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BEFORE THE U.S. DEPARTMENT OF TRANSPORTATION

COMPUTER RESERVATIONS SYSTEM (CRS) REGULATIONS

Docket No. OST-97-2881 - 13

COMMENTS OF FRONTIER AIRLINES, INC.

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INTRODUCTION: CRS REGULATION

Widespread allegations of airline computer reservations system [CRS] display bias arose in the mid-1980s, leading to several proposed Congressional bills to regulate CRSs or force their divestiture from the airlines which own them. Because “market forces and competition have relatively little impact on important facets of CRS operations,”¹ the CAB/DOT found regulation necessary to prohibit airlines owning CRSs from manipulating the systems to prejudice other airlines.² As CRS expert Mia Wouters observed:

You do not have to be a specialist in marketing to know that, no matter how good your products or services are, if you lack either the means of informing the public of their availability, or distributing them, these goods will remain unsold. Ultimately success will depend to a large extent on your ability to bring what you have to offer to the attention of the buyer and to make it readily available for purchase. . . .

Air transportation does not escape from this basic principle of commerce where the distribution of seats is concerned. Little is more critical for an airline to remain competitive than its ability to keep potential passengers informed of what is on offer and to facilitate the acquisitions they decide to make.

An efficient distribution system represents the cornerstone of an airline’s competitiveness. The operating margins of the airlines are usually thin, and since airlines sell a service that cannot be stored and is perishable in nature, the high proportion of fixed costs involved in operating a flight means that the loss or gain of a few passengers on a flight can often determine whether or not it will be profitable.³

The U.S. Civil Aeronautics Board [CAB] began to regulate CRSs in 1984 by (1) prohibiting CRS owners from using airline identity to rank and edit screen display, (2) requiring that each CRS charge the same booking fee for each airline listed, (3)

¹ See Application of Covia Partnership, DOT Order 94-8-5 (1994).

² See Study of Airline Marketing Practices, DOT Order 94-9-35 (1994).

³ Mia Wouters, The Hybrid Relationship Between Computer Reservations Systems (CRSs) and Airlines, *The Aviation Quarterly* 346 (1997).

prohibiting CRSs from tying up travel agencies with “exclusive dealing” contracts longer than five years, and forbidding exclusive contracts, and (4) requiring that CRS owners share marketing, booking and sales data generated by it.⁴

Today, DOT regulations require that CRS displays of schedules, fares, rules and seat availability be neutral with respect to carrier identity.⁵ Any default feature may not give preferential display to CRS owners. Several provisions prevent discrimination against carriers: any service enhancement must be made available to all participating carriers on a non-discriminatory basis;⁶ fees charged participating carriers shall be non-discriminatory;⁷ marketing, booking and sales data must be made available to all participating carriers on a non-discriminatory basis;⁸ and CRSs must not discriminate against code-sharing flights.⁹ To encourage travel agent independence, subscriber contracts may not exceed a term of five (and in some instances three) years, nor may they be automatically extended beyond the initial term.¹⁰

As shall be explained below, these regulation do not go far enough to remedy the problems identified herein. One source summarized the problems which persist:

American and United dominate the CRS market, with a combined share of about seventy percent, and each has obtained substantial market power through CRS. . . . United and American . . . charge competing airlines to list flight information on their CRS’s. Unlike travel agents, competing airlines cannot shop for alternatives; in order not to lose bookings, they have to be listed on every CRS system that has any significant share of the market. The provision of CRS listings to competing airlines thus assures both United and American of market power.

United and American use this power to enhance their positions in the airline transportation market. At first, they used blatant biases in CRS screen displays of alternative flights and fares. This gave

⁴ 14 CFR § 255.

⁵ 14 CFR § 255.4.

⁶ 14 CFR § 255.5.

⁷ 14 CFR § 255.6.

⁸ 14 CFR § 255.10.

⁹ 14 CFR § 256.4.

¹⁰ 14 CFR § 255.8.

them substantial “incremental revenues” as air carriers -- a monopoly return from CRS ownership. Before its sunset, the Civil Aeronautics Board (CAB) forbade blatant bias and also ordered nondiscriminatory CRS pricing. The two carriers responded to the CAB order in two ways. First, they employed more subtle biases in the form of delays or inaccuracies in entering new information from competitors, and listing order hierarchies based on biased (though seemingly objective) criteria. Second, and more importantly, they raised prices for competing airlines, increasing listing costs 250 to 500 percent.¹¹

These problems persist to this day. Moreover, as noted in the quoted passage, an airline which might choose to forego listings in a particular CRS is severely prejudiced in effectively eliminating it from the shelf space in key markets. Thus, given Sabre’s market dominance among travel agents at Dallas, an airline which decided to forego listing in Sabre would surrender a tremendous volume of sales at Dallas. Airlines therefore tend to be listed in all four computer reservations systems. It is telling that new entrant airlines which originally steered clear of CRSs to cut distribution costs, like Western Pacific and ValuJet, have since entered each of the four major CRSs. The unfortunate dimension of the oligopoly is that, because most airlines find they cannot realistically engage in comparative shopping among them, there is little pricing competition between CRSs.

CRS BIAS PERSISTS BY SEVERELY PENALIZING INTERLINE CONNECTIONS WHICH ARE NOT OPERATED UNDER A CODE-SHARE

According to the U. S. General Accounting Office, an airline which owns its own computer reservations system stands a significantly better chance of selling its product through its system than does a competitor.¹² A 1990 study of the U.S. General Accounting Office revealed that travel agents subscribing to a particular CRS “choose that airline 41 percent of the time for business travelers and 55 percent of the time for

¹¹ Laurence Sullivan: Anticipating Antitrust’s Centennial: The Viability of the Current Law on Horizontal Restraints, 75 Calif. L. Rev. 835, 883 (1987).

