

**TO PROMOTE NATIONAL DEFENSE BY INCREASING
THE EFFICIENCY OF THE AIR CORPS**

HEARINGS

BEFORE THE

**COMMITTEE ON MILITARY AFFAIRS
HOUSE OF REPRESENTATIVES**

SEVENTY-FOURTH CONGRESS

FIRST SESSION

ON

H. R. 7041, 6810, 4348, 4336, 4351, 4911

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TO PROMOTE NATIONAL DEFENSE BY INCREASING THE EFFICIENCY OF THE AIR CORPS

THURSDAY, APRIL 4, 1935

HOUSE OF REPRESENTATIVES,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C.

The committee met at 10 a. m., Hon. John J. McSwain (chairman) presiding.

The CHAIRMAN. The committee will please be in order.

The committee has met this morning for the consideration of H. R. 7041, 6810, 4348, 4336, 4351, 4911, and such other bills as may be pending before the committee that relate to the general subject of air power and the importance of air power as a factor in national defense. Out of all of these we do hope that we may be able to evolve a proposal for legislation that will put and keep America in the forefront in the matter of air power as a factor in national defense.

(The bills referred to follow:)

[H. R. 7041, 74th Cong., 1st sess.]

A BILL To promote national defense by creating a Department of Air

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

CREATING A DEPARTMENT OF AIR AND THE OFFICE OF SECRETARY OF AIR

SECTION 1. That there shall be at the seat of government an executive department, reporting direct to the President, to be known as the "Department of Air", and a Secretary of Air, who shall be the head thereof, who shall be appointed by the President, by and with the advice and consent of the Senate, who shall receive a salary of \$15,000 per annum and whose terms and tenure of office shall be like that of the heads of the other executive departments.

The said Secretary shall cause a seal of office to be made for the said Department of Air of such device as the President shall approve, and judicial notice shall be taken of said seal.

CREATING THE OFFICE OF ASSISTANT SECRETARY OF AIR

SEC. 2. To aid the Secretary of Air in fostering civil aeronautics and to perform such functions as the Secretary of Air may direct, there shall be in said Department an Assistant Secretary of Air, to be appointed by the President, by and with the advice and consent of the Senate, who shall receive a salary of \$10,000 per annum.

PROVISIONS AND DUTIES OF SAID DEPARTMENT OF AIR

SEC. 3. That it shall be the province and duty of said Department of Air, to foster, develop, and promote all matters pertaining to aeronautics, including the collection and dissemination of information relating thereto, the procurement, instruction, and training of personnel; the procurement and maintenance

of aircraft, aircraft engines, aircraft accessories, and all other matériel, munitions, property, supplies, or any other equipment necessary for the operation of the Department of Air, and the performance of all duties heretofore assigned to the War Department, Department of Commerce, insofar as they relate to aeronautics, and all duties of the National Advisory Committee for Aeronautics and the Weather Bureau of the Department of Agriculture, which shall include the responsibility for aerial defense of the United States and its foreign possessions, to include air operations off the coasts and beyond the frontiers to the limit of the radius of action of aircraft; the preparation of aerial photographs; the preparation, procurement, production, and issuance of air maps; the control of intelligence, insofar as it relates to military aviation, the establishment, supervision, and control of governmental airdromes and landing fields, and the supervision and inspection of those used for commercial purposes; the providing of and the control and supervision of all wireless communication utilized in the operation of all air traffic, including all civil and military missions of the Department of Air; preparation and distribution of meteorological data; the establishment, maintenance, and operation of an air academy or academies; and, to this end, it shall be vested with jurisdiction and control of departments, bureaus, offices, and branches of the public service hereinafter specified, and with such other powers and duties as may be prescribed by law; *Provided*, That the Secretary of Air shall assign personnel for duty with the embassies of the United States in foreign countries and commissioned officers of the Air Force so assigned shall be known as "air attachés"; *Provided further*, That the Secretary of Air shall submit to the Congress as soon as practicable after the passage of this Act, detailed estimates for the establishment of an air academy or academies for the training of flying cadets in the science and practice of aeronautics, who shall be eligible to be commissioned in the United States Air Force when graduated; *And provided further*, That upon request of the Secretary of Air other branches, bureaus, and departments of the Federal Government shall continue to furnish the necessary supplies and services for the Department of Air that previously have been furnished the various agencies hereby transferred to the Department of Air, and that the costs of such services and supplies for the Air Department by other supply and technical branches, bureaus, or departments of the Federal Government shall be adjusted by interbureau, interbranch, or interdepartmental transfers of funds to cover actual costs without overhead of such supplies and services.

AIR SERVICE FOR OTHER FEDERAL DEPARTMENTS

SEC. 4. That upon the request of the Secretary of any Federal department the Air Secretary is authorized to furnish to that department, air services, the cost of which shall be adjusted by interbureau transfers of funds to cover actual costs without overhead of such services: *Provided*, That nothing in this Act shall operate to change the existing status, organization, and methods of operation of the aviation units in the National Guard: *Provided further*, That the Department of Air shall continue to furnish the same service pertaining to aeronautics, to the National Guard air units, which has heretofore been furnished by the Air Corps of the War Department.

TRANSFER OF BALANCES OF APPROPRIATIONS, EQUIPMENT, FUNCTIONS, AND SO FORTH, TO THE DEPARTMENT OF AIR

SEC. 5. That all balances of appropriations unexpended at the time this Act takes effect in relation to the various offices, bureaus, divisions, and other branches of the public service which shall by this Act be transferred to or included in the Department of Air, or which may hereafter, in accordance with the provisions of this Act, be so transferred, and such proportionate part of any unexpended balances of appropriations as the War Department, the Department of Agriculture, and the Department of Commerce, or any other department would have been authorized to expend for purchase of equipment and for pay, additional pay, and allowances on account of offices, enlisted men, and civilian employees transferred to the Department of Air by this Act, including medical attendance, transportation, housing, subsistence, clothing, and any other items not specifically set aside for aeronautical purposes, shall become available, from the time of such transfer, for expenditure in and by the Department of Air, and shall be treated the same as though said branches of the public service had been directly named in the laws mak-

ing such appropriations as part of the Department of Air, and expendable under the direction of the Secretary of said Department, and all obligations of each of such departments, bureaus, divisions, and other branches of the public service in relation to the aeronautics shall concurrently become obligations of the Department of Air. The Secretary of War, the Secretary of Commerce, the Secretary of Agriculture, and the head of the National Advisory Committee for Aeronautics shall, and are hereby directed to transfer and deliver to such agents of the Department of Air as the Secretary thereof may designate all aircraft, all means of transportation, including boats, and automobiles or other vehicles now in use, on hand, or being procured, and all material and parts, and all machinery, appliances, and equipment held for use for the maintenance thereof, all lands, airdromes, docks, wharves, buildings, repair shops, depots, warehouses, and all other property and equipment heretofore used by the Department of War, Department of Commerce, Department of Agriculture, and the National Advisory Committee for Aeronautics, pertaining to the development, operation, maintenance, repair, and manufacture of aircraft, and the preparation and distribution of meteorological data, or procured and now held for such use by or under the jurisdiction and control of these departments or agencies.

And each and every function, authority, power, duty, and jurisdiction of whatsoever character it may be, insofar as it relates to aeronautics, now vested in the head of the executive department from which said corps, office, bureau, division or section, or other branch of the Federal Government is to be transferred, shall, to the extent which said function, authority, power, duty, or jurisdiction pertains to said corps, office, bureau, division, section, or other branch of the Federal Government, immediately upon said transfer, become vested, and hereafter remain vested, in the Secretary of Air.

BUILDINGS OR PREMISES, EXPENDITURES FOR PROMOTING, DEVELOPING, AND REGULATING NAVIGATION OF THE AIR

SEC. 6. That the Secretary of Air shall have charge of the buildings on premises occupied by or appropriated to the Department of Air, of the library, furniture, fixtures, records, and other property pertaining to it, or thereafter required for use in its business. He shall be allowed to expend for the purchase of aircraft, aircraft engines, aircraft accessories, land, buildings, materials, machinery, vehicles, vessels, and apparatus required for the operation of the Department of Air in promoting, developing, and regulating navigation in the air, and for books, periodicals, and library supplies, and for rental of proper quarters for the accommodation of the Department of Air within the District of Columbia, and for all other incidental expenses, such sums as Congress may provide from time to time: *Provided*, That where any corps, office, bureau, division, or other branch of the Government transferred by this Act to the Department of Air is occupying buildings or premises, it may still continue to do so until other suitable quarters are provided for its use.

TRANSFER OF CIVILIAN EMPLOYEES TO THE DEPARTMENT OF AIR

SEC. 7. That, subject to the approval of the Secretary of Air, all civilian employees of the War Department, on duty with the Air Corps, departmental and field services; all civilian employees of the Aeronautics Branch, Department of Commerce, departmental and field services; all officers and civilian employees of the National Advisory Committee for Aeronautics, departmental and field services; and all civilian employees of the Weather Bureau of the Department of Agriculture, departmental and field services, shall be, and are hereby, transferred to the Department of Air with their present grades and salaries: *Provided*, That all laws prescribing work and defining duties of the several corps, offices, bureaus, divisions, and branches by this Act transferred to and made a part of the Department of Air shall, so far as the same are not in conflict with the provisions of this Act, remain in full force and effect, to be executed under the direction of the Secretary of Air.

TRANSFER OF SPECIFIED OFFICES, BUREAUS, AND SO FORTH

SEC. 8. That all offices, bureaus, divisions, branches, and organizations of the public service, now and heretofore under the jurisdiction of the War Department, except as otherwise provided herein, the Department of Commerce,

and the National Advisory Committee for Aeronautics, and all that pertains to the same, which have heretofore been charged with matters pertaining to aeronautics, and the Weather Bureau of the Department of Agriculture be, and the same are hereby, transferred to the Department of Air, and the same shall hereafter remain under the jurisdiction and supervision of the last-named department; and the Secretary of Air is hereby given power and authority to rearrange the work of the offices, bureaus, divisions, branches, and organizations confided to such departments, and to consolidate any of the offices, bureaus, divisions, branches, and organizations transferred to said Department. The official records, papers, and libraries now on file in and pertaining exclusively to any bureau, office, division, branch, or organization of the public service in this Act, transferred to the Department of Air, together with the furniture and equipment now in use in such bureau, office, division, branch, or organization of the public service, shall be and are hereby transferred to the Department of Air.

NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

SEC. 9. That the body which is now known, or which heretofore has been known, as the National Advisory Committee for Aeronautics is abolished as such, and its organization, property and all funds and obligations are transferred to the Department of Air, and the Secretary of Air is hereby authorized to control and direct the activities previously carried on by this body as to best serve the aeronautical interests of the United States and the Department of Air.

ORGANIZATION OF THE DEPARTMENT OF AIR, AND THE DUTIES OF THE AIR CHIEF AND THE DIRECTOR OF CIVIL AERONAUTICS

SEC. 10. That the Department of Air shall consist of the Air Force and the Bureau of Civil Aeronautics.

The commissioned personnel of the Air Force shall be appointed in the following grades: Air marshal, vice air marshal, junior air marshal, wing commander, group commander, air commodore, squadron leader, flight leader, flight lieutenant, and flight officer.

Upon acceptance of appointment of any of the above grades in the Air Force by a commissioned officer of the Army, his commission in the Army shall thereby become vacated. That for purposes of transfer, pay allowances, retired pay, and all other benefits and privileges of commissioned officers of the Air Force among themselves or in relation with officers of other Federal Departments, the following table will be used for comparison of rank, and the benefits and privileges pertaining thereto:

Army	Navy	Marine Corps	Coast Guard	U. S. Air Force
Second lieutenant.....	Ensign.....	Second lieutenant.....	Ensign.....	Flight officer.
First lieutenant.....	Lieutenant (junior grade).	First lieutenant.....	Lieutenant (junior grade).	Flight lieutenant.
Captain.....	Lieutenant (senior grade).	Captain.....	Lieutenant (senior grade).	Flight leader.
Major.....	Lieutenant commander.	Major.....	Lieutenant commander.	Squadron leader.
Lieutenant colonel.....	Commander.....	Lieutenant colonel.....	Commander.....	Air commodore.
Colonel.....	Captain.....	Colonel.....	Captain.....	Group commander.
Brigadier general.....	Rear admiral, lower half.	Brigadier general.....	Commodore.....	Wing commander.
Major general.....	Rear admiral, upper half.	Major general.....	Junior air marshal.
Lieutenant general.....	Vice admiral.....	Lieutenant general.....	Vice air marshal.
General.....	Admiral.....	General.....	Air marshal.

The military head of the Department of Air shall be known as the Air Chief. He shall be appointed by the President, by and with the advice and consent of the Senate, from among the commissioned flying personnel of the Air Force above the grade of group commander to serve for four years unless sooner relieved. He shall advise the Secretary of Air on all matters pertaining to military aviation and shall have the rank of air marshal while so serving and receive the pay and allowances of junior air marshal during his tenure of

office. He shall preside over the Air Council, which shall consist of the Chief of Air Administration, the Chief of Air Operations, and the Chief of Air Supply and Research. Under the direction of the President, or of the Secretary of Aid under the direction of the President, the Air Chief shall be charged with the planning, development, and execution of the Air Force program. The Air Chief shall be charged with the preparation of the necessary plans for peace and war, for recruiting, mobilizing, organizing, supplying, equipping, and training the Air Force for use in the national defense and for demobilization. He shall be charged with the control, supervision, inspection, and operation of the Air Force. He shall be charged with formulating plans for the use in time of war of the Air Force, separately or in conjunction with other departments and agencies of the public service in the national defense. He shall be charged with the collection and dissemination of information on military aviation; the disbursement of and accounting for air-intelligence funds; the cooperation with the air-intelligence agencies of the Government; the organization, supervision, and control of all Reserve officers formerly commissioned in the Air Corps Reserve who may be commissioned in the Air Reserve, and all officers of the Specialist Reserve formerly assigned to the Air Corps who may be assigned to the Air Force, for appointment, reappointment, promotion, assignment, aeronautical ratings, classification, and active- and inactive-duty training under such instructions and regulations as he may prescribe consistent with existing laws and appropriations. The Air Chief shall submit an estimate annually to the Secretary of Air covering appropriations necessary for the proper and adequate training of the Air Reserve. The Air Chief shall be charged with the preparation of and the submission to the Secretary of Air of all estimates covering the entire cost of the Air Force: *Provided*, That the Air Chief shall be responsible directly to the Secretary of Air for the efficient and economical control and expenditure of all funds annually appropriated by Congress for the Air Force: *Provided further*, That in time of peace the Air Chief shall not be eligible for reappointment: *And provided further*, That any officer who on completion of four years as Air Chief is retired or who may be retired during his tenure of office shall be retired with the rank of air marshal and the retired pay of a junior air marshal.

The head of the Bureau of Civil Aeronautics shall be known as the Director of Civil Aeronautics. He shall be appointed by the President, by and with the advice and consent of the Senate, from among the personnel of the Bureau of Civil Aeronautics to serve for four years, unless sooner relieved, and while so serving shall be paid a salary of \$10,000 per annum. He shall advise the Secretary of Air, through the Assistant Secretary of Air, on all matters pertaining to civil aeronautics and shall perform such duties connected therewith as may be prescribed by the Secretary of Air: *Provided*, That except as herein specified, the provisions of the Air Commerce Act of 1926, approved May 20, 1926 (Public, Numbered 254), and amendments thereto, shall remain in full force and effect and the provisions and duties assigned therein to the Department of Commerce are hereby assigned to the Department of Air.

That all airdromes and landing fields within the jurisdiction of the United States, its possessions, and its dependencies are hereby required to conform to such rules and regulations regarding the placing and use of lights, signals, the size and marking of landing places, and other matters for the safety of air navigation as may be prescribed by the rules and regulations approved by the Secretary of Air.

The Department of Air shall keep a record in which such aircraft shall be registered and such record shall contain, in a statement made under oath, the name of the owner of the aircraft, a statement as to his citizenship, or in the case of a company or corporation, the facts showing that it comes within the provisions of this section, the purpose for which the aircraft is to be used, and an accurate description of such aircraft.

That no airdrome or landing field shall be operated without license from the Department of Air. Such license shall be granted upon application to the owner of the airdrome or landing field, who shall be a citizen of the United States, its possessions, or its dependencies, or if such owner be a company or corporation, then a company or corporation organized under the laws of the United States or some one of the States thereof, the president or chairman and the majority of the members of which company, or the president or chairman of the board of directors and a majority of the board of directors and the holders of a majority of the stock of which corporation are citizens of the United States, its possessions, or its dependencies, and upon its

being shown that the airdrome or landing field is prepared to operate in accordance with the rules and regulations of the Department of Air. Such license shall expire upon a change of ownership of the airdrome or landing field and shall not be renewed or extended, but a new license may be issued upon compliance with the laws and rules and regulations of the Department of Air then in force. Any such license may be revoked at any time by the Department of Air when any of the facts upon which the issuance of such license was based have ceased to exist or upon failure to comply with existing laws and rules and regulations of the Department of Air.

That the Department of Air is authorized to fix the fees and charges for the licenses which are authorized by this Act, which fees and charges shall be collected by the Department of Air and covered into the Treasury of the United States.

That the provisions of this Act authorizing the regulation of air navigation and airdromes and landing fields, and the rules and regulations made pursuant thereto, and the provisions of this Act relating to licensing of aircraft and airdromes and landing fields and the operators of aircraft, and the rules and regulations made pursuant thereto, shall not apply to aircraft, or airdromes, or landing fields owned by the Government of the United States, or to the operators employed by any department or other governmental agency to operate or assist in the operation of aircraft owned by the Government of the United States, nor to aircraft built for the purpose of experiment and flown for the purpose of experiment or test within three miles of the airdrome or landing field or aircraft factory, or in accordance with such rules and regulations governing the same, which may be prescribed by the Secretary of Air, nor to operators of aircraft within the precincts of an airdrome or landing field as defined in the rules and regulations of the Department of Air when such persons are under the instruction of a person duly licensed, except that all aircraft and operators, Government or otherwise, are required to observe the rules and regulations for lights and signals and other rules of the air as prescribed by the Secretary of Air.

That within one year from the passage of this Act all members of the air and ground crews, including pilots, copilots, navigators, radio operators, inspectors, mechanics, and other persons employed in the maintenance and operation of all aircraft engaged in commercial air operations as common carriers shall, subject to such regulations as may be prescribed by the Secretary of Air, be commissioned or enlisted in the Air Reserve.

NAMING THE AIR FORCE AND THE CONSTITUTION OF SAME

SEC. 11. That the military aviation of the United States shall be known as the United States Air Force, and shall consist of the Air Force, the Air Reserve, and the Junior Air Reserve, and shall be organized as the Secretary of Air may direct, from the personnel and the equipment transferred thereto or authorized under the provisions of this Act or as may hereafter be authorized by law.

CONSTITUTION OF THE PERSONNEL OF THE DEPARTMENT OF AIR

SEC. 12. That the personnel of the Department of Air shall consist of commissioned officers, flying cadets, warrant officers, airmen, and civilian employees appointed thereto. Except for the initial organization, commissioned officers of the Air Force shall be appointed and commissioned as follows: (1) As flight officers from graduates of the United States Air Academy or academies when established; (2) until such time as graduates of the United States Air Academy become available, as flight officers from flying cadets and from officers of the Air Corps Reserve who have successfully completed the course of training for airplane pilot at the Air Corps Training Center, and who meet the further qualifications prescribed by the Secretary of Air for permanent commissioning in the Air Force: *Provided*, That airplane pilots commissioned as flight officers in the Air Force after the initial preparation of the Air Force promotion list shall be credited with constructive commissioned service for any period of service as flying cadet and/or Reserve officer on active duty with the Air Corps; (3) within a period of not to exceed four years from the date of passage of this Act, from among the commissioned personnel of the Army, under such regulations as may be prescribed by the Secretary of Air: *Provided further*, That such officers shall be detailed to

the Air Force for a period of not to exceed two years at the end of which time they may be commissioned in the Air Force in the grade of flight officer with rank from date of such detail in the Air Force: *And provided further*, That they have successfully completed the prescribed Air Force course for rating as an airplane pilot.

Airmen of the Air Force shall be recruited as may be prescribed by the Secretary of Air.

The civilian personnel employed in the Department of Air shall be of two classes: (a) Personnel subject to civil-service laws, wherever same apply; (b) personnel of certain selected technical qualifications, to be employed at the discretion of the Secretary of Air under such regulations as he may prescribe.

For the purpose of training, education, technical development, and coordination of the departmental function officers, enlisted men, and civilian personnel and necessary matériel of the War Department and other departments or agencies of the Federal Government may be temporarily detailed or loaned from time to time to the Department of Air, under such regulations as may be agreed upon by the Secretary of Air and the heads of the other Federal departments or agencies concerned. Reciprocal arrangements are hereby authorized to be made for the temporary detail of officers, airmen, and civilian personnel and loan of matériel for purposes similar to the above-mentioned from the Department of Air to the other departments or agencies of the Federal Government.

