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PAN AMERICAN TO UNITED:
THE PACIFIC DIVISION TRANSFER CASE

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Abstract

United Airlines recent acquisition of Pan American's Pacific Division will greatly increase concentration, especially in U.S. - Japan service -- an important market with high entry barriers. Price competition will disappear. United will dominate the market by biased use of its computer reservation system and by combining its own giant domestic feeder system with Pan American's Tokyo hub, both legacies of regulation. Without the acquisition, the resulting efficiencies could have been achieved in a less restrictive way with three carriers competing to provide efficient service. The Department of Transportation took a very narrow view of its post-deregulation responsibilities in approving the acquisition.

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1. Introduction

The success of airline deregulation depends on the substitution of competition for direct regulation. That substitution in turn requires serious antitrust enforcement, particularly in the transition from a regulated to a free environment. Without such enforcement, there is a danger that airlines that were specially favored during the regulatory era will be able to combine and parlay those advantages into an avoidance of market discipline.

In April, 1985, United Airlines and Pan American World Airways announced an agreement whereby United would acquire Pan American's International Pacific Division. United was to pay Pan American $750 million, while Pan American was to transfer to United its underlying Pacific route authority, along with aircraft and other assets. An agreement involving employment of Pan American employees was also reached. The two airlines applied to the Department of Transportation for approval pursuant to sections 408 and 401(h) of the Federal Aviation Act of 1958, as amended, and, after an evidentiary hearing before an Administrative Law Judge (who, however, wrote no opinion), Secretary of Transportation Elizabeth Dole approved the transaction at the end of October.

The issues involved in the proceeding fell into two parts. One, with which this paper will not be concerned, had to do with the various labor provisions of the agreement. The second, the subject of this paper, dealt with the possible effects of the acquisition on competition. With the demise of the Civil Aeronautics Board (CAB), the task of dealing with that issue devolved on the Department of Transportation (DOT), and this was the first major case to come before it. The competitive issues were considered in testimony offered by the two applicants, by the Department of Justice, and by American, Eastern, and Northwest Airlines. I was a witness for Northwest, and this paper is largely based on my testimony.

Merger and acquisition cases are remarkable even among antitrust cases for the extent to which they tend to focus on issues of market definition and the measurement of concentration. That focus is an unfortunate one. While market definition and concentration measurement are not irrelevant, they at best provide a crude guide to the competitive issues involved. In particular, market definition is only a way of organizing the data, while too little is known about oligopoly behavior for measures of concentration such as the Hirschman-Herfindahl Index (HHI) to give more than a very rough indication of the likelihood of non-competitive behavior. Consideration of such matters is entirely appropriate as a screening device, as in the Department of Justice's Merger Guidelines. The danger in actual proceedings is that discussion will center on such threshold issues to the exclusion of more serious and detailed analysis. This is particularly likely in the case of the HHI where the natural desire of attorneys to find a bright line leads a numerical index to be taken over-seriously.

The *Pacific Division Transfer Case* was no exception. Indeed, the applicants, correctly foreseeing that the Department of Justice (and possibly others) would rely heavily on presentations involving HHIs, were ready with obviously pre-prepared rebuttal testimony directed solely at the question of whether anything can be concluded from examination of raw HHI statistics in international airline "markets".[1] As a result, the debate and, especially, Secretary Dole's opinion, was misdirected, giving relatively little attention to the interesting and substantive competitive issues.

Nevertheless, market definition and concentration measurement are important threshold issues to discuss, and I begin with them.

2. Market Definition

Market definition is only the starting point for anti-trust analysis, defining the universe of discourse within which that analysis will take place. Hence, to be useful, a proposed market definition must include all those firms, products, and services that are likely to provide substantial constraints on noncompetitive behavior in the proposed market. Such constraints can come either through substitution in demand or through ready substitution in supply (which shades over into ease of entry).[2]

In previous cases involving post-deregulation airline mergers, the CAB wisely declined to look only at concentration statistics constructed for narrowly defined markets consisting of individual city pairs. The CAB reasoned correctly that the possibility of entry by other carriers into serving a particular city pair meant that a wider market definition was called for, even though it was not always clear just what that wider definition should be.[3]

The *Pacific Division Transfer Case* presents no such market definition problems. First, the message of the concentration statistics (whatever that is worth) is essentially the same for any reasonable market definition. Second (and far more important), air transportation in the Pacific does not take place in a deregulated environment, and problems of entry are severe indeed.

Table 1 shows that the largest segment of U.S.-Far East air travel is between the U.S. mainland and the Far East. The Hawaii-Far East and Guam-Far East segments predominantly consist of low-fare, Japan-originating tour group travel. Table 2 shows these segments (as opposed to Japan-mainland travel) to be composed primarily of foreign nationals travelling largely by foreign flag carriers. This suggests treating Mainland U.S.-Far East travel as a separate market, a suggestion reinforced by the fact that most of the passengers involved prefer non-stop routings. Trip routings via Honolulu to Japan, for example, add approximately 1000 miles and 4 hours to what would otherwise be a 5200 mile, 10 hour non-stop trip. In what follows, I concentrate on Mainland U.S.-Far East air travel.[4]

[TABLES 1 AND 2 HERE]

