Oster Jr. and Pickrell, *Marketing Alliances and Competitive Strategy in the Airline Industry*, in 22 THE LOGISTICS AND TRANSPORTATION REVIEW 374 (1986).

13. As of December 1989, U.S. code-sharing partnerships included: Aloha and Aloha Islandair; Alaska and Bering Air, ERA Aviation, Horizon, LAB, Markair, Temsco; American and Command, Executive Air, Metroflight, Nashville Eagle, Simmons, Wings West; Continental and Bar Harbour, Britt, Colorado Mountain, Resort Express, Rocky Mountain, Southern Jersey; Delta and Atlantic Southeast, Business Express, Comair, Sky West; Eastern and Bar Harbour, Metro Express; Frontier and Tatonduk; Midway and Iowa Airways, Midway Commuter; Midwest Express and Skyway; Northwest and Big Sky, Express, Horizon, Mesaba, Precision, USAir; Pan Am and Pan Am Express; TWA and Air Midwest, Jet Express, Pocono, Metro Northwest, Trans State, USAir; United and Air Wisconsin, Aspen, NPA, Presidential, Westair Commuter; USAir and Chautaugua, Commutair, Crown, Henson, Jetstream, Pennsylvania, Suburban. OFFICIAL AIRLINE GUIDE, (North American ed. December 1989).

Consequently, in 1985, the U.S. Department of Transportation (DOT) adopted a policy position with respect to two code-sharing issues. First, code-sharing arrangements between U.S. air carriers will not require prior governmental approval. According to DOT officials, these arrangements are "private marketing deals".[14] Second, in order to protect the travelling public against deception, air carriers will have to comply with disclosure requirements set forth in section 399.88 of the Department's regulations.[15] For example, code-sharing flights shall be identified with an asterisk in airline schedules, and the public shall be notified about these flights in advertising and reservation transactions. Unlike ATC proposals, disclosure on passenger tickets is not required.

With respect to international code-sharing arrangements, the DOT also indicated in 1985 that prior governmental approval will not be required so long as both the U.S. and the foreign carrier have underlying route authority.[16] Soon after, U.S. Secretary of Transportation Elizabeth Dole, appeared willing to allow an arrangement wherein a foreign carrier lacked route authority. Here, Florida Express would have used KLM's code on flights between six U.S. cities and Orlando, a proposed KLM gateway. But, due to opposition from elected officials, this arrangement was not approved.[17]

In December 1987, the DOT changed its earlier policy position in response to a proposed code-sharing arrangement between British Airways and United Air Lines.[18] The DOT's General Counsel advised the airlines that a statement of authorization was required pursuant to section 207.10 of the Regulations.[19] Apparently, this decision was based on the view that code-sharing should be scrutinized separately from underlying route authority.[20] United Air Lines, in turn, applied for exemption under section 416(b) of the Federal Aviation Act[21] which states that an application may be approved where the DOT finds "the exemption. . . consistent with the public interest".

In an order dated March 15, 1988, the application for exemption was allowed because in December 1987, regulatory requirements were not

14. Feldman, *U.S. Inconsistencies Cloud International Code-Sharing*, AIR TRANSPORT WORLD, April 1988, at 21.

15. 14 C.F.R. § 399.88 (1990).

16. DEPT. OF TRANS., OUTLINE OF CODE-SHARING DEVELOPMENTS (1988).

17. AVIATION DAILY, May 1, 1987, at 178.

18. British Airways proposed to code-share with United Air Lines on United's flights between Seattle and Chicago connecting with British Airways' flights between Chicago and London. British Airways has London-Chicago-Seattle permit authority, and United has domestic certificate authority for its Seattle-Chicago flights.

19. 14 C.F.R. § 207.10 (1990).

20. DEPT. OF TRANS., *supra* note 16.

21. Codified at 49 U.S.C. § 1386(b)(1) (1988).

clearly established,[22] and the proposed arrangement was in the public interest.[23] The Order further stated:

> As a general policy we will require subsequent code-sharing arrangements to be filed as applications for statements of authorization for prior approval under Parts 207 or 212 of the Department Regulations.

Parts 207 and 212, which concern domestic and foreign carrier lessors respectively, authorize the DOT to issue statements of authorization if the proposed operation is in the public interest. To make that determination, the following factors are weighed and balanced:

(1) The extent to which the authority sought is covered by and consistent with bilateral agreements to which the United States is a party, or should be covered;
(2) The extent to which the foreign country involved deals with the United States carriers on the basis of substantial reciprocity; and
(3) Whether the applicant. . . has previously violated the provisions of this part. . .[24]

Hence, in addition to disclosure and route authority, public interest factors now include the reciprocity for code-sharing operations, the overall balance of benefits, and the applicant's prior conduct. These regulations will not apply, however, where the governing bilateral agreement provides for automatic authorization of code-sharing operations.[25] At the present time, no such provision exists in any agreement between the U.S. and a foreign country.

It should be noted, however, that a bill entitled the Airline Enhancement Competition Act was introduced in the U.S. Senate in late 1989. As part of an attempt to reimpose elements of regulation, the Act would eliminate code-sharing and require the divesture of airline-owned CRSs. Not surprisingly, it has encountered strong opposition from industry leaders.[26]

C. *European Economic Community*

The European Economic Community (EEC), which is composed of

22. DEPT. OF TRANS. order 88-3-38 (1988).

23. *Id.* The proposed arrangement was in the public interest for two reasons. First, the British Government had no general policy against international code-sharing operations involving points in the United Kingdom. In fact, it allowed Air Florida and British Island Airways to conduct similar services between Miami and points in Europe via London, as well as allowed a number of U.S. carriers, including American Airlines, to conduct code-sharing operations serving British points in the Caribbean. And second, since U.S. carriers would benefit significantly from arrangements involving British points, there would be a positive impact on the overall balance of benefits.

24. 14 C.F.R. §§ 207.10(g) and 212.6(b).

