United States General Accounting Office 130150

GAO

Report to Congressional Requesters

May 1986

AIRLINE COMPETITION

Impact of Computerized Reservation Systems

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GAO/RCED-86-74

035730

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United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-223042

May 9, 1986

The Honorable Nancy L. Kassebaum
Chairman, Subcommittee on Aviation
Committee on Commerce, Science,
and Transportation
United States Senate

The Honorable Norman Y. Mineta, Chairman
The Honorable John P. Hammerschmidt,
Ranking Minority Member
Subcommittee on Aviation
Committee on Public Works and
Transportation
House of Representatives

In your letter of July 30, 1985, and in subsequent meetings with our staff, you asked that we review certain aspects of the effects of airline-owned computerized reservations systems (CRSs) on competition in the airline industry. Specifically, we focused our review on

- conflicting studies on the question of the profitability of the CRSs owned by United and American Airlines and
- the Department of Justice's December 1985 report on the structure and performance of the market for computerized reservation systems.

Our objective was to determine whether these studies could be used to clarify the continuing debate about the profitability and competitiveness of the current CRS market.

In summary, we found that neither the profitability studies nor the Justice market study resolves the key issues concerning the market power of airline-owned CRSs. We found that the CRSs are more profitable than estimated by United and American, primarily because their analyses did not include revenues from additional ticket sales due to their ownership of CRSs (called incremental revenues). However, a study sponsored by non-CRS-owning airlines probably overstates profits, and we believe the available data are insufficient for us to develop our own profitability estimates. We agree with much of the Justice report's analysis and conclusions. Justice expresses concern about the market power of airline-owned CRSs and the potential for anticompetitive practices. However, Justice does not propose any specific actions to promote competition. We believe action is needed by the Department of Transportation (DOT),

which is now charged with preserving airline competition, to resolve lingering issues about (1) the extent of incremental revenues being obtained by airlines that own CRSs and (2) whether CRS booking fees are higher than appropriate because of the market power of existing CRSs.

Background

Deregulation of the airline industry, which culminated in the 1984 sunset of the Civil Aeronautics Board (CAB), has led to more aggressive competition in an industry no longer constrained by the need to get approval from the CAB for new rates and routes. Responsibility for protecting competition in the newly deregulated industry was transferred to DOT in January 1985. DOT inherited the responsibility to ensure that aggressive competition did not lead to anticompetitive behavior, unreasonable industry concentration, or excessive market domination.

The more intense competition under deregulation has resulted in a dramatic increase in the number of fares in effect, which in turn has contributed to a growing reliance on travel agents as marketers of airline tickets. The travel agent industry has grown from about 12,000 agent locations in 1976 to 27,000 in 1985. Both the proliferation of fares and the growth of travel agents have contributed to the growing importance of computerized reservation systems.

In 1983 (the most recent year for which data are available) about 60 percent of airline flights were booked by travel agents, and nearly 90 percent of all agency-booked airline revenues came from automated agencies. United and American Airlines were the first to successfully market CRSs that could be used by travel agents to book flights directly, and their systems together accounted for 70 percent of the domestic revenues booked by travel agents nationwide. The four other CRSs are owned by Eastern Airlines, Delta Airlines, TWA, and McDonnell-Douglas. In many metropolitan markets, especially smaller ones, one CRS alone, usually United's Apollo or American's Sabre, accounts for over 70 percent of the revenues booked.

Most airlines rely heavily on travel agents for ticket sales and thus are dependent upon computerized reservations systems. A group of 11 airlines has alleged that United and American have unfairly taken advantage of their positions as the two largest CRS-owning airlines. According to the complaining carriers, ownership of a CRS has been highly profitable for United and American, especially when all sources of income derived from the CRS are taken into account. They charge that excessive profits from CRS operations are strong evidence that the CRS owners are

exercising monopoly power. On the other hand, United and American argue that the returns on their investments in Apollo and Sabre are in line with earnings in other industries from investments entailing similar risks. Also, United and American believe that their profits are a justifiable return on their innovation and entrepreneurship.

