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REMARKS PREPARED FOR DELIVERY BY SECRETARY
OF TRANSPORTATION ALAN S. BOYD, BEFORE THE
INTERNATIONAL AIR TRANSPORT ASSOCIATION,
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It is a pleasure to join you today in speculating on the future role of aviation - a pleasure diluted only by something the humorist Mark Twain once wrote about speculation in the month of October.

October, he said, is one of the particularly dangerous months for speculation. Also dangerous, he said, are July, January, September, May and the other seven.

Mark Twain was talking primarily about stock speculation. I take it to apply to any form of conjecture that involves the future behavior of man, his politics, or his machines.

I know it holds true for predicting the demand for air travel in the United States where the best minds in aviation and government have consistently underestimated the annual growth in airline passengers.

Unfortunately, there are two ways to make sure that even the most reticent of men will talk. One is to ask about himself. The other is to ask how he views the future. And - since you have asked - I do just happen to have some thoughts on aviation in the 1970's and beyond.

The safest statement anyone can make about the future of aviation is that it not only will but must continue to grow and to bind the nations of the world closer together.

President Johnson said recently that of all of man's inventions, "the airplane. . . has done most to bring individual peoples of the world together in friendship." "War," he said, "leans on ignorance," and aviation makes possible the direct, widespread understanding among people that banishes ignorance.

Another safe guess about the future is that aviation can never again consider the sky the limit. From now on, the ground is the limit. And congestion on access highways and in parking lots and delay in terminals, on taxi ramps, and on the runways will continue to cancel out technological advances in aircraft until we apply as much talent and energy to solving the ground problems as we do to super-sonic flight.

The future not only of aviation but of all transportation will depend also on how well we are able to soften the impact of transportation on a world whose people are increasingly crowded together; increasingly vulnerable to noise, pollution and disruption of their neighborhoods and lives.

Finally, I believe the future of aviation will rest in large measure on how well the industry and governments respond to the broadest concept of public interest.

All of these guesses have a direct bearing on the theme of this symposium - the integration of air transport into a total future transport system. It is an especially logical topic since nearly all air trips and nearly all air shipments involve at least one other mode of transportation. I have been asked to direct my comments especially to the total transportation picture in North America and to the role of air transport.

What I will ask of you today is quite simple. I ask

--That you be aware of the desires of aviation customers;

--that you be aware of the opportunities for exploiting new technology;

--and that you act with a true awareness of the impact of your actions on society as a whole.

These are goals which the United States recognizes, accepts and will gladly share with you.

We accept them because they are essential parts of a larger goal - the exchange of ideas that lead to greater understanding among nations; the exchange of goods which fosters economic development and higher standards of health and living for the people of those nations.

In making this exchange possible, transportation leads many lives. In one life, it represents the nation whose flag flies above its merchant fleet or is painted on the vertical stabilizer of its jets. And the showing of the flag is for great trading nations both a source of income and of pride.

Transportation in another life represents a challenge for the men who operate the system - who make up schedules, sell space, fly the jets and work through the night getting them ready for flight. This is the life of challenge; of the drama of the high-speed train, the giant liner; the sleek jet; that gives transportation romance for so many citizens of the world.

But the life we are here to consider is the life of service to people. A four-engine jet airliner has no intrinsic value. It is, of course, a work of art - but far too cumbersome for any museum now in existence. It has value - as does a car, a train, a ship - only in the service it provides.

Which brings us to the question of the customer.

In the U.S., we have trouble predicting how many there will be. Over the last decade we have continually fallen short with our air traffic predictions. The facts keep outrunning our forecasts. Between 1966 and 1967 the number of passengers carried by U.S. airlines increased by 21 percent while GNP advanced by less than 3 percent in constant dollars. Over the last five years air passengers have more than doubled while GNP increased by 27 percent in constant dollars.

