DEVELOPMENT OF IMPROVED-TYPE AIRCRAFT

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE. HOUSE OF REPRESENTATIVES

EIGHTY-FIRST CONGRESS

SECOND SESSION

ON

H. R. 8536

A BILL TO PROMOTE THE DEVELOPMENT OF IMPROVED COMMERCIAL TRANSPORT AIRCRAFT BY PROVIDING FOR THE OPERATION, TESTING, AND MODIFICATION THEREOF

JULY 25, AUGUST 7 AND 17, 1950

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DEVELOPMENT OF IMPROVED-TYPE AIRCRAFT

TUESDAY, JULY 25, 1950

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE OF THE COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The subcommittee met at 10 a. m. in the committee room of the House Committee on Interstate and Foreign Commerce, Hon. Lindley Beckworth (chairman of the subcommittee) presiding.

Mr. BECKWORTH. The committee will come to order.

The purpose of the meeting this morning is to consider H. R. 8536, a bill introduced May 17, 1950, by the chairman of our committee, Mr. Crosser, who is present. We are always glad to have him at our subcommittee meetings.

(The bill is as follows:)

[H. R. 8536, 81st Cong., 2d sess.]

A BILL To promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it is hereby declared to be the policy of Congress to promote, in the interest of safety, the national air transportation system and the national defense, the development of improved commercial transport aircraft, particularly turbine-powered aircraft, aircraft especialy adapted to the economical transportation of cargo, and aircraft suitable for feeder-line operation, by providing for temporary Government assistance in the testing and minor experimental modification of such aircraft, and in the operation of available turbine-powered aircraft in simulated transport service to secure data to aid in the development and manufacture of turbine-powered transport aircraft, and to aid in the adaptation of civil airways, civil airports, and air-safety regulations applicable to civil aircraft to the operation of such aircraft.

SEC. 2. (a) The Secretary of Commerce (hereinafter referred to as the Secretary) is authorized to carry out the purposes of this Act by—

(1) preparing broad operating and general utility characteristics and specifications for types of commercial transport aircraft which he finds are required in the public interest, and which represent substantial advances over existing equipment;

(2) providing for the operation, by contract or otherwise, of available aircraft with turbine-jet or turbine-prop power units under conditions simulating, to the extent practicable, the conditions under which scheduled air transport aircraft operate;

(3) providing, by contract or otherwise, for the testing of such aircraft which, in his opinion, best meet the operating and utility characteristics and specifications established by him in accordance with this section; and

(4) providing for such minor experimental modications of such aircraft during the testing period which he believes necessary to carry out the testing program in the interests of safety or economy of operation.

(b) In carrying out his functions under this section, the Secretary shall consult, from time to time, with interested Government agencies, including the Department of Defense, the Civil Aeronautics Board, and the National Advisory Committee for Aeronautics, and with representatives of the aircraft and aircraft-engine manufacturing industries, and of the air transport industry.

SEC. 3. (a) The Secretary is authorized, subject to the civil-service laws and the Classification Act of 1949, as amended, but without regard to any provision of law limiting the number of personnel which may be employed by the Civil Aeronautics Administration, to employ and fix the compensation of such personnel as may be deemed necessary to assist the Secretary in carrying out his functions under this Act: *Provided*, That to the extent practicable consistent with other duties and assignments, the personnel and facilities of existing Government agencies shall be used to carry out the responsibilities stated in this Act.

(b) The Secretary, in carrying out the provisions of section 2 of this Act, may enter into contracts or other arrangements, or modifications thereof, with or without legal consideration, performance or other bonds, or competitive bidding, and, in carrying out such contracts, arrangements or modifications thereof, may make advance, progress, and other payments without regard to the provisions of section 3648 of the Revised Statutes.

SEC. 4. As used in this Act—

(a) The term "aircraft" shall include engines, airframes, propellers, instruments, accessories, and equipment for such aircraft.

(b) The term "testing" means the operation of an aircraft incident to the procurement of a type certificate for such aircraft, and the operation of an aircraft, whether type certificated or not, in actual or simulated transport service for the purpose of determining the operating and utility characteristics of such aircraft.

(c) The term "minor experimental modifications" means any adjustment or change necessary and incident to carrying out the testing program in the interest of safety or economy of operation but does not include any major factory modification.

SEC. 5. The Secretary shall submit annually to the Congress a report on the progress made in the accomplishment of the purposes of this Act, and the amounts of the expenditures made or obligated pursuant thereto.

SEC. 6. There is hereby authorized to be appropriated to the Department of Commerce not to exceed $12,500,000 to carry out the purposes of this Act. When so provided in the appropriation Act concerned, such appropriations may remain available until expended.

SEC. 7. This Act shall become effective upon enactment, and shall expire five years thereafter.

Mr. BECKWORTH. Without objection the Chair will include at this point in the record certain communications which have been received from a number of the agencies; they concern this legislation.

(The documents are as follows:)

COMMERCE DEPARTMENT,
Washington, July 10, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: In accordance with your request of June 6, 1950, the Department of Commerce has reviewed the bill, H. R. 8536, to promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof, and transmits herewith its comments thereon.

The Bureau of the Budget has advised that this legislation is in accord with the program of the President.

Sincerely yours,

THOMAS W. S. DAVIS,
Acting Secretary of Commerce.

REPORT OF THE DEPARTMENT OF COMMERCE ON H. R. 8536, TO PROMOTE THE DEVELOPMENT OF IMPROVED COMMERCIAL TRANSPORT AIRCRAFT BY PROVIDING FOR THE OPERATION, TESTING, AND MODIFICATION THEREOF

For the past few years there has been a keen awareness in aviation circles that some form of Federal assistance to aircraft manufacturers is necessary if the Nation is to retain its leadership in aircraft design. This view was expressed by both the President's Air Policy Commission and the Congressional Aviation Policy Board. This need is strikingly illustrated by the fact that none of the aircraft manufacturers who have developed the newer commercial transport aircraft have recovered their investment. Recently, both the Air Coordinating

Committee and the Civil Aeronautics Bonrd, in their reports for the calendar year 1949, expressed concern over the lack of new prototype development. The Administrator of Civil Aeronautics, in his statement on February 27, 1950, before the Committee on Interstate and Foreign Commerce of the House of Representatives, expressed similar views. We believe H. R. 8536 would provide the stimulation necessary to bring about this development without directly involving the Federal Government in the actual development of such aircraft.

H. R. 8536 would authorize the Secretary of Commerce to bear certain costs incident to the development of improved commercial transport aircraft, particularly turbine-powered aircraft and aircraft suitable for feeder-line operation. The costs would be limited to those arising out of testing in connection with type certification, flight operations simulating scheduled air transportation and undertaking minor modifications found to be necessary during such test periods and operation.

Legislation providing for the development of prototype transport aircraft under Government sponsorship was introduced in the Eightieth Congress and has been introduced in the Eighty-first Congress. These bills provide, in substantial effect, for the payment by the United States Government of the costs incident to the development of new prototype aircraft. H. R. 8536 differs from previous proposals in that it would result in less financial participation by the Government in developing the aircraft and in the maximum degree of private initiative and competition among the aircraft manufacturers. The aircraft manufacturers would bear the cost of developing the prototype during the drafting-board stage and during the actual initial production as well as the cost of subsequent major factory modifications. The Federal Government, through the Department of Commerce, would bear the costs of putting the prototype through the various tests to establish data relative to the costs of operation. It would also bear the costs of minor modifications found to be necessary during the course of the tests. Finally, when the aircraft is ready for type certification, it would bear the costs necessary to determine whether the aircraft meets the airworthiness standards established in the civil air regulations which would include thorough testing under actual operating conditions. The manufacturer will bear a substantial part of the cost burden as well as the problems of introducing the aircraft on the market and promoting its use.

On the basis of informal advice, we have reason to believe that the industry would in fact develop the types of aircraft covered by the legislation if the Federal Government would bear the expenses of the activities described in the bill and outlined above. In our judgment the undertaking of these activities by the Government under authority of the bill would be a substantial assistance to the manufacturer. We also believe that by participating in the testing of the aircraft during the various stages of development, the Civil Aeronautics Administration will be in a better position to make the determinations it must make in issuing type certificates, will know what changes in air-navigation aids and civil airports will be necessary to accommodate the new type aircraft, and will be in an excellent position to advise the Civil Aeronautics Board regarding necessary changes in air traffic rules and other civil air regulations.

There are two other provisions of this bill which I believe warrant your consideration. First, the bill provides for the development and testing of feeder aircraft. We believe there is an urgent need for such a development. Providing adequate air transportation service between relatively small areas of population and points which are served by the major air carriers is one of the largest remaining areas of new development in the entire air transportation industry. The Civil Aeronautics Board is currently fostering a program of feeder development through the use of single-engine aircraft under day contact conditions. If this business develops, larger and better equipped aircraft will be needed. The feeder-type aircraft contemplated in our proposed program would be of the type suitable for all-weather operations and capable of carrying approximately 20 persons. Following the last war several manufacturers initiated the design and development of feeder-type aircraft. However, these projects were dropped after considerable expenditure because of the expense of prosecuting the development work to conclusion. I feel that the initiation of a program leading to the development of feeder-type airplanes at this time will be of material benefit to the general public and to the aviation industry.

Secondly, you will note that the proposed legislation, if enacted, would authorize appropriations thereunder to remain available for expenditure or obligation until such time as the appropriation is expended. The unpredictability of the completion of the testing and modification program, which this legislation

would authorize, makes it extremely difficult to formulate an accurate estimate as to the time which will be required for final development of prototype aircraft. It is further complicated by the fact that no accurate estimate can be given at this time as to when manufacturers will be able to complete the initial construction of aircraft which may be tested. However, while appropriations for the purposes of this legislation should remain available until expended for the reasons stated, nevertheless such action should not be considered as establishing a permanent program. This is, in fact, a temporary program designed for the purpose of affording immediate relief to aircraft manufacturers so that they may develop advanced transport-type aircraft. As previously explained, manufacturers are reluctant and in some cases financially unable to obligate themselves for all the costs incident to the development of modern aircraft. I believe that this program, although temporary, will afford United States manufacturers the opportunity to retain their leadership in this field which otherwise might become irrevocably lost.

In summary, we believe that enactment of this proposal would promote the development of commercial transport aircraft with a minimum expenditure by the Government and under conditions which would result in maximum freedom for the aircraft manufacturers.

This proposal has the approval of the membership of the Air Coordinating Committee. The Bureau of the Budget has advised that this legislation would be in accord with the program of the President.

CIVIL AERONAUTICS BOARD,
Washington, June 28, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR CONGRESSMAN CROSSER: This is in reply to your request for a report on H. R. 8536, a bill to promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof.

The Board favors the enactment of this legislation.

We have long advocated a program of Federal assistance for the development of improved transport aircraft. This matter has also been under study by the Air Coordinating Committee for a considerable period of time, and that Committee has recently taken a position in favor of the enactment of legislation substantially similar to that embodied in H. R. 8536. The program envisaged by this legislation, in which the Board fully concurs, is premised on the belief that the two most advantageous and appropriate aspects of new aircraft development for Government financial assistance are: (1) the testing of new prototype aircraft and (2) the conduct of experiments simulating actual commercial operating conditions to permit adaptation of ground facilities and air safety regulations to the use of the new designs. This approach has the merit of leaving to private industry a maximum degree of initiative and competition in matters of production and design. H. R. 8536 in our opinion is appropriately drafted to meet these objectives.

The Bureau of the Budget has advised that the enactment of legislation as recommended herein would be in accordance with the program of the President.

Sincerely yours,

JOSEPH J. O'CONNELL, JR., *Chairman.*

THE DEPUTY SECRETARY OF DEFENSE,
Washington, D. C., June 6, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

MY DEAR MR. CHAIRMAN: This is in reference to your request dated May 18, 1950, for the comments of the Department of Defense concerning H. R. 8536, a bill to promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof.

This bill, during the drafting stage, was considered by the Air Coordinating Committee. The proposed legislation provides for a limited and temporary pro-

gram of operation and service testing of commercial transport aircraft. The Department of Defense is not given any obligations or responsibilities under the bill and it is, therefore, outside the purview of our operations and jurisdiction.

The Department of Defense does not find anything in H. R. 8536 which interferes with military operations or plans and has, through its representation in the Air Coordinating Committee, endorsed this measure.

The views stated herein should not be construed as altering prior comments of the Department of Defense in objection to legislative proposals designed to provide, through Federal financing, for the development of prototype aircraft intended for industrial or personal use and adaptable for military service.

It is our understanding that the Bureau of the Budget has approved H. R. 8536 as being in accord with the program of the President.

With kindest personal regards, I am,

Sincerely yours,

STEPHEN EARLY.

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS,
Washington, D. C., June 8, 1950.

Hon. ROBERT CROSSER, M. C.,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, United States Congress,
Washington, D. C.

DEAR MR. CROSSER: I have your letter of May 18, 1950, requesting comment on the bill, H. R. 8536, to promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof. This matter was considered by the National Advisory Committee for Aeronautics at its meeting at Langley Field, Va., on June 2, 1950, at which meeting the committee by resolution endorsed the principles set forth in H. R. 8536 because it appears to offer a stimulus for the aircraft industry to proceed with required prototype developments while maintaining the private initiative of the industry, and because it offers a means for conducting much needed research at an accelerated pace.

The Bureau of the Budget advises that this reply is in accordance with the program of the President.

Sincerely yours,

J. C. HUNSAKER, *Chairman.*

TREASURY DEPARTMENT,
Washington, June 27, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: Further reference is made to your letter of May 18, 1950, requesting the views of the Treasury Department on H. R. 8536, to promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof.

The bill would authorize temporary Government assistance for the purpose of promoting, in the interest of safety, the national air transportation system and the national defense, the development of improved transport aircraft, particularly turbine-powered aircraft, aircraft especially adapted to the economical transportation of cargo, and aircraft suitable for feeder-line operation. Administration of the provisions of the bill would be vested in the Administrator of Civil Aeronautics.

This proposed legislation is the result of extensive study by an ad hoc committee on the development of prototype transport aircraft appointed by the Air Coordinating Committee. It represents the recommendations of member departments and agencies of the Air Coordinating Committee.

The Treasury Department has no objection to the enactment of H. R. 8536.

The Department has been advised by the Bureau of the Budget that there is no objection to the submission of this report to your committee.

Very truly yours,

E. H. FOLEY, Jr.,
Acting Secretary of the Treasury.

UNITED STATES CIVIL SERVICE COMMISSION,
Washington, D. C., June 8, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Room 1334, House Office Building,
Washington, D. C.

DEAR MR. CROSSER: Further reference is made to your letter of May 18, 1950, requesting a report of the Commission's comments on H. R. 8536, a bill to promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof.

H. R. 8536 declares it "to be the policy of Congress to promote, in the interest of safety, the national air transportation system and the national defense, the development of improved commercial transport aircraft, particularly turbine-powered aircraft, aircraft especially adapted to the economical transportation of cargo, and aircraft suitable for feeder-line operation, by providing for temporary Government assistance in the testing and minor experimental modification of such aircraft, and in the operation of available turbine-powered aircraft in simulated transport service to secure data to aid in the development and manufacture of turbine-powered transport aircraft, and to aid in the adaptation of civil airways, civil airports, and air-safety regulations applicable to civil aircraft to the operation of such aircraft."

To aid in the carrying out of his responsibilities under the bill, the Secretary of Commerce is authorized in section 3 (a) to employ all necessary personnel "subject to the civil-service laws and the Classification Act of 1949, as amended, but without regard to any provision of law limiting the number of personnel which may be employed by the Civil Aeronautics Administration. * * *."

The Commission has no objection to the enactment of H. R. 8536 into law insofar as any matter within its scope of activity is concerned.

The Commission, in accordance with established procedure, has been informed by the Bureau of the Budget that there would be no objection to the presentation of the proposed report to your committee, as enactment will be in accord with the program of the President.

By direction of the Commission:
Sincerely yours,

HARRY B. MITCHELL, *Chairman.*

Mr. BECKWORTH. The first witness we shall have is Hon. D. W. Rentzel, Administrator of the Civil Aeronautics Administration.

STATEMENT OF DELOS W. RENTZEL, ADMINISTRATOR OF CIVIL AERONAUTICS ADMINISTRATION

Mr. RENTZEL. Mr. Chairman, I have a prepared statement which I would like to read first, if I may, which gives a résumé of the situation surrounding this bill.

I am very happy to have the opportunity to appear before this committee to express my views with respect to H. R. 8536.

Ever since World War II it has been apparent that some form of Government participation in the development of transport aircraft is necessary. The cost of developing the modern transport aircraft has increased rapidly since prewar days and aircraft manufacturers have not been able to recover, through sales, their costs in connection with the development of the aircraft. In 1948 the President's Air Policy Commission and the Congressional Aviation Policy Board both found a need existed for participation on the part of the Government in the development of prototype transport aircraft. While United States manufacturers have found it too costly to proceed, British and Canadian manufacturers have made great strides in the development of new-type transport aircraft—largely because their developmental work has been partly financed by their respective Governments. At the present time both the British and the Canadians have turbine-powered transport aircraft in operation on a test basis.

However, at this time, no United States manufacturer has developed such an aircraft.

Ever since World War I the United States has held leadership in the field of international air transportation. That leadership is now being challenged directly by the development of fast, foreign transport aircraft and unless steps are taken to assist our manufacturers in the development of these advanced-design transports, our preeminence in the field of international aviation will be lost as speed is the most important single advantage of air transportation. Today piston-powered aircraft of United States manufacture leads the world in use by international air carriers. It is, therefore, a matter of national concern that this leadership not be lost to foreign manufacturers who are subsidized by their governments.

Up to the present time either the manufacturer of a new aircraft or the airline which purchases it, or both, have had to conduct extensive tests under conditions as nearly identical to scheduled operations as possible in order to determine any mechanical or operational deficiencies in advance of the aircraft's use in scheduled service. These tests have sometimes not fully revealed mechanical and design deficiencies in the aircraft and this has resulted in the loss of many millions of dollars to the airlines and to the industry as well as a great inconvenience to the traveling public. The testing and minor modification of new aircraft which would be done under this proposed program would, to a great extent, eliminate such costs and would provide the airlines with as safe, economical and dependable an aircraft as it is possible to provide.

There have been a number of means suggested whereby the Government could participate with private industry in the development of transport prototypes. Generally speaking, these types of assistance have fallen into two general categories: (1) a subsidy from the Federal Government which would virtually insure the manufacturer against loss in the development of an aircraft and, for all practical purposes, place the Government in the manufacturing business; and (2) a lesser form of assistance in the testing and minor modification of the prototype aircraft following its development and construction by the manufacturer along substantially his own lines of endeavor.

Recognizing the two general categories of assistance which could be rendered, this Administration, through the Air Coordinating Committee, reviewed the situation and concluded that the form of assistance most appropriate to our private enterprise system was that which would place the Government as little as possible in the position of interfering with individual initiative in the development of the aircraft, but, nevertheless, provide the manufacturer with substantial help in the testing and experimental modification of the aircraft after construction. H. R. 8536 represents the solution considered most nearly adequate and desirable by the Air Coordinating Committee. Under this legislation the CAA will not dictate to the manufacturers what they should build but will provide broad operating and utility specifications for the types of aircraft that we feel the air transportation industry needs. It will be up to the manufacturer to meet those broad specifications in whatever manner he sees fit.

There have been certain statements in the press which have indicated that the type of assistance provided for in H. R. 8536 would

not result in the development of new transport aircraft because it would not be adequate incentive to the manufacturer; it would not transfer to the Government enough of the development cost. Although these statements have been made, I think I can assure you that most manufacturers will avail themselves of any help offered. We have, in fact, received assurances from aircraft manufacturers that they would be willing to design and construct transport aircraft with the testing assistance which this bill would give.

If we go beyond the testing and minor modification which is provided for in H. R. 8536 we would find ourselves in the position of spending tremendous sums of the taxpayers' money, probably find ourselves dictating not only the types of aircraft but the details of their construction, and would have to establish a large administrative organization in order that the program be properly supervised. Under the present plan only a few additional employees would need to be added to the Administration in order to carry out the testing program.

Actually, most of the testing would be done under contract with private persons under our general supervision. Inasmuch as this legislation would expire in 5 years, it will give everyone concerned, particularly Congress, ample opportunity to see if this limited assistance is going to be adequate or if some larger or smaller measure of participation by the Federal Government is necessary.

Other phases of the matter which I have not yet discussed are equally as important. The development of new, fast, transport aircraft is creating a problem in connection with the design, development, and particularly the operation, of the Federal airways system. Present aircraft in transport use have comparatively small variations in speeds and fuel capacities and, therefore, lend themselves more readily to our present system of air traffic control.

The interjection of the new, fast, transport aircraft with relatively low fuel reserves will create problems that we are not yet fully acquainted with Consequently, the testing of such aircraft under H. R. 8536 will provide the Administration with a means of evaluating our air traffic control system as applied to jet aircraft and providing for any necessary changes to meet resulting special needs.

The CAA is also vitally concerned with safety problems incident to the certification and operational characteristics of these new aircraft. This legislation would give us an opportunity to work with the manufacturers and the airlines prior to general use of the aircraft in scheduled air-carrier service. In this manner we would obtain invaluable information on maintenance and operating problems relating directly to the aircraft as well as be able more readily to cushion the impact their use will have on our present airways system.

It is entirely possible that certain military aircraft could be converted into aircraft suitable for scheduled transport use. If such is possible, these aircraft would be tested under this program. It is also possible that foreign-made aircraft could be tested by us in order to provide operational information on our Federal airways system and information for American manufacturers in the development of prototype transport aircraft of United States manufacture.

In view of the urgency of developing safe and economical prototype transport aircraft in the United States, I strongly recommend that your committee report H. R. 8536 favorably. The present bill has

been cleared by the Bureau of the Budget on behalf of the President as have these remarks.

Mr. Chairman, before I conclude if I may I would like to take 5 minutes of the committee's time to give you a résumé of the situation which has existed prior to this time, and, if possible, to shed some light on the sequence of events which has led to this present state of affairs of prototype transport aircraft.

Mr. BECKWORTH. You may proceed.

Mr. RENTZEL. Prior to World War II, Mr. Chairman, it was entirely possible for the aircraft manufactmrer to build and produce on the gamble of selling a transport aircraft.

The DC–2, the DC–3, and all predecessors, and the DC–4, were financed entirely by the manufacturers of commercial aircraft. Those airplanes were very important.

I might add that the last, the DC–4, was financed by cooperation between the scheduled air carriers at that time and the manufacturer, Douglas Aircraft, on a joint development cost basis.

I do not think we have to repeat for the record that the DC–3 and the DC–4 were the backbone of our air transport aircraft used by the military during World War II. The history has been well written. I am sure that the military will completely concur when we say that without these two aircraft we would not have had a transport world-wide military service.

During World War II two new aircraft were financed by military participation with the manufacturer, by actual military contract. One of these was the Constellation, which had been started prior to the war. Another was the DC–6. Those two are the present backbone transport aircraft of our present fleet.

The availability of these aircraft immediately after the war gave the United States unchallenged leadership in aircraft, and with the DC–4, the Constellation, and the DC–6, they are the backbone of our world fleet of aircraft.

Subsequent to World War II the British, who had not been in any large-scale transport production during the war, went into an advanced stage of development on jet-powered aircraft, either turbine or turbine-propeller combinations.

At the present time, as I have mentioned, the British do have a world leadership in jet-powered aircraft for the reason that they have subsidized and underwritten the cost of transport development in order to achieve world leadership.

The Canadians also have a turbine-powered aircraft which I believe is good enough for us to certificate for use in this country.

We are losing the world leadership in transport types of aircraft.

I might say further that the military requirements are being met for transport aircraft from current modifications or development of militay types of cargo transport. The C–97 Boeing is a development from the B–29 bomber. The C–125, the Chase aircraft, is a development from a glider type of aircraft powered with conventional piston engines. Other types of aircraft are modifications of DC–6's or Constellations for cargo purposes.

The military, for reasons of budget, have not invested in any substantial development program for cargo types of aircraft. I believe they have counted rather heavily on the availability of commercial aircraft for their supplemental airlift purposes.

As was brought out in the Senate hearing, the military lift is deficient. We know that. Development at this time will not eliminate that deficiency insofar as the present emergency is concerned. Obviously, the only thing that can be done now is to procure existing types of cargo and transport aircraft for military purposes.

I might add further that this bill provides for another field which has been, I believe, neglected. That is the question of suitable aircraft for feeder types of airlines, short-range airplanes. At the moment we have no satisfactory feeder-type airline airplane. That is a deficiency which I feel, for the good of our transport system, must be rectified.

Now, it has been argued that the Government should get into the question of development of aircraft extensively and should make available the supplemental lift necessary by building, owning, and making available aircraft to all commerce on a lease basis. There is certainly some merit to such a suggestion.

I do feel, however, that as much as we can we should keep the Government out of the private industry's business. We should assist where assistance will be effective, and we should limit our participation financewise to the minimum that will accomplish that objective.

I feel it is urgent. I feel that while we are not able to meet the existing emergency by this bill I do feel that the future emergencies might well be met for supplemental airlift, particularly in the cargo field.

I would like to emphasize that it would be the purpose of the Department of Commerce, around which this bill is written, to make every possible effort and to give every possible priority to the development of an adequate cargo airplane. It is in this field that the military and civil have the greatest common interest. It is in this field that we have the greatest common need for supplemental airlift.

Mr. BECKWORTH. Are there any questions?

Mr. Rentzel, what do you feel a bill like this, or a piece of legislation like this, would cost the first year, the second year, and the third year? What are your estimates?

Mr. RENTZEL. As an off-hand estimate, Mr. Chairman, I feel that the first year would be one of the smaller years, for obvious reasons, organizational purposes. I estimate we would be able to spend effectively approximately 2½ million dollars the first year.

The second year would be one of the most productive, in which we would be able to conduct some simulated tests with jet-type aircraft, both turbine and propeller jet aircraft, in order to ascertain some of the safety problems we are going to be getting into in this type of airplane.

We are inevitably going to be faced with an entirely different set of operating principles with this type of power, traffic control, icing conditions, turbulence problems, safety, and certification, which will be matters of vital concern. We would hope that this bill would give us a really worth-while opportunity to learn these problems and solve them before the aircraft get into use.

After that I would estimate we can spend on the order of approximately $3,000,000 per year. It may be that we may reach a status in conjunction with the over-all international situation which might modify that program.

It would be our effort to expedite it and to expend the money as early as possible if we can get the results. I would estimate a large part of it could be spent effectively in the first 3 years of the bill.

Mr. BECKWORTH. Please give us a concise statement as to just how the proposition would work out with company X when company X envisioned a plane that it felt it would like tested.

Mr. RENTZEL. Our approach on this, Mr. Chairman, would be twofold. One is the experimental testing of existing jet types of aircraft, to be conducted by contract with existing carriers, both irregular and regular carriers, to the extent possible.

In the case of a manufacturer who has produced a new aircraft which he would like to have tested in this program, it would be our undertaking to contract with either the Military Air Transport Service or the existing carriers to operate this aircraft on a semischeduled basis for an accelerated service test of approximately 1,250 hours. That aircraft would be accepted from the manufacturer. We would revise our certification procedure accordingly in order to give it an experimental license without going under the normal certification process prior to its manufacture, by taking this prototype aircraft and putting enough hours on it to fly the bugs out of it rather than to estimate what the deficiencies of that particular aircraft would be before it was built, as we have had to do in the past.

After this flight test of approximately 1,250 hours in cooperation with a carrier or a group of carriers and in cooperation, of course, with the manufacturer, we would attempt, through our Type Certification Board, to determine what deficiencies had been discovered, and those that had not been corrected by the provision of minor modifications as outlined in this bill we would insure, as a part of our type certification procedure, were corrected in the production model.

I hope that describes the process.

It would not be our attempt in the Administration to set up a group of operating people to do this job. Our effort would be to set up a general supervisory program and to contract with existing carriers. I emphasize the contracts would be with both scheduled and irregular carriers to operate some of these aircraft in order to fly the bugs out of them.

A lot of things would be learned by that process. One of our big hidden costs today is the training cost when the air carriers of any classification put into operation a new type of transport. Those costs are always found in the overhead in the first 2 years of service. Usually a year goes by before we have the maintenance know-how and the pilot-operating technique and the general operating knowledge that it takes to operate satisfactorily a new type of transport. During that time the costs are abnormally high. During that time the service of the airplane is low because of delays and mechanical deficiencies, and for safety purposes the airplanes are sometimes grounded during the first year of service.

We would hope to eliminate those things with this service testing bill by simply flying the deficiencies out of the airplane and at the same time getting the know-how on the maintenance, accessories, engines, propellers, and so on, that would have to go with any type of transport before it is actually produced.

Mr. BECKWORTH. Do you have any figures personally on what the cost is to test, we shall say, a plane such as the DC–4 from the time

it actually is delivered by the company thought to be in a condition to fly passengers?

Mr. RENTZEL. It is a little difficult to get an actual percentage figure, but if I might take a second here I can describe the process.

The manufacturer at the present time does put an accelerated service test on the airplane. He obviously test flies the airplane. There is every effort to build in every safety device possible in order to make it a safe airplane, but inevitably during the first year of service additional deficiencies are found which are impossible to find without actual operating use.

During that period of time the manufacturer is responsible for the modification of any of those deficiencies which occur. In the process of modifying a fleet of aircraft which is already in being, rather than a fleet of aircraft which are to be built, the cost is abnormally high, for the grounding of the airplane or returning it to the factory for the modifications necessary in the over-all structure in order to accommodate a new accessory or a new modification. Those things we hope would be eliminated.

It is, therefore, our estimate that the saving to the manufacturer may be on the order of 25 or 30 percent of the actual final cost of the production-type airplane. That does not represent that kind of money out of pocket to the Government, but it does represent a saving of postconstruction cost which we think can be applied to the over-all cost of the airplane very logically.

Mr. BECKWORTH. I know this question could probably be better directed to the military, but where does this bill, in your opinion, contribute to the national defense? You may have touched on this briefly before.

Mr. RENTZEL. I think it is a known fact, Mr. Chairman, that the existing transport aircraft which are available today and which might be available in any emergency would be of vital importance to the military, both from the point of view of availability for direct use by the military and from the point of view of the commerce required to operate the country on a national defense or national emergency basis.

So, I think the history of the last war is the best answer to your concern. First, it is the availability of the aircraft from what you might call a stockpile. Secondly, there is the availability of testing aircraft which can be produced rapidly to meet the military requirements and which can be modified to meet the military requirements as the case may be.

Mr. BECKWORTH. Do you think this bill would have any bearing, or would help this country to get more speedy jet transports of a large type?

Mr. RENTZEL. It definitely would get us jet transports of a large type. More importantly, I hope that it would also be possible to get some good cargo-operating planes which would be both capable of operating economically at a low cost per ton mile, which is a major deficiency of our cargo business today, because we do not have such an aircraft, and at the same time be usable by the military.

I should explain that in some instances the military are interested only in specialized types of transports. With respect to the types of transport which are needed for the hauling of tactical equipment or

armor, obviously a specialized transport is needed. However, for troop carrier purposes and for general transport of commodities such as supplies, accessories, parts, and so forth, to the fighting fronts, any of the existing airplanes today, particularly the four-engine airplanes, would be of great value to the military. Therefore, it would be our hope to give priority to the cargo type of airplane under this bill, and get aircraft which would be of value to the military and simultaneously be able to operate as a part of the Nation's commerce on an economical basis.

Mr. BECKWORTH. We have heard quite a bit about the great need at this time for large cargo planes. To what extent has the CAA in the months or years gone by had anything to do with the development of some of these larger planes which we have heard about? For example, there are some that will carry 150 people, I believe one will carry 700 people, so it is contended. Has the CAA had anything to do with those, or has that been altogether the military?

Mr. RENTZEL. We have had a very small part in that, Mr. Chairman. The military, usually with military funds, has developed such transports of such types of aircraft as you speak of. That has been done. Of course, the CAA has never had any money to do this type of work. Our part in the program has largely been limited to cooperation with the military on specifications, on testing, and on modification of the existing transport commercial aircraft for military purposes.

In answer to your question directly, the answer is a very small part. The military have done most of the work themselves.

The great majority of the existing transport aircraft used by the Military Air Transport are modifications, however, of commercial types. The C–54 is a direct modification of the DC–4 which was a commercial airplane, and the availability of which again, plus the DC–3, was a very saving factor in the last war, as history will indicate. We hope that such aircraft will again be available.

Mr. BECKWORTH. However, there have been types of planes that might be considered out of the ordinary. I do not know to what extent the Constitution would meet that description, but I do understand that the Martin Co. has built some very huge planes. Of course, we have had information about that proposed huge plane of Howard Hughes. I do not recall whether that actually flew or not. I think there was considerable thought that it would fly at the time. It may be they are working on it yet.

How far in the development of what might be termed an extra-large cargo plane do you feel that the CAA should go at this time?

Mr. RENTZEL. Well, under this program, Mr. Chairman, we would be in a position to test any aircraft that was built. It would certainly be our objective to get as many large types of transport aircraft for use by the military as we could possibly, you might say, promote, because we are not actually underwriting them.

The military would have to do the procurement, of course, as would be needed.

At the present time the military are in the process of considering some additional transport procurement. However, they will have to do it from existing types of aircraft because no new ones have been developed except under their auspices.

Mr. BECKWORTH. In reading the report of the Deputy Defense Secretary, Mr. Early—which incidentally endorses this bill—this paragraph is found:

> The views stated herein should not be construed as altering prior comments of the Department of Defense in objection to legislative proposals designed to provide, through Federal financing, for the development of prototype aircraft intended for industrial or personal use and adaptable for military service.

Will you have any comment on whether or not this bill would be at variance with that?

Mr. RENTZEL. No, sir. I do not think it would be at all. I think it would be in keeping with that. This bill does not provide, however, for the testing of industrial or personal aircraft. There is a separate bill before this committee which would provide for that type of aircraft.

This bill is designed for transport aircraft only.

Mr. BECKWORTH. I just wanted to get your views on that.

Mr. RENTZEL. Yes, sir.

Mr. BECKWORTH. Are there any other questions?

Mr. HALL. Mr. Rentzel, members of this committee were in England last year and saw the Comet.

Mr. RENTZEL. Yes, sir.

Mr. HALL. Could you give me an estimate of how far behind England we are in the development of such a jet-propelled transport plane?

Mr. RENTZEL. Mr. Hall, my best estimate would be 2 or 3 years.

Mr. HALL. In other words, it will be 1953 before we are able to put a transport plane such as the Comet in the air?

Mr. RENTZEL. At the stage that they have it now, which is the stage not of being in use but in operational test.

Mr. HALL. While we were over there they spoke to us about the possibility of licensing the manufacture of such a plane in the United States. Has anything developed along that line?

Mr. RENTZEL. Nothing conclusive. I know there have been discussions about it, Mr. Hall. I also know that that same consideration has been given to the Canadian Avro–102.

Mr. HALL. That includes the engine, of course?

Mr. RENTZEL. Yes.

Mr. HALL. What would happen to our transport system if within the next year or so the Canadians or the British put these planes in operation?

Mr. RENTZEL. Well, definitely we would go into a second-rate position in so far as competition with them is concerned. Certainly from the point of view of speed and the point of view of service to the public we are going to be behind if our airlines are not able to use that type of aircraft.

Mr. HALL. This is not said in the spirit of criticism, but why have we not done something before this in order to attempt, at least, to bring us up on a par with England and Canada in the development of jet-propelled transports?

Mr. RENTZEL. There are several reasons, Mr. Hall. One reason is that the Eightieth Congress did not pass the prototype bill recommended by the Congressional Aviation Policy Board at the last minute, for reasons which I think are well known.

One of the principal reasons is that the industry—I speak of that considering the Government agencies involved as well—has been unable to get together on a program of which they could agree. I think the point of view has changed several times in the past 3 years.

As a result of that, this is the first bill on which we have had some general agreement. There is still opposition. There are still people who have other ideas. I think there always will be that in an industry of this type.

The fact is, simply, that this is the first bill on which we have had AAC approval and on which the President has passed on his approval and on which the industry is in general agreement.

Mr. HALL. Of course, all the foreign airlines now use our airplanes?

Mr. RENTZEL. Yes, sir.

Mr. HALL. Was it in the minds of the private operators and the private transport companies over here that they could make just as good a deal with the British and fly the British jet-propelled planes?

Mr. RENTZEL. I do not think that has entered into it. Perhaps it has recently, Mr. Hall, but I do not believe it has in the past 2 or 3 years unless it has happened very recently.

I am reasonably sure that the probability is that they will buy some of these airplanes and they will use them. The competition will perhaps force others to do the same.

Of course, that leaves us in a difficult position with our United States manufacturer. It does not help our defense effort to not have the manufacturing capacity available which we had at the beginning of the last war from commercial types of air transport manufacturers. It does not help our United States position either prestigewise or potentialwise, as I see it.

Mr. HALL. You say that this bill would cost 2½ million dollars to 3 million dollars a year, and would level off at about 3 million dollars a year?

Mr. RENTZEL. I felt perhaps the second year might reach as much as $5,000,000.

Mr. HALL. It would level off at $3,000,000?

Mr. RENTZEL. Yes, sir.

Mr. HALL. What percentage of the over-all cost of developing an experimental plane is that? I ask that for the reason that at the beginning of your statement you say the cost of production of an experimental plane has been the biggest bar to our getting such work done. What percentage of that cost would this item be which you cover in this bill?

Mr. RENTZEL. I estimated it, Mr. Hall, at 25 to 30 percent of the manufactured cost. You would not do much toward the actual experimental development, which would still be the responsibility of the manufacturer, but the service testing and the other benefits, we think, which could be derived from the actual testing and modification action of the bill, might amount to as much as 25 or 30 percent of the manufactured cost which, after all, is the cost that the manufacturer is primarily interested in.

Mr. HALL. I have another question. Reading Mr. Early's letter it is indicated to me—maybe I am wrong—that he feels the military should develop its own planes; is that a fair assumption?

Mr. RENTZEL. Well, he feels, I am sure, that they should develop their own planes that they need for their own special purposes. I am equally sure that he will expect to be able to use the entire United States transport fleet if need be. The availability of those aircraft, if our experience in World War II is any indication, will be a very important part of the Air Transport Service of the military.

I also know that they do contemplate the use of such aircraft as needed. They are using them in the present emergency.

Mr. HALL. I asked that question as a basis for this question, and maybe you can answer it: Is the Comet, or the English jet-propelled plane the result of a combination of efforts on the part of a private industry and civil transport and the military? Are they all working on that together to bring out a plane, or is it the work of just one group?

Mr. RENTZEL. No, sir; I think they are working together on it. They operate quite differently, because of the situation of the industry in England. All these planes were built on a completely subsidized basis by the process of the Ministry of Supply ordering two of each type and underwriting the total cost, with a tentative order for additional aircraft for use by the subsidized airlines in the event the airplane turned out to be as satisfactory as the engineering plans indicated.

Mr. HALL. Well, do you think that brought about efficiency, to have all working toward the same end over there, and do you think we will be just as efficient over here if we have the civil working in one direction for civilian transport planes, and the military working in the other direction for their particular purposes?

Mr. RENTZEL. I do not think we are working at cross purposse at all. I might just personally mention that the committee that developed most of the background of it, one of which was General Kuter in command of Military Transport, and one of the members of the Air Coordinating Committee, the NACA being the fourth member, said it is just a different need, the need for particular tactical types of transport aircraft is one thing for which the military feel that they should be the sole developers and procurers. The supplemental need for air lift that comes from the availability of transport aircraft is the second one that they are endorsing without wanting to participate financially. They feel, in other words, that is of definite national interest, and there are airplanes which could be used by the military, and at the same time they want to differentiate between that and the tactical type of transport which they feel they should undertake to build.

Mr. HALL. Are they participating with their know-how?

Mr. RENTZEL. Oh, yes; absolutely. They would participate, too, in the service testing of various types of aircraft and would benefit from the information or data derived.

I might go further and say that the airports, the design of airports, which would be affected by service testing of jet-propelled and turbo-propelled aircraft would be of inestimable value to the military and would, of course, make our system more adaptable to the military needs in time of war, our traffic control, our meteorological service, our airways system, and the design and implementation of our airports.

Mr. HALL. Mr. Dolliver suggested this while we were over there they said that there were several bugs in the Comet No. 1, the high fuel consumption for long trips, and the high speed at which they have to land, and also, of course, the pressurized-cabin flying at 30,000 or 40,000 feet. Can you tell us whether or not any of those bugs have cleared out?

Mr. RENTZEL. They have made substantial progress in the past year. The Chief of our Aircraft Engineering Division was over there in June, and he flew the Comet personally. They have made very substantial progress toward eliminating pressurization.

The problem of fuel consumption is common to all jet-powered aircraft, but they have made some progress there. His reaction to the airplane was good. There are still some things to be learned, of course, that will come from operating and service testing, but they are doing more or less at the moment what we want to do under this bill; they are service testing those airplanes and will fly them for 2 or 3 years before putting in service that aircraft and the later aircraft that are now in the process of production.

Mr. HALL. Thank you very much. That is all.

Mr. BECKWORTH. Mr. Dolliver, do you have any questions?

Mr. DOLLIVER. No.

Mr. BECKWORTH. Mr. Wolverton.

Mr. WOLVERTON. Mr. Rentzel, in your statement you have informed us that the British and the Canadians are far in advance of us in this matter. To what extent are their studies and the results of their studies available to us?

Mr. RENTZEL. I cannot answer that specifically, Mr. Wolverton. They have indicated that they would be glad to consider a license arrangement. They have not indicated that to me but they have to some others, and if that were true, I would assume that they would license the manufacturers of both the engines and the aircraft. Quite a bit of the information that they are obtaining in regard to traffic control is available to us, and they have offered directly to cooperate with us in that study because we are both concerned about that aspect of it.

Mr. WOLVERTON. Well, aside from the possible willingness to license inventions to us, to what extent are we able to know the details of their studies as a basis for our study, regardless of the question of licensing?

Mr. RENTZEL. Well, we are able to know a great many of the problems and the broader answers that they are getting from the service-testing of these airplanes, because we have kept closely informed about them. I have had an engineer over there, or, the Civil Aeronautics Administration has had, for a year during which time the Comet was being brought from the design and experimental stage up to the development stage, and we have been kept very well informed in that respect.

As to the actual design, I do not think that there is any particular mystery about it. I am quite sure that our manufacturers are capable of building an airplane equally as good if there is sufficient incentive for them to go ahead with it. In other words, I believe that from that point of view we are not too far behind, but the short time for the experimental work and development of aircraft and the production of aircraft is what is putting us behind mostly.

Mr. WOLVERTON. Would their studies, their progress, and their designs be available to our private manufacturers in this country?

Mr. RENTZEL. I would have to say probably not, Mr. Wolverton, unless we were able to work out some arrangement for which we would pay for or contribute toward their engineering development expense.

Mr. WOLVERTON. Well, speaking frankly, what I have in mind is this: For years now we have been financing Great Britain to a very great extent. We have, in addition, taken upon ourselves responsibilities that I think we have a right to expect that Great Britain would share with us in other parts of the world, all of which is a great expense to the taxpayers of America. I would like to know why we cannot have the benefit of something that they are doing by way of return for all that we are doing for them.

I do not put that to you expecting an answer, because I realize that you are not on the level of officialdom to probably make a statement in that respect, but I certainly am definitely of the opinion that we have done so much for Britain that I think any door should be open to us that would be helpful in these lines of our endeavor.

We opened to Fuchs, representing the British, our secrets in our atomic development, and you see what became of that.

If we can open our secrets with respect to atomic development and research to the British, it seems to me a small thing in return for us to get some of their information which would enable us to start off where they are at the present time.

The second thing is this: You spoke of one of these planes over here as being rather expensive, and that it would take a great deal of the taxpayers' money. I wonder how Britain does it, if they are in the financial condition that they are in which requires our help? How did they get the money to go ahead and make these developments when you indicate that it would be too great an expense for us to do it?

Mr. RENTZEL. May I answer the last question?

Mr. WOLVERTON. Yes; I think you should, because you referred to it in your statement.

Mr. RENTZEL. Yes, sir. I do not know the answer. I am sure that they will tell you that they get most of the money with which to develop these airplanes from their own economy.

I know that their ambition is one that they do not try to conceal, is to gain preeminence in the field of civil aviation as they have historically done in shipping.

My only point was not that we could not find the money to do this, but it was our hope, and when I say our, I mean the Air Coordinating Committee, and I believe that of the President, that we would not have to spend these tremendous sums in order to get the same results.

Our feeling was that with the cooperation of a private enterprise system we could develop equally good aircraft without the same expenditures and the same whole underwriting by the Government with all of the consequent Government regulation that would go with it, that we could get, in other words, the same results with an easier pull. Perhaps we are being optimistic. We have reason to believe that is right. Historically heretofore, without any help from the Government, the aircraft manufacturing business has been able to develop the finest aircraft in the world. We are just reaching the point here where some assistance is needed. The question is what

degree of assistance is needed. It was our hope that this short step would get the same results as, perhaps, their whole step.

Mr. WOLVERTON. But, it seems from what you have said that we are about 3 years behind Great Britain.

Mr. RENTZEL. Yes, sir.

Mr. WOLVERTON. If that statement means what it seems to, it seems to me that the thing we ought to do is find some quick method of getting up to date, and I do not know of any quicker method, if the British are so far ahead of us, than for them to make available to us what they know on this subject as a result of their studies and experience. While you are limited in what you can express, there is no limitation upon me, and I do not hesitate to say that in view of all of the help we are continually giving the British, that we ought to have the right to get something in return for it, and I feel that this is one of the opportunities that we have to get something that probably would be helpful to us. I am so strongly of that opinion that I think instead of this give-away policy that we have followed all of the time, it is time to begin to think a bit about getting something in return for it.

Mr. RENTZEL. May I say, Mr. Wolverton, that we have not been refused the information; we have not asked for it.

Mr. WOLVERTON. Well, we are 3 years behind them.

Mr. RENTZEL. Yes, sir.

Mr. WOLVERTON. If that has been available to us, then I cannot understand why we are 3 years behind them. Now, if it has not been available to us, then I can understand why we might be 3 years behind, but the point I am making is this, if we are 3 years behind in air development, the quickest way to gain that 3 years' time is for them to make available to us what they already know that places them in that advantageous position.

I was very much impressed with a cartoon that I saw in the Times-Herald yesterday. It showed Uncle Sam throwing money out all over the world, and yet behind that was the thought that we have the most serious crop failure in history due to the fact that our allies are not giving us any help in the difficulties that we now face in Korea. I realize that maybe I am getting beyond the jurisdiction of this committee, but, at least, I hope that I can provoke some thought along that line.

At the present time in our own country has any development of a prototype been made, or is any effort at development of a prototype being made by our private companies?

Mr. RENTZEL. Yes, sir. They have not actually developed a prototype to be brought into the field, but they have done a substantial amount of engineering through modifications of military designs for commercial transport planes; but, as to the development of entirely new designs to meet some of these new categories of equipment, no. I would say also in the cargo field that there has been some substantial progress, although nothing has evolved in the way of an actual airplane.

Mr. WOLVERTON. Is it your opinion that the reason we are 3 years behind the British in development is because of an unwillingness upon our part to expend the sums of money that are necessary?

Mr. RENTZEL. I believe that is a large part of it, Mr. Wolverton. I think the kind of money that we are talking about in some of our newer developments runs into $30,000,000 or $40,000,000 for develop-

ment cost. I feel that there are two things that have bothered the manufacturers. One of them is the ability to program, which I might add was the fourth item of this ad hoc Air Coordinating Committee's consideration, and which I have not discussed here.

The other thing was the cost of development versus the ability to recover that cost of development by actual purchases made later. That has been a disturbing factor; and, as you remember, the situation in the aircraft-manufacturing industry in 1948—in 1947 particularly, and the early part of 1948—was very serious, and a matter to which the Congressional Aviation Policy Board gave considerable attention. Since that time, of course, military orders have revived a substantial part of the industry. The commercial aspects or transport features have not been a matter of high priority, we think, because of the precedence of military orders. I think the situation has somewhat changed from 3 years ago, but the cost of development is one of the major factors. I believe it is a matter of record that the development costs of postwar aircraft have not been met by actual sales. In other words, there has been a loss on practically all actual postwar aircraft that have been developed in the transport category.

Mr. WOLVERTON. What policy did the British pursue with reference to carrying the expense of these developments, as compared with our own? Was it a Government-financed method in Britain?

Mr. RENTZEL. Yes, sir; it is, and, as I mentioned, the process in England is for the Ministry of Supply to contract with manufacturers to develop and produce usually two of a prototype of a particular type of airplane which shows some possibilities, and that is totally at the cost of the Government, as I understand it.

Mr. WOLVERTON. That would nearly approach, then, the first possibility that you mention in your statement—would it not—where you said:

> Generally speaking, these types of assistance have fallen into two general categories: (1) a subsidy from the Federal Government which would virtually insure the manufacturer against loss in the development of an aircraft and, for all practical purposes, place the Government in the manufacturing business.

I assume that their policy more nearly approaches that?

Mr. RENTZEL. Yes, sir.

Mr. WOLVERTON. There still comes into my mind the thought that you expressed that the second plan, which is included in this bill, H. R. 8536, is preferable on account of the fact that it would not be as heavy a burden upon our taxpayers as the other plan would entail.

For instance, you said in your statement:

> If we go beyond the testing and minor modification which is provided for in H. R. 8536, we would find ourselves in the position of spending tremendous sums of the taxpayers' money.

Now, what I cannot understand is, if the British in their straitened financial circumstances are able to carry that expense, and benefit to the extent of being 3 years ahead of us, why this Government, that is in a much better financial position than Great Britain, is not in a position to do it.

