UNITED STATES DEPARTMENT OF **COMMERCE** John T. Connor, Secretary Washington, D.C.

Office of the Secretary

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REMARKS BY ALAN S. BOYD, UNDER SECRETARY OF COMMERCE FOR TRANSPORTATION, AT INTERNATIONAL CONGRESS ON AIR TECHNOLOGY IN ARLINGTON HOTEL, HOT SPRINGS, ARKANSAS, TUESDAY, NOVEMBER 16, 1965, AT 7:30 F. M.

Participating in this International Congress on Air Technology is a stimulating experience.

The discussions we have heard from experts in their fields on such marvels of tomorrow as the super sonic transport, the C-5A cargo plane, vertical take-off and landing craft, etc., hold out high hopes for the future of air transportation in the years immediately ahead.

There is no doubt that we have the technology, the brains, the know-how and the will to achieve the breakthroughs needed to turn these advances into workable transportation tools.

The real test will come, however, when we start putting these miracles to work on a practical day-to-day basis.

It will be no simple task to fit the rapid advances of air technology into a coordinated and integrated transportation system made up in large part of much slower advancing systems.

 $T_{\rm O}$ forge the fast, efficient, economical transportation system that today's fast-growing world demands, we must achieve a better balance of these technological advances throughout all modes of transportation.

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Air technology has been racing along at a pace, few, if any, other industries or forms of transportation can match. In the brief span of about half a century, we have progressed from kite-like contraptions barely able to get off the ground to Jets which race the sun across the sky and rockets and missiles which can take us around world, and soon may take us to the moon and Mars.

That technology, built-in, as it is, to our massive defense effort, figures to continue at a breath-taking pace. And we certainly have no intention of slowing it down.

But all of us, we in Government and those in the private sector of this fascinating business, have a responsibility to see that this knowledge is disseminated, that this progress is shared by other modes of transportation and other industries as well.

This International Congress on Air Technology is an indication that we already have recognized that responsibility.

The dissemination of such knowledge and techniques already is happening on a scale of some magnitude.

The air and space industry, with the help of our national defense effort, has spurred development of a very sophisticated systems analysis concept for attacking such complex problems as rocketing a man to the moon and back.

This same analytical approach also is being applied in the field of education, in many sectors of business, in the war against poverty -- even to categorizing the needs of backward, less-developed countries in the search for answers to a comparatively simple proposition -- how best to do the job.

We see the influence of this progress also being felt in the work of the Office of the Under Secretary of Commerce for Transportation.

This office, concerned primarily with helping the Administration weave a workable transportation policy into a patterned operation, is becoming more and more researchoriented as we gird ourselves for the transportation problems of tomorrow. We are applying some of the lessons learned in the air to high speed ground transportation research and development in an effort to bring this form of transport more in tune with the times.

In signing into law recently the legislation authorizing this program, President Johnson noted:

"The same science and technology which gave us our airplanes and our space probes. I believe, could also give us better and faster and more economical transportation on the ground. And a lot of us need it more on the ground than we need it in orbiting the earth."

We will be conducting demonstration projects soon on two eastern railroads. These, actually, will be market tests to see how the public -- now showing a preference for automobile and airplane travel -- will respond to better and faster service on the ground -- and maybe even under the ground.

And some of you aviation-minded partisans may be surprised if you come down to earth long enough to take a ride on the new equipment which will be used in these demonstrations.

For you will find that many airline techniques have been incorporated into these fast, efficient and comfortable trains.

For example, you will find reclining seats like those used on today's airliners. There will be individual reading lights, too. Many of the airlines' techniques for handling passengers also will be incorporated.

These demonstration trains will be capable of sustained speeds of 120 miles an hour and top velocity of 150 miles per hour. And we know from our experience with diving airplanes that there is a limit to the speed that can be maintained when these earth-bound vehicles go plowing through a tunnel.

Many of the principles of aerodynamics will be employed as the scientists and technologists start looking into the possibility of sending vehicles through tunnels at speeds competitive with today's airplanes.