Should one be interested in a narrower market definition than this? So far as the U.S. part of Mainland-Far East air travel is concerned, the answer is negative. Surveys of U.S. resident air travelers going to the Far East show that only about

32 percent of them live in one of the gateway cities (Chicago, Los Angeles, New York, San Francisco, and Seattle).[5] Even after adjusting for the fact that travelers residing near but not in a gateway city also use that city's airport as their home airport, it is clear that considerably more than half of all U.S. residents travelling to the Far East do not begin and end their travel at gateways. Such travellers are likely to be indifferent as to which gateway they pass through, making their choice on the basis of schedule convenience and price.[6] Similarly, many passengers originating in the Orient are unlikely to have strong preferences as to the choice of an American gateway through which to begin or end their visits. These facts suggest that a market definition involving only single American cities would be too narrow. They also show that Pan American and United competed with each other before the acquisition despite the fact that they served different gateways.[7]

A similar statement does not apply to market definitions concentrating on particular Asian cities, however. In particular, for reasons of geography, the importance of Japan as a tourist attraction, and the overwhelming importance of its economy in that of Asia, the Japanese airports, particularly Tokyo, play a vital special role in trans-Pacific travel.

Indeed, not only does more than half of trans-Pacific travel originate or terminate in Japan (Table 1), but also much of the remaining traffic passes through Tokyo. While it is possible to compete for such traffic using other hubs (Seoul, for example), the fact that such a large part of the traffic stops, lays over or originates in Tokyo necessarily places the use of such alternatives at a disadvantage. In terms of demand substitutability, the availability of those alternatives places only a weak constraint on the pricing of Japan-U.S mainland travel.

3. Barriers to Entry

Constraints stemming from supply substitutability are also relatively weak, for there are serious barriers to entry into the provision of U.S.-Japan air transportation. Unlike the case in domestic air transportation mergers, where ease of entry after deregulation makes for a wider market definition, we are not here dealing with a deregulated environment.

The U.S.-Japan Civil Aviation Agreement, signed in 1952, is a Bermuda-1 type bilateral agreement presenting a formidable barrier to entry into U.S.-Japan service. As over thirty years of conduct show, neither U.S. or Japanese carriers can freely enter. Indeed, in the last several years, Japan has favored scrapping the existing route description negotiated in the 1952 agreement in favor of an agreement which, among other changes, would limit or do away with the existing valuable "beyond" rights (the right of U.S. carriers to carry traffic beyond Tokyo). The agreement of April 30, 1985, which amends the 1952 agreement to permit a somewhat limited increase in Japan-U.S. service does not provide a corresponding increase in beyond rights Indeed, the Japanese resisted the transfer of Pan American's beyond rights to United, asking for concessions from United States, and only backing down under heavy pressure from the U.S. government.

In addition to the reluctance of the Japanese to permit entry that can provide full-fledged competition, there are also severe limitations on the use of Tokyo's Narita airport (and similar problems at Osaka, Japan's secondary international facility). These include operational restrictions, political, legal, and environmental factors, and limits on terminal parking stands and gates. As a consequence, airlines serving Narita may together provide only 270 movements per day during the winter of 1985-86 (A takeoff and landing constitute two movements.). Operations per hour are also restricted, with only 26 movements per hour permitted between 6:00 A.M. and 8:00 P.M., fewer from 8:00 P.M. to 11:00 P.M., and none at all between 11:00 P.M. and 6:00 A.M.. There are further constraints on the total number of movements in consecutive three hour periods. Particularly because flights to or from the United States must use certain time periods to enable passengers to make sensible connections without arriving or departing at ungodly hours of the night, these time-period constraints are far more binding than the overall daily one. As a result, there is no serious prospect for a sizeable expansion of operations in the near future.

These barriers are high, but they will become even higher as a result of the acquisition. The same factors described later that will give the post-acquisition United an unfair advantage over existing competitors will even more certainly act to restrain further entry. United itself was the airline best positioned to overcome the existing barriers; it is hard to envision any other airline entering in a major way after the acquisition.

The presence of such barriers to entry and, indeed, the fact that Japan-U.S. Mainland traffic can be taken to constitute an important separate market is reflected in the price of the United-Pan American transaction itself. The principal tangible assets being acquired by United from Pan American are aircraft, but these are obsolescent and inefficient. Indeed, a news report about the President of United states:[8]

> "Mr. Ferris of United has conceded that the transaction poses aircraft problems. Mr. Ferris says that `we're not overjoyed about the airplanes United is getting, particularly the L-1011's . . .'."

What United is paying three quarters of a billion dollars for is rather Pan American's route system and rights. In part because United already serves Seoul and Hong Kong, this means the valuable rights to carry traffic beyond Tokyo. Whether the price being paid merely reflects the scarcity rents associated with those rights or whether (as I believe) it also includes United's assessment of the supra-competitive profits to be achieved from the avoidance of price competition in serving Japan, it is clear that Japan-U.S. Mainland air transportation is a sensible market to consider. Certainly, no sensible analysis of the effects of the acquisition on competition in trans-Pacific travel can possibly fail to pay primary attention to Japan-U.S. Mainland service.