Mr. RENTZEL. Well, Mr. Wolverton, we are. I am sure we could spend the money. It was simply our hope that we would not have to spend the money and could get the same results without trying to modify our existing relations between Government and industry.

Mr. Wolverton. Well, following that through, it would seem to me that when we give the financial assistance to Britain that enables them to utilize their funds to make this development that carries them so far ahead of us; that the least we could expect would be to get something in return from them when they have made the developments that place them so far ahead of us. So, I come right back to my original thought: that I think this Government is extremely lax in the way it hands out its money and does not get something substantial in return. This is a very simple matter. It is not complicated by a lot of considerations that would apply to some other situations. It is difficult for me to see why somebody in our Government is not up on their toes to get something back for the United States for the money that we are spending in one way and another throughout the world, especially in Great Britain.

It is true, as you have said, that the Joint Air Policy Committee, in which we both participated some years ago, which I think did a splendid job, has made recommendations. It is regrettable that the lapse of time that has gone by without the recommendations being carried out, has put us in the position where we are 3 years behind. This is through failure upon our part to enact legislation that might have, if it had been earlier enacted, put us in a more advantageous position.

You spoke of some differences existing which had not been resolved until the present and, therefore, this bill comes in on May 17, 1950, nearly 2½ years after the original report of the joint committee was made What are those differences and where do they exist? Is it between the military and the civil? Just what is the situation that delays us in this matter? Is it a question of policy as to how we should proceed with the financial side, whether it would be plan No. 1 or plan No. 2 that you speak of? Just what is the background of the conditions that existed, which I am inclined to believe have not been entirely cleared up yet?

Mr. Rentzel. I am sure you are right in respect of everybody agreeing on this bill, Mr Wolverton. I do not think everybody does, but it is the majority view that this is the proper approach.

Going back to the time of the Congressional Aviation Policy Board, I believe the principal difference that existed at that time was the method, and I think it still is the method and how prototype development of transport aircraft should be developed, because the problem has been the lack of an agreement as to what the extent of the program should be. I might admit very frankly that we, in the Government, have only agreed as to what the approach should be as of this year.

As far as recent considerations are concerned, the industry—that is, the airlines and the manufacturers, and I speak of all classes of both—have been in disagreement as to the extent of the necessity for Government aid and Government support and regulation. I feel that, in large measure, they have agreed on this approach as a limited approach to the problem which should produce results. One thing I can say is it is a lack of agreement between the Government and the industry and within the industry and within the Government as to exactly which approach should be made. At the time of the Congressional Aviation Policy Board's report there was substantial enthusiasm for a prototype bill which would actually underwrite the

cost of such development, and bills were introduced by Members of both Houses of Congress to provide such assistance. In addition to that, those bills were reintroduced in this Congress, the Eighty-first Congress, in the last session. None of those bills have been acted upon for reasons of lack of agreement amongst the people concerned, I am sure, until this time. So, we are now in the position, we hope, of having reached some measure of agreement amongst those concerned as to what can best accomplish this job.

Mr. WOLVERTON. Here is a situation that I do not quite understand. In Mr. Stephen Early's letter of June 6, 1950, addressed to the chairman of this committee, he states:

> The Department of Defense does not find anything in H. R. 8536 which interferes with military operations or plans and has, through its representation in the Air Coordinating Committee, endorsed this measure.

Then in the next paragraph he says:

> The views stated herein should not be construed as altering prior comments of the Department of Defense in objection to legislative proposals designed to provide, through Federal financing, for the development of prototype aircraft intended for industrial or personal use and adaptable for military service.

Now, it seems to me that is a qualification of his statement that the Department of Defense is not opposed to anything in H. R. 8536. Maybe my uncertainty as to the meaning of it is due to the fact that I am not familiar with what the prior comments of the Department of Defense, the objections, and so forth, actually were.

Mr. RENTZEL. Well, I believe I can explain part of it, Mr. Wolverton. There is another bill before this committee which has to do with the development of a personal or industrial type of aircraft which might be used by the military; that is, as separate and distinct from transport aircraft which this bill contemplates. I do not know that the Department of Defense had objected to that particular bill, but that is a separate bill, and I think their point in raising the issue in this letter was so that the committee would not be confused between their endorsement of this bill and their objections to the other bill. That is the way I would interpret that paragraph.

Mr. WOLVERTON. That might explain this apparent qualification.

Mr. Chairman, there are many more questions which I should like to ask, but I understand arrangements have been made to show a picture which, I understand, is highly important. So, I will withhold any further questions until some other time, so that we may have the picture of British planes.

Mr. BECKWORTH. If you will suspend, Mr. Rentzel, we will permit Mr. Ramspeck to be the next witness.

Mr. RENTZEL. All right, sir.

STATEMENT OF HON. ROBERT RAMSPECK, EXECUTIVE VICE PRESIDENT OF THE AIR TRANSPORT ASSOCIATION OF AMERICA

Mr. RAMSPECK. Shall I proceed, Mr. Chairman?

Mr. BECKWORTH. Yes, sir; you may proceed, Mr. Ramspeck.

Mr. RAMSPECK. Mr. Chairman, my name is Robert Ramspeck. I am executive vice president of the Air Transport Association of America, which includes as its members most of the certificated airlines of the United States. We appreciate the opportunity to testify

before the committee upon this important bill dealing with prototype-aircraft development.

It is unnecessary for us to review the long history of this proposed legislation, for that has been completely outlined in previous congressional hearings. It is sufficient to say that the fundamental problem with which this bill is designed to deal has not changed since the investigations by the Congressional Air Policy Board and the President's Air Policy Commission. Almost exactly 2 years ago prototype legislation was under active consideration by the Congress. At that time I emphasized the great national interest in having a commercial fleet of the most modern and efficient transport aircraft, and the equal importance of having those aircraft built by United States manufacturers. I pointed out that within a relatively short time the commercial fleet would consist largely of the most modern transport aircraft available, but warned that we could not then rest on our laurels. By reason of the length of time involved in developing news transports, any new airplane put on the line should be obsolete as compared with those on the drafting board. It was clear at that time that we had no plans for replacements; that we had made no progress with jet transports, with advanced cargo aircraft, or with feeder-line transports. It was also clear that unless something was done these designs would not be started, because the manufacturing industry and the air-transport industry were unable to prepare and execute them. The air-transport industry was not at that time, and is not now, sufficiently strong financially to undertake to pay the millions of dollars it would cost to make progress on these new designs; and the manufacturing industry, having lost millions of dollars in the past in developing new commercial transports, was not prepared to gamble 20 or 30 more millions in advancing the development of United States transports beyond the stage they had then reached.

To make this situation more acute, the British and Canadians then had well-developed plans for jet transports, and obviously intended to make the United States yield its first place in transport development by specializing on jets.

Since I testified before, the situation has changed in only one respect. There have been great and important developments in the design and construction of jet transports, but with substantial Government aid the British and Canadian manufacturers have been the ones responsible for these developments.

The Canadians have a jet transport—the C–102—which is now flying. This airplane has a gross weight of 65,000 pounds and is capable of carrying from 40 to 60 passengers at a cruising speed of 465 miles an hour. Six British manufacturers have developed, and have now in operation, six different jet and turboprop transport airplanes. The Whitworth-Apollo—a turboprop—operates at a gross weight of about 45,000 pounds and is capable of carrying 24 to 40 passengers at 275 miles an hour. The Bristol-Brabazon—a turboprop—operates at 290,000 pounds. It is designed to carry 100 passengers at 330 miles an hour. The de Haviland-Comet—a jet airplane—operates at a gross weight of 105,000 pounds and is designed to carry from 36 to 48 passengers at 490 miles an hour. The Page-Hermes V—a turboprop—operates at a gross weight of 90,000 pounds and is designed to carry from 40 to 70 passengers at 350 miles an hour. The Saunders—Roe SR–45—a turboprop—operates at 190,000 pounds gross weight and is

designed to carry 105 passengers at 380 miles an hour. The Short Viscount operates at a gross weight of 50,000 pounds and is designed to carry from 40 to 53 passengers at 338 miles an hour.

In addition to these jet and turboprop airplanes the Percival-Prince—a small twin-engine airplane—has been designed as a bid for the business of the short-haul operator or feeder line. It operates at a gross weight of 10,650 pounds and is designed to carry from 8 to 12 passengers at a speed of 212 miles an hour.

The United States cannot even come close to matching these developments. The major United States manufacturers have plans for converting certain existing types to turboprop power plants but as far as we know, there are not even any plans for a jet transport of the type of the C–102 or the de Haviland Comet.

Through the courtesy of the Shell Oil Co., and with the permission of this committee, we will now present a movie which shows many of the British aircraft actually in operation. I think that you gentlemen will find this movie to be an interesting and graphic demonstration of British accomplishments in this field and, if your reaction is anything like mine, you will experience a disquieting feeling that the United States may be losing its predominance in the design and production of transport aircraft.

I would like to have the film shown at this point, Mr. Chairman.

Mr. BECKWORTH. Will you want to make some comments as the film is shown?

Mr. RAMSPECK. No, sir; I want to conclude after it is finished.

Mr. BECKWORTH. Very well.

(At this point a film showing various types of British aircraft in flight was shown, after which the following occurred:)

Mr. BECKWORTH. Mr. Ramspeck, the committee is certainly indebted to you for making it possible for us to see that very excellent film.

Mr. RAMSPECK. Thank you, Mr. Chairman. Sometimes a visual demonstration is better than all the words we can say. You actually saw how transport planes operate.

The movie we have just seen dramatizes the two bad alternatives with which the airlines of the United States will be faced before many years pass. Those are the airplanes with which the United States operators will have to compete. Unless corresponding developments are made by United States manufacturers, the United States-flag airlines will have to buy those airplanes or lose out in competition with the airlines which operate them. Almost without exception the United States airlines have operated equipment built by United States manufacturers, and it is obviously in their interest to continue to do so. However, if superior airplanes are built abroad, it will be essential for our airlines to buy them, not only in the interest of their own economic survival but also to maintain the air transport system which the Congress has found to be necessary in our national interest, even though the airlines may be put to some inconvenience in doing business with foreign manufacturers.

However, it is clearly contrary to the interests of the United States to have its commercial air fleet built by foreign manufacturers, for the United States could never rely on the unrestricted use of that fleet during time of war, nor could it rely upon the greatly expanded

production of transport aircraft which was found essential during the last war.

Consequently, it seems clear that action must be taken by the United States to break this log jam in the development of improved air transports. The only real issue is what should be done.

Two years ago the House passed legislation which would have authorized a program costing in the neighborhood of $30,000,000 for the design, development, and production of prototype aircraft. Since that time the Government has studied this question extensively, and has now proposed H. R. 8536, which approaches the general problem of prototype development in a somewhat different way. Provision is made for Government financial aid in the testing of existing jet aircraft in scheduled airline service, and the testing of new prototypes of needed transport aircraft, including passenger, cargo, and feeder airplanes. We favor this bill. We hope that this committee will report it to the House and that it will pass during the present session, for the need for progress along this line is urgent.

The bill authorizes and provides funds for the service testing of an existing jet airplane in scheduled transport service. From those tests it is hoped that data can be secured as to the operating characteristics of a jet airplane, the operating and maintenance problems that will arise out of its use, and the method of handling this type of airplane in the heavy air traffic which now prevails. All this information should be collected in order to provide a sound basis on which to design a jet transport. Through its provision for testing and minor modification, the bill should also give needed impetus to the development of turbo-prop aircraft, which is just now starting in the United States, and should help to close the gap which now exists between the United States and British manufacturers as far as this type of aircraft is concerned.

A start might be made on the development of a more economical cargo aircraft, about which there has been so much talk and so little action. There is no doubt that the airlines are now attempting to develop cargo transportation with obsolete aircraft—aircraft which are not tailored to fit the transportation of cargo alone but are intended to be all-purpose aircraft. While the airlines have made good progress in developing the cargo business, they have undoubtedly been hampered by the inability to get costs of transporting cargo down to a point where rates can be made attractive to volume shippers. The major opportunity for reducing the costs of transporting cargo rests in the development of a more economical airplane to handle this part of the business.

The enactment of this bill may also help in the development of the much-needed feeder-type airplane. The Civil Aeronautics Board has authorized service by feeder lines to a large number of smaller communities in the country, and these operators have made strenuous efforts to give a needed public service at reasonable cost, but they have been hampered constantly by the lack of an airplane designed specifically for this purpose. The airplane used for the most part in this service has been the DC–3, which has been made obsolete, even for this type of short-haul service, by advancements in design.

In 1949 about 161,000,000 miles were flown by DC–3 aircraft. Thus, if an airplane could be developed that could reduce operating costs by even 1 cent per mile, $1,610,000 would be saved. A large part of this

would be a direct saving to the Government, for the mail pay of the feeder lines is based upon their actual operating costs, and thus any cost reductions would be passed on directly to the Federal Government. The available evidence indicates that a newly designed airplane could be operated at a direct operating cost of 11 cents per flight-mile less than that applicable to the DC–3. Thus, nearly $18,000,000 a year would be saved if such an airplane could actually be produced and put into service.

In all candor, we cannot be enthusiastic about the effect of this bill in inspiring manufacturers to design entirely new transports, whether they be jets, more efficient cargo aircraft, or new feeder-line aircraft. The program is a very limited one, and would help the manufacturer only to the extent of testing his prototype after it had been developed at his expense. Thus, the bill probably does not provide a complete solution to the prototype problem. Nevertheless, in view of the concrete accomplishments which can be made under this bill and the long delay which is likely to result if this matter is to be restudied by the Government, we urge the committee to report the bill, in order that some progress can be made immediately.

Mr. ROGERS. Thank you, Mr. Ramspeck. Have you any questions, Mr. Wolverton?

Mr. WOLVERTON. I have no questions, Mr. Chairman. I want to say, however, that this statement in the closing paragraph of Mr. Ramspeck's statement, I think, is a fair estimate of the possibilities of this bill or the lack of possibilities. It may be necessary, however, for us to do something to get it started. The sooner we get it started in my opinion the better it will be for all concerned.

Mr. RAMSPECK. That is our feeling, Mr. Wolverton. It is a step in the right direction. It will be helpful. It is not a complete solution, but it is apparently the only thing we hope to get at this session.

Mr. ROGERS. I would like to say that we always like to hear from Mr. Ramspeck. His judgment is generally pretty sound.

Mr. RAMSPECK. Thank you very much, Mr. Chairman.

Mr. ROGERS. The next witness is Mr. Harold A. Jones.

STATEMENT OF HAROLD A. JONES, MEMBER, CIVIL AERONAUTICS BOARD

Mr. JONES. Mr. Chairman and members of the committee, my name is Harold A. Jones. I am a member of the Civil Aeronautics Board. If the committee pleases, I would like to read a short statement, which is the position of the Board.

The Board welcomes this opportunity to present to your committee its views on H. R. 8536, a bill to promote the development of improved commercial transport aircraft.

The Board has wholeheartedly favored the enactment of this kind of legislation because it considered that Government financial assistance in reducing the risks of loss from development costs is vitally necessary to keep the United States aviation industry in the vanguard of commercial aviation equipment development. H. R. 8536 has been introduced as a result of the cooperative efforts both of the Congress and of the agencies of the Government having an interest in aviation matters, working together in the Air Coordinating Committee and consulting with members of the aviation industry. It is a companion

bill to S. 3504, which was recently reported favorably by the Senate Interstate and Foreign Commerce Committee.

This bill is in accord with the program of the President. It has the approval of the members of the Air Coordinating Committee and appears to be acceptable to most of the aviation industry. The Board wishes to go on record in these hearings as favoring its early enactment.

In our opinion, there are a number of considerations which should commend this bill to your favorable consideration. It has the advantage of offering sufficient stimulation to aircraft development to give promise of beneficial results, without saddling the Government with too great a part of the financial risk involved. Under its provisions, Government financial participation would be limited to expenditures for testing the aircraft developed, for making certain minor experimental modifications of such aircraft in the testing period, and for conducting simulated scheduled air transport operations with available turbine-powered aircraft.

Thus, this bill would cost the Government far less than other bills dealing with the same subject presently before your committee and would preserve the maximum degree of private initiative and competition among aircraft manufacturers, without directly involving the Government in the actual development of new commercial transport-aircraft designs.

This bill appears particularly desirable as a measure designed to contribute to air safety. Although the Board has long had requirements for a service-testing period for new designs of aircraft prior to their introduction into passenger-carrying service, the high cost of service testing, both in terms of marketing delays for the manufacturers and under utilization of the new equipment by the airlines, has tended to cause reluctance to impose as long a service-testing period as would insure maximum safety.

The bill also meets another serious safety problem currently faced by the Board; namely, the problem of obtaining practical operating data with respect to turbine-powered aircraft to determine how best to adapt aviation facilities and the civil air regulations to insure their safe introduction into use on the airways and at airports. The importance of moving ahead rapidly on the development of this type of aircraft is, of course, fully appreciated by members of this committee.

The bill specifically contemplates the development of aircraft for feeder-line operation. As you know, the Board feels that the lack of aircraft adapted to feeder service is one of the areas in which much remains to be done in aircraft development. The availability of aircraft specially designed for this type of feeder operation, which will have cost characteristics superior to those of existing aircraft, is highly important. The availability of such aircraft should tend to reduce the amount of Government assistance which local service operators require during their period of initial operation.

Rapid development of improved types of cargo transports—the third class of aircraft mentioned in the bill—is also highly important from the standpoint of the commercial air transport system and, of course, also from the standpoint both of general considerations of national defense and the current emergency. Reduced costs of air

freight would do much toward building up a sizable fleet of air transports suitable for national-defense purposes. And, increasingly, air freight is speeding up the tempo of commerce.

For these reasons, the Board welcomes legislation in the form of H. R. 8536 and hopes that it will receive favorable consideration by your committee. I again wish to thank you for affording me this occasion to express the views of the Civil Aeronautics Board on this proposed legislation.

Mr. ROGERS. Thank you, Mr. Jones. We are glad to have your viewpoint.

Mr. WOLVERTON. Mr. Chairman, I would like to make this observation: I am in full accord with the view of the Civil Aeronautics Board that it is considered necessary that there should be Government financial assistance in reducing the risks of loss from development costs, but I cannot agree with the statement that this bill has the advantage of offering sufficient stimulation to aircraft development to give promise to beneficial results. I think you would have to have a very optimistic frame of mind to come to the conclusion that this bill is going to accomplish what, in my opinion, should be accomplished. I do not think it goes far enough to do the job that has to be done. I cannot see that it is offering sufficient stimulation to aircraft development to give promise of worth-while results.

Mr. JONES. I agree with you, Mr. Wolverton. The question is, how to to get that sufficient stimulation without too much Government interference.

Mr. WOLVERTON. We do not have to worry, in my opinion, about Government interference. It is the results that we want. If we get them by Government interference, then, let us have Government interference. Whatever is necessary to be done should be done. We are told we are 3 years behind Great Britain now. We are in a far better position financially, weak as we are, to do as good or a better job than Britain is doing. That is my opinion.

Mr. JONES. May I have the privilege of making a remark, Mr. Wolverton?

Mr. WOLVERTON. Yes.

Mr. JONES. The first so-called Brewster-Hinshaw bill, which provided a direct subsidy of $30,000,000 for the building of a prototype aircraft, and which did not pass either House of Congress, and which was reintroduced in this last session, was unfortunate.

Mr. BECKWORTH. Mr. Jones, at that point may I ask this: Is that the bill which was referred to the Armed Services Committee?

Mr. JONES. That was the so-called prototype bill, Mr. Beckworth.

Mr. BECKWORTH. It was referred, was it not, to the Armed Services Committee rather than this committee?

Mr. JONES. Yes; I think it was, sir.

Mr. BECKWORTH. That is my understanding.

Mr. JONES. That is right. In that bill it was thought that it would be approved. The various agencies which went to make up the committee were organized for a so-called dry run. We found out that every agency had its own idea of a prototype aircraft, and that we were going to go through the same experience that Great Britain had had when she tried to develop these first aircraft. She organized a board composed of the British Air Force and the Air Ministry and

so forth, and the first attempts to build a prototype aircraft were pretty bad.

We could not resolve how we could keep the agencies of government from trying to design this aircraft and how we could leave it up to the individual manufacturers to go ahead and design an aircraft which would really meet the requirements of commercial aviation. It was sort of a Rube Goldberg airplane that came out of this so-called ad hoc prototype evaluation board.

This, we think, will avoid it. It would be much better to have a bill like this than to spend $30,000,000 and turn out a Rube Goldberg airplane and then try to get some airplane manufacturer to build it.

The British did exactly that. They spent $100,000,000, and the first aircraft they developed were monstrosities. They would not fly. They were no good, and the money went down the drain. Mr. Wolverton, that was probably our money.

Mr. WOLVERTON. It seems to me that if the Civil Aeronautics Board were on speaking terms with the State Department maybe we could have it recognized in our policy that we should get something back in return for what we are supporting in Great Britain.

Mr. JONES. I agree with you wholeheartedly there.

Mr. BECKWORTH. Mr. Jones, we thank you very much.

Mr. JONES. Thank you, sir.

Mr. BECKWORTH. The committee is compelled to adjourn at this time subject to the call of the Chair.

It is my understanding that Admiral Ramsey is here and would like to testify. When will you be back, Admiral Ramsey?

Admiral RAMSEY. I expect to be back Thursday.

Mr. BECKWORTH. I am sure we will not be able to meet before Thursday. We are very anxious to have your statement, I assure you, but at this time, with the time situation like it is, we would rather forego hearing you in order that we might hear you at a time when we could ask you any questions we might desire to ask.

The committee will adjourn subject to the call of the Chair.

(Thereupon, at 12:17 p. m., Tuesday, July 25, 1950, the subcommittee adjourned to meet at the call of the Chair.)

73910—50——3

DEVELOPMENT OF IMPROVED-TYPE AIRCRAFT

MONDAY, AUGUST 7, 1950

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE OF THE COMMITTEE ON
INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The subcommittee met, pursuant to call, in room 1334, New House Office Building, Hon. Lindley Beckworth, chairman of the subcommittee, presiding.

Mr. BECKWORTH. The committee will come to order.

The first witness we shall hear this morning is Admiral D. C. Ramsey, president of the Aircraft Industries Association of America, Inc.

Admiral Ramsey.

STATEMENT OF ADMIRAL DeWITT C. RAMSEY, PRESIDENT, AIRCRAFT INDUSTRIES ASSOCIATION OF AMERICA, INC., WASHINGTON, D. C.

Admiral RAMSEY. May I proceed, Mr. Chairman?

Mr. BECKWORTH. Yes, sir.

Admiral RAMSEY. I am DeWitt C. Ramsey, president of the Aircraft Industries Association of America.

I appreciate the opportunity of appearing before your committee to present the views of the aircraft manufacturing industry on the prototype problem.

The Korean crisis coming as it did just a few months after the Berlin airlift provides a convincing demonstration of the critical importance of transport aircraft to our national security. Almost the first step taken by our military authorities after the North Koreans crossed the thirty-eighth parallel was to begin hasty mobilization of all available military transport planes. In addition to the hasty movement of these aircraft the airlines also have been called upon for substantial numbers of their four-engine craft.

In its report published in March 1948, the Congressional Aviation Policy Board stated:

> The cost of design and prototype development of modern air transport types is so high that neither the manufacturer nor the air carriers can today afford to invest the sums involved. Transport-type aircraft of materially better operating and utilization characteristics than any transport now being built are needed in order to provide the low operating cost and high performance that will make possible commercial employment for large numbers of such aircraft.

From my point of view the British leadership in turbine-powered airliners is a definite factor spurring consideration of the prototype problem at this time.

Having just returned from a tour of the British aircraft industry as a guest of the RAF and the USAF, I am convinced both that the margin of leadership is substantial and that it constitutes a challenge to our aviation.

The reasons why the British won that leadership in turbine-powered transport aircraft are clear. Briefly, they were because:

1. The British Government began a comprehensive plan of transport development in 1942 in the middle of the war;

2. The British Government was willing to risk a vast amount of money, estimated at $300,000,000 or more, on this transport program and frankly informed Parliament that "financial considerations were necessarily subsidiary"; and

3. The program was constantly revised as the years went by, and when their piston-engine transports did not prove too successful increased emphasis was given turbine-propelled craft.

During this same period American transport manufacturers devoted their design and producing eenrgies to the production of piston-engine transports. These transports, the Boeing Stratocruiser, the Douglas DC–6, the Lockheed Constellation, the Consolidated-Vultee Convairliner, the Martin 2–0–2, today are the world's best transports and fly by far the largest proportion of the world's express passenger business. No foreign manufacturer has offered successful competition to these types, which are being steadily improved, and sales of which are continuing to the world's airlines for delivery in 1951 and 1952.

Despite the success of our postwar transports in the world market, these transports were sold at serious losses to their producers. These losses, coupled with the fact that neither the Government nor any of the airlines came forward with orders, explains why our manufacturers have been reluctant to undertake so costly and highly speculative a venture as the jet-propelled prototype.

During this same period American manufacturers designed and built a wide variety of jet-propelled military aircraft. Our companies have produced more single- and multi-jet types and more research aircraft than has the industry of any other nation, to the best of our knowledge.

During the hearings conducted by the Finletter commission and the congressional board our manufacturers frankly conceded their doubts as to their ability to finance the development of turbine-powered aircraft. At that time they stated that the British would probably capture leadership in this field unless a program of substantial assistance was provided by our Government.

Both the Finletter commission and the congressional board recommended the provision of such Government assistance in 1948. However, many of the manufacturers after careful study of the provisions of the various bills became fearful that they did not lend themselves to simplicity and economy in the general administration of contracts.

But last December, following the flight of the British Comet and the Canadian Jetliner, our manufacturers became convinced that a Government-sponsored program was necessary.

At a meeting at Santa Barbara the board of governors of the Aircraft Industries Association, consisting of the chief executives of the leading manufacturers, arrived at a common position on this question, and I quote therefrom:

Aircraft manufacturers would prefer to continue to deal directly with the airline operators in the purchase of both prototype and production aircraft. However, in view of the cost of developing turbine-powered airliners and cargo aircraft, estimated at many millions of dollars, this does not seem to be practical at present for these types.

Accordingly, the industry recommends that the Government embark upon a program of purchasing prototypes of advanced type aircraft. We feel that such a program should be administered by an existing Government agency.

There are other steps that will help hasten the date when American turbine-powered high-speed airliners will be operating on our airways. For one thing, the Government can assist with the substantial costs associated with the certification and testing process.

Government authorities also can arrange for experimental operations within this country of turbine-powered military aircraft converted for cargo and mail. From this, much can be learned about the technical and operational difficulties encountered when commercial aircraft fly at speeds of 500 miles an hour and more.

It is apparent that American manufacturers feel it essential that the Government through an established procurement agency embark on a comprehensive program of purchasing transport prototypes. Unless such a program is adopted there is no assurance that this industry or our country can meet the challenge of the De Haviland Comet or the Avro Jetliner.

On the other hand, the Bureau of the Budget and the Defense Establishment have not been able to agree upon a program calling for the complete design and development of prototypes. Instead, you have before you in bill H. R. 8536, sponsored by the Air Coordinating Committee, a measure which would provide Government assistance in the matter of flight testing and certification costs, and also authorize experimental flying of turbine-powered military aircraft on dummy routes.

The members of the Aircraft Industries Association heartily endorse this bill. We feel that it will be of great assistance in hastening the conversion of piston-engine transport aircraft into airplanes with turbine propellers. Such conversions will enable the further improvement of our postwar transports permitting substantial increases in speeds and load-carrying performances.

H. R. 8536 will also, by financing the operation of jet-powered craft on dummy routes, provide our designers with badly needed information about many jet operating problems. This information will enable us to produce far better jet airliners if and when we receive an order or orders for such craft.

We should not hold any extravagant hopes for the accomplishments of H. R. 8536, as it is only a partial solution to the challenge of the British. This challenge can be met fully only by a comprehensive prototype procurement program.

However, the amount of assistance provided in this legislation should facilitate the eventual conversion of our airliners to turbine-propeller craft and should guarantee continued American supremacy in the air-transport field until pure jets go into actual service.

One other requisite to continued American leadership in the transport field I believe deserves emphasis. Our Federal airways adjacent to metropolitan centers are already nearing the point of traffic saturation. We cannot further increase the number of airplanes and step up the speeds of those now in service unless a fully modern system of air-traffic control has been developed and put into service.

The program agreed to by the airlines, the Armed Services, the CAA and the CAB, and now known as the common system of air navigation or the RTCA all-weather flying plan, is vital to our national defense and imperative to the further growth and prosperity of our air-transport system.

Mr. Chairman, that concludes my prepared statement.

Mr. WOLVERTON. Admiral Ramsey, I am startled and disturbed by many of the statements contained in your testimony. All the way through your statement you have emphasized the fact that the British are far ahead of us. I am at a loss, and I say it sincerely, to understand on what theory our Government is continually advancing large sums of money to the British to assist them in their financial condition, and yet we do not seem to have money enough to do for ourselves what evidently our financial help to Great Britain enables them to do.

Is the development in Great Britain in the matter of jet-propelled aircraft available for use by our manufacturers?

Admiral RAMSEY. Some general data probably are available. On the occasion of the recent visit to England and to the British aircraft industry, some of our personnel, representing companies that build transports in this country, were given access to the De Haviland Comet; went all over it in detail; examined it, and appraised the manufacturing techniques that were put into it.

That information was given to our industry without any restraint on the part of the British.

Of course, after you develop a product, a prototype of that character, there is a long period of testing that has to follow. The testing, by test flights, experimental flights, between the De Haviland Airport in England and the Near East, Egypt, and India, have been going on to determine the reliability of the product under service conditions.

It is my estimate of the situation that the British would probably not be willing to disclose all of the operational information that they had derived from such tests, and I think that the reasons for that are quite obvious.

As industry is highly competitive, I do not think that they would pass on the information they get in that regard to the other companies in England who are also interested in the jet type propelled prototypes. I think that is the explanation of the aittude on the part of the manufacturers.

But I would like to say in the same breath that I do not think there is any great mystery about the development of jet transport prototype aircraft, and I feel sure that our manufacturers, with their very fine staffs and their experience in the jet field in developing the military types, are perfectly competent to cope with this problem when the need for coping with it and the means for coping with it are made available to them.

Mr. WOLVERTON. I agree with the statement that you have just made. But that does not satisfy me from the standpoint that this highly expensive development which has taken place in England would undoubtedly not have been possible except for the aid that we have extended to the British economy by the large loans or gifts or whatever they may be termed that we have made.

Now, your statement emphasizes the fact that our manufacturers are not in a position, without Government help, to carry on the same

type of work or development. What remains unanswered, in my mind, is how it is possible for the British manufacturers, with the assistance that comes from this Government and with the necessity existing of obtaining help from us, can carry it on and we cannot.

It would seem to me that, considering the assistance that has been given by this country to Great Britain, we or our manufacturers should be able to start off now with the results of the developments that have been made in Great Britain and not have to curtail our efforts because of the expense and limit it to mere testing.

I just cannot understand that, and I would like somebody to explain to me just that simple question.

The British are, as you say, competing with us for commercial air traffic. According to the testimony of Mr. Rentzel a few days ago, they are 3 years ahead of us in jet-propelled operations.

As you state in your testimony, it is critically important to us that we look at it from the standpoint of commercial air traffic or from the standpoint of national security, and yet we do not get the benefit of what has been done in Great Britain.

Who can give me the answer to that?

Admiral RAMSEY. Mr. Wolverton, I think the answer to that question would have to come from someone on the Government level. The aircraft industry certainly has no control over the policy of assistance to the British in the military defense assistance program or in any other measure of that kind.

But I would like to say that on the occasion of our visit to the various aircraft establishments in the immediate vicinity of London we got a very fine reception and a generally fine spirit of cooperation.

But we can understand, as I said before, why a company in a highly competitive status, vis-à-vis, the British companies and our own, would be, I feel, reluctant to disclose certain optional information which they had developed at their own expense and effort.

That is all I can say in comment on your general statement.

Mr. WOLVERTON. The members of this committee that had the opportunity last year of visiting England I think will concur in the statement you have made as to your treatment in that they received similarly friendly treatment.

But, after all, they didn't bring back any blueprints; they didn't bring back anything that would enable our manufacturers to start in and manufacture. The nice treatment we received is just a little probably of the appreciation which, in my opinion, should be shown by a nation that has been so dependent upon us in recent years. If they weren't nice to us when we were over there, then it would be one more cause of complaint.

I direct your attention to the report that was published in March of 1948 by the Congressional Aviation Policy Board, to which your statement refers. I was a member of the Congressional Aviation Policy Board and, therefore, participated in this report.

I can say, however, that at the time I did so, I thought that we would take a more advanced stand with reference to prototype development than we did. I call attention to that portion of our report to which you have referred, which states:

> The cost of design and prototype development of modern air transport types is so high that neither the manufacturer nor the air carriers can afford to invest the sums involved.

Emphasis was laid upon the high cost which precludes our manufacturers and our carriers from carrying on this development. That makes it all the more difficult, to my mind, to understand, then, how the manufacturers or the air carriers, or the Government of Great Britain, can carry on a development that is so high in cost.

I just cannot understand how this situation can arise under the circumstances that exist by reason of the financial aid that we are continually giving to Britain and all the other countries of Europe, and yet we cannot do it for ourselves, nor are we permitted to obtain full value of the investment that happens in these other countries so that it could be used in the development of our own aircraft, both commercial and civil.

I hope that before these hearings conclude that we will be able to have somebody before us in a position of responsibility in the Government who can give some explanation of what I consider to be this unfortunate position.

In your statement you say:

> * * * I am convinced both that the margin of leadership is substantial and that it constitutes a challenge to our aviation.

That is a very strong statement. I do not disagree with it. I think you were justified in making the statement that you did.

It is statements like that and the statements elsewhere in your testimony that ought to awaken America to a more active interest in this subject.

Mr. O'HARA. Will the gentleman yield for one suggestion?

Mr. WOLVERTON. Yes.

Mr. O'HARA. Could you add the word "realistic"?

Mr. WOLVERTON. Anything that will make my statement stronger, I will agree to.

Now, Admiral, you go on to say in your testimony:

> The reasons why the British won that leadership in turbine-powered transport aircraft are clear. Briefly, they are because:
>
> "1. The British Government began a comprehensive plan of transport development in 1942 in the middle of the war;
>
> "2. The British Government was willing to risk a vast amount of money estimated at $300,000,000 or more on this transport program and frankly informed Parliament that 'financial considerations were necessarily subsidiary'; and
>
> "3. The program was constantly revised as the years went by and when their piston-engine transports did not prove too successful, increased emphasis was given turbine-propelled craft.

I just cannot find language sufficiently strong enough to express my opinion of an American policy that, because of expenses, is unwilling to support our manufacturers, our airlines, and our military in conducting a study such as this because of the cost and yet the British Government in its precarious financial condition informed Parliament that "financial considerations were necessarily subsidiary."

Now, there is much more in your testimony, and I consider it very valuable testimony, very true testimony, and very realistic testimony that you have given here this morning, testimony which I hope will stir up to some kind of action our Government-policy makers to the end that a country is so largely dependent upon us for our financial assistance will at least do their part by giving to us the fullest possible access to and utilization of their development in this important field.

Just recently we are told that Great Britain has taken the position that, yes, we will improve our military status to the extent of $9,000,000,000 if the United States will give half of it.

What I am contending for is that we as a nation get something in return for all the assistance that we are giving to them, assistance which undoubtedly has contributed either directly or indirectly to the development of their jet-propelled aircraft to the extent that we are informed they are 3 years ahead of us.

Now, there is much more I would like to say, Mr. Chairman, but I do not want to take up any more time. I hope I have made my point clear as to how I feel about what should be done by our own Government in this important matter.

It is my regret that the bill before us does not go further than it does, evidently because of financial costs.

Mr. BECKWORTH. Admiral Ramsey, I notice you refer to the Finletter report on page 3, and that you say this:

> Both the Finletter Commission and the Congressional Board recommended the provision of such Government assistance in 1948. However, many of the manufacturers after careful study of the provisions of the various bills became fearful that they did not lend themselves to simplicity and economy in the general administration of contracts.

Of course, the Finletter Commission reported in 1948, did it not?

Admiral RAMSEY. Yes.

Mr. BECKWORTH. I recall that the committee was out in California, that is, the Civil Aviation Committee, our committee, either in 1943 or 1944. I have not forgotten the statement of Mr. Gross, who is president of the Lockheed Co., in which he pointed out in referring to the development of the Constellation and the Constitution, parts of which we saw at that time, that such development is very costly. He mentioned that it might be so costly in the future that the average individual company could not undertake such development.

I was impressed with what he said so much that I came back to Washington and drafted a bill that provides this—and I am going to read it to you because it is very brief.

Incidentally, I am reading from H. R. 141, which was introduced on January 3, 1949, but is the same bill that has been in several Congresses. The bill provides for Federal participation in the financing of certain aeronautical developments. The following is in the bill:

> *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That whenever the Secretary of War, the Secretary of the Navy, and the Administrator of Civil Aeronautics shall jointly determine that it is in the national interest to extend financial assistance for the purpose of aiding any individual or company in the carrying on of experimental work in connection with the development of new types of aircraft or the improvement of existing types of aircraft or in connection with other developments in the science and art of flight, grants may be made for such purposes from the appropriations made pursuant to this act.
>
> There is hereby authorized to be appropriated not to exceed fifty million dollars per annum for the purposes of carrying out the provisions of this act.

Mr. Ward, will you give this act to Admiral Ramsey?

Now, as I understood your statement, it indicates that for our country to stay ahead in aviation, it is rather definite that it is going to take some financial aid from the Government, quite a bit of aid.

Like Mr. Wolverton, I am quite astounded and very regretful that we seem to be behind in some respects at this time.

Now, the idea expressed in the bill, I think, is a very simple one. It does not have to take the form of that bill, by any means, to be recognized as an idea.

Can you explain why there seemed to be so little interest in that kind of idea in the years gone by on the part of the industry?

Admiral RAMSEY. The industry, of course, as we pointed out, had developed very successful piston-type transports, and the market for those aircraft still exists, and, as has been stated, deliveries are scheduled on into 1952.

Now, granted that the British are ahead in this particular type of development, there may be speculation in people's minds, in our own aircraft manufacturing industry, and also in the Air Transport Association, as to just how these vehicles are going to prove out.

I agree that although we know something about them, something about their operational characteristics, some other things must be found out before they are a proved success.

In the first place, they have to be assimilated safely by our airways. They cannot stack over airports the way the conventional airplane does without running out of fuel.

Then we do not know how the passenger, let us say, is going to react to turbulence when that is experienced at a speed of 500 miles an hour.

There are a great many things that I think we can learn, and profitably, through the passage and the approval of the bill to which I have addressed myself this morning. I do not think it is the complete answer, but I certainly think and strongly feel that it is a step in the right direction as a partial remedy for the existing situation.

Mr. BECKWORTH. I am reading from a letter that the Secretary of Commerce wrote to Mr. Crosser, chairman of this committee, dated August 4, 1949, discussing the very bill I have referred to, as well as H. R. 448.

Here is what this letter from the Secretary of Commerce states:

> This bill in some respects is similar to H. R. 448 of the Eighty-first Congress in that it would authorize the development of new types of transport aircraft, but would appear to be much broader than that bill because it would apply to the entire field of aviation research and development.
>
> In our comments in H. R. 448 we stated that the financial condition of the aircraft manufacturing industry has improved recently, largely as a result of the increased tempo of the military procurement program, and that we felt that many of the objectives of the proposed prototype program, are being realized as the combined result of the military procurement program, existing federally sponsored research programs, and the initiative of private enterprise.

Now, is it your opinion that the industry had improved to such an extent along about the time of August 1949 that they were in a position to develop the prototype?

Admiral RAMSEY. I will not say that they were in a position to develop a prototype, that is, for any individual company to undertake it on its own without Government sponsorship and assistance.

But I do subscribe to the thought that the general health of the aircraft industry had improved. It had improved to a point where the companies in the commercial aircraft market began to see daylight and pull out of the red from the losses they had sustained in developing their piston-engines transports like the DC–6 and the Constellation and the 2–0–2 and the Convair and the Stratocruiser.

All of those companies lost money.

Mr. BECKWORTH. What I have difficulty in understanding at this time is this: There have been a good many bills introduced for the purpose of aiding the aircraft industry and the divisions of our Government in developing these planes that would keep us out in front. In checking some of the reports I find statements such as this sentence which I am going to read:

> For reasons similar to those given in our report on H. R. 448, we are opposed to the enactment of H. R. 141 at this time.

That was in August 1949. I am just wondering along this line: If the aircraft industries and the divisions of our Government interested in aviation had urged speedy action, I am wondering whether or not there would not have been a good chance that they would have gotten it on some of these very bills.

Now, you undertsand the simple idea expressed there, do you not?

Admiral RAMSEY. Yes, I do.

Mr. BECKWORTH. Do you suppose that $50,000,000 would have helped?

Admiral RAMSEY. Well, I think it would have helped. But I think that the manner in which any activity of that nature, any project of that nature, is organized and administered is a matter manifestly of deep concern to the contractor.

Mr. BECKWORTH. Yes.

Do you think that in that connection too much time was spent in working out that organization, or do you think we have done it as speedily as we could?

Admiral RAMSEY. That is a little difficult to answer. But I come back to the point, which I tried to emphasize in my statement, that the industry would be willing to go along, I feel sure, with a development, an expansion of the provisions of the current bill which we are addressing ourselves to this morning, if the administration of the contract was in the hands of an established Government agency.

I think you will recall that in most of the earlier bills that I have seen there was set up a new procurement agency of the Government with a great deal of overhead, as we visualize it, committees and advisory groups, and so forth, which would complicate the manufacturers' problem in the execution of their contracts.

Mr. BECKWORTH. May I add right there that there would not have been any new agencies set up in the bill that I have referred to there.

Admiral RAMSEY. No, I do not see any reference to any agency.

Mr. BECKWORTH. It would have been the Secretary of War, Secretary of the Navy, and the civil authorities who would have done the job.

You do not mean that in regard to this bill, do you?

Admiral RAMSEY. No, sir.

Mr. BECKWORTH. I am not so sure that it was the only one that was simply written and simply drawn. I am not at all sure that that is the only one.

Mr. WOLVERTON. Maybe that was the difficulty.

Admiral RAMSEY. The Secretary of the Air Force is one individual whose organization has had long experience in dealing with the industry, and they have the mechanics for negotiating and inspecting and handling the normal conduct of business between the procurement agency and the industry throughout the life of the contract.

Mr. BECKWORTH. You have this sentence in your statement:

This challenge can be met fully only by a comprehensive prototype procurement program.

Of course, that term "comprehensive" is embracive, naturally.

Do you think this is the kind of a time when we can afford to do any job, aviationwise, less than fully comprehensive?

Admiral RAMSEY. Yes; I do. I do because of the progress that has been made on this particular bill in the Senate. It has been endorsed by the CAA, the CAB, the Air Transport Association, and I believe that the NACA will subscribe to it: It seems to me that it is a reasonable prelude to an expanded philosophy about this whole prototype development question.

I would hate to see the effort that has been given to this bill, to get it through and to get it started, to get something under way, go by the board in favor of something that you would have to start all over again from scratch.

Mr. BECKWORTH. I take it, then, that you are of the opinion that this is the most that can be done in a practical way at this time?

Admiral RAMSEY. That is the way it appears to me, sir.

Mr. BECKWORTH. And you feel that that is the position in the main of those whom you speak for?

Admiral RAMSEY. I believe so; yes, sir.

Mr. BECKWORTH. In order that the committee may understand exactly for whom you speak, will you briefly describe your organization? How many members are there in your organization?

Admiral RAMSEY. Practically all of the leading airframe, engine, propeller, and accessory parts manufacturers for aviation in the country.

The only important member of the aircraft manufacturing industry that I may mention who is not a member of our organization is Grumman Aircraft. Their contracts are almost solely with the United States Navy.

But all of the transport manufacturers, Lockheed, Boeing, Consolidated, Martin, and others, are members of our organization.

Mr. BECKWORTH. Was there much division among the members of the industry in the 4 or 5 years past as to the amount of help the Government was giving in the 4 or 5 years past? Was there reasonable unanimity to the effect that everything was going along all right? Was there great agitation in your organization for more Government help than was being received?

Admiral RAMSEY. No. I think I may speak for the industry when I say that we want less and less Government help, but it is only in this particular situation where we run into a unique problem.

Mr. BECKWORTH. I am speaking about the particular situation that we are directing this testimony toward, and that is what I mean with reference to the question I asked over the 4 or 5 years past because that is what we are talking about—this need for Government aid to help us develop planes that will keep this country out in front in aviation.

Admiral RAMSEY. Of course, there was not the emphasis on the jet-type airplane a few years ago that there is today now that they are in being and operating and have apparently proved themselves successful up to this stage of development.

Naturally over a period of 4 or 5 years you would find disagreements on general policy matters of that nature among the various members of our organization.

But, in general, may I say, Mr. Chairman, that the industry deplores any necessity for looking to the Federal Government for financial assistance. This position which I have outlined in my statement to you this morning is taken by the aircraft industry with reluctance.

But it has been imposed more or less by the pattern of British operations.

Mr. O'HARA. Mr. Chairman?

Mr. BECKWORTH. Go ahead.

Mr. WOLVERTON. Will you yield for just a moment?

Mr. O'HARA. Yes.

Mr. WOLVERTON. Mr. Chairman, I am in full accord with what the witness has stated in reply to your questions to the effect that at the present time it would seem inadvisable to seek a larger program than that which is before us in this bill.

I take it that the attitude of the industry in favor of this bill is not because it does not think that we should go further, but rather that they are so happy that there is some progress being made that they do not wish to lose the opportunity that is presented by this bill now before the House.

As I understand it, it has already passed the Senate. I am personally willing, as a member of this committee, to vote this bill out at any time that seems advisable to you and the other members of the committee.

But I sincerely hope that it will not end our interest in this matter, and that we will proceed to close the gap which now exists of 3 years, as we are informed. I will favor any legislation that will be helpful in that respect.

Mr. BECKWORTH. Admiral, in that connection, how soon do you suppose we might get that comprehensive plan in here, the one that will really do this job, which I expect to favor in addition to this bill.

Admiral RAMSEY. It no doubt will involve coordinated estimates and the attention of the aircraft industry, the ATA, the CAA, the CAB, the NACA, and all of those other agencies that have studied and are making statements on this present bill. That takes a little while.

Mr. BECKWORTH. It occurs to me that in a precarious period, with aviation as important as we all know it to be, we should not work slower than the very fastest we can.

Admiral RAMSEY. As you know, Mr. Chairman, the industry has suddenly had an extremely heavy additional workload imposed upon us, and it is important, I feel, today, for our industry leaders to devote primary attention to getting this new military program under way at the highest possible speed.

Mr. BECKWORTH. Mr. O'Hara.

Mr. O'HARA. Admiral, the first development of the jets was really by the Germans, was it not?

Admiral RAMSEY. I am not prepared to say.

Mr. O'HARA. I mean of the engines as well as of the aircraft.

Admiral RAMSEY. I am not prepared to testify as to that, sir, but I will say that one of the earliest jet engine experiments and developments was in Great Britain.

As you may know, our Pratt and Whitney people have the rights accorded them by the Rolls-Royce people to manufacture their new engine which they have greatly improved.

Mr. O'HARA. That is, we are paying royalties presumably to the British on the Rolls-Royce engine and on the further development of the jet engine in this country; is that the situation?

Admiral RAMSEY. That is a company relationship, an intercompany relationship between United Aircraft and Rolls-Royce.

Mr. O'HARA. The Germans during the war produced, I think, the first jet aircraft for combat purposes; is not that true?

Admiral RAMSEY. That may be, sir. I will have to check on that.

Mr. O'HARA. Admiral, can you tell me in what manner the British Government proceeded on this $300,000,000 program? Was that by the Government itself, or was it handled by British industry as an industry?

Admiral RAMSEY. It was handled through what they term over there the British Ministry of Supply, an organization which I imagine gets policy guidance from the Air Ministry and works very closely with the industry. I do not know, but I would imagine that the concept of the program originated within the Ministry of Supply.

The over-all plan, I imagine, was approved by the Air Ministry and, in turn, approved by His Majesty's government. That is the way I think it came into being.

Mr. O'HARA. Well, how was it handled? Operational-wise, did the Government turn it over to the industry?

In other words, who handled it?

Admiral RAMSEY. The Ministry of Supply would look over the production facilities of the various concerns that had the potential to develop these various types of aircraft and then, through competition, design competition, and bids, and other regular authorized procedure, would allocate to a given company a specific contract.

Then they would give another contract to another company for one of the various types that have been developed during this particular program.

Mr. O'HARA. And the British Government paid these aircraft manufacturers for developing and producing that plane; is that it?

Admiral RAMSEY. That program, as we understand it, was a completely subsidized program.

Mr. O'HARA. Did the Government gain any rights itself in the development of the aircraft itself? Did they control the matter of selling it, distributing it, profits, or patent rights?

What did happen?

Admiral RAMSEY. I think that they control that, and they also work very closely with their Government-owned airlines. So they can buy from the producers what they use in their subsidized British Overseas Airways.

Mr. O'HARA. Would you recommend that we go into the socialized system?

Admiral RAMSEY. No; I do not, sir.

Mr. O'HARA. How are we going to keep away from it?

Admiral RAMSEY. We want a modest start and modest help; but we certainly—and I am sure I speak for the industry—do not want to get mixed up in any situation of that nature.

Mr. O'HARA. The committee, when they were over there last fall, had the opportunity of seeing the British Comet. That was developed by what company?

Admiral RAMSEY. De Haviland.

Mr. O'HARA. Who developed the Canadian jet?

Admiral RAMSEY. The Avro.