PROMOTION LIST

Sec. 13. That the Secretary of Air shall cause to be prepared an Air Force promotion list on which shall be placed the names of all officers of the Air Corps of the War Department, in accordance with their lengths of commissioned service in the Army. The names on this list shall be arranged in the same relative order that they now have on the Army promotion list and shall be removed from the Army promotion list and the relative rank list of colonels, and no officer whose name appears on the original Air Force promotion list shall be considered as having less commissioned service than any officer whose name is below his on this list: *Provided*, That the place of any officer on the Air Force promotion list shall not thereafter be changed, except as a result of the sentence of a general court martial: *Provided further*, That any officer whose position on the Air Force promotion list is changed by sentence of a general court martial shall be deemed to have the same commissioned service as the officer next below whom he may be placed by such change.

COMMISSIONED PERSONNEL OF THE AIR CORPS

Sec. 14. That initially the commissioned strength of the Air Force shall be that authorized for the Air Corps of the Army by the Act of July 2, 1926 (Public, Numbered 446). That in addition to the Air Chief, appointed in accordance with the provisions of section 10 of this Act, initially there shall be two junior air marshals and eight wing commanders, all of whom shall be appointed by the President, by and with the advice and consent of the Senate. For purposes of promotion in the Air Force, the number of officers in the various grades below the grade of wing commander shall not exceed the following percentages of the total commissioned strength of the Air Force, that is, group commander, 8 per centum; air commodore, 4 per centum; squadron leader, 15 per centum; flight leader, 25 per centum; flight lieutenant, 28 per centum; and flight officer, 25 per centum: *Provided*, That junior air marshals shall be appointed from among the wing commanders of the Air Force: *Provided further*, That if a junior air marshal at the end of eight years has not been selected for promotion, he shall be retired with the rank and retired pay of a junior air marshal: *Provided further*, That wing commanders shall be appointed from the group commanders of the Air Force: *Provided further*, That if a wing commander at the end of eight years in that grade has not been selected for promotion, he shall be retired with the rank and retired pay of a wing commander: *Provided further*, That in time of peace the combined service of an officer in the grades from wing commander to air marshal, inclusive, shall not be in excess of twelve years, on completion of which period he shall be retired with the rank in which he is serving and the retired pay as provided in this Act: *Provided further*, That if on completion.

of ten years' service in the grade of group commander an officer has not been selected for promotion, he shall be retired with the rank and with the retired pay of group commander: *Provided further*, That all officers above the grade of group commander shall be flying officers: *Provided further*, That the total authorized commissioned strength of the Air Force shall not exceed five thousand five hundred and seventy-six commissioned officers in all grades from air marshal to flight officer, inclusive: *Provided further*, That the authorized Air Force allotment of officers in the grades from air marshal to wing commander, inclusive, all of whom shall be appointed by the President, by and with the advice and consent of the Senate, shall not exceed the following: One air marshal, two vice air marshals, five junior air marshals, and fifteen wing commanders: *Provided further*, That if a vice air marshal, at the end of four years in that grade has not been selected for promotion he shall be retired with the rank of vice air marshal, and the retired pay of a junior air marshal: *Provided further*, That at least 90 per centum of the officers below that of wing commander shall be flying officers: *Provided further*, That all units, stations, and organizations of the Air Force shall be commanded by flying officers of the Air Force. Whenever used in this Act a "flying officer" is defined as one who has received a military aeronautical rating as a pilot of service types of airplanes in the Air Corps: *Provided further*, That all officers of the Air Corps, now holding an aeronautical rating as pilot of service types of aircraft shall be considered as flying officers within the meaning of this Act: *Provided further*, That hereafter in order to become a flying officer, an officer must have successfully completed the courses of heavier-than-air flying training, as prescribed by the Air Chief, and who has been rated as an airplane pilot: *Provided further*, That in time of war a flying officer may include any officer who has received a military aeronautical rating as a pilot of service types of aircraft. Officers and enlisted men of the Air Force shall receive an increase of 50 per centum of their pay when by orders of the Secretary of Air they are required to participate regularly and frequently in aerial flights, and when in consequence of such orders they do participate in regular and frequent aerial flights as defined by such Executive orders as have heretofore been, or may hereafter be, promulgated by the President: *And provided further*, That nothing in this Act shall be construed as amending existing provisions of law relating to pay and allowances, benefits and privileges of flying cadets.

RETIREMENT OF AIR FORCE OFFICERS

SEC. 15. That all officers commissioned in the Air Force in the grades herein created shall be retired from active service and be eligible for retirement from active service as authorized herein or as authorized by law for commissioned officers in equivalent grades of the Regular Army and shall receive the same pay as is authorized by law for retired officers of equivalent grades of the Regular Army. That Air Force retired officers shall be placed on a separate list which list is hereby created and shall be known as the Air Force retired list.

TRANSFER OF OFFICERS FROM AIR FORCE TO ARMY

SEC. 16. That within one year after the passage of this Act an Air Force officer originally commissioned in the Army, may upon his own request be transferred back to the Army, and when so transferred shall take rank and grade therein in accordance with his length of commissioned service as computed under existing laws governing the branch to which transferred.

CLASSIFICATION OF OFFICERS

SEC. 17. That the President shall annually convene a board of at least three Air Force officers above the grade of group commander, which shall arrange all officers of the Air Force in two classes, namely, class A, consisting of officers who should be retained in the service, and class B, officers who should not be retained in the service. That officers of class B shall be separated from active service as now provided for similar cases in the Army.

SAVING CLAUSE

SEC. 18. That nothing contained in this Act shall operate to reduce the pay, additional pay, and allowances of an officer on the active list of the Depart-

ment of Air below the pay, additional pay, and allowances to which he is entitled by reason of his grade and length of service on the date that this Act shall take effect.

ENLISTED STRENGTH OF THE AIR FORCE

SEC. 19. That initially the authorized number of airmen of the Air Force shall be the same as the enlisted strength authorized for the Air Corps of the Army by the Act of July 2, 1926 (Public, Numbered 446). That the number of airmen in the Air Force shall not exceed the following percentages in the various grades from first to sixth grades, inclusive: First grade, 3 per centum; second grade, 7 per centum; third grade, 22 per centum; fourth grade, 22 per centum; fifth grade, 17 per centum; sixth grade, 22 per centum: *Provided*, That the pay and allowances of airmen in the Air Force shall be the same as for the corresponding grades of enlisted men of the Regular Army, including the additional pay for participating in aerial flights: *Provided further*, That in the computation of service under the enlistment in the Air Force after discharge from the Army, Navy, Marine Corps, or Coast Guard full credit shall be given for the time served in such arm: *Provided further*, That service in the Air Force shall be considered the same as service in the Army, Navy, Marine Corps, or Coast Guard for all other purposes now authorized by law giving credit for service in such forces: *Provided further*, That the total authorized number of airmen of the Air Force shall not exceed thirty-two thousand eight hundred and four enlisted men in all grades from first to seventh, inclusive: *Provided further*, That any enlisted man in the Army Air Corps may be discharged therefrom and reenlisted in the Air Force in such grade as may be determined by the Air Chief: *And provided further*, That the term enlistment in the Air Force may be for terms of one, two, or three years under such regulations as may be prescribed by the Secretary of Air.

RESERVE UNITS AND THE AIR RESERVE

SEC. 20. That the Secretary of Air, for the purpose of forming an adequate aviation Reserve, is authorized to organize or reorganize Reserve units in such numbers and at such places as he, in his discretion, may designate, and he shall assign to any designated unit such personnel of the active force and such equipment and supplies, including aircraft, as may be necessary in accordance with the size of the Reserve unit.

CONSTITUTION OF THE AIR RESERVE

SEC. 21. That the Air Reserve of the United States shall consist of an officers' Reserve and an airmen's Reserve. Officers of the Air Reserve shall be available for service as temporary officers of the Air Force, under such rules and regulations as the President may prescribe, not inconsistent with the provisions of this Act. The President shall be authorized to appoint and commission as Reserve officers in the Air Reserve in all grades up to and including that of squadron leader such citizens as, upon examination prescribed by the President, shall be found professionally, physically, mentally, and morally qualified to hold such commissions: *Provided*, That the proportion of officers above the grade of flight officer in any section of the Air Reserve shall not exceed the proportion for the same grade in the corresponding section of the Air Force: *Provided further*, That promotions of officers in any section of the Air Reserve shall be subject to such regulations as the Secretary of Air may prescribe.

RESERVES ON ACTIVE DUTY

SEC. 22. That the President may order such personnel of the Air Reserve, subject to such physical and professional examinations as he may prescribe, to temporary duty with the Air Force. While an Air Reserve officer is on such service, he shall be entitled to pay and allowances of his corresponding grade in the Air Force, and he shall be entitled to mileage from his home to his first station and from his last station to his home. To the extent provided for from time to time by appropriations for this specific purpose, the Secretary of Air is authorized to order Air Reserve personnel to active duty for periods not to exceed thirty days in any one calendar year, and, while so serving they shall receive the pay and allowances of their respective grades in the Air Force:

Provided, That with the consent of the personnel concerned and within the limits of funds available for the purpose, such periods may be extended as the Secretary of Air may direct.

RESTRICTIONS ON RETIREMENT AND ELIGIBILITY FOR PENSIONS

SEC. 23. That no Air Reserve officer or Air Reserve airman, pursuant to this Act, shall be entitled to retirement or to retired pay, and shall be eligible for pension only for disability incurred in line of duty in active service or while serving with the Air Force pursuant to the provisions of this Act: *Provided*, That the provisions of the Act of April 23, 1928 (45 Stat. 461), providing for the care and treatment of members of the civilian components of the Army who suffer personal injuries or are killed in line of duty are hereby made applicable to officers and enlisted men of the Air Reserve.

EQUIPMENT

SEC. 24. The Secretary of Air is hereby authorized to equip and maintain the Air Force with not to exceed four thousand eight hundred and thirty-four serviceable airplanes, and such number of airships and balloons as he may determine to be necessary for the national defense, together with spare parts, equipment, supplies, hangars, and installations necessary for the operation and maintenance thereof. In order to maintain the number specified above, the Secretary of Air is hereby authorized to replace obsolete or unserviceable aircraft from time to time: *Provided*, That the total number of airplanes, airships, and balloons herein authorized shall be exclusive of those waiting salvage or undergoing experiment or service tests, those authorized by the Secretary of Air to be placed in museums and those classified by the Secretary of Air as obsolete: *Provided further*, That each year the Secretary of Air shall present to Congress an estimate of the cost and number in types of airplanes, airships, and balloons, as he may determine to be necessary for the national defense.

THE ADMINISTRATION OF THE DEPARTMENT OF AIR

SEC. 25. That the Secretary of the Department of Air shall administer the Air Force under existing laws and regulations governing the War Department, insofar as they are applicable to the Department of Air, until such time as other laws are enacted and until other regulations are prescribed by the Secretary of Air and except as otherwise provided herein, the personnel of the Air Force of the Department of Air shall have, respectively, the status, rights, pay, additional pay, allowances, and privileges that are now authorized by law for personnel of similar ranks and grades in the Army, and shall be subject to the Articles of War: *Provided*, That members of courts martial appointed to try officers and airmen of the United States Air Force shall be officers of the United States Air Force.

That the Secretary of the Department of Air shall administer the Bureau of Civil Aeronautics under existing laws and regulations governing the Department of Commerce, the Department of Agriculture, and the National Advisory Committee for Aeronautics, insofar as they are applicable to those parts of the Department of Air formerly known as the "Aeronautics Branch of the Department of Commerce", the "Weather Bureau of the Department of Agriculture", and the "National Advisory Committee for Aeronautics", until such time as other laws are enacted and until other regulations are prescribed by the Secretary of Air.

MEDALS OF HONOR AND OTHER MEDALS, CROSSES, AND DECORATIONS

SEC. 26. That the provisions of existing law and regulations relating to the award of medals of honor, and all other medals, crosses, and decorations to officers, noncommissioned officers, and privates of the Army and the Navy be, and they hereby are, amended to include officers and airmen of the United States Air Force: *Provided*, That the actual award of such medals, crosses, and other decorations shall be made by the President or such official or officials of the Department of Air as he may designate.

WAR-RISK BENEFITS

SEC. 27. That the benefits of War Risk Insurance Act of October 6, 1917 (40 Stat. L. 398), as amended, are hereby extended to include the commissioned and enlisted personnel of the Air Force.

ANNUAL REPORT

SEC. 28. That the Secretary of Air shall annually, at the close of each fiscal year, make a report in writing to the President giving an account of all moneys received and disbursed by him and his department and describing the work done by his department and such report shall be transmitted to Congress. He shall also, from time to time, make such special investigations and reports as may be required by the President or by Congress, or which he himself may deem necessary.

NEW LEGISLATION TO BE RECOMMENDED TO CONGRESS

SEC. 29. That the Secretary of Air is authorized to draft and recommend to the President, from time to time, as circumstances may suggest, such new legislation as he may deem desirable, and such recommendations shall be communicated by the President to the Congress for its consideration, either in the annual report hereinbefore provided for or in a special report, where the circumstances justify it.

GENERAL DEFINITIONS

SEC. 30. That the term "airdrome" means any area or supporting surface provided with facilities for aircraft to land upon and take off from, and equipped with hangars and/or other buildings and/or structures used for the storage and maintenance of aircraft and/or the housing of personnel.

The term "landing field" means any area or supporting surface used primarily for aircraft to land upon and take off from, not equipped with facilities for the storage or maintenance of aircraft or for the housing of personnel.

The term "aircraft" means any contrivance now known or which shall hereafter be used, designed, invented, or constructed for navigation of or flight in the air.

The term "airman" as used in this Act means an enlisted man of the Air Force.

A student undergoing flying training at an Air Force flying school or academy shall be known as a "flying cadet" from the date he reports for duty at such flying school or academy until the date he is commissioned in the Air Force or the Air Reserve, or discharged as unsuitable for further flying training.

SEC. 31. That the Secretary of Air be, and he is hereby, authorized and directed to organize a component of the Air Force to be known and designated as the "Junior Air Reserve", and to establish such rules and regulations as he shall deem fit and proper for carrying out the purposes and objects of this Act.

SEC. 32. That all persons between the ages of eighteen and twenty-one years, of sound physical condition, and with a minimum education equivalent to at least a full high-school course, shall be eligible to be listed as cadets of the Junior Air Reserve, and shall be entitled to receive such emblem or designation to wear upon the clothing as the Secretary of Air may prescribe while receiving such course of instruction and training in aerodynamics and in the art of flying as shall be prescribed by the Secretary of Air.

SEC. 33. That the Secretary of Air is authorized to use all proper means and agencies for the encouragement of said Junior Air Reserve, by detailing either Regular flying officers or Reserve flying officers, called to active duty, to engage in the instruction and training of cadets of the Junior Air Reserve in such private flying schools and centers of air training as may be selected by the Secretary of Air for that purpose, where the number of cadets shall not be less than twenty and where the standards of instruction and training shall have been approved by the Secretary of Air.

SEC. 34. That the Secretary of Air is further authorized to encourage the development of said Junior Air Reserve by permitting the use of such air fields from time to time as may not conflict with the work of the Air Force and

further by permitting the use of airplanes, aircraft generally, and equipment belonging to the Air Force, if and when, in the judgment of the Secretary of Air, such use is wise and proper in promoting the art of flying and in the training of said Junior Air Reserve.

Sec. 35. That upon the completion of such course of training as shall have been prescribed by the Secretary of Air and upon the satisfactory passage of final examination and tests by cadets of said Junior Air Reserve, the Secretary of Air shall issue certificates of graduation that shall evidence full membership by all such graduates in the Junior Air Reserve, and said graduates shall then be entitled to wear, at pleasure, such uniform as shall be prescribed by the Secretary of Air and such insignia and other designations and decorations upon said uniform or civilian clothing as the Secretary of Air shall prescribe. All such graduates of the training prescribed for cadets of the Junior Air Reserve shall be kept listed as to their addresses, business occupations, and other pertinent facts so that the same may be available on shortest notice for service in the national defense in the event of a national emergency.

Sec. 36. That the Secretary of Air is authorized to select each year three hundred of the most promising and efficient graduates of the primary instruction hereby authorized and to give said three hundred graduates instruction at any school or flying field of the Air Force for a period not exceeding six months and then to offer at least one hundred each year of said graduates in the primary instruction, Reserve commissions as second lieutenants in the Air Reserve and to call said second lieutenants to active duty as Reserve officers in the United States Air Force for such time as the Secretary of Air may from time to time prescribe.

Sec. 37. That the President of the United States be, and he is hereby, authorized and directed to designate and to detail five officers of the Army, five officers of the Navy, and five officers of the Air Force to constitute the Joint Board of the National Defense, to constitute a continuing body of which the Secretary of War shall be ex officio chairman and the Secretary of the Navy and the Secretary of Air, respectively, shall be ex officio vice chairmen. All vacancies in the membership of said Board shall, from time to time, be immediately filled by appointment of the President. The Secretary of War shall designate an Army officer to be the executive officer of said Joint Board, and the Secretary of the Navy shall designate an officer of the Navy to be the recorder of the said Joint Board, and the duties of these officers shall be defined at the time of designation and may be modified from time to time. The President of the United States may, from time to time, by Executive order, prescribe the duties of the said Joint Board of National Defense, said Executive orders to be consistent with the law herein expressed.

Sec. 38. The President is authorized and directed to refer any matter to said Joint Board for its consideration and action relating to the cooperation and coordination between the Army, the Navy, and the Air Force in promoting the efficiency of, and economy in, the National Defense establishments. In like manner the War Department, the Navy Department, and the Department of Air, respectively, shall refer to said Board all matters of policy, projects, and plans relative to the National Defense and involving, or that should involve, joint action or the use of joint agencies of the Army, the Navy, and the Air Force, respectively. Furthermore, the membership of said Joint Board or any one of them may originate subjects for the consideration of said Board and any subject matter thus originated by any member of the Board shall be considered and determined by said Board, as are other matters.

Sec. 39. Said Board shall semiannually make a written report by the chairman, or by the vice chairman, as the case may be, to the President setting forth in detail all subjects that have been considered and determined by the Board. Any such matter or question or project that shall have been before said Board for consideration for six months, and that shall still remain undecided and undetermined by the Board, shall at once be submitted in writing to the President with a statement of all pertinent facts and a written brief or argument by those favoring the proposed action and a written brief or argument by those opposing such action, and the decision and determination of the President thereon shall be final. All determinations by the Board shall be binding upon all departments and they shall be bound to proceed with and to put into execution all determinations by the Board and by the President in cases decided and determined by the President.

SEC. 40. All existing joint boards of the Army and the Navy and the Air Force and all that may be hereafter created by Executive or administrative orders, shall be subject to and shall report semiannually to said Joint Board of National Defense, including in part the Aeronautic Board, the Army and Navy Munitions Board, the Joint Merchant Vessel Board, the Joint Economy Board, and all regional, area, section, and all local joint committees, and all other agencies or commissions or boards not herein mentioned, and all subordinate boards shall meet at least quarterly which shall make semiannual reports to the Joint Board of National Defense concerning all matters considered by such subordinate boards and the action taken thereon in each case.

SEC. 41. That all Acts and parts of Acts inconsistent with this Act are hereby repealed.

[H. R. 6810, 74th Cong., 1st sess.]

A BILL To provide for the national defense by promoting the development and improvement of military aircraft, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

DECLARATION OF POLICY

SECTION 1. That it is hereby declared to be the policy of the Congress to stimulate and encourage the inventive genius of the citizens of the United States in aircraft engineering and manufacturing and in developing, refining, and manufacturing designs of all types of military aircraft, and to keep all persons connected with the aircraft industry constantly diligent, alert, and progressive, by requiring frequent design and performance competitions, which shall be freely open to all citizens of the United States. This Act shall be liberally construed and harmonized with existing Acts not hereby repealed, in order to insure leadership to the Government and the people of the United States in the art and science of aviation.