¹² U.S. General Accounting Office, Airline Competition: Impact of Computerized Reservations Systems (1986).

leisure travelers.”¹³ This phenomenon is referred to as the “halo effect” -- a carrier with a disproportionate number of CRS terminals in a given area enjoys a greater number of bookings relative to the capacity it offers in the market.¹⁴

The disproportionate number of sales reflects several factors. Among the most significant problems is the CRS algorithms which bias CRS displays in favor of the offerings of the large network carriers and their code-sharing affiliates. Stephen Breyer put it this way:

[Critics allege that] CRS-owning airlines bias the programs and displays in their own favor. Carrier A, for example, may use a computer algorithm that lists all of its own connections before it lists any connection with other airlines. Or it may list carriers with which A maintains a marketing relationship before it lists other carriers, or it may make up a supposedly neutral order for display -- say, “list carriers in order of elapsed time” -- but then use fake elapsed times to make certain the computer displays A and its friends first.¹⁵

Currently, CRS vendors severely penalize the display of off-line connections. The large network carriers which own the CRSs, with their vast route structures and ubiquitous code-sharing alliances, are relatively less negatively impacted by such bias penalties than their smaller rivals, with their less developed route structures and intercarrier alliances. Code-sharing connections are falsely (perhaps fraudulently) treated as if they were on-line connections, to which no penalty is added, thereby often elevating them to the first page of the CRS screen, and/or shoving their competitors off the first page. Eighty-five percent of sales are made from the first page of the CRS screen. Because the largest airlines have the most ubiquitous code-sharing relationships, the competitive offerings of smaller, independent airlines receive poorer display. Moreover, through “dual designations” many code-sharing flights are listed three different times, creating enormous “screen clutter,” and again, shoving competitive offerings onto the second or third page of the CRS display, where they rarely are sold.

¹³ U.S. General Accounting Office, *Airline Operating & Marketing Practices* 65 (1990).

¹⁴ Thomas Petzinger, *Hard Landing* 242 (1995).

¹⁵ Stephen Breyer, *Anticipating Antitrust's Centennial: Antitrust, Deregulation, and the Newly Liberated Marketplace*, 75 *Calif. L. Rev.* 1005, 1038 (1987) [citations omitted].

The algorithms which determine which flights receive priority are established by each CRS company. Typically, they involve a formula consisting of the proximity of a flight to the requested departure time (*displacement time*), plus total *elapsed time* from origin to destination, plus penalties imposed on flights that require a connection, and those which involve a change in airlines. Code-sharing interlining connections are falsely treated as if they were on-line connections, to which no additional points (the equivalent of minutes) are added. However, the major CRSs radically penalize interline connections which do not enjoy a code-share. For example, Galileo adds 1,440 points (the equivalent of 24 hours); Worldspan adds 3,030 points; Sabre adds 999 points. In many instances, this pushes the competitive interline connection off the first page of the CRS screen, even where the interline connection is jet-to-jet, and the CRS preferred code-share alternative is jet-to-turboprop.

At a concentrated hub airport like Denver, the net impact of the enormous penalty imposed by megacARRIER dominated CRS vendors against interline connections is to disadvantage interline connections which have been denied a code-share by the dominant airline, and thereby deprive independent competitors of sufficient connecting traffic to sustain competition in thin markets. United has refused Frontier's requests to enter into a code-sharing relationship with it. United has 100% market share in approximately 30 city-pairs radiating from Denver. At Denver, United's code-sharing affiliates (operating as "United Express") have 100% market share in approximately 38 city-pair markets radiating from Denver. Through exclusivity provisions in their contracts, United prohibits its regional airline affiliates from code-sharing with carriers like Frontier. United thereby refuses Frontier a code-share with it, or its code-sharing partners at its Denver Fortress Hub. Coupled with the pernicious CRS bias in favor of code-sharing interline flights, and against non-code-sharing interline flights, United is able to monopolize the connecting market at Denver. Moreover, the net impact to small communities is the loss of competitive jet service in favor of high-cost/high-priced turboprop service.

REMEDY. Frontier Airlines, Inc., respectfully recommends adoption of a rule which would prohibit CRS vendors from displaying code-sharing interline connecting flights more favorably than non-code-sharing interline connecting flights. Further, multiple listings of code-share/dual designation alternatives should only be allowed at the end of the queue, after all other competitive alternatives have been displayed.

CRS BIAS INJURES FRONTIER AIRLINES AND CONSUMERS, BY ALLOWING
UNITED AIRLINES TO MONOPOLIZE CONNECTING TRAFFIC AT THE
CONCENTRATED DENVER HUB

Frontier Airlines inaugurated service in the Summer of 1994. Its strategic plan was to restore jet service from Denver markets which had recently been abandoned by Continental Airlines, which was in the process of sharply down-sizing its Denver hub. Although a high-cost carrier like United Airlines (which dominates the Denver market) might not be able to break-even with jet service in thin markets, Frontier, with its significantly lower cost structure, believed it could. In July 1994, Frontier inaugurated jet service between Denver and four cities in North Dakota (Bismarck, Fargo, Grand Forks, and Minot). In August and September 1994, Frontier launched jet service to four cities in Montana (Billings, Bozeman, Great Falls and Missoula).

Most of these markets previously were served by another airline by the same name (Frontier), which was acquired by Continental Airlines in 1986. Many of the new Frontier Airlines' executives and employees served the old Frontier Airlines, and understood that sufficient traffic flows existed to support jet service (provided by a low-cost carrier) from Denver to many medium and small-size cities across the Great Plains and Rocky Mountain regions. Both the original Frontier and Continental had proven that many of these thin markets had sufficient traffic to provide adequate load factors to support jet service from Denver. The new Frontier's marketing studies confirmed the existence of ample traffic to support two round-trip Boeing 737s flights per day in these

markets. Again, while a large, established major carrier, with its high cost structure, may be unable to provide jet service to such markets, a new entrant carrier, with its relatively lower cost structure, should be able to. Frontier believed that passengers in these communities preferred the speed and comfort of jet service over flying relatively slower turboprop planes below the weather.