25. DEPT. OF TRANS. order, *supra* note 22.

26. AIR TRANSPORT WORLD, December 1989, at 14.

twelve western European nations,[27] has agreed to establish a common market for air transport by December 31, 1992. Member states have not, however, adopted an unified policy with respect to code-sharing operations. Since the outset, the United Kingdom and the Netherlands have not objected to the use of shared codes. Both countries claim that it is a private marketing right rather than a traffic right.[28] In fact, until the fall of 1989, the only EEC air carriers conducting these operations were British and Dutch nationals; namely, Air UK, British Airways, KLM and Transavia Airlines. Other member states, in contrast, have placed restrictions on certain types of code-sharing operations. Italy, for example, prohibits code-sharing on fifth freedom routes[29] unless the bilateral agreement provides for change of gauge rights.[30]

Nonetheless, in June 1989, the EEC's Council of Ministers approved a code of conduct on CRSs[31] which was drafted by the Commission, a non-partisan advisory body.[32] It is closely modelled on the CRS code proposed by the European Civil Aviation Conference.[33] Article 1 states that the purpose of the Code is to ensure that CRSs "are used in a fair, non-discriminatory and transparent way so avoiding their misuse and aiding fair competition between air carriers and protecting the interest of the consumers of air transport services."

According to paragraph 2(a) of Article 5, primary display data shall not be inaccurate, misleading or based on any factor directly or indirectly related to air carrier identity. All code-sharing flights will be identified. In addition, subparagraph 2(b)(iii) states that connecting flights shall be displayed in order of minimum elapsed travel time. Hence, the rules will preclude any advantage of code-sharing, at least in the European common market.

When the Code is implemented, EEC and U.S. CRS rules will be in

27. Member States include Belgium, Denmark, France, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, United Kingdom, and West Germany.

28. Feldman, *supra* note 14, at 25-6.

29. The fifth freedom is the right to carry traffic from the home country to a foreign country, pick up traffic in the foreign country, and carry it to another foreign country.

30. Change of gauge rights allow an airline to use aircraft on one sector of the route which is different in capacity form that used on another sector of the route.

31. EEC COMMISSION, DRAFT COMMUNITY CODE OF CONDUCT ON CRSs (May 1988).

32. Gherson, Practical Implications of '1992' for the Re-Negotiation of Bilateral Air Services Agreements with the European Community (Montreal: Conference on EEC Air Transport Policy and Regulation and Their Implications for North America, September 1989).

33. The European Civil Aviation Conference is composed of director generals from all EEC member states as well as twelve other European nations. This conference makes recommendations and resolutions which are considered by its members and often implemented as regulations. The proposed code would give priority to direct non-stop services, followed by direct stopping services and then connecting services. The last two would be displayed in order of minimum elapsed travel time.

conflict. Since U.S. carriers will not benefit significantly from code-sharing operations involving EEC points,[34] the DOT could prohibit EEC carriers from conducting similar operations in the U.S. Consequently, change of gauge or cabotage[35] would be the only means by which EEC air carriers could operate profitable services on low density, co-terminal routes. Despite the latter's prohibition under current U.S. law, member states could, in response, threaten to revoke U.S. fifth freedom rights on intra-EEC sectors, claiming that these U.S. fifth freedom rights would amount to cabotage in the common market. If the U.S. submits to EEC demands, it would open a proverbial pandora's box since other trading partners like Canada would at the very least, demand similar cabotage rights on U.S. co-terminal routes.[36]

III. INTERNATIONAL CODE OF CONDUCT

Notwithstanding potentially diverse State practices, an international code of conduct could be adopted which precludes the CRS advantage of code-sharing. In other words, primary display data would not be based on any factor related to carrier identity. Instead, connecting flights would be ranked in order of minimum elapsed travel time. There are three ways in which this code could become legally binding. Each one is discussed in turn below.

First, the code could be adopted by an international organization which has authority to make binding decisions.[37] While its objects are to foster the planning and development of international air transport, the International Civil Aviation Organization (ICAO) is not expressly empowered to make binding decisions. However, this authority could be inferred from

34. For example, if an EEC carrier feeds traffic to a U.S. carrier at an EEC point, the use of dual designator codes on the transatlantic route would no longer increase the number of EEC originating passengers being flown by the U.S. carrier. But, the carrier could still carry more U.S. originating passengers on domestic flights or transatlantic flights where dual designator codes are shown on transatlantic flights or intra-EEC flights operated by the EEC carrier, respectively.

35. Cabotage, the eighth freedom, is the right to pick up traffic in a foreign country, and carry it to another point in the same country.

36. Article 7 of the Convention on International Civil Aviation (the "Chicago Convention") reads in part as follows: "Each contracting State undertakes not to enter into any arrangements which specifically grant. . . [cabotage] on an exclusive basis to any other State or an airline of any other State, and not to obtain any such exclusive privilege from any other State." 1944 Can. T.S. No. 36. While at least two interpretations exist, Gertler suggests that "[o]nly a deliberate policy of a group of states to grant mutually for their airlines domestic cabotage rights and to specifically exclude all other airlines, would not be compatible with Article 7 and would likely create serious irritants." *See* Towards a New, Rational and Fair Exchange of Opportunities for Airlines (Montreal: Conference on EEC Air Transport Policy and Regulation and Their Implications for North America, September 1989).

37. Schwartz, *Are the OECD and UNCTAD Codes Legally Binding?*, 11 INT'L LAW. 529 (1988).

other provisions of the Chicago Convention.[38] Article 49(c) states that the Assembly, which is composed of all contracting States, has the power to "examine and take appropriate action on the reports of the Council". These decisions require a majority of the votes cast.[39] According to Article 55(c), the reports may concern "all aspects of air transport. . . which are of international importance". Even if ICAO or any other organization does have such authority, the code would be unenforceable in a municipal system until the State complied with the requirements of its constitutional procedures. In Canada, for example, a declaration embodied in either a federal statute or regulation would be required because treaty obligations are not recognized as self-executing.[40]

Second, a multilateral legal instrument on CRSs could be adopted. The instrument would be binding on the signatories as conventional international law.[41] Again, it would be unenforceable in a municipal system until the contracting State complied with the requirements of its constitutional procedures.

Finally, the multilateral instrument could become binding on a third State as customary international law if it is comprised of settled State practice and *opinio juris*.[42] In the *North Sea Continental Shelf Case*,[43] the International Court of Justice held that a settled practice exists when the following three elements are present:

(1) The provision concerned [is]. . . of a fundamentally norm-creating character;
(2) A very widespread and representative participation. . . include[s] that of States whose interests [are] specially affected; and
(3) Within the period, State practice, including that of States whose interests are specially affected, . . . [has] been both extensive and virtually uniform.

At a minimum, the signatories should include all major aviation players. If only the U.S. abstains but subsequently adopts the practice, the code would likely become binding as customary international law. However, if a different practice is followed, the code would be unenforceable against States not parties to the multilateral instrument.