The implications of monopolistic abuses in the market for CRS services can be serious for competition in air travel markets. Before the CAB issued rules governing airline-owned CRSs in 1984, the CRSs provided screen displays that could be strongly biased in favor of their airline owners. The biased screens placed the CRS owners' flights first in the listings of available departures, and thereby caused travel agents to book more passengers on the flights of CRS-owning airlines at the expense of other carriers.

In addition to biased screens, the disadvantaged airlines pointed to a number of other unfair practices (such as charging unreasonably high rates to competitors for participation in CRSs, and using information gained from a CRS for unfair competitive advantage) that caused them to lose customers to the CRS-owning carriers. The allegations were serious enough to lead to investigations by CAB and the Department of Justice that subsequently led CAB to promulgate rules governing the conduct of CRS owners that went into effect in November 1984. These rules require, among other things, that display screens be unbiased; that CRS owners share, at a reasonable cost, any data generated by the system; and that booking fees, the amounts paid by other airlines for having their flights booked on a CRS, be nondiscriminatory.

The rules requiring the elimination of screen bias and other unfair practices reduced incremental revenues for the CRS-owning airlines. To comply with the rules, United and American each established uniform booking fees for all users at levels which meant overall increases, by as much as 264 percent and 500 percent for Apollo and Sabre, respectively, although some airlines had fees reduced. The substantial increase in fees caused several of the CRS-using airlines to charge that United and American were continuing to abuse their market power. Moreover, the CRS-using airlines alleged that unfair practices persist despite the CAB rules. Among other charges, the airlines claimed continued screen bias and unequal access to marketing data. As a result, United and American were alleged to be continuing to earn excessive profits from their ownership of CRSs.

In March 1985 the Subcommittee on Aviation, Senate Committee on Commerce, Science, and Transportation, held hearings on these allegations to determine if remedies are needed. United and American presented estimates of the profitability of their CRSs and argued that they earned profits consistent with those earned by investments elsewhere entailing similar risks. However, Simat, Hellison and Eichner (SH&E), a consulting firm hired by 11 airlines who compete with United and American, issued a report shortly thereafter asserting that United and American had seriously understated CRS profitability by omitting incremental revenues, the added ticket sales by travel agents using their systems, and by overstating their costs. A discussion of possible sources of incremental revenues is included on pages 10 and 11 below. SH&E produced alternative estimates of CRS profitability substantially higher than those of United and American.

Objectives, Scope, and Methodology

Our initial objective was to assess the reasonableness of the conflicting estimates of the profitability of the computerized reservation systems owned by United and American Airlines. Our assessment was based on a review of their analytical methods, theories, and assumptions used in preparing these estimates, and was intended to determine if there were any grounds for allegations that United and American are earning excessive profits from their ownership of CRSs. In the course of our review, we examined a number of studies and reports, including the testimony of United and American Airlines at Senate hearings, the critique of this testimony by SH&E, additional submissions by United and American in rebuttal of the critique, and certain documents produced during the CAB rule-making proceeding. We also spoke with representatives of two associations of travel agents.

During the course of our review, the Department of Justice issued its report on the CRS market. As agreed with your offices, we expanded the scope of our review to include a review of the Justice report.

Also as agreed, we limited our review to the information contained in the documents listed above. We did not contact officials from either United, American, or CRS-using airlines, nor, as agreed, did we attempt to verify the airlines' cost and revenue data or their cost allocation procedures. We also did not review the enforcement of the rules by the Department of Transportation.

The Conflicting Estimates of CRS Profitability

In March 1985 United presented testimony before the Senate Subcommittee on Aviation in which it estimated its internal rate of return (IRR)[1] on its Apollo system to be 5 percent over the period 1975-87. At the same time, American testified its Sabre system IRR to be 18.8 percent over the period 1976-90. SH&E examined United's and American's claims of normal profits and concluded that United's and American's IRRs were 160.5 percent and 65.7 percent, respectively. SH&E stated that United and American had dramatically underestimated their profitability because they

- did not include incremental revenues,
- did not include savings on their own reservation costs,
- included expenditures in their profitability calculations that benefited only the CRS vendors and not the users, and
- did not include an end-of-period value in the calculation of the IRR for the systems.

