

Chapter 1

SUMMARY

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GROWTH RATE

Following World War II, U.S. air cargo carriers exploited the speed advantage offered by modern aircraft to build an industry with revenues that exceeded \$3 billion in 1980. Despite this growth, air cargo is still dwarfed both by the passenger side of the airline business and the surface transport side of goods movement. Air

cargo totals only 11 percent of all U.S. airline revenues and 1.4 percent of all domestic freight revenues. For years, predictions have been made that dramatic growth was just around the corner. In reality, the growth has been steady but unspectacular.

DEDICATED V. DERIVATIVE AIRCRAFT

Today, almost all civil cargo aircraft are derivatives of passenger aircraft, largely because the air cargo market is too small to support production of a completely new aircraft dedicated to cargo service only. Current estimates of future market prospects (7 to 12 percent annual growth) do not indicate that this situation will change in the next 20 years. Aircraft manufacturers are at the moment unwilling to assume the risk of producing a dedicated all-cargo aircraft, particularly given the prospect of strong competition from future passenger derivatives.

Future cargo aircraft are expected to be far more economical to operate because the passenger aircraft from which they are likely to be derived necessarily will become more efficient to stay competitive in a world of sharply rising energy costs. While a dedicated cargo carrier using 1990's technology might cut fuel consump-

tion by as much as 50 percent compared to today's most efficient carriers, very nearly the same gains in efficiency could be achieved through conversion of 1990's passenger aircraft for cargo use.

The Department of Defense is currently studying several options for meeting its future airlift needs, including the design of a joint civil/military cargo aircraft. While such an aircraft offers the theoretical advantage of higher volume production and therefore lower unit cost, similar joint planning efforts in the past did not work out to the satisfaction of the commercial sector. Industry remains skeptical that the product of such a joint planning effort, compromised as it must be to meet military requirements, would be competitive with derivatives of future passenger aircraft.

GROUND OPERATIONS

More efficient handling of cargo on the ground could have as much impact on future growth and profitability of air cargo as would the introduction of more efficient aircraft. The private sector is working to develop more efficient systems, including standardized inter-

modal containers and mechanized equipment to move the containers between carriers or into storage. It has been estimated that complete containerization of cargo and a high level of mechanized handling could reduce the cost of ground operations by as much as 70 percent. Such po-

tential savings are sufficiently large that market pressures will be sufficient to move cargo car-

riers and freight forwarders in the direction of increased containerization and mechanization.

INDUSTRY PROBLEMS

To cope with the problem of aircraft noise, a few airports in this country and many more abroad have instituted nighttime curfews. These restrictions could seriously limit the movements of all-cargo carriers. Currently about half of all-cargo landings and takeoffs occur during the 10 p.m. to 7 a.m. time period in order to provide overnight delivery. In deciding whether curfews should be instituted, the concerns of residents living adjacent to airports need to be weighed against the community's interest in preventing a

loss of jobs and the Nation's interest in maintaining the free movement of interstate commerce.

U.S. air cargo carriers also are concerned about a variety of constraints associated with landing in foreign airports which appear designed solely to protect that nation's airline from competition. Active support of relevant U.S. agencies has been and will probably continue to be needed to help carriers cope with these barriers.

LIGHTER-THAN-AIR VEHICLES

Interest in using lighter-than-air (LTA) or hybrid LTA vehicles as air cargo carriers continues. The primary role for LTAs or hybrids seems to be in the short distance movement of very large cargo or for long endurance aerial surveillance. Since modern, nonrigid LTA vehi-

cles are expected to cruise at about one-fourth the speed of conventional jet aircraft, they are not likely to compete with conventional air and surface modes for the movement of goods over long distances.

DEREGULATION

The air cargo industry is currently undergoing a period of rapid change brought about in part by deregulation of air cargo in 1977, followed by deregulation of passenger airlines in 1978 and trucking in 1980. Air cargo carriers are now free to raise or lower rates, serve any markets they choose, and own and operate trucks that can fan out for hundreds of miles to pick up and deliver goods. The only requirement is that this goods movement be related to an air cargo operation. Several carriers are now taking advantage of these newly won freedoms to offer single carrier shipping using both air and ground modes of

transportation. It is of interest that this trend toward integrated services does not necessarily depend for its success upon the introduction of new technology in the air or on the ground. Express package delivery, which is the fastest growing and most profitable segment of the air cargo industry, uses conventional aircraft and ground handling systems largely consisting of conveyor belts. The express package industry experience suggests that while new technology can result in operating efficiencies, it is not a substitute for providing services carefully tailored to the needs of shippers.

FEDERAL POLICY

The only significant Federal regulations affecting air cargo operations still in place following air cargo deregulation concern aircraft safety and noise standards. Two additional areas for continued Federal involvement relate to unfair foreign practice concerning U.S. carriers and international agreements on ratemaking. One potential problem area relates to the phasing out or elimination by the Civil Aeronautics Board

(CAB) of reporting requirements. This has left both the Government and the public with no means of monitoring the flow of the air cargo portion of interstate commerce. The Air Freight Forwarders Association has requested that CAB reestablish some “minimal” reporting requirements to show where freight is moving and where traffic is developing.