38. 1944 Can. T.S. *supra* note 36.
39. *Id.* art. 48(c).
40. For a discussion on the doctrine of transformation, see H.L. KINDRED, INTERNATIONAL LAW AS CHIEFLY INTERPRETED AND APPLIED IN CANADA (1987).
41. *Vienna Convention on the Law of the Treaties*, art. 2 at p.289, U.N. Doc. A/Conf. 39/27, (1969).
42. *Opinio juris* means a belief that the practice is obligatory.
43. 1969 I.C.J. Rep. 3, at 43.

IV. CODE-SHARING OPERATIONS

A. TRANSBORDER ROUTES

Today, Canadian and U.S. code-sharing operations are commonplace in the transborder market. A typical arrangement involves a regional air carrier using the designator code of a major air carrier, and the two air carriers coordinating schedules to facilitate connections at a hub close to the border. In late 1988, at least twenty-seven transborder routes were operated on a shared code basis.[44] Except for six routes,[45] operating air carriers received automatic or discretionary approval under the Regional, Local and Commuter Air Services Agreement.[46] Code-sharing air carriers, in contrast, only had permit authority on the Vancouver-Seattle route.[47]

Besides national alliances, in April 1990, City Express and Continental Airlines commenced a code-sharing operation on the Toronto (Island

44. As of November 1988, the Canadian code-sharing operations were: Vancouver-Seattle, Victoria-Seattle (Air Canada and AirBC); Halifax-Boston, Yarmouth-Boston (Air Canada and Air Nova); London-Detroit, Thunder Bay-Minneapolis, Toronto-Hartford, Toronto-Cleveland (Air Canada and Air Ontario); Toronto-Allentown, Toronto-Columbus/Dayton, Toronto-Harrisburg, Toronto-Indianapolis, Toronto-Saginaw/Grand Rapids (Air Canada and Air Toronto); Halifax/Saint John-Boston (CAI and Air Atlantic); Toronto-Pittsburgh (CAI and Ontario Express); and Regina-Minneapolis, Vancouver-Seattle (CAI and TimeAir).

The U.S. code-sharing operations were: Boston-Montreal, New York-Montreal, Washington D.C.-Montreal (Delta and Business Express); Cincinnati-Toronto, Louisville-Toronto (Delta and Comair); Cleveland-London (Continental and Britt-North); New York-Hamilton (Pan Am and Pan Am Express); Seattle-Vancouver, Seattle-Victoria (United and San Juan); and Pittsburgh-Hamilton (USAir and Allegheny Commuter). OFFICIAL AIRLINE GUIDE, (North American ed. November 1988)

45. Canadian routes include Toronto-Cleveland, Toronto-Pittsburgh and Vancouver-Seattle, while U.S. routes are Boston-Montreal, New York-Montreal and Washington D.C.-Montreal. Air Transport Agreement Between the Government of Canada and the Government of the United States of America, 1966 Can. T.S. No. 2, amended by Exchange of Notes Between the Two Countries, 1974 Can. T.S. No. 18.

46. For automatic approval, five criteria must be satisfied. First, the aircraft capacity is no more than sixty passengers, and the payload capacity is no more than 18,000 pounds. Second, the city-pair is not named in the 1966 Agreement. However, the city-pair may be served if the airline operates at a secondary airport in either country. Third, at least one city has a metropolitan population of less than 500,000 in Canada, or 1,000,000 in the U.S. Fourth, the stage length does not exceed 400 statute miles to and from points in central Canada and 600 statute miles to and from all other points in Canada. And fifth, the proposed service is not already authorized to an airline of the same country. Exchange of Notes Between the Government of Canada and the Government of the United States of America Concerning Regional, Local and Commuter Air Services, 1984 Can. T.S.

47. Under section 416(b) of the Federal Aviation Act, a carrier may be exempt from the licensing requirements of § 401. Codified at 49 U.S.C. §§ 1386(b), 1371 (1988). *See* Eastern Air Lines' Application for Exemption to enable Bar Harbour to use the "EA" designator on services to Saint John and Halifax DEPT OF TRANS Docket No. 44052. In Canada, the Agency may order an exemption, or the Minister of Transport may issue a direction to make such an order pursuant to subsections 70(1) and 86(1) of the NTA, respectively.

Airport)-Newark route. The regional air carrier obtained discretionary approval, while the major air carrier was granted an exemption from the requirement to hold a license.[48] To date, this is the only code-sharing arrangement between a Canadian and a U.S. air carrier. In 1986, however, Continental Airlines and CAI established a blocked space arrangement on the Canadian segment of the Houston/Dallas/Ft. Worth-Calgary/Edmonton route. This route has since been transferred to American Airlines.

B. *Caribbean Routes*

Since 1985, U.S. air carriers have also conducted code-sharing operations in the Caribbean.[49] Usually, a regional and major air carrier mutually feed traffic at a U.S. point in either Florida or Puerto Rico. Subsequently, only the major air carrier's code is shown on flights operated by the regional air carrier. While some flights originate in Puerto Rico and the U.S. Virgin Islands, a majority are from the Bahamas, the British Virgin Islands, the Dominican Republic, Guadeloupe and Martinique. For example, American Airlines has a hub in San Juan where Executive Air feeds traffic from Mayaguez, Ponce, St. Croix and St. Thomas, as well as Anguilla, Fort de France, La Romana, Point a Pitre, Punta Cana, St. Kitts, St. Maarten, Santo Domingo, Tortola and Virgin Gorda. In most cases, the major air carriers do not have certificate authority to serve the Caribbean points, but have been granted exemption authority.[50] Unlike several foreign competitors, it appears that no Caribbean government has strongly objected to these code-sharing operations.[51]

C. *International Routes*

In the international market, code-sharing is a relatively new element of foreign alliances. Although British Island Airways and Air Florida established the first arrangement in 1986,[52] only six existed at the end of 1988.[53] But, by late 1989, at least fifty-four international routes were op-

48. *Supra* note 7.

49. As of November 1988, there were six U.S. code-sharing partnerships in the Caribbean, namely, American Airlines and Executive Air, Delta Air Lines and Comair, Eastern Air Lines and Bar Harbour, Eastern Air Lines and Metro Express, Piedmont and Henson Airlines, and Trans World Airlines and Virgin Islands Seaplane. OFFICIAL AIRLINE GUIDE, *supra* note 44.

50. Codified at 49 U.S.C. § 1371 (1988).

51. For example, Air BVI opposed the Eastern Air Lines and Metro Express code-sharing operation, but neither the British Virgin Islands nor the British government objected to the exemption application. DEPT OF TRANS. order 86-3-44 (1986).