Because Frontier flew the only jets in several of these markets, Frontier enjoyed a disproportionately large share of local origin-and-destination traffic (e.g., Denver-Bozeman, Denver-Bismarck). But because Frontier was unable to enjoy nondiscriminatory connections with the major hub carrier at Denver, it was deprived of sufficient connecting traffic to make these flights viable. Under deregulation, most of the traffic which moves today connects between aircraft, usually at a hub, like Denver, Salt Lake City, or Minneapolis.

From the outset, Frontier began to try to tap the feed traffic off the huge networks of the dominant hub carriers at Denver -- United Airlines and Continental Airlines. Since cooperative code-sharing and related arrangements were the only means by which Frontier could tap sufficient connecting traffic to make thin routes viable, Frontier asked each company for cooperative joint-fare and code-sharing agreements. United repeatedly refused.

Continental entered into joint-fare and code-sharing relationships with Frontier. But Continental no longer maintains a hub at Denver, and has reduced service there to 13 flights a day from but three cities (i.e., Houston, Cleveland, and Newark). Unfortunately, the passenger and cargo feed from Continental's network was insufficient to provide adequate incremental traffic to sustain break-even load factors on Frontier's flights to Montana and North Dakota.

Code-sharing is a means whereby two carriers agree to be displayed in the airline computer reservations systems as an "on-line" (Carrier X to Carrier X) connection, rather

than an interline (Carrier X to Carrier Y) connection. At Denver, United has marketing and code-sharing agreements with Mesa Airlines, Great Lakes Aviation and Air Wisconsin, flying mostly turboprop aircraft throughout the Rocky Mountain and Great Plains region.¹⁶ United's connections with Mesa, Great Lakes and Air Wisconsin are falsely displayed in the CRS as on-line connections between United and "United Express." Without a code-sharing agreement with United, the United-Frontier connection is shown as what it truly is -- an interline connection between United and Frontier. As noted above, the CRS system of which United is principal owner saddles the displays of all interline connecting flights with the equivalent of an artificial and astounding 1,440 minutes (24 hours), which is added to the true elapsed time of the flight. Zero minutes are added to the United-Great Lakes, United-Air Wisconsin or United-Mesa Airline interline connections, for they are falsely treated as "on-line" connections, as if it were a United jet connecting to a United jet.

Eighty-five percent of flights are sold by travel agents off the first page of the computer reservations system screen. By adding the equivalent of an artificial 1,440 minutes to Frontier's connecting flights, they are often shoved off the first page of the screen, and hence, rarely sold. In other words, a United jet connecting to a Great Lakes Beech 1900, 19-seat aircraft, gets superior retail shelf space to a United jet connecting to a Frontier jet, even though consumer preferences for speed, convenience and safety may favor jet-to-jet connections rather than jet-to-turboprop connections. This is fundamentally unfair to small airlines like Frontier, to small communities seeking competitive jet service, and to consumers.

For example, Frontier flew from Denver to Bismarck and Fargo, North Dakota, in 108-seat Boeing 737 jets. Great Lakes Aviation (United Express) flew Beech-1900 19-seat turboprop aircraft, without a lavatory or in-flight amenities, requiring flight times that took nearly an hour longer than the Frontier flight. The *Wall Street Journal* described the United Express flight from Denver to Bismarck as among the longest

¹⁶ Leigh Fisher Associates Analysis Prepared for the City and County of Denver (1994).

commercial commuter-flights in the United States.¹⁷ Now most passengers, if given a choice, would prefer to fly a jet rather than a turboprop aircraft. But with code-sharing (combined with the CRS bias described above), most of United's connecting passengers were funneled aboard the Beech-1900s.

Let's pose an analogy. Suppose Frontier was in the bean business, and made the best beans money could buy. Suppose also, that the major supermarket chains in Denver (i.e., Safeway, Albertson's, and King Soopers) were owned by the major bean companies (i.e., Green Giant, Campbell's, and Libby's). Frontier asks for shelf space to sell its product, and each of its competitors refuses, or at best, relegates the Frontier product to the back corner of the store devoted to damaged merchandise. Frontier would have the option of either opening its own supermarket chain (impossible), or hawking its wares from carts on the street. United Airlines owns the majority interest in the Apollo CRS. In fact, the major airlines variously control the four major CRSs, and each of them discriminate against non-code-sharing connecting flights.

United Airlines and its code-sharing affiliates control approximately 70% of the traffic at Denver. Without a joint-fare or code-sharing agreement with United, Frontier cannot attract sufficient traffic to make thin routes viable. Frontier cannot profitably restore jet service to communities which have lost it, though in fact, that was precisely its original intent.

Frontier urged United to enter into joint-fare and code-sharing relationships with it for sound business reasons. Convenient interline connections are a two-way street; they allow passengers to flow conveniently over the networks of both carriers. Frontier pointed out to United that it can provide United's passengers superior and more convenient jet service vis-à-vis the turboprop connections which now exist. Frontier emphasized to United that a large volume of the traffic that now flows over the Salt Lake City and Minneapolis hubs could be funneled by Frontier over Denver to feed the United

¹⁷ Lisa Miller, *Odds & Ends*, Wall St. J., July 28, 1995, at 9.