4. Market Shares and Concentration

Whether one defines the market as all Mainland-Far East air travel or restricts attention to Japan, the conclusions to be drawn about concentration are the same. The market is already quite concentrated and that the acquisition will increase that concentration significantly.

Table 3 shows pre-acquisition market shares for both the overly-broad U.S. Mainland-Far East market and the narrower U.S. Mainland-Japan market. In either case, the general conclusion is the same. In terms of the Herfindahl-Hirschman Index (HHI), concentration in the provision of U.S. Mainland-Far East service will go from 1782 before the acquisition to 2052 after it. In U.S. Mainland-Japan service, the HHI will go from 2542 to 2812. Either case would certainly cause concern in terms of the Justice Department's Merger Guidelines.[9] In either case an already highly concentrated market will become significantly more concentrated. That conclusion is reinforced by the fact that, as discussed in the Appendix, the non-Japanese foreign flag carriers are unlikely to be able to expand their shares of U.S.-Japan air service to take advantage of supra-competitive prices. Hence the HHI which counts those shares understates the effective degree of concentration and the increase that will be caused by the acquisition.

[TABLE 3 HERE]

5. Existing Price Competition

As already remarked, however, concentration statistics properly treated provide only a general indication of possible problems. We believe that oligopolistic self-restraint (or less tacit forms of collusion) are more likely when numbers are small and concentration high, but we totally lack any precise theory as to the concentration levels involved. Accordingly, reliance on HHI statistics may be suitable for guidelines but cannot avoid the necessity for further, detailed analysis.

The principal reason for concern is, of course, the fear that the increase in concentration brought about by the acquisition will lead to an avoidance of price competition. Since international air fares are heavily regulated (as domestic fares no longer are), the question naturally arises of whether there is any competition to be avoided. It is interesting that the answer in the case of Pacific air travel is affirmative, despite the obvious wish of the Japanese government to regulate. It is particularly interesting to note that United has been especially active in such competition as it has attempted to expand using its Seattle gateway.[10]

The first form that such price competition takes involves the combination of a trans-Pacific and an internal U.S. journey. While the fare between Japan and a U.S. gateway city is subject to international tariff filing requirements, the fare within the U.S. is not. As a result, a U.S. airline, particularly United with its immense domestic route system, can effectively cut the price offered to a Japanese (or other Asian) visitor by offering extremely low prices on the segment of the trip that takes place within the U.S.. Such price cutting even applies to some passengers travelling only to U.S. gateways. A passenger travelling from Tokyo to New York, for example, could take advantage of such price cuts by travelling via Seattle instead of directly.

When United first entered the U.S.-Japan market in April 1983, it offered "Visit U.S.A." (VUSA) fares, available only to its on-line passengers, enabling them to fly on its domestic system for a flat fee. In so doing, United did not merely follow the competition, it offered a pass that significantly undercut the VUSA fares already being offered by other airlines. After the CAB (responding to a complaint by JAL) declared VUSA fares to be international fares subject to Japanese tariff filing requirements, United introduced a different price cut for its on-line passengers. In November 1983 it began offering so-called YROPAC fares involving low "add-ons" for the domestic portion of trans-Pacific travel on United. When, in May 1985, DOT (again responding to a complaint by JAL) held that these fares also must be filed in international tariffs or be discontinued, United was ready with a third version. It introduced so-called COMPO fares allowing international passengers to fly up to four domestic segments for a low add-on price (two hundred dollars for travel within the western United States). In addition, United apparently has arrangements with certain Orient travel agencies permitting them not to remit the COMPO fare add-on collected.

The second form of price competition involves travel agents. Airlines regularly compete on the commissions paid to travel agents. Since such agents book the lion's share of business, particularly for international travel, such competition is quite important. Here again United is particularly well placed. Its control of the Apollo computer reservations system (discussed below) enables it efficiently to monitor and reward agents' bookings in terms of its own share of those bookings. United has actively competed on price using this technique.

Of course, price competition in commissions to travel agents need not always result in lower prices to travellers. Whether it does so depends on the state of competition among travel agents themselves. At least in large cities, however, one would expect increased commissions to be passed on in some form, either as lower prices or as improved service.

In at least one segment of the market, it is clear that higher commissions to travel agents do result in lower prices to the travelling public. This is the so-called "ethnic" market segment where, for example, American travellers of Chinese origin purchase tickets in Chinese neighborhoods. In serving such traffic, it is common for airlines to sell through "consolidators" -- major brokers who sell many tickets. These consolidators are given substantial "commission overrides" which are partly passed on by them to their own customers such as travel agencies located in ethnic neighborhoods. Those agencies in turn pass on part of their commissions to individuals in those neighborhoods who market the tickets to the travelling public. This system of price competition in the ethnic market segment in the U.S. has an even more active parallel abroad where airline tickets can regularly be bought at a discount on the streets of Hong Kong or Taipei.