The data are rather crude, but we estimate that passenger miles of intercity trips in the U.S. have increased by 25 percent over the last five years. The rapid growth of air traffic in the 60's has been single handedly responsible

for reversing a trend which was giving to common carriers a declining share of U.S. passenger mileage. The figures for intercity freight are even cruder but educated guesses indicate that the ton mileage has increased by about 27 percent over the last five years while the air cargo ton mileage has more than doubled.

Over the next five years we expect the number of U.S. air carrier passengers to grow by about 80 percent again and we cannot even hazard a guess about air cargo.

During the 60's there has been a kind of natural, self-reinforcing mechanism to boost the demand for air travel. Airlines converted to jets so that the air portion of the trip was substantially speeded up and made more comfortable while fares held steady or decreased. Flight services and advertising improved. And the public reacted. More and more people took their first flight; seasoned air travelers flew more and more. As demand increased, better service increased demand. Unless you take a second, closer look, you could easily believe this has become an automatic process. But that is not necessarily the case, or, if it is, it will not necessarily remain so.

One of the important factors for the future of the air carrier industry will be its awareness of transportation demand and its determinants. But an awareness of the number of customers will be far less important than an awareness of their desires. The potential passenger bases his decision of whether to travel and what mode to use on his view of the time, the cost, the comfort, the safety, the reliability and the convenience of the entire trip. This means, in the case of air travel, not only that he wants a comfortable, fast, and inexpensive flight but that he doesn't want to spend much time getting to the airport, buying a ticket, finding his baggage, or looking for a taxi or bus. The air shipper has a whole set of desires of which the industry must be aware. He wants rapid, reliable, damage-free delivery at a reasonable price and doesn't really care whether this is accomplished by better pickup and delivery service or faster and more direct flights. What he is concerned with is the total cost of distributing his products.

It is these kinds of factors which determine transportation demand in general and of air transport demand in particular. The industries which serve this demand must put themselves in the shoes of the customers and view the trip, as he would, from start to finish, from door to door.

Part of the industry's ability to meet the customer's needs will be its awareness of the opportunities for exploiting new technology. Nor can the industry concentrate on aviation technology alone. Advances in ground transportation have implications for air transport every bit as crucial as advances in airplanes.

We are now doing research on different systems of high speed ground transportation - systems such as vacuum tubes which are theoretically capable of speeds from 300 to 400 miles per hour. Tube systems with electro-magnetically suspended vehicles are capable of still higher speeds. These are experimental and prospects for implementing them are very uncertain. In contrast, the technology of tracked air cushion vehicles appears to be somewhat closer. The French have already conducted tests at over 200 mph.

Meanwhile, in the near future two of our railroads will begin high-speed passenger service over a 450 mile distance in the most densely populated region of the U.S., the Northeast Corridor. Two trains will be used - one powered by jet turbines and the other by an electrical system more advanced than any in current railroad passenger service in the United States.

We are also studying the place of short-takeoff and vertical-takeoff aircraft in the system. The prospect of landing and taking off within such short distances is indeed attractive given the value of urban real estate. The noise question will be a significant issue in the future of VSTOL. Because of this problem it might be difficult to exploit the inherent advantage of operating from downtown airports because of the unacceptable noise created there. We have reached a stage of development where we can afford to give up some commercial value or perhaps pay for more expensive suppression devices or less convenient airport locations for the sake of environmental quality.

At the same time, research is taking place on the components of automated highways, although we have yet to integrate the components into overall systems. A more feasible concept within the present state of the art is a program for transporting automobiles and their passengers on trains.

In freight transportation, the more promising areas for improvement to be either at transfer points and modal interfaces of different types or in streamlining of the documentation, paperwork and planning associated with shipments and with operation of large systems. Examples of innovations are automated sorters, cargo stackers and conveyors in airline cargo terminals; computerized information systems for keeping track of and routing railroad freight cars; ships designed to facilitate the handling of containers and designed to carry satellite barges; and air cushion pallets.

The use of multi-mode containers such as piggyback trailers has continued to increase though the rate of increase of piggyback loadings has slowed in recent years.