Airlines network. Frontier believes it makes sound business sense for United to do business with Frontier. But at a meeting with Frontier's executives at United's Elk Grove Township, Illinois, headquarters, United's then-Senior Vice President Rakesh Gangwal responded, "Frontier is a low-cost provider. United can never be a low-cost provider. Therefore, we think of you as the enemy."¹⁸ No enemy will be given either a joint-fare or a code-sharing agreement.

United Airlines is a \$15 billion corporation, more than 200 times the size of Frontier.¹⁹ United perceives Frontier to be the enemy.

Frontier informed United Airlines that it believed that United's refusal to allow Frontier nondiscriminatory access to United's network potentially poses a serious potential antitrust problem for them. An analogous problem arose in the 1970s and 1980s in the telecommunications industry with AT&T's refusal to permit MCI nondiscriminatory access to its network. It took years, but ultimately MCI won a multi-million dollar verdict against AT&T, and the U.S. Justice Department forced divestiture of AT&T into seven regional holding companies, and one long-distance carrier. Today, federal regulatory authorities require that all telecommunications companies be given nondiscriminatory access to the networks of their competitors. USWest would never be allowed to enter into preferential connections and rates with, say, Sprint, depriving or dissuading consumers who preferred AT&T of access. Just as AT&T was the largest telephone company in the world, United is the largest airline in the world. Frontier can no more be expected to replicate the vast United Airlines route network than could MCI have been expected to replicate the vast AT&T network.

If such a rule (requiring nondiscriminatory connections between telecommunications networks) existed with respect to the transportation networks, or if

¹⁸ The meeting was held between United Airlines Senior Vice President Rakesh Gangwal and Frontier Airlines CEO Sam Addoms and Frontier Vice President Dan Love.

¹⁹ Comparison of gross revenues of the two companies. UAL Corporation 1995 Annual Report (1996); Frontier Airlines, 1996 Annual Report (1996).

CRS bias against non-code sharing interline connections were not permitted, Frontier's Montana and North Dakota service likely would have been profitable, and as a consequence, Frontier would not have been forced to terminate service to Montana in September 1995, and to two North Dakota markets in January 1995, and the final two in September 1996. Frontier has re-deployed those Boeing 737s to markets which already had frequent jet service, such as Denver-Los Angeles, Denver-Chicago, Denver-San Francisco, and Denver-Phoenix, where sufficient nonstop origin-and-destination passenger traffic exists to provide break-even load factors.

Of course, passengers in those dense markets to which Frontier has re-deployed its aircraft benefit from new competition. Fares have fallen dramatically. As a defensive move to United/United Express domination of the Denver market, and in anticipation of a proposed merger, in the Summer of 1997 Frontier entered into a code-sharing agreement with Western Pacific Airlines. The proposed merger collapsed, and the code share will soon expire. Frontier also had a code-share with Maverick Airlines, which has since folded.

*In 1995, United Airlines controlled 95% of the connecting passenger traffic at Denver International Airport.*²⁰ Estimates are that United controlled 97% of that market in 1996.²¹ United's overwhelming dominance of Denver International Airport [DIA] (and the city-pair markets radiating from it) is attributable to its ability to fill seats by flowing connecting passengers over the Denver hub, and by using CRS bias as a tactical weapon (coupled with discriminatory and exclusive code-sharing arrangements with regional turboprop carriers), to deprive any other competitor of the ability to participate in the connecting passenger market.

We remind DOT that the European Union's CRS Code of Conduct resolves this problem in a simple, efficient way. It sets forth an algorithm which provides priority

²⁰ Leigh Fisher Associates, Year End Settlement of 1995 Rental Fees and Charges at DIA, Tab 4, Table 1 (June 28, 1996) [data are for the 10 months of 1995 during which DIA was open].

²¹ Leigh Fisher Associates, Midyear Adjustments to 1996 Rentals, Fees and Charges at DIA, Table 1 (Aug. 8, 1996).

reasonably reflecting consumer preferences -- non-stop flights are listed first, then direct flights not involving a change in aircraft, then connecting flights. Non-stop flights are ranked by departure time, while direct and connecting flights are listed on the bases of elapsed journey time.²² Adoption of the European rules would also have the advantage of harmonizing regulations on both sides of the Atlantic Ocean, thereby reducing CRS cost of compliance.

REMEDY. Frontier Airlines, Inc., respectfully recommends that DOT require that CRS display of flights connecting at concentrated hub airports (defined as any major airport at which an airline and its code-sharing partners account for more than 50% of passenger enplanements, seats or flights) show no preference for on-line connections over interline connections. Frontier also recommends adoption of the screen display preferences established by the European CRS Code of Conduct.

CRS BIAS INJURES INDEPENDENT REGIONAL CARRIERS AND DEPRIVES SMALL COMMUNITIES OF COMPETITIVE AIR SERVICE

Large sections of the nation are wholly excluded from jet service because of computer reservations systems bias which shoves non-code-sharing interline arrangements off the first page of the CRS screen. That is not to suggest that all small communities have sufficient traffic to support jet service. But many small communities which could support jet service from a low-cost carrier are denied it because of these pernicious code-sharing practices.

CRS bias, coupled with the refusal to enter into joint fare and code-sharing relationships with domestic jet airlines, results in relegating small communities to inferior and high-cost monopoly turboprop aircraft. Code-sharing is a way of deceiving consumers into believing they will be flying a megacARRIER's jets, when on most occasions

²² Mia Wouters, The Hybrid Relationship Between Computer Reservations Systems (CRSs) and Airlines, *The Aviation Quarterly* 346, 353 (1997).

they are funneled onto a smaller carrier's turboprop aircraft at the hub, all in a deliberate attempt to steer feed traffic away from jet competitors.²³ The consumer deception dimensions of code-sharing are analogous to having a business traveler book a hotel room in the Manhattan Ritz-Carlton Hotel, only to arrive and learn the room is really at the Holiday Inn over in Newark.