FREQUENT DESIGNS AND PERFORMANCE COMPETITIONS

SEC. 2. In order to effectuate the foregoing policy and to insure the development of the best possible aircraft, procured under broad and open competition, each governmental department requiring military aircraft shall invite competition from and among all citizens of the United States for all types of aircraft required for such department, and each such department shall hold frequent aircraft and design and performance competitions. Such design and performance competitions shall be held annually by each such department purchasing military aircraft for the first five fiscal years after the enactment of this Act, and thereafter such design and performance competitions shall be held each alternate year for the period of ten years, and thereafter such design and performance competitions shall be held only so often as the department concerned may deem necessary. In connection with the public announcement of the design and performance competition, the department concerned is authorized to offer rewards to such winners therein as a board of estimate and evaluation, appointed by the department concerned, shall decide, said rewards not to exceed the following amounts, to wit: \$50,000 for the first winner, \$30,000 to the second winner, and \$20,000 to the third winner, from appropriations to be made available for such purpose. All persons, firms, or corporations desiring to enter into such competition shall apply to the appropriate department for full and definite information concerning same, which shall be furnished in writing and in identical terms to all applicants alike, and no additional information shall be furnished orally, except in explanation of the written information, and the announcement by the department concerned shall specify the respects and particulars in which it is expected to bring about improvement and advancement in the various features of aircraft or aircraft accessories, including aircraft engines, such as speed, climbing power, load-lifting capacity, range of distance attainable without refueling, maneuverability, and safety, and such other features and characteristics as from time to time may seem to the appropriate department desirable, and from all such designs as may be submitted the Secretary of the appropriate department is authorized to purchase

such designs as he may deem valuable and of sufficient merit to justify the purchase thereof, at such prices as may be agreed upon, not exceeding the prices stipulated by the person submitting the design at the time the design shall have been submitted. If a satisfactory price cannot be agreed upon, then the appropriate department may retain and use such design for the Government, and the originator or owner of such design, in any such event, is hereby authorized to file a suit in the Court of Claims for the recovery of the value of such design to the Government, and the judgment of the Court of Claims shall be based upon all the facts and circumstances of the case that said court may determine to be fair and just to protect the Government and the claimant.

CONSTRUCTION OF EXPERIMENTAL AIRCRAFT

SEC. 3. As a result of each such design competition as may be conducted according to the provisions of the Act of July 2, 1926 (44 Stat. 784, 789), so far as such provisions may be applicable, the department concerned shall award to the respective design-competition winners, not more than seven in number, construction contracts for the production of the aircraft itself, or the accessories, as herein defined, of one experimental sample aircraft from each of the winners determined in such design competition, provided at least two satisfactory designs are received by such department to be used by the department in the performance competition always to follow the design competition. Such contract for the construction of said aircraft or accessories according to said designs shall provide for the payment of the actual cost of construction, without any profit whatsoever to the builder, and not to include any expense for capital charge or for overhead or salary expenses.

CONSTRUCTION OF AIRCRAFT BY OTHER THAN DESIGNER

SEC. 4. If any competitor, ascertained to be the winner in any such design competition, is found by the department concerned to be without adequate construction facilities, then such department shall acquire the design so submitted and winning in said competition, at such price as may be agreed upon between the originator thereof or the owner thereof and the department concerned, not exceeding the price stipulated at the time the design is submitted, and if a price cannot be agreed upon between the parties, then said department may appropriate and use said design for the Government, in which case the originator or owner thereof shall have the right to file suit in the Court of Claims for just compensation therefor, as hereinabove provided. In case the department concerned acquires the ownership of any aircraft design from a winning competitor which does not, in the judgment of the department, possess adequate manufacturing facilities, then the department shall determine which manufacturing concern possesses the best facilities and experience to perform the work of constructing the aircraft or the accessory, according to said winning design, and may employ such manufacturing concern to construct one experimental sample aircraft according to such winning design, at the actual cost of construction and without profit, and not to include any capital, salary, or overhead charges or expenses.

WHEN ONLY ONE DESIGN IS SATISFACTORY

SEC. 5. If the department concerned shall determine that only one of the designs submitted is satisfactory, and if in the judgment of such department it would be advantageous to the cause of national defense to procure such design, then, and in that event, the department may declare such satisfactory design to the sole winner in such design competition, and may award to the winning competitor a construction contract for one experimental sample aircraft or accessory, at the actual cost of construction and without profit, as aforesaid. And if such winning competitor is determined not to possess the adequate manufacturing facilities for constructing such aircraft or accessory, then the department may appropriate said design and pay for the same such sum as may be agreed upon, not to exceed the sum stipulated when the design is submitted, and if no price can be agreed upon between the winning competitor and the department concerned, then said department may take possession and use said design, and the winning competitor shall have the right to file his suit for the reasonable value thereof to the Government in the Court of Claims, as provided in other cases, and in such event the department may let a contract for the construction

of one experimental sample aircraft or accessory to a manufacturing firm possessing adequate construction facilities, and, in such case, said aircraft or accessory shall be constructed at cost and not to include any capital or overhead charges or expenses. In such case the experimental sample aircraft or accessory must be demonstrated by frequent tests to be superior in performance to any aircraft of its general type already possessed by the department concerned before any contract may be let for the production of additional aircraft in quantity, according to said design, in the manner provided by law.

ANNUAL PERFORMANCE COMPETITIONS

SEC. 6. With the experimental sample aircraft obtained and procured in the manner hereinbefore provided, the department concerned shall then proceed to hold a performance competition as to each and every type of experimental aircraft of which it has procured specimens, as herein provided, and shall determine in such performance competition the winners thereof, not exceeding three in number. In such performance competition, all such aircraft and accessories, including engines, as shall have been constructed in pursuance of the foregoing provisions, shall be subjected to rigid and severe performance tests, and all features, including defects therein, shall be carefully noted and recorded for use in connection with the conduct of the design and performance competition of the next succeeding year. If undue delay on the part of one or more competitors in such contest in delivering their experimental sample aircraft or accessories occur, and in the judgment of such department such delay may impede the progress of aircraft development herein provided, then the department concerned may, after reasonable notice to such competitor or competitors, declare any such competitor in default and proceed with the performance competition.

SEC. 7. After the design and performance competitions shall have been completed and the winner or winners ascertained, then the department concerned may, after due public announcement of the results of such design and performance competitions, and after public announcement that a certain number of aircraft or accessories shall be required by the department concerned, to be constructed according to the designs ascertained to be winners in said competitions, contract for the construction by any winner in said competitions of a quantity of said aircraft sufficient to equip fully and properly one tactical service unit, together with sufficient spare parts to maintain the same in commission throughout a thorough service performance test, and in such case shall require by the contract to be made with the winner, who shall construct such aircraft, that the same shall be refined and further developed and improved as may be shown to be desirable as a result of such performance tests, provided such winner is prepared by experience and facilities to construct properly such aircraft or accessories.

PRODUCTION OF AIRCRAFT IN QUANTITY

SEC. 8. After a suitable type or types shall have been developed by said design and performance competitions, and after the same shall have been further refined and improved, when tested in collective performance by one tactical service unit, then the department concerned may, after due advertisement and by open competitive bidding, let a contract for the quantity production of aircraft or accessories, according to existing law, and in the letting of such contract, if other things in the judgment of the department concerned are equal as between the bidders in such fair and open competition, then the contract shall be let to the person, firm, or corporation declared to be the winner or winners in said design and performance competitions, and to the person, firm, or corporation which refined, developed, and improved, in the process of construction, the necessary number of experimental sample aircraft for equipping one tactical service unit. If such contract for the production of aircraft or accessories in quantity be let to any person, firm, or corporation, other than the winner in said design and performance competitions, who shall have constructed said aircraft or accessories for final testing and development for use in connection with one tactical service unit, then in such case the person, firm, or corporation originating such design and winning in such competitions shall be recognized as having a proprietary right in such design, and shall be entitled to receive a reasonable royalty from the Government for all aircraft or accessories constructed for the Government, according to such designs, and

if an agreement cannot be reached between such originator and owner and the department concerned, concerning the price, then such originator or owner shall have the right to file a suit for compensation in the Court of Claims of the United States for such reasonable compensation, based on all the facts and circumstances of the case, as the said Court of Claims may determine to be fair and just to both the Government and to such claimant.

RIGHT OF INSPECTION AND AUDIT RESERVED

SEC. 9. The department concerned in the letting of any contract for the construction of any aircraft provided for in this Act shall have the right at all times to inspect the plants and to audit the costs of any person, firm, or corporation constructing such aircraft or accessories, and may disallow any expense which the department concerned regards as unreasonable or unnecessary, and shall exclude all excessive salaries and all bonuses, and may restrict from any future competitions any contracting person, firm, or corporation which charges and collects an unfair profit for work, or whose work is proved to be unsatisfactory. In order to encourage the inventive genius and engineering skill of American citizens to engage continuously in the improvement and development of aircraft designs, any such aircraft design, whether the same be patentable or not, is hereby recognized as the property of its originator and, as private property, is hereby declared to be entitled to the full protection of the law. No department shall acquire any design or the right to use any design, in any manner, other than as prescribed by this Act.

SEC. 10. The term "aircraft", as herein used, means either "lighter than air" or "heavier than air", aircraft, and includes aeronautical engines and propellers, instruments, parts, and all accessories, useful in connection with aircraft and aviation generally. The term "design", as herein used, means the conception of any element or combination of elements of aircraft as represented or illustrated, or as substantially illustrated and represented, by the full and complete drawings and data required by the department concerned to be submitted in a design competition, or by the actual fabricated aircraft of parts or accessories thereof.

SEC. 11. That only such parts of section 10 of the Act approved July 2, 1926 (44 Stat. 784, 789), as are inconsistent with the provisions of this Act are hereby repealed, and the words "or aircraft", appearing after the first word "provided" in section 3 of the Act approved March 27, 1934 (Public, Numbered 135, Seventy-third Congress), be, and the same are hereby, repealed.

[H. R. 4348, 74th Cong., 1st sess.]

A BILL To promote the national air defense; to establish and reorganize within the Army of the United States an Air Reserve; to provide for the supply, equipment, and training of an Air Reserve; and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

DECLARATION OF POLICY

SECTION 1. It is hereby declared to be the policy of Congress to make adequate provision for the Air Reserve that it may be immediately available for effective use as a supplement to the Air Corps should national emergency demand.

ESTABLISHMENT AND COMPOSITION OF THE AIR RESERVE

SEC. 2. There is hereby created an Air Reserve. The Air Reserve shall consist of all Reserve officers who now hold commissions in the Air Corps Reserve and who hold an aeronautical rating recognized by the War Department, and all who may hereafter be appointed in the Air Reserve under regulations now existing or hereafter issued by competent authority.

ADMINISTRATION OF THE AIR RESERVE

SEC. 3. The Air Reserve shall be administered as a separate department of the Air Corps. The President shall appoint for the purpose of administering

all Air Reserve activities an Air Reserve officer, who shall be known as the "Chief of Air Reserve", who shall serve under the Chief of Air Corps. The Chief of Air Reserve shall be appointed to serve for a term of four years, unless sooner relieved by the President, and during such service as Chief of Air Reserve shall hold a temporary rank of field grade in the Air Reserve on active duty and shall be entitled to the same pay and allowances and flying privileges as such officer in the Air Corps. Until appropriations have otherwise been provided by Congress, the pay and allowances of the Chief of Air Reserve and cost of activities of the Air Reserve shall be paid from funds heretofore appropriated for the Air Corps Reserve.

The Chief of Air Corps shall furnish the Chief of Air Reserve such assistants from the regular personnel of the Air Corps, or from civilian employees under his jurisdiction, as may be necessary to effectuate the purposes of this Act.

DUTIES OF THE CHIEF OF AIR RESERVE

SEC. 4. It shall be the duty of the Chief of Air Reserve to formulate plans for the supply and training of the Air Reserve, including the provision of airplanes and aeronautical equipment suitable for the training of the Air Reserve; to foster the establishment of suitable airdromes for use of the Air Reserve; to organize the Air Reserve into tactical and administrative units; to prepare regulations for appointments and promotion in the Air Reserve and to prepare estimates of appropriations necessary to provide facilities, equipment, supplies, and training for the Air Reserve, for submission through appropriate channels, to Congress. All appropriations for use of the Air Reserve shall be expended only for the purposes stated, and it shall be the duty of the Chief of Air Reserve to supervise such expenditures as to preclude any application of Air Reserve appropriations for other than strictly Air Reserve uses.

FLYING TRAINING FOR THE AIR RESERVE

SEC. 5. The qualified Air Reserve pilots shall be eligible to make practice flights at any airdrome of the Air Corps or Air Reserve under such regulations as the Chief of Air Reserve may promulgate with the approval of the Chief of Air Corps. Provision shall be made for flying practice of not less than six hours per month for any qualified Air Reserve pilot applying therefor.

PROVISION FOR AIR RESERVE PILOTS INJURED IN PRACTICE FLIGHTS

SEC. 6. For injuries sustained in practice flights the Air Reserve pilots shall be entitled to the same pay, hospitalization, medical, or other benefits as allowed pilots of the Air Corps for injuries sustained in line of duty. In the event of death from injuries sustained in practice flights, the dependents of the deceased Air Reserve pilot shall be entitled to the same burial, indemnity, or other benefits as allowed dependents of Air Corps pilots fatally injured in line of duty.

SEC. 7. Provisions shall be made to order all Air Reserve pilots who may apply therefor, on such terms as the Chief of Air Reserve may designate, with approval of Chief of Air Corps, to periods of active duty from time to time, which periods of active duty shall embrace intensive instruction in latest Air Corps developments, to the end that Air Reserve pilots may be kept informed of military aeronautical progress.

NO DISCRIMINATION IN ALLOTMENT OF FLYING PRIVILEGES

SEC. 8. There shall be no discrimination in the allotment of flying privileges or training between qualified Air Reserve pilots who hold aeronautical rating as pilots of aircraft.

[H. R. 4336, 74th Cong., 1st sess.]

A BILL To promote national defense by organizing the Junior Air Reserve

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War be, and he is hereby, authorized and directed to organize a civilian component

of the United States Army, to be known and designated as the "Junior Air Reserve", and to establish such rules and regulations as he shall deem fit and proper for carrying out the purposes and objects of this Act.

SEC. 2. That all persons between the ages of eighteen years and twenty-one years, of sound physical condition, and with a minimum education equivalent to at least a full high-school course, shall be eligible to be listed as cadets of the Junior Air Reserve, and shall be entitled to receive such emblem or designation to wear upon the clothing as the Secretary of War may prescribe while receiving such course of instruction and training in aerodynamics and in the art of flying as shall be prescribed by the Secretary of War.

SEC. 3. That the Secretary of War is authorized to use all proper means and agencies for the encouragement of said Junior Air Reserve, by detaching either Regular flying officers or Reserve flying officers, called to active duty, to engage in the instruction and training of cadets of the Junior Air Reserve in such private flying schools and centers of air training as may be selected by the Secretary of War for that purpose, where the number of cadets shall not be less than twenty and where the standards of instruction and training shall have been approved by the Secretary of War.

SEC. 4. That the Secretary of War is further authorized to encourage the development of said Junior Air Reserve by permitting the use of such Army air fields from time to time as may not conflict with the work of the Air Corps of the Army and further by permitting the use of airplanes, aircraft generally, and equipment belonging to the Air Corps of the Army, if and when, in the judgment of the Secretary of War, such use is wise and proper in promoting the art of flying and in the training of said Junior Air Reserve.

SEC. 5. That upon the completion of such course of training as shall have been prescribed by the Secretary of War and upon the satisfactory passage of final examination and tests by cadets of said Junior Air Reserve, the Secretary of War shall issue certificates of graduation that shall evidence full membership by all such graduates in the Junior Air Reserve, and said graduates shall then be entitled to wear, at pleasure, such uniform as shall be prescribed by the Secretary of War, and such insignia and other designations and decorations upon said uniform or civilian clothing as the Secretary of War shall prescribe. All such graduates of the training prescribed for cadets of the Junior Air Reserve shall be kept listed as to their addresses, business occupations, and other pertinent facts so that the same may be available on shortest notice for service in the national defense in the event of a national emergency.

SEC. 6. That the Secretary of War is authorized to select each year three hundred of the most promising and efficient graduates of the primary instruction hereby authorized and to give said three hundred graduates instruction at any school or flying field of the United States Army for a period not exceeding six months, and then to offer at least one hundred each year of said graduates in the primary instruction Reserve commissions as second lieutenants in the Air Corps Reserve and to call said second lieutenants to active duty as Reserve officers in the United States Army Air Corps for such time as the Secretary of War may from time to time prescribe.

[H. R. 4351, 74th Cong., 1st sess.]

A BILL To increase the efficiency of the Air Corps

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of War shall cause to be prepared an Air Corps promotion list on which shall be placed the names of all officers of the Air Corps of the Regular Army below the grade of colonel. The names on this list shall be arranged in the same relative order that they now have on the Army promotion list and shall be removed from the Army promotion list, and no officer whose name appears on the original Air Corps promotion list shall be considered as having less commissioned service than any officer whose name is below his on this list. All officers commissioned in the Air Corps after the formation of the original Air Corps promotion list shall be placed thereon in accord with length of commissioned service. Any officer whose position on the Air Corps promotion list is changed by sentence of a general court-martial or by law shall be deemed to have the same commissioned service as the officer next below whom he may be placed by such change.

SEC. 2. Except as herein provided, Air Corps flying officers shall be promoted to the grade of first lieutenant when credited with three years' commissioned

service; to the grade of captain when credited with seven years' commissioned service; to the grade of major when credited with twelve years' commissioned service; to the grade of lieutenant colonel when credited with twenty years' commissioned service; to the grade of colonel when credited with twenty-six years' commissioned service. All flying officers of the Air Corps below the grade of colonel shall be promoted in the order of their standing on the Air Corps promotion list: *Provided*, That the number of Air Corps officers in the grade of colonel shall not be less than 4 per centum nor more than 6 per centum and the number in the grade of lieutenant colonel shall not be less than 5 per centum nor more than 8 per centum of the total number of officers on the Air Corps promotion list, and the aggregate number of Air Corps officers in the grades of colonel, lieutenant colonel, and major shall not be less than 26 per centum nor more than 40 per centum of the total number of officers on the Air Corps promotion list, and insofar as necessary to maintain said minimum percentage Air Corps flying officers of less than the required years of commissioned service shall be promoted to the grades of colonel, lieutenant colonel, and major, and only insofar as their promotion will not cause said maximum percentages to be exceeded shall officers who have completed the prescribed years of commissioned service be promoted to the grades of colonel, lieutenant colonel, and major. Nonflying officers of the Air Corps shall be promoted as provided for other branches of the Army.

SEC. 3. When an officer of the Air Corps has served thirty years either as an officer or soldier he shall, if he makes application therefor to the President, be retired from active service and placed on the retired list: *Provided*, That except in time of war, in computing the length of service for retirement credit shall be given for one and one-half the time heretofore or hereafter actually detailed to duty involving flying and credit shall also be given for all other time now counted toward retirement in the Army: *Provided further*, That the number of such voluntary retirements annually shall not exceed 6 per centum of the authorized strength of the Air Corps. When a flying officer of the Air Corps reaches the age of fifty-four years he shall, if he makes application therefor to the President, be retired from active service and placed on the retired list. Officers of the Air Corps who become physically disqualified for the performance of their duties as flying officers shall be eligible for retirement for physical disability.

SEC. 4. An officer of the Air Corps may, upon his own request, be transferred to another branch of the service, and when so transferred shall take rank and grade therein in accordance with his length of commissioned service as computed under existing laws governing the branch to which transferred.

SEC. 5. All laws or parts of laws insofar as they may be inconsistent herewith or in conflict with the provisions of this Act, are repealed.

[H. B. 4911, 74th Cong., 1st sess.]

A BILL To amend sections 10 to 14, inclusive, of the Act approved July 2, 1926 (44 Stat. 748, 789)

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section (k) of the Act approved July 2, 1926 (44 Stat. 784, 789), be, and is hereby, amended to read as follows:

"(k) The Secretary of War or the Secretary of the Navy may, at his discretion, purchase abroad or in the United States, with or without competition by contract, or otherwise, such design, aircraft, aircraft parts, or aeronautical accessories as may be necessary in his judgment for experimental purposes in the development of aircraft or aircraft parts or aeronautical accessories of the best kind for the Army or the Navy, as the case may be, and each such contract shall contain a stipulation that the United States shall have the right to manufacture, or cause to be manufactured, such aircraft, aircraft parts, or aeronautical accessories under license upon the payment of such reasonable royalty as may be fixed in the contract with the approval of the Comptroller General of the United States in event experiment should determine that such aircraft or aircraft parts or aeronautical accessories are of the best kind for the Army or the Navy, as the case may be."

SEC. 2. That section 10 (l) and (m) be, and is hereby, amended to read as follows:

"(l) The manufacturing plant and books of any contractor for furnishing or constructing aircraft, aircraft parts, or aeronautical accessories, for the War Department or the Navy Department, or such part of any such manufacturing plant as may be so engaged, shall at all times be subject to inspection and audit in his discretion by any person designated by the Comptroller General of the United States.

"(m) All audits and reports of inspection made under the provisions of this section shall be preserved by the Comptroller General for a period of ten years and shall be subject to inspection by any committee of Congress or the Secretary of War or the Secretary of the Navy, as the case may be."