52. Under this arrangement, Air Florida fed U.S. originating traffic to British Island Airways at London, and dual designator codes were shown on British Island Airways' flights between London and Amsterdam.

53. The international operations were: Montreal-Amman, Montreal-Jeddah (Air Canada and

erated on a shared code basis. So far, these operations have been conducted on two types of routes.

First, the code-sharing operation is conducted on the domestic sector of third and fourth freedom routes.[54] Here, a foreign air carrier feeds traffic to a domestic air carrier at its first point of entry in the foreign country, and dual designator codes are shown on the domestic air carrier's flights between co-terminal points. In some cases, the foreign air carrier also blocks space on domestic flights. For example, Qantas Airways purchases a minimum of ten first class seats and twenty-five coach seats on each of three specified American flights between Los Angeles and San Francisco and also Los Angeles and New York.[55] As shown in Table 1, this type of operation has been conducted solely in the U.S. and it is likely that foreign carriers will also attempt to establish similar arrangements on the domestic sector of fifth freedom routes. In this regard, it is interesting to note that Delta Air Lines has applied for authorization to sell blocked space to Singapore Airlines on the domestic sector of the Singapore-Tokyo-Los Angeles/Dallas/Ft. Worth and Singapore-Tokyo-Los Angeles/Newark routes.[56]

TABLE 1
INTERNATIONAL CODE-SHARING OPERATIONS DOMESTIC SECTOR OF THIRD AND FOURTH FREEDOM ROUTES

Code-Sharing Carrier	Operating Carrier	Domestic Sector
British Airways	Enterprise Airlines United Air Lines	London-New York/Boston London-Chicago/Denver London-Chicago/Seattle
Cathay Pacific	American Airlines	Hong Kong-Los Angeles/San Francisco[1]
Qantas Airways	American Airlines	Sydney-Los Angeles/San Francisco/New York

SOURCE: OFFICIAL AIRLINE GUIDE, (Worldwide ed. December 1989).
NOTE: (1) Proposed. AIR TRANSPORT WORLD, (October 1989), at 148.

Royal Jordanian); London-Chicago/Seattle (British Airways and United); Newark-London-Amsterdam (Continental and Transavia); New York-Budapest (Pan Am and Malev Hungarian); Sydney-Los Angeles/San Francisco/New York (Qantas Airways and American). OFFICIAL AIRLINE GUIDE, (Worldwide ed. November 1988).

54. The third freedom is the right to carry traffic from the home country to a foreign country, while the fourth freedom is the right to carry traffic from a foreign country to the home country.

55. Blocked Space Agreement Between Qantas Airways and American Airlines, January 1988.

56. Kay, *Delta, Singapore Airlines Request Code-Share Deal*, TOUR & TRAVEL NEWS, April 30, 1990, at 14. Delta Air Lines and Singapore Airlines have an equity interest in each other.

Second, the code-sharing operation is conducted on the foreign sector of third and fourth freedom routes. Here, a foreign air carrier feeds traffic to a domestic air carrier at its first point of entry in the foreign country, and dual designator codes are shown on flights operated by the foreign air carrier. Both air carriers have underlying route authority, and in some cases, each air carrier operates the route under the designator code of the other air carrier. For example, CAI and Lufthansa have a blocked space arrangement on the Vancouver-Frankfurt route, and dual designator codes are shown on flights operated by both airlines. As shown in Table 2, this type of operation is conducted on at least forty-nine routes, and is not limited to any particular geographic region. The reader should be cautious, however, when referring to this table. The OAG supposedly identifies all code-sharing flights with an asterisk, and lists the flight numbers in the Abbreviations and Reference Marks section. Yet, in a number of cases, these flights are only identified by one of the following notes: leased passenger space, operated by 'X', or in co-operation with 'X'. Consequently, a number of code-sharing operations could have been overlooked.

TABLE 2
INTERNATIONAL CODE-SHARING OPERATIONS FOREIGN SECTOR OF THIRD AND FOURTH FREEDOM ROUTES

Code-Sharing Carrier	Operating Carrier	Foreign Sector
Air Canada	Royal Jordanian	Montreal-Amman
		Montreal-Jeddah
Air Jamaica	Air Canada	Kingston-Toronto[1]
		Montego Bay-Toronto[1]
Air New Zealand	Cathay Pacific	Auckland-Hong Kong
	Qantas Airways[2]	Auckland-Adelaide
		Auckland-Brisbane
		Auckland-Perth
		Auckland-Melbourne
		Auckland-Sydney
		Auckland-Townsend
		Christchurch-Brisbane
		Christchurch-Hobart
		Christchurch-Melbourne
		Christchurch-Sydney
		Wellington-Brisbane
		Wellington-Hobart
		Wellington-Melbourne
		Wellington-Sydney
All Nippon Airways	SAS	Tokyo-Stockholm[1]
CAI	Japan Air Lines	Toronto-Hong Kong
		Toronto-Tokyo
	Lufthansa	Vancouver-Frankfurt
	SAS	Toronto-Copenhagen[1]
		Toronto-Stockholm[1]

Table 2 (cont.)

Code-Sharing Carrier	Operating Carrier	Foreign Sector
Cathay Pacific	Air Mauritius	Hong Kong-Mauritius
	Air Niugini	Hong Kong-Port Moresby
	Air New Zealand	Hong Kong-Auckland
	Garuda Indonesia	Hong Kong-Denpessar
Continental Airlines	SAS[3]	Newark-Copenhagen
		Newark-Oslo
		Newark-Stockholm
	Transavia Airlines	Newark-Amsterdam[4]
Japan Air Lines	Air France	Tokyo-Papeete
	Air New Zealand[5]	Tokyo-Auckland
		Tokyo-Christchurch
	Alitalia	Tokyo-Milan
		Tokyo-Rome
	CAI	Hong Kong-Toronto
		Tokyo-Toronto
	Qantas Airways	Fukuoka-Brisbane
		Fukuoka-Sydney
		Tokyo-Adelaide
		Tokyo-Cairns
		Tokyo-Melbourne
		Tokyo-Perth
	Swissair	Tokyo-Zurich
	Thai Airways Intl.	Nagoya-Bangkok
KLM	Air UK[6]	Amsterdam-Glasgow
		Amsterdam-Newcastle
Lufthansa	CAI	Frankfurt-Calgary
		Frankfurt-Vancouver
Pan American World	Adria Airways	New York-Ljubljana[1]
	Malev Hungarian	New York-Budapest
SAS	All Nippon Airways	Stockholm-Tokyo[1]

SOURCES: OFFICIAL AIRLINE GUIDE, (Worldwide ed. December 1989); Confirmed by Air New Zealand, Cathay Pacific, Continental Airlines, Japan Air Lines and Qantas Airways Reservation Agents.