SH&E also used net income data as the basis of its IRR estimates, which resulted in a higher IRR than the cash flow data used by United and American. Our views together with those of United, American, and SH&E on these issues are outlined in table 1 and are discussed below.

Table 1: Summary of Views on Components of CRS Profitability

	United Airlines	American Airlines	Simat, Hellison & Eichner	GAO
Incremental revenues	Exclude	Exclude	Include	Include
Reservation cost savings	Include	Include	Include[a]	Include
Costs benefiting vendor only	Include	Include	Exclude	Include
End-of-period value	Include[b]	Exclude	Include	Include
Cash flow vs. net income	Cash flow	Cash flow	Net income	Cash flow

[a]SH&E added an explicit estimate of the reservation cost savings without deducting United's and American's booking fees.

[b]Based on book value; GAO concurs with SH&E's use of market value.

Incremental Revenues

SH&E estimates that Apollo and Sabre will generate profits from incremental revenues of $648.6 million and $547.7 million, respectively, for their airline owners over the 1978-90 period. They base this estimate on

[1]Internal rate of return (IRR) is the discount rate that makes the net present value of the cash flows of revenues and costs over the life of a project equal to zero. The residual value of a project's assets is a future cash inflow. The size of the IRR indicates the attractiveness of an investment opportunity. It is a standard measure of the profitability of projects that incur most costs early in the project's life and then have a long payback period.

a 1983 analysis for United which concluded that incremental revenues gained by automating a travel agent with Apollo, as opposed to a competing airline-owned CRS, would increase airline revenues for United by 13 percent. SH&E assumes that the CAB rule eliminates one-half of this benefit, and it further assumes that 40 percent of incremental revenues accrue to after-tax profits (the extra passengers add little to costs but raise load factors and profits).

Neither United nor American believes that incremental revenues should be included in calculating the profitability of a CRS. United further criticizes the SH&E study, arguing that all incremental revenues for Apollo were generated before the CRS rule. Thus, United estimates that profits from these revenues totaled $41.5 million over the period 1978-84. United also assumes that only 10 percent, rather than 40 percent, of incremental revenues accrue to profits. Finally, United notes that the 13-percent incremental revenue estimate cited by SH&E includes both the added ticket sales from automating an agent with Apollo and the revenues retained by not losing that agent to the CRS of a competing airline. United believes that only the added ticket sales should be included and so reduces incremental revenues to 6.5 percent of travel agent sales in the pre-rule period.

We agree with SH&E that incremental revenues should be included in calculating CRS profitability because the profitability of an asset should be based on a full accounting of all its revenues and expenditures. However, we believe there is insufficient evidence to derive an estimate of the magnitude of incremental revenues or to assess the reasonableness of the conflicting estimates. While the United estimates of incremental revenues before the CRS rule went into effect are based on selected actual booking data, both SH&E's and United's estimates for the post-rule period are based on arbitrary adjustments from these pre-rule calculations. In addition, we concur with United's conclusion that SH&E, in its profitability estimates, double-counted incremental revenues by selecting the wrong base.[2]

Incremental revenues account for the largest share of the difference between the IRR estimates of SH&E and those of United and American.

[2]SH&E used total travel agent sales revenues as the base for calculating incremental revenues. However, we concur with United that this figure already contained incremental revenues, so to add 13 percent more to this figure results in double-counting this income.

Reservation Cost Savings

SH&E stated that United and American did not account for the savings in their own reservation costs which their ownership of a CRS system provides for them. However, we found that the CRS owners do include the savings on their own systems in their profitability calculations by including an imputed charge for their own use of their systems. While this method may not reflect all the savings to the CRS-owning airline, we believe that United and American did not disregard this benefit. Further, SH&E, when adding its own direct estimate of the airlines' reservation cost savings, neglected to subtract the imputed fees included by the airlines.