SEC. 3. That there be, and is hereby, repealed section 10 (q) of the Act approved July 2, 1926 (44 Stat. 784); and section 10 (t) be, and is hereby, amended to read as follows:

"Hereafter, except as provided in section 10 (k) of the Act of July 2, 1926, all procurement of aircraft, aircraft parts, or aeronautical accessories by the War and Navy Departments estimated to exceed \$500 in amount shall be made after advertising for bids on the basis of specifications stating the needs of the United States in such terms as to permit of full and free competition by all qualified bidders a sufficient time previously and not less than ten days before the day set for opening thereof. All bids shall be publicly opened at the time and place stated in the advertisement and award made with reasonable promptness after the lapse of seven days, unless a public emergency will not permit of such delay, by written notice to the lowest responsible bidder whose bid conforms to the specifications. Except in case of public emergency requiring immediate action, no award shall be made while a protest filed in writing with the officer named in the advertisement for the receipt of bids challenging the legality or regularity of the administrative procedure is undetermined by the Comptroller General, who shall give such protests preferred attention. The term 'lowest responsible bidder' for the purpose of this subsection shall mean, subject to the requirements of section 10 (j) of the Act of July 2, 1926, only those bidders who have shown before bids are opened that they are possessed of financial resources, equipment, and experience in the manufacture of aircraft, aircraft parts, or aeronautical accessories as reasonably to justify the conclusion that they are qualified to perform in prompt and workmanlike manner the manufacture described in the specifications."

The CHAIRMAN. I regret that we will not have the time this morning to hear all who are present. We will resume these hearings tomorrow morning, of course.

I want to acknowledge the receipt of a letter from Samuel P. Wetherill, president of the Air Defense League of America. It is a very splendid letter, indeed, and I wish I had the time to read it for the benefit of the committee and those who are present. Time forbids. However, it will be printed in the record and will be taken into consideration by the committee when we go into executive session for consideration of the legislation.

(The letter is as follows:)

AIR DEFENSE LEAGUE,
April 2, 1935.

HON. JOHN J. McSWAIN,
*Chairman, Committee on Military Affairs,
House of Representatives, Washington, D. C.*

DEAR MR. McSWAIN: Replying to your communication of March 26 addressed to our secretary, Mr. Virgil H. Frazier, it gives me pleasure to assure you that instructions have been given to Mr. Frazier to attend the hearings on April 4 and to hold himself in all respects at the service of your committee for progress toward an adequate program of national defense with special reference to air defense.

Permit me to take this opportunity of reviewing briefly to you the policy to which this organization has been consistently dedicated, to wit:

1. We hold that both in the interest of adequate air defense and in the interest of maximum defense per tax dollar, it has been and continues to be imperative that our Government should take effective steps to coordinate the various air activities under its direct control and to revise its relationship to those civil air

activities which it oversees or regulates and those which constitute potential assets in the event of war.

2. Consistently with the above policy, we urged the Congress and the President, as Commander in Chief of our military forces, to create the Federal Aviation Commission in the hope that it would take cognizance of the lack of coordination and formulate a specific legislative program to bring about such coordination as in its judgment it found necessary and desirable.

-3. We have scrutinized the report of the Federal Aviation Commission which has been referred to the Congress, in the main with the President's approval, and we find therein complete vindication for our consistent claim that there is lack of coordination among the various governmental aviation activities; that there is need for improvement in the relationship between the Government and civil aviation and that a constructive program designed to correct these evils is critically needed.

4. We deplore the fact that the report of the Federal Aviation Commission does not synthesize its many detailed observations and recommendations into an over-all coordinated program which we so much desired in the interest of an economical and adequate air defense.

5. We still believe that the finding of a solution for this problem of coordinated over-all air defense may not, with impunity, be longer postponed. However, we do not presume to advise your committee, nor the Committee on Naval Affairs, nor the President, as to how best to achieve this admittedly difficult task which necessarily involves both legislative and administrative action. Such action must be based upon not merely intelligent analysis of the elements of the problem, but upon a constructive synthesis of these elements into a coordinated air-defense program. This must be drafted with full knowledge of the needs of the various departments employing aviation, but it must be lifted into a broader perspective than any one of these departments could normally attain.

6. We deeply appreciate the statesmanlike leadership which you and your committee are giving in the direction so essential to our country's security. Nothing would give us greater satisfaction than to assist in any way within our power toward the formulation and consummation of an adequate program.

We are making arrangements to insure the availability of certain technical experience for your hearings, although, of course, those suggested will only be expressing their own views and are not authorized to commit this organization.

Yours very truly,

SAMUEL P. WETHERILL, *President.*

The CHAIRMAN. In the interest of time I am going to call on former Gov. Charles H. Brough, who was twice Governor of the State of Arkansas, and was Governor during the war period. As I served with an Arkansas regiment during the war, I remember how the officers and men of that regiment, and of all the Arkansas regiments, admired the fine, militant spirit of Governor Brough as a leader in preparedness.

Governor Brough, we are pleased to have you with us and we should be glad if you would make whatever statement you see fit, from the civilian point of view, on the importance of air power in the national defense.

STATEMENT OF HON. CHARLES HILLMAN BROUGH, WORLD WAR GOVERNOR OF THE STATE OF ARKANSAS

Governor BROUGH. Chairman McSwain and gentlemen of the Military Affairs Committee of the House, and ladies and gentlemen:

I deeply appreciate the honor of the invitation extended by your distinguished chairman, Congressman John J. McSwain, of South Carolina, who served in an Arkansas Infantry unit during the World War in company with the present able Adjutant General of Arkansas, General E. L. Compere, to testify as a civilian before your very important committee on the subject of national defense.

May I say that 72,600 were in the service from Arkansas. As Governor of Arkansas during America's participation in the World War, and as nominal commander in chief of the State's National Guard, approximately 5,000 men, I was brought face to face with the grim problem of our unpreparedness. Like the other war Governors of the 48 States of the Union, I spent many anxious hours over the tremendous task of hurriedly fitting young men for combat against the trained veterans of Von Hindenberg, Von Leudendorff, and Von Mackensen.

Looking back in retrospect over those trying days of the Armageddon of nations, it is almost unconceivable that the United States has not profited to any great extent from a military standpoint over the lessons that we then learned.

As you gentlemen know better than I, it is not beyond the pale of probability that peace-loving America may again be forced into the maelstrom of a world's war. While we had the great advantage in 1917 of having a year to prepare for war and train our troops in the 16 major cantonments of the United States under the direction of an outstanding Secretary of War, Hon. Newton D. Baker, and the exceptionally able commander in chief, Gen. John J. Pershing, it is worthy to reflect that such an opportunity might not be practicable in any future conflict. We are told on the highest military authority that even before the declaration of another war, the well-equipped bombing planes of the combatant nations will be on their way toward the enemy capitals, and that bombing will begin *coleminus* with declaration of war.

The national-defense system adopted in 1919, involving the plan of maintaining a small Regular Army, a trained National Guard and Reserve Corps, was an ideal one. However, this plan was not in full operation before we began to decrease the Regular Army, which now has a strength of 118,000 men and 10,000 officers. We began to whittle off here and chop off there until the strength of our Army has fallen far below the point contemplated by the National Defense Act. In this connection, the plan proposed by the General Staff, of which Gen. Douglas McArthur is the able chief—incidentally, a great soldier, who was born and spent the first 6 years of his life in Little Rock, Ark.—which provides for an addition of 47,000 privates and 400 officers, is one whose soundness should appeal to every patriotic American. The course pursued by our able Secretary of the Navy, Hon. Claude A. Swanson, in materially strengthening our "first line of defense" is most admirable, and the scholarly argument of your distinguished chairman, Congressman John J. McSwain, for an invincible Aviation Corps is most appealing and founded on sound logic.

"Forewarned forearmed"; "preparedness the best preserver of peace", are axiomatic in the hectic and hatred-tossed world, when the slightest friction may plunge the civilized nations of the earth once again into "man's inhumanity to man", so graphically described by Pope Pius XI in his address this week to the Consistory of Cardinals. This is an opportune time for the modernization, the unification, and the mechanization of the three great branches of our service—the Army, the Navy, and the Air Corps. Closely correlated with our Regular Army is the National Guard, which in

1934 acted promptly and effectively in 285 major disturbances in the various States of the Union; and the Marines, which, under General LeJeune, immortalized itself at Chateau Thierry, the Meuse-Argonne, and the Belleau Woods. Not only should Americans be justly proud of the magnificent training being given at West Point and Annapolis, but also of the various schools for the training of our National Guards and Reserve officers to whom Regular Army commissions should be available. The policy of continuing to give our graduates of the "university of hard knocks" an opportunity to "climb the Jacob's ladder of ambition", is an application of the Democratic principles in our Nation where the latchstring of the humble cottager is as sacred as the sculptured entrance of the political lord.

To be specific and as an endorsement of the attitude of your able committee and its distinguished chairman, from a citizen's standpoint I make the following recommendations:

First. Unified command. Our Army, Navy, and Air Corps should be united under the responsible command of a defense ministry. History shows that divided command has always proved a failure. It was not until the Allies were welded into a single unit, under the leadership of the matchless Marshal Ferdinand Foch, that there was real unity of effort or any hope of ultimate victory. A unified command, of course, carries in its wake a very careful study of the whole system of promotions, so brilliantly discussed by Colonel Shammel in a recent number of the Infantry Journal. Particularly should very careful attention be made of the selection of a general staff. Competent critics believe that the Kaiser's selection of the young von Moltke, rather than von Bulow, who would have carried out the plans of one of the greatest strategists of all time, von Schieffen, prevented an early victory of the Central Teutonic Powers in 1914. In any system of promotion, politics should have no weight, but professional ability should be the sole criterion.

Second. The Army should be equipped with a sufficient number of tanks and armored cars. While it is true that 18 tanks of the latest type will be available before the end of 1935, yet even this addition is hopelessly inadequate to work out the technical problems of our military establishment. Let us remember that while in 1914 France had but 6,000 trucks, in 1918 that number had grown to 128,000. The victory of Marshal Joffre at the First Battle of the Marne was largely attributed to the energy and the presence of Marshal Gourand in mobilizing quickly trucks and motor cars.

Third. There should be a substantial increase in the size and equipment of our National Guard even beyond the 15,000 contemplated in pending legislation. It is worthy of note that England charged her Territorial Army, the equivalent of our National Guard, with the entire defense of her coast line and with all anti-aircraft defense. Mussolini, in Italy, has adopted England's policy, and its acceptance by the United States would seem to be imminently wise not only as a matter of economy but in increasing the prestige and morale of our National Guard, which in the World War rendered heroic service and supplied the United States with many very able officers.

Fourth. Chairman McSwain's masterly argument for air defense, which has the support of all of you gentlemen, regardless of politics,

should be heeded; modern aircraft equipment should be supplied; the powerful weapons, colorfully described by Powell in last week's *Liberty*, should be made available, and our air forces should have complete command of the 10 miles air, which aviation expects will be the scene of future conflicts. It is said on the highest authority that the United States is so deficient in modern aircraft equipment at the present time that even the Regular Army or National Guard would be unable to use effectively this vital department of national defense. If we are vulnerable anywhere, gentlemen, we are certainly vulnerable on our "upper flank"—this, in my humble judgment, is the vulnerable heel of the American military Achilles.

Fifth. As an amateur student of the profession of arms, I have read several splendidly written articles by competent authorities designed to show from a professional standpoint that the American Division as organized at present is altogether unsuited for modern warfare. It is too big, too clumsy, too unwieldy. Our very able Chief of Staff, Gen. Douglas MacArthur, I understand, is now working on plans for organizing of a smaller and more deadly division.

In conclusion, gentlemen, with modern equipment, reserve material, light divisions, and sufficient number of capital ships for our Navy and the invincible air armada, in my opinion, victory would be assured—should America ever be attacked, or, God forbid, thrown into a world conflict, as a result of deliberate brazen affrontery on the part of European belligerents in sinking of our ships, even though they be neutral, or wantonly insulting the American flag. In time of peace, let us, gentlemen, prepare to prepare for war. Let us stop this propaganda of pacifism that is being promulgated even from some of the pulpits and from the colleges and universities and high schools in the United States. In time of peace let us prepare for war, for any emergency that may confront the United States as a great peace-loving Nation, which Ralph Waldo Emerson once so beautifully described as "God's final effort in behalf of the human race." For if America is destroyed, gentlemen, civilization will have been proved to be not only skin-deep, but civilization will have proved a failure.

I thank you, Mr. Chairman and gentlemen.

The CHAIRMAN. We thank you very much, Governor. We believe these fine sentiments expressed by you are representative, perhaps, to an extent of 95 percent of the people of the United States.

Gentlemen, we are happy to have with us Maj. Gen. William C. Rivers, retired. I notice, by referring to the Official Army Register, that he was born in the State of Tennessee in 1866, the year after a very notable conflict; that he finished at the Military Academy in 1887; that he rose by ordinary grades of promotion until finally he was appointed Inspector General of the Army of the United States, with the rank of major general, and that he retired on January 11, 1930. Five years, therefore, have elapsed since General Rivers retired. General Rivers is one of all of the retired general officers to whom I addressed a general letter shortly after I became chairman of this committee, asking them to express themselves freely and fully with reference to their views on the subject of national defense.

When an officer is retired from the Army he may no longer have any concern of anything except what is his honest, sincere conviction with reference to what is best for the Army, and, through the Army, what is best for the country.

STATEMENT OF MAJ. GEN. WILLIAM C. RIVERS, RETIRED (A FORMER INSPECTOR GENERAL OF THE ARMY AT THE WAR DEPARTMENT)

The CHAIRMAN. I think that our retired general officers, especially, owe an obligation to the Nation, since ambition and personal interests and associations no longer entangle or tie or confuse them, to give us their sincere, honest, and fearless expressions of what they think of the national defense as a whole.

I am proud to say that General Rivers is here at my invitation today to express himself on this subject. General Rivers—

General RIVERS. Mr. Chairman and gentlemen, I would far rather face a barrage of high explosive artillery on the battlefield than attempt to speak following the wit and humor, the logic, the oratory, and brilliance of Governor Brough. But I will do the best I can.

I came here for a few moments yesterday, and I noticed that you do not have these gentlemen, the members of the committee, always sitting in the seats assigned to them, according to the name plates on the desks before me. You, Mr. Chairman, were in the Army during the war, but you evidently were not long enough in the Army to learn "that curious and interesting thing known as the single-track military mind." If I were up there, I would have a corporal down here to check on that and to see that each gentleman occupied his proper seat.

The CHAIRMAN. These gentlemen are not subject to discipline. I have tried; I have done the best I could. [Laughter.]

General RIVERS. I can see that. Another thing I am amazed at, as a stranger who has not been here before, is the age of these gentlemen on the committee. I thought I was coming before the elder statesmen. You have here on this committee but one man who has reached the retirement age of the Army, 64; only 4 who are as old as 60; many of them are under 50. One or more only 31 or 32. This is all amazing to me.

I also learned that so many of you are Army-trained. Twelve, possibly, 15, were soldiers, and among those some have been wounded and some have won other distinctions on the battlefield. I do not see any generals here, but you have to be mighty old to become a general in this Army. I know that if the war had gone on much longer, there would have been many generals among the members of this committee. They are just not old enough to have become generals.

The CHAIRMAN. General, I am informed that shortly after the War between the States at one time there were as many as 17 major and brigadier generals in the House of Representatives, and more than half of them were on the Military Affairs Committee.

General RIVERS. I know there were a great many.

Mr. MAVERICK. They were all Yankees, were they not, Mr. Chairman?

The CHAIRMAN. Shortly after 1876, I think the Confederates had a very good sprinkling.

General RIVERS. There were many eminent generals on this committee from both sides.

I appreciate very much this opportunity to come to Washington and to talk to the committee. I have been retired for 5 years now.

I am not, therefore, in touch with the War Department policies and administration. Yet, I feel that away from the Army routine I may visualize more clearly certain general principles. I realize that, should I succeed in making some useful suggestions, the time and particular moment for putting into effect this or that change must depend on conditions and circumstances that may be better known by others. I certainly sympathize with the gentlemen of this committee, whose arduous and continued labors I have read about, in their task of deciding on the best methods for our national defense—at a time of world uncertainty and of reduced normal revenues to the State.

Again I may be at a disadvantage as to my vision, my viewpoint—for I am in fact an "Old Bureaucrat"—worse, an "Old Regular"—worse yet, an "Old West Pointer!" Kinglake said in his great history of the War in the Crimea that much of the mismanagement and confusion that caused great suffering was due to the presence of too large a proportion of officers who had seen long service in garrison in peace time. Possibly you gentlemen may have had occasion frequently to think of the caution Lord Salisbury, head of the British Government, wrote Cromer, when that most economical major of engineers, Kitchener, was appointed to head the Egyptian army at a low period following the rise of Mohammed Ahmed, the Madhi whose hordes had swept the Soudan, annihilating Hicks Pasha's army, killing "Chinese" Gordon and capturing Khartoum, "I would not be too much impressed by what the soldiers tell you about the strategic importance of those places. It is their way. If they were allowed full scope, they would insist on fortifying and garrisoning the moon in order to protect us from Mars."

WHY AN ARMY IS NEEDED

Briefly, you need an army because you cannot say just why you need it—the uncertainty of modern life. All of us, especially those actively engaged in the Great War, of whom your committee of 25 contains more than a dozen men, were hopefully convinced at the end of that tragic conflict that earlier than this time the world would have gradually and voluntarily reduced its great armaments. This is not the place to discuss the proposals of my great war leader, Woodrow Wilson, toward that end. But I remember how earnestly I, myself, a veteran of three overseas wars, and so many of my associates, hoped that Wilson's plans would be adopted for our country. We looked upon them not as perfect but as a helpful base line—a zero line from which to start forward toward a better world.

THE KIND OF ARMY NEEDED

As to the kind and size of the army you need, my own idea is a force for defense. I do not visualize any mass invasion by us of any country—overseas or elsewhere. We do not need a great force with our self-contained country and without powerful and aggressive neighbors and with excellent systems of communication and the Navy as the first line of defense. It seems to me the Napoleonic influence about war still dominates the world statesmen and soldiers alike—and that reasonable disarmament can make little headway until we can get away from the control of the ideas of this remark-

able man. Napoleon may have perfected maneuver so that it intrigued everyone. He invented far worse and more important things than that—the mass armies that stagger the imagination and appall humanity. Napoleon first made use of mass armies, universal service (in peace and war), and universal training. He strove always to effect the complete overthrow of the opposing state. Now nations make use of mass levies that comprise a considerable percentage of their whole population.

The German people made longest use of the Napoleonic system from Waterloo on up to the World War. But even they, profound students though they are, failed to discover save by the hard school of experience that mass attacks may fail from self-exhaustion and from the universal use of fortifications (the trench). Can disarmament make progress until the world learns that mass armies are an illusion—that they are likely to fail to force a decision and that they become impotent from self-exhaustion? Then there is national economic exhaustion and morale exhaustion to be apprehended.

LINE-OF-BATTLE EXPERIENCE IN FRANCE

Commanding line-of-battle troops in all our major engagements of the last war, I suppose I saw two things: The resurrection of fortification on an unheard-of scale and the domination of the battlefield by machine-gun fire—the power of the defense in modern war. Will the use of larger caliber machine guns, heavier nonrecoil artillery on larger and swifter airplanes, faster and heavier tanks, more and better mechanical vehicles to carry machines and men to the scene of action and push them forward, turn the escale—against the defense? Remembering Lloyd-George's judgment that old soldiers prepare only for the last war, I venture no opinion.

You will need, therefore, I should say, for the defense of the country, such a force as has been well described by the Army Chief of Staff in one of General MacArthur's reports—a force depending upon speed, promptness, and quality rather than on mere numbers. Whatever be the precise organization of such a force—and the Chief of Staff says that speedy units must be small to facilitate transportation and that we must find not how large we can make a company or a battalion of soldiers and still control it, but how small we can make it and still give its commander all the combat power he can handle effectively—is a question for study. You need, therefore, I believe, a small highly trained Army with ample motor transport and mechanized artillery and tanks, and so on. And with ample defense forces of that new and not-yet-fully-tried-in-war branch that is already a separate arm (and in the opinion of many almost a separate, self-contained unit of war)—the Air Force. Such a force operating from land bases and from the decks of fast cruisers, that some nations now seem to prefer to the immense dreadnaughts, and possibly soon from artificial airdromes on the seas that border our coasts, will be a powerful factor in your defensive organization.