Mr. O'HARA. The Avro?

Admiral RAMSEY. Yes.

Mr. O'HARA. Is that a Canadian company, the Avro?

Admiral RAMSEY. Yes, sir.

Mr. O'HARA. Has that been a successful operation?

Admiral RAMSEY. It is in a sense, in the same status that the Comet is although it has not undergone as many tests as the Comet to the best of my knowledge. I saw it in New York a few months ago when it had flown down from Montreal to Idlewild in less than an hour. It is a very smart, clean-looking airplane.

Mr. O'HARA. What is the passenger capacity of the Avro?

Admiral RAMSEY. I imagine it is somewhere in the neighborhood of 36 to 40 passengers.

Mr. O'HARA. About the passenger capacity of the Convair and the 2–0–2, is it not?

Admiral RAMSEY. Yes.

Mr. O'HARA. What is the speed of the Avro? Does that compare with the Comet? That is, about 500 miles per hour?

Admiral RAMSEY. It is less, in the category of 450 miles per hour.

Mr. O'HARA. Admiral, I would like to know why the aircraft industries of this country have proceeded as they have. Now, we have had a lot of military development in jets, have we not, both in fighter type and bomber type jets? We saw a lot of them when we were in California out in Muroc. I think that was in 1947, as I recall it. The cost of those developments has been borne by the Government, is that not true, in the development of these types of aircraft which are for the Military? Is that not usually the testing ground for a similar development in the civilian aircraft? I mean, you get your experiment in at least the large type of plane, the bomber type jet operations, you get the operation experience in that you do in the transport, do you not?

Admiral RAMSEY. It is not quite the same situation. Now an exception was the Constitution to which our chairman referred. I placed a contract for the Constitution with the Lockheed Co. when I was Chief of the Aeronautics Bureau. I did that because I thought if they could get it finished in time it would have a place in the war as a military type transport and cargo vehicle, but normally I certainly do not think that the Air Force or the Navy want to underwrite commercial airplane development. They look to the industry to either do that on their own or to get the assistance of the Air Transport Association companies as they did in the case of the DC–6 and develop those other airplanes on their own as a market arises for them. However, I do not think that the Air Force wants to invest their funds, certainly have not in the past, that were earmarked for military pur-

poses in commercial airplane development. They will finance bombers and fighters and other types of military aircraft on an experimental contract basis.

Mr. O'HARA. Well, of course, it does not seem to me that there is too much. I do not disagree with your statement, entirely, but it does not seem to me that there is too much difference when you get into the problem of air transport that the Air Forces have—speaking now beyond the realm of fighters and bombers—that you get in, for example, the B–29, the development. Now, Boeing the Stratocruiser, is based upon that B–29 wing and fuselage and the engines, is it not?

Admiral RAMSEY. Yes; it was a development from the B–29.

Mr. O'HARA. That was what came out of the development of the B–29 by Boeing, is not that true?

Admiral RAMSEY. Yes; that is right.

Mr. O'HARA. Why would the same not be true in the development of your bomber-type transport, bomber-type craft, with the development of passenger-type aircraft, either for civilian or for military purposes? Why would the two not be related?

Admiral RAMSEY. Well, perhaps they are related in a sense, but it is a question as to the degree to which our military authorities feel the cargo- and transport-type vehicles are hooked up with the military program. Now I know that a great many people hold very hard to the philosophy that you express, as I interpret it, that anything that flies and has useful capacity and range is of value in the over-all military logistics effort.

Mr. O'HARA. It certainly was true in the last war.

Admiral RAMSEY. It certainly was true in the case of the C–47 and the DC–3. They needed many thousands of them to get ahead with the war.

Mr. BECKWORTH. Will the gentleman yield?

Mr. O'HARA. Yes.

Mr. BECKWORTH. With reference to the development of the jet, do you feel that if the Air Corps has done and does what might be termed genuinely outstanding developmental work in regard to the jet engine that that would have a most helpful effect in regard to civil jet aviation and the jet engine?

Admiral RAMSEY. I think that the potential of our engine companies is such that we could look forward with composure to the development of reliable jet engines for our transport-type aircraft. Now you have fine companies in Pratt & Whitney, Curtiss, General Electric, Allison, and Westinghouse. All of those people are up in the forefront in my opinion in jet-engine development. So I foresee no great problem of giving power to these products as soon as they complete the construction stage, and another point that I merely mentioned at the end of my statement was that we have to be ready to assimilate them, too, and advance the RTCA program so our airways will be able to absorb this kind of traffic when they are ready to take the air.

Mr. BECKWORTH. Thank you.

Mr. O'HARA. Admiral, in the development of the 70-group Air Force, I was one of those who enthusiastically supported that. While it was primarily the problem of national defense, it certainly was a lift to the aircraft industries who were at low ebb in a practical sense at the time. Has that had any impetus on the aircraft industries or

has that program been so curtailed that it has not been fully put into effect? I am speaking now in the aircraft industry, that was the 70-group Air Force bill that was passed in the Eightieth Congress.

Admiral RAMSEY. The aircraft industry has not taken any position on the merits or demerits of programs of any size, either for the Air Force or for naval aviation. All the aircraft industry has done is to point out the historical record of positions taken by authoritative committees and individuals on the needs for the Air Force and naval aviation.

In other words, Mr. Finletter's 70-group program.

I think that the industry felt that the 1948 act you mentioned was splendid but that procurement since then has been inadequate in the light of the situation. I have not seen the complete breakdown on this latest procurement program, but I know how much money is involved, and if it is approved by the Congress, I think that the aircraft industry will be faced with a problem of building up to those levels approximately.

Mr. O'HARA. That would be purely the military?

Admiral RAMSEY. Yes; in the military field.

Mr. O'HARA. Well, then, what do you think, Admiral, it will take to bring about the development of a jet transport? In other words, are we in a situation where you come before us this morning and say we have nothing developed, nothing on the drawing boards, nothing on the mock-up stage where we as the industry that manufactures do not have anything to produce? Are we going to cope with what the British or Canadians have done, or what is the picture?

Admiral RAMSEY. I have not had an opportunity to take a sounding of the aircraft industry since this Korean situation developed, and some of their thinking may be changed with regard to initiative in this particular matter, but all I can say is that the industry has, I am sure, not changed its position with respect to the bill that is before us.

I can voice the sentiments of the industry when I say that they wholeheartedly, as other Government agencies have, support that bill. I think that it will help us very much. I mean that it will accelerate, for instance, the translation of aircraft from the piston engine type into the turbine and propeller type. We have one such enterprise going on in the Allison division of General Motors with the Convair liner.

Another thing, in my opinion, that would tremendously help would be to get bombers and fly them over these routes in good weather and in bad, and find out how the personnel react to bumps, let us say, at 500 miles an hour and find out something about the terminal problems and control problems without jeopardizing commercial passengers. I think it should be done by perhaps the CAA and farmed out to the airlines. I know certain airline executives who would be more than willing to take an active part in those operations.

Mr. O'HARA. Some of these folks who are on the floor have a habit of asking this question: How much is this going to cost? I notice that the bill which you advocate provides only $12,500,000; that must be only a starter; that must be just the initial aim?

Admiral RAMSEY. That $12,500,000 is expended or extended over a period of 5 years which, as I see it, is spreading it pretty thin to do

the various things that the Administrator of the act would be expected to accomplish.

Mr. O'HARA. And in a practical sense it would be only a part payment?

Admiral RAMSEY. Yes.

Mr. O'HARA. Let us be frank about it.

I think if you needed $100,000,000 or $500,000,000, certainly national defense enters into it in my mind—does it not in yours in this program?

Admiral RAMSEY. Of course I am sympathetic to closing the gap, doing anything that we can to improve our position vis a vis that of the British.

Mr. O'HARA. Well, I am not approaching it with a niggardly frame of mind and as an individual, I am willing to do anything that is necessary.

Sometime some of our friends over in the House ask, "Where are you going to get the money?" and that is getting to be quite a problem. Do you have any idea what the over-all program would be? How much in the way of subsidy? You have to have some idea as to what the program would cost, whether it is 5 years or whatever it is. What do you think would be necessary?

Admiral RAMSEY. I think that I would have to study the implications of that. I came here to support H. R. 8536 and lend my sincere support to it because as I told the chairman I think that we have made much progress with it that it would be very unfortunate to have it lapse at this stage of the game and then we could address ourselves to a broader measure and something better designed to cope with the big problem which still will confront us.

Mr. O'HARA. Admiral, from a practical viewpoint the British were having some trouble with their pressurizing system as regards the Comet. Have they worked that out, do you know?

Admiral RAMSEY. Yes; they talked about that and of course that is another very serious problem. I mean, when you operate at 40,000 feet and suddenly your pressurization system fails, it is going to be pretty hard on the passengers so you want to be sure of its integrity.

Mr. O'HARA. It is going to be pretty fatal for them?

Admiral RAMSEY. Yes, they do not have much time to do anything about it. So I know the De Haviland people are getting into that subject and giving it their very, very careful attention.

Mr. O'HARA. What about the Avro people?

Admiral RAMSEY. I think that they are working on it along corresponding lines. Everybody agrees that it is a very serious problem.

Mr. O'HARA. You speak of the passenger reaction to these fast aircraft in terms of the weather. Does anyone have any idea as to what that represents?

I suppose when you fly fast the bumps are that much harder?

Admiral RAMSEY. Of course what they anticipate is getting over most of the weather. I ask the De Haviland people what their experience had been in that regard and they said that on milling around down in the Mediterranean and in Egypt they had only one occasion in which they had run into a very high storm and that was up at 43,000 feet and they were flying at 40,000 and gave a little more soup and went over it. They said that they have not had a bad bump yet.

Mr. O'HARA. That is amazing.

Mr. Chairman, that is all that I have.

Mr. BECKWORTH. Mr. McGuire?

Mr. MCGUIRE. Do you have any knowledge as to how far Russia has progressed with jet planes?

Admiral RAMSEY. I beg your pardon?

Mr. MCGUIRE. Do you have any knowledge as to how far Russia has progressed with jet planes?

Admiral RAMSEY. The best information that we have is that the Russians have made very, very fine advances in the field of military jet-type aircraft and we are of course uncertain as to what they are doing in other areas of the aeronautical effort but with the alleged proportion of their income that they are devoting to the national defense effort, we believe that they are doing a pretty good job and our observers who have witnessed the air demonstrations—I say "ours," I mean Government observers—in Moscow at times say that they reflect a very high order of skill and competence and apparently the material is all right.

Mr. MCGUIRE. You think that England, however, is way out ahead of everybody, including Russia, do you?

Admiral RAMSEY. I was talking about Russia. I may not have understood you.

Mr. MCGUIRE. The last question I put to you was, Do you still think England is 'way ahead of Russia?

Admiral RAMSEY. In that field; yes, sir, I do.

Mr. MCGUIRE. That is all.

Mr. O'HARA. Are the English selling jet engines or jet planes to the Russians?

Admiral RAMSEY. I do not think so at the present time.

Mr. WOLVERTON. I was not quite clear in understanding your answer to the question about Russia and I would like to put it in this very direct form.

Is there any truth in the statement that has been frequently made that the British have sold jet engines to the Russians?

Admiral RAMSEY. I do not have the immediate answer to that question.

Mr. WOLVERTON. Have you seen statements to that effect?

Admiral RAMSEY. I have seen statements to that effect but I have not verified them.

Mr. WOLVERTON. Who would be best able to give us that information?

Admiral RAMSEY. To testify to that question?

Mr. WOLVERTON. Yes.

Admiral RAMSEY. I should think somebody from the Central Intelligence Agency.

Mr. WOLVERTON. I have suggested to our chairman that before these hearings close, and I hope that they can close at an early date, Mr. Finletter be invited to appear before the committee as a witness.

I was very much impressed with the statement that you made when you said [reading]:

During the hearings conducted by the Finletter Commission and the congressional board—

I suppose by "board," you mean the "joint congressional board"?

Admiral RAMSEY. Yes, sir.

Mr. WOLVERTON [reading]:

Our manufacturers frankly conceded their doubt as to their ability to finance the development of turbine-powered aircraft. At that time they stated that the British would probably capture leadership in this field unless a program of substantial assistance was provided by our Government.

Then further on in your statement you said [reading]:

Both the Finletter Commission and the congressional board recommended the provision of such Government assistance in 1948.

You further stated as follows [reading]:

But last December, following the flight of the British *Comet* and the Canadian jet liner, our manufacturers became convinced that a Government-sponsored program was necessary.

Further in your statement you said [reading]:

Unless such a program is adopted, there is no assurance that this industry or our country can meet the challenge of the DeHaviland Comet or the Avro jet liner.

On the other hand, the Bureau of the Budget and the Defense Establishment have not been able to agree upon a program calling for the complete design and development of prototypes.

I think that those statements which you have made make it readily apparent that it is important that we have as witnesses before this committee, Mr. Finletter and representatives of the Department of Defense of the Government.

In view of the statement that you have made I readily understand that your appearance here this morning in behalf of this particular bill is not based upon the fact that something further should be done but merely that this seems to be the extent of what can be readily obtainable at this time.

Admiral RAMSEY. That is my feeling; yes, sir.

Mr. O'HARA. Admiral, in the light of the statement which Mr. Wolverton has called to your attention that it is going to be a necessity that Congress act on this matter to develop the policy. Is that the situation?

Admiral RAMSEY. Yes, sir.

Mr. WOLVERTON. In view of the fact that statements which we have received from different departments with reference to this bill and to the one that was introduced by our chairman, H. R. 141, were made as much as a year ago, and with the situation having developed as it has at the present time as a result of the Korean incident that it might be possible that something may have caused our department representatives to revise their views, open their eyes a little bit further and attune their ears a bit more effectually to the necessities of the case than was the case a year ago, for that reason I am making this suggestion that Mr. Finletter and any other representatives that seem appropriate from the Defense Department be requested to appear before this committee. I have in mind that the Congressional Air Policy Board which was a joint board composed of representation from the Senate and from the House, and on which I had the privilege of being a member, made its report as far back as 1948 and yet, strange as it may seem, notwithstanding the importance of the matter certainly recent developments emphasize its importance and nothing has been done apparently to carry out the recommendations that were made by either the Finletter Commision or the Joint Congressional Air

Policy Board. I think that it is time that somebody paid some attention to this and time is of the essence. The sooner we get down to it the better we will all be. I am for any kind of action. Mr. Chairman, that can be taken by this committee to bring this matter to the point where its importance will be recognized.

Mr. BECKWORTH. Admiral Ramsey, I noticed awhile ago that you never did exactly answer Mr. O'Hara as to the amount of money you feel this will cost. In your revision I trust you will give us an estimate based on any study that you may make, even rapidly, as to what this legislation will cost and then in regard to the comprehensive plan that you referred to, give us what you feel is the proper amount that the Government probably should be spending annually to enable us to catch up with and if we desire to exceed others in the various fields of aviation.

Admiral RAMSEY. I can provide that later.

Mr. BECKWORTH. We would like to have that for the record because we know that you represent a group of people that should be able to help us a great deal.

One final question. Would you say, Admiral, that there has been a radical change on the part of some of those in your organization, in the last year in connection with this type of legislation.

Admiral RAMSEY. I would not describe it as radical but I think there has been a change in the point of view of certain members of the industry on this particular matter and the position that I quoted to you in my statement was an over-all position taken by our entire Board of Governors.

Mr. BECKWORTH. In one brief statement, would you say why in your opinion, that change has taken place?

Admiral RAMSEY. Well, it was because they had had an opportunity to appraise the situation in England. We were not sure. We knew that there was going to be a Comet but we did not know how well it was going to fly.

Mr. BECKWORTH. I want to emphasize my agreement with the statement Mr. Wolverton made and that is that the membership of this committee wants to contribute everything it can and immediately, as it has shown in the past by the introduction of bills as far back as 6 years ago, to get us up to date and to put us ahead in all phases of aviation.

Mr. WOLVERTON. I recognize the importance of the request that the chairman has made with respect to giving us about as full a financial set-up as you can with respect to cost but I am also of the opinion and I hope that you will take into consideration the British Government standpoint as set forth in your statement when you said [reading]:

> The British Government was willing to risk a vast amount of money, estimated at $300,000,000 or more on this transport program and frankly informed Parliament that "financial considerations were necessarily subsidiary."

I think, in making your statement you may justify the figures you give by a reference to the statement made by the British Parliament that they are necessarily subsidiary and that you emphasize the importance of it regardless of the cost.

Mr. BECKWORTH. Thank you very much, Admiral.

Admiral RAMSEY. Thank you, gentlemen.

Mr. BECKWORTH. The next witness we will have is Mr. J. W. Crowley, Associate Director of the National Advisory Committee for Aeronautics.

STATEMENT OF J. W. CROWLEY, ASSOCIATE DIRECTOR, APPEARING FOR HUGH L. DRYDEN, DIRECTOR, NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS, WASHINGTON, D. C.

Mr. CROWLEY. Mr. Chairman, my name is John W. Crowley, and I am Associate Director for Research of the National Advisory Committee for Aeronautics. I have a prepared statement and I would like your permission to give it.

Mr. BECKWORTH. You may proceed.

Mr. CROWLEY. The National Advisory Committee for Aeronautics endorses the bill, H. R. 8536, to promote the development of improved commercial transport aircraft by providing for the operation, testing, and modification thereof, because it appears to offer a stimulus for industry to proceed with required prototype aircraft development while maintaining the private initiative of the aircraft industry, and because it offers a means for conducting much needed research at an accelerated pace. A decision to support this legislation was made at a regular meeting of the executive committee of the National Advisory Committee for Aeronautics on June 2, 1950, following extensive discussion of transport-aircraft legislation then before the Congress.

The views of the National Advisory Committee for Aeronautics on legislation to assist in the development of prototype transport aircraft must be interpreted in the light of the functions and character of the Committee. The prescribed function of NACA is the conduct of scientific research in aeronautics and to carry out this function it operates three major research laboratories: Langley Aeronautical Laboratory, Langley Air Force Base, Va.; Ames Aeronautical Laboratory, Moffett Field, Calif.; and Lewis Flight Propulsion Laboratory, Cleveland, Ohio, with a total plant value of over $100,000,000 and a staff of about 7,500 employees. The NACA is comprised of (1) the Committee, consisting of 17 members appointed by the President and serving as such without compensation; (2) a group of 27 technical committees of composition similar to that of the main Committee to assist in the formulation of research programs and the coordination of the national research effort in aeronautics; and (3) a civil service staff for the conduct of research. The Committee consists of representatives from the Air Force, Navy, Civil Aeronautics Authority, the scientific bureaus of the Government, the Research and Development Board of the Department of Defense, and members from private life from the ranks of science and industry. Lists of the present membership of the Committee and of the technical committees are attached to this statement.

(The lists are as follows:)

MEMBERS OF NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

Dr. Jerome C. Hunsaker, Chairman, 1724 F. Street NW., Washington 25, D. C.; or Massachusetts Institute of Technology, Cambridge 39, Mass.

Dr. Alexander Wetmore, Vice Chairman; Secretary, Smithsonian Institution, Washington 25, D. C.

Dr. Detlev W. Bronk; president, the Johns Hopkins University, Baltimore 18, Md.
Vice Adm. John H. Cassady, USN; Deputy Chief of Naval Operations (Air), Department of Defense, room 4–E–394, National Defense Building, Washington 25, D. C.
Dr. Edward U. Condon; Director, National Bureau of Standards, Washington 25, D. C.
Hon. Thomas W. S. Davis; Assistant Secretary of Commerce for Aeronautics, Department of Commerce, room 5835, Washington 25, D. C.
Dr. James H. Doolittle; vice president, Shell Oil Co., 50 West Fiftieth Street, New York 20, N. Y.
Mr. Ronald M. Hazen; director of engineering, Allison division, General Motors Corp., Indianapolis 6, Ind.
Mr. William Littlewood; vice president, engineering, American Airlines, Inc., La Guardia Field, New York Airport Station, N. Y.
Rear Adm. Theodore C. Lonnquest, USN; Deputy and Assistant Chief of Bureau of Aeronautics, Department of the Navy, room 2902, Washington 25, D. C.
Maj. Gen. Donald L. Putt, USAF; Director of Research and Development, Office of Deputy Chief of Staff, Development Headquarters, United States Air Force, room 4–E–348, National Defense Building, Washington 25, D. C.
Dr. Arthur E. Raymond; vice president, engineering, Douglas Aircraft Co., Inc., Santa Monica, Calif.
Dr. Francis W. Reichelderfer; Chief, United States Weather Bureau, Washington 25, D. C.
Hon. Delos W. Rentzel; Administrator of Civil Aeronautics, room 5800–B, Department of Commerce, Washington 25, D. C.
Gen. Hoyt S. Vandenberg, USAF; Chief of Staff of the United States Air Force, Department of the Air Force, room 4–E–921, National Defense Building, Washington 25, D. C.
Hon. William Webster; Chairman, Research and Development Board, Department of Defense, room 3–E–1006, National Defense Building, Washington 25, D. C.
Dr. Theodore P. Wright; vice president for research, Cornell University, room 333, Administration Building, Ithaca, N. Y.

SUBCOMMITTEES OF NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

Committee on Aerodynamics:
- Subcommittee on Fluid Mechanics
- Subcommittee on High-Speed Aerodynamics
- Subcommittee on Stability and Control
- Subcommittee on Internal Flow
- Subcommittee on Propellers for Aircraft
- Subcommittee on Helicopters
- Subcommittee on Seaplanes
- Special Subcommittee on the Upper Atmosphere

Committee on Power Plants for Aircraft:
- Subcommittee on Aircraft Fuels
- Subcommittee on Combustion
- Subcommittee on Lubrication and Wear
- Subcommittee on Compressors
- Subcommittee on Turbines
- Subcommittee on Propulsion-Systems Analysis
- Subcommittee on Heat-Resisting Materials

Committee on Aircraft Construction:
- Subcommittee on Aircraft Structures
- Subcommittee on Aircraft Loads
- Subcommittee on Vibration and Flutter
- Subcommittee on Aircraft Structural Materials

Committee on Operating Problems:
- Subcommittee on Meteorological Problems
- Subcommittee on Icing Problems
- Subcommittee on Aircraft Fire Prevention

Industry Consulting Committee

Mr. CROWLEY. The NACA is a scientific research agency with no special qualification to advise on problems concerning the economic aspects of aircraft development and is therefore reluctant to exercise

such broad advisory functions in nontechnical fields as its name might seem to imply.

Since the development of improved commercial transport aircraft involves important technical as well as economic problems, the NACA has been interested in, and has cooperated with, efforts to secure legislation to expedite the development of such aircraft. The provisions of H. R. 8536 for the testing of prototype aircraft, and in particular for the operation of prototype aircraft in conditions simulating scheduled air transport operations, offer a means for expediting the solution of certain problems under study by NACA. All of these problems are of a type which require measurements of a statistical nature over a long period of time and which experience has shown may only be obtained under actual or simulated transport operation conditions. These are: (1) The determination of the amount and intensity of atmospheric turbulence as effected by altitude of operation, and by flight procedures; (2) the effects of speed and operational practice on the resulting airloads; (3) possible change in strength of the structure during a long period of operation; (4) inadvertent speed gains beyond safe limits while descending in turbulent air, and (5) icing and its prevention, particularly as it affects turbine engine operation.

NACA, in cooperation with the CAA, CAB, and various airlines, has worked on these problems for many years, and many of them are well in hand for presently operating transport aircraft. However, turbine-powered aircraft are operated at higher altitudes and speeds, and operational data on these problems are badly needed if a high level of safety is to be assured.

The NACA will render such assistance as it can in the scientific investigation of the new problems which will arise in the operation of aircraft as authorized by H. R. 8536.

That completes my prepared testimony, Mr. Chairman.

Mr. WOLVERTON. Is the National Advisory Committee for Aeronautics familiar with the progress that has been made by the British in the development of jet-propelled aircraft other than what has actually been accomplished? I mean are you familiar with the details?

Mr. CROWLEY. We are familiar with the research that has gone into the problems which have made it possible to build these aircraft. We have no detailed information with regard to the actual design of the particular airplane that you are talking about.

Mr. WOLVERTON. Do you find that there is a comparable willingness on the part of the British to give us the necessary information as we were willing to give to Fuchs, the representative of the British, in our atomic research?

Mr. CROWLEY. Yes; in our field, the field of research, there is a quite reasonable exchange of information with the British. They are apparently not reluctant to tell us anything they know.

Mr. WOLVERTON. Is the National Advisory Committee in possession of sufficient information which, if turned over to our manufacturers, would enable them to take up where the British now are?

Mr. CROWLEY. Yes, but not necessarily because it came from the British, but because I believe our designers are in possession of information now that would make it possible for them to build as good, if not better, machines of this type than the British.

Mr. WOLVERTON. That is a very encouraging note, in view of the testimony which has already been given before this committee that the British were 3 years ahead of us.

Mr. CROWLEY. I think that we have kept our technical knowledge up very well. And were moneys available I believe our aircraft industry is in a position from the experience that they have gained from their production of turbine-powered military aircraft to design excellent transport aircraft.

Mr. WOLVERTON. For what purpose would the money be available to which you have just referred when you said "if it was available"?

Mr. CROWLEY. I am talking about the same thing that Admiral Ramsey just referred to when he spoke of the fact that the aircraft industry did not feel it was able to support itself the construction of transport aircraft.

Mr. WOLVERTON. Is it your opinion as the Acting Director of the National Advisory Committee for Aeronautics that financial provision should be made to enable them to do so?

Mr. CROWLEY. It is the opinion of the National Advisory Committee itself, as represented by the money in this bill. The Committee believes that this would give a stimulus to the production of turbine powered transport aircraft.

Mr. WOLVERTON. There seems to be general unanimity so far as this bill is concerned, but there seems to be equal unanimity that it should, or could, go further than it does. What is the attitude of the Advisory Committee with respect to that?

Mr. CROWLEY. They have not discussed that, Mr. Wolverton, beyond this particular bill.

Mr. WOLVERTON. Is the Advisory Committee conversant with the situation sufficiently to enable them to agree with the statement that the British are 3 years ahead of us?

Mr. CROWLEY. In construction of commercial turbine powered transport planes, I believe that they would agree with that statement.

Mr. WOLVERTON. If it be true, it seems strange to me that the National Advisory Committee has never considered the question.

Mr. CROWLEY. As I said in the prepared testimony, Mr. Wolverton, the committee has not commonly advised on economic questions, it has advised primarily on technical questions and this I believe is primarily an economic question.

Mr. WOLVERTON. Let me repeat again the question that I formerly asked.

Is the National Advisory Committee sufficiently informed as to the British development in jet-propelled aircraft that it could advise our manufacturers sufficiently to start off with manufacturing of aircraft of a similar type as the De Haviland?

Mr. CROWLEY. Yes, I think the technical information necessary for the design of such aircraft or better aircraft exists in this country right now.

Mr. WOLVERTON. What explanation can you give then to the statement that we are 3 years behind Britain?

Mr. CROWLEY. Because the transport aircraft developments have not been along those lines in this country.

Mr. WOLVERTON. Who could you put your finger on as the cause or the fault of our failure to do so?

Mr. CROWLEY. I do not think that I can answer that question, Mr. Wolverton.

Mr. WOLVERTON. Who could answer it?

Mr. CROWLEY. I think that it probably would have to be from representation of all the Government agencies, plus the Congress, to answer that question.

Mr. WOLVERTON. What Government agencies would you have in mind?

Mr. CROWLEY. I would have in mind the civil air agencies particularly.

Mr. WOLVERTON. What?

Mr. CROWLEY. The civil air agencies, the CAA, the Civil Aeronautics Board and the Air Coordinating Committee, and, as I said before, perhaps the Congress.

Mr. WOLVERTON. Maybe the name of your committee is broader than the scope of your jurisdiction but when you were termed the national advisory body I would assume that you would have such full possession of all the facts that you would be able to inform this committee as to where the trouble lies that we have not developed to the extent that Britain has and what you would advise we do in order that we catch up to the British.

Mr. CROWLEY. As I said a moment ago, the prescribed functions of the National Advisory Committee for Aeronautics are not along economic lines. The title is perhaps a little broader than the functions.

Mr. WOLVERTON. As I look over the names of the National Advisory Committee for Aeronautics it is an exceedingly outstanding group of men. It would seem to me that any advisory opinion that was expressed by that board would immediately challenge the careful consideration of anyone, whether it was on matters scientific or matters economic. You included Congress in your statement just made.

Congress is seeking to act. It has introduced bills to accomplish the purpose but evidently the reports that we have received indicate an unwillingness at the time that the reports were made for the Government to proceed on the program which, from our present testimony, seems necessary for us to do. Do you still say that Congress in any sense was to blame? In other words, are you taking the position that this matter is important enough that Congress should proceed without the approval of the administrative agencies?

Mr. CROWLEY. I did not mean to imply that, Mr. Wolverton.

Mr. WOLVERTON. I do not think that you did but it would seem to me to be a natural conclusion. What I am interested in is finding out why in this important matter there has not been action, or at least an expression of interest on the part of Government as regards the carrying out of a program such as now seems necessary that we carry out. I am a bit disappointed in the Advisory Committee, notwithstanding the broad language of its title, does not feel that economic conditions are within its scope of jurisdiction. You have stated that the Advisory Committee has in its possession, as a result of its research information with respect to jet-propelled aircraft technical knowledge that exceeds in value that which is the present attainment of the British. Has that information been made available to manufacturers?

Mr. CROWLEY. Yes, sir.

Mr. WOLVERTON. Do they now have possession of it?

Mr. CROWLEY. Yes.

Mr. WOLVERTON. Is it sufficient that it would enable them to immediately start the manufacture?

Mr. CROWLEY. It is, together with the information that they already possess as a result of their own experience in the construction of military jet airplanes. Speaking personally now, I feel that there is sufficient information in this country to permit the start at once of a program of this kind which would produce superior airplanes.

Mr. WOLVERTON. What has prevented it; the question of cost?

Mr. CROWLEY. I believe that it is the economic question solely that has prevented it.

Mr. WOLVERTON. When you speak of "economics," do you mean from a practical standpoint or a financial standpoint?

Mr. CROWLEY. I mean from a financial standpoint. I am referring to the same thing that Admiral Ramsey just testified about in quoting from the Finletter report and the congressional report that the cost of development of modern transport is so great that the aircraft industry—individual companies in the industry—did not feel that they could support it.

Mr. BECKWORTH. Will the gentleman yield?

Mr. WOLVERTON. Yes.

Mr. BECKWORTH. If that is true, why in your opinion, have these companies not been in here prior to this time endorsing and advocating the adoption of some of these bills that would cause the Government to put some money into it over and above what it is putting in?

Mr. CROWLEY. I cannot answer that question.

Mr. BECKWORTH. That is the question I want answered and I trust that you will help us obtain an answer—you being an employee of the Government?

Mr. CROWLEY. A civil-service employee; yes, sir.

Mr. BECKWORTH. That is the important question to me at this time. Thank you.

Mr. WOLVERTON. Evidently they are more modest in their requests than the British are. The British do not seem to have any hesitancy in asking for money to carry on. They are now asking us to pay 50 percent of their military equipment which is proposed.

The money that we have paid to the British Government has been passed on directly or indirectly to their manufacturers and has enabled them to produce these planes that put them so far ahead of us.

With what justification can we withhold action on the basis of costs under those circumstances?

Have I asked a question that is outside the jurisdiction of the advisory committee?

Mr. CROWLEY. I did not realize that you were asking a question and I am not prepared to answer it.

Mr. WOLVERTON. It would be very helpful if we could ask someone who would definitely tell us whom we could bring before this committee to whom we could address questions of that character and expect some kind of definite answer. Are you in possession of information that would enable the committee to do so?

Mr. CROWLEY. I am not in possession of that information.

Mr. WOLVERTON. That makes it all the more difficult when a person in your position is not able to advise us. Maybe we just have to keep going until we find who it is.

Certainly in my opinion the importance of the matter is such that there must be some consideration given to this at some level in our Government, or as is stated in the testimony of Admiral Ramsey, we will be left 'way behind.

I, for one of this committee, am anxious to get to the bottom of this and see what we can do to guarantee continued American supremacy in the air transport field.

Of course you favor this present bill that we have before us?

Mr. CROWLEY. Yes.

Mr. WOLVERTON. That is all.

Mr. BECKWORTH. Mr. Crowley, the admiral has this statement on page 5 of his remarks:

> This challenge can be met fully only by a comprehensive prototype procurement program.

Do you agree with that statement?

Mr. CROWLEY. Yes; I do.

Mr. BECKWORTH. You probably cannot give us this now but will you undertake to help us find out from your agency what you people would regard as a comprehensive prototype procurement program and give us some estimate as to what it would cost?

Mr. CROWLEY. I would be glad to try. Our competency, as I have said before, is more clearly in the technical lines and the total cost of such a program is somewhat out of our knowledge but I can make an attempt to provide you with that information.

Mr. BECKWORTH. I can see a kindredship there between what you are talking about—that is, the technical part—and the economic. You, as an agency, would understand when we reached American supremacy in the air transport field, would you not?

Mr. CROWLEY. I think that is right; yes.

Mr. BECKWORTH. When you reach your decision on that you may have to find somebody that would help you determine how much it would cost, but you could find that somebody could you not?

Mr. CROWLEY. We can make that sincere attempt to do so.

Mr. BECKWORTH. Then the two together, and it might be your organization and another organization, should be able to give us a rather accurate estimate of what we can expect?

Mr. CROWLEY. Are you looking for that estimate real soon?

Mr. BECKWORTH. This is a time when I think that it is very important that we have rapidly, particularly in aviation, so I would say as soon as we can reasonably obtain it.

Mr. CROWLEY. We will try to do it.

Mr. WOLVERTON. During these hearings, Mr. Chairman, I have had a similar feeling as we grope our way about these bureaus and divisions and boards and commissions in an endeavor to find who is determining our policy that Alice in Wonderland had when she was on her expedition.

Mr. BECKWORTH. Thank you very much, Mr. Crowley.

Mr. CROWLEY. Thank you.

Mr. BECKWORTH. Mr. George Peterson?

STATEMENT OF GEORGE PETERSON, JR., CONSULTING ENGINEER, PHILADELPHIA, PA.

Mr. BECKWORTH. How long will it take to make your statement, sir?

Mr. PETERSON. As far as I am concerned, sir, I think about 5 minutes will suffice.

Mr. BECKWORTH. I understand that you wanted to get away today if you could?

Mr. PETERSON. I am not particularly anxious about that, but I would like to get my point over, sir.

I do think that I have something of interest to the group, especially as I heard some of the questions that have been asked and if I may proceed I will do so, sir.

Mr. BECKWORTH. Go right ahead.

Mr. PETERSON. My name is George Peterson, Jr., consulting engineer, of Philadelphia, Pa.

Bill H. R. 8356 has as its goal the development of improved commercial transport, particularly turbine-powered aircraft, aircraft especially adapted to the economical transportation of cargo.

Airframes exist that have been built for adaption to turbo-jet propulsion. There is not, however, in production a single turbo-jet engine that can be used to power these airframes economically. It is, therefore, of utmost importance that this fault be rectified.

In the 1948 Wright Brothers Memorial lecture delivered in Washington by Mr. Abe Silverstein, Director of the Wind Tunnel and Flight Research Division of the National Advisory Committee for Aeronautics, Mr. Silverstein stated that the goal for turbo-jet engines is combustion ratios of 20 to 30 with increased combustion temperatures up to 3500° F. This goal is very essential for making the gas-turbine practical for aircraft. There is, however, one other consideration of equal importance. The jet velocity of a turbo-jet engine and the speed of the airplane must approach each other for efficient propulsion. The high jet velocity of existing turbo-jet engines makes this impossible in the range of speeds considered for commercial transportation.

How efficient are turbo-jet engines in production today compared to the piston-type engine? Looking at published figures can be misleading for the piston engine is rated in pounds of fuel per brake-horsepower-hour which completely disregards the losses in transforming shaft horsepower into thrust. The turbo-jet is rated in pounds of fuel per-hour-per-pound of static thrust which is actually meaningless. For comparison the only figure that can be used is pounds of fuel per propulsion-horsepower-hour. Propulsion horsepower is the power which is actually delivered to the airplane after all losses have been considered.

Now reduced to these terms let us look at the comparison. The fuel consumption of a piston engine in pounds of fuel per propulsion-horsepower-hour is 0.5 pound at 300 miles per hour, 5 pounds at 400 miles per hour, 57 at 500 miles per hour. The fuel consumption on the same basis—namely, pounds of fuel per propulsion-horsepower-hour—for existing turbo-jets is 1.43 pounds at 300 miles per hour, 11.2 pounds at 400 miles per hour, 97 pounds at 500 miles per hour, 80 at 600 miles per hour.

I would like to digress from my original statement here to put in an example. An aeroplane powered by 10,000 horsepower, for example, flying at 400 miles per hour with a piston engine will have to carry 5,000 pounds of fuel for every hour's flight. With the existing turbo-jet engine it is going to have to carry 11,200 pounds of fuel for every hour's flight.

In consequence, using existing turbo-jets at say 400 miles per hour plane speed, the jet-powered plane must carry over twice the fuel for the same distance or fly less than half the distance on the same amount of fuel. This obviously reduces pay load.

This bill could fortunately remedy this situation. There exists, completely designed and ready for production of the initial unit, a combination high-pressure turbo-jet, the components of which have already been tested, that not only meets the high pressure and temperature conditions laid down by Mr. Silverstein but in addition has a jet velocity that can be adjusted for comparison of pounds of fuel per propulsion-horsepower-hour. This combination jet has a fuel consumption of 0.47 pound at 300 miles per hour, 4.2 pounds at 400 miles per hour, 42 pounds at 500 miles per hour, 42 at 600 miles per hour.

Going back to the illustration of pounds of fuel required to be carried where the pison engine required 5,000 pounds of fuel per hour, the combination jet would only require 4,200 pounds per hour, in other words.

This is better than even the pison engine propeller combination.

Bill H. R. 8536 can therefore become of the greatest importance not only to commercial airplane transportation but also to the military as under its provisions the combination high-pressure turbo-jet could be produced to bring the United States of America to the front in turbine-propelled aircraft.

Thank you.

Mr. BECKWORTH. Are there any questions, Mr. McGuire?

Mr. MCGUIRE. No questions.

Mr. BECKWORTH. Mr. Wolverton?

Mr. WOLVERTON. It would be difficult for any member of the committee to challenge any of the statements which you have made. However, may I ask whether this information that is contained in your statement, which indicates a vast amount of study on your part, has it been submitted to the National Advisory Committee for such use as they might find it possible to make of it?

Mr. PETERSON. Yes, sir.

After Mr. Silverstein's Wright Brothers Memorial lecture the information was sent to them and no reply was received.

Mr. WOLVERTON. No reply?

Mr. PETERSON. No reply was received.

Mr. WOLVERTON. Maybe they did not receive it?

Mr. PETERSON. That is possible.

I might also add that it was called to the military's attention and a reply was received to the effect that it would be looked into and I would hear from them and no further reply has been received.

Mr. WOLVERTON. Yes; I have received those kinds of letters myself.

Mr. PETERSON. They are very disconcerting, sir.

Mr. WOLVERTON. Especially when you do not hear anything at a later time.

Mr. PETERSON. That is correct, especially where there is something that I believe is of extreme importance to what this bill is trying to do, produce economical jet aircraft and put the United States ahead in the jet-aircraft field.

Mr. WOLVERTON. We appreciate your attendance and the sincerity with which you have spoken.

Mr. BECKWORTH. Mr. McGuire?

Mr. MCGUIRE. You have been a very interesting witness.

I like anyone who lays it on the line like you do.

Mr. PETERSON. Thank you, gentlemen.

Mr. BECKWORTH. Our next witness is Mr. Langdon P. Marvin, Jr.

STATEMENT OF LANGDON P. MARVIN, JR., FORMER CHAIRMAN, INTERDEPARTMENTAL AIR CARGO PRIORITIES COMMITTEE, LIBRARY OF CONGRESS ANNEX, WASHINGTON, D. C.

Mr. BECKWORTH. The committee, Mr. Marvin, is anxious to take action on the bill within a reasonable time and it is for that reason that we are proceeding as rapidly as we are. How long will your statement take?

Mr. MARVIN. Well, Mr. Chairman, it is a little hard to say. I would guess about 20 minutes.

I am very glad that you gentlemen of the committee have issued an invitation to Admiral Ramsey to come back with a somewhat broader program than is conceived in H. R. 8536. Before I start this statement I just wanted to read something which may be a partial answer to the question that I think both of you, Congressman Beckworth, and Congressman Wolverton have been groping for here as to why you have not been able to get an answer or better response from the Government agencies.

Mr. BECKWORTH. Mr. Marvin, did you testify in the Senate on this?

Mr. MARVIN. Yes, sir.

Mr. BECKWORTH. In view of that, it might be well for you to summarize your statement. I notice your statement is long and we shall permit you to include your entire statement. Will you give us the high lights?

Mr. MARVIN. I just wanted to quote here at the very beginning from the article entitled "Sword and Ploughshare," which I wrote for Air Transportation magazine in November 1948.

> We will just not get a decent national plan for air transport preparedness until there exists a really effective arm of the Government of sufficient strength and scope to be able to create a national plan. Unfortunately the Government, which is the real seat of management of our air transport industry, is sadly split up into a lot of little Balkan states. Any chart of the organization and lines of authority of the following Federal agencies which are mixed up in aviation would resemble nothing so clearly as a bowl of overturned spaghetti.

Then follows a list of 20 different Government agencies that have something to do with aviation.

Now to skeletonize this statement here, I want to say that I am appearing as a private citizen and my opposition to H. R. 8536 is based upon its inadequacy.

Mr. WOLVERTON. Mr. Marvin, we are all apparently of the opinion that it is inadequate to do the job that seems should be done but there appears to be a disposition to go through with it because it has already

passed the Senate and that if we are to get any legislation at all on this subject it would be necessary for us to give consideration to the provisions of this bill and act upon its report.

That, however, does not indicate that we are not interested in the larger program merely from the situation that now confronts us in the Congress that it would seem as if it would be unwise to get away from this bill at the present moment. The larger program can certainly come before us in some other bills that we have for consideration, and then we could give them such time as they require, but in doing so we would not be holding up possible legislation on at least a phase of the question.

Mr. MARVIN. Congressman, if I might make a comment there, the bill has not passed the Senate. It was reported out by the Interstate Committee in early June, which I might comment was before Korea happened.

It has been objected to on the consent calendar in the Senate. I myself feel very strongly that it would be a mistake to proceed with the bill because it is totally inadequate and is a piecemeal attack on the problem. It would be much sounder to get a really adequate piece of legislation that would not only do the little things done in H. R. 8536 but also do the things that are important and which would put this Nation in a position of supremacy in relation to national defense.

Mr. WOLVERTON. In view of the stated position of the different agencies that have come to us would you be optimistic enough to think that we would really be able to get a larger program through in this session than is indicated in this bill?

Mr. MARVIN. Congressman, I feel after living with this problem for about 3 years now that it is pretty much a question of congressional initiative. I used to think back when I was studying in college that all of the good things and ideas were thought up in the executive branch and that the Congress simply voted "yes" or "no."

Mr. WOLVERTON. When did you get that impression?

Mr. MARVIN. That was an erroneous impression, and I have been learning better since.

Mr. WOLVERTON. I am glad that you have by subsequent experience revised your opinion.

Mr. MARVIN. I think that this is one of the examples.

Mr. WOLVERTON. You must have gotten that at Harvard. Deponent further sayeth not.

Mr. MARVIN. Here you have a situation where the executive branch of the Government, after many proddings by the President's Air Policy or Finletter Commission and your own Congressional Aviation Policy Board and everybody else, has failed to create anything, has failed to hatch an adequate plan. It is a situation that necessitates Congress moving on its own without waiting for the administration.

Mr. WOLVERTON. They tried to do that last week and we went up the hill and down again on the question of controls. Now whether we would have better success in this I could not say.

Mr. MARVIN. I can only say I hope so because it looks as if the executive branch of the Government had not brought up an adequate plan and I think it can be drafted and put through right down here in the Congress. Of course, one of the things I have against this par-

ticular bill right here is that it overlooks the very important matter of cargo planes needed for defense.

I testified here in March that in view of the large size of the submarine fleet of the Russians and because of the possibility of atomic attacks on our ports as General Knerr who is here today can testify more adequately than I, we have to have a fleet of freight planes. Secretary Forrestal produced a figure at the conclusion of the deliberations of the Congressional Aviation Policy Board in the spring of 1948 that the air lift necessary for a future war would be 4,000 C–54's or their equivalent. This figure was cut back in January 1950 by the Defense Department to a barebones minimum requirement of 2,000 C–54 equivalents for the early phases of war. Even if you use just this smaller figure, which is probably a less realistic one, I testified here last March that the deficit against what we can muster now exceeds 1,200 C–54 equivalents and that is in excess of 5,000,000,000 ton-miles a year.

It has been my contention all along that this gap has to be plugged and there are two things to be done to plug it. First of all, on the quantity side, we have to rapidly expand the country's air lift with the best freight planes which have already been developed by the manufacturers. We must build up a fleet of existing types without waiting for better ones.

Then on the quality side we have to steam ahead with research, developing, and testing toward developing prototype transport planes with special emphasis on cargo planes that can meet the military needs for carrying trucks, tanks and so forth.

Getting a more economical cargo plane will broaden the air cargo market and make for an even bigger reserve.

Now you have before you, a bill, H. R. 448 which accomplishes both these jobs and is, therefore, a two-in-one bill.

H. R. 8536 does only a very small part of the second job.

I might also say in passing that I see no reason why H. R. 141 could not be taken as a good starting point and made into an adequate bill to cover this very situation. I have listed here several important points of contrast between H. R. 8536 and the air merchant marine bill, H. R. 448.

First of all, the jet testing bill H. R. 8536 has commercial supremacy as its only goal. H. R. 448 has as first goal, national defense through building of cargo planes adaptable for both commercial and military use and, secondly, national defense and commercial supremacy through developing prototypes.

I might point out that the Finletter Commission said the first job was developing a cargo plane and H. R. 8536 definitely in its language on page 1 of the bill makes that the second job.

There are no provisions in this bill before you that the planes tested at Government expense should be adaptable for military use although such language is used in H. R. 448. Nor is there any special provision to empower the President to make use of these planes when he finds it necessary in the interest of national security without having to wait for a declaration of war or the passage of a War Powers Act.

The other points are on cost-recovery for the taxpayers and on giving an adequate role for the nonscheduled as well as the scheduled airline. Those are defects in the bill.

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Of course, what is behind H. R. 8536 is a desire to outstrip the British and Canadian jet transport development, or if this cannot be done to test out these foreign-made jets on America's commercial airlines.

I think that it is doubtful if H. R. 8536 as drawn would even accomplish this minor purpose. Not one single manufacturer of American transport planes has given assurances that his company would absorb research and development costs to produce a jet prototype capable of outdoing the British and Canadian on consideration that he would get some free testing at the taxpayer's expense at the end of the trail.

Commercial supremacy may be a very laudable goal but at this juncture in history I think it must take second place after defense; that is the position in which jet transports are put in H. R. 448 which makes defense the No. 1 objective, whereas, by contrast H. R. 8536 forgets about defense and makes this limited approach to commercial supremacy the only purpose of the bill.

H. R. 8536 is pre-Korean legislation. We should not at this time be concerned primarily with what amounts to competition between American Cadillacs and British Rolls Royces when the real job is to start building trucks, aerial trucks. I might say that I think Mr. Wolverton's point about having Mr. Finletter and the other witnesses appear was an excellent one because the statement of the Defense Department on H. R. 8536, a rather back-handed endorsement, was dated the 6th of June which was 3 weeks before the outbreak of war in Korea.

I think that the bill has to be looked at again. Actually, the memorandum of July 10, which the Assistant Secretary of Commerce, Mr. Davis, transmitted to this committee, does not even mention cargo aircraft although curiously enough in order to allay the objection of Senator Lehman, there is a letter which I will be glad to insert in the record from Assistant Secretary Davis to Senator Lehman saying that they will give full emphasis to cargo planes.

Mr. WOLVERTON. Mr. Chairman, would the witness object if I asked him to direct his attention to a portion of the bill which seems to answer the statement that you twice made that this bill does not cover cargo planes? Are you not mistaken in that respect?

In the first portion of the bill it is stated as follows:

> That it is hereby declared to be the policy of Congress to promote, in the interest of safety, the national air transportation system—

that is sufficient to include cargo as well as passenger but to go on further, quoting from the same declaration of policy, it says—

> and the national defense, the development of improved commercial transport aircraft, particularly turbine-powered aircraft, aircraft especially adapted to the economical transportation of cargo * * *.

Does that not answer your statement that this bill makes no provision with respect to cargo and also of national defense? Both are stated in the declaration of policy.

Mr. MARVIN. It is quite true, I think, Congressman, that in the preamble of the bill——

Mr. WOLVERTON. I look upon that as more than a preamble. That is a declaration of Congress as to the policy to be pursued and the balance of the bill will be right in the light of the policy which the Congress adopts. That is the policy.

Mr. MARVIN. Here is what they have done in this bill, Congressman. They have listed it 1, 2, 3. "Particularly, turbine-powered transport aircraft" is No. 1; "Aircraft especially adapted to the economical transportation of cargo" is No. 2, and "aircraft suitable for feeder-line operation" is No. 3. I claim that is the wrong priority. The Finletter report here says the No. 1 job is the cargo plane. This thing says it is the No. 2 job.

Mr. WOLVERTON. Well, I do not think that you can attach that much importance to the continuity and the arrangement of this bill. The policy is the fundamental consideration, and that refers to national defense, the transport system, and it particularly mentions transportation of cargo so that the policy is clearly stated.