In air transportation, two innovations are on the horizon and of particular interest. One is the reduction in transport cost for both passengers and cargo particularly over longer ranges which will come about as a result of more efficient jumbo jets. The other but perhaps limited to overseas use is the reduction in trip times which will come about through the availability of supersonic travel. Evidence of this is the fact the U.S. airlines as of mid May had over 250 jumbo jets on order and have reserved 97 delivery positions for the two supersonic aircraft.

In parallel with these advances, the Department, through the FAA continues to automate air traffic control functions, with nationwide completion of installation scheduled for 1973. Meanwhile, we are testing an all weather landing system to further reduce the number of times airports are closed by poor visibility.

As a result of these and previous advances in air technology, the time and cost devoted to terminal activities and to airport access become increasingly important. It is to these matters that the Department of Transportation

is devoting more and more attention. Recently, the congestion at certain large airports, including JFK International Airport with which you are all familiar, has been so severe that the Department has had to propose rules limiting the number of hourly flights at these places. This is only a temporary expedient. In the long run the solution is better utilization of airport capacity and more airport capacity. Despite the fact that the new aircraft will be able to handle a larger number of passengers per flight we foresee a continued increase in the number of flights in our 22 large metropolitan areas. One study indicates that if present trends continue, the number of flights by scheduled air carriers serving metropolitan areas will have increased by 143 percent in 1980 in comparison with 1965.

Our policy in the U.S. Government has been that the development of air terminals is primarily a responsibility of the local metropolitan communities and the companies served by the terminals and that the users of such facilities should pay for their development. Federal aid has been only a small percentage of terminal development cost. The government is trying to encourage more, efficient terminal utilization through advocacy of the use of differential pricing so that landing fees can be effective in reducing peak hour congestion. We are also interested in better coordination with modes of terminal access. For example, we are conducting a before and after study to evaluate the effects of the new rail link at Cleveland Airport and have developed an airport terminal simulation model.

The industry should play an important role not only in the finance of new terminals but also in the development of innovations such as satellite terminals for buses and helicopters serving the airport and rail links to densely populated downtown areas. Improving conditions of airport access and terminal capability is in the long run the key to the continuing success of air transport.

My third point regarding what the industry should consider if it is to remain a competitive healthy member of the transportation community is that it should be aware of impact of its actions on society as a whole. This same fact holds true for all transportation industries.

There is renewed interest in the United States in improving the quality of our environment. We have for decades had an excellent National Parks program but it is beginning to dawn on us that most of our waking hours are spent, not in National Parks, but in and around metropolitan areas. It is also becoming clear that we must devote as much attention to the quality of the cities as we do to parks and wilderness areas. We have found that transportation facilities have in the past been built with little regard for their aesthetic qualities or for their relationship to the surrounding communities. We can no longer disregard these factors. In a number of cities we have sponsored special teams of architects, engineers, and sociologists to work out routes and designs for urban highways with maximum participation by the local citizens themselves in the planning and design process.

The problem of airport location is a case in point. Airports are very noisy neighbors. No community wants an airport located too close to its residential areas. New airports must typically be located at some distance from settled areas and provision must be made for nearby development to be more compatible with airports and more tolerant of the noise. New aircraft will not be allowed to land at existing airports if they significantly exceed current noise levels.

If the public is to benefit to the fullest from the improved service made possible by our economic growth and technological development the many autonomous, yet, in the final analysis, interdevelopment groups must work together. Perhaps the biggest challenge in the next 20-30 years is to find a way to pass on the benefits of technology to the public. It will benefit the public little if we merely design systems without defusing their practical application and use to the fullest extent. This is true not only in the field of aviation, but in relating aviation to the whole transport system. It may be difficult to see how an integrated transportation system can be achieved without regulation. Yet it is necessary for those responsible for the promotion and regulation of transportation to review the needs of the present and future to assure that transportation is not hampered by past controls. We must think anew how we can best develop a total transportation system and not be encumbered by the bonds of tradition and prejudice. If aviation is to become a meaningful part of an integrated transport system airline operators must give more attention to the passengers' whole trip and not assume that your responsibility is limited to carrying the passenger from one airport to another.