Thus, before the acquisition, there was substantial price competition. In particular, United, which had a foothold in serving Japan and was particularly well placed to engage in such competition was very active in doing so. It fought to fill its flights between Seattle and Japan and to attract traffic from others. It also invested in a competing hub at Seoul and fought to attract traffic there. Whether such price competition would have eventually permitted United to overcome the barriers to entry into Japan is a close question, and I discuss it later. What is certain, however, is that the acquisition removed much of the motive for engaging in it. With Pan American's Tokyo and other Pacific service added to its immense domestic route system (and with its Apollo computer reservations system discussed below), United can expect to attract a large share of the traffic without competing on price. Indeed, United forecast that its Los Angeles-Tokyo and San Francisco-Tokyo on-board average fares would increase over Pan American's by 14.9% and 13.3%, respectively.[11]

At the same time, Pan American was taken out of the fight. Its Pacific Division was profitable and, indeed, shortly before the acquisition Pan American had announced and published schedules for a major expansion of its Pacific service. The acquisition ended that.

Thus, when one looks behind the concentration statistics, there appears ample reason for concern over the effect of the acquisition on competition.

6. United's Post-Acquisition Advantage

There is more to the matter than this, however. There is no doubt that the post-acquisition United will be a stronger competitor than the pre-acquisition Pan American. In particular, it will provide single-line service between interior points in the United States and points beyond Tokyo -- something Pan American with a very poor domestic route system did not do effectively. This will be a benefit to the travelling public.[12]

Will the provision of that benefit more than offset the loss of price competition? In this connection, it is noteworthy that the acquisition was opposed by Northwest Airlines, the largest U.S. flag carrier in the Pacific as well as by Eastern and American Airlines, both of which hoped to acquire Pacific routes. Where competitors oppose a merger, one is ordinarily led to suspect that they fear a net increase, not a net decrease in competition. If one looks no further, this suggests that competition by single-line service will be worth more to the travelling public than the price competition that would have continued in the absence of the acquisition.

In fact, such a conclusion is quite superficial. There are reasons for believing that the public and United's competitors will both suffer as a result of the acquisition.

a. Apollo. By far the largest part of travel to the Far East is booked through travel agents. Since the middle 1970s, tavel agent bookings have been predominantly made by the use of computer reservations systems (CRSs). Such systems not only provide up-to-date schedule information, they also inform as to seat availability at different fare levels, communicate with airline computers to book reservations, print tickets, and facilitate land arrangements.

With one relatively minor exception, all CRSs are owned by airlines, and the two airlines with the largest domestic route system, American and United, have by far the largest placements of their systems (named, respectively, "Sabre" and "Apollo") with agents.

This is not an accident. In responding to a travel agent's inquiry, not all possible flights and routings can be given equal prominence in the computer display. Generally, there are so many possibilities that they cannot all be displayed at once, and there is a natural tendency for agents to choose from the alternatives on the first screen presented and even from the first line or two on that screen.[13] It is thus a matter of considerable importance to airlines how the software involved chooses the order in which flights are displayed, and there is a great incentive for an airline CRS vendor to favor its own flights. Indeed, the money to be made from so doing is large enough to make it profitable for an airline to offer its CRS to travel agents below cost or even to pay them for taking it.[14]

Both United and American were quick to take advantage of this opportunity, at first providing relatively openly biased displays favoring their own flights. After it became plain that this was happening, this produced two private antitrust suits (still pending) and an investigation by the Deparment of Justice. That investigation in turn led to proceedings before the CAB which, in the fall of 1984, adopted the suggestion of the Justice Department and began regulating the way in which CRS displays are determined.

I use the phrase "began regulating" deliberately, for regulation in this area is likely to be a never-ending task with the vendors always one step ahead of the regulators. For example, in its initial regulations, the CAB required that the primary screen displayed be "unbiased" but permitted a biased secondary screen. United and American took full advantage of this loophole, even providing incentives to travel agencies to lock in the secondary screen so that individual agents had to begin with it rather than the unbiased "primary" one. That practice was abandoned after Congressional hearings in March 1985.

A second, more subtle example involves trans-Pacific travel directly. United's Apollo system (unlike other CRSs) does not list connecting flights where the carrier involved has no authority to carry merely local traffic. This means that Apollo-using agents booking passengers travelling from the U.S. to Osaka or Okinawa cannot discover that there is an easy on-line connection on Northwest in Tokyo. Instead they find connections to JAL. Not surprisingly, many of those connections involve United trans-Pacific flights even though the usual considerations of passenger convenience used in the Apollo algorithm would place the on-line Northwest connection first.[15] There are many other examples of the anticompetitive use of Apollo in the Pacific.[16]

Such examples are only the tip of the potential iceberg. They represent abuses already located but not yet cured by regulation. They illustrate the enormous difficulty (indeed, the impossibility) of curing the CRS problem through regulation. The algorithms used to determine display order are (necessarily) so complex and the opportunities for misuse of them in subtle ways so varied that the effort to regulate is likely to lead to an endless and continual series of hearings with regulation always struggling to catch up.[17]

So far as trans-Pacific service is concerned, United's willingness to use Apollo to divert traffic from its competitors is limited directly to passengers booking in the United States. That is not the end of the story, however, for travel agents in

Japan also use a biased CRS, the JAL controlled JALCOM III. That system, not subject to U.S. regulation, provides a first screen showing only JAL flights. It is conceivable that United could trade JAL special status on Apollo in return for favorable treatment on JALCOM III -- an arrangement not available to United's current American trans-Pacific competitors. (A similar deal has already been struck in the Atlantic between American and Lufthansa.) In this way, United could extend its biased use of Apollo to involve Japan-originating traffic.