Costs Benefiting Vendor Only

As SH&E stated, United and American included in their profitability calculations certain costs, such as those associated with signing up new agents, which benefited only the owners. However, we found that these costs appear to be related to CRS operations, and therefore the allocation of these costs in the way chosen by United and American is not inappropriate. To be consistent, if the additional revenues resulting from these expenditures are counted in calculating profits (as SH&E does), then the expenditures should be deducted from those additional revenues.

End-of-Period Value

SH&E stated that United and American omitted end-of-period values in calculating the IRRs for their CRSs. However, United claims that it did include an end-of-period value of $145 million in its calculation of the IRR. This is the remaining book value of its CRS as of December 31, 1987. SH&E believes that end-of-period value should be based on the market value of the system which it calculates as 5 times earnings in the last year of the IRR period. Using SH&E's approach, United reestimates end-of-period value to be $190 million. American did not include an end-of-period value in its calculation. SH&E believes, and we agree, that the end-of-period value should be based on the market value of the system, including the present value of any future incremental revenues that the system can generate. Market value better reflects the remaining economic life of a productive asset. Book value, on the other hand, depends on the depreciation schedules used, and these are often chosen to maximize tax benefits and may have little relationship to what an owner could receive from selling an asset.

SH&E estimates the end-of-period market value for United's CRS to be $635 million. We do not have sufficient data to determine if this estimate is correct. Most of the difference between the market value and the

book value estimates is due to the impact on market value of the incremental revenues that SH&E anticipates will persist. SH&E's market value estimate is significantly higher because it assumes that the rule eliminates only one-half of incremental revenues and that sources other than overt screen bias will continue to generate important additional income for CRS owners.

Net-Income Versus Cash-Flow Basis

The estimates of IRR by SH&E and by United and American are also not comparable because United and American used cash flow as the basis of their calculations, while SH&E used net income. We believe, on the basis of accounting principles, that the cash-flow approach is more appropriate. While cash flow is the more generally used basis for performing such calculations, SH&E used net income because the data to perform the calculation on a cash-flow basis were not available for United. In the case of American, for which both a cash-flow and a net-income calculation can be performed, the net-income approach produces an IRR of 65.7 percent while the cash-flow approach produces an IRR of 45.7 percent.

The Department of Justice Study

In June 1985, the Senate Committee on Appropriations, in its report on transportation appropriations for fiscal year 1986, directed the Department of Justice to prepare a report on competitive practices of airlines that own CRSs. Justice issued this report in December 1985. It discusses the market structure of the CRS industry, the prospects for new entry into the market, the problems of display bias and unequal access to marketing information (which may generate incremental revenues), and booking fees. The report also discusses the desirability of possible remedies for market power in the industry.

Market Structure

The Department of Justice report concludes that the market for CRS services is, and will remain in the foreseeable future, highly concentrated, with United and American continuing to control about 70 percent of all domestic revenue booked by travel agents. Justice notes that there has been no new entry since 1983 and no significant change in the market shares of the six CRS vendors. Justice also observes that even CRS vendors with modest market shares can have significant market power[3] with respect to airlines. Since most airlines rely heavily on travel agents

[3]Market power is the ability of a seller to have a perceptible influence over the price of a good or service.

for ticket sales, Justice believes that they must be willing to allow booking through any CRS used by a significant fraction of travel agents.

Overall, we concur with the Justice Department's analysis of market structure and conclude that both United and American (as well as, in some markets, other CRS vendors) have, and are likely to continue to possess, significant market power.

