

Air Transportation in the Post-World War II Era: Commentary

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Some months ago, when I reported to Herman Freudenberger on the nature of the papers which were planned for the joint session with the Lexington Group, he asked that we go one step further and make some connections and comparisons with concurrent developments in the international airlines industry. I agreed to attempt to do so and, therefore, would like to make some comments along this line before opening the session to discussion from the floor.

The Second World War was the great watershed in international commercial aviation in at least three fundamental respects. I would like to examine each of these briefly.

TECHNOLOGY

First, there is the matter of technology. Prior to World War II, Great Britain, Germany, France, and to some extent, Italy competed effectively with American manufacturers in the production of civil aircraft for use by their own flag carriers as well as those of nonmanufacturing nations. However, rearmament and the early onset of hostilities soon focused virtually all research and development and production efforts in those countries on building better bombers and fighters. United States manufacturers meanwhile were able to proceed with the refinement and large-scale production of commercial craft such as the Douglas DC-3 and to a much lesser extent the Boeing 307 Stratoliner. (The DC-3 entered commercial service in 1936 and some 800 had been built by the time of Pearl Harbor.)

During the war American manufacturers were able to continue with transport research and development and to begin production of such advanced models as the DC-4 and Lockheed Constellation.

In fact, the technological progress represented by these aircraft and others on the drawing board, plus the economies of scale enjoyed by American manufacturers gave them a competitive advantage at the end of the war which has survived to the present day. For all practical purposes, US technology since 1945 has set the standards for international air operations, and for the most part foreign flag carriers have had to buy American planes if they wished to offer competitive service. Great Britain, of course, has tried repeatedly in the postwar period to reestablish itself as a major supplier, but British planes -- the Comet Series, the Viscount, Vanguard, Britannia, BAC 111, and VC-10 -- all proved to have one or more serious drawbacks in safety, capacity, or operating efficiency which prevented them from becoming fully competitive with American aircraft for any sustained period of time. The same was true of the French Caravelle.

INDUSTRY STRUCTURE

A second major difference between prewar and postwar international air transportation has to do with the structure of the industry. The prewar industry was dominated by a handful of Western European carriers and Pan American World Airways. The European firms began operations in the 1920s as small-scale short-haul carriers and subsequently developed in much the same manner as the American domestic industry, where frequent mergers and acquisitions of operating rights held by other firms were the order of the day. Among the dominant European carriers which emerged were Deutsche Lufthansa, Air France, KLM, Sabena, and Imperial Airways, the predecessor firm of British Overseas Airways Corporation. They were the chosen instruments of their respective governments in international aviation matters, a status also enjoyed by Pan American in the United States.

The structure of the industry in the postwar era has followed quite a different course, and one that also has contrasted sharply with trends in the American domestic industry. Whereas the latter has experienced a decline in the number of carriers, the bilateral agreements governing international air service have paved the way for literally dozens of new scheduled carriers to enter the arena, largely with American-manufactured equipment and often initially with a substantial nucleus of American and European pilots and technical personnel.

Some of these carriers represent former colonial areas such as the Philippines, Indonesia, Pakistan, and Morocco. Others represent historically independent nations which previously did not actively participate in the air age, for example, Thailand, Saudi Arabia, Yugoslavia, and Iceland. Still others represent new service from established aviation centers. For example,

within the United States several carriers holding purely domestic authority in the prewar period -- TWA, Northwest, and Braniff, to cite three -- obtained extensive international operating rights in the postwar period, marking the end of Pan American's favored status. This process has continued to the present day.

In addition, dozens of new carriers also entered the postwar industry to offer charter service. Virtually nonexistent in the prewar period, charter service developed during the 1950s and 1960s into a major segment of the industry, with especially heavy traffic across the North Atlantic, within Europe, and between Europe and Africa. Charter operations also became a major factor influencing the pricing behavior of the scheduled carriers and their cartel, the International Air Transport Association (IATA).

THE MARKET

Third, there is the fact that the postwar market for international air service proved to be fundamentally different from the prewar market. International service like American domestic service began with carriage of the mails and gradually added a select, small-scale passenger market based on novelty, high priority travel, and luxury. Postwar service, on the other hand, rapidly lost the attributes of novelty and luxury and moved inexorably into a mass market of enormous proportions. Over the past 30 years the annual growth rate (in revenue passenger miles) of the international air market has generally matched or exceeded the 10 percent to 12 percent growth rate of the American domestic market. International as well as domestic service rapidly became universal in scope, uniform in technology, and utilitarian in purpose. Airplanes, airports, and operating procedures became remarkably similar whether in Boise, Boston, Brussels, or Bombay.

Because the basic air routes still followed today between many population centers were well established by the outbreak of World War II, the immediate postwar period focused on renewal and intensified operation of these routes. By the late 1940s and early 1950s, however, a new generation of equipment made it possible both to expand and rationalize these initial route systems. Larger, faster, longer-range planes with pressurized cabins provided more comfortable and reliable service, plus the possibility of fewer stops or even nonstop service between distant terminal points. In fact, they required such long-distance operation if they were to be used most economically. Thus the improvement of New York-Chicago service from two stops to one stop and then non-stop service in the late 1930s had its counterpart in countless other domestic and international markets in the postwar era. In addition, the impressive capabilities of these new aircraft -- the DC-6B, DC-7, Super G Constellation, and subsequently the

jets -- also permitted direct service between many city pairs which previously were linked either circuitously or not at all. To cite a single example, direct Polar Route service between Copenhagen and Los Angeles was begun by S.A.S. in 1954 using DC-6B aircraft.

The flow of new technology into the international arena, which was accelerated by the fact that it offered individual carriers one way in which to gain at least a temporary competitive advantage, greatly stimulated the demand side of the market. First concentrated among American nationals, the surge in demand became more universal with the restoration of prosperity in Western Europe and rising living standards in many Asiatic, South American, and African nations. This demand in turn attracted additional supply, especially the new entrants into the industry mentioned previously. In fact, despite its remarkable growth during the 1950s and 1960s, demand was not able to keep pace with the combination of ever more productive aircraft, route and fleet expansion by established carriers, and the entry of new firms. Excess capacity became increasingly serious among scheduled carriers in the late 1960s and reached devastating proportions with the advent of wide-bodied jets in the early 1970s. Concurrently, charter carriers took advantage of an ample supply of quality new and used aircraft and the scheduled carriers' cartel approach to market development to increase their market share and force IATA members into widespread discount pricing schemes.

Thus, even before the explosion in world petroleum prices wrought its own special havoc in the mid 1970s, the international airline industry was in serious difficulty. Technological progress and traffic growth had been impressive, but financially and institutionally the industry was under severe strain. Privately owned American-flag carriers such as Pan Am and TWA were vectored toward bankruptcy, and only massive government subsidies kept their nationalized competitors in other countries off the same course. IATA, which in retrospect had functioned relatively smoothly during its first two decades, proved increasingly unable to control market forces or to reconcile differing national viewpoints of its member carriers on pricing and related matters. Finally, and by no means least, the worldwide system of bilateral agreements governing air service among nations became increasingly strained.

In 1978 these trends have by no means run their course. It remains to be seen when and in what manner relative stability will be restored to the international airlines industry.