We also are borrowing some of these analytical techniques in current studies seeking answers to future highway plans and the problem of highway safety. The maritime industry, too, may steal a page or two from aviation's book as it gets deeper into the task of perfecting a surface effects ship which will skim across the ocean on bubbles of air at speeds of 100 knots. Some of the suggested designs for these ships look like they are about half airplane and half ship. And some of them may actually

be flying a few feet above the water during their ocean

crossings.

We will be looking toward aviation to help us out, too, in still another major issue which certainly involves transportation. I'm referring to our continuing balance of payments problem.

The aviation industry already ranks No. 1 in the mation in exporting manufactured products. Twenty per cent of our export of manufactured goods, incidentally, is transportation equipment. And one third of that is in the field of aviation.

Our air carriers already are cutting quite a swath in foreign trade, and all indications are that the swath is going to get much wider -- and very quickly.

In 1964, airplanes hauled 163,000 tons of cargo valued at around \$1.8 billion. They imported some 64,000 tons worth some \$960 million.

The men who specialize in predicting what is going to happen to us in the remainder of this century tell us the nation's total freight haul may be expected to double in the next 20 years -- given a continuing growth rate such as we have enjoyed the past 57 months.

But aviation's export and import tonnage alone is expected to more than double in a matter of two short years. Our forecasters predict that air exports in 1966 will reach 350,000 tons of cargo worth approximately \$3 billion. Imports may hit 175,000 tons and the \$2 billion mark. About half of our balance of payments deficit is attributed to the so-called "tourist gap". The United States has been a "travel deficit" country for many years -- with

has been a "travel deficit" country for many years -- with more Americans going abroad than foreigners visiting here. Our higher standard of living and freedom from travel restrictions are largely responsible for this. And as we become more affluent, more people can afford to travel abroad and the travel gap becomes a larger and larger factor in the balance of payments problem.

Three times more Americans are journeying to Europe these days than we have Europeans coming here. About one million foreigners will visit us this year. Officials of the Department of Commerce's U.S. Travel Service tell us that if cost considerations are laid aside, there probably are 10 foreigners who would like to visit us for every American who hankers for a trip abroad.

They say that their experience of the past few years has proven conclusively that lower travel costs, along with good promotional activity here at home, will stimulate inbound travel and make very important inroads on the payments deficit.

The director of our Travel Service told me recently: "The great promise of the future is the development of a low-fare super sonic transport and/or high-capacity subsonic airliner."

Directional fares, offering lower rates to west-bound passengers and all-inclusive tour packages offer promising avenues. But think of the possibilities that exist for lower fares and greater numbers of tourists with the advent of commercial versions of the C-5A. This aircraft, with a capacity of 700 to 1000 passengers, will offer us a real opportunity to whittle costs, show off the greatness of our country to the world, and at the same time hammer a dent in the balance of payments deficit.

Aviation's tourist opportunities are not confined to international travel, however. Our tourist experts inform us that 80 percent of this country's 195 million people have never been more than 100 miles away from their homes. The development of air buses with much lower operating costs certainly should find some customers among them.

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We are experiencing some technological advances and breakthroughs in the world of surface transportation, too, the kind of advances and breakthroughs that will prove beneficial to our air carriers as well as we continue to forge an integrated transportation system.

I am speaking of the progress currently being achieved in the field of containerization.

I used to think of airplanes, themselves, as big containers. But as our carriers get bigger and capable of hauling heavier and heavier loads, they, too, will be able to take advantage of the efficiencies of the 8x8x20-foot standardized container packages.

It is an oft-used cliche but a truism monetheless that transportation is the lifeline of our nation. It affects the cost of everything we buy. And it is generally agreed that the future of our nation will depend upon how well we all handle the job of integrating and coordinating the most advanced technologies into all segments of our transportation mix.

Transportation is an economic system. Aviation is a major technical subsystem. Advances in technology in this subsystem must certainly strengthen the whole of transportation.

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