Entry Into the CRS Market

The Justice Department believes that it is highly unlikely that a wholly new CRS system will be developed and introduced into the CRS market. Justice cites several barriers to wholly new entry, including high costs of computer equipment and software development as well as the "liquidated damages clauses" in CRS contracts. These clauses require that, before a travel agency cancels its contract with United or American, the agent must pay 80 percent of the fees which the vendor would have received over the remaining life of the contract. If entry occurs at all, Justice anticipates that it will most likely be a buyout of an existing CRS by a group of other airlines intending to create a neutral booking system. Justice believes that such a buyout could strengthen competition if the new owners invested additional resources in the CRS and expanded its market share. Justice notes, however, that expanding an existing CRS market share is becoming less feasible because most travel agents have already been automated and have signed long-term contracts with existing CRS vendors. Despite its lack of confidence in the likelihood of entry, Justice believes that the buyout of an existing CRS to create a neutral system offers promise for increased competition in the CRS market and concludes that no further action to address concerns about CRS market power is needed at this time. However, Justice did suggest that DOT may wish to consider, at some time in the future, modification of the CRS rules to promote new entry.

We agree with Justice that wholly new entry is highly unlikely because of the barriers to entry cited above. We are less sanguine than Justice about the buyout of an existing system offering a significant solution to the problem of market power. While a new entrant might reduce the market share of United and American, the need for airlines to have access to all CRS vendors whose systems are used by a non-trivial number of travel agents would continue to give the existing CRS vendors market power even if a new entrant eroded their share of travel agents. Substantial erosion of market share is unlikely in any case because of the liquidated damages that might be paid when a travel agent switches to a new CRS. Therefore, we do not believe that new entry, even in the

unlikely event that it should occur, would have any significant effect on the captive relationship between the existing CRS owners and the airlines that need access to travel agents using the owners' systems.

Incremental Revenues

The Justice report discusses several characteristics of the CRS market that might generate incremental revenues in spite of the CRS rules, including

- the potential for residual screen biases, such as limitations on listings of connecting flights and undue preference for on-line flights (i.e., on the same airline);
- the CRS owners' superior access to useful marketing data on competing carriers and travel agent bookings; and
- the greater demand by travel agents for the CRS owner's last seat availability data and boarding passes for the CRS owner's flights.

The Justice report does not comment on other possible sources of incremental revenues, such as the so-called halo effect—leading the travel agent to give an automatic preference to the carrier whose CRS the agent uses—and possible rule violations such as misloading other airlines' fare and schedule data into the system.

Justice cites different types of complaints it has received about continuing display screen bias and unfair access to CRS-generated marketing data. The Department believes that complaints about biased display screens indicate that there is a continuing potential for bias, which we believe could generate incremental revenues. However, Justice concludes that these forms of bias are covered by the current rules and, therefore, that no further steps need to be taken until sufficient time has passed to judge the rules' effectiveness. Similarly, with regard to access to marketing data, Justice concludes that this problem is adequately covered by the CRS rules and, in any case, is probably not a serious threat to competition. As with display screen bias, Justice concludes that possible problems of unfair access to marketing data do not warrant further regulatory action at this time.

The Justice Department report concludes that CRS systems owned by airlines may continue to have an advantage in the CRS industry because airline-owned CRSs offer the travel agent access to the most comprehensive data on seats available on the vendor's flights. Airline-owned CRSs also offer the travel agent such enhancements as availability of boarding passes on the vendor's flights. These benefits encourage travel

agents to book flights on the CRS vendor's airline and generate incremental revenues. While Justice believes that even if this technology can be developed to eliminate these advantages, the airlines owning CRSs may not implement the new technology.

We agree with Justice that the ownership of a CRS by an airline confers several marketing advantages over its competition which we believe represent plausible sources for persistent incremental revenues. Residual screen bias can cause travel agents to favor the flights of CRS owners; CRS-owning airlines can use their superior access to marketing data to fine-tune their marketing strategies; and superior seat availability data increases the likelihood of agents subscribing to an airline-owned CRS and of booking flights on the CRS-owning airlines. These advantages, combined with the "halo effect" and the potential for purposeful misloading of competitors' flight data, suggest that there are a number of sources of persistent incremental revenues and that these revenues could be substantial.