Even competing turboprop carriers are injured by these discriminatory arrangements. Operating from Denver, GP Express (formerly Continental Connection) also suffered from an inability to tap the United Airlines network. United enters into preferential joint-fare and code-sharing agreements with select carriers (one per city-pair market) which give their interline connections preferred space on the computer reservations systems. For example, United code-shares with Mesa Airlines out of Denver to Rocky Mountain cities like Telluride and Grand Junction. United's interline with Mesa is falsely shown on the CRS as an "on-line" connection from United to United Express. As a pseudo-on-line connection, it enjoys a higher display on the CRS screens. The United-GP Express interline was shown as an interline (in this instance, no deceit), and often shoved off the first page of the CRS screen. With Continental's departure from Denver, and unable to tap United's feed at the Denver hub, GP Express collapsed into bankruptcy in 1995. For similar reasons, another independent turboprop carrier that attempted to provide competitive service to Colorado's mountain communities, Maverick Airways, ceased operations in 1997. The net result of these discriminatory and anticompetitive practices is poorer and more expensive air service to many small communities across America.

The U.S. Department of Transportation [DOT] has found that 34 small communities have lost all service since promulgation of the Airline Deregulation Act of 1978; many communities which had jet service lost it to turboprop aircraft; out of 320 small communities, the number served by major carriers declined from 213 in 1978 to 33

²³ United does maintain code-sharing with Air Wisconsin on a carefully limited number of smaller jets.

in 1995; the number of small communities served by multiple carriers has decreased from 135 in 1978, to 122 in 1995.

The DOT studies *severely understate* the problem. Of the 514 non-hub communities receiving air service in 1978, by 1987 (a decade after deregulation began) 313 (60.8%) had suffered declines in flight frequency, and 144 (28%) had lost all service; only 32 (6.2%) enjoyed the inauguration of new service.²⁴ By 1995, things were even worse. Of the 514 non-hub communities receiving air service in 1978, by 1995 167 (32.5%) had been terminated, while only 26 (5.1%) gained new service.²⁵

The DOT's studies were unable to comment meaningfully about pricing of air service to small communities, for commuter carriers generally do not report pricing data. But the U.S. General Accounting Office has found that passengers flying from small-city airports to major airports paid 34% more if the major airport was concentrated and 42% more if both the small-city and major airport were concentrated.

For those small community city-pair markets with sufficient volume to support jet service by a low-cost carrier, the code-sharing phenomenon insures that they will instead be relegated to relatively higher-cost/higher-priced turboprop service. For example, one of the nation's largest connecting turboprop carriers, Mesa Airlines (which in some parts of the country operates as a United Airlines code-sharing affiliate -- "United Express"), charges yields of nearly 35 cents per mile, compared with about 12 cents a mile by United Airlines. Even USAirways, which operates short-haul high-cost jet service, charges only about 18 cents a mile -- about half that charged by a turboprop carrier.²⁶ A low-cost jet entrant typically charges consumers significantly less than do the major airlines.

²⁴ Andrew Goetz & Paul Dempsey, *Airline Deregulation Ten Years After: Something Foul in the Air*, 54 *J. Air L. & Com.* 927, 947 (1989). See also, Paul Dempsey & Andrew Goetz, *Airline Deregulation & Laissez Faire Mythology* 221, 243, 249-51, 265-76 (1991).

²⁵ Unpublished study by Dr. Andrew Goetz, University of Denver.

²⁶ 1996 data from Julius Maldutis, *Airline Update*-August 1996 (Sept. 8, 1996).

For most Colorado communities (and many small communities throughout the Rocky Mountain and Great Plains region), the result of United's discriminatory and anti-competitive practices is that they are served from Denver only by a United Express affiliate flying turboprop aircraft and charging sky high air fares, even in those markets which have sufficient traffic to sustain jet service.

REMEDY. Frontier Airlines, Inc., respectfully recommends that DOT require that CRS listings reflect the consumer preference for jet-to-jet connections over jet-to-turboprop connections, whether the connection is on-line or off-line (interline).

UNITED AIRLINES' INTERNET BOOKING ENGINE, UNITED CONNECTION,
PROVIDES INFORMATION WHICH STEERS PURCHASES AWAY FROM ITS
SMALLER COMPETITORS

Though Frontier has not made an exhaustive study of the display of its product on United Connection (United Airlines' internet booking software), it has discovered anecdotal evidence that the product may be biased against the affordable air carriers attempting to compete at United's Denver fortress hub. For example, listings of Western Pacific's flights from Colorado Springs were listed as "full," while Western Pacific's load factors actually were south of 50%.

United Connection purports to list flights in order from lowest fare to highest. We have found that Frontier and Western Pacific flights are sometimes not listed on the first page of the screen, while major carriers' higher priced flights are. With additional key strokes, we were able to pull up these lower fare offerings by new entrant airlines on another screen display. Again, we have not made an exhaustive study of the issue. But we have found occasional inaccuracies which disadvantage the offerings of the affordable air carriers at Denver. Moreover, as Appendix A reveals (which was printed from the United Connection screen), United offers a bonus of 1,000 frequent flyer miles on flights sold on United Connection on flights to, from, or through Denver International Airport [DIA]. DIA

is the only United-dominated hub at which new entrant airlines are attempting to establish a base of operations in competition with United. Frequent flyer miles are, of course, a form of price rebate. It is apparent that United is using its United Connection distribution vehicle as yet another predatory weapon to suppress competition at Denver.²⁷

Unless the same rules applicable to CRSs are made applicable to these internet services, small competitors will be placed at a considerable competitive disadvantage. This impact will increase over time as more and more computer-literate consumers move their bookings to the internet, and as the decision of the major airlines to roll back travel agent commissions by 20% results in the constriction of the travel agent industry.