NOTES: (1) Proposed. AIR TRANSPORT WORLD, various issues, (July 1989-April 1990).
(2) Qantas Airways owns 19.9% of Air New Zealand.
(3) SAS owns 9.9% of Texas Air, the parent company of Continental Airlines.
(4) Continental's code is shown on Transavia flights between London and Amsterdam.
(5) Japan Air Lines owns 7.5% of Air New Zealand.
(6) KLM owns 14.9% of Air UK.

V. ADVANTAGES FOR AIRLINES

A. COMPUTER RESERVATION SYSTEMS

In addition to product attributes, price and promotion, distribution plays an important role in any firm's marketing strategy. In the airline industry, the product is an airline's schedule, and the primary means by

which this product is distributed are CRSs in travel agents' locations.[57] U.S. systems, for example, handle at least sixty and seventy percent of domestic and international passenger business respectively.[58] An airline has two distribution objectives. The first objective is to ensure that its schedule is displayed in CRSs, even in those countries which the airline does not serve. The second objective is to obtain the most advantageous position on the CRS terminal screen, since fifty percent of all flights are booked from the first flight itinerary displayed. Furthermore, between seventy and ninety percent of all flights are booked from the first CRS screen.[59] Before the role of code-sharing is discussed, an understanding of how flights are ranked in CRSs is provided.

All airlines submit schedules to OAG and ABC which enter direct flights (i.e. same-plane service) and paid connections onto magnetic tapes. System vendors, in turn, purchase these tapes and transfer the data to their own CRS. Each system vendor develops algorithms, which rank flights by the number of stops, elapsed travel time and/or the time differential between actual and preferred departure. In addition, if at all possible, algorithms tend to be structured in such a way as to provide superior display of the system vendor's flights.

Despite a potential bias, ranking priority is commonly given to direct flights, followed by online connections,[60] and then interline connections.[61] Generally speaking, consumers prefer online connections over interline connections because the distance between gates is usually shorter, baggage transfer is more easily made when time is short, and an airline would be more willing to hold the outbound flight in the event of a delay caused by the incoming flight. To reflect this preference, interline connections are assessed a "penalty". American's Sabre, for example, adds forty-five minutes to an interline connection flight departure time.[62] However, there are two situations in which an interline connection could receive an equally prominent display position. First, the interline connecting service is significantly better in terms of travel time and/or departure con-

57. Other means include airline guides used in unautomated travel agencies, and CRSs in airline ticketing and reservation offices.

58. In 1984, U.S. travel agents sold sixty-five percent of domestic tickets and over eighty percent of international tickets. Travel agents using CRSs sold ninety percent of these tickets. British Airways' Computer Reservations System Investigation, DEPT. OF TRANS. Docket No. 45389.

59. Oster Jr., *supra* note 12, at 376.

60. Online connecting service means all flight segments are operated by the same airline.

61. Interline connecting service means at least one flight segment is operated by a different airline.

62. Feldman, *supra* note 14, at 375. Until the summer of 1987, elapsed travel time was also a ranking factor in Sabre, but it was eliminated to discourage the practice of publishing unrealistic short flight schedules.

venience. Second, the same code is shown on both flights, thereby elevating the interline connecting service to online status.

Table 3 shows the display position of the British Airways and United Air Lines code-sharing operation in Apollo (United), Sabre (American) and SystemOne (Continental, Eastern). A flight departing Seattle for London on June 10, 1988 at 11:15 a.m. was requested. On that particular day, United Air Lines operated two code-sharing flights, BA 8142 and BA 8150, from Seattle to Chicago, where London-bound traffic was fed to British Airways flight 296.

Both Apollo and SystemOne displayed the second code-sharing flight alternative on an earlier screen than interline connections. But, the first code-sharing flight alternative was not shown in either Sabre or SystemOne, while both alternatives received a more prominent display position in Apollo. This difference could have been due to different ranking factors and priority levels, as well as a structural bias in favor of the system vendor or a participant.

Assuming biased displays are not prohibited by law (or the policing machinery is otherwise ineffectual), a more prominent display position would likely be obtained where the code-sharing air carrier is a system vendor or participant. In addition, the probability that the code-sharing flight alternative is selected would increase proportionately with the size of the CRS network. In the U.S., Sabre and Apollo control about forty-one and twenty-eight percent of the market respectively.[63] In Canada, Sabre is used by 1,100 to 1,200 travel agencies and commercial enterprises,[64] while Reservec and Pegasus have a travel agency network of at least 3,000 and 775 agencies respectively.[65] However, by the summer of 1990, the Gemini system will replace the two Canadian-owned CRSs.

It is predicted that, in the 1990s, at least three mega-computer reservation systems could control ninety percent of the free world's one billion annual bookings.[66] As shown in Table 4, most CRSs would be owned by a consortium of airlines and be linked to systems located in other regions. While market domination is a substantial concern, vendors of Amadeus and Abacus have already indicated that their systems would provide unbiased displays.[67] This would not, however, eliminate the CRS advantage

63. M.A. BRENNER, J.O. LEEF AND E. SCHOTT, CHANGES IN MARKETING STRATEGIES SINCE DEREGULATION (1985), at 66.

64. TRAVEL WEEK BULLETIN, November 30, 1989, at 1.

65. Nelson, An Address to the International Symposium on Airline Computer Reservation Systems: Competition, Concentration and Customer Satisfaction (Geneva, 1988).

66. *Curbing Computer Power*, AIRLINE BUSINESS, July 1988, at 5.

67. Ten Hun, An Address to the International Symposium on Airline Computer Reservation Systems: Competition, Concentration and Customer Satisfaction (Geneva, 1988), Ekstrom, An Address to the International Symposium on Airline Computer Reservation Systems: Competition, Concentration and Customer Satisfaction (Geneva, 1988).

of code-sharing.