These incremental revenues to the CRS-owning airlines raise concerns about the effectiveness of competition in the airline industry because they are not a reward for providing the traveling public with better air service, but accrue as a result of the airline's simultaneous ownership of the airline and the CRS. These revenue gains by the CRS owners represent less traffic and less revenues for their competitors. If these revenues are substantial, they could weaken the ability of rival airlines to compete effectively.

Booking Fees

Justice is concerned that the CRS-owning airlines might use their market power over other carriers to charge excessive fees for booking flights through their systems.[4] Justice says it is unclear whether current booking fees are substantially above costs, but if they are, they could have significant anticompetitive effects when paid by one airline to a competing airline. They could raise the costs of the CRS-using airline to the point that it could not compete effectively in some markets with the CRS-owning airline.

Justice concludes that it is unable to determine whether current booking fees are excessive because of methodological uncertainties in calculating

[4]The Justice Department report refers to these fees as "access fees."

the costs that the booking fees might reasonably cover and the uncertainty about what rate of profit would be considered "excessive." Justice did not recommend any course of action to resolve these uncertainties.

We agree with Justice that CRS vendors have market power that could lead to booking fees that substantially exceed the costs of providing the service. Airlines are likely to be willing to pay substantial fees to assure that their flights can be booked by travel agents using any CRS system. We further agree that attempts to derive cost-based booking fees would be subject to criticism on methodological grounds. Nevertheless, we believe that further study of the allocation of costs among airlines and travel agents is feasible and could be useful for evaluating whether airline-owned CRSs are placing an unfair burden on other airlines. In contrast to the limited discretion of airlines in paying booking fees, travel agents, the primary users of CRS systems, can choose among CRS vendors and, notwithstanding liquidated damages, have the ability to negotiate subscription fees and secure generally favorable terms. As a result, booking fees paid by airlines could be covering a disproportionate share of costs of the CRS operation, relative to those charges that travel agents pay. For example, in early 1985, United forecasted that revenues from booking fees would be approximately double revenues from travel agent subscriptions. While there may be no hard and fast rules governing "proper" cost allocation, we believe that inquiry along these lines could better define the competitive impacts of different CRS pricing strategies.

Conclusions

We conclude that the profitability of United's and American's CRSs, as measured by the IRR, is probably higher than United and American estimated, because pre-rule incremental revenues should be included in the computation of the IRR and because, as the Justice Department report indicates, there continue to be several plausible sources of incremental revenues following implementation of the CRS rules. However, we also conclude that two elements of SH&E's estimates of CRS profitability are probably too high, namely their adjustment for reservation cost savings and their adjustment for costs that benefit only vendors. We also believe that SH&E's use of net income as a basis for its estimate may have overstated the IRR. The projections of incremental revenues made by SH&E and the CRS-owning airlines were based on data from the period before the CRS rules became effective in November 1984. We do not believe these data provide a reliable basis for estimating the size of incremental revenues since the rules went into effect. Because of the poor quality of

the data on incremental revenues and the potential significance of incremental revenue in estimating profitability, we believe the available data are insufficient for us to develop our own profitability estimates.

We are in substantial concurrence with many of the conclusions of the Justice report. We generally concur in Justice's analysis of market structure and conclude that both United and American (as well as, in some markets, other CRS vendors) have, and are likely to retain, significant market power. We also agree with Justice's analysis that new entry into the CRS market is unlikely.

Along with Justice we agree that there is a reasonable probability that some market advantages will continue to accrue to the CRS-owning airlines in the post-rule era, but that the CRS rules may adequately address many of the concerns about continued unfair practices alleged by CRS-using airlines. Finally, we agree with Justice that it is unclear whether current booking fees are substantially above costs and harm competition in air travel markets.

However, we are less hopeful than Justice that the market advantages of United and American may be eroded by new entry in the CRS market. We believe that new entry would lead to increased competition among CRS owners for agent subscribers but would do little to alter the captive relationship between CRS owners and the other airlines. Each airline that relies on travel agents for a significant volume of ticket sales must be willing to pay the booking fees charged by any CRS owner that has signed up a non-trivial portion of the travel agents. Airlines that refuse to pay risk forfeiting substantial revenues.

