



THE WHITE HOUSE
WASHINGTON

April 3, 1957

Dear Mr. President:

I respectfully submit the attached interim report as advice on a problem in United States aviation. It proposes the establishment of an Airways Modernization Board to expedite the solution of this problem. In my opinion, this problem warrants the immediate attention of yourself and of the Congress.

The report contains a draft bill which I recommend you forward to Congress this session and suggest that action on it be expedited. As legislation it will greatly improve the Federal Government's leadership in modernizing our airways for the safety and convenience of the public.

In consultation with Mr. Rabb this is being placed on the April 5, 1957 agenda for Cabinet concurrence and your approval.

Sincerely,

Edward P. Curtis

Edward P. Curtis



Attachments

The President
The White House
Washington

Eno

Center for
Transportation

INTERIM REPORT OF SPECIAL ASSISTANT FOR AVIATION FACILITIES PLANNING

April, 1957

Shortly after assuming the duties of Special Assistant for Aviation Facilities Planning last year, the facts on our air traffic in the United States began to pour into my office. The alarm which has been voiced in the past from many sources is, in fact, supported by evidence that our airways and terminals are subject to increasing congestion.

Over 65,000 aircraft hours are flown daily in the United States. We have counted, with the aid of radars, as many as 220 aircraft flying at one time in the vicinity of a major city. Many thousands of military jets mingle in the mixed traffic of our airways and serve to accent the dangers of "see and be seen" rules. The pilot needs assistance if he is to cope with the great increase in aircraft speed and if the danger of collisions is to be minimized.

The present situation is perhaps no more startling than the extraordinary growth in air traffic which the public desires and the economy will support in the future.

In 1946, only six billion passenger miles were flown in the United States by the airlines. In 1956, this had mushroomed to 20 billion passenger miles. My studies show that this figure will be approximately 70 billion in 1975. In addition, the present 61,000 private U.S. aircraft will exceed 100,000 in 1975.

Clearly, the safety and convenience of the public now and in the future requires more sophisticated and energetic efforts to reduce the hazard and delay in the Nation's air traffic. The Federal Government must lead and support this effort. The present vigorous program of the Civil Aeronautics Administration to expand its existing facilities using known techniques is highly commendable and deserves our full support. Its full energies will be needed to accomplish this. The specific proposal of legislation attached to this report in no way affects the operational measures which the Civil Aeronautics Administration intends to carry out.

I have searched thoroughly for the basic causes of our airways problems and one in particular has emerged sharply: the military and civil agencies in the Federal Government which control and expedite air traffic are not provided systems acceptable to them with which to modernize



their operations. Acceptability depends, in large part, on joint test and evaluation by civil and military pilots and ground controllers.

The government can take steps to solve this problem now, and I respectfully attach a draft bill which proposes legislation to do it. Therefore, I wish to explain this problem and its solution, which is urgently needed. This is the purpose of the interim report.

A search was first made to determine why aggressive efforts have not been made in the past decade to modernize the systems and methods used to assist our air traffic. I found that there was no lack of scientific ideas. In fact, an over-abundance of electronic systems have been developed in the laboratories to improve our terminal and enroute operations. Most of these have been shelved and never used. The key to this dilemma may be found in the organizational arrangements in the executive branch which are intended to set the goals, to develop, and to select the systems and methods which will meet these goals.

The problem of modernizing the airways was clearly recognized in 1948 as one which required urgent action. The actions taken then have not been effective. The government attempted to resolve the technical conflicts in air traffic control at that time by creating the Air Navigation Development Board. This Board was established by an interagency agreement between the Departments of Defense and Commerce. Many excellent men have bent their efforts toward making it work. However, the statutory authority of each of the two agencies and the clouding of the air traffic control problem by an understandable concentration on agency missions have made the Board far less effective than anticipated. There being just two voting members on it, all actions have required unanimous agreement. This Board of two members, without legal status and without control of its own funds, has been unable to bring sufficient authority, decision, or clear objectives to bear on air traffic problems.