TABLE 4

MEGA-COMPUTER RESERVATION SYSTEMS

	CRS	Region	Partners
1)	Abacus	Asia	Cathay Pacific, China, Malaysia, Philippine, Royal Brunei, Singapore
	Amadeus	Europe	Adria, Air France, Air Inter, Braathens, Emirates, Finnair, Iberia, Icelandair, JAT, KLM, Linjeflyg, Lufthansa, Royal Air Maroc, SAS
	SystemOne	U.S.	Continental, Eastern
2)	Abacus	Asia	Cathay Pacific, China, Malaysia, Philippine, Royal Brunei, Singapore
	Worldspan[1]	U.S.	Delta, TWA, Northwest
3)	Apollo[2]	U.S./Asia	Alitalia, British Airway, KLM, Swissair, United, USAir
	Galileo	Europe/ Australia[3]	Aer Lingus, Alitalia, Austrian, British Airways, KLM, Olympic Airways, Sabena, Swissair, TAP Air, United
	Gemini	Canada	Air Canada, CAI, Covia
4)	Sabre	Worldwide[4]	American

SOURCE: AIR TRANSPORT WORLD, various issues, (July 1989 to April 1990).

NOTES: (1) Worldspan will combine the Datas II and Pars CRSs.
(2) Apollo is marketed under the Covia Partnership.
(3) Ansett and Australian Airlines have agreed to distribute Galileo in Australia.
(4) Since Fantasia failed to attract investors, Qantas Airways has agreed to distribute Sabre in Australia and New Zealand.

B. MARKET ACCESS AND PRESENCE

Without actually operating a route, the code-sharing air carrier could gain access to new markets. Here, either the air carrier has no route rights,[68] aircraft are unavailable, or service would be unprofitable.[69] Although market access could be obtained through interline arrangements, a code-sharing flight alternative would more likely be selected since CRSs assess penalties to interline connecting services. In addition, should the air carrier commence operations, its identity would already be established in the market. For example, Air Canada does not have aircraft to provide service to Amman and Jeddah, but its code is shown on Royal

68. However, if underlying route authority is required, dual designator codes could not be used on the route.

69. Since wide body jets are commonly used on international routes, it would be unprofitable to provide service when passenger load factors are low, unless the airline has change of gauge or cabotage rights in the foreign country.

TABLE 3
DISPLAY POSITION OF THE BRITISH AIRWAYS AND UNITED AIR LINES CODE-SHARING OPERATION U.S. COMPUTER RESERVATION SYSTEMS

Request
Flight: Seattle, Washington to London, England
Date: June 20, 1988
Time: 1115A

	Departure Time	Travel Time	(Screen Number) Apollo	Sabre	SystemOne
First Interline Connection			4	2	5
BA 8142 BA 296	1115A	15.00	2	*	*
BA 8150 BA 296	125P	12.50	3	6	4

NOTE: * Code-sharing flight was not displayed.

Jordanian's flights between Montreal and these points. As a result, the airline has gained access to, and established its identity in, at least two Middle East markets.

An air carrier could also establish a presence in existing markets. The additional code-sharing flights would superficially increase its flight frequency on the terminal screen. Besides the CRS advantage, the air carrier could advertise that it offers a variety of flights. For example, British Airways could advertise that it has three daily flights between Seattle and London, since the airline actually operates one direct evening flight and its code is shown on two United flights between Seattle and Chicago.

C. *OPERATING PROFITS*

Given the higher ranking priority of online connections, the use of shared airline designator codes would likely result in higher passenger load factors on both flight segments. For example, Continental Airlines and SAS mutually feed traffic at Newark, and dual designator codes are shown on SAS's flights between Newark and three Scandinavian points. In the summer of 1989, the code-sharing flights had an average load factor of ninety percent, and about forty percent of the transatlantic traffic was transfer business, sixty-six percent of which was carried by Continental Airlines.[70]

70. Feldman, *The Global Alliance Game: More Style than Substance; Airlines*, AIR TRANSPORT WORLD, November 1989, at 15.

Higher passenger load factors could make a disproportionate difference in the profits earned. Additional passengers flying in otherwise empty seats would increase operating costs by no more than the cost of food and beverage service,[71] while revenue would increase by the amount of the air fare. If the average load factor is sixty-five and the break-even load factor is sixty-one, this four percent difference would translate to five passengers on a B737-300 aircraft having a seat capacity of 118. Hence, a code-sharing arrangement which results in one more passenger could increase operating profits by as much as twenty percent.

Furthermore, if the code-sharing air carrier is required to purchase blocked space on specified flights, this gain could be increased by the difference between the fare and cost of each sold seat, and/or reduced by the cost of each unsold seat. Alternatively, if revenues and expenses are shared, the air carrier would assume a greater financial risk, but could potentially earn more profits from a joint operation.

VI. DISADVANTAGES FOR AIRLINES

A. DIVERSION OF INTERNATIONAL TRAFFIC

Code-sharing arrangements between foreign competitors would likely divert international traffic from other carriers. First of all, an air carrier could lose traffic on domestic routes. Prior to the code-sharing operation, the air carrier would have provided interline connecting service between the foreign air carrier's point of entry and other domestic points. Subsequently, the foreign air carrier and another air carrier mutually feed traffic at the domestic point, and dual designator codes are used on the foreign sector. Not only would the competitive threat be reduced, it not eliminated, but the two air carriers could dominate the market. For example, until early 1989, Air Canada and Japan Air Lines had an interline arrangement at Vancouver. Today, CAI and Japan Air Lines operate joint services on the Toronto-Hong Kong and Toronto-Tokyo routes. Consequently, Air Canada carries less Pacific Rim traffic on domestic routes, while CAI and Japan Air Lines dominate the Canadian-Japanese market.[72]

An air carrier could also lose traffic on foreign routes. Here, the air carrier would provide direct service in competition with the flag air carrier

71. For U.S. major carriers, food expense averages about 3.55 percent of total operating cost. Henderson, *Upgrades Send Costs Soaring Again*, AIR TRANSPORT WORLD, April 1990, at 97.

72. It is noteworthy that the Canadian and Japanese governments are considering the designation of additional carriers. Air Canada Public Relations Office, Vancouver, December 1989.

of the foreign country, as well as other foreign air carriers who provide online connecting service via their home country. If the other air carriers operate code-sharing flights on either sector, a variety of flight options could be offered since the flight frequency of the code-sharing air carrier would be higher. For example, both Air Canada and Olympic Airways provide direct service between Toronto and Montreal, and Athens, while Lufthansa provides connecting service via Frankfurt. Since Lufthansa's code is used on CAI's Calgary-Frankfurt and Vancouver-Frankfurt routes, the foreign airline can offer more flights between Canada and Greece. As a result, the designated air carriers have likely lost some traffic on the foreign route. In addition, Air Canada probably carries fewer Athens-bound passengers on flights between Western Canada, and Toronto and Montreal.