Frontier does not believe that it is appropriate or necessary for DOT to regulate a carrier's internal reservations and sales on its home page, so long as that carrier is only selling its own product on that page, and not selling the product of a competitor. If a carrier does not provide information with respect to its competitors, there is no opportunity to deceive consumers about competitive offerings.

REMEDY. Frontier Airlines, Inc., respectfully recommends that DOT require that all CRS rules be applicable to all carrier-owned and operated travel management software packages or internet services which permit reservations and sales on more than a single carrier.

EXORBITANT CRS BOOKING FEES RESULT IN A WEALTH TRANSFER FROM SMALLER TO LARGER AIRLINES, THEREBY INJURING COMPETITION AND EXACERBATING INDUSTRY CONCENTRATION

Several observers of the airline industry have expressed concern about CRS fees, unilaterally imposed by CRS vendors, and undisciplined by competition among the members of the CRS oligopoly. Said one, "even if airlines owning the systems do not

²⁷ See Paul Stephen Dempsey, *Unfriendly Skies Over Colorado: United Airlines' Fortress Hub Monopoly At Denver* (1997).

discriminate, they can exact a supra-competitive price for access to the reservation system if the market for the systems is not competitive."²⁸ The U.S. General Accounting Office concurred:

CRSs earn profits exceeding those that could reasonably be expected to be earned in a competitive market. They therefore unfairly transfer millions of dollars of revenues annually from airlines that do not own CRSs to those that do, making the former less competitive in the marketplace. . . .

These excessive booking fees, in combination with the incremental revenues earned by CRS vendors, resulted in the transfers of millions of dollars per year from non-vendors to vendors.²⁹

Because of the dearth of competition in the CRS industry, United and American earn more than \$300 million per year from weaker airlines beyond the cost of providing the service, according to the U.S. General Accounting Office.³⁰ The DOT has concluded that booking fees charged other airlines were approximately double American's or United's average costs.³¹ These carriers enjoy rates of return on their CRSs of between 60% to 100% a year.³² Sabre earned a 20% operating margin in 1993, and a 24% operating margin in 1994.³³ Critics have argued that CRSs produce extraordinary profits for their owners, far beyond the rents which could be exacted in a fully competitive market. For example, they have asserted that Sabre gives American Airlines fees in excess of costs of approximately \$215 million a year, and an advantage of \$328 million a year as a result of the "halo" effect.³⁴

²⁸ Jerome Ellig, *Computer Reservations Systems, Creative Destruction and Consumer Welfare*, 19 *Transp. L.J.* 287, 288 (1991).

²⁹ U.S. General Accounting Office, *Airline Competition: Industry Operating and Marketing Practices Limit Market Entry* 63 (Aug. 1990).

³⁰ *Intelligence*, *Aviation Daily* (Feb. 11, 1991), at 269.

³¹ *The Financial Condition of the Airline Industry and the Adequacy of Competition*, Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation, 102nd Cong., 2d Sess. XVII (1991). DOT, *Study of Computer Reservations Systems* 110 (1988).

³² *The Financial Condition of the Airline Industry and the Adequacy of Competition*, Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation, 102nd Cong., 2d Sess. XVIII (1991).

³³ AMR Corporation, *Annual Report* 21 (1994).

³⁴ *The Financial Condition of the Airline Industry and the Adequacy of Competition*, Hearings Before the Subcomm. on Aviation of the House Comm. on Public Works and Transportation, 102nd Cong., 2d Sess. 65 (1991) (statement of Edward R. Beauvais).

In the past, DOT has declined to regulate the level of CRS fees. We point out that the European Union has not been so reticent. The EU Council's Code of Conduct for Computerized Reservations Systems³⁵ provides that "[participation] fees must be non-discriminatory and reasonably related to the cost of the service provided and used."³⁶ The EU has found a regulatory requirement that CRS fees be reasonably related to costs not to be onerous.

REMEDY. Frontier Airlines, Inc., respectfully recommends that DOT require that CRS bookings fees be reasonably related to the cost of the service provided and used.

CRS VENDOR ENCOURAGEMENT OF TRAVEL AGENT BOOKINGS OF
PASSIVE RESERVATIONS IMPOSES A SEVERE ECONOMIC PENALTY UPON
SMALLER CARRIERS WITH NO CORRESPONDING BENEFIT

On October 14, 1987, in Docket OST-97-3015, America West Airlines, Inc., filed a petition for rulemaking asking DOT to take action to prohibit CRS vendors for encouraging fictitious, speculative and duplicative bookings by travel agents. The problem stems from the fact that CRS vendors impose a charge (approximately \$3.10) based on each and every booking made on an airline, irrespective of whether a ticket is sold or segment flown reflecting that booking. CRS vendors insist airlines pay high fees based on reservations booked, rather than segments flown, and incentivize travel agents to maintain high booking levels via productivity rewards conferred on the basis of increased CRS usage. Under the CRS productivity pricing contractual provisions, rent payable by an agent is reduced if the travel agent maintains a certain volume of bookings per month.³⁷ Of course, additional bookings results in additional revenue to the CRS. But from the perspective of the airline whose product is booked, where an agent books,

³⁵ Council Reg. on the Application of the Competition Rules, Council Reg. (EEC) No. 3975/87 of 14 Dec. 1987, 1987 O.J. (L374).

³⁶ See Marj Leaming, Enlightened Regulation of Computerized Reservations Systems Requires a Conscious Balance Between Consumer Protection and Profitable Airline Marketing, 21 Transp. L.J. 469, 504 (1993), and Mia Wouters, The Hybrid Relationship Between Computer Reservations Systems (CRSs) and Airlines, The Aviation Quarterly 346, 352-53 (1997).