The airline passenger/cargo base is becoming larger and a concerted effort in developing the concept of total distribution may do much to further increase your markets. International aviation is no longer an infant industry. In fact, the development, on your part, of an enlightened and imaginative position in regard to the formulation of ideas and programs may well be the catalyst that is required to give impetus to a total transport system.

A transport system that will meet the demands of international trade and travel will, in all probability, be more than sufficient for the needs of a region or country. However, it does not follow that the transportation needs of a region or country will fully meet the needs of international trade and travel. Advances in technology are giving us the equipment to enable costs to be reduced. Yet these benefits are not enjoyed to the fullest because of man-made barriers. These range from the actions of narrow self-interest on the part of management to the broadest questions of national policy. Although we may understand these practical considerations, I wish to emphasize with all the power at my command that we must press for concepts in our international relations that will match in imagination the technology of today.

One major area in great need of development is the matter of facilitation. This subject cuts across all levels of trade and travel and requires the active consideration and action programs on the part of all those responsible for developing transportation. The fact that facilitation is so broad is, I am afraid, often used as an excuse for a segment of those responsible to pass the buck. I feel that the traveling and shipping public have been long suffering and deserve better treatment. We must act in improving the facilitation of passengers and things between population centers and the airport, to and from the airport and the airplane, through the airway system and clearance over national borders.

Power, sophisticated metals, size of the system, and profits may be indicators of a total transportation system but in the last analysis, the facility of the movement of passengers and things is the real measure of the success - or failure - of a total transport system. Automated check-in and baggage handling for passengers; rapid movement of the passenger from the curbside to aircraft; containerization for express and freight; improved schedule, reservation and ticket data; and modernization of inspection formalities must be given more attention.

What does all this mean for IATA? First of all, IATA must recognize that the United States is firmly committed to the full exploitation of technological innovation and economic progress for the benefit of travelers and shippers. The importance of this position is accentuated at a time when we anticipate the introduction of new, high-capacity, more efficient aircraft like the 747 and the air bus. They hold out the promise of improved air service and lower fares. But that promise will only be realized for the benefit of the traveling public if IATA adopts a posture of policy leadership that is as advanced in matters of pricing and marketing as is aircraft technology in the development of new equipment. This will call for a considerably more aggressive approach than has prevailed up to now. It would be a disservice to our primary constituent, the public, to remain committed to policies that are calculated mainly to avoid disruption of the economic status quo.

In the past, I am afraid that point has sometimes been lost sight of, with the result that IATA - and its members - have become overly concerned with minimizing the destabilizing effects associated with the introduction of new aircraft and new marketing concepts. The time has come to rid ourselves of that frame of mind and aggressively search for ways that will give the public its full share of the gains that stem from technological innovations. This clearly implies the need for a less restrictive market environment, with more flexibility in pricing and marketing of international airline service. IATA can, and should, take the lead in creating a far more competitive atmosphere - one that looks to the exploitation of modern technology. This will call for changes in many established policies and attitudes. I am convinced, however, that unless such changes are forthcoming, IATA may not be able to survive as a meaningful international economic organization in this advanced technological era.

I urge a renewed recognition of your essential founding principle - the promotion of "safe, regular and economical air transport for the benefit of the people of the world" - and all that that enlightened goal implies.

I realize that what I urge is no simple matter. Certainly it is difficult to bring about substantial change, and traditionally, many of us tend to be satisfied with a posture which reacts only to periodic crises. But let me here and now issue a call to all concerned - governments, management, labor, travelers, and shippers - to see that individual, organizational, and governmental thinking is restructured, refocused, and redefined - not merely for the sake of change - but in the interest of progress. You will find the United States a firm ally in this cause.

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