Obviously, diversion of traffic through the provision of biased or incomplete information is destructive of competition on the merits. Moreover, even if regulation keeps catching its perpetually moving target, the harm will be done. Because of existing competition, operating margins are thin on trans-Pacific flights, so that relatively little traffic needs to be diverted to United for other airlines to find such service unprofitable.[18] Without a resolution of the difficult CRS problem, United is likely to be able to use Apollo to attain a commanding position in trans-Pacific service while pursuing a high-fare policy that does not merely reflect the additional benefits of its on-line service.

b. The Short-run Legacy of Regulation. Even apart from the CRS problem, however, there are reasons to believe that the potential benefits of the acquisition in providing single-line service will not, in the long run, be passed on to consumers. Those reasons have to do with the impact of the acquisition on the eventual structure of the market for trans-Pacific air travel.

As a result of half a century of airline regulation, both United and Pan American possessed certain advantages over other airlines when deregulation began. United had the largest route system in the United States, while Pan American, often the favored U.S. flag airline, had a large Pacific system, including beyond-Tokyo rights. Had those advantages both been possessed by a single airline, that airline would doubtless have totally dominated Pacific air travel.

That domination did not occur, and other airlines -- Northwest in particular -- could compete because those advantages were not shared. Before the acquisition, United had excellent domestic service but poor service beyond Tokyo. It was striving to develop its Pacific routes. Pan American, on the other hand, had an excellent hub at Tokyo but very poor domestic feeder service expanded from nothing in pre-deregulation days, largely through the acquisition of National Airlines. Competition in the Pacific was provided partly by JAL, the airline of choice for Japanese nationals but without any internal U.S. routes, by other foreign flag carriers to a limited extent (see the Appendix), and, most of all, by Northwest. Northwest, in particular, had moved in the post-deregulation period to build its hub at Tokyo and expand its domestic system, but, by 1985 had not come close to having a domestic feeder service that matched United's.

Had the acquisition not been approved, United would have had to continue to fight to expand its Asian service. At the same time, Northwest would have expanded its domestic route system. If both airlines had been successful, the result in five to ten years time would have been competition by two powerful carriers providing on-line service from points inside the United States to many points in Asia.

Further, without the acquisition, Pan American would have had to do something else with its Pacific Division. As already mentioned, that Division was profitable, and Pan American had already announced plans for expansion of service in the Pacific, so one possibility would have been for it to remain as an active competitor, striving for greater efficiency. To succeed in the long run as a major player, it would have had to continue to expand its domestic operations. Alternatively, it could have sold some or all of the Division to another domestic carrier or carriers. Unless that carrier were American Airlines (acquisition of the Pacific Division by whom would present many of the same problems as acquisition by United), such a sale would be pro-competitive.

Thus, had the acquisition not taken place, the likely long-run result would have involved at least two and probably three American flag carriers providing on-line service on both sides of the Pacific and competing to do so. That competition would have resulted in the benefits of superior on-line service being passed on to the travelling public rather than being retained by the airlines in the form of higher prices. Certainly, price competition would have continued as United, Pan American, and Northwest all fought to gain adequate systems on both sides of the Pacific.

The acquisition changed that picture drastically. It removed Pan American as an active force and, at one stroke, allowed

United to inherit not only its own legacy of regulation but also that of Pan American. This gives it an immense headstart, making it much less likely that Northwest could receive sufficient traffic to grow internally into a second full on-line carrier. As previously noted, it does not take much diversion of traffic on Pacific routes to turn profit into loss.

Similarly, U.S. flag carriers that did not provide U.S.-Asia service before the acquisition are unlikely to impose serious competitive constraints on the post-acquisition United. The April 30, 1985 amendment to the U.S.-Japan bilateral agreement limits the frequency of service and hence the capacity of the carriers newly able to provide trans-Pacific service starting in 1986. Furthermore, the new U. S. carriers will only have rights to Tokyo, not beyond.[19] Had the acquisition not been approved, the new carriers would have fought to expand their service, and the U.S. might well have pressed for beyond rights (perhaps in exchange for parallel concessions to Japanese carriers). Now that United has acquired Pan American's Tokyo hub and beyond rights at a single stroke, however, the pressure of competition from the new carriers who lack such advantages is likely to be relatively low. The Japanese government, having just reluctantly approved the transfer of Pan American's beyond rights to United is likely strongly to resist granting new ones. This will force the new carriers to grow gradually at best, sinking resources into rent-seeking activity and perceiving that United can use its CRS and superior on-line service to discipline them at any time.

Can competition be preserved in the Pacific? The most likely source of such competition remains Northwest, but here the acquisition has set off a predictable (and predicted) chain of consequences. As already discussed, United's post-acquisition advantages are too great for Northwest to continue competing through internal growth. Had it attempted to do so, it would have been forced to retrench in the Pacific, providing very limited service. The alternative (predicted in my testimony) was that Northwest would itself seek a merger partner as a means of quickly acquiring a substantial domestic feed system. That occurred as this paper was being written, Northwest announcing in January 1986 that it had arranged to acquire Republic Airlines. A major reason for that merger is Republic's fleet of short-haul aircraft. It would take several years for Northwest to acquire such a fleet, crucial to the development of a feeder system, by non-merger means. If the Northwest-Republic meger is consummated and Northwest is able to redeploy the acquired aircraft, personnel, and other facilities greatly to expand its route structure, there is at least a chance that Northwest can continue to compete effectively in the Pacific. What other effects on competition the Northwest-Republic acquisition may or may not have is a matter beyond the scope of this paper.