³⁷ Mia Wouters, The Hybrid Relationship Between Computer Reservations Systems (CRSs) and Airlines, The Aviation Quarterly 346, 348 (1997).

cancel, and re-books a reservation several times, the aggregate CRS fees can erode or eliminate profit on its sale, even if the ticket which corresponds to the reservation is sold. False bookings increase distribution costs for airlines, exacerbate the revenue transfer problem from smaller to the larger airlines which own CRSs, and result in inventory spoilage. Such increased transactions costs serve no legitimate market purpose, and result in a regressive wealth transfer from small to large airlines (which own CRSs).

Passive segments are bookings made by a travel agent for any flight any time, whether the desired class of service is sold out or not. The bookings are nefariously not communicated to the internal reservations system of the carrier whose flights are booked. Sometimes agents issue a ticket with an expired date. Delays are experienced when these passengers arrive at the airport because the airline has no record of them. Legitimate passengers are inconvenienced, and sometimes denied boarding. Thus, consumers also are ill-served by passive bookings.

Frontier agrees with America West that the incentives of CRS vendors to encourage duplicative and fictitious bookings would be eliminated if booking fees were tied to actual travel flown instead of reservations booked. Frontier also agrees with America West that carriers should be free to deny CRSs the ability to make passive bookings with respect to it. A further improvement which would reduce fictitious bookings would be to require that the passenger's ticket number be recorded in the CRS passenger-name-record [PNR] file within 24 hours of booking, else the booking automatically will be canceled.

REMEDY. Frontier Airlines, Inc., respectfully recommends that the DOT prohibit CRS vendors from charging carriers for reservations booked, and instead, tie CRS fees to segments actually flown. Further, Frontier recommends that carriers should be free to deny CRSs the ability to make passive bookings with respect to it. Frontier also recommends that CRSs be required to cancel all bookings for which a ticket number has not been recorded within 24 hours of booking.

EXORBITANT CRS DATA FEES RESULT IN A WEALTH TRANSFER FROM
SMALLER TO LARGER CARRIERS, OR EFFECTIVELY DEPRIVE SMALLER
CARRIERS OF ESSENTIAL MARKET INFORMATION AVAILABLE TO THEIR
LARGER COMPETITORS

CRSs give management access to real-time market demand information with which to engage in yield management -- expanding or contracting the low- or high-fare buckets as demand falls or rises, respectively. CRSs allow the accumulation of exceptionally detailed information on consumer travel patterns between any conceivable pair of city-pairs on the planet. DOT regulations do require marketing, booking and sales data must be made available to all participating carriers on a non-discriminatory basis.³⁸ However, the exorbitant fees charged by CRS owners for the data tapes are cost prohibitive for small airlines. The North American tapes cost approximately \$10,000 per month per CRS, for a total annual cost for the data of the four CRSs of \$480,000. In fact, some estimate the cost at \$2 million per year. These figures are well beyond the economic reach of a small 13-aircraft airline like Frontier. As a consequence, the megacarriers have detailed real-time data on small carrier sales through their CRSs, while the small carriers are effectively denied access to the same sales data of the major carriers, and even if they can afford it, can not have the real-time access CRS owners do. One wonders whether Wal-Mart would have been snuffed out in its infancy had Sears and Montgomery Ward had proprietary data concerning its sales, offering to divulge their sales data only at a price beyond the ability of their competitors to pay.

As Michael Levine, now Senior Vice President at Northwest Airlines, observed:

An airline which controls the system on which travel agents make bookings on itself and its competitors gains market intelligence because it receives real-time information about market preferences and the success of marketing initiatives. An airline

³⁸ 14 C.F.R. § 255.10.

without access to the information generated by such a system knows only the travel patterns of those who buy its tickets. . . .

In contrast, an airline whose CRS is used by travel agents has access to a very accurate picture of both its own and its rivals' business patterns. . . . A CRS owner can then use this information to distort market signals to its rivals, leading them to make incorrect decisions. When a CRS owner sees travel agents making bookings on a rival airline's flights, it can intervene through targeted secret incentive programs in an attempt to switch business. By responding selectively, it can temporarily distort signals the market sends to competitors, in order to persuade the rival to abandon fares, schedules, or even routes where, absent these secret interventions, its offerings would be preferred by consumers.³⁹

REMEDY. Frontier Airlines, Inc., respectfully recommends that DOT require that CRS data fees be reasonably related to the cost of the service provided and used. Alternatively, we urge adoption of a rule requiring that an airline which dominates a large hub airport which own a significant market share of a CRS provide competing carriers at the dominated hub with complete data from that CRS with respect to all flights to or from said dominated hub without charge.

IF REGULATIONS CANNOT BE FASHIONED TO CURB CRS BIAS AND EXORBITANT WEALTH TRANSFERS FROM SMALLER TO LARGER CARRIERS, COMPETITION MIGHT BE FOSTERED BY REQUIRING THE MAJOR AIRLINES TO DIVEST THEMSELVES OF CRSs

The anticompetitive problems identified herein are not new. For more than a decade, commentators have perceived three major problems of vertical integration of major airlines and CRS distribution systems:

Competitors have alleged that CRS-parent carriers (1) program their computers to show a strong bias in favor of their airlines, thereby leading agents to book more flights aboard them, (2) charge unreasonably high rates to unaffiliated competitors for participation

³⁹ Michael Levine, Airline Competition in Deregulated Markets: Theory, Firm Structure, and Public Policy, 4 Yale J. on Reg. 393, 461-62 (1987)

in the CRS, and (3) utilize the information acquired from their CRS to gain an unfair competitive advantage.⁴⁰

Frontier Airlines, Inc., respectfully urges the U.S. Department of Transportation to extend the CRS rules beyond their current deadline, to expand them to internet reservations systems, to eliminate the CRS algorithm bias against non-code share connections, to prohibit CRS bias against interline flights through concentrated hub airports, to prohibit CRS bias in favor of jet-to-turboprop vis-à-vis jet-to-jet connections, to require that CRS booking and data fees be reasonably related to costs, and to prohibit CRS vendors from charging fees on reservations booked but not flown.