The form in which it is stated, the continuity of the different phases that come within the bill, it certainly does not indicate in my opinion, at least, the importance of one as to the other because of its arrangement.

Mr. MARVIN. Well, Congressman, there are two further difficulties. First of all, the bill provides just for testing, which is not much of a problem with cargo planes; that is primarily a passenger-plane problem. That is the only function of the bill. Then, in the second place, you will find that in all of the action parts of the bill—pages 2 and 3 of H. R. 8536—the Secretary of Commerce is authorized to carry out the purposes of the act by providing for the operation by contract or otherwise—we are getting down now to what he is going to do—of "available aircraft with turbine-jet or turbine-prop power units."

Then the next paragraph refers to "such aircraft," which goes back to turbine-prop or turbine jet. The fourth one refers to "such aircraft," that is, turbine-jet or turbine-prop.

In this statement of mine, I have quoted from various military authorities that it may be in the future that turbine power will be useful for cargo aircraft, but it is not useful right now; that is a secondary thing. For the plush passenger plane it is much more suitable, but not for the cargo plane, because it reduces the payload too much.

Mr. WOLVERTON. I do not agree with that entirely. However, that is just a personal observation. You may proceed, as far as I am concerned.

Mr. MARVIN. There has been too much indifference among the civil aviation authorities to defense needs. The Civil Aeronautics Board has been and is directed by statute to consider the needs of the national defense. It is, therefore, especially shocking to the taxpayers, who have been paying out of our pockets about $50,000,000 a year in airline subsidies, to find that a spot check by the Military Air Transport service reveals that only about 10 percent of the planes of the subsidized airlines are of immediate use for defense.

H. R. 448 does not ignore jet development by any means.

Section 7, pages 10 and 11, define the composition of the fleet to be built up under H. R. 448 as being:

> Such aircraft shall be of existing types and of types hereafter developed as in the judgment of the (Government) Corporation will best promote air commerce and strengthen the national defense.

It seems to me particularly unwise in this ever-changing business of aviation to try and legislate particular types of aircraft, as is done in H. R. 8536, and I think the more flexible language of H. R. 448, or for

that matter the more flexible language of H. R. 141, is preferable. I am not saying ultimately jet transports will not be important to defense, and I think their development should be encouraged, but in their proper priority, following immediate defense needs, as is done in H. R. 448, and not by a special program such as H. R. 8536.

The following exchange from the Senate hearings is pertinent, the chairman being Senator Johnson:

The CHAIRMAN. What about jet transports as a specific type of prototype that may need development in order to keep in step with other countries?

Mr. SYMINGTON. From a commercial standpoint, sir—speaking as an individual—I can see that it is very important. But from a military standpoint it is doubtful whether, at this time, there is a military necessity for a jet transport.

Also pertinent to your consideration of H. R. 8536 is the following:

With specific reference to the jet transport, the British and Canadians laid down the Comet and the Avro C–102 in 1946. As far as we know, there is only one Comet and one Avro C–102 in operation in 1950. Debugging those prototypes will take some time before even modest quantities of such aircraft would be placed in production, if it is found to be economically feasible with present available jet power to undertake even modest quantity production.

As to national pride and prestige, we are perturbed to see any other nation, even our close friends in Canada and England, flying newer-type transports than we are making. To date and until much more development of large jet-propelled aircraft of bomber types, I believe that it is only our pride and our prestige that are hurt. As far as military plans are concerned, we want to see a lot more flying by jet bombers before hoping for substantial quantities of jet transports. We are not laying military plans on any presumption that the economics of air transport will support a measurable proportion of jet transportation until some time after 1955.[1]

It is that very period, 1950 to 1955, which Congressman McGuire commented upon as being simple mathematics, which I said last March would be the real danger, and that is the very period when jet planes will not be of much help.

My suggestion—and you have already made it, Congressman Wolverton—is that Mr. Finletter be called. I might just make this additional suggestion that among the people you might ask be General Collins, the Chief of Staff of the Army.

Mr. WOLVERTON. You are getting up pretty high now when you suggest those names, and maybe that is where we have to go to get the answer to the question.

Mr. MARVIN. I think it probably will be. The quotation which I read just a moment ago was by Major General Kuter. I would like also to quote General Turner, who has bossed more aircraft than anybody:

Awkward, unwieldly, and bulky loads which are inherent in standard Army ordnance must be carried, and so the aircraft should be designed for their easy loading.

That is not the type of aircraft of the luxury jet type contemplated in H. R. 8536. You can't carry bulky freight in your sedan. The same goes for passenger planes.

Incidentally, Mr. Chairman, I have some photographs of types of cargo planes that the military are in need of, and perhaps Miss Safford, my research assistant, could prop them up where you could see them.

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[1] Paper by Maj. Gen. Lawrence S. Kuter, commander, Military Air Transport Service, at SAE, national aeronautic meeting, Statler, New York, N. Y., April 19, 1950.

If you gentlemen of this committee pick H. R. 8536, you may get a few 500-mile-an-hour passenger jets some years from now.

If you take H. R. 448, you will be sure of getting a whole fleet of cargo planes to keep air supply lines moving at 250 miles an hour instead of 16 knots at sea, and you'll have just as good if not a better chance of getting the jet job later on.

Since the civil aviation authorities have failed so far to hold up their end of the national airlift problem, the military is now having to request funds for a larger number of planes than would otherwise be necessary, and they are going to have to wait for them longer than would have been necessary.

I understand that the supplemental defense budget includes a request for 512 large aircraft of the C–97, C–124, or C–119 type. This is the equivalent of 1,750 C–54's.

This action by the military, however, does not mean that the civil side of the air transportation can sit back and relax and concentrate solely on commercial goals.

The cargo planes ordered by the military will have to be supplemented by cargo planes from the commercial lines. The urgent need for expanding the commercial freight lift remains.

Furthermore, it should be noted that for prototype work, to get newer and better cargo planes, the military are prohibited by Public Law 604 of July 10, 1950, from using military funds. There is another auxiliary job for civil aviation.

There has been and is a fatal gap between military and civil aviation authorities. I think that you have had some indication of it today. Our military and civil airlift efforts are not well harnessed together. That is a very ironical division, because airlift naturally lends itself to joint commercial and military purposes. A cargo plane is a totally different thing from a gun or tank.

The latter have value only in war, whereas the cargo plane has value in both peace and war. A cargo plane is both a sword and a plowshare.

Straight military procurement of all the cargo planes needed for war would be enormously expensive for the taxpayer. It would unduly militarize the industry, and on the other hand the approach by H. R. 8536 is insufficiently defense-minded. I think H. R. 448, or a rewrite of H. R. 141, would offer a happy middle ground which would accomplish both the defense and the commercial purposes.

Now, I have suggested here some amendments to H. R. 448 which you have before you to adjust it to the testimony of various civil agency, airline, and manufacturing representatives. These amendments could equally well be suggested to H. R. 141.

I will skip over these amendments if I may, assuming they will be printed in the record at this point.

(The matter referred to is as follows:)

(1) *Title.*—Some people tell me the title of H. R. 448, air merchant marine bill, reminds them of recent unpleasant excesses at the Maritime Commission, etc. On the other hand, the recent reorganization of that body under the Secretary of Commerce is progressive, and perhaps the taint will be removed. However, I would be happy to support an alternative: the national airlift bill.

(2) *Administration.*—H. R. 448 sets up under the Secretary of Commerce an Aircraft Development Corporation, exactly as recommended by the President's Air Policy (Finletter) Commission in 1948. At the Senate Commerce Committee hearings representatives of the AIA, NASAO, American Airlines, etc., wanted any transport-plane program run by an existing Government agency. If your

committee agrees with these views I would suggest that the words "Aircraft Development Corporation" be deleted and the words "Secretary of Commerce" substituted throughout H. R. 448. Of course, you could say "Secretary of Defense," but it should be remembered that the Secretary of Defense, on prototype matters, has "thrice put away the crown." Furthermore, it seems more satisfactory to build up this air-freight fleet under civil auspices, having a relationship to the military similar to that of the surface merchant marine.

However, if you decide to scrap the Corporation, I feel that consideration for the taxpayers requires that the public moneys appropriated for this or any other transport-plane program should be made into a revolving fund, or that the activity within the Department of Commerce should be given corporate status, so that there would be business-like practices, and the fund would come under the accounting and other controls of the Government Corporation Control Act of the Congress. Such a provision is also necessary so that the Secretary of Comerce can receive money (from leases, cost recovery, etc.) and apply it against future needs of the program—stretching it out to get the full value for the taxpayer—and not just spend money. Some of the language in H. R. 5755 might be applicable here if your committee decided to drop the Corporation provisions of H. R. 448.

(3) *Defense.*—Your committee has before you H. R. 448 for cargo aircraft, H. R. 8536 for particularly turbine-powered transport aircraft, and H. R. 7870 for personal and industrial aircraft. It is obviously impossible financially to have a separate bill for each type of aircraft, and such an arrangement would also likely result in a poorly integrated program. While my own view is that cargo aircraft are the things of principal concern, if your committee wish to integrate the other types into the same bill, you could use the term "civil aircraft" and define it appropriately to cover them all. I should, however, earnestly hope that the present language of H. R. 448 (sec. 2), "capable of being readily adapted and used for military purposes," would not be tampered with.

(4) *Defense Department.*—It might be helpful further to define the role of the Secretary of Defense in this bill by specifically giving him the right to certify to the Secretary of Commerce the defense features to be included in the civil aircraft which are the objective of Government financial assistance. Section 501 of the Merchant Marine Act of 1936 is a helpful precedent. Another amendment might be added to section 6 of H. R. 448 providing that the Secretary of Defense should transmit to the Secretary of Commerce the military-reserve requirements of the United States for this type of civil aircraft.

I believe the Secretary of Commerce should remain responsible for the survey of civil potentials in section 6 and for the action necessary to bring civil potentials up to military needs. I should like to point out that nearly every transport-plane bill before Congress except H. R. 8536 includes a survey of potentials and requirements. I believe it is essential to maintain section 6 of H. R. 448 to carry out the following not-yet implemented recommendations of the President's Air Policy Commission and to keep the study current:

> "The problem of building up a pool of military transport planes in commercial use seems to warrant a more coordinated study of the number of transports needed, the potential commercial cargo traffic, and the possible subsidy cost to the Government than has been carried on by the armed services, the Department of Commerce, and the Civil Aeronautics Board. We recommend that the problem receive the immediate attention of the Air Coordinating Committee."
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> —Survival in the Air Age, 1948, page 115.

(5) *Purchase and lease.*—Some people have looked at the air merchant-marine bill and cried "Socialism." Actually, under H. R. 448 the Government acts as a catalyst, not a Socialist. To allay this sort of fear, however, your committee could amend H. R. 448 clearly to indicate that the No. 1 objective is direct purchase by private operators of civil aircraft from private manufacturers. Further safeguards could be written into the bill, following the precedent of section 701 of Merchant Marine Act of 1936, that Government purchase of transport aircraft and lease to commercial operators could not be done except upon a finding, subject to the President's approval, that the national-defense reserve needs could not otherwise be met.

As an alternative to the purchase and lease arrangement consideration might be given to amending section 4 of the RFC Act to liberalize loans to companies purchasing transport aircraft readily adaptable for defense purposes. There is, of course, one disadvantage to this loan and equipment trust procedure, and

that is, that it would be slow, although on the other hand, it might further allay residual fears of socialism.

(6) *Amount of Government financial undertaking for prototypes.*—It is probable that the provisions of H. R. 448 go too far in assuming that the Government will pay the entire research and development costs of new transport models. In January, President Truman decided that a prototype bill drawn up by Secretary Symington was not in accordance with the President's policy. While this decision did not relate to H. R. 448, it might influence you to modify the degree of Government financial assistance for prototype work. On the other hand, it is very doubtful that the "testing" provisions of H. R. 8536 are sufficient for a prototype cargo plane. Under H. R. 8536, all the Government does is to offer free $1,950,000 worth of "testing" if a private individual or manufacturer or airline will put up $18,600,000 in research and development costs first. Perhaps a middle ground could be struck in H. R. 448 in providing for fund matching, on a 50–50 basis, between Government and private industry in the development of prototypes.

Mr. MARVIN. In connection with the total cost of H. R. 448, including the building up of a freight fleet with existing models and including all of the prototype work, I would like to submit for the record at this point a calculation done by Capt. C. H. Schildhauer, of the Naval Reserve, made before Korea and I believe subject to some revision now because of there being a necessary speed-up.

(The matter referred to follows:)

This point is important because some people have erroneously assumed that the capitalization of $100,000,000 for the Aircraft Development Corp. represents the cost to the Government. The gist of his study is that the H. R. 448 program would involve an average cost to the Government of less than $7,000,000 a year over a 10-year period (part of which would come back under cost recovery) the following transport planes less than 8 years old by 1960:

(*a*) Current long-haul transports	144
(*b*) New-type long-haul transports	186
(*c*) Turbo-prop or jet transports	54
Total	384

Mr. MARVIN. General Knerr is here today and he and Captain Schildhauer, John Budd, Mr. Wilson, and Mrs. Keyes have been working for some time at our own expense on this subject and if we can assist you, Chairman Beckworth, with any of these amendments we would be happy to do so.

War transport is primarily a business of moving freight, in tonnage, about 100 to 1 over passengers. Cargo planes are most suited for this purpose and they have the further advantage of being able to carry troops in bucket seats, which may not be very comfortable but which at least get a lot of them in.

Jet plush jobs, toward which H. R. 8536 is beamed, are useful only for plush passengers.

There is only so much money to go around and if we go spending $12,500,000 on jet plush jobs we may not have enough for cargo planes. Luxury spending must be greatly trimmed if we are to have enough for defense. Besides, testing is not the problem with cargo planes, the problem is to get them built.

We should put first things first and H. R. 8536 puts them second. H. R. 8536 would, in my opinion, get us off on the wrong track.

It would give people a false sense of security and it would block enactment of really adequate legislation later.

I therefore urge you gentlemen to reject H. R. 8536 and to concentrate on H. R. 448 or on revisions to H. R. 141 to give us adequate airlift.

I ask your permission, Mr. Chairman, to include the enclosures I enumerated there with the addition of an editorial which appeared in yesterday's New York Times supporting the enactment of the air merchant marine bill, and also a copy of a letter by Marquis Childs which I just received which seems to give some reasons and which may be of interest to your committee as to why something has not been done about this before.

Mr. BECKWORTH. Without objection, those will be included and your entire statement will also be made a part of the record.

(The statement and enclosures referred to follow:)

THE NEED FOR ADEQUATE AIRLIFT LEGISLATION (REASONS FOR PREFERRING H. R. 448 TO H. R. 8536)

Statement before House Committee on Interstate and Foreign Commerce, Transportation Subcommittee, by Langdon P. Marvin, Jr., former Chairman, Interdepartmental Air Cargo Priorities Committee (New York, and Study Room 141, Library of Congress Annex, Washington, D. C.)

A general recently returned from the Far East has said, in effect, "Shortage of airlift is the great story of Korea."

Our Marines are going over there by boat, taking 3 to 4 weeks, instead of by air, taking 3 days. We do not have the cargo planes to carry bazookas, guns, and tanks. Because of the airlift shortage we are unable to make ourselves felt sufficiently quickly in Korea or in any other place.

The reasons for having a fleet of freight planes have been repeated again and again. In testimony on March 4, 1950, before your committee, I noted that the Russians have a submarine fleet five times as big as that with which Germany started World War II; that war might come in the Arctic or areas inaccessible to shipping; that our ports might be sealed up by atomic explosions, making air transport the only alternative; that if atomic warfare were to break forth, General Eisenhower has already reminded us the first 60 days would likely be determining.

All these are reasons why we must have a large fleet of freight planes and why we cannot put our sole reliance upon a surface merchant marine.

It is not just in Korea that we need and are going to need airlift; we must have a two-ocean airlift.

The Forrestal requirement figure (spring of 1948) for airlift on M-day was 4,000 C–54 equivalents. This figure was cut back in January 1950 by the Defense Department to a barebones minimum requirement of 2,000 C–54 equivalents for the early phases of war. Using just this smaller—and probably less realistic—figure, I testified here last March that the deficit against what we can muster now exceeds 1,200 C–54 equivalents, or a smaller number of larger planes. In tonnage to be lifted the gap exceeds 5,000,000,000 ton-miles a year.

This gap must be plugged.

To plug this gap two things must be done:

(*a*) *Quantity.*—We must rapidly expand the country's airlift with the best freight planes which have already been developed by the manufacturers. We must build up a fleet of existing types without waiting for better ones.

(*b*) *Quality.*—Meanwhile, research, developing, and testing work must go on toward developing prototype transport planes, with special emphasis on cargo planes that can meet the military needs for carrying trucks, tanks, etc. And getting a more economical cargo plane will broaden the air-cargo market and make for an even bigger reserve.

H. R. 448 accomplishes both these jobs, and is therefore a 2-in-1 bill, whereas H. R. 8536 does only a very small part of job (*b*).

The following are deficiencies of H. R. 8536 in comparison to H. R. 448:

CONTRAST BETWEEN—

H. R. 8536 (jet transport "testing" bill).	H. R. 448 (Air Merchant Marine Act).
(1) PURPOSE	
(*a*) Commercial supremacy through testing jets in simulated scheduled commercial operation.	(*a*) National defense through building of cargo planes adaptable for both commerce and military. (*b*) National defense and commercial supremacy through developing prototypes.
(2) LABOR	
(*a*) Only manufactures and airlines required to be consulted. Labor omitted (sec. 2 (b), p. 6, l. 3–9). (*b*) Not much job potential.	(*a*) Aircraft Development Advisory Board includes equal representation for labor with management. Public also to be represented (sec. 5, p. 9, l. 4–10). (*b*) Building up airlift would mean 30,000 new jobs in ALPA, T, IAM, UAW, etc.
(3) CARGO PLANES	
Cargo planes definitely in second place (p. 1, l. 7–8).	Cargo planes in first place (sec. 2 (3); p. 2, l. 3–10) as per recommendations of President's Air Policy (Finletter) Commission. "Survival in the Air," p. 138).
(4) MILITARY SPECIFICATIONS	
No requirement that the planes tested at public expense should be adaptable for military use.	"'Cargo aircraft' means * * * capable of being readily adapted and used for military purposes" (sec. 2 (2) l. 3–10).
(5) MILITARY USE OF PLANES	
No special provision for military use of planes.	President empowered to direct the use of planes in commercial operation or to mobilize the planes developed or improved with Government funds when he finds it in interest of national security. President does not have to wait on declaration of war or passage of War Powers Act (sec. 11, pp. 16–17).
(6) COST RECOVERY FOR BENEFIT OF TAXPAYERS	
No provision for recovering any part of public money should recipients profit therefrom.	As in Merchant Marine Act of 1936, profits from Government-improved planes, over 10 percent, are to be split 50–50 with Government (sec. 8 (c) pp. 11–12, and sec. 10 (c) (1) p. 15 of H. R. 448).
(7) NONSCHEDULED AIRLINES	
Nonscheduled airlines apparently excluded from Government contracts for testing of turbine-powered planes (because they presumably could not, without violating CAB regulations, "simulate * * * the conditions under which *scheduled* aircraft operate") (sec. 2 (a) (2) p. 2, l. 15–19; italics added).	All airlines are given a role in the airlift expansion program (sec. 8 (a) p. 11).

What is behind H. R. 8536 is a desire to outstrip the British and Canadian jet-transport development, or if this cannot be done, to test out these and other jets on America's commercial airlines. It is very doubtful that H. R. 8536 as drawn would even accomplish this minor purpose. In testimony during May before the Senate Interstate and Foreign Commerce Committee, not one single American manufacturer of transport planes gave assurances that his company would absorb research and development costs to produce a jet prototype on consideration that he would get some "free testing" at the taxpayers' expense at the end of the trail.

However, even assuming that you get such assurances from a manufacturer—and I don't think you can—the events that have occurred since this bill was drafted by the Air Coordinating Committee in cooperation with the Air Transport Association and the Aircraft Industries Association, are such that it no longer fits the needs of the times. Commercial supremacy is a very laudable goal, but at this juncture in history it must take second place after defense. That is the position in which jet-transport prototypes are put in H. R. 448, which makes defense the more important of the two; whereas by contrast H. R. 8536 forgets about defense and makes this limited approach to commercial supremacy the only purpose of the bill.

H. R. 8536 is pre-Korean legislation. We are no longer concerned with what amounts to competition between American Cadillacs and British Rolls Royces; we have got to start building trucks, aerial trucks.

Curiously enough, the memorandum of the Commerce Department to Chairman Crosser dated July 10 does not even mention cargo aircraft.

There has been too much indifference among the civil aviation authorities to defense needs. The Civil Aeronautics Board has been and is directed by statute to consider the needs of the national defense. It is, therefore, especially shocking to the taxpayers, who have been paying out approximately $50,000,000 a year in subsidies, to find that a spot check by the Military Air Transport Service reveals that only about 10 percent of the planes of the subsidized airlines are of immediate use for defense.

There has of course been the fear in some quarters that a rapid expansion of the number of cargo planes in the country would mean additional competition for the already established airlines. In easygoing times of normalcy, such objections might be tolerated, but this is not a period of normalcy. Let me say that I personally do not care whether the additional cargo planes are put into the hands of the scheduled airlines which are members of the Air Transport Association, or whether they are given to both groups. I simply know that regardless of which company's insignia is painted on these aircraft, there has got to be a very large fleet of cargo planes in the hands of commercial operators, with adequate mobilization authority in the hands of the Government.

This is no time for us to be passing luxury legislation and ignoring defense legislation. H. R. 8536 is not going to help in the Korean lift one little bit. H. R. 8536 would simply spend millions of the taxpayers dollars for the testing out of jet plush jobs which would take a long time to develop, instead of spending it on the building of cargo planes which are needed right now for the Korean lift, and will be needed in other parts of the world.

H. R. 448 does not ignore jet development by any means. Section 7, pages 10–11, defines the composition of the fleet to be built up under H. R. 448: "Such aircraft shall be of existing types and of types hereafter developed, as in the judgment of the (Government) corporation will best promote air commerce and strengthen the national defense." The contrasting narrowness of H. R. 8536 is shown in that it provides only for testing (to meet CAA certificates) of "particularly turbine-powered aircraft" (p. 1, l. 6–7). Furthermore, the contracts for operating and modifying planes are specifically tied to "turbine-jet" or "turbine-prop" aircraft (sec. 2 (a) (2) (3) and (4)).

Especially in the ever-changing aviation field it seems to me risky business to try to legislate specific types of aircraft and for that reason alone the broader and more flexible language of sections 2 and 7 of H. R. 448 seems preferable.

I am not saying that ultimately jet transports will not be important to defense, and I believe their development should be encouraged—but in their proper priority, following immediate defense needs (as is done in H. R. 448) and not by a special program such as H. R. 8536 which pays only lip service to defense.

The following exchange from the Senate hearings is pertinent:

"The CHAIRMAN. What about jet transports as a specific type of prototype that may need development in order to keep in step with other countries?

"Mr. SYMINGTON. From a commercial standpoint, sir—speaking as an individual—I can see that it is very important. But from a military standpoint it

is doubtful whether, at this time, there is a military necessity for a jet transport."—Hearings at Senate Committee on Interstate and Foreign Commerce. January 30, 1950, pt. 5, p. 2043.

Also pertinent to your consideration of H. R. 8536 is the following:

"With specific reference to the jet transport, the British and the Canadians laid down the *Comet* and the AVRO C–102 in 1946. As far as we know, there is only one *Comet* and one AVRO C–102 in operation in 1950. Debugging those prototypes will take some time before even modest quantities of such aircraft could be placed in production, if it is found to be economically feasible with present available jet power to undertake even modest-quantity production.

"As to national pride and prestige we are perturbed to see any other nation, even our close friends in Canada and England, flying newer type transports than we are making. To date and until much more development of large jet-propelled aircraft of bomber types, I believe that it is only our pride and our prestige that are hurt. As far as military plans are concerned, we want to see a lot more flying by jet bombers before hoping for substantial quantities of jet transports. We are not laying military plans on any presumption that the economics of air transport will support a measurable proportion of jet transportation until sometime after 1955."—Paper by Maj. Gen. Laurence S. Kuter, Commander, Military Air Transport Service, at S. A. E. National Aeronautic meeting, Hotel Statler, New York City, April 19, 1950.

Therefore, while not forgetting the far future, our first concern should be with the period 1950–55, which I referred to in my statement here on March 4 as the danger period and, Congressman McGuire, you were kind enough at that point to comment on the simplicity of the mathematics.

There seems to be no immediate military need for the "particularly turbine-powered" transports of H. R. 8536.

Now what do the military need? My recommendation to you, Chairman Beckworth, is to ask them. I particularly recommend your inviting the testimony of Gen. J. Lawton Collins, the able Chief of Staff of the Army. Ask him what they need from the civil air transport industry. Ask him which of these two bills, H. R. 8536 or H. R. 448, they prefer.

The man who has bossed more airlifts than anyone in history gives us some suggestions. He wants, not a luxury liner, but a "truck of the air."

"Awkward, unwieldy, and bulky loads (which are inherent in standard Army ordnance) must be carried and so the aircraft should be designed for their easy loading."

"The contour of the cargo-transport airplane should emphasize a fuselage design sufficiently wide to permit storing of two passenger-type vehicles or equivalent items side by side throughout its usable length. A density factor of 10 pounds per cubic foot to accommodate 25-ton load is desirable.

"The grid pattern of tie-down fittings should provide sufficient tie-down rings throughout the aircraft to enable safe and expeditious lashing of all sizes and shapes of cargo secured to a flooring designed to withstand the normal strains imposed upon the tie-down fittings during aircraft maneuvers, turbulence, and emergency landings.

"Cargo doors, of which there should be more than one, must be ample in size to permit the direct ramp loading of a 6 by 6 truck with its canopy. Further, monorails must be provided for the movement of heavy cargo within the interior of the airplane.

"I believe the airplane should be a conventional 4-engine type, capable of laying down 25 tons after a 3,000-mile flight or 5,000-mile range with no load.

"The speed of the aircraft need not be great in terms of present-day thinking. A speed of 250 miles per hour seems adequate. This speed will give to air transport a safe differential over all types of surface transportation in a generous ratio."—Maj. Gen. William H. Tunner, Deputy Commander, MATS. Address at Hotel Statler, November 29, 1949, and also article from Planes, published by AIA, July 1950.

(At this point enlarged photographs of military cargo planes will be passed around.)

If you gentlemen of this committee pick H. R. 8536 you may get a few 500-mile-an-hour passenger jets some years from now; if you gentlemen pick H. R. 448 you'll be sure of keeping our supply lines moving at 250 miles an hour—instead of 16 knots at sea—and you'll have just as good a chance to get your jet job later on.

Since the civil aviation authorities have failed so far to hold up their end of the national airlift problem, the military is now having to request funds for a larger number of planes than would otherwise be necessary, and they are

going to have to wait for them longer than would have been necessary. I understand that the supplemental defense budget includes a request for 512 large aircraft of the C–97, C–124, or C–119 type—being a rough equivalent of 1,750 C–54's (refer column by Marquis Childs, August 1, 1950).

This action by the military, however, does not mean that the civil side of air transportation can sit back and relax and concentrate solely on commercial goals. The cargo planes to be ordered by the military will have to be supplemented by cargo planes from the commercial airlines. The urgent need for expanding the commercial freight lift remains.

Furthermore, it should be noted that for prototype work—to get newer and better cargo planes—the military are prohibited by Public Law 604 of July 10, 1950, from using military funds. There is another auxiliary job for civil aviation.

Unfortunately, there has been and is a fatal gap between military and civil aviation authorities. Our military and civil airlift efforts are not being well harnessed together. That division is ironical, because airlift naturally lends itself to joint commercial and military purposes. A cargo plane is a totally different thing from a gun or tank. The latter have value only in war, whereas a cargo plane has value in both peace and in war. A cargo plane is both a sword and a ploughshare.

Straight military procurement of all the cargo planes needed for war would be enormously expensive for the taxpayer, unless there were authorization, similar to the provision in H. R. 448, for the Government to lease aircraft to commercial operators when not in use. The alternative, a "mothball" plan, would mean that the cargo planes would be far less ready than if they were commercially operated in peaceful periods.

In essense, the Air Merchant Marine bill, H. R. 448, provides for a very rapid expansion of the civil airlift of the country. It also provides for research, development, and testing of yet-to-be-produced transports suitable for both commercial and military purposes. As a condition of the extensive Government aid (by contrast H. R. 8536 provides no defease conditions) operators of the aircraft developed or substantially improved with Government funds must agree to having 75 percent of their flight and maintenance personnel in the Reserve; must agree to maintain or install the planes for the Government, when the President finds it in the interest of the national security, or turn the planes together with their trained crews over to the Government.

In this way, the ABC airline would be provided with planes suitable for commercial traffic, would be reimbursed for defense features; and, when needed, would become overnight part of the military air transport system.

On one hand, H. R. 8536 is insufficiently defense-minded; and on the other hand straight military procurement of all the cargo planes we might need for war would unduly burden the taxpayer and militarize the industry. The air merchant marine bill offers a happy middle ground suitable for our present stage of partial mobilization, and a strong auxiliary for the military in case of full mobilization.

While these bills are not perfect by any means, they are basically sound and they are ready to be used.

It may well be, Chairman Beckworth, that you and your committee will decide to make amendments. After studying carefully the testimony of airline and aircraft manufacturing representatives before the Senate Committee and after doing a lot of thinking on the subject, I would myself suggest certain compromise amendments:

(The amendments appear on p. 65.)

I believe the Secretary of Commerce should remain responsible for the survey of civil potentials in section 6 and for the action necessary to bring civil potentials up to military needs. I should like to point out that nearly every transport plane bill before Congress except H. R. 8536 includes a survey of potentials and requirements. I believe it is essential to maintain section 6 of H. R. 448 to carry out the following not-yet-implemented recommendations of the President's Air Policy Commission and to keep the study current:

"The problem of building up a pool of military transport planes in commercial use seems to warrant a more coordinated study of the number of transports needed, the potential commercial cargo traffic, and the possible subsidy cost to the Government than has been carried on by the armed services, the Department of Commerce, and the Civil Aeronautics Board. We recommend that the problem receive the immediate attention of the Air Coordinating Committee."

—("Survival in the Air Age" 1948, p. 115.)

(5) *Purchase and lease.*—Some people have looked at the air merchant marine bill and cried "socialism." Actually, under H. R. 448 the Government acts as a catalyst, not a socialist. To allay this sort of fear, however, your committee could amend H. R. 448 clearly to indicate that the No. 1 objective is direct purchase by private operators of civil aircraft from private manufacturers. Further safeguards could be written into the bill, following the precedent of section 701 of Merchant Marine Act of 1936, that Government purchase of transport aircraft and lease to commercial operators could not be done except upon a finding, subject to the President's approval, that the national defense reserve needs could not otherwise be met.

As an alternative to the purchase and lease arrangement, consideration might be given to amending section 4 of the RFC Act to liberalize loans to companies purchasing transport aircraft readily adaptable for defense purposes. There is, of course, one disadvantage to this loan and equipment trust procedure, and that is that it would be slow, although on the other hand, it might further allay residual fears of socialism.

(6) *Amount of Government financial undertaking for prototype.*—It is probable that the provisions of H. R. 448 go too far in assuming that the Government will pay the entire research and development costs of new transport models. In January, President Truman decided that a prototype bill drawn up by Secretary Symington was not in accordance with the President's policy. While this decision did not relate to H. R. 448, it might influence you to modify the degree of Government financial assistance for prototype work. On the other hand, it is very doubtful that the "testing" provisions of H. R. 8536 are sufficient for a prototype cargo plane. Under H. R. 8536, all the Government does is to offer free $1,050,000 worth of "testing" if a private individual or manufacturer or airline will put up $18,600,000 in research and development costs first. Perhaps a middle ground could be struck in H. R. 448 in providing for fund matching, on a 50–50 basis, between Government and private industry in the development of prototypes.

In connection with the total cost of H. R. 448, including the building up of a freight fleet with existing models and including also the prototype work, I would like to submit for the record at this point a calculation done by Capt. C. H. Schildhauer, United States Naval Reserve.

(The matter referred to appears on p. 67.)

These calculations were made pre-Korea, and the speed-up now would probably hike the initial annual cost. The study, however, illustrates how much can be done with relatively little money, provided it is spent in the right direction.

I should like to say at this point that Capt. C. H. Schildhauer, Gen. Hugh J. Knerr, Mr. John Budd, Mr. Gill Robb Wilson, Mrs. Arthur Keyes, and others besides myself have worked for a good many months at our own expense on air lift preparedness and would be very glad to assist you, Chairman Beckworth, and any of the members of your committee in any way we can.

CONCLUSION

War transport is primarily a business of moving freight, in tonnage about 100 to 1 over passengers. Cargo planes are most suited for this purpose, and they have the further advantage of being able to carry troops in bucket seats, which may not be very comfortable, but which at least gets a lot of them in. Jet plush jobs, toward which H. R. 8536 is beamed, are useful only for plush passengers.

There is only so much money to go around, and if we go spending $12,500,000 on jet plus jobs, we may not have enough for cargo planes. Luxury spending must be trimmed if we are to have enough for defense. Besides, "testing" is not the problem with cargo planes; the problem is to get them built.

We have got to put first thing first and H. R. 8536 puts them second.

H. R. 8536 would get us off on the wrong track; it would give the people a false sense of security; it would block enactment of really adequate legislation.

Of the competing bills which have been milling around Congress, H. R. 448 is the most suitable for peace or war.

I urge you, gentlemen, to reject H. R. 8536 and concentrate on H. R. 448 to give us adequate air lift.

Respectfully,

LANODON P. MARVIN, Jr.

[Editorial, the New York Times, Wednesday, January 4, 1950]

ADEQUATE AIR LIFT

Measures for the aid of civil aviation and for the national defense are to come before the new Congress. Among them are bills to enable the use of Federal funds in the development of prototype transport airplanes for both passengers and goods, so that the knowledge of our power plant and air-frame manufactures can be put into practical construction, especially in the pure jet and turbojet fields. It is obvious that airplane manufacturers cannot finance the development of such equipment unaided, because of the heavy development cost of today's big airplanes.

There are two bills which will come up in the new Congress, aimed at providing a method for Government support in this area. Both contain good provisions. The air merchant marine bill goes further than the so-called prototype bill and would seem to have several advantages. It would provide for an aircraft development corporation financed through the Reconstruction Finance Corporation. These bills may require amendments and expansion. But they recognize the need for action to enlarge and improve our air lift. In the emergency of the war the aircraft industry showed its ability to design, to expand and to produce. It can be relied upon to meet current needs if the required funds are provided. Legislation to this end was recommended both by the President's Air Policy Commission and the Congressional Air Policy Board.

[From Air Transportation, November 1948]

AN ENLIGHTENED AIR CARGO PROGRAM, SAYS THE AUTHOR, IS THE SORT OF COMBINATION THAT IS BOTH A * * * SWORD AND PLOUGHSHARE

(By Langdon P. Marvin, Jr., former Chairman, Interdepartmental Air Cargo Priorties Committee)

A short time ago, the Secretary of the Navy reminded us that the Soviet Union has an operating fleet of about 250 submarines—5 times the number with which Germany started World War II. Since this potentially hostile underwater fleet is not only very large, but is in good part equipped with schnorkel and other improvements, I doubt that in planning our national security we can continue to place sole reliance on our surface merchant marine.

Furthermore, since Congress has voted 70 combat air groups to be the main striking force of our military power, we must have supply lines which can keep pace. Sixteen-knot supply lines are hardly adequate in a 400-mile-an-hour age. However, in our plans to speed up our supply lines, we must remember that war transport is primarily a movement of freight—freight tonnage in a ratio of something like 120 to 1 over passengers.

Therefore, what we need is a merchant marine of the air, capable of flying over enemy submarines, capable of keeping pace with our combat planes, and capable of carrying freight.

Unfortunately, an examination of the present United States balance sheet in cargo aircraft shows a very bad case of unpreparedness:

M-day requirements		*Availability*	*Deficit*
[1] 4,000	402	(All parts of United States Air Force, including storage)	
	64	(Navy)	
	60	(Airlines certificated by CAB)	3,349 (84 percent)
	125	(Veterans' air freight lines applying to CAB)	
	651=16.4 percent requirements		

[1] N. B.—4,000 C–54-type freighters—approximately 800 new-type, 20-ton-payload, long-range aircraft.

The reader might think that by this time we would know the importance of cargo planes. We saw how, throughout the last war, our ally, China, as well as our own forces fighting in that theater, were supplied almost entirely by air, the lift over the Hump reaching a peak of 70,000 tons a month. All of General Chennault's gas line and bombs, most of China's lend-lease, the bulk of all

military and industrial snpplies for both the Chinese and United States forces were flown in. At home, for 3 years, our radio and radar factories were fed regularly by air imports of millions of pounds of tantalite from Brazil, Africa, and Austrialia; mica from India and Brazil; quartz crystals from Brazil; and other strategic raw materials. The present air lift to Berlin is merely one in a long list of lessons that on cargo planes may hang our national prestige and our military success. (See Operation Vittles in August AT.)

These facts are all well known, and the citizen may wonder why, in the face of them, we are confronted with such a dangerous case of unpreparedness.

A "FATAL GAP"

As nearly as I can make out, after 7 years' experience and study, the answer is that a fatal gap exists between military aviation and civil aviation, a fatal lack of mutual understanding and cooperation. This gap ws best revealed last winter when, at the very time the military authorities were looking to civil air agencies to help develop the air freight fleet they would need on M-day, then Chairman James M. Landis of the Civil Aeronautics Board advocated that if the military needed a lot of freight planes they should buy them themselves and store them in mothballs, because the CAB could not see how they could be usefully employed in peace.

To the average citizen it is surely obvious that the United States would be far less ready for war with its airfreighters in storage than if they were in operation; obviously the country would lose a lot of new business if this fleet of freight planes were not used in our peacetime domestic and foreign cargo trade; obviously, developing a merchant marine of the air through commerce would cost the taxpayers less than if it were done 100 percent by Government funds.

There actually is no division of interest between commercial and military air transport. The military need freight planes for war, and the $40,000,000 airline deficits of the past year should indicate that our commercial airlines could well use some new revenues from hauling cargo.

Far from being an object of conflict, an air crago program is a happy combination of commercial and military interests; it is both a sword and a ploughshare.

Unfortunately, no Government agency or committee or board is really putting the two halves—commercial and military—of this air cargo program together. The Air Force and Navy have figured out what they need in the way of freight planes for M-day, but they are unable to procure this entire fleet themselves, and are wary of intruding into the sphere of the civil air agencies in figuring ways and means of developing the fleet they need through commerce.

On the civil side of the picture, the certificated airlines under the leadership of the CAB have steadily been pursuing a policy of trying to build a big airline system npon a small luxury pasenger market. They have squeezed and squeezed that market, and the net results of the unimaginative postwar CAB policy have been: large deficits for the certificated airlines, large bills for the taxpayer in the form of air mail payments to cover those deficits, few orders for the manufacturers, restriction of opportunity for the veterans' air freight lines and other uewcomers, and a negligible contribution to the air freight fleet needed for defense.

It is manifestly impossible to get a fleet of large freight planes capable of hopping the oceans in an overseas war from a small-size luxury passenger market, the bulk of which is short-haul, anyway. Most of the planes which the airlines are acquiring are of too short range to accomplish the 2,500-mile hops required in war, most of them are too small to carry appreciable loads, and 90 percent of them are not fitted out for the carriage of freight. While it is possible to convert a luxury passenger plane into a freighter, conversion centers would have to be established where the interior fittings could be ripped out, the floors strengthened, large doors cut, and bullet-proof tanks installed. This is a process of several weeks, and, of course, the whole point of having a fleet of freight planes is to be able to cope instantaneously with a Sunday punch. We would do well to remember General Eisenhower's admonition that in the next war our ability to act in the first 60 days will be determining.

Therefore, in our pursuit of an air merchant marine, let us rule out those totally inadequate substitute plans of a mothball fleet or a luxury passenger plane fleet. We must have a fleet of large, long-range freight planes in constant operation, and the only way to do this in a manner not ruinous to the taxpayer and

not absurdly wasteful of one of our national assets, is to get these planes to work carrying long-haul commercial cargoes in our domestic and foreign trade.

For some time I have been doing research, on the potentials in commercial air cargo at profitable rates, and have come to the conclusion that of the total of 800 long-range, large payload air freighters required by the military for M-day, some 200 could be gainfully employed in our import-export trade. (Or, in units of C–54's, abou 1,000 planes could be kept busy profitably in foreign air trade, out of a national requirement of 4,000.) How many more conid be gainfully employed in our domestic commerce and in hauling our peacetime milltary traffic remains to be worked out.

It is clear, however, that the key to the whole business of preparedness in air transportation is to work ont a national plan wherein the commercial and military parts of the problem are considered together. The whole business of developing newer and better airfreighters, procuring them on a careful schednle, putting them to work in the commercial cargo business, arranging for their automatic mobilization in the event of war, etc., is a problem which cannot be split lnto watertigbt civli and military parts.

Several years ago there was established in the Government an Air Coordiaating Committee, the purpose of which was to bring the mnltitndinous air agencies of the Government together on matters that cut across more than one department. For a solid year four different subcommittees of this Air Coordinating Committee—in fashion reialniscent of the League of Nations—have pondered ACC Paper No. 84, not to mention other proposals, that some carefui study and piaaning be doae in this field of freight plaae preparedness. Although ACC–84 and other proposals for an air cargo study were givea specific support by the President's Air Policy Commission on Jannary 1, 1948,[1] the only action so far accomplished by the ACC and its member agencies has been the compilation of a bibliography of air cargo iiterature. Nelther the Air Coordinating Commlttee nor its member agencies have this year proposed any adequate iegislation on the subject of a fleet of freigbt planes, and the comments of those agencies on the prototype bili (S. 2644 and H. R. 6501), which had been drafted at the other end of Pennsyivania Avenue, were in conflict with one another and failed to answer several of the objections of various Senators, which objections ultimately stopped this progressive bill.

We will just not get a decent national plaa for air transport preparedness untill there exists a really effective arm of the Government of sufficient strength and scope to be able to create a national plaa. Unfortunately, the Government, which is the real seat of maaagemeat of our air transport industry, is sadly split up lnto a lot of little Baikan states. Any chart of the organlzatlon and lines of authority of the following Federai agencies which are mixed up in aviation wonld resemble nothing so clearly as a bowi of overturned spaghetti.

The recommendations of the Presidentiai and Congressioaal Air Poiicy Boards for varlous metbods of reorganizing aviation activities in the Federal Government came to nothing. It remains to be seen what the Hoover Commlssion will recommend on January 1, 1949, and how far its recommendations will get.

Unfortunately, the Air Coordinating Committee has not been very strong, and its very inadequacies in the policy field presnmably led to the creation of the two Special Policy Boards. Its leadership has been changeable (ACC has had three different chairmen within a year) and its work has been slow (partly because it has a very small staff and its work is left to subcommittees composed of men who are already very busy elsewhere).

Our hopes between now and next January hinge upon the leadership which can be given to the Air Coordinating Committee by its new chairman, Joseph J. O'Connell, Jr., an able and unprejudiced man who, since April, bas been the new Chairman of the Civil Aeronautics Board. A cargo-plane program can be worked out if it is treated by ACC as a full-time job of high priority and not as a part-time concern of members of some subcommittee who are already well occupied with other governmental affairs and can barely scrape up 2 hours a week for a meeting.

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[1] "The problem of building up a pool of military transport planes in commercial use seems to warrant a more coordinated study of the number of transports needed, the potential commercial cargo traffic, and the possible subsidy cost to the Government than has been carried on by the Armed Services, the Department of Commerce, and the Civil Aeronautics Board. We recommend that the problem receive the immediate attention of the Air Coordinating Committee" (p. 115).

[From the New York Times, Tuesday, January 3, 1950]

UNITED STATES URGED TO PLAN AN OCEAN AIRLIFT—PROFESSOR MARVIN SAYS SOVIET IS STRONG IN SUBMARINES, REQUIRING COUNTERMOVES

The following article is by Lt. Comdr. Langdon P. Marvin, former chairman of the Interdepartmental Air Cargo Priorities Committee and now Cabot professor of air transportation at Norwich University, Vermont.

WASHINGTON, January 2.—The U. S. S. R. has five times the number of submarines that Germany had at the start of World War II, and they are improved types. Obviously, we cannot then put all our chips upon ocean-going ships in the event of another war.

Gen. H. H. (Hap) Arnold recently put it that "once more we will have to take to the air." Gen. Dwight D. Eisenhower has said, "our ability to act in the first 60 days will be determining."

We must remember that it would take more than 60 days to load up a group of merchant ships, assemble the necessary escort vessels and get the whole convoy overseas.

At the beginning we just won't have enough time to move all troops and freight by convoys. We will have to rely upon a fleet of transport planes that can be loaded up and got rolling within a few hours after the enemy strikes.

FOR JOHNSON-KENNEDY BILL

How can we do this?

The answer is a simple one. In January 1949, an air merchant marine bill was introduced by Senator Edwin C. Johnson, Democrat, of Colorado, chairman of the Senate Commerce Committee, and Representative John F. Kennedy, Democrat, of Massachusetts, providing essentially for three things:

1. Government assistance for the research and development of prototype transport planes, including new jet and turbine-powered models.

2. Immediate expansion of transport planes in this country, suitable for both military and commercial purposes. By carrying commercial cargoes in the domestic and import-export trades, they can be made available for instant commandeering by the military in the event of war.

3. Organization of an Aircraft Development Corporation to administer this program in the most economical way for the taxpayers. The Corporation is directed to recover a considerable part of the initial Government expenditure, costing approximately $100,000,000.

The air merchant marine bill is a well-thought-out attempt to give this country sufficient protection in airlift at a minimum cost to the taxpayers.

A cargo plane is both a sword and a plowshare. The cheapest way to build up a fleet of planes and have them in readiness is to expand our civil airlift, especially in the cargo direction.

Dr. Godfrey L. Cabot, oldest of the elder statesmen in aviation, recently declared: "I predict that the time will come when the freight traffic through the air will greatly exceed passenger traffic through the air."

My studies on the potentials in the air cargo business conclude that there will be sufficient commercial cargoes to support a large fleet of planes of the types which the military will need.

The President's Air Policy Commission recommended back in January 1948 that an Aircraft Development Corporation be established and that a program be got under way for increasing the number of cargo planes in this country to meet future military needs. That was 2 years ago, and the Government has done practically nothing about it since.

PENTAGON APATHY CHARGED

The Department of Defense may be very defense-minded about a lot of things, but does not appear to be so minded about air transport. Apparently the lessons of the Berlin airlift have not sunk in very deep at the Pentagon.

It is obvious that we are badly prepared in airlift. As against a military need for at least 2,000 C–54's (or 500 of a much bigger future type of plane) that would be needed immediately in the event of a Russian "Pearl Harbor," we have on hand only about 600, and a lot of those are of twin-engine types that would be pretty pathetic for supply work across the ocean.

The Department of Defense was asked, in May 1949, to take a position on the air merchant marine bill, and it replied that it was not prepared to state its position. The Pentagon and the Civil Aeronautics Board have each been tossing the responsibility for developing adequate airlift to the other.

A substitute bill, called the prototype bill, has been put forward by Senator Owen Brewster, Republican, of Maine, and Representative Carl Hinshaw, Republican, of California. The Brewster-Hinshaw bill is endorsed by the Air Transport Association. The bill has the following defects:

1. It would not produce any new transport planes until at least 1956 and possibly 1957.

2. It omits any provisions for cost recovery and therefore is a 100 percent handout by the Government. It would be entirely at the taxpayers' expense.

3. It creates merely a part-time advisory board to be located in the Air Force where, naturally, the military will have a much greater say than civilians. By contrast the air merchant marine bill locates the new Corporation in the Department of Commerce, where the civilians will have as much to say as the military about the aircraft.

The Brewster-Hinshaw bill furthermore provides no mobilization plan, so that such aircraft as are developed at the taxpayers' expense will not necessarily be available to the military if war breaks out.

[From the New York Times, Monday, July 24, 1950]

LETTERS TO THE TIMES

ADEQUATE AIRLIFT URGED—NECESSITY SEEN FOR LEGISLATION TO PROVIDE PROPER WAR TRANSPORT

To the EDITOR OF THE NEW YORK TIMES:

If you are wondering why the Korean fighting is taking so long, here is one very good reason: this country is badly short of airlift. Our Marines are being sent over by boat, taking 3 weeks, instead of by air, taking 3 days. We do not have the cargo planes necessary to carry tanks, bazookas, and artillery. We aren't prepared to make ourselves felt quickly in Korea or in any other place. If the Russians were to make trouble in Europe, we would need a two-ocean airlift, but we don't have it.

If the Russians were to let loose their submarines, we would have to rely on airlift. Remember that the Russians now have a submarine fleet five times as big as that with which Germany started World War II. If the Russians were to seal up our ports with atom bombs, we would have to have airlift. If the Russians were to attack in the Arctic or other areas inaccessible to ships, we would have to have airlift.

In this peace-loving democracy, where our tendency is to let the other country hit the first blow, airlift is especially important to make up for lost time.

The minimum deficit between our present civil and military airlift and what we need for M-day is 5,000,000,000 ton-miles a year. This is translated into 1,200 C–54's, or 200 planes of the yet-to-be-produced much larger freighters.

BILLS INTRODUCED

Legislation to give us this airlift was introduced in January 1949—the Air Merchant Marine Act—by Representative Kennedy (H. R. 448) and Senator Edwin Johnson (S. 237). These bills provide for very rapid expansion of the civil airlift in this country. They provide for development and procurement of transport planes suitable for commercial cargo use in peace and readily adaptable for instant military use in war. A fleet of freight planes is both a sword and a plowshare.