THE AIR FORCES

My remarks about the Air Force refer naturally to the general organization and use of such a force and to the tactical powers and limitations of the Air Force. Here I would like to refer to the recent

statesmanlike action of the Secretary of War in organizing the new G. H. Q. Air Force with its three wings in endeavoring to concentrate the scattered small units of the Army Air Corps and in taking advantage of the authority which the Congress gave to the War Department a decade ago to promote Air Corps officers by selection temporarily one grade, and even two grades, so as to properly officer the tactical and other units of the Army Air Force. I desire to make particular mention of what seem to me two fundamental principles appearing, I believe, the first time in our War Department peace administration and effort. These are the recognition of the indispensable principle of promoting officers by selection after normal competition—in peace as well as in war; and the wide recognition of the tactical and other waste connected with scattering a small professional army in more than 100 detachments all over this great country. From this action of Secretary of War Dern may we not hope that the new and elite corps of the Army is to lead the way toward a modern businesslike promotion system for all Army officers and toward some grouping of all the Army posts? Without both of these I fear the gentlemen of Congress will be disappointed—no matter how much money they vote for men and material—in the expectation of having the “small, highly trained Regular Army” that all recommend.

No man may estimate just the usefulness, power, and effect of modern air units in either naval or military warfare—use in so many directions. We may judge only from what we saw in the Great War and from the tremendous progress in airplanes since that time. Mobility, initiative, surprise, speed, zeal, and vigor—all are needed for success in combat—we have all in an air force. We have been told in able reports and studies made by able men many things the airplane cannot do. My own conviction is that many of these reports overlook, or underestimate, the fast-increasing transport power of the airplane of today, the capacity to transport numbers of men and machines for flank attacks, to ward off flank attacks, and for other battlefield uses. Such reports are liable to underestimate the mass and other power of airplanes not only in normal battle, but also against the modern masses of troops, against communications, depots, factories, and so on.

Lieutenant General Bullard, who commanded a division, a corps, and a separate army in France, and is now president of the National Security League, writing recently of the airplane, said that it has become the first and paramount weapon of war. And that there is no real defense against airplanes except airplanes. He holds that in war the airplane will be the chief weapon of aggression—the tool of victory.

We hear much of unity of command. There is unity of command, and there is coordination (and elasticity) of command. An army is largely governed as to policy and organization by its board of directors, men chosen from all the dozen different branches of the army for 4-year service on the general staff. No matter what complement or representation is given any one arm or branch, it is necessarily always in a minority on such a board of directors.

The airmen work in a different element from that of other soldiers and sailors. Their pay, promotion, and risks are necessarily different. The Navy has developed an efficient Air Corps under the

present separate organization. In some respects the Navy psychology differs from that of the Army. In the first place, the normal peacetime operation of a modern fleet involves, in many respects, much the same work as in war. A navy in peace is much nearer a war footing than an army is. In peace, army life is relatively a more artificial life. You cannot have a peace army march about the country, with full war equipment, for several months every year, going into bivouac every night or continuing to roam by night. The Navy wisely placed its land training air force in two great depots or bases. This no doubt contributed to the development of the Navy air force.

A SINGLE DEPARTMENT OF NATIONAL DEFENSE IS NEEDED

I favor one air corps as a part of a single department of national defense. There would be a secretary of national defense and civilian secretaries of Army, Navy, and air. A secretary of national defense would need no great staff; he would require a few officers for liaison with the three forces under him. He would assist the President, the final authority, in the work of coordination of defense operations. But a secretary of national defense would be able to investigate all major differences of opinion and of viewpoint and in these instances take the cases to the Chief Executive in such shape as to render final decision more effective and prompt. The training would be arranged so that the same portion of the air department that is to accompany the Navy in war would train with the Navy in peace and that part of the air force that goes to war with the Army train in peace with the Army. At the same time, all being in one department, airmen could readily effect transfers from the subdivision for the Navy, or from that of the Army, and without red tape. A portion of the air force would be kept in reserve and trained by the chief of the corps.

Many students of government, and of taxation and war, have formed the conviction that the Navy and Army are engines that are too costly, too powerful, and (once started) too uncontrollable to be allowed to roam about the scene of joint operations without a common boss. This coordinating chief need not be always on the spot, but he should be available to go to the scene and must have freedom to devote all his energies to the problem involved in any joint work.

Mr. PLUMLEY. May I interrupt there, General? Has anything like that ever been done? Have you had the Army and Navy together under one command at any time in peace?

General RIVERS. No; not that I remember.

Mr. PLUMLEY. Then, that is rather theoretical and impractical, is it not?

General RIVERS. Oh, no.

Mr. PLUMLEY. I think it is.

General RIVERS. If nations must keep up such things as wars, many believe history is too full of military tragedies and sacrifice to continue the old plan—two bosses and futile efforts at coordination thousands of miles away by means of ex parte cablegrams from the scene of action. This is the basis for the body of informed opinion that, especially in our country, with its two oceans and its unequalled

railway, air, and highway communication, efficiency and economy would result in a single department of national defense. The truth is, the difficulty in fixing any clear line of demarcation on the surface of the earth, or division in the air, between some of the Army and Navy work has not decreased with the advent of that new arm, the Air Force.

Mr. PLUMLEY. That is just what I said; it is theoretical and impractical. You have there given the answer to my question.

The CHAIRMAN. I believe my colleague misunderstood the general. He said the difficulty now of making a line of demarcation would necessitate a common head, as I understand.

General RIVERS. Yes; that is true.

With Navy, Army, and Air under a common head, the Secretary of the Department of National Defense, we might hope to have decisions in some of those age-old and gallantly fought Army and Navy battles over, say, such matters as the coast defense and the famous doctrine of "paramount interest." This interesting doctrine is to the effect that when the two services operate in the same area the commander of the one with paramount interest in the situation assumes the chief command of all the forces. But which commander at a far-away point of hostilities is to make the decision as to the service having paramount interest?

The Baker Board states that the Army and Navy should "each be free to concentrate on its normal and customary missions rather than to adopt a system based on occasional and short-lived joint operations." The same board reports that all the primary and secondary functions of the two services are satisfactorily defined, with the exception of aviation.

Is it not precisely this new and powerful engine of war, aviation, that has brought the subject of coordination so prominently to the front? Among many other matters there is the training of air forces, the use of aviation, including the power of one man quickly to reinforce the air contingent of Navy or Army in war, depending on which may be involved in the more serious problem for the moment. Is it the definition in time of peace of the functions of the Army and the Navy that is difficult, or a plan that will insure this arrangement being executed in war at a distance, with two powerful leaders in command of separate and distinct military forces?

Are joint operations always short-lived and are they ever unimportant? Witness Vicksburg, Gallipoli, Santiago, and much of the work of fleet and land troops in our Civil War. Even in those relatively simple war days, Lincoln had difficulty enough in getting Stanton and Wells to see eye to eye on several occasions.

The Federal Aviation Commission (the Howell Board) stated, on page 123 of its printed report, under the subject of national defense organization. [Reading:]

Intense study and prompt remedy should be given to the interrelationship of the national defense services. The questions of air force organization and utilization in their broadest aspects become questions of general national defense organization and policy, and particularly involve the relations among the armed services. Though we appreciate the efforts now being made for coordination, we are left with the feeling that the present degree of mutual understanding between the Army and the Navy is less than might be desired, that the machinery for settling differences in matters of detail lacks something in effectiveness and that the arrangements for keeping commanders in the field notified

of their respective responsibilities in joint operations with neighboring units of the sister service are strikingly inadequate. There are, of course, a variety of devices which have been suggested from time to time for effecting improvement in these matters. Final authority reposes in the President, but it is not to be expected that the Commander in Chief can take personal charge of every point that may arise. While this matter lay beyond our scope, we have considered it so serious that we recommend that the whole problem of military organization and of inter-service relationships be made the subject of extended examination by some appropriate agency in the near future.

In a large percentage of this Board's 36 specific recommendations about Army and Navy aviation the earnest desire to provide for better coordination in the work of the two forces stands out.

Lieutenant General Bullard has said [reading]:

There should be a separate, unified air force, equal in rank and importance with the Army and Navy, and the three services should be united under a single department head.

The chairman of the House Military Committee, John J. McSwain, long a student of national defense, following his own war experiences, discussed this subject at length under the title, "National Defense, Reorganization of Departmental Control." After analyzing the objections, Representative McSwain gave his conclusions—

That all the fighting forces of the Nation, organized solely for the defense of the Nation, in order to accomplish economy, in order to accomplish effective cooperation in training and in fighting, must be under a single authority, and in a single department.

I have heard the opinion that it might require a sort of superman to be the head of a single department of national defense. It is difficult to see why anyone should have such an idea. I do not see any reason why any reasonably sound and experienced man could not coordinate and supervise the three Departments of Navy, Army, and air. Each would have, as now, a civilian head, and the secretary of the department of national defense would have the assistance of these heads of the three services to aid him in the unified direction of our national defense forces, under the control of the President as the Commander in Chief of the whole armed forces.

Most differences between the three departments would be arranged or decided by the head of the department of national defense. Such matters as required the action of the Chief Executive would, of course, be taken to him by the secretary of national defense after the latter had heard all sides and had given the matter thorough and personal study. Thus, the President's action ought to be more easy for the head of the Government as well as more quickly rendered. It seems to me more likely that we need supermen in charge of the Army and the Navy as those Departments are now arranged—to keep touch not only with their own work but also to act on or study the questions that arise between the Navy and the Army.

In the matter of our national defense, I think the committee might well study the Aleutian Islands as a place of paramount importance. The direct and shortest route to the Far East is from Puget Sound. This shortest sea lane runs in a straight line, touching the Aleutians, the Japanese Kuriles, Japan, and on to Manila. Japan lies on this line and half way between Manila and our Aleutians.

(The ordinary maps one sees in the atlases and geographies and reproduced in the magazines and newspapers are very deceptive in looking into such a question as we are discussing at present. If no

great circle map is at hand, look at a globe and you will see that the sea lane to the Orient runs in a straight line. The distortion on the ordinary maps just spoken of makes this a curved line—and gives a wrong impression.)

Honolulu, heretofore favored as a paramount base, does not lie within 2,000 miles of any point of the direct route to the East. A fleet seizing a base in the Aleutians would work on the short and interior route, while a fleet of our own based on the Hawaiian Islands would work on the longer and exterior lines. In the event that an enemy fleet held the Aleutians, a fleet of ours based on Honolulu would have great difficulty in taking the offensive from that point on the longer and exterior lines while such a hostile fleet is being operated on the short lines to the north.

The greatest strategic liability now to America of the Philippines is illustrated by the above remarks. This liability is accentuated by the added fact that the 2,400-mile line of east and west mandated islands between Honolulu and our Guam screens Japan and offers excellent shelter for submarines, aircraft, and other vessels. Our Guam and the rest of that Mariana group and the Bonin Islands afford a protecting north and south screen for the Japanese islands of some 1,400 miles in length. The Marianas are also under Japanese mandate. The Aleutians are nearer to our west coast than is Honolulu itself.

On an island with several other deep-sea harbors, it is now conceded by all that the port of Manila is untenable. The idea that we have at Manila a useful commercial base is also rarely heard nowadays. Why carry merchandise out to Manila by the cheapest and shortest way, passing very near Japan and the China coast ports, and then haul the same goods back along the same route to China and Japanese marts?

Many who have in recent years discussed the strategy of the Orient appear to think almost in terms of 1898—when we made our advent as a western Pacific power. At that time we were far the stronger Pacific power, even in the western Pacific. The growth of Japanese power has naturally changed that situation with respect to the western littoral of the Pacific.

In fact, the best naval authorities now believe that in order to hold or to regain Manila, we would need at Manila a fleet—an additional fleet—as large as the fleet of any western Pacific nation. And also, in addition, a field army with all sorts of heavy equipment at Manila of, say, 60,000 American soldiers—a cost that would be colossal—to mention none of the other features.

Loaned by the Army to the Philippine Government for civil-police duty in connection with the constabulary, I did work for a decade in all parts of the islands. My conviction is that Philippine independence will be best for the Filipinos and for ourselves and that it will make for peace in the Orient. With the Philippines free from our control, our defense will be simplified in the Pacific. Also, our sea power in any part of the Pacific will be increased with a united fleet based on, say, Puget Sound—with outlying bases at the Aleutians and in the Hawaiian Islands. (See U. S. Weather Bureau pamphlet on the Alaska climate. In January the mean temperature at Sitka is reported by the pamphlet as higher than at

St. Louis; the mean at many places on the Pacific is reported as higher than at Chicago. The report of the Weather Bureau states: "The modifying influence of the north Pacific Ocean is shown in the comparatively mild temperatures that prevail throughout this part of the Territory.")

THE TRAGEDY OF OUR SMALL REGULAR ARMY

THE SCATTERED CONDITION OF THE ARMY POSTS—OUR OUTWORN ARMY PROMOTION SYSTEM

Two things constitute what I have long called the tragedy of our small Regular Army—the scattered state of the Army posts in the United States and the lack of a modern, scientific, and business-like system for promoting Army officers of all grades and for selecting colonels to be brigadiers and brigadiers to be major generals. As to the Army posts: In addition to some two dozen arsenals and depots of supply and the general hospitals, there are about 120 garrisoned Army posts within the limits of the United States that shelter an average of about 700 soldiers each. The detriment to the taxpayer from this arrangement is mainly in two ways—the cost for the upkeep of so many separate "towns" and the damage to the peacetime training of the Army. The loss in training comes largely in two ways—the labor required from the soldiers to maintain the "towns" and the impossibility of reasonable training with a small number of men, usually of one arm of the service. A commander of such a garrison learns mainly how to become a good police sergeant and a good provost sergeant.

I believe the idea that Members of the Congress are responsible for the present scattered state of our Army garrisons is erroneous. In fact, a number of our interior Army posts are situated much as Sherman had them when he retired as our Army commander more than 50 years ago, the year I entered West Point as a cadet. These posts were located for red Indian strategy. In my judgment, the Army itself is largely responsible for the present scattered state of the Army posts. Had the high command of our Army made, after each war or after the end of each period in the growth of the country, definite recommendations for the better location of the Army posts, I have no doubt that conditions would now be very different.

The belief that Army garrisons must be scattered in order to assist the training of the National Guard and of the Reserve officers belongs to a period of the Guard very different from that of the efficient and ambitious Guard forces of today. There are many extra officers of the Regular Army for assignment to the home stations of the Guard and of the Reserve units in order to aid these forces.

At the 10 larger posts are the 10 Army post-graduate schools. If these schools could be all placed at one large training center the troops at many small posts could be quartered in nine of these large posts so vacated. Many of the small posts could be then disposed of. The excellent suggestion has been made that the Government donate the abandoned posts to the States or the localities for park and other purposes. This would be better than any attempt to sell

the abandoned posts. With a concentration in the new training center of the 11,000 troops now at the 10 post-graduate schools of the Army, these soldiers would form skeleton brigades and divisions for training purposes. Young officers would then be able to pursue training courses with troops of arms other than those to which they belong—a most important thing in modern war. Only by such an arrangement as this can the facilities offered the Army for training its officers approach those now afforded the Navy, as I have mentioned above in this statement. Our Navy trains in peace in groups the same as they are to use in war. Our Army has no such chance, and no such facility is offered the land forces under the laws of the Congress. Only by having an educational or rather a training center, as just described, can your Army possibly have approximately equal chances for training such as the Navy has at all times.

Much has been made in the press of the training this next summer of some 60,000 Army and National Guard troops at Pine Camp in New York. I believe that the plan has been changed so as to reduce the cost—about a third of the troops are to be left in Pennsylvania. Do you realize that this heralded plan is under an unprecedented appropriation of moneys—an appropriation we can hardly expect to be repeated in succeeding years? Much has been made in the press of the excellent plan of our present Secretary of War to group the air force of the Army in about three posts—the new General Headquarters Air Force. We of the Army certainly did go to work as soon as we got the new air force and well scattered this small contingent over this great country. The air force was last fall in about 20 or more Army posts. Are there any posts large enough and available for the new General Headquarters force? How long will it take the Secretary of War to carry out his modern plan to group the General Headquarters Air Force so that it may have a chance to train? I repeat—the one manner in which I see that your Army may not disappoint you as to the quality and the modernity of its training (all so very different and so frightfully important since the Great War), is for the Congress to so group the Army so as to make a large training center. At such a center there would be the schools of all the arms, and troops of all arms. Officers could then be trained in more than one arm, as well as being trained well in their own arms. In a modern army, no officer ought to any longer train all his days in one arm. All officers in a modern army ought to hold responsible positions in and do responsible training and service in two or more arms while they are relatively young.

OUR OUT-WORN PROMOTION SYSTEM FOR ARMY OFFICERS

As to promotion in the Army: The recent Baker aviation board said, on page 68 of the report:

(2) There should be adopted a system of selection and retirement for officers of the whole Army similar to that now provided for the Navy and Marine Corps.

Would the gentleman of Congress take the Navy officers having the rank of commander and advance them to the position of captain

from the top of the list of commanders, one by one in turn, and allow them to be placed in command of our battleships?

In the Army all promotions, except to the grade of brigadier general, are made by advancing the men first on the list of each grade—the seniority system. The physically impaired—a negligible percentage—are barred from promotion and retired. Since we introduced the efficiency record of Army officers some 20 years ago, we have dispensed with the professional examination for promotion for line officers—the great majority of our Army officers. A few may be denied promotion under the Army class B law. That law seems to pillory a man by name as unfit and it appears to arouse the maximum sympathy for him. Under a selection system a man not promoted in a certain time is retired. He drops out with a group and is not so individually pilloried. Class B seems to be a negative system—selection is a positive plan of action. The Navy has a board of nine admirals who have safeguarded the promotion system for many years, under the statutes and under detailed rules of procedure. In the Army a board of generals annually makes a list of colonels deemed eligible for promotion. The Army process is less definite than that of the Navy and frequently may be possibly just a large inclusive list. The list is not made public, as is the desirable and wise Navy practice. In the Army, selections of colonels to be brigadiers and of brigadiers for promotion to major generals are made by the constantly changing Secretaries of War.

General Douglas MacArthur, the Chief of Staff, gave the clearest and most classic wording or definition of the principles that necessitate a selection system for the promotion of officers of our Army in his annual report for the year 1932, on page 66:

There is some truth in the charge that the seniority system works to the advantage of the mediocre and the average.

The main disadvantage of the unmodified seniority method is its tendency to discourage initiative and enterprise among young officers of ability and promise.

Facing the certainty of many years in the same or similar capacities, and with no opportunity for accelerating their own advancement through unusual achievement, little inducement is held out to the gifted individuals to excel in the performance of duty.

We do use selection for promotion of all officers in war. But in the important training periods at the beginning of a war we go along in much the same routine. It is not fair to use any but excellent officers in training men for battle. It is not fair to the State to largely defer selecting officers until after the failure of some in battle or in training men.

Here are some figures that illustrate the subject of Army and Navy methods of selection. The table shows the relative number, on the Army list of about 470 colonels, that the 43 Army brigadiers held when they were chosen for promotion to the grade of brigadier.

Present position as a brigadier	West Point class, or date of commission	Relative number as a colonel when made a brigadier	Present position as a brigadier	West Point class, or date of commission	Relative number as a colonel when made a brigadier
1.....	Class 1894.....	88	23.....	Class 1898.....	83
2.....	do.....	144	24.....	Class 1895.....	55
3.....	Class 1896.....	183	25.....	do.....	80
4.....	August 1899.....	382	26.....	Class 1897.....	75
5.....	Class 1894.....	119	27.....	May 1897.....	116
6.....	Class 1895.....	131	28.....	Class 1894.....	50
7.....	Class 1894.....	121	29.....	do.....	78
8.....	Class 1897.....	168	30.....	do.....	115
9.....	Class 1898.....	180	31.....	Class 1897.....	47
10.....	Class 1897.....	162	32.....	Class 1898.....	20
11.....	Class 1898.....	177	33.....	Class 1894.....	74
12.....	do.....	60	34.....	September 1898.....	118
13.....	do.....	15	35.....	February 1897.....	127
14.....	July 1898.....	211	36.....	July 1898.....	89
15.....	Class 1899.....	239	37.....	do.....	117
16.....	July 1898.....	170	38.....	Class 1899.....	120
17.....	April 1899.....	268	39.....	do.....	73
18.....	Class 1896.....	49	40.....	July 1898.....	99
19.....	Class 1895.....	82	41.....	September 1898.....	105
20.....	Class 1897.....	114	42.....	Class 1899.....	114
21.....	April 1898.....	129	43.....	do.....	126
22.....	Class 1898.....	38			

The average age is about 60½ years. Thirty-one are West Pointers and 12 entered the Army from civil life about the time of the Spanish-American War.