We are confident that the major airlines will object to the remedies we have proposed on grounds that they would cause government regulation to penetrate too deeply into the realm of private business enterprise. They may claim (as they often do when they are seeking to hold on to their monopoly power in certain sectors of this industry), that proposals to curb anticompetitive activities are a form of “re-regulation.”⁴¹ Frontier believes that regulation should only be imposed where the need for it is compelling. Enhancing competition was the primary purpose of deregulation.

We remind DOT of its findings that the CRS industry is highly concentrated, that computer reservations systems have afforded vertically integrated major airlines the means with which to suppress competition, and that the economies of scale and economic barriers to entry in CRS effectively preclude new competitive entry. DOT has concluded that a CRS is, in effect, an essential facility -- “it cannot be feasibly duplicated by a competitor [and] the competitor’s inability to use it will severely handicap its ability to compete.”⁴² If smaller airlines are not to be severely injured by the anticompetitive tools CRS provide, then regulation of CRSs to preserve competition among airlines is essential.

⁴⁰ Paul Dempsey, *Antitrust Law & Policy In Transportation: Monopoly Is The Name of the Game*, 21 Ga. L. Rev. 505, 596 (1987).

⁴¹ See e.g., Testimony of UAL President John Edwardson Before U.S. Senate Aviation Subcommittee (May 13, 1997).

⁴² 57 Fed. Reg. 43,790 (Sept. 22, 1992).

However, if the major airlines are successful in convincing DOT that expanding its regulatory focus would be undesirable, then a simpler remedy to these anticompetitive problems, one requiring no further oversight or regulation, is available. It was suggested by deregulation architect Michael Levine:

[The value of CRSs] to airline owners . . . is principally a product of their ability to distort choices, either by distorting information or by facilitating the distortion of incentives through the exploitation of principal-agent effects involving travel agents. . . .

The CAB, and now the DOT, have already attempted to regulate these systems. While the regulations may have improved the displays, it would take far more intrusive regulation to make the systems unbiased sources of information and to avoid their use to distort passenger choices. . . .

A good case could be made for the proposition that *the method of resolving the issue with the least potential for damage through misplaced government intervention is simply to require divestiture of the CRSs by the airlines* Requiring airlines to divest themselves of CRSs would also impede somewhat their ability to monitor travel agent incentive programs and, to a much lesser extent, frequent flyer programs.⁴³

Deregulation architect (now U.S. Supreme Court Justice) Stephen Breyer reached the same conclusion:

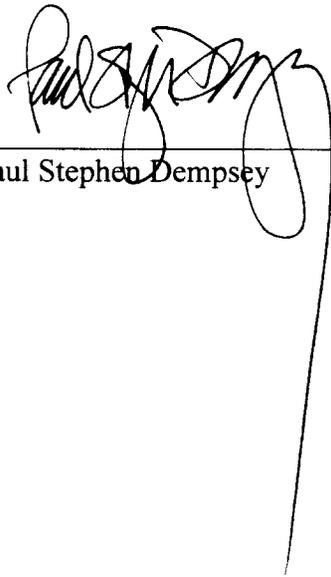
The CRS-owning airlines have by now presumably made considerable profit from their investment in CRS's. The systems are well enough developed so that a sale would likely reward them with the capitalized value of potential future profit. Further, there is some antitrust precedent that suggests that an initially procompetitive venture might, after achieving its procompetitive purposes, become anticompetitive; at that later time, more drastic remedies may become appropriate. Finally, the airlines were regulated when they entered the CRS business. American and United, the largest CRS owners, were also the largest regulated carriers. One might ask to what extent such regulated investment is entitled to a more than reasonable return. Is it then more fair (or less unfair) to force divestiture upon such a firm once it has earned a generous profit on its investment if (1) the anticompetitive risks are significant, (2) the

⁴³ Michael Levine, Airline Competition in Deregulated Markets: Theory, Firm Structure, and Public Policy, 4 Yale J. on Reg. 393, 488-89 (1987) [citations omitted and emphasis supplied].

other economic justification for integration seem relatively weak, or
(3) the government finds it difficult to regulate effects alone?⁴⁴

Frontier Airlines does not advocate CRS divestiture as a remedy if the other remedies suggested herein are adopted to alleviate the more pernicious anticompetitive activities of CRS vendors which advance the economic interests of their megacarryer owners. Consumers deserve protection against deceptive and fraudulent manipulation of information sources. Competitors deserve protection against predatory acts designed to destroy them, and regressive wealth transfers from the weaker to the stronger firms. Monopoly abuse is antithetical to the public interest.

Respectfully submitted,



Paul Stephen Dempsey



Arthur T. Voss

⁴⁴ Stephen Breyer, Anticipating Antitrust's Centennial: Antitrust, Deregulation, and the Newly Liberated Marketplace, 75 Calif. L. Rev. 1005, 1038 (1987) [citations omitted].



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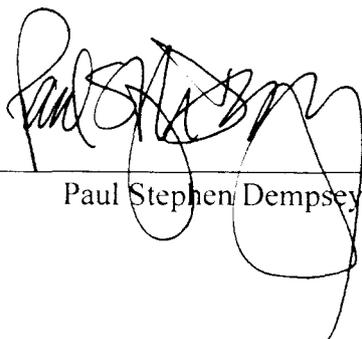
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