The necessity for building up an air merchant marine was pointed out in a New York Times editorial on January 4, 1950, "Adequate Airlift."

Action on this measure to obtain adequate airlift is, however, blocked by the presence on the consent calendar of the Senate of a substitute bill, S. 3504. This bill is sadly deficient. It would spend public money for "testing" jet plush passenger planes which would take several years to develop, instead of building the cargo planes needed immediately to fly troop supplies to Korea and other trouble spots. It omits labor from the advisory councils of the Government, and it denies a role to the nonscheduled airlines. It fails to provide for

military use of the planes on which the public money is to be spent. Its main purpose is to outstrip the British in jet transports, a purpose now definitely secondary to defense.

We feel that this is no time to spend $12,500,000 on something of only remote connection with national defense. Jet plush jobs won't lift supplies to Korea. War transport is primarily a business of moving freight—in ratio 100 to 1 over passengers. A cargo plane can be used for both freight and troops—putting troops in bucket seats—but a plush passenger plane can be used only for plush passengers. We feel the Senate should reject this wholly inadequate measure, S. 3504, and insist on really adequate airlift legislation, such as:

ENACTMENT ASKED

1. Enactment of the air merchant marine bills (H. R. 448 and either S. 237 or S. 3507) now bottled up in the Committees on Interstate and Foreign Commerce. While these bills may need some amendments, they are basically sound, and they are ready to be used. They provide, first, for putting into circulation immediately a fleet of the best air freighters already developed by our manufacturers for both commercial and military use. Secondly, they provide for future development of prototype planes, including jets and cargo planes that can carry tanks. The air merchant marine bills give labor equal representation with management, provide a role for all airlines, provide cost recovery for the taxpayers. These cargo planes would be available for instant mobilization by the President without making him wait for a declaration of war or a war powers act. These bills would carry out the cargo-plane recommendations of the President's Air Policy (Finletter) Commission; or

2. Enactment of a new national airlift bill, as an alternative to (1), in which the divergent interests of different aviation groups could be knit together for the purpose of providing sufficient airlift of all types for defense.

We have already been caught short without adequate airlift, and we do not want to be caught in an even worse jam.

LANGDON P. MARVIN, JR.,
Former Chairman, Interdepartmental Air Cargo Priorities.
Maj. Gen. HUGH J. KNERR,
Former Inspector General, United States Air Forces Committee.
Capt. C. H. SCHILDHAUER,
USNR, Founder Naval Air Transport Service.
JOSEPH J. GREFIO,
International Flight Radio Officers, A. F. of L., C. I. O.
JOHN F. BUDD,
Honorary President, Aviation Section, New York Board of Trade.
RICHARD MALKIN,
Managing Editor, Air Transportation.

WASHINGTON, *July 18, 1950.*

[From the New York Times, Sunday, August 6, 1950]

WANTED: CARGO PLANES

There is sound reason for the immediate enactment of the Air Merchant Marine bills now hanging fire in the Senate Committee on Interstate and Foreign Commerce. We have seen in Korea how crippling it can be in an emergency to be short of suitable airplanes for cargo and other logistic purposes. The Berlin Airlift constituted a tremendous drain on available transport aircraft, only a handful of which were specifically suited to the carriage of heavy cargo.

The bills now pending may be subject to minor amendments, but, essentially, they would provide a fleet of the best air freighters already developed for both commercial and military use. Of equal, or greater, importance is the fact that they provide for the development of prototype planes including jets and cargo aircraft able to carry tanks. Such cargo planes would be available for immediate mobilization by the President without forcing him to wait for a declaration of war or a War Powers Act. The bills carry out the widely acclaimed cargo-plane recommendations made by the President's Air Policy, or Finletter, Commission. They further provide equal representation of labor with management, furnish a role for all airlines, and set up cost recovery provisons for the taxpayer.

The role of the aircraft industry was well expressed recently by Rear Adm. L. B. Richardson, United States Navy, retired. It is, first, development of advanced models, the best in the world in their classes, to meet the requirements of the armed services. Secondly, it is to supply needed replacements for the Air Force and naval aviation. Thirdly, it is to maintain the ability to produce quantities required in an emergency. The rate of mobilization of our armed services, as Admiral Richardson pointed out, is directly dependent upon the rate of acceleration of aircraft production in types which range from trainers through fighters and bombers to cargo aircraft.

Government financing of prototype aircraft and of sufficient production orders to keep the aircraft industry in a healthy and immediately expandable condition is the principal measure of insurance for adequate defense. We expended and frittered away our air strength after the conclusion of V-J day. There should be no delay now in putting into effect the wise recommendations both of the Finletter commission and the Joint Congressional Committee on Air Policy. Adequate airlift has been proved to be a vital factor in the successful application of air power as defense power. The Berlin Airlift, Operation Haylift, and, more recently, Operation Stormer on the Atlantic coast, have shown its tremendous potential. It is a factor in security in which we dare not find ourselves with too little and too late.

[From the Washington Post, Wednesday, July 12, 1950]

AIR TRANSPORT LACK

(By Marquis Childs)

WHY TROOPS AREN'T FLOWN TO KOREA

Across the vast watery distance of the Pacific a transport is carrying United States marines to reinforce hard-pressed American units in South Korea. At the very least those marines will be 3 weeks on the water from San Diego.

If that contingent of marines had been moved by air, they would have been in Japan in 3 days. But they could not be moved by air because there was not a sufficient airlift in being. This emphatically underscores one of the most tragic deficiencies of an emergency that finds so much wanting.

Economy is argued in favor of the slower method of transportation. But when all the costs are added, including the bill for a naval escort to protect the transport from random and unidentified submarines, this argument falls flat. And quite apart from actual cost accounting is the overall necessity to get there, in that familiar phrase, "fustest with the mostest." The longer the Korean war goes on, the more costly it is and the more likely it is to spread.

The Defense Department is taking some chartered space on the airlines regularly flying to Japan to carry men and materials. But this is nothing in comparison to the need.

Some months ago Maj. Gen. Laurence S. Kuter, head of the Military Air Transport Service, authorized a spot check of foreign and domestic airlines to determine how much transport suitable for military purposes would immediately be available in an emergency. The answer that Kuter's experts came up with was approximately 10 percent.

This estimate was labeled top secret and put under lock and key. One reason may have been that it would furnish such obvious ammunition for those arguing the urgent necessity to create an air merchant marine. Cargo aircraft built with Government subsidies and operating on domestic and foreign routes could be converted almost overnight to military transport.

But this proposal was vigorously opposed by most of the air-transport industry. Spokesmen for the industry argued that there was no need for more cargo planes. Through the present system of mail pay, which is opposed by the Hoover Committee on Government Reorganization, the industry gets a generous subsidy—estimated conservatively at $50,000,000 a year. This is presumably, in part, to benefit national defense, although, as the Kuter study showed, the benefit is pretty small.

For nearly 2 years bills to create an air merchant marine have been kicking around Senator Edwin Johnson's Committee on Interstate and Foreign Commerce. But Johnson, who is a master of delaying tactics when powerful friends are involved, never got around to moving any of these air merchant marine bills onto the floor. The nearest to it is a bill providing $12,500,000 for experimentation, most of which would go for development of jet passenger planes.

Chairman Hubert E. Howard of the Munitions Board testified last January before Johnson's committee that the No. 1 transportation deficit was in transport aircraft. Asked if he had any recommendations on how to meet the deficit, Howard replied in the negative.

Merely on the question of a study of how to get more air carriers, the Civil Aeronautics Board and the Pentagon passed the buck back and forth for months. Both disclaimed responsibility. A compromise was timidly put forward under which the prototype of a low-cost cargo plane would be constructed and put in mothballs. To take such a prototype out of mothballs would require several weeks or months and then operational flying would be bound to show up "bugs" to be corrected.

Two months ago Landon P. Marvin, Jr., chairman during the war of an interdepartmental air cargo priorities committee, testified that 1,200 large-type transport planes would be necessary to make up the current deficit. He pointed to repeated reports of a Russian submarine fleet five times as large as that of the Nazis in 1940.

In some respects the Berlin airlift was almost too successful. It gave people a feeling that we had what it took to do the job.

But the Berlin lift was only 250 miles long. At the peak of operation 5,000 tons a day were being transported. This war is 6,000 miles away on a narrow and difficult peninsula of the Asiatic mainland. The men who are fighting and dying in that war might be interested in knowing why there is no suitable airlift in being that could bring at least emergency help in a hurry.

Mr. ELMER P. THOMPSON,
Acting Director of Information,
Air Transport Association of America,
Washington 6, D. C.

DEAR MR. THOMPSON: I regret that a reply to your letter taking issue with my column published in the Washington Post of July 12 on the shortage of air transport has been delayed because of the pressure of my work. I feel sure you will agree with me that the development of events since that date have proved the shortage. A general recently returned from the Far East said, "The shortage of airlift is the great story of Korea."

You question the accuracy of my statement that most of the air-transport industry opposed the creation of an Air Merchant Marine. The Air Merchant Marine bills, H. R. 448 and S. 237, were introduced on January 3, 1949, by Representative Kennedy and Senator Johnson. It is my information, which I wrote in my column of December 28 of last year, that on January 24, 1949, only 3 weeks after the Air Merchant Marine bills had been introduced, former Congressman Ramspeck, who is now the representative of your trade association on the Hill, sent out a circular memorandum to the heads of all airlines urging that they oppose the Air Merchant Marine bill. This memorandum indicates that the ATA wanted any Government-aid program to be for passenger planes rather than for cargo planes of the types now needed so badly in Korea.

Since you attempt to make the point that Mr. Ramspeck, as the representative of your organization, which is composed of the subsidized scheduled airlines, has been strong for defense, I have taken some pains to look into the record. You refer me to Mr. Ramspeck's testimony of March 16, 1950, to the Senate Commerce Committee. While it is true that certain of Mr. Ramspeck's proposals might have helped the growth of the civil air fleet to a very limited extent, the major ones would not. For example, cutting down on the size of the Military Air Transport Service, as Mr. Ramspeck proposed, in order that the commercial airlines might get a larger share of the Government business, would obviously not add to the national fleet, since it would merely be taking away from the military and giving to the commercial airlines. Nor would Mr. Ramspeck's proposal for "moth balling" aircraft add to the size of the civil airlift reserve. A "moth ball" proposal impresses me as one that is unnecessarily costly to the taxpayer and one which keeps the airplanes from being ready for instantaneous use by the military.

All along Mr. Ramspeck seems to have avoided the most obvious way of building up airlift of the cargo type needed by the military, and that is by growth of the commercial air-cargo industry. Mr. Ramspeck seems to be dominated all along by the philosophy expressed in his circular memo of January 24, 1949: "No matter what we do in the development of cargo, passenger traffic is sure to dominate for the next decade."

Now getting down to more recent times, I find a startling statement in Mr. Ramspeck's testimony of May 9, 1950, to the Senate Commerce Committee: "At the present time, there is no shortage of aircraft in the airlines of the United States." Such short-sightedness has been at least partly responsible for our shortage of cargo planes to meet the Korean crisis.

It should be noted that at that very hearing Mr. Ramspeck opposed the passage of S. 237 or S. 3507 for the expansion of the civil airlift for defense purposes.

On July 25, 1950, a month after the start of the Korean crisis, I find that Mr. Ramspeck testified before the House Interstate and Foreign Commerce Committee: "Since I testified before the situation has changed in only one respect." I read that sentence and I thought to myself, surely he is going to notice at last that there is war in Korea and that we need more airlift. But no, Mr. Ramspeck's next sentence is as follows: "There have been great and important developments in the design and construction of jet transports, but with substantial government aid the British and Canadian manufacturers have been the ones responsible for these developments."

Mr. Ramspeck seems to be far more preoccupied with competing with the British in the development of a luxury jet passenger plane than in competing with the Russians in airlift of supplies and troops.

Of course, it is only fair to say that the civil aviation authorities of the Government have been equally blind to the needs of defense; in opposing enactment of the air merchant marine bill, the Civil Aeronautics Board stated on May 24, 1950: "The Board believes the provisions relating to the establishment of Government pools of cargo aircraft are unnecessary and undesirable at the present time."

That statement—despite the fact that the Civil Aeronautics Board is charged by statute with considering the needs of the national defense.

Equally inadequate policy was stated by the Civil Aeronautics Administrator, D. W. Rentzel, before the Senate Commerce Committee on May 8, 1950: "The gap between the emergency airlift requirement, and the ability of the combined military and civil transport fleet to fill that gap, is too great. I do not believe that it is essential that all the aircraft necessary to close that gap need be in being. To do so would be to place too great a burden either on the air transportation industry in the operation and support of *unnecessary numbers* of aircraft or on the Federal Government in the maintenance of a stand-by fleet." [Italics added.]

Unfortunately, even today Mr. Ramspeck is sponsoring passage of a bill which provides not for the building of cargo planes needed immediately for lift to Korea and other trouble spots, but for the testing in commercial operation of jet passenger planes. I refer to H. R. 8536, in which there is no requirement that the aircraft on which the public money is to be spent are to be adaptable for military use.

But enough of recriminations; the best way in which Mr. Ramspeck and you and all the subsidized airlines who are members of your Air Transport Association can help now is to open your eyes to the world dangers all around us and get in there and do your bit toward providing the country with sufficient airlift for defense.

Sincerely yours,

MARQUIS CHILDS.

[From the Washington Post, August 1, 1950]

AIRLIFT FOR A DIVISION

(By Marquis Childs)

EXPANSION PLAN

As the old saw goes, for want of a nail the horse lost a shoe, the messenger failed to get through with word to bring up the reserves and the battle was lost. This time the messenger's horse was missing and all the mounts that might have brought up a reserve force in time.

That is to say, there was no airlift ready to take trained units to Japan from where they could have been quickly ferried to Korea. The marines who left San Diego more than 2 weeks ago are still on the water as this is written.

While it may be too late—or too early—to waste time assessing blame in view of the urgent tasks ahead, what this tragic lack has cost should not be lost sight

of. Fortunately in the over-all plan submitted to Congress for building up the Air Force to meet basic security requirements, an important section is devoted to creating an airlift capable of taking the first step to meet an emergency anywhere.

The plan presented to Senate and House committees calls for procurement by the Air Force of a minimum of 1,750 transport planes. These will not necessarily be the C–54 plane which was the standard work horse of the Air Force in World War II. The C–54 is, of course, the DC–4 of the commercial airlines. In the presentation to Congress, the 1,750 planes were put down as "C–54 equivalents."

The goal is to have in readiness an airlift sufficient to carry a division of troops anywhere in the world. That could not be done with the fleet of 1,750 planes.

But, according to the plan, they would be supplemented by planes and crews drawn from the commercial airlines, from the Military Air Transport Service and from the Regular Air Force and the Reserve. With the airlift thus supplemented, a highly trained division could be picked up on short notice and taken to almost any point on the globe in a matter of a few days.

This is the sort of thing that a lot of high-powered Buck Rogers commentary has led most Americans to think we actually had. As Korea has now shown, it was still almost entirely in the dream stage.

What has been little realized in the midst of the Korean crisis is that a new and effective civilian team is directing the planning of the Air Force. Secretary of the Air Force Thomas K. Finletter had been in office only 8 weeks when the Korean War began. Not long after he took over, Finletter persuaded John A. McCone, of San Francisco, to be Under Secretary.

In 1947 Finletter was chairman and McCone a member of the President's Air Policy Commission. With the three other members, they worked long and hard preparing an impressive report entitled "Survival in the Air Age." That report called for preparedness in the air, including in effect a 70-group Air Force. It did not mince words in stating:

"The Air Force as presently composed is inadequate. It is inadequate not only at the present time when we are relatively free of the dangers of sustained attack on our homeland, but it is hopelessly wanting in respect of the future phase II period when a serious danger of atomic attack will exist."

The report did not rule out the possibility that other nations might have a few atomic bombs before 1952. But it was assumed that no other country could have an atomic stockpile before 1952, which would mark the beginning of phase II. In order to step up aircraft production, as the Commission well understood, it is essential to take steps years in advance of the time when the planes should be coming off the assembly line.

When W. Stuart Symington, former Secretary of the Air Force, could no longer reconcile his differences with Secretary of Defense Louis Johnson, he submitted his resignation and recommended Finletter for the post. Johnson approved of the appointment.

So Finletter and McCone are working together again. McCone, with a long range of experience in both the shipping and aircraft industries, is handling most of the procurement burden. Both men have had a chance to study the deficiencies and inadequacies that multiplied since the report of the President's Commission. From the point of view of the responsibility now on their shoulders, it must be a little like looking into the business end of a rifle in the hands of an implacable foe. And they are buckling down to get the job done, praying there will be time enough.

[From the editorial page of the New York Mirror, Wednesday, April 7, 1948]

WASHINGTON MERRY-GO-ROUND, BY DREW PEARSON

AIR ARMADA

While brass hats plug a draft, the national defense research and development board reports the need of an armada of cargo planes. In blitz warfare, supply lines must be swift and flexible, we must build a vast merchant marine of the air.

The report stresses the growing threat of Russian subs, which could murder our ocean transports. Russia's underwater navy is five times larger than the German U-boat fleet at its peak, the report states. Russia has the deadly German XXI, "60 times more difficult to locate and kill" than War II subs.

Digging in and stockpiling material at forward bases is rejected by the board.

"Targets should determine location of bases, not vice versa," it argues. "Need for maintaining a base ceases when the target is destroyed. Advance bases should be as expendable as cartridges."

Construction and supply should be cut to a minimum. Air transport must become the supply backbone.

"Strategy was determined largely by the availability of shipping, but in the next war availability of air life will be the controlling factor," the report finds.

In secret testimony, military chiefs warned they must have 4,000 cargo planes with carrying capacity of C–54's, ready to take off at the echo of the first enemy bomb. Certified airlines have less than 60 freight planes; 125 more are operated by veterans' lines, still awaiting CAB certificates.

More than 400 small companies have been set up by vets, several dozen for air freight. After nearly 3 years, not one vet's air freight line has been certified. The first case hasn't even been heard yet.

One citizen, Langdon P. Marvin, former chief counsel for the Congressional Air Policy Committee, is so concerned about the problem he devoted his own time and money on air merchant marine. His figures show licensed lines, consistently in the red, could get by with cargo revenue, which would also reduce passenger fares, raised twice in 1947.

The military report, for the Research and Development Board, says:

"Assist our domestic and overseas airlines, as our forefathers did our railways."

[From Public Affairs Bulletin No. 81, April 1950. Revised July 1950]

MOBILIZATION PLANNING AND THE NATIONAL SECURITY

(By William Y. Elliott)

* * * * * * *

(2) A MERCHANT MARINE OF THE AIR

The effectiveness of a modern air arm and of much of the ground forces is dependent to a growing degree on air transport for the most rapid tactical use and for support. "To git thar fustest," in Bedford Forrest's phrase, may be more important than to "git thar with the mostest"; though both are important. An air arm depends on transport such as made the Berlin airlift and wartime ATC miracles possible.

Two major mobilization planning measures in the field of air transportation (as distinct from air combat forces) are before Congress at the present time. To date the legislation has taken two forms:

(*a*) Proposals for the establishment of an air merchant marine under a Government corporation. (S. 237—Johnson, Colo.; and H. R. 448—Kennedy, Mass.)

(*b*) Proposals for the development by the Government of a national prototype[3] for jet air cargo planes for commercial and military auxiliary purposes. (S. 426, S. 2301—Brewster, Maine; H. R. 73—Hinshaw, and H. R. 141—Beckworth.)

Sponsors of an air merchant marine policy propose the establishment of an Aircraft Development Corporation either in the Department of the Air Force or in the Department of Commerce, with a capital stock ranging from $6,000,000 to $250,000,000 (depending upon how much the administration will sponsor and how much the Congress will appropriate for this purpose.) The Corporation would conduct a continuous survey of the current and potential requirements for commercial and military reserve cargo aircraft. The Corporation would endeavor to procure enough cargo planes at any given time to remedy the national deficiency in supply. The Corporation would then lease these planes out to private operators at attractive rates. A large percentage of the private operating personnel would automatically become members of the Reserve components of the armed services of the United States. Arrangement would be made for the recapture by the Government of profits in excess of stipulated amounts so that the whole project in time might be self-supporting and nearly self-liquidating as to original investment. In the event of an emergency the

[3] Settling on a "prototype" is deemed to be essential because the problem of getting a type of plane suitable for military use (reinforced for carrying trucks, tanks, guns) and long overseas hops imposes different and more expensive specifications than for ordinary commercial freight. Mass production requires one acceptable type rather than several for efficiency and lower cost.

Government would have recapture rights on the equipment itself, and the personnel would be immediately transferred from the Reserve components into the active forces, thus minimizing the time required for actual military operation. In addition to maintaining in operation a fleet of cargo planes, the Corporation would also be responsible for initiating research and for developing new prototypes of larger and improved transport planes, including jet models.

Sponsors of the simple prototype approach have confined their interest to having the Government "sponsor the design, development, testing, tooling, construction, and modification of prototype jet transport and cargo aircraft intended primarily for commercial use, but adaptable also for auxiliary military service." The Beckworth bill would appropriate $50,000,000 for this purpose.

While the Department of Defense has an interest in cargo planes, they assign other programs a higher priority in the light of limited funds even for combat planes.

Arguments for an active air merchant marine.—The President's Air Policy Commission (the Finletter Commission of 1948) and the Congressional Aviation Policy Board have both recommended legislation establishing an active air merchant marine. Aircraft manufacturers, labor unions, air-freight companies, freight forwarders, and defense-minded citizens have all supported it. The Government's experience with the Berlin airlift pointed up sharply the importance of such a merchant marine in an emergency. "Operation Vittles" as the Berlin lift was called, "was the Nation's first important peacetime use of air power as an instrument of national policy. Although carried on by a military organization, 'Vittles' achieved its purpose—defeating the land blockade of Berlin—without the use of military force." [3] Here was a requirement for carrying cargo only 200 miles, from Frankfurt to Berlin, and even so it was a considerable undertaking. How much more of a task would it be if the lift had to traverse the Atlantic Ocean. And how absolutely impossible with our large wartime requirement for four-engined planes as compared with their limited availability. Chairman Howard, of the Munitions Board, testified January 31, 1950, before the Senate Commerce Committee that cargo planes were the No. 1 deficit of all transportation equipment which would be needed for M-day. It has been pointed out that "the logistic yardstick in World War I was the foot soldier's 2½ mile per hour pace; in World War II it was the 30 miles per hour of the 2½-ton truck; in world war III it will be the block-to-block speed of the cargo plane." [4]

Sponsors of such legislation quote Gen. Dwight D. Eisenhower's statement that "our ability to act in the first 60 days will be determining." They note that it would take more than 60 days to load, assemble escort, and convoy a group of merchant ships across the ocean, and that an air merchant marine, readily available and trained would be of inestimable value. They point out that the U. S. S. R. now has five times the number of submarines with which Germany started World War II, and they urge that we not put all our chips on ships.

Advocates also note that the Government is already committed to the principle of a merchant marine adequate for defense and that the Maritime Commission is the prototype of the kind of agency envisaged for an air merchant marine. The Maritime Commission provides construction and operating subsidies for ships, has recapture rights on both earnings and equipment, and has a legislative mandate to see that the United States fleet is adequate for moving a substantial portion of the normal foreign trade of the United States, and for national defense purposes. What is asked is a similar agency for the air merchant marine that will bear the same relationship to the Department of Defense.

Proponents for this scheme observe that here would be no heavy expenditure of taxpayers' funds for a "hand-out" in the first place, only to be tied up in a "moth-ball fleet in the second place. Not only would the equipment itself be "working out the bugs" under the active merchant marine concept, but the crews would be constantly training—would in fact be in the armed reserves ready for instant duty if, as, and when an emergency arose. In short, it is argued that a cargo plane is both a "sword and a ploughshare." [5]

Moreover, the advocates of the air merchant marine state that there will be quite enough commercial cargoes available to warrant a sizable number of cargo planes. In fact, the large untapped air cargo potentials give an economic reason, in addition to the defense reason, for expanding our cargo fleet. These potentials might also reduce the airline subsidy burden on the Government.

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[3] Annual Report of the Secretary of the Air Forces for the fiscal year 1949.
[4] Lt. Col. Edwin F. Black, Air Merchant Marine, Air Transportation, January 1950, p. 24.
[5] Langdon P. Marvin, Jr., Air Merchant Marine, Air Transportation, January 1950, p. 16.

In recent testimony before the Senate Committee on Interstate and Foreign Commerce, Maj. Gen. Lawrence S. Kuter, Commander, Military Air Transport Service, United States Air Force, spoke to this point: [6]

"The unique characteristics of air transportation make possible the development of new markets of travel and commerce which can be developed through no other medium of transportation. Thus, the speed of air transportation has provided new outlets on the east coast for perishables grown on the west coast; it makes possible a 10-day vacation in Europe or South America. Air coach travel is now possible. The certification of helicopter operations points to a possibility of extensive air commuting. The exploitation of these and other potentials of commerce and travel provides a means of achieving an expansion of the industry without impairing the ability of other transport media to meet defense requirements through undue diversion of traffic.

"Some of the potential air markets now opening to civil air transportation are of greater military significance than others, due to the greater adaptability to military wartime use of particular types of equipment and facilities. Thus, because of our strong military requirements for long-haul freighters, the Department has shown a particular interest in the development of the domestic and especially of the international air cargo market."

In the absence of any official data to the contrary, and no funds earmarked for such a requirement-supply survey, it is urged that legislation is necessary even to determine the facts. Meantime, it is observed that "the 16 certificated domestic airlines showed an operating profit of close to $28,000,000 during the first 10 months of 1949, as well as a 14 percent increase over preceding year in revenue-passenger miles flown. By the very nature of American competitive enterprise the commercial air potential is there. What is needed are the planes to develop this potential." [7]

Unfortunately the profitable air freight operations in domestic transportation require a transport plane with heavy pay load and not much range without refueling. This type would not be usable for long hops to distant theaters. Therefore, development of a new type suitable to overseas operations is a prime defense need.

It is alleged that under the "prototype" proposal, no new transport planes could be produced until 1956, when the prototypes will be completed, and that this is the very period during which we would be most vulnerable. We can and should move forward with prototypes too, but not at the expense of an immediately assembled air cargo fleet that would bridge the current deficiency. In short, it is urged that the air merchant marine legislation will give a maximum of protection at a minimum of cost to the taxpayers. This legislation is needed because "today we are proportionately less prepared for the air support of our friendly countries than on Pearl Harbor day when we did not know the value of air power, atomic warfare, or jets and guided missiles." [8] We must start with existing types of planes until the newer types become available.

Arguments against the creation of a Government Air Development Corporation.—Opponents of the idea of a government Air Development Corporation claim that if national security is at stake, it would be far better to have a reserve cargo fleet in moth balls where they will be available in fine condition at a moment's notice, than it is to rely on an active fleet that would be under contract all over the world when they were most needed at a specific place. They claim that there is not enough business at the present time for existing air cargo lines, and that the private operators would be even more handicapped by added competition. It is further argued that a Government development corporation in this field will bring aviation more and more under Government control, when exactly the opposite is what the country most needs. It is alleged that the creation of another Government agency in this field would duplicate the Civil Aeronautics Board and other existing Government agencies. Finally, it is alleged that the creation of a fleet from existing types of equipment would really tend to restrain the development of new prototypes because the existing investment would always drag on any attempt to build improved types.

Current status of the proposal to provide a merchant marine of the air.—Secretary Symington, in testifying before the Senate Committee on Interstate

[6] Testimony of Maj. Gen. Lawrence S. Kuter, commander, Military Air Transport Service, U. S. Air Force, before the U. S. Senate Committee on Interstate and Foreign Commerce, Washington, D. C., January 31, 1950. Hearings on the investigation of the financial stability and operational efficiency of the airline industry.

[7] Lt. Col. Edwin F. Black, ibid., p. 25.

[8] Capt. C. H. Schildhauer (retired), Air Merchant Marine, Air Transportation, p. 17.

and Foreign Commerce, January 30, 1950, stated, "We were informed last Friday, by the Bureau of the Budget, that legislation providing for the expenditure of Government funds for the development of prototype transport aircraft is not in accord with the program of the President." [9]

However, there appears to be no objection to a limited program (under $10,000,000) for operation and service testing (by the Air Force) of commercial prototypes, provided a satisfactory and feasible program (production responsibility entirely in the manufacturers) can be formulated, and provided the responsibility for the program is in a civilian agency.

No official administration statement has been made as yet about the proposed air merchant marine legislation. Both Under Secretary of Defense Stephen Early and Secretary of the Air Force Stuart Symington presented a deficit picture on transport aircraft to the Senate Committee on Interstate and Foreign Commerce, and testified that the deficit is serious but not so serious as compared with certain other deficits, particularly in combat equipment. The official Department of Defense position is that in the "priority of deficits" with which it is faced, that for cargo transport planes is not by any means the major deficit.[10]

In a report to the President by the Secretary of Commerce on "Issues Involved in a Unified and Coordinated Federal Program for Transportation" (known as the Sawyer report) the following yardstick for judgment on the promotional activities of the Federal Government on behalf of transportation which will be adequate for defense purposes, offers some insight into the problem of a merchant marine of the air:

"In the case of promotional activities, except in special cases where national defense considerations are urgent, the proper test of any activity is whether it results in a new or improved or more economical transportation service which is really needed." [11]

The exception for national defense should be noted.

Mr. BECKWORTH. Any questions, Mr. McGuire?

Mr. MCGUIRE. No questions.

Mr. BECKWORTH. Mr. Wolverton?

Mr. WOLVERTON. Because of the emphasis that you have placed on cargo transport, and with particular reference to H. R. 448, I think that you should realize that departments of the Government have not given H. R. 448 the approval which would seem advisable at this time from either the standpoint of the war in Korea or from the standpoint of congressional action. In indicates that there might possibly be reason to give further consideration to H. R. 448 than the departments have already given.

For instance, the Treasury Department recommends that consideration of any proposed legislation relating to this subject, that is, H. R. 448, be deferred until such time as the new proposed legislation approved by the Air Coordinating Committee is before our committee.

But the letter closes with this very significant statement:

Advice has been received from the Bureau of the Budget that bills now pending before the Congress which would authorize Federal financing of the design and development of prototype aircraft would not be in accord with the program of the President.

That letter is dated March 20, 1950, and is addressed to our chairman.

So, I might go on and illustrate with other letters that have been received from other departments of the Government.

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[9] Ibid., January 30, 1950.
[10] Ibid., January 30, 1950.
[11] A report to the President on issues involved in a unified and coordinated Federal program for transportation, from the Secretary of Commerce, December 1, 1949, p. 11.

That raises the question, no matter how well-intended and how substantial your advocacy of H. R. 448 may be, yet it seems that as of the present, the only bill that has much chance of favorable consideration is this bill which we have before us this morning, H. R. 8536. That seems to be a general thought that is running through the minds of all who are interested in this large subject; that we had better take what we are reasonably in a position to expect to get.

I was mistaken, apparently, when I mentioned that the bill had passed the Senate. As you state, it has gone out of committee and is on the calendar.

The passage of this bill would become more important because if there is a hesitancy in the Senate, the passage in the House of this bill would probably indeed encourage them to put in a more active list as a result of the legislation that our committee and the House would approve. I am not in disagreement with the thought that you have been expressing so far as their importance is concerned.

My thought merely is to get what we can while we have the opportunity to get it, hopeful that the future may change the situation and we can get a much wider program that I think is necessary.

Mr. MARVIN. Might I comment on that for a moment, Congressman Wolverton?

Mr. WOLVERTON. Yes.

Mr. MARVIN. Of course, I have felt that the comment that you and Congressman Beckworth have made to previous witnesses were very impelling, particularly Mr. Beckworth's comment that time is of the essence. I think that time is of the essence. I think that if you were to just put through H. R. 8536 then there would be a tendency on the part of everybody to sit back and wait and not do anything about the more adequate program.

Now the Budget Bureau actually has not had before it at any time H. R. 448. The Budget Bureau had submitted to it on, I think, January 28 or January 29 a bill prepared by the Air Force which was a prototype bill and that was turned down as not being in accord with the program of the President. I think particularly on my statement, page 9 at the bottom, the discussion about the amount of Government financial undertaking for prototypes, I think the amendment there to modify the degree of Government assistance in H. R. 448, perhaps through fund-matching on 50–50 basis rather than having the Government assume 100 percent of the development costs might cure what might otherwise be an objection by the Budget Bureau.

I should like to point out that the thing has never been directly submitted to the President and such comments as have been received on H. R. 448 and its companion bills in the Senate, S. 237 and S. 3507, definitely precede Korea and I think that it behooves all of us to take another fix on the situation today.

Mr. WOLVERTON. The language that we have received to date would indicate that the matter had been before the Bureau of the Budget and it was adverse to spending additional money at this time. I do not want to enter into any argument with you, however, about it.

Mr. BECKWORTH. Thank you very much.

Mr. MARVIN. Thank you, Mr. Chairman.

Mr. BECKWORTH. Next we will hear from Maj. Gen. Hugh J. Knerr. How much time will you require, General?

STATEMENT OF MAJ. GEN. HUGH J. KNERR, USAF, RETIRED, FORMER INSPECTOR GENERAL, USAF

General KNERR. I have only a one-page statement and I can condense that in 1 minute.

Mr. BECKWORTH. You may proceed, sir.

General KNERR. My name is Hugh J. Knerr, retired major general, United States Air Force. I represent no one. I was retired about 6 months ago and I still have a lively sense of duty in our national defense.

I have spent considerable time reviewing the bills that are being proposed because they struck right at the biggest headache I had during the past war. I was the deputy commander for the strategic air forces in Europe and had the entire responsibility for combat zone air transport. At the close of that war I was sent out to Wright Field in command and had the logistic responsioility for the Pacific war and winding up the remnants afterward.

Outstanding in all of that experience has been the vital necessity for airlift, military airlift, in being when emergencies arise. You have seen the same thing happen time and again in the Berlin airlift, emergency western airlift and now again in Korea.

Without appearing to be facetious, I cannot see where the threat to this country's well-being comes from the British, it is from another source.

The only obstacle that stands between us and that source is adequate airlifts. We do not have them. I have been appearing before committees over the last 12 years and the same situation exists today.

We still do not have the military airlift adequate for fighting a war with our probable enemy. We still have a little time left. How little no one can say nor how much. But when the time of decision comes it certainly is going to be on the basis of a contest between the Russian capacity for airlift and the United States capacity for airlift, just plain ordinary airlift.

There will not be any question as far as combat aviation goes because the Russians cannot now and never will be able to approach us in quality and that is what counts when you handle in the weapons that we propose to handle. But when it comes to transporting airborne troops, either on a planned move or a desperate move, put them down in Kansas City, in Kankakee, St. Louis, Chicago, San Francisco, or anywhere else, they have thousands and thousands of aircraft transports available, plane or cargo carriers. We do not. We do not have a single commercial type air cargo airplane that is designed and built for that purpose without a lot of unnecessary strength factors built into it to meet the present scheduling requirements.

So my statement here is aimed at H. R. 141 as being too little with a very great possibility of extremely too late because when you want ordinary tonnage picked up and carried in the air you do not want it carried at four- or five- or six-hundred miles per hour, you want to carry it at two or three or three hundred and fifty miles an hour.

When you carry that sort of thing you have to have proven engine equipment, not experiments that arise as a result of testing.

The proven power plants with their improvements since the last war are presently available but there is nothing to put them in. You cannot put them in the passenger airplane and carry freight simply because of the time consumed in converting a C-54, for instance, for passenger purposes to plain ordinary freight purposes.

We will not have that time next time. We have had it until now but over the next 2 or 3 years we had better get plenty of plain ordinary airlift if we are to compete with our probable enemy.

That is my entire point. Do you wish me to read the statement?

Mr. BECKWORTH. Mr. Wolverton?

Mr. WOLVERTON. General, it is a bit off the line of your statement, but by reason of your past experience, or present knowledge, are you in a position to say whether or not there is anything to the statement that has so frequently appeared in our public press that Great Britain has sold its jet-propelled engines to Russia?

If you are not in a position to state, why, I will not press the question.

General KNERR. Yes, I have no military inhibitions any more. I have seen just such statements and I personally have believed them. However, I have no concrete evidence upon which to base that belief.

Mr. WOLVERTON. Would there be anybody in the military set-up of our Government that could give us that information? It was suggested this morning that the Intelligence Department could probably answer the questions but I would assume that there would be others that would be in a position to answer them.

General KNERR. What is known as the Central Intelligence Agency is the agency to approach with that information. They were created for the specific purpose of advising the State Department and Military Department and the Congress in such matters.

Mr. WOLVERTON. Thank you.

Mr. BECKWORTH. Thank you very much, General Knerr.

General KKERR. Thank you, gentlemen.

Mr. BECKWORTH. We have not concluded the hearings, as you know. We hope to have witnesses from the Air Corps before we conclude the hearings.

At this moment the Chair is unable to state exactly when we shall resume hearings but you will be notified if you will keep the clerk informed that you desire to appear, Mr. Heacock.

Mr. HEACOCK. Thank you. I will be glad to come back.

Mr. BECKWORTH. Without objection, the Chair would like to include as part of the record some of these communications that I have referred to because they do show the positions that have been taken in the past in regard to this matter.

(The statements are as follows:)

HISTORY OF PROTOTYPE AIRCRAFT LEGISLATION

H. R. 2012 (79th Cong.) by Mr. Beckworth: To provide Federal participation in financing of new types of aircraft. Following reports requested, copies attached:

February 8, 1945:

War: June 6, 1945, adverse.
Navy: June 6, 1945, adverse.
Commerce: No report received.
Treasury: June 6, 1945, adverse.

H. R. 21 (80th Cong.) by Mr. Beckworth: To provide Federal participation in financing of new types of aircraft. Following reports requested:
February 6, 1947:
War: No report received.
Commerce: No report received.
Navy: No report received.
CAA: No report received.
Treasury: March 16, 1947, not interested.

H. R. 141 (81st Cong.) by Mr. Beckworth: To provide Federal participation in financing of new types of aircraft. Following reports requested, copies attached:
January 8, 1949:
Commerce: August 4, 1949, adverse.
CAB: August 16, 1950, adverse to bill.
Treasury: March 20, 1950, adverse.
Air Force: June 15, 1949, no comments.

H. R. 448 (81st Cong.) by Mr. Kennedy: Development of aircraft usable for civil and military purposes. Following reports requested, copies attached:
January 13, 1949:
Air Force: June 15, 1949, report included with H. R. 141.
Commerce: July 18, 1949, adverse.
CAB: April 22, 1949, favor with amendments.
Treasury: March 20, 1950, suggests deferral.
Justice: July 19, 1949, suggests amendment.

H. R. 7870 (81st Cong.) by Mr. Crosser: Promote development of improved commercial transport aircraft. Following reports requested, copies attached:
March 28, 1950:
Defense: May 1, 1950, adverse.
Treasury: April 24, 1950, suggests deferral.
Commerce: No report received.
CAB: May 31, 1950, draft of bill.
NACA: March 31, 1950, adverse.
Justice: May 18, 1950, no recommendations.

NOTE.—The above bill was superseded by H. R. 8536.

H. R. 73 (81st Cong.) by Mr. Hinshaw: Authorizing Secretary of the Air Force to survey national requirements for aircraft types designed primarily for commercial transport but adaptable as military aircraft:
Presently pending before Committee on Armed Services.
Commerce report unfavorable July 18, 1949; Air Force had no comments June 15, 1949.

THE SECRETARY OF THE NAVY,
Washington, June 6, 1945.

Hon. CLARENCE F. LEA,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

MY DEAR MR. CHAIRMAN: The bill H. R. 2012, to provide for Federal participation in the financing of certain aeronautical developments, was referred by your committee to the Navy Department with request for report thereon.

The purpose of the proposed bill is to authorize annual appropriations of not to exceed $50,000,000, from which grants would be made to aid individuals and companies in carrying on experimental work in connection with developments in the science and art of flight, whenever the Secretary of War, the Secretary of the Navy, and the Administrator of Civil Aeronautics jointly determine that it would be in the national interest to extend such assistance.

The importance of continuing and strengthening aeronautical research programs cannot be overemphasized. It is manifestly in the national interest both from the viewpoint of commerce and of national defense that these fields of research be intensively developed. This is essential if the United States is to be in the vanguard in perfecting existing types of military and commercial types of aircraft and in the creation and development of new forms of propulsion. Such programs should manifestly be broad enough to include at least the aeronautical and propulsion research pertinent to pilotless internally and

externally guided airborne missiles including rockets, and types as yet unknown, in view of their military and meteorological significance as well as their possible utilization for other purposes. The bill H. R. 2012 would not appear to cover research in this important field of airborne missiles and it is recommended that any legislation designed to encourage aeronautical research should include such research.

It should also be pointed out that at the present time Federal funds are being made available for promoting research not only by individuals and companies as is provided by the bill, but also by institutions such as the California Institute of Technology, and the Massachusetts Institute of Technology. Further, the research board for national security established within the National Academy of Sciences is being utilized in surveying promising research projects and making funds available for such projects.

The Congress has already established a Federal agency with general cognizance of the promotion of experimental work, which under the bill H. R. 2012 would be jointly determined by the Secretary of War, the Secretary of the Navy, and the Administrator of Civil Aeronautics. The National Advisory Committee for Aeronautics, which is this agency, has the duty "to supervise and direct the scientific study of the problems of flight, with a view to their practical solution, and to determine the problems which should be experimentally attacked, and to discuss their solution and their application to practical questions." The committee includes representatives of the War and Navy Departments and the Civil Aeronautics Board and, in addition, representatives of the Smithsonian Institution, the Weather Bureau and the Bureau of Standards, together with additional members "acquainted with the needs of aeronautical science, either civil or military, or skilled in aeronautical engineering or its allied sciences." Thus the several interests concerned in the research program are appropriately represented. The regular staff of the agency provides means for carrying out the committee's policies. Congress has also provided the committee extensive facilities for aeronautical research and development.

Research and development in some aspects of the field of aeronautics in which the Navy Department has a special interest is conducted by it through contract and otherwise from Federal funds appropriated to the Navy Department for the purpose. War Department research on its special problems is similarly conducted.

It is manifest that any legislation designed to promote aeronautical research and development should be framed in the light of existing laws and of the practical considerations which resulted in the provisions of these laws. The bill H. R. 2012 is unsatisfactory in that it fails to clarify the relationship of the program it would establish with the agencies and activities above mentioned, which have already been established to carry out the general purposes of the bill. It is uncertain as to whether, or to what extent, the large appropriations which it would authorize are intended to supersede appropriations for research and development which at present are made to the National Advisory Committee and the several other agencies concerned.

Cognizance over the proposed fund by three agencies is not deemed to be in accord with principles of sound administration. The processing of individual extensions of financial assistance by joint agreement of the Army, Navy, and Civil Aeronautics Authority would doubtless result in disagreement, delay, and confusion of aim. The technical and immediate problems of the three named agencies in the development of aeronautics are so different in many aspects as to render unwise the joint administration of this large fund. It is recommended that if H. R. 2012 is favorably considered, it should be amended to provide for administration by the National Advisory Committee for Aeronautics.

The proposal of the bill to earmark substantial appropriations for use as grants to appropriate research agencies is considered sound. The excellent results which have already been accomplished by the Office of Scientific Research and Development by this procedure is evidence of the worth of this type of arrangement.

While it is desired to emphasize the great value in the aim and purpose of the bill and its importance as evidence of congressional interest in aeronautical development, because of the several reasons outlined above, the Navy Department recommends against enactment of the bill H. R. 2012 in its present form.

The Navy Department has been advised by the Bureau of the Budget that there would be no objection to the submission of this recommendation as the

enactment of the proposed legislation would not be in accord with the program of the President.

Sincerely yours,

H. STRUVE HENSEL,
Acting Secretary of the Navy.

TREASURY DEPARTMENT,
Washington, June 6, 1945.

Hon. CLARENCE F. LEA,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington 25, D. C.

MY DEAR MR. CHAIRMAN: Further reference is made to your letter of February 8, 1945, relative to H. R. 2012, "To provide for Federal participation in the financing of certain aeronautical developments."

The proposed legislation would authorize grants to aid any individual or company in the carrying on of experimental work in connection with the development or the improvement of types of aircraft, or other developments in the science and art of flight, whenever the Secretary of War, the Secretary of the Navy, and the Administrator of Civil Aeronautics jointly determine that it is in the national interest to extend financial assistance for such purposes. It would also authorize an appropriation not to exceed $50,000,000 per annum for such grants.

Inasmuch as the proposed legislation concerns matters primarily within the jurisdiction of agencies of the Government other than the Treasury Department, and as this Department has no information in regard to the need for such legislation, the Department feels that it should refrain from expressing a definite opinion as to the merits of the bill. It is noted, however, that the bill would authorize an annual appropriation of a substantial sum. This Department urges that the proposed legislation be considered in light of the heavy demands on the Treasury which have grown out of the war and the prospect of further large demands growing out of postwar adjustments. The credit resources of the Government must be conserved for those important purposes.

The Department has been advised by the Bureau of the Budget that the enactment of this legislation would not be in accord with the program of the President.

Very truly yours,

D. W. BELL,
Acting Secretary of the Treasury.

THE SECRETARY OF COMMERCE,
Washington, June 6, 1945.

Hon. CLARENCE F. LEA,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: Reference is made to your letter of February 8, 1945, requesting the views of the Department with respect to H. R. 2012, a bill to provide for Federal participation in the financing of certain aeronautical developments.

Inasmuch as the Bureau of the Budget has advised the Department that enactment of the proposed legislation would not be in accord with the program of the President, I have no comments to make respecting this bill.

Sincerely yours,

H. A. WALLACE,
Secretary of Commerce.

WAR DEPARTMENT,
Washington, D. C., June 6, 1945.

Hon. CLARENCE F. LEA,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. LEA: The War Department does not favor the enactment of H. R. 2012, Seventy-ninth Congress, first session, a bill to provide for Federal participation in the financing of certain aeronautical developments.

The purpose of the bill is to authorize an appropriation of not to exceed $50,000,000 per annum in order to extend financial assistance for the purpose of aiding any individual or company in the carrying on of experimental work in connection with the development of new types of aircraft or the improvement of existing types of aircraft, or in connection with other developments in the science and art of flight, whenever the Secretary of War, the Secretary of the Navy, and the Administrator of Civil Aeronautics shall jointly determine that it is in the national interest to extend such financial assistance.

The National Advisory Committee for Aeronautics, of more than 25 years' standing, is charged with basic research in aeronautics, including power plants. It has aerodynamic laboratories at Langley Field, Va., and Moffat Field, Calif., and an aeronautical engine laboratory at Cleveland, Ohio. In addition, it makes extensive use of the laboratories of the universities and technical institutions of the country, as well as the Bureau of Standards and other Government laboratories. Its activities are not limited to those requested by the armed services but include also research undertaken as a result of ideas presented by technicians and scientists generally.

The Army Air Forces laboratories at Wright Field, Dayton, Ohio, are laboratories of applied research. They are engaged in the practical application, or the reduction to practice, of the basic scientific principles evolved by laboratories of fundamental research. In addition, the Army Air Forces, through development contracts, utilizes the facilities and the technical and inventive ability of private industry to a substantial degree.

Under existing procedures the War Department is enabled to carry on a well-balanced and carefully integrated aircraft-development program. It is believed that the policies now obtaining are calculated to produce the greatest possible return on funds appropriated for research and development purposes by the Congress, and that the national interest will be served best by the continuance of adequate direct appropriations to Federal departments and agencies which have long been and now are conducting effective research and development work in the field specified by H. R. 2012. Probably the appropriation of additional funds without specific reference to carefully calculated requirements might result in oversaturation of industry's development facilities, thereby producing less satisfactory results than are now obtained.

At present, important congressional groups, such as the Select Committee on Postwar Military Policy of the House of Representatives, persons in important administrative positions and various scientific bodies, have the future program and organization for military research and development under study. For the reasons indicated above, it is believed that the enactment of H. R. 2012 would be unfortunate.

The fiscal effects of the proposed legislation are manifest.

The Bureau of the Budget has advised that there is no objection to the submission of this report, as the enactment of the proposed legislation would not be in accord with the program of the President.

Sincerely yours,

HENRY L. STIMSON, *Secretary of War.*

THE SECRETARY OF COMMERCE,
Washington, August 4, 1949.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: This is in response to the request from your committee for the comments of the Department of Commerce on H. R. 141, a bill which would authorize "the Secretary of War, the Secretary of the Navy, and the Administrator of Civil Aeronautics," acting jointly, to provide financial assistance to persons and organizations to conduct experimental work in the development of new types of aircraft or the improvement of existing types of aircraft, or in connection with other developments in the science and art of flight. The bill authorizes an annual appropriation of not to exceed $50,000,000 for the purpose of carrying out its objectives.

This bill in some respects is similar to H. R. 448 of the Eighty-first Congress in that it would authorize the development of new types of transport aircraft, but would appear to be much broader than that bill because it would apply to the entire field of aviation research and development. In our com-

ments on H. R. 448, we stated that the financial condition of the aircraft manufacturing industry has improved recently, largely as a result of the increased tempo of the military procurement program, and that we felt that many of the objectives of the proposed prototype program are being realized as the combined result of the military procurement program, existing federally sponsored research programs and the initiative of private enterprise. We concluded that, in view of these facts, legislation such as proposed in H. R. 448 does not appear necessary at this time but that if the military services were to determine that the program is a necessary part of our over-all military preparedness program, we would support the legislation on that basis.

For reasons similiar to those given in our report on H. R. 448 we are opposed to the enactment of H. R. 141 at this time.

Because of the urgency of the committee's request we have not had an opportunity to secure the advice of the Bureau of the Budget regarding the relationship of this report to the program of the President.