7. The Decision

Such matters are not outside the scope of the Department of Transportation, however. Indeed, one would expect the Department to take a broad view of transportation policy. Quite the contrary was the case, with the Department taking a very fragmented view of its responsibilities. That fragmented view was evident not merely in DOT's refusal to take seriously the prospect that the acquisition would lead to further mergers but, more surprisingly, in the way in which it dealt (or, rather, failed to deal) with the question of United's post-acquisition advantages. In particular, DOT appears never to have seriously considered the question of whether the efficiencies achievable by the acquisition could also be achieved in a way less likely to be destructive of competition.

As discussed above, the first of United's post-acquisition advantages is the possession and use of the Apollo CRS system. Given the fact that the CRS problem remains under review (and litigation), one might have expected DOT to hesitate before expanding its consequences in a major way. This was not the case, Secretary Dole's opinion brushing aside the matter with the comment that it was premature to conclude that the existing CRS rules are inadequate.[20]

The Department took a similarly narrow view of the larger picture. It accepted Pan American's contention that the airline required a substantial financial commitment in order to expand. In so doing, it passed over Pan American's pre-acquisition announcement of increased service.[21] Even if that conclusion were correct, however, it would not follow that the acquisition should have been approved. The Department failed to consider whether the required financial commitment could have been obtained in a way less destructive of competition (sale to an airline not already competing in the Pacific, for example).

The question of United's ability to expand was given a similar treatment. The Department recognized the entry barriers involved and concluded that United would not be able to overcome them unaided, so that substitution of a strong United for a weak Pan American would increase competition.[22]

In one sense, this is a close call. Before the acquisition, United had no beyond rights, and its service into Tokyo was limited. To an extent, therefore, further expansion was subject to the willingness of the Japanese government to grant further rights -- something it would certainly not do easily.

There are, however, three reasons for thinking that approval of the acquisition was not necessary for such expansion and that the same ends could have been achieved in a less restrictive way. First, of all U. S. airlines, United was probably the best situated to bypass Japan. Indeed, it had already begun development of an alternative hub at Seoul. By approving the acquisition, DOT removed the incentive for that development which would have provided at least some competition to America-Japan service.

Second, the history of U. S.-Japan negotiations over aviation reflects progress, although the progress has often been slow. The expansion of Northwest in the Pacific, for example, involved continual pressure by the American government for further rights. Had the American government not approved the acquisition, it could have made further rights for United its first priority in negotiations with Japan. If, indeed, it turned out that Pan American had to retrench, there would have been a strong argument for gradual, piecemeal transfer of unused beyond rights to United. Moreover, a fully pro-competitive policy would offer a Japanese carrier the right to carry passengers beyond gateways in exchange for rights beyond Tokyo for United (and other U. S.

flag carriers) -- an offer that the Japanese government would certainly have to think about.

Third, while beyond rights for United would have to have been the subject of further negotiations, DOT could itself have assured that United could provide increased trans-Pacific service. The agreement of April, 1985 provided for the addition of up to three additional routes for American carriers providing service to Japan. It was totally in the control of the Department of Transportation to assure that United received one (or more) of those routes. This would have ensured that United kept fighting to fill its trans-Pacific planes and would have enhanced the argument that additional beyond rights were required for efficient service.

DOT did not do this. Instead it approved the acquisition, thereby ensuring that the U. S. flag carriers awarded the new routes would have to deal with the immensely powerful post-acquisition United, discouraging them from more than a limited expansion. In so doing, it failed to make more than the most cursory connection between the decision on the acquisition and that on the new routes, stating only that the result of any application by United in the Japan route case "cannot be predicted here."[23]

This is a very blinkered view of DOT's responsibility in considering airline mergers. It made sense temporarily to give DOT the post-deregulation responsibility for approval of airline mergers DOT only because that department can take an overview of transportation policy. Without that, it would have been more sensible immediately to entrust such responsibility directly to the courts (or perhaps to those agencies more skilled in anti-trust matters). But a primary point of such an overview must be the consideration of whether the efficiencies promised by a particular transaction can be achieved through less restrictive means. In the _Pacific Division Transfer Case_, the Department of Transportation simply failed to consider such questions. It refused to step outside the confines of the instant proceeding and consider even closely related matters plainly under its own control. In so refusing, it failed to live up to its responsibilities. That is a cause for concern however one thinks the _Pacific Division Transfer Case_ should have been decided.

Appendix: The Role of Non-Japanese Foreign Flag Carriers

The presence of the secondary Asian foregin flag carriers (China Airlines, Korean Air, C.A.A.C, Thai Airways International, Singapore Airlines, and Phillipine Airlines) is already accounted for in the concentration statistice given in the text. Those statistics show a high degree of concentration substantially increased by the acquisition. Such statistice, moreover, understate the importance of the secondary Asian flag carriers whose ability to impose constraints on the behavior of the major market participants is severely limited. Those secondary carriers are unlikely to expand much beyond the position they now occupy.