B. CARRIER LIABILITY

The International Air Transport Association provides a standard form passenger ticket, and section 5 of its conditions of contract states that "[a]n air carrier issuing a ticket for carriage over the lines of another air carrier does so only as its agent." Accordingly, the contracting parties are the person named on the passenger ticket and the air carrier whose designator code is listed in the Carrier/Transport section.

It follows that the code-sharing air carrier is a party to the contract of carriage and liable to passengers for any breach thereof.[73] Even though it has no contractual obligation to these passengers, the operating air carrier usually agrees to "indemnify and hold harmless" the code-sharing air carrier from all liabilities arising out of the marketing of the flights, regardless of negligence on the part of that air carrier.[74] Since March 1988, however, code-sharing arrangements between U.S. and foreign air carriers have been authorized only on the condition that:

> the foreign air transportation in question be sold in the name of the carrier holding out such service in computer reservation systems and elsewhere, and the carrier selling such transportation accept all obligations established in its contract of carriage with the passenger.[75]

Similarly, in Canada, the code sharing air carrier is required to accept all obligations established in it's contract of carriage with the passenger.[76] Thus, it appears that indemnity clauses would be of no force and effect, at least in the U.S. and Canada.

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73. For example, denied boarding due to overbooking is a contractual breach.

74. Code-Sharing Agreement between British Airways and United Air Lines, December 1987, at 3.

75. DEP'T OF TRANS. order, *supra* note 22.

76. Orders, *supra* note 7.

VII. DISADVANTAGES FOR CONSUMERS

A. POORER OPTIONS

Consumers are not usually informed of code-sharing flights in reservation transactions. Even though U.S. airline reservation agents are required to disclose the identity of the operating air carrier, over eighty percent of international tickets are sold by travel agents.[77] Since CRSs only provide descriptive information on a system vendor's flights, the travel agent could not identify other code-sharing operations, unless the CRS has a direct link to the code-sharing air carrier's internal reservation system. Even after ticketing, a consumer would still be unaware that a different air carrier actually performs the service because its identity is not disclosed on passenger tickets. Apparently, dual information would cause confusion at airport check-in counters and baggage carousels.[78] While airline timetables identify code-sharing flights, it is reasonable to assume that most consumers do not consult them before travel arrangements are made. Consequently, the identity of the operating air carrier would not likely be known until the consumer arrived at the check-in counter or departure gate.

Since the identity of the operating air carrier is not usually disclosed, consumers could accept poorer options. The travel agent could book a code-sharing flight alternative because it received a prominent display position on the CRS terminal screen, or an online connecting service was requested. Yet, an interline connection could have been better in terms of travel time and/or departure convenience. Alternatively, the consumer could prefer the services offered by a particular airline, but unknowingly choose a different airline. It is interesting to note, however, that the DOT has had only a minuscule number of complaints.[79]

B. HIGHER AIR FARES

Code-sharing arrangements between foreign competitors could result in higher air fares on single designated routes. But, any proposed fare would require prior governmental approval. Under a double-disapproval pricing regime, only the aeronautical authority of one country has to approve the fare. In any other case, proposed fares have to be approved by the aeronautical authority of each country. Transborder fares, for example, are subject to the latter regime.

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77. DEP'T OF TRANS. Docket No. 45389, *supra* note 58.

78. Air Canada's Code-Sharing Submission to the Air Transport Committee, May 1987.

79. Scocozza, An Address Before the International Symposium on Airline Computer Reservation Systems: Competition, Concentration and Customer Satisfaction (Geneva, 1988).

VIII. CODE-SHARING OPPORTUNITIES

A. AIR CANADA AND CAI

The Canadian government has essentially divided the globe between its two flag air carriers, Air Canada and CAI. Air Canada provides service to the U.S., the Caribbean, Europe, and two South American and Asian points, while CAI serves Asia, the South Pacific, South America, and fewer U.S. and European points. Both airlines currently offer service to Frankfurt, London, Manchester and Paris.[80]

Air Canada and CAI could conduct code-sharing operations on single and multiple designated routes. Here, the two air carriers would mutually feed traffic at Canadian points, and dual designator codes would be used on foreign sectors. For example, Air Canada could feed Pacific Rim traffic to CAI rather than its interline partner, Cathay Pacific. This arrangement would increase the number of Canadian-originating passengers on international flights operated by the designated air carrier. But, the air carrier could lose some traffic on domestic flights since its code-sharing partner would also be offering online service to the foreign destinations. However, if underlying route authority is required, code-sharing operations would be limited to multiple designated routes.[81]

B. CANADIAN AND FOREIGN CARRIERS

Seven types of code-sharing arrangements between Canadian and foreign air carriers could be established in the international market. First, a Canadian air carrier could code-share on domestic sectors of third and fourth freedom routes. Here, the air carrier would feed traffic to a foreign air carrier at its first point of entry, and dual designator codes would be shown on the foreign air carrier's flights between co-terminal points. This operation would be advantageous where the flight terminates at the foreign gateway, or few passengers travel to the second point. For example, on CAI's Toronto-Rio de Janeiro/Sao Paulo route, its code could be shown on Varig's flights between the two Brazilian points. In addition, if underlying route authority is not required, Canadian air carriers could develop hubs and establish code-sharing arrangements on other routes in the foreign country. CAI already has a hub at Amsterdam and Tokyo, while Air Canada's hubs include Frankfurt, London and Paris. In all likeli-

80. CAI obtained traffic rights to London, Manchester and Paris through PWA Corporation's acquisition of Wardair.

81. As of September 1988, multiple designated countries included: Austria, Brazil, Chile, Dominican Republic, Egypt, Fiji, Finland, France, Germany, Hong Kong, India, Ireland, Italy, Jamaica, Mexico, Netherlands, New Zealand, Pakistan, Panama, Portugal, Saudi Arabia, Singapore, Spain, St. Kitts, St. Lucia, Thailand, Trinidad/Tobago, Turkey, United Kingdom, Venezuela and Yugoslavia.

hood, the Canadian government would have to grant reciprocal rights to the designated air carrier of the foreign country. For example, if CAI and its interline partner Australian Airlines proposed to code-share on flights between Sydney and other domestic points, a similar arrangement between Qantas Airways and a Canadian air carrier would have to be permitted in Canada.