In addition, there are several government and industry committees which have deliberated constantly in the past ten years on the goals and the techniques for air traffic control and air navigation. In spite of the usual difficulties of committee action, they have produced, in the past, some useful advice. However, there has been



no one agency with specific authority and capability for them to advise.

The determination of our goals, and the selection of systems and methods for controlling our air traffic, has been dangerously slow. It cannot be expedited by committee and interagency coordination. This was not recognized ten years ago, and today we find our air traffic system antiquated and under strength.

The rapid, continuing growth of aviation foretells future conditions which demand a new element of decision making now, a more modern organizational structure to evaluate and select our air traffic system of the future.

This shortcoming has been recognized and separated from many other organizational problems in aviation. The nature of its remedy and the urgency of need has prompted me to prepare a draft bill and clear it with the interested executive departments. This bill is intended for the use of Congress in creating an Airways Modernization Board. The Chairman would be appointed by the President, and would have no affiliations with existing government agencies. The Departments of Commerce and Defense would each supply one member to the Board, in view of their basic interest in its activities.

The Airways Modernization Board, as an independent agency, would be responsible for developing and consolidating the requirements for future systems which are needed to provide the necessary communications, navigational aids, and control needed to accommodate the future air traffic in the United States. It would be responsible as well for the systems engineering, the evaluation, and the selection of such aids as will best serve the needs of aviation.

This bill recognizes that military and civil aviation share the same airspace. It recognizes that the selection of future systems and methods of control of air traffic is a public action in the broadest sense. The Board is authorized to assemble military as well as civil personnel to assist in conducting its affairs. The Board is likewise expected to arrange for satisfactory and equitable advice from the users of aircraft and the engineering talents of industry. In other words, the Board will conduct a joint analysis, test and selection activity which recognizes that the national system must accommodate



the civil and military air traffic in peace or war.

The over-all system is an essential part of our national defense against air attack. It likewise must respond to the growing demands of public need. These apparently different requirements have not been subject to resolution by the committee conference methods which have been used. Therefore, the Board is expected to engage in extensive test and experimentation in the field, where the intricate problems of procedure and equipment can be tried, and the pilots and traffic controllers can experiment together, bringing the skills of science to bear, and to resolve their problems. This Board, with an impartial Chairman, will then be able to arrive at decisions and specify the most advantageous systems from an economic, operational, and technical point of view.

It is intended that this Board will specify new systems which will best serve the needs of all air navigation and traffic control to the interested military and civil agencies. It is not intended that the Board will have the authority to develop or procure the final ground or airborne equipments to be used in operations.

The Airways Modernization Board is proposed as an interim organization to establish a point of responsibility for system development and selection. At present, this kind of activity is scattered throughout the two principal agencies. This bill is proposed in order to consolidate this activity and to initiate the joint test and evaluation work which is so urgently needed if this country is to avoid an increase in delay and hazard to air traffic.

The functions which the Board will perform are entirely in consonance with the considerations being given to a broader change in Federal Government organization for aviation matters. In my final report, I intend to cover the broader plan. However, it is now clear that much more thorough examination needs to be undertaken in order to achieve a durable permanent organization. To recommend such in final form too quickly might result in improvisations which would complicate or delay the expected action necessary to accommodate the civil and military needs of aviation in the future.



Consequently, the Airways Modernization Board is proposed as the most expeditious and effective way to commence the long-range improvement of our air traffic systems. Its tenure of three years is proposed as sufficient to establish the permanent functions of joint test, evaluation and selection of air traffic systems. This period of time likewise will permit the executive branch to plan further organizational adjustments into which the functions of this new Board will logically fit.

Respectfully submitted,



Edward P. Curtis

Attachment

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A BILL

To provide for the development and modernization of the national system of navigation and traffic control facilities to serve present and future needs of civil and military aviation, and for other purposes.

1 Be it enacted by the Senate and House of Representatives
2 of the United States of America in Congress assembled, That
3 this Act may be cited as the Airways Modernization Act of
4 1957.