In summary, we believe that substantial unanswered questions remain about the effectiveness of the CRS rules in controlling market power. The key issues that need to be resolved are (1) the extent to which airline-owned CRSs continue to generate incremental revenue even after the CAB rules were implemented, (2) whether airline-owned CRSs are using their market power to charge excessive booking fees, and (3) whether action is needed by DOT or the Congress to better assure adequate competition in the CRS market and ultimately in the airline industry as a whole.

Our analysis of the CRS profitability studies and the Justice Department report indicate that DOT needs to exercise its oversight responsibility to deal with unresolved issues on the persistence and size of incremental revenues and the effects of booking fees on competition.

To deal with incremental revenue, DOT should identify the existence, if any, of incremental revenues and quantify, to the extent possible, the significance of those revenues. This study is important because incremental revenues are the single most significant factor in determining the true profitability of airline-owned CRSs. In addition, incremental revenues, to the extent they continue to be significant, would offer direct evidence of problems of market power and anticompetitive conduct. The existence of incremental revenues would imply that travel agents are recommending airlines for their customers not on the basis of the price and service quality offered by various airlines, but rather of which airline happens to own the CRS used by the travel agent. To the extent that CRS owners gain incremental revenues, they are rewarded for their ownership of CRSs, not for offering the best price and service options to airline passengers.

To address the booking fees issues, DOT should examine the booking fees charged by airline-owned CRSs to determine whether these fees are being used to reduce other airlines' competitiveness. This study would focus on whether booking fees are being used to collect revenue that is out of line with the costs of providing booking services and is disproportionate to revenues directly generated for the CRSs by travel agent subscription fees.

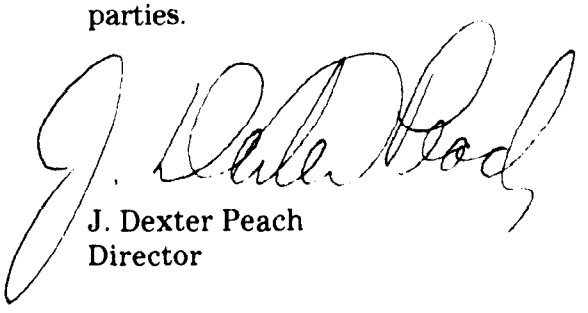
DOT is the appropriate organization to conduct these studies because it has assumed responsibility for monitoring compliance with the CAB rules on airline-owned CRSs and for helping assure the competitive health of the airline industry in the post-deregulation era. These analyses are needed to assess the impact of the CAB rules and to determine whether additional actions are needed to strengthen or enforce the rules.

Recommendation

In line with DOT's responsibility to evaluate the effectiveness of the existing CRS rules, we recommend that the Secretary of Transportation undertake the two studies discussed above regarding the persistence of incremental revenues and the effect of booking fees on competition, and take additional action, if warranted by the results of the studies, to enforce compliance with or to strengthen the CRS rules. The Secretary should report to the concerned committees of the Congress on the results of the studies and any actions planned. To assess the possible persistence and size of incremental revenues, DOT should study the behavior of individual travel agents who subscribe to different CRS vendors in the post-rule period. To assess the anticompetitive effects of booking fees, DOT should examine the potential anticompetitive effects of these fees in

specific types of air travel markets. The study should also examine the likely impacts of possible remedies to the anticompetitive effects of booking fees.

While we did not request the Department of Transportation or the Department of Justice to review and comment officially on a draft of this report, we obtained the views of directly responsible officials during the course of our work and have incorporated their views in the report where appropriate. We conducted our review in accordance with generally accepted government auditing standards. As agreed with your offices, we plan no further distribution of this report until 14 days after the date of this letter, unless you publicly announce its contents earlier. At that time we will send copies to other interested committees, the Attorney General, the Secretary of Transportation, and other interested parties.



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