Second, foreign air carriers could establish code-sharing arrangements on Canadian sectors of third and fourth freedom routes. For example, Aerolineas Argentinas provides service from Buenos Aires to Toronto and Montreal. The foreign air carrier could feed traffic to a Canadian air carrier at Toronto, and dual designator codes could be shown on flights between co-terminal points. If underlying route authority is not required, a foreign air carrier's code could also be used on other domestic routes. Unless reciprocal rights are granted, this arrangement could pose a substantial threat to the designated air carrier because its foreign competitor would be offering online service to numerous Canadian points.

Third, a Canadian air carrier could code-share on foreign sectors of third and fourth freedom routes. Here, the air carrier and its foreign competitor would mutually feed traffic at Canadian and foreign points of entry and dual designator codes would be used on the foreign sector. Not only would the Canadian air carrier's share of foreign-originating traffic increase, but both air carriers could dominate the market. For example, Air Canada and Air New Zealand have an interline arrangement at Vancouver and Los Angeles. If CAI and the foreign air carrier conduct code-sharing operations on competitive routes, Air Canada would carry few Auckland-bound passengers on domestic and transborder flights.

Fourth, Canadian air carriers could code-share on foreign sectors of third and fourth freedom routes operated by foreign air carriers. Here, the two air carriers would mutually feed traffic at a Canadian point of entry. Since dual designator codes would be used on the foreign sector, the Canadian designated air carrier could lose traffic on domestic and international routes. For example, if Air Canada's code is shown on Cathay Pacific flights, a significant amount of transpacific traffic could be diverted from CAI. Today, the two airlines already offer joint fares and coordinate schedules in Vancouver. In addition, Aeroplan members receive mileage points for flying Cathay Pacific. However, if underlying route authority is required, Air Canada would be precluded from code-sharing.

Fifth, Canadian air carriers could establish code-sharing arrangements on foreign sectors of fifth freedom routes. There are four ways in which these routes could be operated on a shared code basis. For simplicity, CAI's Toronto-Amsterdam-Munich route is used as an example. First, the Canadian air carrier and KLM could code-share on the Toronto-Amsterdam sector and mutually feed traffic at both points. Second, CAI

and Lufthansa could code-share on the Toronto-Munich sector and feed traffic to each other at both points. Third, CAI and KLM (or Lufthansa) could mutually feed traffic at Amsterdam, and dual designator codes could be shown on the foreign air carrier's flights between Amsterdam and Munich. And fourth, CAI and KLM could also feed traffic to each other at Amsterdam, but dual designator codes would be used on both foreign sectors. Depending on the relationship established, CAI could carry more foreign originating traffic on the transatlantic route and/or Canadian originating traffic on domestic routes. As a result, the airline could gain access to markets beyond its European gateway.

Sixth, Canadian air carriers could code-share on foreign sectors of fifth freedom routes operated by foreign air carriers. At least three types of relationships could be established. First, on the foreign-Canada-foreign route, a Canadian and foreign air carrier could mutually feed traffic at the Canadian point, and dual designator codes could be used on competitive sectors. For example, on Sabena's Brussels-Montreal-Chicago route, dual designator codes could be shown on transborder flights operated by Air Canada and/or the foreign air carrier. Alternatively, the Canadian air carrier's code could be used on the first foreign sector of British Airways' London-Montreal-Detroit route. Second, on the foreign-foreign-Canada route, two air carriers could feed traffic to each other at the Canadian point, and dual designator codes could be used on competitive sectors operated by the foreign air carrier. For example, Air Canada's code could be used on the transborder sector of Royal Air Maroc's Casablanca-New York-Montreal route. And third, on the foreign-foreign-Canada route, a Canadian and foreign air carrier could mutually feed traffic at the second foreign point, and dual designated codes could be shown on flights operated by the Canadian air carrier. For example, if Cathay Pacific obtains Hong Kong-San Francisco-Toronto permit authority, its code could be shown on transborder flights operated by Air Canada. While passenger load factors would increase on these flights, CAI could lose a significant amount of the Eastern and Central Canada-Hong Kong market.

Finally, foreign sectors of sixth freedom routes[82] could be operated on a shared code basis. Like the previous arrangements, two air carriers could establish a feed relationship at a Canadian or foreign point and use dual designator codes on one or both foreign sectors. There are, however, no sixth freedom routes operated by Canadian air carriers. Usually, an air carrier provides connecting service via its home country. For example, Air Canada offers service between Chicago and various European points via Toronto.

82. The sixth freedom is the right to pick up traffic in a foreign country and to carry it to a third country via the home country.

IX. CODE-SHARING CHALLENGES

At least two types of code-sharing arrangements between U.S. and foreign air carriers could divert international traffic from Canadian air carriers via the U.S. First, a U.S. air carrier could code-share on foreign sectors of third and fourth freedom routes. Here, the air carrier would feed Canadian originating traffic to a foreign air carrier at the U.S. point, and dual designator codes would be used on the foreign sector. Either a major air carrier or its affiliate would operate between the transborder city-pairs. For example, a passenger travelling from Hamilton, Ontario to Budapest, Hungary could fly Pan Am Express between Hamilton and New York, and then Malev Hungarian Airlines between New York and Budapest. Both flights segments are listed under the designator code of Pan American World Airways. Even though no Canadian carrier serves Budapest, the passenger could have been carried as far as a European point.

Second, a foreign air carrier could code-share on the transborder sector of fifth freedom routes. Here a U.S. air carrier would feed Canadian originating traffic to the foreign air carrier at a U.S. point, and dual designator codes would be shown on transborder flights operated by the U.S. air carrier. For example, Lan Chile and Delta Air Lines could establish a code-sharing arrangement on the second sector of the Santiago-Miami-Montreal route. Currently, CAI provides connecting service between Montreal and Santiago via Toronto.

X. CONCLUSION

In the end, international code-sharing arrangements would result in the globalization of airlines. Even if operations are limited to designated routes, an airline could gain access to, and establish a presence in, all major markets of the world. For example, a global partnership between British Airways and United Air Lines would combine approximately 169 and 165 points respectively, and their two route networks would span six continents.[83] But, if the world community adopts a code of conduct on CRSs, code-sharing would not longer play a role in the competitive strategies of international airlines. Instead, airlines would have to compete for a greater share of the world market by establishing interline arrangements, joint frequent flyer programmes and CRS links. Unless the nationality criteria to operate internationally is abolished, there would then be few, if any, truly global airlines.

83. Whitaker, *Feeding Time*, AIRLINE BUSINESS, March 1988, at 23.