Sincerely yours,

BERNARD L. GLADIEUX
(For the Secretary of Commerce).

CIVIL AERONAUTICS BOARD,
Washington, August 16, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR CONGRESSMAN CROSSER: In your letter of August 7, 1950, you ask if we have submitted comments on H. R. 141, to provide for Federal participation in the financing of certain aeronautical developments.

In response to a request which Mr. Beckworth made some months ago for a statement of the Board's position on matters concerning aviation then pending in the Eighty-first Congress, we submitted a report on numerous aviation bills to the Subcommittee on Transportation of the Committee on Interstate and Foreign Commerce by letter dated April 23, 1949. Included in this report was a statement of our views on H. R. 141 and a discussion of the reasons why we opposed the enactment of that measure in its existing form.

We enclose for convenient reference an extract of that part of our report which deals with H. R. 141.

Sincerely yours,

JOHN H. WANNER, *Acting General Counsel.*

BILLS WHICH THE BOARD FAVORS IN PRINCIPLE, BUT WHICH IT BELIEVES SHOULD BE SUBSTANTIALLY AMENDED OR REVISED

(Extract from statement attached to a letter from the Civil Aeronautics Board to Hon. Lindley Beckworth, chairman, Subcommittee on Transportation, Committee on Interstate and Foreign Commerce, House of Representatives, Washington, D. C., dated April 23, 1949)

H. R. 141: To provide for Federal participation in the financing of certain aeronautical developments.

This bill is directed to the development of new types of aircraft, and other developments in the science and art of flight, objectives with which the Civil Aeronautics Board is in full accord. It would authorize to be appropriated not more than $50,000,000 per annum from which grants would be made to individuals and companies for the purpose of carrying on experimental work for such developmental purposes. The only criterion for determining the persons to whom and circumstances under which such grants would be made would be the joint determination of the Secretary of War, Secretary of the Navy, and the Administrator of Civil Aeronautics that the grant in each case would be "in the national interest." This grant appears sufficiently broad to include authorization for expenditure of government funds for experimental work in the development of aircraft of the kind contemplated by the so-called prototype bills. However, it lacks the safeguards provided in those bills and does not provide for participation by the Civil Aeronautics Board. Without such safeguards we believe that authorization for expenditure of funds "in connection with other developments in the science and art of flight," is altogether too vague and indefinite.

The Board is opposed to the enactment of H. R. 141 in its present form.

TREASURY DEPARTMENT,
Washington, D. C., March 20, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: Further reference is made to your letter of January 8, 1949, requesting the views of the Treasury Department on H. R. 141, a bill to provide for Federal participation in the financing of certain aeronautical developments.

The purpose of H. R. 141 is to authorize the appropriation of not to exceed $50,000,000 per annum for the purpose of aiding any individual or company in the carrying on of experimental work in connection with the development of new types of aircraft or the improvement of existing types of aircraft or in connection with other developments in the science and art of flight.

Advice has been received from the Bureau of the Budget that bills now pending before the Congress which would authorize Federal financing of the design and development of prototype aircraft would not be in accord with the program of the President.

Very truly yours,

E. H. FOLEY, Jr.,
Acting Secretary of the Treasury.

DEPARTMENT OF THE AIR FORCE,
Washington, June 15, 1949.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR MR. CHAIRMAN: We refer to your recent request to the Secretary of Defense for the views of the National Military Establishment with respect to H. R. 141, a bill to provide for Federal participation in the financing of certain aeronautical developments, and H. R. 448, a bill to promote interstate and foreign commerce and strengthen the national defense by providing for cargo aircraft adaptable for both commercial and military service, and for other purposes (prototype aircraft bills). The Secretary of Defense has delegated to this Department the responsibility for expressing the views of the National Military Establishment.

The purpose of these bills is to provide for the development by the National Military Establishment of prototype civil air transport planes which could be converted to military uses in time of war.

The position of the National Military Establishment in respect to subject bills is under study and when its views have been developed, they will be communicated to the Bureau of the Budget and to the Congress.

The National Military Establishment has no comment to make with respect to these bills at this time and it is doubtful that a position thereon will be developed in time for consideration by the present session of the Congress.

This report has been coordinated among the Departments and Boards in the National Military Establishment in accordance with the procedures prescribed by the Secretary of Defense.

The Bureau of the Budget has been consulted and advises that there is no objection to the submission of this report.

Sincerely,

W. STUART SYMINGTON.

THE SECRETARY OF COMMERCE,
Washington, July 18, 1949.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: This letter is in reply to a request by your committee for comments on H. R. 448, which would provide for the establishment of a corporation to conduct research and development of new types of cargo aircraft and to purchase aircraft from manufacturers for lease or resale to private operators.

H. R. 448 establishes an Aircraft Development Corporation within the Department of Commerce controlled by a board of directors with authority to exercise the functions vested in the corporation independently of the Secretary of Commerce. We believe that the use of the corporation device to carry out the purposes of the bill would be less desirable than a board composed of Government representatives participating in aviation development and assisted by an industry advisory committee. The Corporation directors, as provided in the bill, would necessarily rely on representatives of the various Government agencies interested in aviation development and, therefore, the corporation would be needlessly superimposed over existing Government agencies as an additional organization to accomplish the functions which such Government agencies are presently equipped to carry out in close collaboration with an industrial advisory group.

The Corporation is authorized to purchase existing aircraft from manufacturers for sale and lease to private operators. Leasing provisions, we fear, would ultimately result in the United States ownership of substantially all domestically operated air transport aircraft. Therefore, we believe it undesirable for the Government to enter into the private business of purchase and lease of aircraft.

The Department of Commerce has in the past supported measures such as H. R. 448 which had as their objective the dual purpose of promoting air commerce and meeting the needs of national defense. Our support has been predicated upon our conviction that, in view of the substantial sums required for the development of new-type aircraft, the manufacturing industry was unable to provide out of private capital the prototype development necessary to produce a more efficient type of transport. It was a point of view which was shared not only by other agencies of the Government, but was supported by statements made before the President's Air Policy Commission by responsible representatives of the manufacturing industry and by the ultimate findings of that Commission and the Congressional Aviation Policy Board.

While we have no doubt that at the time these reports were issued the support of the Federal Government in the development of new-type transport aircraft was thoroughly justified, the circumstances during the ensuing year have changed materially. We are now informed that the manufacturing industry generally does not need and does not wish the financial support envisioned in the subject legislation. The financial condition of the industry has improved, largely as a result of the increased tempo of the military procurement program, and at the present time it appears more probable that private capital could provide for the development necessary to produce new, more efficient, transport aircraft. While we recognize that much remains to be done in bringing into regular commercial use new aircraft utilizing the newer, more efficient engines and fuels, nevertheless we feel that many of the objectives of the proposed prototype program are being realized through a combination of the military procurement program, existing federally sponsored research programs, and through the initiative of private enterprise.

In view of the foregoing, the Department of Commerce recommends against enactment of H. R. 448. However, if the National Military Establishment were to determine that financial participation in the development of prototype aircraft is a necessary part of our over-all military preparedness program, this Department would support legislation to accomplish the objective. In addition, we recognize that the aircraft manufacturing industry may again find itself unable to provide adequate prototype development solely through the use of private capital, a circumstance which might come about if the military procurement program were to be reduced substantially below its present level. We believe that if this were to happen the entire question should be reexamined.

Because of the urgency of the committee's request, we have not had an opportunity to secure the advice of the Bureau of the Budget regarding the relationship of this report to the program of the President.

Sincerely yours,

C. V. WHITNEY,
Acting Secretary of Commerce.

CIVIL AERONAUTICS BOARD

APRIL 22, 1949.

House Resolution 448: To promote interstate and foreign commerce and strengthen the national defense by providing for cargo aircraft adaptable for postal, commercial, and military service, and for other purposes.

This bill would provide for Government financing of research and development work on new designs of cargo aircraft adaptable for auxiliary military uses, as well as Government acquisition of a pool of cargo aircraft to be leased to private operators.

As indicated in its position on H. R. 73, the Board would fully endorse legislation providing for Government financing of research and development work on new designs of civil transport aircraft, of both cargo and passenger types, adaptable for auxiliary military uses, but the Board does not favor use of the Government corporation device to implement any such program. Moreover, the Board believes that the provisions relating to the establishment of a Government pool of cargo aircraft are unnecessary and undesirable at the present time.

TREASURY DEPARTMENT,
Washington, March 20, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: Further reference is made to your letter of January 13, 1949, requesting the views of the Treasury Department on H. R. 418, to promote interstate and foreign commerce and strengthen the national defeuse by providing for cargo aircraft adaptable for both commercial and military service, and for other purposes.

This bill would declare it to be the policy of Congress to provide for the taking of appropriate actiou to insure that there will be available the number of cargo aircraft adequate to meet the potential domestic aud international commercial requirements of the United States but not in excess of the uumber adequate to meet the military reserve requirements. It would establish an Aircraft Development Corporation authorized to purchase cargo planes and lease them to private operators, and an Aircraft Develoipmeut Advisory Board to advise and consult with said Corporation.

A reply to your letter has been withheld pending the report of an ad hoc committee on development of prototype transport aircraft appointed by the Air Coordinating Committee in order that the position of the Treasury Department in relation to this matter could be coordinated with that of the Air Coordinating Committee. On November 17 the Air Coordinating Committee approved a recommendation of the afore-mentioned ad hoc committee that legislation be drafted for later consideration by the Air Coordinating Committee and submission to Congress. Inasmuch as present indications are that the new proposed legislation to be drafted will vary in several important features from H. R. 448 the Treasury Department recommends that consideration of any proposed legislation relating to this subject be deferred until such time as the new proposed legislation approved by the Air Coordinating Committee is before your committee.

Advice has been received from the Bureau of the Budget that bills now pending before the Congress which would authorize Federal financiug of the design and development of prototype aircraft would not be in accord with the program of the President.

Very truly yours,

E. H. FOLEY, JR.,
Acting Secretary of the Treasury.

DEPARTMENT OF JUSTICE,
OFFICE OF THE ASSISTANT TO THE ATTORNEY GENERAL,
Washington, July 19, 1949.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice concerning the bill (H. R. 448) to promote interstate and foreign commerce and strengthen the national defense by providing for cargo aircraft adaptable for both commercial and military service, and for other purposes.

The bill would provide for the creation of a Government-owned corporation under the name of the Aircraft Development Corporation, which shall survey the commercial needs and military reserve requirements for cargo aircraft, and shall be authorized to arrange for the designing and purchase of such aircraft and for the lease and sale thereof upon terms and conditions set out in the bill. The Corporation would also be authorized to initiate and support research and experiments and the actual development of new and improved types of cargo aircraft, and to enter into contracts for such purposes. The Corporation would be further authorized to recapture any of the leased or sold cargo aircraft whenever the President, having determined such step to be advisable in the interest of national security, so directs.

The measure appears to be designed to carry out the recommendations of the President's Air Policy Commission and the Congressional Aviation Policy Board (see Survival in the Air Age, a report by the President's Air Policy Commission, January 1, 1948, at p. 115; and National Aviation Policy, the report of the Congressional Aviation Policy Board, March 1, 1948, at pp. 13–14).

Whether legislation of this kind should be enacted involves a question of legislative policy concerning which this Department prefers not to make any suggestions. There are features in the bill here under consideration, however, to which this Department has objection.

Section 4 (d) (4) of the bill would authorize the corporation "to acquire, hold, and dispose of property." Although there is considerable doubt that the proposed corporation would come within the terms of the act of August 1, 1888, as amended (40 U. S. C. 257), or be subject to the terms of section 355 of the Revised Statutes (40 U. S. C. 255), it is believed advisable to change the above quoted language in order to avoid any possibility of difficulty on this point. In order to accomplish this purpose it is suggested that the present language of section 4 (d) (4) be stricken and the following language be inserted in lieu thereof:

> "to acquire, in the name of the United States, by purchase, lease, condemnation, exchange or donation such real and personal property or any interest therein as shall be deemed necessary to carry out the purposes of this Act. All condemnation proceedings on behalf of the Corporation shall be in accordance with the provisions of the Act of August 1, 1888 (25 Stat. 357), as amended (40 U. S. C. 257, 258). The Act of February 26, 1931 (46 Stat. 1421, 40 U. S. C. 258a), and the provisions of section 355, Revised Statutes (40 U. S. C. 255), shall be applicable to all property taken thereunder. The Corporation is authorized to transfer such real and personal property, and any interest therein and to sell, lease, or otherwise dispose thereof, and to obtain by contract, donation, or otherwise such services, as in its judgment may be necessary or appropriate in carrying out the purposes of the Corporation."

Section 4 (d) (5) of the bill would authorize the corporation "to sue and be sued, to complain and defend, in any court of competent jurisdiction, State or Federal." This provision raises a vexatious question. The general nature of the language is such as has repeatedly given rise to the contention that it constitutes authority for the attorneys of the particular agency involved to conduct all of its litigation independently of the Attorney General and the Department of Justice.

The Attorney General is the chief legal officer of the Government and the Department of Justice is charged generally with supervision of the conduct of litigation involving the United States. Proper administration requires the centralization of the responsibility for the legal affairs of the Government. Any alternative means a wasteful overlapping of functions at the expense of economy and efficiency. That this has been recognized by the executive branch of the Government is evidenced by the Executive order of President Roosevelt (No. 6166) of June 10, 1933, transferring to the Department of Justice the control of litigation affecting the Government.

The most recent expression of legislative policy with regard to the conduct of Government litigation is contained in section 507 of the new title 28, United States Code (act of June 25, 1948), which requires the Attorney General to supervise all litigation to which the United States or any agency thereof is a party.

To decentralize control of litigation can only result in unjustified expenditures in the duplication of legal staffs and also the loss of valuable experience acquired by the attorneys in the Department of Justice. In view of these considerations, it is strongly urged that the bill be amended so as to make it clear that the litigation of the Corporation will be conducted by the Department of Justice. Such

amendment may be accomplished by striking out all of the language of section 4 (d) (5) and inserting in lieu thereof the following:

"to sue and be sued in its corporate name, and may settle and adjust claims held by it against other parties or persons and by other parties or persons against it: *Provided, however,* That in all litigation involving the Corporation and all litigation arising under the provisions of this Act the Corporation shall be represented by the Attorney General or an attorney or attorneys acting under his authority."

The Director of the Bureau of the Budget has advised that there is no objection to the submission of this report.

Yours sincerely,

PEYTON FORD,
The Assistant to the Attorney General.

THE DEPUTY SECRETARY OF DEFENSE,
Washington, D. C., May 1, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

MY DEAR MR. CHAIRMAN: This is in refeernce to your letter of March 28, 1950, concerning H. R. 7870, a bill to provide for the development and improvement of aircraft intended for industrial or personal use, and adaptable for military service.

The proposed legislation is similar in many respects to S. 2301 and related bills with respect to which Secretary Symington testified before the Senate Committee on Interstate and Foreign Commerce on January 30, 1950; a copy of his testimony on that date is attached for your information.

Although the types and purposes of the aircraft that would be developed under the two bills differ somewhat, the principle of accomplishing the development through Federal financing is the same in both bills and, from the standpoint of the Department of Defense, is objectionable for the reasons set forth in Secretary Symington's testimony. For this reason the Department does not favor enactment of H. R. 7870.

The Bureau of the Budget advises that legislation of this type cannot be considered in accord with the program of the President.

With kindest personal regards, I am,

Sincerely yours,

STEPHEN EARLY.

The CHAIRMAN. Secretary Symington, of the Air Force.

STATEMENT OF HON. W. STUART SYMINGTON, SECRETARY OF THE AIR FORCE

Mr. SYMINGTON. Mr. Chairman and gentlemen, the pressing problems affecting our civil aviation, particularly with regard to prototype transport aircraft development, have been under study in the Department of Defense for several years. Members of Congress, civil agencies of Government, the aircraft manufacturers, and the airlines have also been concerned with this probelm. Within the last few months the Department of Defense has reexamined its position and concluded that a prototype program with the following characteristics offeerd the best solution:

(1) That the Government bear the expense of developing two prototype planes with the following general characteristics:

(*a*) A prototype low-cost long-range cargo or transport aircraft best suited to military needs and adaptable to maximum practical utilization by the civil air transport industry; and

(*b*) A prototype low-cost long-range cargo or transport aircraft best suited to the active operational need of the civil air transport industry and adaptable to maximum practical military utilization in the event of war.

(2) That the responsibility for carrying out this program be assigned to the Department of Defense, with a specific authorization to the Department of the Air Force. This recommendation stems from the belief that no new agency should be created to carry out this program and from the belief that the Department of the Air Force, by virtue of its experience in procurement and operations, is the best qualified Department in the Federal Government to carry out the project.

(3) A condition for the support of the above program invoiving the use of Government funds, is that appropriations separate and distinct from the military appropriations be provided. There are two reasons for this position: First, tbe antlcipated benefits from such a program can be expected to accrue, initially and with certainty, to the civll airlines, and to the national security only in event of emergency. Secondly, the estimated deficit in airlift between present capabilities and mobilization requirement does not create a shortage which is so serious that it requlres the use of Department of Defense funds under presently limited budgets. If additional funds could be made available the interests of national security would best be served by their application to combat minimums and hence, no Department of Defense funds can be diverted to a development of this kind at the expense of prime military procuremeut.

(4) That tlie above program iuvolves no obligation on the part of the Department of Defense to procure aircraft that might be developed under a prototype program. It is neither economically nor militarily souud nor practicable to acquire transport-type aircraft for the purpose of stockpiliug to meet an anticipated wartime deficit.

The above characteristics of a prototype program were drafted into a bill, which we sent to the Bureau of tlie Budget requesting advice as to its conformity with the program of the President. We were informed last Friday by the Bureau of the Budget that legislation providing for the expenditure of Government funds for the developmeut of prototype transport aircraft is not in accord with the program of tlie President. For this reason, the Department of Defense will not seek adoption of its program by the Congress and will uot support any other bill which provides for prototype developmeut at Government expense.

Thank you, Mr. Chairman.

The CHAIRMAN. We thank you, Mr. Secretary.

Senator Johnsou?

Senator JOHNSON. Mr. Secretary, do you need iegislation to carry out the objectives in (*a*) and (*b*)?

Mr. SYMINOTON. Yes, sir; we do.

Senator JOHNSON. Is there prohibition now in the iaw against your doing that unless you have additioual legislation?

Mr. SYMINGTON. There would be prohibition of doiug it on this basis, Senator. If we had it as part of our military appropriation and it was passed, we would have it, otherwise we have got to have special legislation for it, sir.

Senator JOHNSON. Are you by law now prohibited from developing prototype-cost, long-range cargo or transport aircraft best suited to the actlve operationai need of the civil air transport industry?

Mr. SYMINOTON. No, we are not prohibited by law from working on (*a*) and therefore (*a*) would be a question of relative——

Seuator JOHNSON. What about (*b*)?

Mr. SYMINOTON. (*b*), we would be prohibited; yes, sir.

Senator JOHNSON. But the meat of what you are saying is you are not going to work on either, because it is not in accord with the President's program?

Mr. SYMINGTON. That is correct, sir.

The CHAIRMAN. Senator Hunt?

Senator HUNT. No questions, Mr. Chairman.

Senator JOHNSON. Is the committee to understand that unless and until there is iegislation there will be no development by the Air Force in this field?

Mr. SYMINOTON. Unless it goes into our straight military appropriations.

The CHAIRMAN. And in that case you would want it separated by item from your mlitary appropriations?

Mr. SYMINGTON. Mr. Chairman, I would say that it was separated from us. In other words, in the original military appropriation we had considerable development work and procurement work included. When it came to what was best to leave out, why, we thought it was best to go into the combat units as against the others. It is a question of relative priority.

The CHAIRMAN. What about jet transports as a specific type of prototype that may need development in order to keep step with what other countries are doing?

Mr. SYMINGTON. From a commercial standpoint, sir—speaking as an individual—I can see that is very important. But from a military standpoint it is doubtful whether, at this time, there is a military necessity for a jet transport.

The CHAIRMAN. In other words, the military is going ahead with experimentation in jet propulsion in fighter craft and in doing that, why, you are exploring the whole field of jet adaptability, I presume, and that you do not think it is necessary that we study the jets for cargo carriers at this time?

Mr. SYMINOTON. Well, I think it would he advisabie to do as much study as we can, sir, but at this time I think inasmuch as there is a question as to military necessity for a jet commercial plane, that our work under our limited funds should he devoted primarily to experiments with combat models, fighters, and bombers.

The CHAIRMAN. Are you in charge of MATS? Are they under your department?

Mr. SYMINGTON. General Kuter of the Air Force is the operating head of the MATS, sir.

The CHAIRMAN. We have some questions to ask about MATS, and we will reserve them for General Kuter, then.

Do you consider all civil cargo and transport aircraft as auxiliary to the Air Force in an emergency?

Mr. SYMINOTON. Well, it would he auxilitary to the Government. I would not want to just localize it on the Air Force. I lmagine in an emergeacy that everything we have in this country, especialiy in the next war, would have to be used to win the war.

The CHAIRMAN. As a matter of fact, shouid mohilizatioa day come, the air traasports, passenger and cargo, would have a tremendous joh taking care of the civilian program instant to the war and caused hy the war?

Mr. SYMINOTON. Yes, Mr. Chairman, I think that is true, sir. I think that Secretary Early very ahiy presented that prohiem of all carriers in case of war.

The CHAIRMAN. Senator Williams, any questions?

Senator WILLIAMS. Mr. Symington, do I understand that the prototype outlined in paragraph (*b*) has heen disapproved hy the Budget Burcau?

Mr. SYMINOTON. The bill in which that was a part has been disapproved hy the Bnrcau of the Budget, sir.

Senator WILLIAMS. How about the prototype under paragraph (*a*)?

Mr. SYMINOTON. The prototype under paragraph (*a*) has been disapproved as special iegislation.

Senator WILLIAMS. Has there been any estimate of the cost of these two prototypes?

Mr. SYMINOTON. There have been estimates; yes. It is difficult to estimate the cost. I think we would be willing to give you figures on that if you would like to have them.

Senator WILLIAMS. I think there would have to be some estimate made before we could consider legislation.

Mr. SYMINOTON. We made an estimate of $30,000,000 for these two airplanes.

Senator WILLIAMS. $30,000,000 for each?

Mr. SYMINGTON. No, sir; $30,000,000 for hoth.

That would lavoive, however, huying just one airplane, and generally when you buy a sample, you buy three samples, one of which is the static-tested one, and another which you fly.

Senator WILLIAMS. Does that mean it would be $90,000,000?

Mr. SYMINGTON. We recommeaded 30 million because we thought it would be best to see what we had—15 million for one and 15 million for the other—and go ahead from there. In other words, we tried to hold the cost down to the minimum.

Senator WILLIAMS. Do I understand that you do interpret hoth of these prototypes as an additional suhsidy to commercial aviation in general?

Mr. SYMINGTON. No; that would not he true. The first would be a help to military posture, the second might be a help to military posture, hut I do not think you could say especially ia the case of the first that it would be any more of a subsidy to commercial aviation than to other planes we huy today are, especially transport planes.

Senator WILLIAMS. I was just noting in the statement you have here: "The anticipated benefits from such a program can he expected to accrue, initially and with certainty, to the civil airlines."

Mr. SYMINOTON. I feel that, hut at the same time they always accrue in case No. 1, ohviously, to us. The hasic reason for spiitting these two was hecause one of the prohlems, I think, from the discussions of this iegislation we have gotten into in the years I have heen in the Air Force, is there has been a feeling you could design a plane which was a hybrid plane; in other words, a plane that would he both a good plane for the airlines and a good cargo plane for the military; and I do not think that is possible.

The CHAIRMAN. The subsidy that Senator Williams refers to would come after the prototype plane had been approved and off the board. That is, under

some of the legislation proposed, the subsidy would consist in purchasing a certain number of these prototype planes and letting the airlines use them less than their cost under some such arrangement?

Mr. SYMINGTON. Yes, sir. And if we designed these two planes, obviously, the first one would help the commercial airlines.

Senator WILLIAMS. Yes; that is correct.

Mr. SYMINGTON. I mean the second one. It is probable the first one would, too, because if it is a new cargo plane in the development of the art it might also be used by the airlines as a cargo plane.

The CHAIRMAN. Yes.

Senator WILLIAMS. The first plane, under which is all of the cost of development of the prototype, it is natural that the second plane, whether sold to commercial or not, would be a small part of the over-all cost of the first plane.

Mr. SYMINGTON. When I was talking about the first and second, I was talking about (*a*) and (*b*). You are talking about the second airplane under the first prototype. I think we were a little mixed up.

The CHAIRMAN. Of course, the Secretary answers one of the questions that has been foremost in this whole proposal, and that is he states very unequivocally that you cannot have a hybrid. And that has been the basis, I think, of most of the proposals for building a prototype plane.

Are there any other questions?

If not, we thank you, Mr. Secretary, for your appearance.

Mr. SYMINGTON. Thank you, Mr. Chairman.

TREASURY DEPARTMENT,
Washington, April 24, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: Further reference is made to your letter of March 28, 1950, requesting the views of the Treasury Department on H. R. 7870, "To provide for the development and improvement of aircraft intended for industrial or personal use, and adaptable for military service."

This bill would declare it to be the policy of Congress that it is in the national interest to sponsor the design, development, construction, modification, and testing of prototypes of aircraft and aircraft components intended for industrial or personal use, and adaptable for military service. It would establish a National Civil Aviation Council and in addition an advisory committee in order to carry out this policy.

An ad hoc committee on the Development of prototype transport aircraft appointed by the Air Coordinating Committee is now engaged in preparing, for submission to your committee, a draft of legislation on this subject. Inasmuch as present indications are that the proposed legislation will vary in several important features from this and similar bills now before your committee the Treasury Department recommends that consideration of any proposed legislation relating to this subject matter be deferred until such time as proposed legislation approved by the Air Coordinating Committee is before your committee.

Advice was received from the Bureau of the Budget, by letter dated March 20, 1950, in regard to S. 2984, an identical bill, that bills pending before the Congress which would authorize Federal financing of the design and development of prototype aircraft would not be in accord with the program of the President.

Very truly yours,

E. H. FOLEY, Jr.,
Acting Secretary of the Treasury.

CIVIL AERONAUTICS BOARD,
Washington, May 31, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR CONGRESSMAN CROSSER: This is in reply to your request for a report on H. R. 7870, a bill to provide for the development and improvement of aircraft intended for industrial or personal use, and adaptable for military service.

The Board has long advocated a program of Federal assistance for the development of improved transport aircraft, which is the principal objective of this bill. The matter has also been under study by the Air Coordinating Committee for a considerable period of time and that committee has recently taken a positive position in favor of the enactment of legislation to promote the development of new transport aircraft. In addition, the committee has agreed upon a type of assistance program which we believe is best suited to the purpose, and has embodied its proposals in a draft bill, a copy of which is enclosed herewith. This program, in which the Board fully concurs, is premised on the belief that the two most advantageous and appropriate aspects of new aircraft development for Government financial assistance are (1) the testing of new prototype aircraft and (2) the conduct of experiments simulating actual commercial operating conditions to permit adaptation of ground facilities and air safety regulations to use of the new designs.

This approach has the merit of leaving to private industry a maximum degree of initiative and competition in matters of production and design. Consequently, while the Board favors the general objectives of H. R. 7870, we would prefer the enactment of legislation in the form of the attached draft as proposed by the Air Coordinating Committee.

The Bureau of the Budget has advised that the enactment of legislation as proposed in the attached draft, if amended in accordance with the recommendations made below, would be in accordance with the program of the President.

The recommendations are:

1. Insert the word "commercial" between the words "improved" and "transport" in both the title of the bill and its statement of policy.

2. In section 2 (a) of the bill change "Administrator of Civil Aeronautics" to "Secretary of Commerce" and make corresponding changes in other sections of the bill.

3. Amend section 2 (a) of the bill to read as follows: "Preparing broad operating and general utility characteristics and specifications for types of commercial transport aircraft which he finds are required in the public interest, and which represent substantial advances over existing equipment."

4. Amend the last sentence of section 6 of the bill to read as follows: "When so provided in the appropriation act concerned, such appropriation may remain available until expended."

Sincerely yours,

JOSEPH J. O'CONNELL, Jr., *Chairman.*

A BILL TO promote the development of improved transport aircraft by providing for the operation, testing, and modification thereof

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it is hereby declared to be the policy of Congress to promote, in the interest of safety, the national air transportation system, and the national defense, the development of improved transport aircraft, particularly turbine-powered aircraft, aircraft especially adapted to the economical transportation of cargo, and aircraft suitable for feeder-line operation, by providing for Government assistance in the testing and minor experimental modification of such aircraft, and in the operation of available turbine-powered aircraft in simulated transport service to secure data to aid in the development and manufacture of turbine-powered transport aircraft, and to aid in the adaptation of civil airways, civil airports, and air safety regulations applicable to civil aircraft to the operation of such aircraft.

SEC. 2 (a). The Administrator of Civil Aeronautics (hereinafter referred to as the "Administrator") is authorized to carry out the purposes of this Act by—

(1) Preparing broad operating and general utility characteristics and specifications for such aircraft;

(2) Providing for the operation, by contract or otherwise, of available aircraft with turbine-jet or turbine-prop power units under conditions simulating, to the extent practicable, the conditions under which scheduled air transport aircraft operate;

(3) Providing, by contract or otherwise, for the testing of any aircraft which, in his opinion, meets the operating and utility characteristics and specifications established by him in accordance with this section; and

(4) Providing for such minor experimental modifications of such aircraft during the testing period which he believes necessary to carry out the testing program in the interests of safety or economy of operation.

(b) In carrying out his functions under this section, the Administrator shall coasult, from time to time, with interested Governmaent agencies, including the Department of Defense, the Civil Aeronautics Board, aad the National Advisory Committee for Aeronautics, with represeatatives, respectively, of the aircraft and aircraft-engine manufacturing industries, and the air transport industry.

SEC. 3 (a). The Admiaistrator is authorized, subject to the civil-service laws and the Classification Act of 1949, as amended, but without regard to any provision of law limiting the number of personnel which may be employed by the Civil Aeronautics Administratioa, to employ and fix the compensation of such personael as may be deemed necessary to assist the Administrator in carrying out his fuactions under this Act: *Provided*, That to the extent practicable consistent with other duties and assignments, the personnel and facilities of existiag Government agencies shall be used to carry out the responsibilities stated in this Act. Notwithstandiag aay other provisions of this section, the Administrator may carry out any of his fuactions under section 2 by coatract with private organizations.

(b) The Administrator, in carrying out the provisions of section 2 of this Act, may enter into contracts or other arrangements, or modifications thereof, with or without legal consideration, performance or other bonds, or competitive bidding, and, in carrying out such contracts, arrangements or modifications thereof, may make advance, progress, and other paymeats without regard to the provisons of section 3648 of the Revised Statutes.

SEC. 4. As used in this Act—

(a) The term "aircraft" shall include eagines, airframes, propellers, instruments, accessories, and equipment for such aircraft;

(b) The term "testiag" means the operation of aa aircraft iacident to the procurement of a type certificate for such aircraft, aad the operation of an aircraft, whether type certificated or aot, in actual or simulated transport service for the purpose of determining the operating and utility characteristics of such aircraft;

(c) The term "minor experimental modifications" means any adjustment or chaage necessary and incident to carrying out the testing program in the interest of safety or economy of operation but does not include any major factory modificatioa resulting from a major defect.

SEC. 5. The Administrator shall include in his anaual report of the Civil Aeronautics Administration a report on the progress made in the accomplishment of the purposes of this Act, and the amounts of the expenditures made or obligated pursuant thereto.

SEC. 6. There is hereby authorized to be appropriated to the Civil Aeronautics Administration not to exceed $12,500,000 to carry out the purposes of this Act. Unless otherwise provided ia the Appropriation Act coacerned, such appropriations shall remain availiable for expenditure or obligation until such appropriations are expended.

SEC. 7. This Act shall become effective upon eaactment, and shall expire five years thereafter.

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS,
Washington, D. C., March 31, 1950.

HON. ROBERT CROSSER, M. C.,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, United States Congress Washington, D. C.

DEAR MR. CROSSER: Permit me, in the absence of Chairman Hunsaker, to reply to your letter of March 28, 1950, in which you request comment on H. R. 7870, a bill to provide for the development aad improvement of aircraft intended for industrial or personal use, and adaptable for military service.

This bill is ideatical with S. 2984, which was considered by the NACA at its last meeting. In coaaectioa with S. 2984, the following reply was approved subject to clearance by the Bureau of the Budget, aad this has subsequently been received:

"The establishment of a new independent ageacy of the Goverament to be known as the National Civil Aviation Council, as proposed in S. 2984, seems unnecessary to facilitate the develoipment of prototype cargo or civil aircraft for industrial or personal use and adaptable for military service.

"The bill would make the Chairman of the Natioaal Advisory Committee for Aeronautics the chairman of the proposed three-man council. This would involve

an implied enlargement of the functions of the NACA to include the design of aircraft and the evaluation of their utility. This would be an undesirable change in the character of the NACA as a research agency, whose findings the military services and the aircraft industry have been free to accept or reject.

"The NACA, of course, stands ready and willing to assist the military services or any other group designated by the Congress in matters relating to scientific and technical aeronautical data."

Sincerely yours,

J. F. VICTORY, *Executive Secretary.*

DEPARTMENT OF JUSTICE,
OFFICE OF THE ASSISTANT TO THE ATTORNEY GENERAL,
Washington, May 18, 1950.

Hon. ROBERT CROSSER,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: This is in response to your request for the views of the Department of Justice concerning the bill (H. R. 7870) to provide for the development and improvement of aircraft intended for industrial or personal use, and adaptable for military service.

The bill would provide for the establishment of a National Civil Aviation Council composed of the Administrator of Civil Aeronautics, the Chief of the Army Field Forces, and the chairman of the National Advisory Committee for Aeronautics. The Council would be authorized and directed to survey the national requirements for aircraft designed for industrial or personal use and adaptable for military service; to prepare and recommend the operating and utility characteristics and specifications of such aircraft; and to allocate to the Civil Aeronautics Administration from funds appropriated to carry out the purposes of the measure sums to be used for the purpose of entering into contracts for the design, development, construction, and testing of prototypes of aircraft or the improvement of existing types of aircraft in accordance with standards established by the Council. To assist it in carrying out its functions, the Council would be authorized to establish an advisory committee of seven members, four of which to be designated as best representing the leading industrial, public, and private aeronautical groups, and the other three to be designated to represent the general public.

Whether the bill should be enacted involves a question of legislative policy concerning which this Department prefers not to make any recommendation. There are certain features of the measure, however, to which your committee may care to give further consideration.

Section 2 (b) of the bill providing for the establishment of an advisory committee to assist the Council, would exempt the members of the committee from the provisions of sections 216, 281, 283, and 434 of title 18, United States Code, and section 190 of the Revised Statues (5 U. S. C. 99) "or any other provision of law imposing restrictions, requirements, or penalties in relation to the employment of persons, the performance of services, or the payment or receipt of compensation in connection with any claim, proceeding, or matter involving the United States * * *: *Provided*, That the provisions of section 3679 of the Revised Statutes (31 U. S. C. 665), as amended, shall not apply to the acceptance of voluntary service by any member of such committee."

Section 216 of title 18, United States Code, prohibits any officer or agent of the United States from receiving any money or thing of value for procuring any contract with the United States.

Section 281 of title 18, United States Code, makes it an offense for any officer or employee of the United States to receive compensation for services rendered to any person in relation to any proceeding or claim before any agency of the Government in which the Government is interested.

Section 283 of title 18, United States Code, prohibits any officer or employee of the United States from acting as an agent or attorney for the purpose of prosecuting any claim against the Government. This secion also prohibits such officer or employee from aiding or assisting in the prosecution of such claim or from receiving any gratuity, or any share of or interest in any such claim.

Section 434 of title 18, United States Code, prohibits any officer or agent of the United States from transacting business with a corporation, association, or firm of which he is an officer, agent, or member.

Section 190 of the Revised Statutes (5 U. S. C. 99), prohibits a former officer of the United States from prosecuting a claim against the United States involving any matter directly connected with which such person was employed or performed duty within 2 years after the termination of such employment.

Section 665 of title 31, United States Code, among other things, prohibits any department or any officer of the Government from accepting voluntary service for the Government or from employing personal services in excess of that authorized by law, except in emergency cases involving the loss of human life or the destruction of property.

The main purpose of the above-mentioned statutes is to protect the loyalty and integrity of the Government service and to prevent the defrauding of the United States by the exercise of undue influence on the part of its officers and employees who may have personal interests which conflict with their public duties.

While this Department is in sympathy with the desire to utilize the services of persons with outstanding ability and experience for public work, it is feared that the proposed exemptions from the provisions of law above cited would tend to establish an undesirable precedent. It is believed that where exemptions are allowed, such should be resorted to only in cases of emergency and, so far as practicable, should be specified.

It should be noted, in this connection, that the bill contains no provision stating that the exemptions shall not apply to any activity involving any matter in direct connection with which such person is employed by the Government or is performing his official duties. It is suggested that the measure should contain such a safeguard.

The Director of the Bureau of the Budget has advised that the enactment of the bill would not be in accord with the program of the President.

Yours sincerely,

PEYTON FORD,
The Assistant to the Attorney General.

Mr. BECKWORTH. The subcommittee will recess subject to the call of the Chair.

(Whereupon, at 1:30 p. m. the subcommittee recessed subject to the call of the Chair.)

DEVELOPMENT OF IMPROVED-TYPE AIRCRAFT

THURSDAY, AUGUST 17, 1950

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE OF THE INTERSTATE AND
FOREIGN COMMERCE COMMITTEE,
Washington, D. C.

The subcommittee met at 11 a. m., Hon. John A. McGuire presiding.

Mr. MCGUIRE. The committee will come to order. Mr. Heacock, do you desire to present a synopsis?

STATEMENT OF AMOS E. HEACOCK, LEGISLATIVE POLICY DIRECTOR, AIR COACH TRANSPORT ASSOCIATION, WASHINGTON, D. C.

Mr. HEACOCK. Mr. Chairman, I have a written statement that I would like to file for the record at this time.

Mr. MCGUIRE. It is so ordered.

(The statement referred to is as follows:)

Carrier members

Carrier	Address	Letter of registration No.
Aero Finance Corp.	130 Hialeah Dr., Hialeah, Fla.	
Air Services, Inc.	Second floor, passenger terminal, Newark, N. J.	1920
Air Transport Associates, Inc.	Box 55, Boeing Field, Seattle 8, Wash.	1896
American Air Transport	P. O. Box 131, Miami Springs, Fla.	4
Arrow Airways	Lockheed Air Terminal, Burbank, Calif.	1913
Continental Charters, Inc.	Route 1, Box 187, Miami 35, Fla.	621
Freight Air, Inc.	P. O. Box 534, Miami Springs, Fla.	1640
Great Lakes Airlines, Inc.	Lockheed Air Terminal, Burbank, Calif.	810
Los Angeles Air Service	5900 Avion Dr., Los Angeles 45, Calif.	1959
Miami Airline, Inc.	100 NE 88th St., Miami 35, Fla.	85
Modern Air Transport, Inc.	132 W. 47th St., New York 19, N. Y.	802
Monarch Air Service	6054 S. Cicero, Chicago Municipal Airport, Chicago, Ill.	1676
New England Air Express	Teterboro Air Terminal, Teterboro, N. J.	1802
Ocean Air Tradeways	Wildwood Airport, Wildwood, N. J.	292
Oxnard Sky Freight, Inc.	Lockheed Air Terminal Burbank, Calif.	3888
Peninsular Air Transport	P. O. Box 209, Miami Springs, Fla.	723
Robin Airlines, Inc.	Lockheed Air Terminal, Burbank, Calif.	1745
Southern Air Transport	3191 SW 19th Terrace, Miami 35, Fla.	61
Trans American Airways	Lockheed Air Terminal, Burbank, Calif.	1760
World Airways, Inc.	Teterboro Air Terminal, Teterboro, N. J.	1718
World-Wide	Lockheed Air Terminal, Burbank, Calif.	
Conner Air Lines, Inc.	P. O. Box 122, Miami Springs, Fla.	1627
Aviation Corp. of Seattle	P. O. Box 40, Airline Terminal Bldg., Boeing Field, Seattle 8, Wash.	786
Nationwide Air Transport Service, Inc.	P. O. Box 1226, Miami Springs, Fla.	5

H. R. 448 VERSUS H. R. 8536

Chairman and members of the committee, you have heard the advocates of H. R. 8536 present their case. Practically ignored, the much more comprehensive bill H. R. 448, has received little comment. Let's examine the two bills. H. R. 8536 provides for type certificate testing and service testing of turbojet and

turboprop transports. The bill is extremely limited in scope. A compromise measure, based on misconceptions, it was introduced upon recommendation of the Air Coordinating Committee, chairmaned by Joseph J. O'Connell, of the Civil Acronautics Board, who has since resigned. H. R. 8536 provides no airlift; it produces no airplanes. Furthermore, it does not design nor develop aircraft.

It is a pre-Korean crisis bill. Those who subscribe to it now are those who are unable to react quickly to the impact of events. H. R. 8536 canuot even be excused on the grounds that it is a step in the right direction, for H. R. 8536 will not provide any defense beuefits. No military authority will have any control over the type of aircraft to be produced. This is particularly undesirable when we take note of the recent survey of the Military Air Transport Service. This survey indicated that 90 percent of the aircraft employed by certificated airlines was not suitable for military purposes. The reason for this is that the military demands better than a hundred times the amount of cargo as passenger transportation. Furthermore, to meet a crisis such as that of Korea, the airlift planes must be abic to carry 155-millimeter mortars and rifles. They should be able to carry trucks and jeeps for rapid transportation of troops to the front. The commercial planes rejected by MATS as being unsuitable for national defense had plush-lined interiors not immediately adaptable for cargo purposes. The doors were small,-not admitting large and bulky cargo. The floors were weak and would not stand the weight of concentrated loads such as trucks and guns. No cargo tie-down rings were installed.

No; we find instead that H. R. 8536 and its companion bill, S. 3504, was introduced by Senators Brewster and Johnson simply because it was thought that nothing better could be accomplished this session. Senator Johnson's opinion of S. 3504 was expressed by the following comment he made during the hearings on this bill: "The Bureau of the Budget has directed the Air Force not to endorse any prototype legislation in which the Air Force is a party and in which Government money is used in the development. As a result of this the coordinating committee has presented a proposal, S. 3504, requesting authorization for an appropriation of $12,500,000 to operate, test, and modify new aircraft. This is a step in the right direction, but I do not believe it goes far enough. It will not give us the various types of planes we need."

H. R. 8536 is special-interest legislation favoring a segment of the aviation industry already heavily oversubsidized and the luxury-type passenger, while neglecting air-carrier expansion for national defense and the 90 percent of our voting public who cannot afford luxury-type transportation. I am aware that the bill also provides for the testing of cargo and feeder aircraft. I am inclined, however, to view this as merely "window dressing," for there is no evidence to show that there is any manufacturer in the United States who is prepared to design a cargo aircraft or a feeder aircraft because of the privilege given to him in this bill of getting free testing after the aircraft is designed and produced. In fact, H. R. 8536 is not a manufacturing bill at all; it benefits only the certificated airline monopoly in the United States that has already been heavily benefited by mail subsidies. It would enable these airlines to haug Allison turboprop engines on the Convair liner and on the Martin 404, possibly, and then subsidize the cost of putting them into operation, by paying for extended service testing along certificated routes. This is done, as usual, for the most highly subsidized segment of the aviation industry. Service testing could be accomplished at a fraction of the cost by employing the new aircraft in cargo operations.

On the other hand, H. R. 448—or, better still, a House counterpart of S. 3507—will produce existing types of cargo aircraft immediately while newer types are being designed, tested, and readied for production. While H. R. 8536 benefits only the certificated airline monopoly, H. R. 448 makes aircraft of the latest types available to both subsidized and nonsubsidized carriers. Can you ever hope to eliminate subsidies without supporting nonsubsidized carriers? H. R. 448 produces aircraft for national defense; in the absence of a national defense emergency, it produces aircraft to be leased to operators at an amount sufficient to return the cost of the program to the Goverument. All profits earned with this equipment over 10 percent on investment are divided 50–50 with the Goverument. These lease payments and recaptured profits are both applied to the purchase of these aircraft. Nevertheless, 75 percent of the crews and maintenance personnel operating the aircraft must belong to the Organized Reserves. The aircraft, therefore, is readied, manned, equipped, and under Government control at all times for devoting to a national emergency within 24 hours after that emergency occurs. Within days after the emergency begins, the civil aircraft, crews, maintenance personnel, and management are integrated into squadrons of the military

air-transport services. I understand the Russians have tractor-production lines immediately convertible into tank-production lines. Why can we not do as well in our air-transportation industry? When war occurs our aircraft factories need to produce combat planes, not transport planes. The transport planes, needed in peacetime and needed immediately upon the outbreak of war, should be already built.

If we had had such a national airlift at the time the Korean crisis began, we would not be so concerned for our forces now. Troops, guns, tanks, trucks, antitank bazookas, and all the materials of war would have been pouring into Korea in one-fifth the time. I am deadly serious when I say that those who play with special-interest bills now are tampering with our national security.

I say this with the authority of 6 years' experience in the last war—all of it spent with the airlifts of Troop Carrier Command and Air Transport Command. When we flew from England to north Africa on African D-day, we did so with inadequate C–47 airlift equipment. Maximum pay load, even with overloading, was about 18 fully equipped parachute troops. The DC–3, you see, was designed for airline, not military, service. On the short runway at Gibraltar, the fourth plane off the ground staggered into the air and crashed, and the following aircraft with similar overloads took off over the leaping flames that marked the location of their buddies that were not able to make it.

Parachute troops that dropped at Souk El Arba near Bizerte drove forward to positions which were retained until the final drive of the Tunisian campaign, saving the lives which would have had to be expended winning the ground later. The drop of troops at Depienne, within sight of the white rooftops of Tunis, however, was a failure because our airlift equipment was inadequate in quantity and in size. Without field guns, bazookas, and light tanks, our troops were no match for the German troops in armored cars that rounded up the small band and destroyed them. With an adequate airlift, Tunis would have been taken before the German airlift entered the city and reinforced it. The advantages of adequate airlift could have been measured in hundreds of millions of dollars and thousands of American lives.

The advice of a famous Civil War general on how to win battles was: "Get there fustest with the mostest!" We can see today in Korea that the same homely advice holds good. Only today, against an aggressor who may strike anywhere, the only way to be there "fustest with the mostest" is by building an adequate peacetime airlift. Military authorities believe we should have four to five times the present amount of airlift to meet a modern national emergency.

Other airlifts were more successful. General Alexander with his back to Alexandria and Cairo made use of American airborne antitank ammunition to mount his counteroffensive which finally drove Rommel out of Africa. But after Rommel was driven out of Tripoli, our generals correctly anticipated that Rommel might not retreat immediately to Tunis, but might try to drive through our thin lines of American and British tanks, manned by green, inexperienced crews. So unescorted C–47's flew deep into the Sahara Desert and came into Tripoli from the south, picked up experienced New Zealand tank crews, and flew them to western Tunisia to help man American and British tanks. When Rommel tried to drive through Kasserine Pass, our crews, inexperienced though they were, and assisted by low-flying A–20 bombers, slugged it out with the German veterans. When the bombers ran out of bombs, troop-carrier aircraft put in a maximum effort from before dawn to after dark for several days moving plane loads of ammunition to the front and plane loads of wounded to the hospitals in the rear.

Troop-carrier aircraft developed their techniques in the invasions of Sicily, Italy, southern France, and western Europe. An airlift of C–46 aircraft flew gasoline for our bombers over the Hump and into China, facilitating later the invasion of the Japanese islands. The Chinese were dependent on this airlift for their supplies. An airlift of C–54's under the Air Transport Command kept aerial supply lines open for the 7- to 10-thousand miles across the Central Pacific.

We veterans of airlifts of World War II put away our uniforms with the firm conviction that airlift saves lives. Airlift is the first necessity of modern war. As General Eisenhower warned, and this Korean situation proves, tactical decisions will be made in the first 60 days of combat. An enemy's submarines may be as unexpectedly superior as the enemy tanks and artillery in Korea. How else than by airlift would we then move our troops and supplies. And if an enemy seized bases on the Arctic coast of Alaska in wintertime for refueling atomic bombers, how else would we move troops and matériel to dislodge the enemy except by airlift? Indeed, how else would our country evacuate

atomic-bombed cities in which railroads and bridges were destroyed, except by airlift?

Many veterans of World War II have made air transportation their life work. We have visions of mass air transportation in a new age. We saw millions of people moving by air who had never flown before. We saw a nation's commerce moving by air—freight moving by air—yes, and mail, all first-class mail, moving by air, just as we moved the planeloads of mail in the war zones.

Gentlemen of Congress, take note that it was our consuming interest in military airlift that caused us to go into commercial airlift. Our first convictions were for defense, and out of these convictions grew our interest in expanding the civilian use of air transport into new air coach and cargo markets. Congress voted us priorities to buy surplus transport aircraft. The War Assets Administration in brochures like this [indicating] urged us to buy surplus aircraft, to start our own airlines. The Government, we thought, was welcoming us into the air transportation industry. We started our own airlines. The CAB advised us that until we could get a certificate of public convenience and necessity we were restricted to nonscheduled activity. That seemed fair enough to us, for our concept of efficient air-carrier operation was demand-type service operating with full-load factors. We believed that we could thereby provide the world's lowest cost air transportation service—and we did!

But after the postwar welcome of returning veterans wore thin, a sinister and evil purpose became evident in the attitude of the CAB toward us. Not only must we not quote a schedule, said the Board, but we must be "irregular and infrequent." The nonscheduled carriers considered themselves, almost without exception, as falling into this category. Although we became uneasy at the growing restrictions, there was not much we could do about it anyway. Our life savings were already invested in the industry of our choice—the decision was made—and we had to continue or accept bankruptcy.