Secondary Asian flag carriers have substantial advantages in serving their own countries. All else equal, passengers from those countries are more likely to fly on their own national carriers than on foreign ones. (A similar statement holds for passengers from Japan or the United States.) National flag carriers enjoy the benefits of greater visibility at home, established relationships with local organizations, and control over intra-country traffic. They also enjoy the benefits of the active governmental support that can take the form of restrictive regulation of competitors, capital and operating subsidies, or informal pressure on nationals to use their own flag carrier.

On the other hand, such carriers have much less of a presence outside their own countries. As a result, much of the U. S.-Asia air traffic served by such carriers is made up of passengers originating in their home countries. It is far from clear that they can expand much beyond this.

In many instances, the level of traffic on the secondary

Asian flag carriers reflects explicit agreements on capacity and price. Through various agreements, many of these carriers provide service (especially between Tokyo and other Asian cities) under either capacity or pooling agreements. A capacity agreement controls flight frequency, airplane size, and other aspects of service. In a pooling agreement, the pooling carriers agree as to the sharing of revenues derived from the joint operation of an air routs. They also agree to restrict capacity. Many of the secondary Asian flag carriers have pooling or capacity agreements with JAL. Those agreements serve to protect the positions of the participating carriers and help them to maintain control over lucrative traffic between their home countries.[23]

The immense importance of U.S.-Japan traffic in Pacific air travel would force any secondary Asian flag carrier aspiring to a truly significant role in the broader market to seek rights through Japan to the U.S.. While such carriers presently do enjoy fifth-freedom rights (the right to carry passengers between two countries both foreign to the carrier) in carrying passengers through Tokyo to the U.S., it is hard to envisage much expansion of those rights. An aggressive expansion attempt by such a carrier would doubtless be resisted by the Japanese government and might even jeopardize existing pooling agreements. Moreover, even if a secondary Asian flag carrier were to obtain expanded rights in carrying passengers between Japan and the U.S., it is doubtful that it could also obtain the beyond-Tokyo rights from other nations needed to establish an efficient hub at Tokyo. Certainly, such carriers could not provide service within the

United States.

Such carriers would thus, in any event, find it extremely difficult to expand and play a major role in U.S.-Asia travel. They will continue to lack both hubs at Tokyo and U.S. domestic feeder systems. Thus handicapped, they will now have to contend with the post-acqusition United that has both. They are thus unlikely to play a major pro-competitive role in the post-acquisition world.

Footnotes

*This paper is largely based on my testimony on behalf of Northwest Airlines Inc. in the *Pacific Division Transfer Case*, Department of Transportation Docket 43065, 1985. All references are to this case unless otherwise specified. I am indebted to J. W. Campion, George Hall, Kevin Neels, Sheldon L. Pine, Barry S. Spector, Petèr Ward, and especially Ronald D. Eastman and William A. Kutzke for assistance and discussion but retain responsibility for error. The views expressed are my own and not necessarily those of Northwest Airlines.

1. Exhibit JA-RT-2, Rebuttal testimony of Dennis W. Carlton, William M. Landes, and Sam Peltzman.

2. For a detailed discussion of economic analysis and market definition, see F.M. Fisher, J.J. McGowan, and J.E. Greenwood *Folded, Spindled, and Mutilated: Economic Analysis and U.S. v. IBM* (Cambridge, MA: MIT Press), 1983, Chapter 3. In effect, the Department of Justice now takes this view of market definition as a summary of constraints. Its *Merger Guidelines* (Federal Register, Vol. 49, 1984, 26,284) define a "market" in terms as the minimal collection of firms that could sustain a price rise of stated size for a given period of time.

3. D. S. Sibley, S. B. Jollie, *et al* "Antitrust Policy in the Aviation Industry," Washington: *Civil Aeronautics Board*, 1982, pp. 109-113.

3. The conclusions are no different if Hawaii-Far East traffic is included. Hawaii-Far East service is also quite concentrated.

4. For example, U.S. Travel and Tourism Administration "Survey of International Air Travelers, In-Flight Survey," October-December, 1983, pp. YOSOS4-1 - YOSOS4-6. Other similar surveys yield consistent results. Surveys of residence are more likely to be accurate on the question of how much travel originates or terminates in a gateway city than are direct ticketing counts, since many travelers to the Far East buy separate tickets for travel between their residence and a gateway city.

5. It is even the case that a non-negligible portion of United's traffic through Seattle to Japan originates at one of the two California gateways. See Exhibit DOJ-R-1, Rebuttal Testimony of Gloria J. Hurdle, Table R-2.

6. In January 1986, Pan American provided non-stop service between Tokyo and Los Angeles, New York, and San Francisco, while United had non-stop flights between Tokyo and Seattle. Northwest provided non-stop service between Tokyo and all five gateways and Japan Air Lines (JAL) had such flights between Tokyo and every gateway except Chicago. Other foreign flag carriers flew non-stop between Tokyo and the two California cities. There were somewhat different patterns for other Asian destinations (but, as seen in Table 1 and discussed below, Japan-U.S. traffic is by far the most important piece of U.S-Asia air travel).