AIRWAYS MODERNIZATION BOARD

5
6 SEC. 2. (a) There is hereby established the Airways
7 Modernization Board, hereinafter referred to as the "Board".
8 The Board shall consist of three members: a Chairman of
9 the Board, hereinafter referred to as the "Chairman", who
10 shall be appointed by the President and who shall receive
11 compensation at the rate of \$20,500 per annum, the Secretary
12 of Defense, and the Secretary of Commerce. Either of the
13 said Secretaries may designate an officer of his Department
14 to act in his stead as a member of the Board with respect
15 to any matter or matters. All actions of the Board
16 except those relating to transfers of functions as pro-
17 vided in Section 4 of this Act shall be by affirmative

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1 vote of a majority of its members.

2 (b) The Board shall develop, modify, test, and
3 evaluate systems, procedures, facilities, and devices,
4 to meet the needs for safe and efficient navigation and
5 traffic control of all civil and military aviation except
6 for those needs of military agencies which are peculiar
7 to air warfare and primarily of military concern, and
8 select such systems, procedures, facilities, and devices
9 as will best serve such needs and will promote maximum
10 coordination of air traffic control and air defense
11 systems. When there is any substantial question as to
12 whether any need is properly a matter of primary military
13 concern, the Board is authorized and directed to determine
14 whether it or the appropriate military agency shall have
15 responsibility. Technical information concerning any
16 research and development projects of the military agencies
17 which have potential application to the needs of the
18 common system shall be furnished to the Board to the
19 maximum extent appropriate to insure that common system
20 application potential is properly considered.

21 (c) The Board is also authorized:

22 (1) Subject to the civil-service and



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1 classification laws, to select, employ, appoint, and fix
2 the compensation of such officers, employees, attorneys,
3 and agents as shall be necessary to carry out the pro-
4 visions of this Act, and to define their authority and
5 duties;

6 (2) To appoint such advisory committees as shall be
7 appropriate for the purposes of consultation and advice
8 to the Board in performance of its functions hereunder
9 and to obtain services as authorized by Section 15 of
10 the Act of August 2, 1946, (5 U.S.C. 55(a)) at rates
11 not to exceed \$100 per diem for individuals. Members
12 of such committees shall be entitled to travel expenses
13 and per diem authorized by the Act of August 2, 1946,
14 (5 U.S.C. 73 b-2), for all persons employed inter-
15 mittently as consultants or experts receiving compensa-
16 tion on a per diem basis;

17 (3) To enter into contracts without regard to
18 Section 3648 of the Revised Statutes, as amended,
19 (31 U.S.C. 529);

20 (4) To use with their consent the available services,
21 equipment, personnel, and facilities of other agencies and
22 instrumentalities of the Federal Government on a reimbursable



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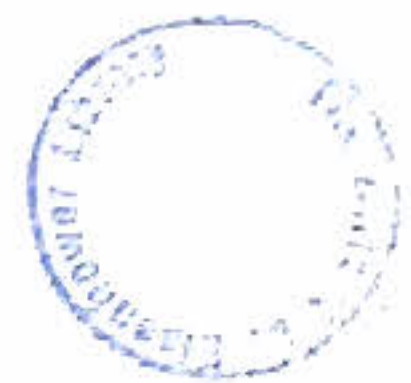
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1 basis when appropriate, and on a similar basis to cooperate
2 with other agencies and instrumentalities in the use of
3 services, equipment, and facilities of the Board.

4 (5) To place in Grades 16, 17, and 18 of the General
5 Schedule established by the Classification Act of 1949, as
6 amended, not to exceed 20 positions. Any such position shall
7 be additional to the number authorized by Section 505 of that
8 Act and shall be subject to the standards and procedures of
9 such section;

10 (6) To establish and fix the compensation for not to
11 exceed 5 positions of officers and employees of the Board
12 of a scientific or professional nature without regard to
13 the Classification Act of 1949, as amended, each such
14 position being established to effectuate those research,
15 development and related activities of the Board which
16 require the services of specially qualified scientific
17 or professional personnel. The rates of basic compensa-
18 tion for positions established pursuant to this sub-
19 section shall not exceed the maximum rate payable under
20 Public Law 313, 80th Congress, as amended, and Public
21 Law 854, 84th Congress, and shall be subject to the
22 approval of the Civil Service Commission. Positions
23 created pursuant to this sub-section shall be included



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1 in the classified civil service of the United States,
2 but appointment to such positions shall be made without
3 competitive examination upon approval of the proposed
4 appointee's qualifications by the Civil Service Commission
5 or such officers or agents as it may designate for this
6 purpose; and

7 (7) To construct, improve, or renovate laboratories
8 and other test facilities and to purchase or otherwise
9 acquire real property required therefor.