In December 1948 came the first rude awakening. An interpretation of "frequency and regularity" was issued by the Board which indicated we were operating illegally even if we operated on the same day of two successive weeks between the same two points. This interpretation occurred after the most violent campaign of abuse that any monopoly has dared to conduct against small-business men in free enterprise in America. The certificated airline industry nurtured and subsidized by the United States Government screamed out the propaganda that the veteran air coach lines were stealing the cream of their business.

At the request of Chairman Beckworth, I answered this false charge in detail earlier this year before your committee, and the detailed answer is to be found on pages 195–198 of the committee record. Suffice it to say at this point that our counter-contention, that we were tapping a vast new market in air transportation, the 90 percent of the public that had never before flown, has been completely vindicated by history. An impartial survey made by the Census Bureau at the request of the CAB proved that over 70 percent of our passengers would not have gone by air at all unless the low rates of the independents were available. But the most decisive answer to the certificated airlines' propaganda campaign of 1948 was made by their actions in 1949. In a very undignified manner, they practically fell all over themselves to establish coach services of their own to tap this new market.

The certificated airline monopoly with head already deep in the public trough, cried for and received from the CAB large increases in mail pay. In my detailed study presented to you in the hearings on H. R. 2908, I gave you the evidence that the subsidy element of mail pay is not 30 to 60 million dollars as contended by former CAB chairman O'Connell, but over 100 million dollars. The monopoly and its echo at the chair of the Civil Aeronautics Board acted to stall and defeat this important reform through H. R. 331. The Aircoach Transport Association is grateful to your committee for rejecting H. R. 331. We urge you to proceed with all speed to enact H. R. 2908.

In line with the demands of prominent members of the industry monopoly, the Board acted to liquidate the small-business competitors of the monopoly. After withdrawing the blanket exemption from large irregular carriers in December 1949, the Board followed up on May 25, 1950, with an opinion designed to wipe out practically every large irregular air carrier in the United States. In this opinion, the Board took note of the fact that in the last half of 1949, the independent aircoach carriers made 5,343 flights between the seven major cities, New York, Miami, Chicago, Los Angeles, Detroit, San Francisco, and San Juan, P. R. The nonsubsidized independent small businesses in air transportation that

are listed at the beginning of this statement are to be eliminated by an arbitrary order prohibiting more than three flights between any two of these points for any one carrier in any 4-week period.

I say flatly, that the purpose of this move of the CAB made at the instigation of the subsidized air-transportation monopoly is to liquidate the businesses of that monopoly's competitors. At least one article in the trade press flatly admitted the purpose and congratulated the Board on their strategy. I have proved by cost records presented in a letter to the CAB which was placed in the record of the Senate Interstate and Foreign Commerce Committee's Investigation of the Airline Industry, that most of our businesses cannot continue to exist on even eight trips in 4 weeks. The poor utilization of equipment would destroy us. The order is not one of regulation but one of liquidation.

With our backs to the wall, and with the enemy drawing blood, this is no time not to call a spade a spade. The Aircoach Transport Association must unleash a legislative counteroffensive or die. With our death all hope of challenging and defeating the monopoly that is preventing the establishment of an expanded civil airlift for national defense will be gone. Our blood has been drawn before. But when the air-transportation monopoly acts to prevent the establishment of a national airlift reserve because of the unpredictable competition involved, then this monopoly is drawing not only the lifeblood of our businesses but the blood of soldiers on the battlefield.

As our Government calls its reserves we find that about 90 percent of the crews and the key management personnel of the Aircraft Transport Association are veterans and most of these are members of the Organized Reserves. Our planes and our crews have already been called upon to transport loads of high-explosive rockets and tank parts to the west coast, where other nonscheduled overseas lines have transported them to the war areas. Yet the position of the CAB even now is that we have established our businesses illegally, that we have bootlegged our industry into a position where it is available for national defense.

I, personally, must drop the nonscheduled airlift mobilization planning activity that I am engaged in at the request of the Pentagon, to proceed to Seattle, the 28th of this month, in order to fight CAB prosecution for so-called frequency and regularity in my company's operations to Alaska. This in the face of wires and letters from the people of Alaska requesting the retention of our service. The little men in the CAB are even today more interested in protecting monopoly than they are in advancing the national defense. This is contrary to their oath of office to support the policy outlined in section 11 of the Civil Aeronautics Act of 1938.

When I use the word "monopoly," I mean just that. Most of the shortages of World War II can be traced to monopolies. Just so, the airlift shortage of the Korean campaign can be laid at the door of airline monopoly, that has been the prime influence preventing an adequate airlift preparedness program.

The following are some of the antitrust charges which our company and others have placed against 30 scheduled airlines in the Air Transport Association. Our case is being appealed from the decision of the lower court that we should apply to the CAB for redress. We have appealed on the grounds that the Board cannot grant the damages asked for as relief. The charges against the monopoly are as follows:

(*a*) Circulation and publication of false and misleading statements and advertisements and news releases, and stories discrediting and disparaging the irregular or nonscheduled air carriers for the purpose of destroying public confidence in same and diminishing the demand of the public for nonscheduled air carriers.

(*b*) Obtaining preferential discounts and treatment from gasoline and oil companies not accorded to nonscheduled airlines.

(*c*) Coercing and discouraging ticket agencies in refusing to act for nonscheduled air carriers in the matter of making sales and distribution of tickets, charters, and contracts on their behalf.

(*d*) In engaging in cut-price competition or similar form of competition carried on at an operating loss to one or more of the defendants and until one or more of the nonscheduled air carriers has been eliminated from competition in certain area or areas, and then reimbursing or compensating themselves from other operations conducted by such defendant scheduled air carriers.

(*e*) Causing refusal and delay of vital maintenance and other service to nonscheduled air carriers at various airports.

Charges against the CAB as regards discrimination against nonscheduled air carriers in violation of the Civil Aeronautics Act of 1938 may be found on page

200 of your committee's record of hearings on H. R. 2008. The occasion was the formal petition to the Board asking for permission to transport the mails to Anchorage and Fairbanks, Alaska, for a dollar per year: "The contention is that the proposed service is entirely in the public interest, saves the taxpayers millions of dollars, and relieves the Board of supporting economically unjustified certificated carriers by providing alternative service at negligible cost. In addition, the mandatory provisions of section II of the act are served. The Authority shall consider * * * as being in the public interest * * * the promotion of adequate, economical, and efficient service by air carriers at reasonable charges without unjust discriminations, undue preferences or advantages or unfair or destructive competitive practices."

"The large irregular air carriers have promoted and are performing adequate, economical, and efficient service at reasonable charges. However, in order to prevent the unjust discriminations, undue preferences and advantages and unfair and destructive competitive practices applied by or approved by the Board from driving the applicants out of business entirely, it requested that this petition be approved.

"It is believed that the unjust discriminations against large irregular carriers center around the Board's failure to act on certificate applications, failure to act on individual exemption applications, withdrawal of blanket exemptions, issuance of regulations and interpretations thereof disastrously limiting frequency of flights to a degree precluding efficient operations of large transport aircraft.

"The contentions further are that undue preferences and advantages accorded certificated competitors are authorization of unlimited flights, permission for added flights, and permission for unlimited off-route flights during a maritime strike when a petition for similar authority for large irregular air carriers during the same emergency was denied, and the granting of air-mail pay awards sufficient to assure purchases of equipment and the making of a profit regardless of inefficiencies, overscheduling, and quotation of rates below cost."

The Postmaster General has agreed with these charges against the CAB in the following words: "When the losses incurred by the certificated lines are eradicated with mail pay, the nonscheduled air carriers, in effect, are put into direct competition with the Government. That this kind of competition cannot be met by small independent entrepreneurs is axiomatic. Holders of certificates are protected in setting rates and fares which in reality retard and hinder the development of civil aeronautics."

But let us tie down for you the reasons why this CAB-Air Transport Association monopoly of which we speak affects your choice between H. R. 8536 and H. R. 448.

Why does not the monopoly support H. R. 448, the airlift bill? I shall tell you why. The monopoly has controlled America's air transportation, not just because of exclusive control over routes and over mail pay awards, but by their control over the aircraft equipment necessary to air transportation.

How does a typical certificated airline get its equipment? Let's take the case of Northwest Airlines and the Stratocruisers. Northwest Airlines wants the 10 new Stratocruisers. The cost is $15,000,000. Northwest goes to the RFC, says, "I want $15,000,000 with which to buy airplanes." The RFC says, "Go to the CAB. If the CAB certifies that they will pay back the $15,000,000 to the RFC out of mail pay, then we will grant you the loan." The CAB does certify, the RFC guarantees the loan, and lo and behold, Northwest Airlines has the newest and latest equipment.

On the other hand, supposing a nonscheduled air carrier would like to purchase on time at some future date one of the high speed supertransports, the manufacture of which is supposedly to be encouraged by H. R. 8536. In the first place, the nonscheduled air carrier would not want that type of plane because of the high cost of operation for his second-class passenger service. The new equipment he would ask for would be equipment with low wing loading and high pay load capacity so as to carry the maximum number of people at the lowest price.

But if the carrier did want one of the aircraft supposedly produced as a result of passage of H. R. 8536, he goes to his banker. His banker would refuse to have anything to do with a loan for a nonscheduled airline, pointing out that the CAB was going to run the nonscheds out of business within a year anyway. He would then go to the RFC and say, "I want a small business loan with which to buy new equipment. My war-surplus equipment is becoming obsolete and I wish to replace with new." The RFC would pay no attention to the fact that the company had a record of earnings behind it. The RFC would ask, "Will the

CAB certify that they will pay for these planes out of air mail pay if you can't pay for them?" Of course, you know the answer. H. R. 8536 follows the monopoly line and controls all new equipment, preventing it from getting into the hands of the energetic nonscheduled competitors.

On the other hand, what happens under H. R. 448? When a nonsubsidized airline operator wants to reequip with latest type equipment, he applies to the Government Corporation under the Department of Commerce, and says, "I want to lease one of those aircraft which have been developed by the Corporation and which are able to transport passengers and cargo at 10 cents per ton-mile." The Corporation management looks at the balance sheet and profit and loss statement of the company in question. It shows a profit without benefit of air-mail subsidy. The Corporation officer says, "Certainly, we will lease you an aircraft at such and such a price. However, you understand that if you are unable at any time to make the lease payments, we must repossess the aircraft." A deal is completed and the operator starts paying for the aircraft as he uses it.

Because of the commercial-military specifications that went into its building, the operator finds that the aircraft has four engines, that it has a low wing loading, flies 250–300 miles per hour, has a range of 3,000 miles. It has heavy cargo floors, strong enough for all military purposes. The cargo door is amply large. Special facilities are found aboard for rapid loading and unloading of the aircraft, which is a must for concentrated military airlifts into a single airport or small area. The aircraft has a safe low landing speed capable of landing at short emergency fields in war zones. The aircraft, however, is designed to carry more than its own weight in useful load; it will probably be designed so that the fuselage instead of being useless weight, will be a part of the wing or constructed as an airfoil. While it won't be a flying wing, because control difficulties have not yet been worked out on this semiexperimental aircraft, it will do away with the long narrow fuselage which usually breaks up in a crash, but which certificated airlines demand of manufacturers just because the traveling public is used to that type of aircraft.

The representative of the corporation is not afraid that the carrier will be driven out of business by CAB action, for the Congress in order to assure that the aircraft would be used after being produced, adopted an amendment to the Civil Aeronautics Act of 1938, which made mandatory the issuance of certificates to nonsubsidized carriers operating a demand-type aircoach or cargo service. As long as the carrier operated within the second-class type of air carriage authorized, he would not get into trouble with the Board. That meant that the demand-type coach carrier could not offer service in 500–600 mile an hour jet plushed aircraft, at the prices of first-class service. He must confine himself to a second-class service of 250–300 miles per hour. He must employ high density seating with high load factors for low cost domestic and international service. The civil airlift of the United States would be expanded fivefold. Transcontinental fares of $50 would be common in demand-type aircoach service. Also, workingmen's vacations would be available by international aircoach to Europe, South America, to the Far East.

Yes, for fares of a couple of hundred dollars and less each way, international aircoach travel would be available. Of course, this would be because the far-seeing Congress in 1950 had reversed the decision of the CAB which prevented any but certificated subsidized scheduled-type carriers from carrying passengers internationally. The mandatory certification of demand-type aircoach and cargo carriers would put them into position to operate internationally. Huge cargoes as well as great numbers of passengers will be flying the trade-routes of the world.

But more important, hundreds of millions of dollars of defense funds, perhaps billions, will have been saved because the civil air fleet will have been able on 24 hours' notice to throw an airlift into any threatened area of the world. Fewer garrison troops would be stationed in foreign areas because the military would be confident of their ability to immediately reinforce any threatened area from the United States proper.

We have formally requested of the House Judiciary Committee, a Nation-wide investigation of the airline monopoly. We have asked foes of monopoly in the United States Senate to wage such an investigation. But we have no time to wait for the results of congressional investigations, nor the outcome of antitrust suits which will total over $10,000,000 in demands for damages.

Suffice it to say at this point we will ask an investigation into the diversion of air mail funds to support below-cost operations of certificated carriers aimed at driving nonsubsidized competitors from the field. We will ask an investigation

into why the certification case of Central Airlines of Oklahoma City, a feeder line, was organized by a former secretary to a Board member, why that company was considered fit, willing, and able to conduct a service without operating experience or sufficient capital, why it was permitted to use single-engined equipment after failing to get DC-3's when other feeder lines were denied certificates because of single engine equipment.

More important, we will ask why Central Airlines was paid $45,157 in mail pay for the month of January 1950 when it could produce only $2,069 of passenger revenue? This is no investigation so I don't propose to discuss the matter further here. Neither do I attempt to draw any conclusions for you. But we will certainly demand answers of an investigating committee because that same Board that authorized the 95-percent subsidized operation of Central Airlines is authorizing use of mail pay funds to drive nonsubsidized operators out of business.

We will ask why "expenses" of up to seven figures are charged off as expenses in determining allowable air mail pay for below-cost freight operations when the so-called expenses are paid out to certain freight forwarding companies as commissions for generation of freight that actually rolled into the carriers' freight depots with no freight forwarders' services at all. We will ask why huge equipment expenditures are written off as expense within as few as 4 years so that losses will be shown for the purpose of collecting mail pay. We believe that practices that amount to outright fraud upon the American taxpayer, can be shown. But we do not have time now for all of this. We are calling upon you members of the Transportation Subcommittee of the House Interstate Committee to wrest the control of legislative action away from the monopoly and away from CAB influence.

It is disgusting to see a hired certificated airline lobbyist, Mr. John Sullivan, for a fee of $30,000, almost destroy the reform measure, H. R. 2908, by backing the "stall-off" measure H. R. 331. This in spite of H. R. 2908's almost universal support outside of the monopoly. It was indeed revolting to see a Chairman of the Civil Aeronautics Board, whose job was to protect the public, sponsor a substitute bill which would have cut the heart out of separation. And, now, gentlemen, it is equally revolting to see the monopoly's own bill, H. R. 9305, introduced in opposition to H. R. 2908. This is not the first time that Robert Ramspeck has used the device of a substitute bill to sabotage a reform measure for the monopoly. You all remember the air parcel post bill. The nonsubsidized freight carriers thought that the bill would allow them to serve the Nation with low-cost package service at a charge of only 5 cents per ton-mile more than their regular tariff rates. This would boom parcel-post service and put many more aircraft into our civil airlift. To their great surprise the monopoly's messenger boy had a substitute bill introduced which cut out the cargo lines from participation, provided for pay to the certificated carriers at the same rate as for air mail, and established an unduly high-cost parcel post service for post office patrons. That bill, of course, is now law. We urge you, therefore, this time, to reject the Ramspeck bill, H. R. 9305, and pass the reform bill, the true separation bill, H. R. 2908. How can it be expected that the monopoly beneficiaries of the present subsidy system will come forward with anything more than a cunning attempt to abort the reform?

When Civil Aeronautics Board Member Jones appeared before you some days ago he favored H. R. 8536 because it prevented "Government interference" with the manufacturers in the design of aircraft. If we do not have such "Government interference" with the control of monopolies and bureaucrats by the elected representatives of the people then Congress will have abdicated and its policy making functions will have been taken over by a monopoly-CAB combination directing the manufacturers. The manufacturers are certainly willing to build transport aircraft as the military wants them. It is only the airline monopoly that is demanding no interference with the designs that they work out with the manufacturers—designs that are useless for military purposes.

Gentlemen, under H. R. 8536, the monopoly is asking for profits instead of airlift, a monopoly of equipment for a restricted passenger market instead of air transportation for everyone and an adequate national airlift. Such selfishness cannot and will not be tolerated in a war emergency.

I made a promise to a plane load of airborne parachute troops after I dropped them to their deaths at Depienne. I promised them that I would fight for an adequate airlift for future wars. I feel that I and the country have failed them by neglecting to have an airlift ready for the Korean emergency. I had the same kind of guilty feeling that most Americans had when they read in their news-

papers that the sons of the world's richest country were being beaten by superior equipment because we could not get our modern equipment to the front soon enough. If we must form battle lines here in Congress, if we must take on the most powerful lobby on Capitol Hill in order to accomplish the purpose, if we must have the battle for airlift before entering the battles of world war III, then let the battle begin. For regardless of how short the tempers, and how angry the words, it will be less bloody here than on the battlefields. We veterans of World War II do not intend to man an inadequate airlift for another war while a CAB-monopoly combination sits at home drawing subsidized profits and eliminating our nonsubsidized businesses. Yes, we prefer to draw the battle lines, now.

My special interest in military air logistics brought me to the attention of Gen. Carl A. Spaatz in the last war and I became his personal pilot and liaison officer with Troop Carrier Command. In a letter written to him in November 1946, I advised him that I was going to organize an airline which would operate to Alaska and across the Aleutian Chain to the Orient. I further predicted that this would be a most important aerial route in our next military emergency.

While I lay no claim to being an expert on the future of civil and military air transportation equipment development, I would like to point out that in mid-1946, I selected the C–46 aircraft as the surplus aircraft capable of beating the per-ton-mile costs of C–54's and became the first civilian owner of late type C–46–F aircraft. The C–46 is, of course, today the backbone of nonscheduled low-cost air transportation.

For what it is worth, therefore, I make the following prediction as to the design of future equipment for low-cost air transportation. Since the larger the aircraft, the cheaper the per-ton-mile operating costs, the most economical aircraft of the future will be in the 40,000 to 50,000 pound pay load class. This will satisfy the military also. Since it is difficult to find sufficient people wanting to go to the same place at the same time for such a large aircraft, and since the per-ton-mile costs of the larger aircraft will attract new cargo markets, the economical transportation of the future will be in combination passenger-cargo aircraft. This development has already occurred on United States-Alaska routes where both scheduled and nonscheduled lines carry both cargo and passengers in the same load. The principal employment for the large type of aircraft will be found in the international and transcontinental field.

A good question that the committee might ask me is why you should accept our estimate of the situation—what weight should the committee give to the views expressed on behalf of an admitted minority of the air transportation industry? Our answer is that our estimates of the future of the air transportation industry have been historically correct—the estimates of the Air Transport Association, its representatives and its members, have been historically wrong.

The certificated airlines saw a big postwar expansion of passenger transportation—they equipped for luxury-type service. The demand-type independent carriers went after the aircoach traffic with high density seating on converted cargo aircraft. The certificated carriers with the active blessing of the CAB raised rates. We lowered them. The certificated carriers' traffic leveled off in 1946 and 1947—ours increased. Finally, the entire industry followed the nonsubsidized carriers' leadership into coach fares, family fares, first-of-the-week fares—all of which was in the correct direction of lower fares. Even United Airlines, the company which was one of the last hold-outs against aircoach transportation, now discovers to their very real surprise that they can even make more money with DC–6's converted for coach traffic than they can with the first-class traffic.

But now the certificated lines are making the same mistake. They see their competitive position shaken by British and Canadian jet aircraft. We say—let the British have the plush luxury passenger market. The British have always operated their aircraft under the protection of international cartel arrangements and under special agreements with countries involved that either shuts out competition or regulates it at the same price as British transportation. Under such rules the British are bound to win with faster aircraft at the same price.

On the other hand, how long will Canada's projected service from Vancouver to Tokyo, with de Haviland jet Comets at a $750 fare stand up against good old Yankee-type competition with 225-mile-per-hour competition at $250 with a combination passenger-cargo service that fills aircraft and makes for frequent service. Nonscheduled carriers would be providing this service right now except that the Civil Aeronautics Board has prohibited our competition with Pan American.

If you need further proof that the subsidized carriers can see no further than their next grab of the taxpayer's dollar, let me offer three choice pre-Korean quotations:

"At the present time, there is no shortage of aircraft on the airlines of the United States"—part of statement of Robert Ramspeck, executive vice president, Air Transport Association of America, before Senate Commerce Committee, May 9, 1950.

" * * * the Board believes that the provisions (of S. 237—companion to H. R. 448) relating to the establishment of a Government pool of cargo aircraft are unnecessary and undesirable at the present time."—extract from letter from Civil Aeronautics Board, May 24, 1950 to Senate Commerce Committee. Printed hearings on prototype aircraft development, p. 21.

"I do not believe that its passage (S. 3507, similar to H. R. 448) would be beneficial to civil air transportation. I do not believe that its passage would aid the air carriers in making a more valuable or a more direct contribution to the national defense."—C. R. Smith, president, American Airlines.

Would you care to entrust our Nation's air transportation policy to these people? The first party can see no further than the peacetime luxury passenger needs of the air transportation monopoly. The second party is incompetent to perform one of its basic jobs of developing air transportation for national defense. The third party is one who likes to write bombastic articles in Colliers on "What This Country Needs is a Good 3-Cent Airline", while his company attacks the nonsubsidized airlines that are performing air transportation for 3 cents a passenger-mile. His is the company, indeed, that is charged by Slick Airlines, a nonsubsidized veteran air freight line, with conducting large-scale air freight activities below cost at post-office expense in order to drive Slick out of business.

What kind of an air transportation policy would we, the generation of air carrier managements that came out of World War II advocate? With regard to the CAB we would advocate stripping the Board of its tremendous power which is derived from its ability to pay out from the post office appropriation $125,000,000 to $140,000,000 per year as it sees fit without supervision by any elected body. H. R. 2908 will do this. In its aviation development functions the CAB is entirely incompetent and should have these promotional functions transferred to the Secretary of Commerce. If the Secretary of Commerce fails to develop aviation, he can at least be discharged by an elected President who is responsible for the competence of his Cabinet. A Cabinet member is closer also to an understanding of the needs of "the commerce and the national defense."

The CAB could then wrap itself in black robes and perform the quasi-judicial function that it always pleads is its major job whenever you ask it to perform an executive job in the interests of commerce or national defense. We Americans find it distasteful to our traditional form of democracy, anyway, to have one agency performing all of the functions of judge, jury, legislator, paymaster, and policeman, anyway. That is too totalitarian for our American blood. I repeat the statement I made before the Senate Committee on Foreign and Interstate Commerce, May 26, 1949: "The Civil Aeronautics Board is the most formidable obstacle in the way of establishing mass air transportation." But before this can be done, a national airlift can be expedited by a committee appeal to President Truman to fill the O'Connell vacancy with a man pledged to a national airlift and to justice for nonscheduled air carriers. We beg of you to do this.

In the immediate legislative field we advocate forthright passage of H. R. 2908, the true separation of subsidy bill, and the reporting out of H. R. 448 with certain amendments. The bill should be amended to include many of the research and development features of S. 3507, together with the provision for administration by the Secretary of Commerce instead of the Secretary of the Air Force.

The Air Force builds good aircraft, but is seldom concerned over costs. We who are to lease and buy the aircraft are. A bomber converted to cargo, for instance, may be eminently satisfactory to the Air Force, but the high cost of operation and the maintenance nightmare involved make such an aircraft unsatisfactory for expanding our civil airlift. Then, too, the enthusiastic backers of adequate airlift for the Army are found in the Army and not, I am sorry to say, in the Air Force to date. The Korean crisis has pointed out the Air Force's greatest weakness to be in equipment designed for tactical support of the Army and in airlift capable of transporting the Army's heavy equipment. Former Air Secretary Symington placed the need for transports so far behind the need for fighters and bombers that his office would not at any time support civil airlift legislation. We see in Korea that the ground invasion stopping ability of the Air Force is somewhat overrated. The Russians, we know, have concentrated

their air offensive equipment in nircraft designed for ciose tactical support of ground troops. They may be right. The Air Force, therefore, has demanded that no funds for civil airlift be devoted for that purpose from the military budget.

In addition, the bill should have two more important amendments to assure that the aircraft constructed will be absorbed by our civil air commerce. The first would be an amendment to the Civil Aeronautics Act of 1938 which would make it mnndatory upon the CAB to issue certificates to quaiified applicants granting authority to engage in demand-type air coach and cargo operations. Since nonscheduled operators would then be certificated, special authorization may not be required to authorize international carriage of passengers. However, if required because of State Department policy or regulations concerning operations to foreign countries, then an additional nmendment should clear the way for international operations.

Regardless of whether or not you see fit to observe any of our recommendations, however, this presentation is intended to serve notice upon the Air Transport Association that their day of undisputed domination of the national air transportntion legisiative policy is over. For the Aircoach Transport Association and the new generation of air carrier management is here to stay.

Mr. Heacock. Mr. Chairman and members of the committee, you have heard the advocates of H. R. 8536 present their case. Practically ignored, the much more compreliensive bill H. R. 448 has received little comment. Let us examine the two bills.

H. R. 8536 provides for type certificate testing and service testing of turbojet and turboprop transports. The bill is extremely limited in scope.

Now I have been asked to high light this statement so as to not consume too much time, so I will leave the text here.

I would like to say, first of all, that H. R. 8536 is special-interest legislation. It provides only that the certificated airlines will be able to take the Convair Transport and a few others that are already in production, hang turboprop engines on them, and make a small attempt to catch up with the British in their attainment of jet transport production.

Now, I have gone on to say in my experience in the air lift of the last war, 6 years' experience with the Troop Carrier Command and the Air Transport Command, we found that airlifts saved lives. Airlifts were something that prevented needless sacrifices. I give a few instances, such as where one group of troops were dropped at Souk El Arba; they moved up within a few miles of Biserta, holding lines which, if they had had to be taken later, would have cost hundreds, perhaps thousands, of lives.

As an example of an inadequate airlift, a similar drop was made near Tunis, and because the equipment was inadequate, the quantity inadequate, we were not able to do the job. The troops were wiped out and the airlift of the enemy operating into Tunis reinforced the city so that we finally had to dig the Germans out of there with bayonets at the cost of thousands of lives.

The importance of an airlift is that it gets men and equipment to critical spots in a hurry. That is what we have learned from the Korean crisis—that a whole campaign may depend upon getting the equipment there in a hurry.

I want to say that we have made the charges in this presentation that the Air Transport Association and the airlines affiliated with it have constituted in effect a monopoly. This monopoly has maintained itself so well through air-mail funds that at the present time it is practically almost impossible to break through with new ideas and new developments in air transportation.

It affects this bill in this way: We find mobilized against important airlift bills the strength of the Air Transport Association, for this reason—that during the last war planes were produced and were put into the hands of veterans and veteran companies outside that monopoly. In a very short period of time such new markets were developed as aircoach, which swept the country in 1948 and 1949, until it is almost universal now. The new air carriers demanded high density seating and lower fares at the same time that members of the Air Transport Association and the CAB were asking for and did get a 10-percent increase in fares.

The result was a very unprofitable year for the scheduled airlines. However, under the impact of our small segment of the air transportation industry that introduced lower fares, the industry was led toward the 90 percent of the transportation market previously untouched.

We believe that still more and better aircraft made available to others than those presently certificated carriers will expand the civil airlift potential over five times.

Now, I say that not from the point of view of a theorist but from the point of view of an industry that has put its own money into development and has proved on several occasions that it was right. The independents proved it in the development of the air-freight market which was finally entered into by the certificated lines. We proved it by the development of the aircoach market, the combination cargo-passenger market, and so forth.

Why does not the monopoly support H. R. 448, the airlift bill? I will tell you why.

Mr. DOLLIVER. Whom do you mean by the monopolies? Are they the Air Transport Association?

Mr. HEACOCK. I refer to the certificated airline group. I shall tell you why.

The monopoly has controlled America's air transportation not just because of its exclusive control of routes and mail-pay awards, but by their control over the aircraft equipment necessary to air transportation.

How does a typical certificated airline gets its equipment? Let us take the case of Northwest Airlines and the Stratocruisers. Northwest Airlines wants 10 new Stratocruisers. The cost is $15,000,000. Northwest goes to the RFC and says, "I want $15,000,000 with which to buy airplanes." The RFC says, "Go to the CAB. If the CAB certifies that they will pay back the $15,000,000 to the RFC out of the mail pay, then we will grant you the loan." The CAB does certify, the RFC guarantees the loan, and lo and behold, Northwest Airlines has the newest and latest equipment.

Mr. HESELTON. Do you offer that as an example, or as an actual case?

Mr. HEACOCK. That is an actual instance. It is another example of how it is that the equipment for the purpose of engaging in the air transportation industry is controlled by the certificated airline industry through the means of mail pay which is an advantage a nonsubsidized carrier cannot meet. He cannot get his airplanes.

On the other hand, supposing a nonscheduled air carrier would like to purchase on time at some future date one of the high-speed supertransports, the manufacture of which is supposedly to be encour-

aged by H. R. 8536. In the first place, the nonscheduled air carrier would not want that type of plane because of the high cost of operation for his second-class passenger service. The new equipment he would ask for would be equipment with low wing loading and high pay-load capacity so as to carry the maximum number of people at the lowest price.

But if the carrier did want one of the aircraft supposedly produced as a result of passage of H. R. 8536, he goes to his banker. His banker would refuse to have anything to do with a loan for a nonscheduled airline, pointing out that the CAB was going to run the nonscheds out of business within a year, anyway. He would then go to the RFC and say, "I want a small business loan with which to buy new equipment. My war-surplus equipment is becoming obsolete, and I wish to replace with new." The RFC would pay no attention to the fact that the company had a record of earnings behind it. The RFC would ask, "Will the CAB certify that they will pay for these planes out of air-mail pay if you can't pay for them?" Of course, you know the answer. H. R. 8536 follows the monopoly line and controls all new equipment, preventing it from getting into the hands of the energetic nonscheduled competitors.

On the other hand, what happens under H. R. 448? When a nonscheduled airline operator wants to reequip with latest-type equipment, he applies to the Government Corporation under the Department of Commerce and says, "I want to lease one of those aircraft which have been developed by the Corporation and which are able to transport passengers and cargo at 10 cents per ton-mile." The Corporation management looks at the balance sheet and profit-and-loss statement of the company in question. It shows a profit without benefit of air-mail subsidy. The Corporation officer says, "Certainly, we will lease you an aircraft at such and such a price. However, you understand that if you are unable at any time to make the lease payments, we must repossess the aircraft." A deal is completed and the operator starts paying for the aircraft as he uses it.

Because of the commercial-military specifications that went into its building, the operator finds that the aircraft has four engines, that it has a low wing loading, flies 250 to 300 miles per hour, has a range of 3,000 miles.

All of these are military specifications.

It has heavy-cargo floors, strong enough for all military purposes. The cargo door is amply large. Special facilities are found aboard for rapid loading and unloading of the aircraft, which is a must for concentrated military airlifts into a single airport or small area. The aircraft has a safe low-landing speed capable of landing at short emergency fields in war zones. The aircraft, however, is designed to carry more than its own weight in useful load; it will probably be designed so that the fuselage instead of being useless weight, will be a part of the wing or constructed as an airfoil. While it won't be a flying wing, because control difficulties have not yet been worked out on this semiexperimental aircraft, it will do away with the long, narrow fuselage which usually breaks up in a crash, but which certificated airlines demand of manufacturers just because the traveling public is used to that type of aircraft.

The demand-type coach carried would be able to offer fares as low as $50 transcontinentally, and would be able to offer fares across the Atlantic or the Pacific as low as $250.

Yes, for fares of $200 and less each way, international aircoach travel would be available. This would be because the farseeing Congress of 1950 had reversed the decision of the CAB, which prevented any but certificated subsidized scheduled type carriers from carrying passengers internationally. The mandatory certification of demand-type aircoach and cargo carriers would put them in a position to operate internationally. Huge cargoes as well as great numbers of passengers will be flying the trade routes of the world.

But more important, hundreds of millions of dollars of defense funds, perhaps billions, will have been saved because the civil air fleet will have been able on 24 hours' notice to throw an airlift into any threatened area of the world. Fewer garrison troops would be stationed in foreign areas because the military would be confident of their ability to immediately reinforce any threatened area from the United States proper.

I point out that we have formally requested of the House Judiciary Committee a Nation-wide investigation of the airline monopoly. Also, I have gone on to say that we have entered several antitrust suits which will soon total over $100,000,000 in demands for damages against the scheduled airlines.

Mr. DOLLIVER. What is the present status of those suits?

Mr. HEACOCK. The present status of the first suit is that the lower court referred it to the CAB, asking us to exhaust our remedies before the CAB. We consider the CAB so thoroughly influenced by the scheduled airlines that we prefer to appeal it on the basis that the CAB has no authority to grant money damages, and therefore we demand to put our case before the court instead of the CAB.

Mr. DOLLIVER. Where is that case pending?

Mr. HEACOCK. It is pending in the District of Columbia. It was filed in the District of Columbia for a small airline called S. S. W., Inc. It is the case of S. S. W. versus the Air Transport Association and 30 scheduled airlines.

Mr. DOLLIVER. Has the decision that you refer to been appealed?

Mr. HEACOCK. Yes; it has been appealed.

There will probably be several more antitrust suits. Slick Airlines has a $30,000,000 antitrust suit against American Airlines and others in which they charge that American Airlines with costs of about 38 cents per ton-mile, is providing transportation at about 16 cents per ton-mile in order to drive Slick out of business, the difference being made up out of their mail-pay subsidy.

Mr. DOLLIVER. The first suit that you referred to is in the nature of a test for the other proposed litigation, or have the other suits actually been brought?

Mr. HEACOCK. It is in the nature of a test for some of these others that will be filed in the future.

Mr. DOLLIVER. Is the Slick suit against the American Airlines?

Mr. HEACOCK. Yes.

Mr. DOLLIVER. Is that here also, or down in the Southwest?

Mr. HEACOCK. I do not recall where Slick Airlines filed suit.

Now it is disgusting to see a hired certificated airline lobbyist, Mr. John Sullivan, for a fee of $30,000, almost destroy the reform mea-

sure, H. R. 2908, by backing the stall-off measure H. R. 331. This in spite of H. R. 2908's almost universal support outside of the monopoly. It was indeed revolting to see a Chairman of the Civil Aeronautics Board, whose job was to protect the public, sponsor a substitute bill which would have cut the heart out of separation. And, now, gentlemen, it is equally revolting to see the monopoly's own bill, H. R. 9305, introduced in opposition to H. R. 2908. This is not the first time that Robert Ramspeck has used the device of a substitute bill to sabotage a reform measure for the monopoly. You all remember the air-parcel-post bill. The nonsubsidized freight carriers thought that the bill would allow them to serve the Nation with low-cost package service at a charge of only 5 cents per ton-mile more than their regular tariff rates. This would boom parcel-post service and put many more aircraft into our civil airlift. To their great surprise the monopoly's messenger boy had a substitute bill introduced which cut out the cargo lines from participation, provided for pay to the certificated carriers at the same rate as for air mail, and established an unduly high-cost parcel-post service for post office patrons. The bill, of course, is now law. We urge you, therefore, this time to reject the Ramspeck bill, H. R. 9305, and pass the reform bill, the true separation bill, H. R. 2908. How can it be expected that the monopoly beneficiaries of the present subsidy system will come forward with anything more than a cunning attempt to abort the reform?

If you need further proof that the subsidized carriers can see no further than their next grab of the taxpayer's dollar, let me offer three choice pre-Korean quotations:

At the present time, there is no shortage of aircraft on the airlines of the United States. (Part of statement of Robert Ramspeck, executive vice president, Air Transport Association of America, before Senate Commerce Committee, May 9, 1950.)

Allow me to point out the military now does not know where they will get the airlift for the Atlantic if they have that in addition to the Pacific airlift.

* * * the Board believes that the provisions (of S. 237, companion to H. R. 448) relating to the establishment of a Government pool of cargo aircraft are unnecessary and undesirable at the present time. (Extract from letter from Civil Aeronautics Board, May 24, 1950, to Senate Commerce Committee. Printed hearings on Prototype Aircraft Development, p. 21.)

I do not believe that its passage (S. 3507, similar to H. R. 448) would be beneficial to civil air transportation. I do not believe that its passage would aid the air carriers in making a more valuable or a more direct contribution to the national defense. (C. R. Smith, president, American Airlines.)

Would you care to entrust our Nation's air-transportation policy to these people? The first party can see no further than the peacetime luxury passenger needs of the air-transportation monopoly. The second party is incompetent to perform one of its basic jobs of developing air transportation for national defense. The third party is one who likes to write bombastic articles in Collier's entitled "What This Country Needs Is a Good 3-Cent Airline" while his company attacks the nonsubsidized airlines that are performing air transportation for 3 cents a passenger-mile. His is the company, indeed, that is charged by Slick Airlines, a nonsubsidized veteran air-freight line, with conducting large-scale air-freight activitles below cost at post-office expense in order to drive Slick out of business.

What kind of an air-transportation policy would we, the generation of air-carrier managements that came out of World War II, advocate? With regard to the CAB, we would advocate stripping the Board of its tremendous power which is derived from its ability to pay out from the post-office appropriation $125,000,000 to $140,000,000 per year as it sees fit without supervision by any elected body. H. R. 2908 will do this. In its aviation-development functions the CAB is entirely incompetent aid should have these promotional functions transferred to the Secretary of Commerce. If the Secretary of Commerce fails to develop aviation, he can at least be discharged by an elected President who is responsible for the competence of his Cabinet. A Cabinet member is closer also to an understanding of the needs of the commerce and the national defense.

The CAB could then wrap itself in black robes and perform the quasi-judicial function that it always pleads is its major job whenever you ask it to perform an executive job in the interests of commerce or national defense. We Americans find it distasteful to our traditional form of democracy, anyway, to have one agency performing all of the functions of judge, jury, legislator, paymaster, and policeman. That is too totalitarian for our American blood. I repeat the statement I made before the Senate Committee on Foreign and Interstate Commerce, May 26, 1949: "The Civil Aeronautics Board is the most formidable obstacle in the way of establishing mass air transportation." But, before this can be done, a national airlift can be expedited by a committee appeal to President Truman to fill the O'Connell vacancy with a man pledged to a national airlift and to justice for nonscheduled carriers. We beg of you to do this.

In the immediate legislative field we advocate forthright passage of H. R. 2908, the true separation-of-subsidy bill, and the reporting out of H. R. 448 with certain amendments. The bill should be amended to include many of the research and development features of S. 3507, together with the provision for administration by the Secretary of Commerce instead of the Secretary of the Air Force.

The Air Force builds good aircraft, but it seldom is concerned over costs. We who are to lease and buy the aircraft are. A bomber converted to cargo, for instance, may be eminently satisfactory to the Air Force, but the high cost of operation and the maintenance nightmare involved make such an aircraft unsatisfactory for expanding our civil airlift. Then, too, the enthusiastic backers of adequate airlift for the Army are found in the Army and not, I am sorry to say, in the Air Force to date.

The Korean crisis has pointed out the Air Force's greatest weakness to be in equipment designed for tactical support of the Army and in airlift capable of transporting the Army's heavy equipment. Former Air Secretary Symington placed the need for transports so far behind the need for fighters and bombers that his office would not at any time support civil-airlift legislation. We see in Korea that the ground invasion-stopping ability of the Air Force is somewhat overrated. The Russians, we know, have concentrated their air-offensive equipment in aircraft designed for close tactical support of ground troops. They may be right. The Air Force, therefore, has demanded that no funds for civil airlift be devoted for that purpose from the military budget.

In addition, the bill should have two more important amendments to assure that the aircraft constructed will be absorbed by our civil-air commerce. The first would be an amendment to the Civil Aeronautics Act of 1938 which would make it mandatory upon the CAB to issue certificates to qualified applicants granting authority to engage in demand-type air-coach and cargo operations. Since nonscheduled operators would then be certificated, special authorization may not be required to authorize international carriage of passengers. However, if required because of State Department policy or regulations concerning operations to foreign countries, then an additional amendment should clear the way for international operations.

Regardless of whether or not you see fit to observe any of our recommendations, however, this presentation is intended to serve notice upon the Air Transport Association that their day of undisputed domination of the national air-transportation legislative policy is over, for the Aircoach Transport Association and the new generation of air-carrier management is here to stay.

Mr. DOLLIVER. Mr. Chairman, I would like to ask the witness to develop one or two ideas that he has expressed here which appear to me to be worthy of expansion.

On the bottom of page 11 you make this statement:

> I repeat the statement that I made before the Senate Committee on Foreign and Interstate Commerce, May 26, 1949:
> "The Civil Aeronautics Board is the most formidable obstacle in the way of establishing mass air transportation."

Now, do you object to the personnel of the CAB, or to the legislation that inaugurated or set up the CAB? Please elaborate on that. I would like to explore your mind in that respect.

Mr. HEACOCK. Yes; I would like to make myself clear on that. It is not the legislation. A careful examination of the Civil Aeronautics Act of 1938 shows that it is a reform bill. The CAB is charged with developing economical transportation, to prevent discrimination between air carriers, and so forth; but, in effect, we have found the CAB has become interested in perpetuating the status quo as regards the airline companies that are involved in air transportation. Furthermore, the CAB has at all times attacked expansion—expansion by, let us say, carriers that provide price competition. The only competition that the CAB provides is carriers operating along the same route at the same tariff prices.

Now, that does not develop air transportation. We have seen during the years 1948 and 1949 a movement toward aircoach transportation in which a whole new market was developed, but that movement was developed entirely against the opposition of the CAB. It was introduced by carriers that were declared by the CAB to be illegal in the first place. It was carried forward under the protests of the CAB, and even today the CAB is putting the brakes on aircoach-type transportation and has a provision which will wipe out every noncertificated coach line of the nonsubsidized carriers in a very short time. That is a ruling which declares that any movement in excess of three trips per week between any of the seven major traffic points in the United States by any air carrier will cause that air carrier to be declared illegal under the frequency and regularity provisions.

Mr. HESELTON. You mean noncertificated?

Mr. HEACOCK. That is right—noncertificated and nonsubsidized.

Mr. DOLLIVER. I take it, then—and I do not want to be misunderstood in trying to misquote you—that you are not objecting to the basic law but are objecting to the way it is administered; is that correct?

Mr. HEACOCK. That is correct.

Mr. DOLLIVER. Do you make a distinction between the noncertificated carriers and the nonscheduled carriers, or are those identical?

Mr. HEACOCK. Those are considered to be the same; yes.

Mr. DOLLIVER. The same. So, when you use the words "noncertificated" or "nonscheduled," you mean the same thing?

Mr. HEACOCK. That is correct.

Mr. DOLLIVER. I take it that you are here—and all of these people that you list as representing—representing nonscheduled or noncertificated carriers.

Mr. HEACOCK. That is correct.

Mr. DOLLIVER. Now, the CAB under the law does exercise some degree of control over your group; does it not?

Mr. HEACOCK. Yes.

Mr. DOLLIVER. But you are here in essence complaining that the kind of control they have exercised has hampered your operations very seriously; is that correct?

Mr. HEACOCK. That is correct, and it is even more serious than that. It is now even wiping out our industry.

Mr. DOLLIVER. Develop that a little.

Mr. HEACOCK. I will develop that statement. I showed the Board, in connection with my appearance before the Senate committee, that in operating large transport aircraft it is impossible to cut your operations down to so few trips without running your cost of operation up so high that you run yourself out of business. I gave as an example that during the winter the operations of my company were cut to eight trips a month in Alaska.

Mr. DOLLIVER. What company is that?

Mr. HEACOCK. My company is Air Transport Associates, operating out of Seattle to Anchorage and Fairbanks, Alaska.

I pointed out, while we lost $10,000 a month by cutting our operations down to eight because of the lack of traffic during that period, we made it up during the summer. If we should voluntarily throughout the country cut the operations which the Board said amounted to over 5,000 trips between those seven major traffic points in a 6 months' period, if we cut them down to three trips in any 4 weeks' period, per carrier, it would mean that in effect we would be committing suicide. It is impossible to pay insurance which amounts to $15,000 a year per airplane on an airplane that has to stand by and not make a trip because of CAB orders. You have to have utilization of large transport equipment in order to exist in the business, and that utilization, being cut down by a bureaucratic order, forces the air carriers out of business.

Mr. DOLLIVER. Does your industry, the noncertificated carriers, stand subject to the same controls and safety regulations as the certificated carriers?

Mr. HEACOCK. Yes; they are. As of June 30 of last year, they adopted new regulations which made us come under the same restrictions; in other words, the same safety requirements. We have to

overhaul our engines at 900 hours—have our inspections. We have our pilot requirements, and everything that pertains to safety is the same as for the transport aircraft. I may say that it is a little unfair to compare the safety record of a vast group of poorly organized carriers that existed in the past with the smaller, more compact businesslike group of carriers that exist at the present time.

For example, in the nonscheduled carriers operating to Alaska at this time—those that are left in the operation—in 4 years of operation they have not had a single fatal accident in operating to Alaska, which is a much better record than the scheduled airlines.

For 3 years the transcontinental carriers, nonscheduled, made a perfect safety record.

We do know that there are certain fringes which are rapidly being taken care of by the CAA where operations are not properly conducted, but that is entirely under the safety regulations of the CAA, which have the 100-percent support of the Aircoach Transport Association.

Mr. DOLLIVER. Did I understand that you are objecting to the Board putting you under the same operational safety regulations as the scheduled carriers?

Mr. HEACOCK. No.

Mr. DOLLIVER. You do not object to that?

Mr. HEACOCK. No, sir. The Board's authority exists over the economic field—how much competition we are allowed to permit to carry on with certificated carriers. The other field, the safety-regulations field, administered by the CAA, has found the utmost cooperation between the industry and the CAA.

Mr. DOLLIVER. So, you are not quarreling with that at all?

Mr. HEACOCK. No, sir.

Mr. DOLLIVER. It is simply the economic aspects and the control; that is what you are talking about?

Mr. HEACOCK. Yes.

Mr. HESELTON. Mr. Heacock. There are a few things that I think ought to be available to the committee for the record. Before I ask you for them, I will say this out. I stepped out and perhaps did not hear you read this part of your statement at the bottom of page 11 where you say:

> But before this can be done, a national airlift can be expedited by a committee appeal to President Truman to fill the O'Connell vacancy with a man pledged to a national airlift and to justice for nonscheduled air carriers.

Quite irrespective of the propriety of this committee taking such action and making such a recommendation to the President, I just wonder if you think any such recommendation would get anywhere.

Mr. HEACOCK. Yes. I think it is quite possible that such a recommendation might get somewhere. There has been a tendency to try to indicate before legislative committees such as this that the administration was against any broader bill than the present bill, H. R. 8536. That engendered from the fact that the bill was designed as a special-interest type of bill. If it had been a national-defense bill, there is no reason to suppose that the administration would not support it, because I am very familiar with the case where the Budget Bureau disapproved legislation which was promoted through the efforts of——

Mr. HESELTON. I am not speaking to the propriety of the committee recommending the appointment to fill the O'Connell vacancy.

Mr. HEACOCK. We have our backs against the wall, and our position is that we are either going to go out of business or we are going to have a change in the CAB, or have legislation to assist us.

Mr. HESELTON. You have listed at the beginning of your statement members of your association. I notice that it is called the Aircoach Transport Association. Are there other carriers who are not certificated and who are not members of your association?

Mr. HEACOCK. Yes; there are other carriers. However, the members listed here represent about 90 percent of the passengers and cargo that are carried with the exception of two or three nonscheduled carriers that are so large that they consider themselves an organization in themselves. I am referring to carriers such as Seaboard and Western and Transocean.

Mr. HESELTON. Do you happen to know what their position is with reference to this legislation? Do they share your point of view?

Mr. HEACOCK. I believe they share our point of view. They have taken no official position.

Mr. HESELTON. Have you or could you make available for the record any information as to the number of aircraft, the type of aircraft, and the number of trained pilots and copilots and mechanics that are the employees of your carriers?

Mr. HEACOCK. Yes, I could. That is in the process of being developed for the Military Air Transport Services. We are working daily.

Mr. HESELTON. The information would not involve security, would it?

Mr. HEACOCK. No; it is not a matter of security. It will take a little time. I could not give it to you tomorrow, but it could be presented to the committee.

Mr. HESELTON. May I suggest, Mr. Chairman, that it might be useful to the committee.

Mr. MCGUIRE. Without objection, it will be received by the clerk of the committee.

Mr. HESELTON. And if you could give some indication of the territory served, the number of flights, and so forth, I think that might be helpful in weighing the over-all picture.

Now, I notice at the end of your statement you made a recommendation for two amendments to H. R. 448. Have you that language prepared for consideration?

Mr. HEACOCK. No. We have no language prepared. We could prepare such language and have it properly drawn up.

Mr. HESELTON. I think that would be useful also, Mr. Chairman, if that could be submitted to the clerk so that we could have it before us.

Mr. MCGUIRE. It is so ordered.

Mr. HEACOCK. The principal purpose of the two amendments is this—the purpose of 448 is to produce aircraft for civil airlift. In order to use those aircraft after they are produced—and we say that they will increase the present civil airlift capacity five times—you must in the same bill make it possible for nonscheduled passenger carriers to operate internationally.