This table shows the same for the first 43 ranking admirals on the Navy list:

Present position	Annapolis class	Number on the list of 250 captains, when promoted admiral	Present position	Annapolis class	Number on the list of 250 captains, when promoted admiral
1.....	Class 1891.....	7	23.....	Class 1895.....	2
2.....	Class 1892.....	12	24.....	Class 1897.....	16
3.....	do.....	9	25.....	do.....	20
4.....	Class 1893.....	11	26.....	Class 1898.....	24
5.....	do.....	2	27.....	do.....	29
6.....	do.....	3	28.....	Class 1899.....	30
7.....	do.....	5	29.....	Class 1898.....	13
8.....	Class 1894.....	6	30.....	do.....	17
9.....	do.....	16	31.....	Class 1899.....	20
10.....	Class 1895.....	20	32.....	do.....	21
11.....	do.....	23	33.....	do.....	23
12.....	do.....	27	34.....	do.....	24
13.....	do.....	30	35.....	do.....	27
14.....	Class 96.....	16	36.....	do.....	11
15.....	do.....	20	37.....	do.....	12
16.....	do.....	21	38.....	do.....	14
17.....	Class 1897.....	25	39.....	do.....	15
18.....	do.....	17	40.....	do.....	16
19.....	do.....	18	41.....	do.....	20
20.....	do.....	20	42.....	do.....	6
21.....	do.....	23	43.....	Class 1900.....	8
22.....	do.....	24			

The average age is about 59½ years. All are Annapolis graduates. A comparison of the two preceding tables. The relative number, on the list of about 470 Army colonels, and on the Navy list of about 250 captains, the following brigadiers and admirals held when chosen for advancement to their present grades and rank:

Present order of rank as brigadier or admiral	Relative number on Army list when promoted general	Relative number on Navy list when promoted admiral	Present order of rank as brigadier or admiral	Relative number on Army list when promoted general	Relative number on Navy list when promoted admiral
1.....	88	7	23.....	83	2
2.....	144	12	24.....	56	16
3.....	183	9	25.....	80	20
4.....	382	11	26.....	75	24
5.....	119	2	27.....	116	29
6.....	131	3	28.....	50	30
7.....	121	5	29.....	78	13
8.....	168	6	30.....	115	17
9.....	180	16	31.....	47	20
10.....	162	20	32.....	20	21
11.....	177	23	33.....	74	23
12.....	60	27	34.....	116	24
13.....	15	30	35.....	127	27
14.....	211	16	36.....	89	11
15.....	239	20	37.....	117	12
16.....	170	21	38.....	120	14
17.....	268	25	39.....	73	15
18.....	49	17	40.....	99	16
19.....	82	18	41.....	105	20
20.....	114	20	42.....	114	6
21.....	129	23	43.....	126	8
22.....	38	24			

The average of the relative number or position of the above officers when chosen for advancement to the higher grades—Army, 119; Navy, 17. The Navy never reached down on the captains' list lower than number 30, in finding the material for the 43 admirals. To find the material for the 43 brigadier generals, the Army went down to include number 382, on the list of Army colonels. The Army went down on the list of colonels below number 100—to choose the 43 brigadiers—25 times—that is, 25 of the colonels for brigadiers were taken from men who stood lower than 100 on the list of Army colonels. Were there no colonels above number 100 fitted for any of these vacancies? In order to get men for the 43 admirals, the Navy never took captains who were lower than number 30 on the list. Army took—in making 43 brigadiers—only two of its colonels who stood as high as number 30.

The above tables illustrate different methods of selecting officers for higher grades. The Navy system is the more scientific and fairer one of the two. The tables also show which service, "jumps its officers around so much", as the phrase goes.

OUR NAVY PROMOTION SYSTEM

About a year ago the Navy selected other officers for promotion. Among these were 28 commanders for promotion to the grade of captain. The following were chosen from the list of about 460 commanders: Numbers 1, 2, 3, 9, 10, 11, 12, and so on down to include the officer who was number 40 on the list of commanders. In the Army, in order to fill 28 vacancies in the grade of colonel (the corresponding grade to a Navy captain), the first 28 lieutenant colonels would be usually promoted. Last year the Navy anticipated they would have about 46 vacancies to be filled in the grade of commander. The selection board appears to have considered at least 70 lieutenant commanders. They selected, from the about 825 lieu-

tenant commanders, numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, and so on to include no. 70. The Army would ordinarily just have promoted the 46 senior majors to fill 46 vacancies in the lieutenant colonels' grade.

The same system of promotion by selection exists in the lower Navy grades, down to include the selection of the junior-grade lieutenants. Also, this system is used in the Marine Corps, down to include the promotion of first lieutenants. In both the Marine Corps and the Navy if an officer be passed over, he may be selected for promotion the following years—while he remains on the active list.

The object is to insure so far as possible keeping in the service the good average officers who show industry and reasonable power and force, eliminating those officers who are not suited to the service at as early an age as practicable. The Army seniority plan tends to carry as many officers as possible to the higher grades before retirement. The Navy plan tends to have officers who are not suitable for the service retire at as early a time as possible. There are so few brilliant officers, it would be useless to attempt to rely on that class. A man who is a good and useful officer in peace is usually an effective officer in battle—reversals have been, in my long observation, negligible in number.

THE SELECTION SYSTEM CONTINUED

The allegation is made that promotion by selection is unfair to the individuals passed over. That some such men may not in peace have had opportunity or the facility to show their best qualities. No system can be perfect and all plans will make some injustices. The present plan creates great injustice, I am convinced from long practice with it in war and peace. There is the injustice to the State in a crisis. There are the injustices to the average good officers who by zeal and energy perform their duties in better than an average way—developing power and force and leadership. Such men are forced—by your laws—to keep step year by year in fear of far less useful and valuable men. You deny to the hard-working man any hope of reward if by his study, energy, and initiative he makes himself of dependable and constant value. I repeat, it is not the occasional brilliant man one has in mind. It is the pressing need to get the unusual men of average ability to the high grades before they are too old. In the first periods of any war your armies are to be commanded by officers from the peacetime forces. These officers should have been given the same general opportunity—the same right to compete—that your naval officers have all their professional life.

Take Annapolis and West Point, for example. Do they feel that duty, honor, country are enough? That is the motto of West Point. But both schools allow and encourage the young man to compete all the 4 years. Why does the Congress then prohibit or minimize this right of competition after the West Point student becomes an officer? Engineers, lawyers, doctors, and Senators and Congressmen have this privilege and right.

Certainly officers who enter the Army for a career cannot expect a vested right in their position and place. They cannot have a right to continue lifetime advancement in rank and in pay without regard to their continued efficiency and value to the State. A few years ago all officers of the Army had a mental and professional written and oral examination to determine their fitness for the next higher grade.

That was abolished, for the great majority, years ago, on the ground of the expense to the Government and for the reason that it was believed that the newly established efficiency records for each officer would answer and would show whether he was suited for a higher grade or not. Many Army men are said now to have objections to any selection system on the alleged ground, it is said, that the efficiency records are not suitable guides, and so forth. If these reports are not suitable, then why not go back to the professional examination for all to show whether they are to be promoted to the next grade—or why not combine examination of the efficiency records with some professional examination—if such a method be deemed more fair to the officer? Our Navy officers all have written examinations to determine their proficiency for promotion—to every grade. In addition, they have, of course, the efficiency records of all officers. (Any professional examination now instituted would naturally be much simpler and broader, and very different in type from our former efforts in this line.)

Perusal of the Congressional Record indicates that officers at times write the Members of the Congress, if not promoted, and so forth. I suppose that it would be difficult for anyone of us to write such a note to our Senators without dwelling much on our rights and privileges. It would be a hard thing for one of us to at the same time give to the Senator a correct view of just the facts as to our duties and responsibilities—how we had over the years measured up in that regard? Such ex parte letters can hardly be of value to a Member of the Congress unless the officer making the complaints had a most unusual breadth and a capacity to keep in view the interests and the needs of the State—for men of continued worth and value—men who do work and study all the years to keep themselves in a condition to be of real use to the State in an emergency or a crisis.

It is said that many Army officers do not like the idea of promotion by selection, for the reason that they might be “jumped over by a junior.” If it were put to them fully, I have great faith that Army officers as a whole would not shrink from competition—would not fear any reasonable competition with others, knowing that by such methods alone can the State keep its officer force in the most alert and efficient shape and that only by that method does the State offer any reward in peace to the men who continually try over the years and who do perform their work in a better than ordinary way.

Again, you hear that officers who are passed over by others junior to them are so “depressed”—they feel so “uncertain” as to the future—that all this tends to render them less fit for good work, and so on. Certainly most all of the officers of my generation have had ample experience in being “jumped over by juniors.” I, for one, have been “jumped” many a time. After the Great War, Pershing, as the Chief of the Army Staff at the seat of government at Washington, promoted many brilliant and able men who were much junior to me—some of whom had been in a way under me at some Army posts, and so forth. It seemed to me a normal and right thing for Pershing to do—to promote the men who in his war experience gave him the belief they would be of the most value to the Army. It may be that after our first war in which we had a corps of General Staff officers the Commander in Chief did see the work—of inestimable value—of the General Staff in a better perspective than he did

the work of the officers in the line of battle—it is possible that, in this first General Staff war of ours the General Staff was a sort of screen between the commander in chief and the battle men.

I certainly never felt depressed or so dreadfully uncertain by the advancement of the officers just mentioned. I felt the policy was a good one and as to the uncertainty—I felt that my task was not to be depressed, but to go ahead and work yet harder to be more useful to the State and the Army—for the future. It never seemed to me humiliating that I should have to compete with others. I went to the Great War in France as a colonel of a regiment, when many of my contemporaries and a number of my juniors were made brigadiers at the outset of the last war. That caused me to try to seek political aid—in the following manner: At Hoboken, waiting a troop ship to take me abroad, I came down to Washington one day and walked from the station to the Senate offices. I had the luck to find my two Senators in their offices—Shields and McKellar, who were both strangers to me. I made to the Senators the earnest plea that in case any of my friends or relatives asked them to seek an audience with the President—to aid my promotion—they would in no event do any such thing. That my place to seek promotion was on the battlefield.

In order to seek Army leaders and administrative directors with broader general experience, it would be well for the Congress to authorize a plan somewhat as follows: Take, say, 6 to 10 picked men from each West Point graduating class—chosen without undue regard to scholastic standing—and put them through our staff school and War College as soon as possible—with a course of a few months at the Naval War College also. Allow them to leave the Army before they are 27 years old and go into business, with their Army salary continued for a year. The best of these men would continue to keep touch with military education, advancement, and so on—not going at all into the Officers' Reserve Corps or into the National Guard. From such a reserve in civil life excellent men should emerge.

I take it that as soon as may be possible the matter of the "hump" in the list of Army officers must be attended to by some special legislation. The British just had last summer what they call a royal commission—the Stanhope Commission—on this same subject in their army. On such a commission it is not usual to have members who belong to the branch of government service directly concerned or interested. Such persons are used as witnesses or advisers rather.

THE WAR DEPARTMENT—DEPARTMENT OF THE ARMY—THE MILITARY
ACADEMY AT WEST POINT

It is fair to estimate institutions such as the War Department, West Point, and so on, by taking the history of the country in blocks of about 40 years, and asking if on the whole the organization has done its duty to the country reasonably well. While we have a small Army, we have a very large War Department. The War Departments of most all nations are organized much on the same lines—with the superior control of the Chief Executive and into divisions of military operations and training, intelligence, supply, and so on.

A country with a small peace army needs a relatively greater number of officers for an emergency and to train a number of officers in higher administration.

I think our War Department, considering all the conditions and the circumstance, did remarkably well in the last war. It seems to me erroneous to say that our War Department fell down—showed great inefficiency and so on. I believe much of the confusion that was laid at the door of the War Department was the fault of the Army itself—lack of initiative and decision on the part of some officers with long training. I know the War Department was swamped with telegrams at first, and could not even open or answer all the messages.

But, should all those messages have been sent to the War Department? I suspect the greater number should not have been sent. I was commanding a post and regiment in northern Vermont. Cold and damp, with 4,300 volunteer recruits scheduled to come to add to my 500 men, I know I sent two or more telegrams to the War Department that were quite unnecessary. They were for authority to do this or that. Hearing nothing, it occurred to me wise to do some thinking rather than ask the War Department to do it for me. I knew the Army regulations. I had had 30 years to learn them. My new men were to come over a period of a number of days or weeks. I simply set to work to prepare for my recruits the normal minimum needed for comfort and health. Telephoning to the Army arsenals and depots at Philadelphia, Louisville, St. Louis, and so on, I started express cars to us with tentage and all sorts of equipment, food, clothing, and arms.

What I could not get from depots—blankets, for example, I bought from Vermont factories who were then making blankets for the Russians. And so on—an additional water supply, say \$20,000; an addition to my local hospital—a ward of wooden material; getting on the telephone and employing three civilian doctors and seven women nurses (I tried to get 4 and 10, respectively). I made the hospital addition and got my nurses and doctors before we had any sick and got them as an emergency measure without the customary authority—it being at the time difficult to get word back from higher quarters—the congestion at the start of the war.

All my buying and the repairs and construction were all done with due regard to the requirements of law and regulations—the so-called red tape. For some things, I would go or send to Burlington with the proposals and rough specifications of what I needed, give several merchants or contractors a few hours to make their bids, and then collect the latter and make my awards. We soon had a great number of respiratory cases of illness in the cold, wet spring, but we lost but two men—both from meningitis—out of 5,000 soldiers, nearly all of them recruits who had volunteered before the draft law was passed.

Many believe that at present we have too many officers on duty in the War Department. That an excessive staff may render such a bureau less prompt-acting, adding to the circumlocution of administrative work and routine. There is no doubt that a country with a small peace army does need a relatively large staff at the Capital—in order to train more officers for an emergency.

Our War Office at the Capital has at least 16 separate military bureaus to coordinate, contains about 36 general officers, about 100 officers of the Army general staff and about 450 other Army administrative officers—a total of commissioned personnel of, say, 600. It is usually considered good administration for a chief to have under him not fewer than four nor more than seven subordinates to oversee and to coordinate. The Chief of Staff of the Army, as the principal assistant of the Secretary of War, might well have three or four deputies at the head of three or four groups of War Department bureaus and branches. The bureaus and branches now existing might well be much consolidated and otherwise emasculated in order to cut overhead and facilitate business. These deputies of the Chief of Staff might well be heads of administration, intelligence, training and instruction, and supply. A colonel with an assistant or two might well replace each of the present immense establishments and the major generals that advise on the affairs of the several combatant branches of the Army.

The Army Chief of Staff might then have more time to think. He would not be so tied to Washington and to desk work and could pass days at a time studying the important Army places—Benning, Leavenworth, Bliss, Sill, West Point, and so on. I suppose our dozen or more Chiefs of Staff have been compelled to remain most of their time at Washington while holding that office in order to assist the Secretary of War in much of the latter's administrative labor. A permanent and additional Assistant Secretary of War—with a permanent deputy-assistant secretary—would no doubt attend to much administrative "paper work" now done by high military officers. The Chief of Staff and his several assistants—general officers—have usually served already one or more tours in Washington in the War Department and are familiar with the scene and with the routine there. There is the making of military policies and the execution of such policies. In the former the President and the Secretary of War no doubt always seek the opinion and advice of the Chief of Staff. The latter may be a task that requires a Chief of Staff to be out of the Capital a good deal.

It has long seemed to me that there should be a greater civilian component among the governing and directing officials of the War Department at Washington. That the Army Council or War Department Council should have at least as many civilian members as soldier members on it. I think it is of very great importance that there should be at the War Department an Assistant Secretary of War who is permanent, a man who carries on from one Secretary of War to another and who knows the routine of the administration and the policies of the War Department. Such an official would be a member of the council of, say, six or seven, which should recommend and supervise the general policies of Army matters and promotions, especially the advice to the President on promotions of colonels to brigadiers and brigadiers to major generals. The council ought to keep permanent records, and there should be reasonable publicity as to its studies and findings. If it is at all possible under our Constitution, there ought to be on such a War Department council a member of the Military Committee of the Senate or of the House. The many reasons for this would seem too

patent to go into the details—closer liaison and a tendency to bridge any gap between the War Office and the Congress.

Our present system, under which the Army Chief of Staff is obliged to be the principal person to recommend the officers who are to be selected by the Secretary of War for presentation to the President for promotion to brigadier and to major general, places a heavy burden on the Chief of Staff. With a small Regular Army, all or most of the seniors well known to the Chief of Staff, who has also his own classmates in the Army, his task must be very difficult to carry out in an impartial and impersonal way. Should not the Chief of Staff have the aid of the civilian assistants to the Secretary of War in this most important work—the matter of choosing the Army leaders for the future?

The Chief of Naval Operations, the senior or controlling naval officer at the Navy Department, has no such burden as the Army Chief of Staff about suggesting the officers who are to be advanced in rank and pay. There is a Navy Board of nine selected admirals who go over all this matter and make recommendations, giving the names of the men who they think ought to receive promotion. The Navy Chief of Operations may not alone do this.

Should not such a system for the Army be laid down by statute—with statutory provision for a permanent record of the proceedings of such a board? Would not the country—and also the Army—welcome such a change?

I have long felt that a better organization would place directly under the Secretary of War the bureaus of the Inspector General and of the Judge Advocate General of the Army. In such an arrangement, the routine inspections often done now by the Inspector General's department would be discontinued, and such work done by the commanders—the corps area and other chiefs who are responsible for the troops. Special investigations and particular inquiries might better be made by the orders of the Secretary of War and the reports might better come to the Secretary of War direct. The Chief of Staff would be less engaged in "red tape", so-called. His presentation to the Secretary of War as to the state of the Army and the efficiency of its generals, and so on, would best be done after the Chief of Staff had seen the troops, and so forth, himself. Then there is a principle involved—one of importance, I think. The Chief of Staff is a part of the Army and it would be better and make a clearer atmosphere for the work of the inspectors if the duty of the latter were set out and prescribed from time to time by the Secretary of War himself.

It would be difficult to overestimate the value of unhurried personal inspection of the Army by the Chief of Staff. The troops are entitled to know and have touch with the leading soldier of the day. The Chief of Staff would test the officers and the units, get acquainted with and stimulate the younger officers, and actively and energetically inquire into the judgment, wisdom, and efficiency of the sundry general officers commanding the parts of the Army. These inspections might well nowadays include fewer of the formal reviews. They would naturally include training, efficiency, and cleanliness, and so forth. The visit of a Chief of Staff to one-half the Army each year would also include the contentment of the troops. The Navy has, in the form for the admiral's report on efficiency of officers, a question

as to whether the captain has a "happy ship." This is gone into affirmatively and thoroughly whether any complaints are made to the admiral or not—looked into in a positive rather than merely a negative manner.

Personal inspection by the Chief of Staff of such places as West Point, the 10 Army postgraduate schools, the School for Command and General Staff Training, and so forth, would be of great value. Made annually to each school, the visit would be unhurried, the Chief of Staff being well able to pass some days at the important Army posts and schools. Routine of life, the schedule of instruction, the sort of training—all these look quite different on the ground from what they do in papers and reports. The unhurried opinion and judgment of the Chief of Staff on the spot would have far more value and vitality and interest than any letters the Chief of Staff could write from Army headquarters at Washington on these vital matters. This personal touch is a thing that would prevent such matters as the routine school courses becoming static; it is very necessary—vital in fact.

With 36 generals in the War Department, and 600 officers in all on duty there, this inspection ought not to be difficult. Even if we were to cut the number of War Department generals to 18 and the total of the officer personnel there by one-half—so as to have about the same War Department staff one democratic country that speaks the same language as ourselves has in its War Department—we should still be able to keep up an inspection system that would give the Army an opportunity to see the chief soldier figure of the time and to learn from him amidst the troops.

THE MILITARY ACADEMY AT WEST POINT

The object of West Point life is the development of character, with elementary military training and academic education in the arts and sciences most necessary for soldiers and which develop the mental powers—to the end that an officer may use his faculties to the best advantage under all circumstances.

West Point has been discussed a good deal lately. Some of the discussion has been about the course of the academic instruction and some of it has been about the methods of training and discipline. A graduate of West Point, and having as an officer served there two tours of duty, I am naturally interested in these discussions.

It is not easy to talk of West Point. We graduates say it is a special school, and that it has a special and particular mission. Therefore, you may make errors if you try to discuss West Point unless you know the place very well. And we may tell you that you cannot know West Point very well unless you graduated there. And so on around the circle. I am sure that we graduates of West Point should read or participate in these discussions about our school without undue emotion, and without being offended or annoyed at criticisms of West Point—if we are to assist in getting the best views of those interested in maintaining normal progress.

Some things about West Point I believe we will all agree on. Among these are that it is one of the noblest and most valuable assets of America; that it has served the country well—its graduates.

always having made good in war, many having had remarkable careers in civil life also; that its spirit is sound and high and strong and its dress parades inspiring, thrilling, with the cadets in their grey choke-collar eighteenth-century, warm uniform, topped off by the historic, ancient, and uncomfortable shako.

(Major General Hagood, West Point 1896, in an able article in the Saturday Evening Post for September 8, 1934, said that ballet girls put on snappy drills and make snappy salutes, but are not trained for war.)

First tried in the Mexican War, the commendatory phrase of Scott, the commander in chief, about the graduates is a classic. The equally well-known phrases about all the armies, wings, corps, and divisions (almost) on both sides in the Civil War having been commanded—finally before the end of the conflict—by West Pointers we often read.