10 (d) With approval of the President, uniformed personnel
11 of the Department of the Army, the Department of the Navy,
12 and the Department of the Air Force, may be detailed by
13 the appropriate Secretary, pursuant to cooperative agree-
14 ments with the Board, for services in performance of
15 functions under this Act to the same extent to which
16 they might lawfully have been assigned to such service
17 in the Department of Defense.

18 DUTIES OF THE CHAIRMAN

19 SEC 3. (a) Except as provided in sub-section (b)
20 hereof, and in the selection of systems, procedures,
21 facilities, and devices, the Board shall assign to the
22 Chairman responsibility for carrying out activities of



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1 the Board. Included among the responsibilities of the
2 Chairman shall be (1) the appointment and supervision
3 of personnel employed under the Board, (2) the distribu-
4 tion of business among such personnel and among
5 administrative units of the Board, and (3) the use and
6 expenditure of funds.

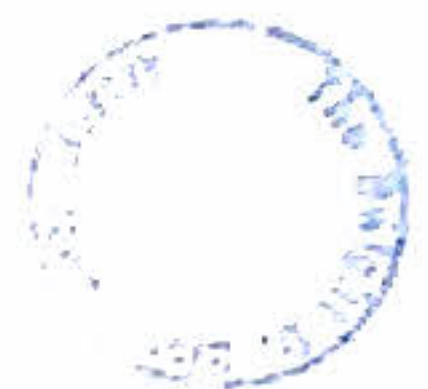
7 (b)(1) In carrying out any of his functions under
8 the provisions of this section, the Chairman shall be
9 governed by general policies of the Board.

10 (2) The appointment by the Chairman of the heads
11 of major administrative units under the Board shall be
12 subject to the approval of the Board.

13 (c) The Chairman may from time to time make such
14 provisions as he shall deem appropriate authorizing the
15 performance by any officer, employee, or administrative
16 unit under his jurisdiction of any function of the
17 Chairman assigned to him by this section.

18 TRANSFER OF RELATED FUNCTIONS

19 SEC. 4. The Board upon unanimous decision and with
20 approval of the President, may transfer to itself any
21 functions (including powers, duties, activities,
22 facilities, and parts of functions) of the Departments of



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1 Defense or Commerce or of any officer or organizational
2 entity thereof which relate primarily to selecting, de-
3 veloping, testing, or evaluating systems, procedures,
4 facilities or devices for safe and efficient air naviga-
5 tion and air traffic control. In connection with any
6 such transfer, the President may provide for appropriate
7 transfers of records, property, necessary civilian personnel,
8 and unexpended balances of appropriations, allocations, and
9 other funds available or to be made available of the
10 officers, department, or other agency from which the trans-
11 fer is made.

TERMINATION

12
13 SEC 5. This Act and all authority conferred thereunder
14 shall terminate at the close of June 30, 1960, but the
15 President may continue the Board for purposes of liquida-
16 tion for not to exceed six months after such termination.
17 Concurrently with the said termination all functions
18 transferred under Section 4 hereof shall, except as may be
19 otherwise hereafter provided by or pursuant to law, revert
20 to their status as it existed prior to such transfer. The
21 President shall provide for the disposition to be made of
22 the records, property, employees, and funds of the Board,



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1 consonant with law, at or after the time of termina-
2 tion of the Board.

3 APPROPRIATIONS

4 SEC. 6. There are hereby authorized to be appro-
5 priated without fiscal year limitation, such sums as
6 may be necessary and appropriate for the carrying out
7 of the provisions and purposes of this Act.