Mr. HESELTON. I understand that. I think that it would be helpful to us to have the exact language so that we could discuss it.

(The material was not submitted for the record.)

Mr. HESELTON. Now, one more question: Do I understand that none of your members carry mail?

Mr. HEACOCK. That is correct, sir.

Mr. HESELTON. You are excluded from any mail carrying?

Mr. HEACOCK. We are excluded from carrying mail, and even the certificated cargo carriers are excluded from carrying mail, although they have offered to do it for about a third to a very much smaller fraction of what it is carried for now.

Mr. HESELTON. Is that true where you operate in areas not reached by the certificated air carriers? Do you understand what I mean?

Mr. HEACOCK. No.

Mr. HESELTON. You cannot carry mail even if you are willing to serve an area not presently being served by the scheduled airlines?

Mr. HEACOCK. That is correct; we cannot because a provision of the act asserts that only certificated carriers, or carriers certificated to carry the mail, can transport the mail.

As an example, we have tried to carry mail up to Alaska, which takes sometimes as long as 2 weeks by boat, for a price as low as they will carry it up there by boat, but we cannot under the present law carry it at 15 cents per pound, our filed tariff rates, because the law says that only certificated carriers can carry the mail.

Mr. HESELTON. Then, beyond the enactment of H. R. 2908, or similar legislation, you suggest that the basic law be considered so as to open up that operation to your group or anyone who is capable of carrying the mail?

Mr. HEACOCK. No; that is not our position. We take the position—all right, the certificated airlines have the mail. It may be necessary to subsidize some of them for carrying the mail. That is all right with us. But what we have thoroughly opposed is the use of that air-mail pay to drive our lower cost operations out of business.

Mr. HESELTON. Your passengers and your freight?

Mr. HEACOCK. That is right, our passengers and our freight operations. No scheduled carrier could continue to lose 15 cents to 30 cents per ton-mile carrying freight in competition with a nonsubsidized carrier, for very long, if it were not for the fact of the slipshod method of appropriating air-mail pay which allows him to use that air-mail pay to subsidize his operations to wipe us out of business. H. R. 2908, on the other hand, would make the certificated carriers say, "Well, it costs us so much to carry the freight." If it costs them so much and they cannot show that they are getting revenue to support that operation, we say, "Turn the traffic over to the nonsubsidized carriers."

Mr. HESELTON. Could you conveniently provide some kind of tabulation showing examples of passenger rates and freight rates which your group charges to certain points in contrast to the passenger and freight rates charged by the scheduled airlines?

Mr. HEACOCK. Yes, sir; in my testimony on H. R. 2908 before this committee I gave some charts.

Mr. HESELTON. That is all.

Mr. HALE. Mr. Heacock, I notice on page 8 of your statement, in the fourth paragraph from the bottom, you say:

> The mandatory certification of demand-type air coach and cargo carriers would put them into position to operate internationally.

Will you enlarge on that statement somewhat? It is not very clear to me.

Mr. HEACOCK. The nonscheduled carriers started to operate internationally as well as otherwise. The CAB put out an order that the large irregular carriers were not permitted to carry passengers internationally. So that cut off that traffic entirely. It is possible for us to carry passengers to foreign points at the present time because of the CAB order.

Mr. HALE. You talk about mandatory certification?

Mr. HEACOCK. On mandatory certification; yes.

Mr. HALE. There is not mandatory certification of anybody, is there?

Mr. HEACOCK. No; that is the difficulty.

Mr. HALE. Why do you use the word "mandatory" in that way?

Mr. HEACOCK. Because the CAB has the authority right now to certificate all of these demand-type carriers as demand-type carriers. They would not have to do it; they may not do it. It would be necessary to make it mandatory under a bill such as 448 because otherwise you may be wasting a lot of money building up an air fleet and not have the companies go out and lease these aircraft and use them. That is the idea of it being mandatory, that the CAB may otherwise try to prevent the certification, as they have prevented the certification of every nonscheduled carrier so far, with a few notable exceptions.

Mr. HALE. Of course, you are not suggesting that Congress should pass any enactment that would compel the CAB to certify anybody in particular, are you?

Mr. HEACOCK. No, that was not my thought.

Mr. HALE. Has not the CAB got to have discretion as to whom it is going to certify?

Mr. HEACOCK. That is right. They declare whether or not we are qualified; whether or not we are "fit, willing, and able." However, if they find that a carrier is qualified and does not certificate the carrier because they say—

> We have other certificated carriers, such as Pan American, Northwest, TWA, and so forth, that are presently operating overseas; it is not necessary to certificate these other carriers to allow them to compete—

then we would be in the position where we could not use all the airplanes. But if we could operate internationally, we know we would develop five times the present air transportation capacity.

Mr. HALE. What do you call a demand-type aircoach carrier? What do you mean by that?

Mr. HEACOCK. Demand-type refers to the type of service that we have been operating. It means that instead of operating on a schedule, even though the seats of the aircraft are not filled, that the aircraft will not move unless there are enough passengers or freight for the movement to be made economically. That, in itself, makes for lower costs, as compared to the certificated scheduled type service which moves on a schedule regardless whether there is a load or not, and which has established a national average of having only 54 percent of the seats filled in such scheduled operations. We, on the other hand, develop figures above 80 percent of seats filled.

As a result, the demand-type service operates cheaper and provides a high density aircoach type of service which, because of its lower price, attracts people who travel by bus and by train ordinarily, and who do not ordinarily travel by air.

Mr. HALE. In the demand-type aircoach service you simply keep the aircraft on the ground until you have enough people to fill it and then you take off, is that right?

Mr. HEACOCK. That is right. By the very nature of it, it would probably use an entirely different type of aircraft than the scheduled airline.

Mr. HALE. Under that type of operation, you might make two trips a week or two trips a month?

Mr. HEACOCK. That is right. The public would know that the service was such that it would not operate without a load. It might be that on a transcontinental trip, if persons wanted to go on a certain evening, and they could not go until the next evening because the carrier only had a 50-percent load, they would realize that the delay was necessary for an economical operation.

Mr. HALE. Let me put it this way. Suppose you had an operation of that type between New York and some point in Europe. Let us say that I wanted to visit Europe. I would then have the choice of taking we will say a Pan American plane on Wednesday evening at a cost of so much, or I could book with you and move when you were ready some time that week, at a cost of about half; is that right?

Mr. HEACOCK. That is correct. And if it were international, it would probably be a combination passenger-cargo flight. The reason is that to reach a low cost per ton-mile, the bigger the airplane the better. When you get a big airplane, however, capable of carrying, if it were carrying all passengers, 100 or 150 passengers, then you are going to have some difficulty getting that many to travel to the same point at the same time.

We see the future developing in demand-type air transportation where much of the airplane will be loaded with cargo and a portion will be set aside, a "plushed" portion, for the carrying of passengers. This is because the development of cargo transportation is going forward by leaps and bounds, very much faster than the development of passenger transportation.

Mr. HALE. If I live in Maine, and assuming that I have paid you the fare to carry me to Europe on a modern type aircoach, and I take off from New York, to go to Europe, what do I have to do? Do I have to go to New York and stay at a hotel until you are ready to go, or do I stay in Maine and have you wire me when you are ready to go? How does that work out in practice?

Mr. HEACOCK. It usually does not work out with as much difficulty as it sounds, actually.

Mr. HALE. I am very much interested in cheaper air travel to Europe.

Mr. HEACOCK. That is right. You would be booked on a certain flight. It may turn out that there would be three or four different companies making a flight on that particular day. The company that booked you on the flight may find that it had only one-third of a load when the time came for the flight and, of necessity, it may have to turn over its passengers to somebody else so that a loaded airplane could go out. Then perhaps the next time the other company would turn passengers over to the first company.

Mr. HALE. What you are suggesting is that there be four or five demand-type carriers and if the A Co. did not carry me, the B Co. would, and so forth?

Mr. HEACOCK. That is usually the way it works. On a transcontinental trip right now, on demand-type service, you ask to get out on a certain night. The chances are excellent that you will get out on that particular night because of that system.

Mr. HALE. As a practical matter, if I wanted to take off Wednesday evening it is pretty certain that I could?

Mr. HEACOCK. That is right. But it would be subject to the requirement that if the unexpected occurred you might be held over a day. I would say that any delays such as a week or anything of that nature would not occur because actually there would be enough travel so that the adjustments to fill airplanes would be relatively a minor and not a major factor.

Mr. HALE. Thank you very much.

Mr. MCGUIRE. I thought that you should know, Mr. Heacock, that when you were called in to be a witness, most of the committee members said that they could only stay for about 5 or 10 minutes. You have been such an interesting witness, I heard several of them say that they were very much interested in understanding your position. I hope that your stay with us has been as pleasant as it has been for us to have you with us.

Mr. HEACOCK. Thank you. May I insert in the record two letters? One is a letter to Senator Johnson in opposition to this bill, and one is a letter to the Civil Aeronautics Board by our Airchoach Transport Association. Thirdly, if I may, I would like to insert an editorial from the New York Times on the subject of "Wanted: Cargo planes."

Mr. MCGUIRE. Without objection, it is so ordered.

Mr. HEACOCK. Thank you.

(The matter referred to is as follows:)

[From the New York Times, Sunday, August 6, 1950]

WANTED: CARGO PLANES

There is sound reason for the immediate enactment of the air merchant marine bills now hanging fire in the Senate Committee on Interstate and Foreign Commerce. We have seen in Korea how crippling it can be in an emergency to be short of suitable airplanes for cargo and other logistic purposes. The Berlin airlift constituted a tremendous drain on available transport aircraft, only a handful of which were specifically suited to the carriage of heavy cargo.

The bills now pending may be subject to minor amendment, but, essentially, they would provide a fleet of the best air freighters already developed for both commercial and military use. Of equal, or greater, importance is the fact that they provide for the development of prototype planes including jets and cargo aircraft able to carry tanks. Such cargo planes would be available for immediate mobilization by the President without forcing him to wait for a declaration of war or a war powers act. The bills carry out the widely acclaimed cargo-plane recommendations made by the President's Air Policy, or Finletter Commission. They further provide equal representation of labor with management, furnish a role for all airlines, and set up cost-recovery provisions for the taxpayer.

The role of the aircraft industry was well expressed recently by Rear Adm. L. B. Richardson, USN, retired. It is, first, development of advanced models, the best in the world in their classes, to meet the requirements of the armed services. Secondly, it is to supply needed replacements for the Air Force and naval aviation. Thirdly, it is to maintain the ability to produce quantities required in an emergency. The rate of mobilization of our armed services, as Admiral Richardson pointed out, is directly dependent upon the rate of acceleration of aircraft production in types which range from trainers through fighters and bombers to cargo aircraft.

Government financing of prototype aircraft and of sufficient production orders to keep the aircraft industry in a healthy and immediately expandable condition is the principal measure of insurance for adequate defense. We expended and frittered away our air strength after the conclusion of VJ-day. There should be no delay now in putting into effect the wise recommendations both of the Finletter Commission and the Joint Congressional Committee on Air Policy. Adequate airlift has been proved to be a vital factor in the successful application of air power as defense power. The Berlin airlift, Operation Haylift, and, more recently, Operation Stormer on the Atlantic coast, have shown its tremendous potential. It is a factor in security in which we dare not find ourselves with too little and too late.

AIRCOACH TRANSPORT ASSOCIATION,
Miami, Fla., August 4, 1950.

THE CIVIL AERONAUTICS BOARD,
Washington, D. C.

GENTLEMEN: At the suggestions of members of the Board with whom we informally talked, this letter requests the Board to postpone for a period of 60 days any further action with respect to large irregular air carriers.

The Aircoach Transport Association was formed on June 25, 1950. One of the purposes of the association is to present to you the views of its members with respect to the regulation of large irregular air carriers (particularly draft release No. 43 and your opinion of May 25, 1950, serial No. 4240), and to cooperate with you in the adoption, administration, and enforcement of proper regulations. The association was originally formed by seven carriers; today it has 24 members and represents over 80 percent of the large irregular carriers which are actively engaged in operations. The members of this association are:

Aero Finance Corp.
Air Services, Inc.
Air Transport Associates, Inc.
American Air Transport
Arrow Airways
Continental Charters, Inc.
Freight Air, Inc.
Great Lakes Airlines, Inc.
Los Angeles Air Service
Miami Airline, Inc.
Modern Air Transport, Inc.
Monarch Air Service
New England Air Express
Ocean Air Tradeways
Oxnard Sky Freight, Inc.
Peninsular Air Transport
Robin Airlines, Inc.
Southern Air Transport
Trans American Airways
World Airways, Inc.
World-Wide
Conner Air Lines, Inc.
Aviation Corporation of Seattle
Nationwide Air Transport Service, Inc.

Offices of the association are presently maintained in Washington, New York, and Miami.

The members of the association are located at their various operating bases throughout the country. The necessity of corresponding with officers on the west coast and the east coast makes it impossible to represent their views without additional time.

The Aircoach Transport Association is the only authoritative voice of the irregular carrier industry. This association has eliminated practically all of the alleged misconduct discussed in the Board's opinion of May 25, 1950. Each member has made a substantial financial contribution to assure compliance with the purposes of the association. A coordinator, employed by the association, investigates all advertising, charges and operations in order to assure the Board and the public, of fair, ethical, and adequate treatment by the members of the association. The association has also unified the safety program of its members by initiating a uniform system of pilot training and supporting the Civil Aeronautics Administration in maintaining the highest safety standards.

In addition, the association performs liaison functions for the Department of Defense and makes available, for military purposes, such equipment and personnel as the national defense requires from time to time.

As a part of its program, the association wants to cooperate with the Board in maintaining a useful public service and developing a fleet of aircraft adequate to meet the needs of the country and its national defense.

The association will furnish the Board with statistics and other data which the Board does not now have and which appear to be necessary to form a reasonable and sound conclusion with respect to the regulation of irregular carriers.

These data include a plan and system of regulation which will, we believe, prove acceptable to the Board and the industry. The gathering and preparation of these data has been commenced, but another 60 days will be required to complete the job. The granting of this request will simply maintain the status quo until the Board has an opportunity to consider the data which the association is developing. No one will be adversely affected by the granting of the request and the Board, the carriers, and the public will benefit thereby.

In the sincere belief that this new association will develop valuable information which can be the basis for a regulatory plan acceptable to all groups, it is requested that the Board defer, for a period of 60 days, any further action with respect to draft release No. 43, and the granting or denying of individual applications for exemption orders.

Sincerely yours,

AIRCOACH TRANSPORT ASSOCIATION,
By PHILIP A. MANN, *President.*

INDEPENDENT AIR CARRIER CONFERENCE OF AMERICA,
Washington, D. C., July 2, 1950.

Senator EDWIN C. JOHNSON,
Chairman, Interstate and Foreign Commerce Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR JOHNSON: At the request of Senator Lehman, of New York, I understand you asked that S. 3504, the jet transport-testing bill, be passed over on the Senate Consent Calendar. American Aviation Daily dispatches have made much mystery over the fact that the letters influencing Senator Lehman came from "smaller airline constituents." Your own committee profession staff member, Edward C. Sweeney, incorrectly advised you, in Senate Report No. 1751, that the bill had the backing of the aircraft-manufacturing industry "and all other aeronautical interests."

John J. Klak, executive secretary of the Independent Air Carrier Conference, opposed this special-interest bill unless broad airlift legislation for the entire industry were passed at the same time.

It is with full knowledge that our position may be misinterpreted that we explain our opposition to S. 3504. We decline to accord the bill the tremendous advantage it would have on the Consent Calendar over genuine airlift legislation such as S. 3507, the commercial air-fleet bill.

We believe S. 3504 to be special-interest legislation. Its jet transport development is designed to benefit only super luxury service certificated domestic trunk lines and the monopoly-minded American international carriers. These carriers are concerned, lest they lose a semimonopoly grip as users of the world's fastest and most luxurious equipment. However, our international leadership in air transportation is not jeopardized, for instance, by Canadian Pacific Airlines introducing jet-powered British Comets at a $750-per-passenger present tariff or possibly even a higher future tariff to the Orient. As Canada's expensive "chosen instrument" monopoly for Orient service, Canadian Pacific is a super-luxury competitor only for American lines using slightly less fast and luxurious Stratoliners at a competing tariff of $650. For another $100 differential, believe us who know, America wouldn't even know the competition was there. Besides, how can Canada or the United Kingdom earn the dollars with which to buy American equipment if we don't permit them to earn a few by transporting at least some of the luxury fringe of American passengers in their own equipment? Or is the present system of giving Great Britain Marshall plan dollars to make up her deficit the preferable plan?

What is needed for real commercial supremacy, and, more important, for national defense, is a commercial air fleet in existence as soon as possible. Commercial supremacy to the Orient will unquestionably go to the nation whose air carriers can quote a fare of $250 or $350, instead of $650 and $750. Ten times the airlift capacity could be put into use by a $250 fare over a $650 fare.

This commercial air fleet could be in being now, at the low prices mentioned, except that nonsubsidized carriers are prohibited by the CAB from competing with the certificated $650 monopoly. The CAB prohibits large irregular carriers from engaging in foreign air transportation of persons.

The ballyhoo of emergency national-defense arguments for S. 3504 fails to stand up under examination. First, someone will have to prove that Great

Britain and Canada are potential enemies and, second, that jet transports have national-defense value. What our national defense needs is an airlift composed of long-range heavy-load-carrying transports in operation now, not prototype testing of jets which may be fast and flashy, but of short range and limited pay load.

On December 7, 1941, the only military transports we had in being were DC–3's and C–47's. A commercial air fleet bill of 1935 or even 1938 would have equipped us with C–54's and C–46's. But we trained in airline-requisitioned DC–3's in the spring of 1942 while waiting for C–47's to be manufactured. C–54's were only in the prototype stage at the time, hence useless for the emergencies of 1942.

The middle of 1942 found us flying the first group of American C–47 transports to England, using makeshift fuselage tanks and having low load capacity because of the nature of the short-range transports. The much-publicized flights to Casablanca, Oran, and Algiers were struggles against the range limitations of aircraft. Many pilots made the unescorted night flight over Spain to Gibraltar preferring to take their chances with enemy night fighters rather than with the possible shortage of gasoline, faced on the long way around. Many landed in North Africa out of gas and would have been lost if the country had been truly enemy. Maximum load was 16 to 18 parachute troops with equipment. On the night take-off from Gibraltar, all but three aircraft had to take off over the leaping flames of the sinking wreckage of a plane and buddies who hadn't been able to make it with the same military overload.

We, who believed in the principles of air logistics, were cheered by the news that American transport planes had arrived at Alexandria, Egypt, with antitank shells from America which helped to stop and turn back General Rommel. We watched nervously at Souk El Arba, as in full daylight, French and Colonial troops, loyalties unknown, only 600 feet below, turned from their antiaircraft guns to wave and cheer as the troops tumbled from our planes and the air was filled with multicolored parachute targets carrying temporarily helpless men. At Bone we watched fighter planes being refueled, taking off, and establishing air supremacy with the cargo of gasoline we had brought in 5-gallon cans. We laughed at our airplanes saturated with gasoline from time cans that had burst at their seams from expansion of the fluid at altitude. We laughed because we had arrived with enough and not too late.

At Depienne, within sight of the white rooftops of Tunis, where enemy fighters and German reinforcements were being landed, our troops cascaded down upon an undefended plowed field. We were later to learn that our troops were rounded up with armored cars and light equipment, and annihilated, because our supreme effort was made with an airlift inadequate in size of planes and quantity. The light and heavy field artillery and equipment that larger aircraft could have carried was not there. The quantity of troops needed for the job was not there. We had arrived with too little—and too late, because of inadequate airlift. On the other hand, the Germans reinforced Tunis sufficiently with airborne troops to require a large-scale ground offensive and heavy troop casualties to dislodge them. When the final offensive was undertaken, it was launched from the same lines established by our airborne troops that had advanced from Souk El Arba. What additional price in lives might we have had to pay for the ground that had already been taken cheaply by a handful of troops that had arrived early—by airlift?

When Rommel had abandoned Tripoli, just ahead of Montgomery's pursuing Eighth Army, in his flight to Tunis, it was correctly anticipated that he would use his battle-hardened armored veterans to attempt to pierce our lines defended by inexperienced American and British crews and invade Algiers to destroy our rear. The first counter action was an airlift. Unescorted C–47's flew deep into the Sahara desert, then north to Tripoli via the back door. Dessert- and battle-hardened New Zealand tank crews were flown back via the Sahara to the Algeria-Tunisia front.

Then the battle of Kasserine Pass: American tank crews, experienced or not, slugged it out with Rommel's best aided by low-flying A–20 attack bombers. The A–20's were running out of antitank bombs with the nearest supply at Oran, the north African port city deep in our rear. Troop carrier crews put in a maximum effort using every plane to capacity and logging 13 hours a day of time in the air alone. After unloading the antitank ammunition, the planes dropped in at Souk El Arba for full loads of wounded soldiers, transporting them down the coast under 800-foot ceilings and along the "iron compass" to Oran. The wounded didn't ask how fast or how comfortable our planes were before being lifted aboard. As crew members hurried along the long rows of

litters on the ground, the anxious question was always the same, "Are there enough airplanes?" When, on one of these missions, four of our aircraft left Ferinana, Tunisia, without escort and two Focke-Wulfs dove on these defenseless transports, our prayers were neither for the jet fighters that were on the drawing boards, nor the jet transport equipment which we might expect sometime in the future. Instead, our prayers were answered by four "obsolescent" P–38's returning from a raid over Tripoli. The crying need was still for more airplanes and larger planes to carry larger equipment and more men. It was the same in the invasion of southern France, invasion of Normandy, and other European drops.

One important improvement desired by the crews was self-sealing gasoline tanks. If only the troop-laden aircraft could afford the weight of self-sealing tanks! So many American lives would have been saved.

When the large four-engine C–54's came off the production lines and we transferred from Troop Carrier Command to Air Transport Command, we moved from tactical airlift to strategical airlift. We had contempt for the vast distances of the Pacific. Nor did the high mountain ranges of the Hump prevent the airlift job that would have been impossible with the smaller and slower equipment we started the war with. The amputees and the seriously wounded of the Philippines, Marianas, and Iwo Jima campaigns had the advantage of treatment at base hospitals in Honolulu. What a far cry this was from the field hospital attention which was the maximum that our C–47 equipment could provide for the wounded of the Tunisian, Sicilian, and Italian campaigns.

At Tacloban airstrip on the island of Leyte, Philippines, it was often necessary to cruise over the field for 2 hours or longer before finding a moment to sit down without interfering with the movements of fighters landing and taking off. With earlier short-range transports, this would have been impossible.

Yes, Senator Johnson, we are against S. 3504 having privileged consideration on the Senate Calendar. Regardless of whether or not S. 3504 is being considered as a substitute for genuine airlift legislation, it is practically certain that the Bureau of the Budget and Congress will give scant consideration to such legislation if they feel they have done their duty by aeronautical interests in passing this pork-barrel-type special-interest legislation.

In the face of the Korean crisis we feel that the implementation of a broad airlift program, based upon the principles of S. 3507, is of immediate national concern. Those of us who have had 9 years of experience in airlifts, both military and civil, implore you to hear our voice. The first thing necessary in modern warfare is an adequate airlift. But, when war is already upon us, our aircraft factories must necessarily concentrate on bombers and fighters. This is as it should be, for bombers and fighters become obsolescent much faster than transports.

The transports, on the other hand, are one of the few necessities of war that serve equally well in time of peace. At first glance, it would seem, therefore, that an adequate airlift program would be practically unopposed in national defense and aeronautical circles. This is not true. The powerful group known as the Air Transport Association has been opposed to any program that will permit expansion of our civil airlift reserves, where such a program would put transport aircraft into the hands of noncertificated competitors.

Your committee's investigation of the airline industry long awaited the recommendations of the Department of Defense. The Secretary of the Air Force has opposed airlift legislation on the grounds that the funds were more urgently needed for combat aircraft. However, an ATA-backed "mothball fleet" program which would have built transport planes without endangering the certificated carriers' monopoly position in the industry was about to be recommended to you with the blessings of the Department, when it was declared "not in accordance with the program of the President" and shelved.

We have seen much tampering with the national security which could only benefit monopoly interests in air transportation. Two square miles of parked C–46's at Clark Field, Manila, have been lost to the United States. They were flown to Clark Field from Guam, Iwo Jima, Tokyo, and other points in the Pacific. A clause in the Foreign Liquidation Act provided that the Foreign Liquidation Commissioner could dispose of this property in foreign areas only to foreign governments and nationals. Import permits were refused to American veterans desiring to purchase them and fly them to the United States.

On the other hand, billions of dollars worth of surplus property remaining on Pacific islands was given to the Chinese Government as a so-called "purchase" against what the United States "owed" the Chinese. In addition, 17 C–46's

which had been completely renovated and overhauled after the war, at the Hawaiian Air Depot, at a great cost to the Government, were sold to General Chenault's organization. The funds used were provided by UNRRA, most of which were donated by the United States.

At Walnut Ridge, Ark.; at Ontario, Calif.; and at other storage points in the United States, agents purchased C–46 aircraft and C–46 engines and parts. At United States Government expense the aircraft were overhauled and flown to China. This program effectively denuded the United States of its huge war surplus of transport aircraft and most of it fell into the hands of Communist China.

As the Korean crisis catches us with no national airlift preparedness program, the utter bankruptcy of our country's policy to date is emphasized by the fact that Communist China can throw more C–46's into an airlift reinforcement of North Korea than can all the independent air carriers in the United States throw into a supporting airlift across the Aleutian chain to Tokyo.

Independent airlines pointed the way toward utilizing five times the aircraft as now employed in the commercial air fleet. The air-coach market, the air-freight market, the combination passenger-cargo market, the agriculture labor market, and other markets were pioneered and developed by the Independents and usurped by the scheduled airlines, usually at the expense of taxpayers' mail pay funds.

The Civil Aeronautics Board has consistently followed a policy of discouraging the expansion of independent air carriers. In this respect their policy coincides with that of the Air Transport Association. Finally, the Board has pursued this policy to the point that their decision of May 25, 1950, permits only three trips in any 4-week period between seven of the most important traffic points in the United States.

Over 250,000 passengers who for reasons of price and other considerations patronized the independent air-coach lines will no longer have that choice. What is more important in the interest of national defense is that none of the air carriers involved can comply with this regulation limiting the extent of their competition with the scheduled lines without going out of business. However, on this subject, I shall soon write a separate letter outlining a plan for settlement of points at issue with the CAB. We believe the solution may require legislation and for that reason we shall communicate with you.

It is for the above reasons that the IACCA requests you not to place S. 3504 on the Senate Calendar. We are not averse to having the merits of S. 3504 considered at the same time as S. 3507 or other genuine airlift legislation, and, in fact, would support the principles of S. 3504 as a part of a genuine airlift bill. Standing alone, however, it is special-interest legislation favoring a segment of the air transportation industry and the luxury-type passenger while neglecting air-carrier expansion for national defense and the 90 percent of our voting public who cannot afford luxury-type transportation.

AMOS E. HEACOCK,
Major, USAF Reserve, Former Liaison Officer for Gen. Carl A. Spaatz with the Troop Carrier Command; President, Independent Air Carrier Conference of America.

Mr. MCGUIRE. The meeting is adjourned.

(The following statements were submitted for the record:)

STATEMENT OF DAVID L. BEHNCKE, PRESIDENT OF THE AIR LINE PILOTS ASSOCIATION, INTERNATIONAL, BEFORE THE TRANSPORTATION COMMITTEE OF THE HOUSE INTERSTATE AND FOREIGN COMMERCE COMMITTEE RESPECTING H. R. 8536

My name is David L. Behncke. I am president of the Air Line Pilots Association, which was organized in 1930, and for upwards of 18 years since that time have represented practically all of the airline pilots flying both in the continental United States and on American-flag airlines abroad. With the exception of my boyhood, I have been in aviation all my life. My experience has extended into nearly all branches of flying, including military, civil, and airline flying. I have had in excess of 10,000 hours in the air. I was elected the first president of the Air Line Pilots Association and have subsequently been reelected every 2 years. I was also elected as the first president of the International Federation of Air Line Pilots Associations with offices in London.

The Air Line Pilots Association has a membership of approximately 9,000 members including active, inactive, apprentice, and honorary members. The

activities of the Air Line Pilots Association are devoted approximately 50 percent to matters pertaining to rates of compensation, rules, and working conditions and 50 percent to problems of air safety.

H. R. 8536 is objected to strenuously by the Air Line Pilots Association for reasons we will outline in the following statement in strong opposition to this proposed legislation.

First, we shall dwell for a moment on the historical background of this situation. The in-regular-service testing and modifying of new-type airline aircraft was first advocated by the Air Line Pilots Association a number of years ago and, in fact, this association submitted an air safety recommendation to the Bureau of Air Safety of the Civil Aeronautics Board on the subject of "Service Testing and Proving Period for All New and Rebuilt Air Line Airplanes," which we quote:

"That the first three (3) of all new and rebuilt air line airplanes be service-tested in actual air line operation for a minimum of 1,000 hours, under the most grueling, all-condition air line operation on the airways without passengers but with maximum gross load flown by pilots with parachutes. Permit carrying mail, express and cargo, while this proving period is being carried on."

In other words, the airline pilots feel that the basic idea of in-service testing of airline aircraft for extended periods at the beginning is good, but the legislation as it is presently proposed is objectionable in the extreme. Strangely enough, this air safety recommendation of the airline pilots on this subject was evidently objected to and kept on the shelf ever since August 8, 1947, by the very people in our regulatory agencies who now profess to be so much in favor of in-regular-service testing legislation of the kind proposed by them.

National defense is mentioned prominently in this legislation. Needlessly and in disregard of the Civil Aeronautics Act of 1938, scores upon scores of the finest military-trained airline pilots in all the world have been laid off by the airline companies throughout the years since the passage of the Civil Aeronautics Act of 1938, and the CAA and CAB have been conspicuous by their complete indifference to all these things, which certainly cannot, by any stretch of imagination, be considered in the national interest, the public interest, nor any other interest. Even today, there are reports that certain airline companies are violating the laws and regulations of the land on pilots' flight-time limitations, thereby reducing the number of highly trained airline pilots available to our country in time of serious national disturbance.

The trouble with the entire air-transport picture today and its would-be air safety advocates is that the hypocritical aspects of creating the greatest degree of air safety for the taxpaying public will have to be swept clean before Congress will be able to take a reasonable, realistic look at the air-safety picture as it actually exists.

Realistically, what is H. R. 8536? This bill, as it was reported by the Senate Committee on Interstate and Foreign Commerce, evidently gives carte blanche authority to spend $12,500,000 to the Administrator of Civil Aeronautics, an ex airline official who can be expected one day to return to the officialdom of the airline industry. This, in the opinion of the airline pilots, is far too much money to place in the hands of any man who is virtually, to all intents and purposes, on furlough from an airline, serving temporarily as CAA Administrator.

Moreover, this vast sum of money—$12,500,000—is an astronomical figure to spend for this purpose. It is unnecessary to accomplish the task. A better job can be done if less money is spent and better legislation created and more real work and earnest effort are substituted. It is difficult to reconcile why certain people who have objected to the airline pilots' in-service testing air safety recommendation and have objected to the Air Safety Board measures, namely, Congressman Crosser's H. R. 5561 and Senator McCarran's S. 8, throughout the years, are now all of a sudden in favor of in-service testing of airline airplanes legislation. Senator McCarran's S. 8 has been before Senator Johnson's committee for several years without receiving even a hearing. The Crosser measure, H. R. 5561, is presently receiving prompt and deserving attention by this committee. The independent Air Safety Board bill, whenever it comes up, is pointed to with horror by the very people who favor H. R. 8536 because of the comparatively piddling cost it will entail, and yet they give the nod with complete disarming unconcern to spending $12,500,000 for an in-service testing bill, aimed at doing just one of the things that an independent Air Safety Board would doubtlessly recommend.

There is in this bill, H. R. 8536, little if any check or balance on the expenditure of this money—$12,500,000, which is wrong.

Let us look at section 2 (a) (1) of the proposed law:

"SEC. 2 (a) The Secretary of Commerce (hereinafter referred to as the Secretary) is authorized to carry out the purposes of this act by—

"(1) preparing broad operating and general utility characteristics and specifications for types of commercial transport aircraft which he finds are required in the public interest, and which represent substantial advances over existing equipment."

Where are the checks and balances? The bill makes no mention of anyone being solicited for realistic participation in deciding these questions, such as the airlines, the airline pilots, proper legally constituted labor representing organizations, various other persons, companies, agencies, and much less the public. No. S. 3504 merely says the Administrator shall have this authority to spend the millions exactly as he sees fit with no question asked. H. R. 8536 names the Secretary of Commerce.

The Air Line Pilots Association, International, proposes that the foregoing section 2 (a) (1) be amended to read as follows:

"(1) The creation of an Advisory Board, the members of which shall be appointed by the President of the United States, and which shall consist of ten (10) members, as follows:

"(1) The Secretary of Commerce (or Administrator of Civil Aeronautics);

"(2) a member of the Civil Aeronautics Board;

"(3) a member of the Air Safety Board;

"(4) two members of the air carrier industries;

"(5) two representatives of air carrier labor representing organizations, one of which must be a regularly scheduled air line pilot with no other duties with any air carrier;

"(6) a member of the National Advisory Committee for Aeronautics;

"(7) an executive member of the United States Air Force; and

"(8) a member of the aircraft manufacturing industry.

"The said Advisory Board shall be appointed by the President of the United States within sixty (60) days following the enactment of this Act;."

Now, let's go to section 2 (a) (2) of the proposed bill:

"(2) providing for the operation, by contract or otherwise, of available aircraft with turbine jet or turbine-prop power units under conditions simulating, to the extent practicable, the conditions under which scheduled air transport aircraft operate."

Why limit the provisions so strongly to turbine-jet or turbine-prop powered aircraft? This part of the bill is wrong because it should not be limited in this fashion. It should be broad and apply to all new type aircraft that may be developed or modified of every kind and character—all equally deserving of proper in-service testing and experimentation.

Notice the broad character of this provision, "providing for the operation, by contract or otherwise"—all in the hand of one single man. The airline pilots may be wrong, but they feel very strongly that the day must end when one single person is given or acquires for himself too much authority. One single person is, speaking plainly, too much affected by human frailties, politics, and extraneous influences to be given too much authority. Exhibit 1 in support of this antidictatorship position are the world's dictators so conspicuous in our universe today.

The Air Line Pilots Association, International, proposes that the foregoing objections be obviated by the amendment of the preamble of the bill in the following respect:

"*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That it is hereby declared to be the policy of Congress to promote, in the interest of safety, the national air transportation system and the national defense, *the development and in-service testing of new or improved transport aircraft, rebuilt or modified transport aircraft, turbine-powered aircraft, aircraft especially adapted to the economic transportation of cargo, and aircraft suitable for feeder-line operation, by providing for temporary government assistance for such development and in-service testing and to secure data to aid in the development and manufacture of all such transport aircraft, and to aid in the adaptation of civil airways, civil airports, and air traffic procedures for the operation of such aircraft.*"

And by the following amendment to section 2 (a) (2):

"(2) Preparing, *in conjunction with the members of the Advisory Board*, broad operating and general utility characteristics and specifications for such aircraft;".

Now, let's go to section 2 (a) (3) of the proposed bill:

"(3) Providing, by contract or otherwise, for the testing of such aircraft which, in his opinion, best meet the operating and utility characteristics and specifications established by him in accordance with this section."

All we need to do is to read this and realize that any Government official and, in particular, one identified with any agency well sprinkled with politics and special-privilege-boys influence, with this kind of power and authority, with no checks and balances, is completely wrong.

It is recommended that the deficiencies noted above be remedied by amending section 2 (a) (3) in the following respect:

"(3) Providing, in conjunction with the members of the Advisory Board, for actual in-service operation by certificated air carriers, of the first three of all newly purchased new type aircraft or converted type aircraft of certificated air carriers operated by certificated air carrier personnel flown by regular scheduled air line pilots—not officials—such aircraft for a period of the first one thousand hours of such operation to be limited to the carrying of cargo, mail, and express cartage;".

Section 2 (a) (4) of the proposed bill is in the same category:

"(4) Providing for such minor experimental modifications of such aircraft during the testing period which he believes necessary to carry out the testing program in the interests of safety or economy of operation."

Who is going to do the testing? Who is going to fly the in-service proving tests? Are they going to be regularly scheduled airline pilots or impartial test pilots of some other category? Where does the vast machinery of the National Advisory Committee for Aeronautics fit in? Are all these things to be brushed aside and the test pilots to be subject to becoming puppets, influenced by their paymaster, the airline companies, and the manufacturers—to say nothing of the CAA Administrator, who is, in S. 3504, given $12,500,000 to spend as he sees fit and who is the policeman in the industry, holding life and death powers over the certificating of all pilots? In H. R. 8536, the Secretary of Commerce is given similar far-reaching authority.

The airline pilots feel the only way to get a real, impartial, down-to-earth, in-service performance test of any new or modified airline aircraft is to put it in the hands of the regular pilots (not officials) in regularly scheduled commercial operation. And in the military service, the same procedure should be followed. The pilots who fly equipment in regular service should be the ones to fly the equipment during the in-service proving run period. It should not be done by the financial-interest people in the industry, who are interested primarily in their balance sheets, nor anyone who must depend on them and their every wish for a livelihood.

Therefore, it is proposed that section 2 (a) (4) be amended in the following specific respect:

"(4) Providing, *by such certificated air carriers*, for the testing of such aircraft which, *in the opinion of the Secretary (or Administrator) and the Advisory Board*, shall best meet the operating and utility characteristics and specifications established *by the Secretary (or Administrator) and the Advisory Board* in accordance with this section; and".

Now, we come to section 2 (b) of this proposed bill:

"(b) In carrying out his functions under this section, the Secretary shall consult, from time to time, with interested Government agencies, including the Department of Defense, the Civil Aeronautics Board, and the National Advisory Committee for Aeronautics, and with representatives of the aircraft and aircraft-engine manufacturing industries, and of the air transport industry."

Here is spelled out substantially the following: The Secretary shall consult from time to time with interested Government agencies, etc. About all the Secretary or CAA Administrator would need to do to comply with this provision would be to have the vaguest kind of contact with these other agencies—nothing definite, nothing mandatory, nothing specific beyond "shall consult from time to time with interested Government agencies." There must be a far more realistic and effective relationship between interested Government agencies than this to get the in-service testing job done right. The bill, as presently drafted, is basically not founded on a proper concept to accomplish this end.

Therefore, it is recommended that section 2 (b) of the proposed bill be amended in the following respect:

"(b) In carrying out the functions described under this Section, the Secretary (or Administrator) and the Advisory Board shall consult realistically, and records made and kept of such consultations, from time to time, not less than

once every three months, with interested government agencies, including the Department of Defense, the Civil Aeronautics Board, and the National Advisory Committee for Aeronautics, and with representatives of aircraft and aircraft-engine manufacturing industries, and with duly authorized labor organization representatives of air line transport and aircraft manufacturing industries."

Section 3 (a) of H. R. 8536 is an equally wide open section. It provides as follows:

"(a) The Secretary is authorized, subject to the civil-service laws and the Classification Act of 1949, as amended, but without regard to any provision of law limiting the number of personnel which may be employed by the Civil Aeronautics Administration, to employ and fix the compensation of such personnel as may be deemed necessary to assist the Secretary in carrying out his functions under this Act: *Provided*, That to the extent practicable consistent with other duties and assignments, the personnel and facilities of existing Government agencies shall be used to carry out the responsibilities stated in this Act."

We have heard much about the foreign aliens working their way into the very heart of our governmental structure, and the President and the Government have repeatedly taken action to clean out the subversive element. As the airline pilots understand this section, there is nothing in section 3 (a) of this proposed bill that guards against this in any manner.

The Secretary has carte blanche authority over employment.

It is recommended that the foregoing objection to section 3 (a) of the proposed bill be remedied by amending that section by the addition of the following statement following the last sentence of the section:

"* * * *And provided further*, That personnel so employed shall be citizens of the United States of unquestioned loyalty."

Section 3 (b) of the proposed bill gives the Secretary and obviously the Administrator more dictatorial power, not questionable even by Congress.

"(b) The Secretary, in carrying out the provisions of section 2 of this Act, may enter into contracts or other arrangements, or modifications thereof, with or without legal consideration, performance or other bonds, or competitive bidding, and, in carrying out such contracts, arrangements or modifications thereof, may make advance, progress, and other payments without regard to the provisions of section 3648 of the Revised Statutes."

It is recommended that the foregoing objectionable section of the proposed bill be eliminated in its entirety.

Further, in keeping with the amendments which we have proposed to this bill by way of remedying the objections noted, it is suggested that section 4 (b) of the proposed bill be amended in the following respect:

"(b) The term 'testing' means the operation of an aircraft incident to the procurement of a type certificate for such aircraft, and the operation of an aircraft, whether type certificated or not, in actual transport service by certificated air carriers, operated by regular air-carrier personnel and flown by regular scheduled airline pilots—not officials—for the purpose of determining the in-service operating and utility characteristics of such aircraft."

Section 5 should be amended in the following respect:

"SEC. 5. The Secretary (or Administrator) and the Advisory Board shall submit annually to the Congress a detailed report on the progress made in the accomplishment of the purposes of this Act, and the amounts of the expenditures made or obligated pursuant thereto."

It is also recommended that section 5 of the proposed bill be amended by the inclusion of the following section 5 (a):

"(a) Any person participating in any way in carrying out the provisions of this Act shall not have any stock or other holdings, pecuniary or otherwise, in any airline transportation company, scheduled or nonscheduled, or in any aircraft power plant, or appurtenances thereof, manufacturing companies, and shall be an American Citizen of unquestioned loyalty to the United States of America."

Then we come to section 6 of the proposed bill:

"SEC. 6. There is hereby authorized to be appropriated to the Department of Commerce not to exceed $12,500,000 to carry out the purposes of this Act. When so provided in the appropriation Act concerned, such appropriations may remain available until expended."

Twelve million five hundred thousand dollars is placed in the hands of the Secretary of Commerce, and obviously also in the hands of the Administrator of Civil Aeronautics, to spend as they see fit, with practically no checks and

balances as to whether or not their actions are proper and whether the money is spent frugally—no checks or balances by the industry or any of the workers, governmental advisory agencies, labor unions, industry representing organizations, or the public.

Therefore, it is recommended that section 6 be amended in the following respect:

"SEC. 6. There is hereby authorized to be appropriated to the Civil Aeronautics Board not to exceed $6,000,000 to carry out the purpose of this Act, which amount may be supplemented from time to time by the Bureau of the Budget with the approval of Congress. Such appropriation shall be utilized by the Civil Aeronautics Board for allocation to certificated air carriers whose aircraft shall be operated in accordance with Section 2, to supply any operating deficiencies arising out of such operations; such allocations to be made only upon the submission of satisfactory proof by the certificated air carrier of such operating deficiency arising out of the operations set forth under Section 2 as aforesaid. Unless otherwise provided in the Appropriation Act concerned, such appropriations shall remain available until expended."

Section 2 referred to in the foregoing proposed amended section refers, of course, to unamended section 2 discussed in the early part of this statement.

The airline pilots feel this bill as presently written should under no circumstances be passed, and in its stead should be substituted, first, Congressman Crosser's H. R. 5561 and Senator McCarran's S. 8. If real progress is to be made for air safety, we must first have a real watchdog for air safety that is not financially or politically interested. We must guard against even small dictatorships, for even now we are fighting a dictatorship set-up, vicious, far reaching, and dangerous. It is the wrong concept, no matter how it is viewed. When the independent Air Safety Board bill is made law, it is time enough to look at a good in-service airline aircraft-testing bill. It can be said it is never difficult to be critical, but it takes real effort to be constructive and to offer something constructive along with criticism. In line with this philosophy, the airline pilots are certain a far more constructive approach to the airline transport aircraft developing and in-service testing problem can be achieved, and they stand ready and willing to assist in the formulating of such a law.

Thank you for permitting the airline pilots to be heard respecting H. R. 8536.

STATEMENT BY JAMES G. RAY, AIRLINE CONSULTANT

My services are retained by a number of the local service airlines for work of a technical and operational nature. One phase of this work has been the operating requirements of a feeder airplane, to be designed to operate more efficiently than the DC-3 which most of these operators are using.

I am heartily in favor of H. R. 8536. I don't believe it goes far enough, but if it is the best that can be gotten at this session of the Congress, it certainly should be enacted because it is still very worth while.

I have only one new thought to add to the many excellent ones that have been presented to this committee. I would like to suggest that the prototype DC-3 replacement aircraft, the feeder airplane, be given special consideration.

Most of the discussions have centered around jet transport aircraft. This is as it should be. The jet transport is the "glamor" job, the high-speed development, involving policies of American prestige and leadership, as well as our national welfare and the national defense. The long-range cargo carrier is important, too. It is vital to our national defense and can contribute materially to our future national well-being.

It would seem the feeder plane hardly belongs in this same group. Certainly it is a much simpler and less expensive project. Yet it has greater immediate practicality than the other projects. The justification for the feeder plane is not primarily a development for the future but for the present. It is not a matter of prestige and leadership but one of saving the Federal Government money.

Most of the preceding witnesses have accepted the importance of the DC-3 replacement airplane. Both the CAA and the CAB commented on its need. Mr. Ramspeck, of the Air Transport Association, pointed out the great cost of continuing to fly an obsolete airplane. He placed the actual cost last year at some $18,000,000, which I think is a very realistic figure.

This 18 million is the increased cost for flying the 161,000,000 miles that was flown on DC-3's over what a more efficient newly designed aircraft would have

cost. Under the Civil Aeronautics Act, this increased operating cost is paid for by mail pay.

The development of a more modern replacement aircraft would cost only a fraction of this $18,000,000. My estimate based on discussions with representatives of six of the leading manufacturers of transport aircraft and with CAA officials is that about $7,000,000 would be needed. In other words, a $7,000,000 investment will pay back $18,000,000 the first year and will continue to pay without further investment a similar return for each succeeding year.

There is not much likelihood of a future decrease in the amount of flying to provide local service which must use an aircraft of about the DC–3's capacity. Even the largest trunk carriers are serving some smaller towns where large aircraft are impractical.

I have no desire to see the Federal Government do anything that can be done by private enterprise. Personally, I would rather see this aircraft developed as a private business venture. But after 6 years of effort on the part of the local service air carriers there still is no suitable replacement aircraft in sight. So, the Federal Government is faced with the question of whether it will continue to pay this costly obsolescence bill or invest a much lesser amount in the design of a prototype DC–3 replacement aircraft.

It would seem to me that the most qualified agency of the Government to superintend the expenditure of this money would be the CAA. They would develop a specification, the details of which are already known, and send it to the various aircraft manufacturers, who would study it and prepare a proposal which would include both design and cost projections. After a careful study of these proposals, the CAA would select a design and a manufacturer with whom a working agreement would be developed. This would not be very different from present-day military procurement.

I feel certain that most of the aircraft manufacturers would be interested in this project on this basis. All of the six I have talked with have indicated their definite interest.

Although most of the emphasis on the value of this feeder aircraft has been placed so far on its immediate commercial need, in my opinion, it does have definite military value. The C–47 was certainly used extensively in the last war. According to current news reports, it is being used today. If it were replaced with a more efficient design that did the same job for less cost, I see no valid argument for continuing to use the obsolete airplane.

It occurs to me that it might be advantageous for your committee to consider this feeder airplane as a pilot or test case for the whole prototype problem. Adding a sum of $7,000,000 to H. R. 8536 would set in motion the Government functions and controls which will be necessary later when the prototypes of the other aircraft included in this bill are being built under some future authorization of Congress. Certainly the DC–3 replacement is the smallest, simplest part of this whole program to be used as a beginning.

I want to thank the committee for the privilege of appearing before it.

EXHIBIT A.—*Comparative characteristics*

Item of comparison	Boeing 417	DC–3
Span over-all	86 feet, 8 inches	95 feet.
Length over-all	63 feet, 2 inches	64 feet, 6 inches.
Gross landing weight	19,700	24,400.
Horsepower, meto	1,400 horsepower	2,100 horsepowor.
Field length for take-off, sea level, CAR	3,100 feet	(1).
Field length for landing, sea level, CAR	3,200 feet	3,320 feet.
Payload, fuel for 400 miles plus operating reserve	4,200 pounds	4,440 pounds.
Cruising speed at sea level, 60 percent power	182 miles per hour	174 miles per hour.
Cruising speed at 10,000 feet, 60 percent power	200 miles per hour	189 miles per hour.
Block speed, 60 percent power, 70-mile trip length.[2]	152 miles per hour	134 miles per hour.
Maximum altitude, single engine	10,800 feet	9,000 feet.
Number of passengers	20	21.
Remaining payload for cargo [3]	900 pounds	935 pounds.
Direct flight costs per mile, 70-mile trip length	35 cents	46 cents.

[1] Not shown in Douglas brochure.
[2] Average length of feeder airline trip.
[3] Passenger weight at 165 pounds.

EXHIBIT B.—*Transport aircraft in passenger service*

Country	Number of other planes			
	Number DC3's	18 to 24 passengers	25 or more passengers	17 or less passengers
Africa	13	20	13	98
Asia	138	9	21	40
Australasia	50	2	32	34
Europe	254	95	236	103
United States	450	11	587	37
North America (except for United States)	106	9	37	107
South America	197	10	50	44
Total	1,208	156	976	463

Source: Equipment of the Foreign Scheduled Common-Carrier Airlines. Foreign Air Transport Division, Civil Aeronautics Board. Mar. 1, 1950.
"U. S. Airline Fleet", American Aviation Magazine. Apr. 15, 1950.

(Whereupon the committee adjourned.)

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