In the great war in France—and in the preparation for that war—we had an Army with more than 200,000 officers. Among that number of the officers there were 3,445 graduates of the Military Academy up the Hudson—1½ percent. This small number had—we all know—a great deal of responsibility in connection with that war—Chiefs of Staff at Washington, heads of the Army in France and of the three separate armies we had there, chief of our Versailles group, leading some three dozen corps and divisions and so on. The percentage of the battle deaths of the West Point men exceeded that of the other groups of officers—emergency officers and Army officers who had not been at West Point. The percentage of battle deaths of the West Pointers from major to lieutenant was greater than that of the men in the ranks.

It may be that the trouble with men like myself, who are devoted to their alma mater and who owe everything to her, in discussing West Point is our difficulty in weighing things, suggestions, or criticisms, in a reasonable manner. We may be liable to put an emotional value on such matters—matters connected with the Military Academy. We see last year that a distinguished and conservative journal, the New York Times, said in an editorial:

Criticism of West Point's methods of training was common enough in the World War among officers of the United States Army who entered the service from civil life or from Plattsburg. It was often not discriminating, and in some cases it was mere prejudice. *But it could not be dismissed as having no kernel of truth.*¹

And further along in that same editorial of May 1, 1934, we read, *It would be well to modify and rationalize discipline.*¹

And later, on September 2, 1934, we read in the New York American a long article about our Army training now and about the present training at the United States Military Academy. This article is by a son of West Point, one of the most noted and distinguished leaders in battle and in peace of our generation—Bullard, West Point class of 1885.

Lieutenant General Bullard is a conservative man—he is devoted to West Point and was for a long time the President of its graduate association. A few of the things in Bullard's long paper:

¹ On account of its importance I place these phrases in italic letters.

PRUSSIAN TECHNIQUE GOVERNS WEST POINT

But the predominant thought within our Army is along traditional lines. And that traditional thinking extends all the way back to Frederick the Great—in unbroken line. What we have in America is a Prussian model in military thinking.

That system—then at the height of its popularity throughout the whole world—was brought over to us during the Revolution by General Von Steuben. Frederick's stern, irksome, exacting system became the basis of West Point teaching—and so has dominated our Army throughout its history. In the Civil War McClellan used it. One hundred and forty years after Von Steuben, General Pershing followed the same training tactics—9 months for the making of a soldier—of the ancient Prussian type only; and by methods which never were suited to the American disposition and character. Under the pressure of war he could not change the system.

GREAT WAR PROVED FALLACY OF SYSTEM

Our whole war experience was in fact proof of the fallacy and weakness of the Frederick the Great system of training as applied to Americans and as applied to modern war.

The lesson had been learned but was not applied.

Frederick's system is more obsolete today than then.

General Bullard has no criticism to offer as to the educational instruction at West Point, nor has the New York Times.

Expressions such as I have inserted are of great interest to us graduates of the Military Academy. They are in part perplexing. "Has West Point deteriorated?" we ask. "Has the school not kept touch reasonably with educational progress?" A visit to the school and to the classrooms, and so forth, will soon show one that West Point has not deteriorated, but has gone much ahead—especially in its educational and academic work.

The Military Academy was accredited by the Association of American Universities on October 31, 1924, as having the right to confer the degree of bachelor of science upon its graduates. The press gives account of a letter to General Connor, the present Superintendent at West Point, about a recent inspection of the Military Academy by President Walters, University of Cincinnati, on behalf of the committee on classification of the universities and colleges. The report stated that the inspection "had found things at your institution in every way satisfactory." That there had been found at West Point a "very liberal spirit", and that the academy authorities "were alive to the need of changes from time to time."

Press accounts refer also to General Connor's recent statements to the House Military Committee in what may have been a viva-voce talk about West Point. In stressing the graduates' general idea of the special mission of West Point the Superintendent is reported to have stated that the Military Academy makes no attempt to educate lawyers and businessmen, nor to produce civilian scientists or merely cultured scholars, and so on. Congressman Plumley, a former head of Norwich University, is reported as having called attention during this talk to the great amount of business Army officers must do, many of them—the engineer officers, our Air Corps officers, quartermasters, Ordnance officers, and so on. He felt that there ought to be at least one member of the West Point faculty with a degree of master of business from some great institution and remarked that he thought it would be well if a much larger number of the graduates rounded out their training by postgraduate work. (A most extensive compara-

tive development in just that postgraduate work has been brought about in the last couple of decades for Army men—postgraduate work at universities and colleges and the development of the fine Army postgraduate schools of all the arms of the service. This has been limited only by the time available and the amount of funds.)

There is the talk that the curriculum is lacking in the cultural courses. This is perhaps inherent at all special schools. Much improvement has been made in this regard at West Point by a faculty constantly concerned with this subject. A broader and deeper knowledge of history is still important. Should there be prescribed again a professional examination for Army line officers preceding every promotion, such a subject might be covered. We have some 2,000 officers who are 4 years with the Guard, the Reserve divisions, and the universities where R. O. T. C. units are maintained. Most of these men are at or near colleges. Were they allowed full credit as having qualified for promotion after they have received certain credit for work in history or a foreign language many would take advantage of their opportunities. Many now do take work in these institutions; such work ought to be given direct credit on the officer's record. Any professional examination need not be the same for all, irrespective of their previous education; it should be flexible and allow much scope for choice and selection on the part of the officers to be tested. (Uniformity in essentials is necessary in the Army and elsewhere, but we in the Army are liable at times to make uniformity one of our gods. There are two minor deities, I imagine, all clever and high military administrative officers must watch closely. These are the two minor Army deities—Uniformity and Roster. Unless closely watched these will gradually and skillfully elevate themselves to the position of principal military administrative gods. Their slogan is to the effect they will make for the administrator a comfortable routine.)

Those of us who trained commands and fought them in the battles in France saw, of course, some West Pointers who failed in the training in this country and some who were sent back from the battlefields for inefficiency. These cases were but a small minority. They were due largely, no doubt, to long peacetime service without the stimulus of any competition—our seniority system of Army promotion.

But we were perplexed, and are perplexed, that a number of fine officers of the new Army from civil life did not appreciate all the virtues of the West Point training. Making ample allowances for prejudice, we have asked ourselves, Why is it that West Point is not more popular with some impartial people? Why do some able, kindly, and experienced patriotic citizens have few good words to say of some of the West Point men they were with in the war? Respect and admiration in many cases. But is that all; what of friendship, affection?

When any individual, group, commission, or committee takes action, or expresses opinions at variance with what we advocate or feel is best, we may say they do not like West Point, they do not understand West Point, they are attacking West Point. Is that sufficient? Must we not look for the motives? Do not practically all such people start in favor of the Academy—are they not at the beginning filled with a natural pride in a great national school? Then must we not try to discover how it is and why it is, that many form other beliefs and judgments as they go along?

Why the phrase "hard-boiled Army officer", "hard-boiled West Pointer"? I said to a civilian former officer that the two phrases are not synonymous. He claimed, in reply, that we West Point men take credit that West Point creates the informing spirit of the Army—the good spirit—so why not accept the whole spirit?

I ask questions such as these that I think call for the best study and reflection and inquiry of West Pointers who love their alma mater. Is the New York Times correct in saying, "But it could not be dismissed as having no kernel of truth"?

I believe the West Point cadets are kept too closely confined. Even at the Naval Academy, another military school, the students have about double the vacation in 4 years' time that the West Point cadets are allowed. More freedom for the students at both schools would be well; I believe this would result in better work and in better physical and general development. I think that West Point bears down too much on some secondary matters.

(One does not have in mind necessarily freedom to go to cities and such—for which the students have little money. But liberty in the vicinity and in the school. Of course, the students do start with advantage over the youth in civil schools in getting a salary from the State.)

Too much segregation and too many rules and regulations do not aid "the development of character", in my opinion. These merely add unnecessarily to the nervous strain and to the minor frictions of the cadet life. The best means for developing personal initiative and personal resourcefulness are of paramount importance since the Great War.

(The names of all the midshipmen of the Naval Academy are carried in the annual register of all the officers in the Navy. The names of the West Point cadets are not similarly included in the Army register of all the officers of the Army. The present cadet uniform tends to set apart the wearers—to segregate the cadets still more. Cadets in public places in a city after an athletic contest—at dinner in a hotel—may be seen at times wearing their overcoats thrown over their shoulders in order to cover the glare of so many large brass buttons.)

Never a one-school man for the corps of our Regular Army officers, I would like to see more graduates of the universities and colleges at which the Army maintains R. O. T. C. units given commissions as officers of the Army. Later some of these brought to the Academy as instructors, and in other responsible positions, might fetch things of value to the school and to the Army.

At present there are nine permanent professors at the Academy. Three of the dozen heads of departments change about every 4 years, to return to their Army duties. Eight of the permanent professors are graduates of West Point. They were selected from the Army at the average age of 41 and retire at 64. Three of the eight, as well as the professor from civil life, are shown as having degrees from colleges or universities other than the Military Academy. If a greater proportion of the professors and of the instructors were taken from the college and university men in the Army, the result should be beneficial. Indeed, some of the professors, at any rate, might well be from civil life—specialists in some subjects, or men who had taught at some institutions under distinguished specialists.

We have some 500 officers of the Army, of all grades—West Point graduates and graduates of other institutions—on duty as instructors of the R. O. T. C. units at the various colleges and universities. The senior of each group gets 4 years' experience as a member of the faculty of such colleges and universities.

Taking the instructors from the Army lessens the cost of the Academy. The relatively large number of the instructors thus provided makes feasible the small sections or groups under each teacher. This enables the instructor to give more time and attention to individual students. The instructors now number about 150. A dozen of them are not graduates of West Point but hold degrees from other colleges or universities. The remaining 140 are West Point graduates. A third of this 140 hold degrees also from some civilian college or university, and the great majority of them attended a college or university for some period of time before entering West Point.

There are about 12,297 officers in the Regular Army. Of these, 4,572 are West Point graduates—37 percent. Former enlisted men number 533. Officers from civil life who came in about the time of the Spanish-American War are 3,665. Those who entered the Army after the last war are 3,527. Of the Regular Army officers between 37 and 47 years of age there are about 1,200 graduates of civilian universities and colleges and some 764 West Pointers. Of these last groups combined, about 873 graduated at the Command and Staff School at Fort Leavenworth and some 300 from the Army War College. About 4,000 of the officers between 37 and 47 have graduated from at least one of the Army postgraduate schools of the branches of the Service. This number includes many graduates of the colleges and of West Point as well as many of the Army officers who hold no degrees from a college or from the Academy. So we have ample material among officers of middle life from West Point and from civilian institutions for the heads of the Military Academy. As the War College reached its development only after the late war, the distinguished generals who have been Superintendents of West Point the last third of a century had not the advantage of the War College. Only one of these appears to have graduated from the War College and none from the Command and Staff School.

Only in fairly recent times have the heads of West Point been general officers. Of the 34 different Superintendents, one was a gray-haired lieutenant about the age of Grant at Appomattox—43. Appointed the Superintendent in 1898, he held the place for 8 years—next to Thayer in length of service. He was one of the most successful heads of West Point. Six Superintendents, including Thayer and Lee, were captains; 9 were majors and 11 colonels and lieutenant colonels. Congress many years ago set the rank and pay of colonel for the Superintendent, if his Army rank is below that grade. Congress could well now provide that the officer serving as Superintendent have the rank and pay of major general or brigadier general, as the President might decide in each case. The position involves greater responsibility than in former days. The recent statesmanlike action of Secretary of War Dern in promoting by selection hundreds of the Air Corps officers one grade and even

two grades—while holding certain positions—is along similar lines. Father Thayer, the distinguished first Superintendent, took charge at 31 and remained until he was 47. The average age on taking charge of the 34 men who held the position was 48; of the first dozen Superintendents, 43; of the last five (general officers), it was 56. The average age of the present heads of the first dozen American colleges and universities that came to my mind was 41 on installation.

The officers in the department that has charge of the disciplinary instruction and the elementary military training of the cadets number about two dozen. Their ages at present average near 40. With the youth of the students, it would be better practice to have for these positions officers much nearer the ages of the cadets. This would make easier and more natural the desirable personal touch and contact between the students and their instructors in that important department. Forty appears old to 20. The lieutenant colonels in the Army average 50 years of age, perhaps more. The average of the majors is, perhaps, 47 or more; of the captains it is possibly about 43. So that there is no question of being compelled to take officers for Superintendent of the Military Academy who are too youthful—in selecting men for that important position who are not approaching the time for retirement from all active Army labors.

The general officers in our Army must now average 60 years of age. The brigadier generals average fully that age in all probability. Of course, there are a few who are a few years younger.

Under these circumstances I would like to see the Secretary of War select as the next Superintendent of the United States Military Academy an officer at any rate under 45. To get a man of suitable age he would have to be taken from the majors or captains, I believe. To get as the head of West Point a younger Superintendent to carry out (gradually) what the New York Times has recommended, "It would be well to modify and rationalize discipline." And I add also the military training.

The Prussian system of training and discipline as talked of by General Bullard is too much a training of fear—of drivership. A more sensible American system of training is one of leadership. The so-called Prussian system gave to the armies of the Central Powers in the last war, I believe, a rigidity of mental attitude that hampered their actions on the whole. It may have greatly interfered with their chances to win the conflict on two occasions in the struggle. The Prussian system is in great part a negative system. A positive plan for developing initiative is necessary now. Personal initiative and personal resourcefulness have taken on new and unthought-of meanings since the Great War.

It would be well if the professors and others in authority at West Point would ask all the graduating cadets to try and estimate their West Point training after a few years' service in the Army and send their evaluation of the West Point curriculum and routine to the Superintendent and the academic board. Also, to do this every few years as they progress in the Army. A digest of such reports—with the names of the writers omitted, if they are still on the active list, ought to be made by the War Department and given publicity

through the several widely read Army branch magazines. (It has long seemed to me that the War Department regulations as to Army officers writing about Army matters in public magazines and periodicals are too rigid. Are not such rules of what may be called negative conduct unnecessary? Do they not clamp the young officers for life to writing in the normal style of the official report? Is this not in a way unfair to the young officers? It is easy to argue that it is also unfair in a way to the State. As long as such articles are written in civil and proper phrases and in a temperate manner, why not trust to the judgment of the Army men and encourage reasonable discussion as proper peacetime training? And in any cases of intemperance or improper conduct merely use the general disciplinary powers under the General Laws and Regulations. There would seem so much to be gained—for the training and development of the Army officers and for the benefit of the State—the temperate furthering of new ideas about arms and equipment—the discussion of new methods of using the different parts of the Army, and so on. I first remember such War Department rules being issued in the early nineties. Almost the first of our officers to take training with a European military unit or school on returning from a short service with a continental cavalry regiment wrote an enthusiastic article in a New York morning paper. As I recollect it, the article was as harmless as the average modern interview under such conditions, but it made a sort of commotion, and I think was the cause of the regulations that now exist.)

A return to the former system of having on the West Point Board of Visitors some educators of distinction would be most desirable. It would be easy to insert in a law for such a change a suggestion or requirement that some of the educators be on successive Boards of Visitors, and, also, that some of these same men of wide experience be on both the West Point and the Annapolis Boards of Visitors. An interesting experiment that would cost the State no additional funds would be to have at both the Naval Academy and the Military Academy several instructors from the graduates of the other school. A tour of 2 or 3 years in this way would be the means of creating friendships that would be of value in after life. I have talked informally of this exchange of teachers with Secretary Adams, of the Navy, and with the Chief of Naval Operations a few years ago. The talk was informal, but a representative of Admiral Pratt told me the Navy Department would be glad to try it—and they felt it could be done under existing laws. I have also spoken informally to Admiral Standley, at the Navy Department, about this matter, asking him to think of the subject and to see if it seemed now practicable—in case the War Department were willing to try it. Of course, I am aware that at present some older Army officers attend the Naval War College courses and that some older Navy officers go to our Army War College, and that this summer a half dozen young West Pointers soon to graduate will be the guests of the Navy on the cruise of the Annapolis students. (Why, I insert here, are our Army War College and the Navy War College some 500 miles apart? Should not they be side by side at Washington where we have the Congressional Library?)

After having written the above I cut from the newspaper of May 20 the following about the just completed annual inspection of the Naval Academy by the Board of Visitors:

This year's innovation by which a large number of midshipmen served as student officers "increased their interest and enthusiasm", the Board said.

OFFICERS' EXAMPLE COMMENDED

As to discipline and morale, the report said: "The system of discipline in vogue is to be highly commended, as it seems in every way to develop manliness and a sense of responsibility. There is no sign of compulsion and the supervision exacted is highly suited to the American youth of today.

"The splendid example set by the officers has much to do with the high morale of the institution."

SHOULD HAVE PERMANENT BOARD

The Board inspected the academy from April 29 to May 2. It suggested that Board membership be made permanent, with provision for rotation and continuity of service. The President, the Vice President, and the Speaker of the House of Representatives appoint the members.

In addition to Dr. Sills, those signing the report were Dr. Rufus B. von KleinSmid, president of the University of Southern California; Dr. Edward C. Elliott, president of Purdue University; Dr. M. L. Brittain, president of Georgia School of Technology; Dr. Francis Pendleton Gaines, president of Washington and Lee University; the Rev. W. Coleman Nevils, president of Georgetown University; Senator Jesse H. Metcalf, of Rhode Island; and Representatives U. S. Guyer, of Kansas; William P. Cole, Jr., of Maryland; and John H. Tolan, of New York.

Long familiar with the work of the West Point Board of Visitors as a student of their work and as an officer of the academy for some years, I heartily endorse the above suggestions. Such unpaid, patriotic groups can well perform at the two national academies some of the functions of an advisory sort that are carried out by the trustees and committees of graduates at civilian colleges.

Never having seen our Naval Academy, I spent about a fortnight there recently in order to study the school and its methods. I applied myself diligently and tried to see everything I could think of in the working of the academy. My visit was just preceding that of the Board of Visitors whose report I have quoted in part above. The general impression I received about the Naval Academy is that of sympathy and thoroughness. The attitude at Annapolis is a serious one and discipline, training, and instruction are carried on with earnestness and efficiency. There is much personal touch and contact between the officers and the midshipment students, not only in general matters but also in the training and in the academic work. An observer trained with the land forces soon senses the dominant feeling of the naval officers and of the undergraduates. This controlling motive is the consciousness of the fleet—that the purpose of one's work at the Academy, and at the post-graduate school, is to prepare to render the best service to the fleet.

A NATIONAL DEFENSE COUNCIL NEEDED, A SMALL NATIONAL DEFENSE COLLEGE NEEDED

There is need for a national defense council at Washington. Such councils usually contain the civilian heads of all the military departments of the Government and certain other Cabinet officers.

One democratic country with a Government similar to ours has a small national defense college. It is the capstone to the educational system of the armed services. It is an inexpensive school in a moderate rented building, with a staff of three or four eminent officers and one or two distinguished civilians as instructors. The head of such an institution would naturally be a civilian of eminence. The annual class of perhaps 30 would be composed of selected officers of the services and several civil officials of the diplomatic and consular services and from such departments as Commerce and of Labor. Effective coordination would be facilitated by such a constantly acting instrument as the defense college, building up a strategical brain scientifically organized. Both the Army and the Navy have at times a perfectly normal tendency to look inward—a tendency that is characteristic of all permanent bureaus of government. The broadening influence of such a college would develop to a greater degree the capacity to look outward.

The common work and association of the civilian and military students would be important. The civilian officials would learn about the conduct of war and about coordinating the Navy and the Army and they would also observe the operation of what some modern critics call "that interesting and curious thing, the one-track military mind." The Army and Navy men would be in close working touch with the limitations of the civilian viewpoint. All would learn about the causes and the costs of wars, the taxation and other burdens that follow wars and so on.

A FEDERAL, NATIONAL COMMISSION OF CIVILIANS TO STUDY OUR WHOLE
NATIONAL DEFENSE

In conclusion, I again mention the serious recommendation of the Federal Aviation Commission of able civilians, the recent Howell Board, on page 125 of its printed report, that "While this matter, the use of the Navy, the Army, and the Air Force, lay beyond our scope, we have considered it so serious that we recommend the whole problem of military organization and of inter-service relationships be made the subject of extended examination by some appropriate agency in the near future."

I am very much obliged to you, Mr. Chairman and gentlemen.

The CHAIRMAN. General, on behalf of the committee, I thank you for this splendid review of many of the aspects leading up to our national defense organization.

I think it is highly unfortunate that the military thinking of the country should ever become static. It is a great compliment to you and to your intellectual equipment that even though you have been retired for 5 years, you are still thinking in the interest of your country. In the name of the country, we thank you.

General RIVERS. Mr. Chairman, I went to West Point at 17 and was in the Army until I was 64. I have lived a long life at it. I had the maximum of service in the uniform.