7. Wall Street Journal, April 29, 1985, p. 6.

8. The Guidelines characterize a market as "highly concentrated" if the HHI is at least 1800. They suggest that a merger that produces a "highly concentrated" market will usually be challenged if it results in an increase in the HHI of at least 50 points. The increase involved here (on either definition) is 270

points.

9. For a somewhat more extended discussion of what follows, see Exhibit NW-T-780, "Pacific Pricing."

10. Exhibit NW-R-734.

11. For an estimate of the way the public values single-line service in the context of a domestic merger case, see D.W. Carlton, W.M. Landes, and R.A. Posner, "Benefits and Costs of Airline Mergers: A Case Study," Bell Journal of Economics, Vol. 11 (1980), pp. 65-83. At least in the short run, there is no reason to suppose that United will be more cost-efficient than Pan American; it plans to continue to use the same obsolescent aircraft.

12. An American Airlines study in December 1981 found that almost 92% of all sales made on its CRS (Sabre) came from the first screen and more than 53% from the first line. (U. S. Department of Justice, "Comments and Proposed Rules," Civil Aeronautics Board, Docket 41686 (1983), p. 81.)

13. In one case, United offered to recompense a travel agent converting to its CRS (Apollo) with $500,000 cash, a 10% override on all transportation sold on Apollo, and five years of free use of the system including absorption by United of all telecommunications line charges. ("Statement of Northwest Airlines, Inc.," Committee on Commerce, Science and Transportation, Subcommittee on Aviation, Hearings, Computer Reservation Systems, March 19, 1985, p. 64.)

14. The loss in passenger convenience involved here is large as anyone who looks at the schedules involved or has changed

terminals at Narita will quickly realize.

15. See Exhibit NW-T-765.

16. A recent report of the Department of Justice cites numerous examples of complaints about bias (_1985 Report of the Department of Justice to Congress on the Airline Computer Reservation System Industry_, 1985, pp. 33-40) and states (p. 39):

> Whether a specific algorithm . . . violates the anti-bias rule can be a difficult and highly fact-bound issue. The issue would not be adequately resolved by more rules, however. It can only be addressed on a case-by-case basis.

17. For example, Northwest's profit margin in the Pacific in 1984 was only 5.8% of revenues. Pan American's was 7.5%. (Exhibit NW-R-18). Such low margins imply that much of the price paid by United to Pan American is for future supra-competitive profits rather than for the scarcity rents involved in competitive service to Japan.

18. Similarly, a new Japanese carrier will not be able to acquire a U.S. feeder system.

19. _Final Opinion and Order_, pp. 50-51. The _Tentative Opinion and Order_ is equally terse on this subject (p.35).

20. _Final Opinion and Order_, pp. 35-36.

21. _Final Opinion and Order_, p. 39.

22. _Final Opinion and Order_, p. 38.

23. See Exhibit NW-T-790.

TABLE 1

Number of Passengers (Thousands) on Scheduled Service between the U.S. and the Far East, 1984

Between/And	Total	Honolulu	Guam	Mainland
Total	6,372	2,128	551	3,693
Japan[a]	4,253	1,516	498	2,239
Hong Kong	557	182	4	371
Korea	526	102	1	423
Taiwan	352	91	15	246
Phillipines	330	182	33	115
India	140	-	-	140
Singapore	99	55	-	44
P.R.C.	70	-	-	70
Thailand	35	-	-	35
Pakistan	9	-	-	9
Malaysia	1	-	-	1

Source: Northwest Airlines (from INS Form 92).

a. Including Okinawa (total of eight thousand passengers).

TABLE 2

Number of Passengers (Thousands) on Scheduled and Charter Service between the U.S. and Japan[a], 1984

Between Japan and	Total	U.S. Citizens	Foreign Nationals	U.S. Carriers	Foreign Carriers
Total	4,404	1,357	3,047	2,122	2,282
Percent		31	69	48	52
Guam	521	43	478	215	306
Percent		9	91	41	59
Honolulu	1,631	228	1,403	611	1,020
Percent		14	86	37	63
Mainland	2,252	1,086	1,166	1,296	956
Percent		48	52	58	42

Source: Northwest Airlines (from DOT *U.S. International Air Travel Statistics*).

a. Including Okinawa.

TABLE 3

1984 Market Shares (Per Cents) in Trans-Pacific Air Travel[a]

Carrier	Share: Mainland-Far East	Share: Mainland-Japan
Northwest	27.5	31.3
JAL	21.9	33.5
Pan American	18.5	19.3
Korean Air	9.3	0.0
United	7.3	7.0
China Airlines	6.8	1.4
Singapore Airlines	2.9	3.1
Thai International Airways	2.2	1.9
CAAC	1.6	---
Phillipine Airlines	1.3	1.4
Varig	0.6	1.0
HHI	1782	2542

a. Source: Immigration and Naturalization Service (INS). Market shares are for total number of passengers carried. INS figures on total passengers carried by U.S. flag carriers via each gateway were allocated to Northwest, Pan American, and United using ER586 service segment data.

Date Due

OC 31 '89		
FEB 2 1990		
MAY 21 1990		
JE 26 '90		
JY 10 '90		
DEC 26 1990		