The CHAIRMAN. We thank you very much, General. We shall study that very carefully general. That will be printed and your remarks will be printed in full, and the parts you did not read will be printed in the proceedings. You will have permission to extend your remarks in any manner that you see fit.

General, Mr. Merritt, of New York, wishes to ask you a question, please.

Mr. MERRITT. Are you convinced that all the interior posts are obsolete in the United States?

General RIVERS. No; there has been a lot of money spent on them, but they are too small. They average about 700 men each, usually men of but one branch of the Army. And that is too small a number to train with. Too many officers and men are thus taken up with administration and police work, the upkeep and the care of our 120 Army posts in the continental United States. The care of so many small "towns" absorbs too much of our Army personnel. If we had our 10 Army post-graduate schools, now in 10 large posts, and the 11,000 soldiers now in those 10 posts, all together, you see we would have the material for skeleton training brigades and divisions. I never saw even a brigade until I went into line of battle at Chateau Thierry.

Mr. MERRITT. You said something about their being scattered all over the United States.

General RIVERS. Yes; they are well scattered in many parts of the United States. It is very costly in two ways. Some grouping of these Army posts would reduce the cost and confusion. There is the cost for the upkeep of so many "towns" and the waste in the training, because you have to use all the time of so many of the soldiers to do work on the posts, repair work and to keep the grounds in order. General MacArthur recently said something as our being able to train but, say, 60,000 of the 90,000 men in these well-scattered Army garrisons.

Mr. MERRITT. Do you believe it wise to have all of our air forces under a separate head such as, for example, a secretary of the air?

General RIVERS. Absolutely.

Mr. MERRITT. You do believe that?

General RIVERS. Yes; free the air forces from the control of the Navy and of the Army and it will make for rapidity of development of the air forces.

Mr. MERRITT. In other words, you would divorce the air forces from the Navy and the Army?

General RIVERS. That is true. But assign the air contingent that is to fight in war with the Navy to train in peace with the Navy. And the same for the Army.

Mr. MERRITT. Under the jurisdiction, however, of a distinct head of the air force?

General RIVERS. The head of the separate air force would control all the buying of airplanes and equipment for the air force, wherever they might be working at any time. The head of the separate air department would also have the training fields for the general training of the air forces and the air schools, and he would always have a reserve of air forces under his charge. One man in such a case could then have a reserve to reenforce the Army or the Navy in war—which ever at any moment needed it—the force that at the time had the most difficult problem in hand. This would all be under the jurisdiction and control of the head of the department of national defense—the Secretary of National Defense, who would control Army, Navy, and air—all the great elements of national defense—the three military elements.

Mr. SMITH. General, have you made any study of the particular posts, or particular number of posts, that you would recommend keeping?

General RIVERS. You have the basic training and fighting Army unit of a division—as you have in the Navy the fleet. Now, with three active divisions in the Army, not one of them occupies one Army post. The troops of none are all under the eyes of the division commander. To put the 30,000 troops, that in peacetime make the three divisions in the United States, into three posts would vacate a number of the small posts. If you put the 10 fine Army post-graduate schools, and the 11,000 soldiers now in those 10 widely separated posts, all in one post, there you would again vacate a number of posts—nine large posts. Now, take the troops in your three divisions and in some other small posts and send them to the nine posts vacated. These small posts vacated might well be given away to the counties or States—not sold.

In New York Harbor and that neighborhood you have about six Army posts—one or two ought to serve there and the others could be vacated and donated to the cities or the State. In Texas you may have almost a dozen Army posts—why not vacate all save two or three of these? In the Northwest, where you have the great Fort Lewis immense reservation, bought during the war and made a permanent post since, you have, say, five or more posts. Most all could be vacated, using only Fort Lewis. In the north of New York and over in Vermont you have, say five posts. One certainly ought to suffice in that region.

With your 10 splendid Army schools, post-graduate schools, all in one big post, you will have troops of all arms. A young officer goes to his branch post-graduate school for a term. You say to him then, "Now you serve with the Engineers for 6 months. Then go for a year or two with the Field Artillery, or the Infantry, and so on." All young officers should serve in and hold responsible positions in several arms and branches; no man should, in a modern army, serve just in one arm; he is bound to become stale and get to be more ignorant of the other arms. Cooperation, like initiative and personal resourcefulness, took on new and unthought-of meanings in this last war.

NOTE.—General Rivers went to the War Department the next day and got several of the large maps of the United States that give the outline of the country and of the States—with all the corps areas and all the Army posts. On these he marked with large red pencil a possible grouping for the Army posts. These maps he left with the secretaries of Mr. Merritt and of some others on the committee.

Mr. FADDUS. General, will you repeat what you said about the establishment of a secretary of the air?

General RIVERS. Well, I think there should be a Secretary of the Army, Secretary of the Navy, secretary of air, and, above all of them a secretary of national defense. The secretary of national defense would coordinate the three, watch them and settle effectively everything that he could settle. There would be very little to go to the President, but what did necessarily go to the President would have been studied by trained men, the secretary of national defense and the three secretaries of the three forces under him. It would go to the Executive in shape for a clear and a prompt decision.

Mr. FADDUS. You place the secretary of national defense over all of them?

General RIVERS. Yes.

The CHAIRMAN. Thank you, General, very much. I am very glad to note the presence of James H. Doolittle. Will you please come around, Major Doolittle?

STATEMENT OF JAMES H. DOOLITTLE

The CHAIRMAN. Major Doolittle, will you state your former grade in the Regular Army?

Major DOOLITTLE. I was lieutenant of the Air Corps, and I resigned in 1930, in January.

The CHAIRMAN. What business are you engaged in now?

Major DOOLITTLE. I am employed by the Shell Petroleum Corporation, in charge of their aviation activities.

The CHAIRMAN. Now, Major, I remember that you were a member of the Federal Aviation Commission.

Major DOOLITTLE. No, sir; of the Baker Board.

The CHAIRMAN. You were a member of the Baker Board?

Major DOOLITTLE. Yes, sir.

The CHAIRMAN. I believe that you signed a minority report.

Major DOOLITTLE. Yes, sir.

The CHAIRMAN. A very brief minority report in regard to that. Now, will you please tell this committee in brief what your views are as so briefly expressed in that minority report and the reasons why you entertain those views, Major? I believe you are a major in the Reserve, are you not?

Major DOOLITTLE. Yes, sir.

The CHAIRMAN. You are a major in the Reserve Corps of the Air.

Mr. THOMASSON. Do you refer to the Baker Board of last year?

The CHAIRMAN. Yes.

Major DOOLITTLE. I feel that the Air Force is destined to be the first line of defense and the first line of offense. I feel that the duty of the Army as an army will eventually be to prepare the bases from which the Air Force will operate and to hold the positions that they take.

I feel that the duty of the Navy will be to patrol the high seas and protect our maritime commerce and, to a certain extent, our coast line.

I feel that there should be one supreme commander; and under that supreme commander, who will, perhaps, be a secretary of national defense, three subsecretaries—one of Navy, one of Army, and one of air.

There will be a defense council which will be made up of the Chief of the General Staff, Chief of the Air Corps, or Chief of the General Staff of Air Corps, and Chief of Naval Operations.

I feel that commercial aviation is the background of military aviation; that first it furnishes a training ground for personnel. I consider this most important because we cannot mobilize flying personnel as rapidly as we can mobilize ground personnel. They require a much longer period of training in order to make them useful for military usage.

I feel that commercial aviation constitutes a proving ground for the material that will be used in the Air Corps.

I feel that, more important, it furnishes facilities for the fabrication of the material that will be used in case of a national emergency.

We have at the present time insufficient factories to make engines and to make airplanes in case of a national emergency. We have barely enough factories to take care of the planes that would be required for replacement.

We must have a large commercial aviation in order to furnish sufficient factories, sufficient facilities to provide airplanes and the engines that we would require in case of war.

As I said before, these facilities will be required, first, for replacement, and second, for expansion. The plans that we have for industrial mobilization are very excellent, but they call for the conversion of existing factories that make other materials into factories to make airplanes and engines. That conversion will take considerable period of time; consequently, anything that we can do to develop commercial aviation is of the greatest aid to military aviation.

I feel that only through a separate air force, entirely divorced from the Army and the Navy, can we efficiently promote and develop a defense machine that will provide adequate security in case of a national emergency.

Is that the answer to your question, sir?

The CHAIRMAN. Yes, sir; I think so.

Now, as I understand it, then, you favor as the ideal organization of national defense a single department of national defense under a secretary of national defense?

Major DOOLITTLE. Yes, sir.

The CHAIRMAN. With three separate coordinate divisions of sea service, land service, and air fighting forces?

Major DOOLITTLE. Yes, sir.

The CHAIRMAN. Now, assuming that for the moment it is politically impossible to attain the first and ideal arrangement, what would be your view as to the desirability of organizing a separate department for air at the present time with the hope that ultimately the necessity for coordination under a supreme head, such as the secretary of national defense, may be desirable.

Major DOOLITTLE. I think that that is a very desirable preliminary step.

The CHAIRMAN. Major, it has been stated, I think, by General Rivers, that there is a different organization between the Army and Navy necessarily because of the different elements in which they train and function in times of war. If that is sound, and we will assume that it is sound, from more than a century of experience, wouldn't the same force of argument apply as to the air force, as operating in a different element, so distinct and separate in its nature of operation from either land or water, that it should have a separate organization, a separate personnel, different in title and promotion under a different system?

Major DOOLITTLE. I think it is even more important in the case of air than it is in the case of the Army and Navy.

One of the principal reasons for that is that the next war will have to be fought by all three services; due to the advances that have been made, the scientific developments, they will have to cooperate much more closely than they ever have in the past, and the

only way that that close cooperation can be brought about is by individual organizations operating under one supreme command. If the operation is taking place on the sea, the commanding naval officer will be in command; if it is taking place on the seacoast, it may be the commanding naval officer; if it is taking place inland, it will certainly not be the naval officer; it may be an Army officer, or it may be an Air Corps officer, that officer to be appointed by the President or by the secretary of national defense. As the air force develops, as it inevitably will, the supreme commander of the future will be the air force commander, who will have under his jurisdiction the Navy commander and the Army commander, if it is in wartime. Peacetime operations, I think, should go entirely separate.

The CHAIRMAN. Now, do you think that it will be possible for the air pilot to receive sufficient encouragement and emphasis under the present organization, as subject to the War Department, to insure our defense in time of war?

Major DOOLITTLE. No, sir.

The CHAIRMAN. Well, do you feel that a separate department for air is necessary?

Major DOOLITTLE. Is essential to our national security.

The CHAIRMAN. With jurisdiction over all activities, both military and civil, with regard to aviation, and with a separate budget, and separate promotion list, with a secretary in the Cabinet authorized to represent the interests of the air pilot before the President in the Cabinet, and before the Congress, is necessary to adequate defense.

Major DOOLITTLE. I feel that the military should exercise no direct supervision over aviation in time of peace.

I feel that the activities of commercial aviation should be so organized as to make them as useful as possible in time of war.

In time of war I feel that a secretary of aviation should have complete control over both commercial and military aviation.

The CHAIRMAN. Now, maybe some other member of the committee would like to ask Major Doolittle some questions. I tried to bring out what I regard as essential principles for which he stands.

Mr. MERRITT. Major, have you made any calculations as to the average strength to be maintained in our Air Corps?

Major DOOLITTLE. That depends entirely upon how much Congress wishes to spend in order to maintain such establishment. I feel that the present establishment is woefully weak. To double the strength would be very desirable, but where the money is coming from I do not know.

Mr. MERRITT. You have not any statistics as to the kind of planes, the number of planes, we could have in peacetimes for our national defense?

Major DOOLITTLE. When a member of the Baker Board, that was considered very thoroughly, and my personal feeling was that we could well afford to substantially double the size of our present Air Corps at the present time.

The CHAIRMAN. Has any other member of the committee any questions?

If not, we thank you very much and would be glad for you to stay around, because some other questions may occur to us as desirable to ask you.

Major DOOLITTLE. Very well, sir.

STATEMENT OF BRIG. GEN. H. H. ARNOLD, U. S. ARMY AIR CORPS

The CHAIRMAN. I am very glad, indeed, also to say that Brig. Gen. H. H. Arnold, of the Army Air Corps, is present. I will ask General Arnold to come around, please.

General Arnold, where are you stationed now?

General ARNOLD. March Field, Calif.

The CHAIRMAN. You were sent here at my request. I do not remember that you ever appeared before this committee; have you?

General ARNOLD. No, sir; I have not.

The CHAIRMAN. Well, we are glad to have you for the first time. Some of us have heard of you, and I want to ask you to speak out of your own heart and mind your personal conviction with regard to the necessity for independent and increased air power for the defense of America.

General ARNOLD. I can start off by digressing a bit.

It has only been a very short time ago that people used to say an airplane could not carry a 2,000 bomb for 500 miles. Now we have planes that carry 2,000 bombs a thousand miles. Around a corner there is a plane that will carry it 3,000 miles. Beyond that there is a 5,000-mile plane coming through. All these things are my own opinion and they may or may not be in accord with what actually develops, but just what appears to me.

The thousand-mile plane was an impossibility 3 years ago. A 3,000-mile plane, in my opinion, is not an impossibility, and I believe we will have it inside of a year. The 5,000-mile plane, I believe, is coming shortly. When those planes come, it is rather difficult for me to see anything but a complete change in the way we utilize them.

While some people might say they tend toward a department of national defense right this minute, I do not go that far. I can see now where you can hitch a thousand-mile plane on the operation of the Army and the Navy today. I cannot see how, if you are going to use a 3,000-mile bombing plane, you can hitch that onto either the Army or the Navy for all its purposes; and if you get a 5,000-mile plane, then I cannot see how you can hitch its activities on either the Army or the Navy. And beyond that, dreaming a little bit further, you have an 8,000-mile plane, then I know well you cannot hitch it onto either the Army or the Navy activities. It is something beyond the scope of either one.

However, 6 months ago I would have said that that pointed directly toward a department of national defense. Right now I am not so sure that we are ready for a department of national defense.

In order to get a properly trained and effective department of national defense, in our opinion, you have got to have three arms, land, sea, and air, equally self-supporting; and the air at this time is not self-supporting for many reasons. And that is one of the main reasons I say now we are not ready for a department of national defense.

We have to go through a series of training, equipment, equipping, and operations before the air can stand on its own feet. We have to train first our individual pilots and get enough of them. We are short now in pilots; we are short now in planes; and we are short in equipment that goes in airplanes. Right today, I do not

believe, if you did assemble the whole General Headquarters Air Service you would get any more than what one wing would normally be.

So there is no use talking about air power and air force until you have something to talk about. We have not got it now. We are on the way, however. I am of the opinion that this General Headquarters Air Force is heading toward a bigger and better fighting power, so we are on our way.

We have got to have a standardization of training in our different capital units, something we have not had up to this time. We have got to have our airplanes completely equipped as war machines, and not plain flying machines—something we have had up to this time.

We have got to train commanders of air units that know how to handle their units. We have got to train staffs that can handle these units under commanding officers, and until we get those things we will not have, as I said before, an efficient fighting-unit air force.

The CHAIRMAN. All right. Now, how to get it; that is the next thing.

Brigadier General ARNOLD. I believe we are headed in the right direction now for the first time in the last many years.

We have been following a more or less hit-and-miss policy in our Air Corps for a good many years. For instance, our stations have been located where somebody wanted them, located without regard to where they fit in the picture. That should stop. We should locate our Air Corps stations according to a well-defined strategic policy; and there is only one outfit right now that can define that policy, and that is the War Department, because nobody else is working on it, and we should follow that War Department directive on that in all ways, so that these air-force stations instead of being located where somebody wants them will be placed where they will do the most good.

The CHAIRMAN. This committee has already approved a bill to that effect.

Brigadier General ARNOLD. That bill, I think, is an excellent bill, and, I think, is a wonderful step in the right direction, so that it takes care of that. Then once having these stations located strategically and practically, then by creating and building up these wings until they are self-contained and self-supporting, so that they could operate as wings, you will have the next step toward your air power. And I believe that that is under way in the general headquarters air-force structure.

I am of the opinion that some time in the future this thing called a "department of national defense" is bound to come. I do not see how it can stop. I do believe that there should be some study made at this time looking forward to getting built the solution for all problems that are coming up at that time. I think you have got to take them up in advance, because, in my opinion, it will be impossible to pass any bill in Congress and put into effect a department of national defense in a short time. I think it is a matter of several years before you can even put a department of that kind in effect which will even approach 75-percent efficiency. There are so many details that would have to be worked up.

The CHAIRMAN. Very well. Now, as a preliminary step to that, what do you say as to the proposal contained in my bill here, 7041, to set up a department of air?

Brigadier General ARNOLD. As I said before, I do not believe the Air Corps can stand on its own feet right now. I am sorry to have to admit it, but I do not believe it can.

The CHAIRMAN. For the reason it has not sufficient personnel?

Brigadier General ARNOLD. Its lack of trained personnel, lack of equipment.

The CHAIRMAN. Now, can we get all those before you have the separate department which, in my humble judgment—I am asking you good people to correct me if I am wrong—which will bring about that condition in adequate personnel, adequate equipment, and adequate training that is so desirable; can we get those without the department as fast as we can get them with the department?

Brigadier General ARNOLD. In my opinion, I think that we will get them faster by going along our present course.

The CHAIRMAN. Now, then, what would you say as an intermediate step, a separate promotion list and a separate budget, as the thing now stands for the Air Corps; that is one of the bills pending?

Brigadier General ARNOLD. I have not had the opportunity to read over the separate promotion bill, and the War Department promotion bill, as thoroughly as I would have liked. One thing that I am absolutely set against, and that is this temporary promotion.

The CHAIRMAN. Though you are the beneficiary of it, you think it is wrong?

Brigadier General ARNOLD. I think it is absolutely wrong, and I believe it will do more to destroy the morale in the Air Corps, and probably extend to the Army, than any other one thing I can think of offhand.

I cannot see how that problem can be solved without some remedial action directed toward the Air Corps. From my limited study of the War Department promotion bill I believe we are going to have a shortage in our higher grades. Indications are that there will be a shortage of colonels, lieutenant colonels, and majors for a period of at least 5 years, probably 10, if the War Department promotion bill goes through.

The CHAIRMAN. You mean a shortage in the Air Corps?

Brigadier General ARNOLD. In the Air Corps.

The CHAIRMAN. And it would be extended in the Army, generally?

Brigadier General ARNOLD. Because the bill itself takes care of that by its present 9- and 25-percent provisions; but the Air Corps has got a large number of young officers, officers young in age, in the topline. The higher ranks have not been filled, so if the War Department bill goes through, as is, we will still have to have temporary promotions to fill up our higher grades. Therefore, there would have to be some change made or extra law passed to take care of that. I believe for the good of the whole Army that the War Department promotion bill should be passed. I am for it; but I think also there will have to be another bill passed taking care of the Air Corps as a corps. So that it will once again do away with this temporary promotion business and permit us to fill up our higher grades with extra numbers.

The CHAIRMAN. Thank you, General, very much. Has any one of the committee any questions to ask the General?

We must leave now. We must leave because we have got important matters on the floor. You can stop over until tomorrow, can you not, General?

Brigadier General ARNOLD. I will be glad to.

The CHAIRMAN. The committee stands adjourned until 10 o'clock tomorrow morning, promptly.

(Thereupon, at 11:45 a. m., Thursday, Apr. 4, 1935, the committee adjourned until 10 o'clock tomorrow morning, Friday, Apr. 5, 1935.)

TO PROMOTE NATIONAL DEFENSE BY INCREASING THE EFFICIENCY OF THE AIR CORPS

FRIDAY, APRIL 5, 1935

HOUSE OF REPRESENTATIVES,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C.

The committee met at 10 a. m., Hon. John J. McSwain (chairman) presiding.

The CHAIRMAN. The committee will be in order. This meeting is for further hearings upon H. R. 7041, and other bills recited at the beginning of these hearings yesterday morning.

I take this moment, at the beginning, to have the record show that I have just received a petition signed by 100 or more citizens of the city of Chicago. The petition itself is as follows:

NATIONAL AIR RESERVE,
HEADQUARTERS, FOURTH CORPS AREA,
Monroe, La.

From: National Air Reserve, members and citizens.

To: The Honorable J. J. McSwain, chairman, Military Affairs Committee.

Subject: Junior air corps reserve.

1. As an American citizen and as a member of the National Air Reserve, I ask that the junior air corps reserve bill be expedited before the House of Representatives, and that it be passed and approved by Congress at the earliest possible date.

(H. R. 7413)

Then there follows a list of names of residents of the city of Chicago, Ill.

The author of the letter accompanying the petition writes as follows:

NATIONAL AIR RESERVE,
CHICAGO, ILL., AREA,
Chicago, Ill.

From: Capt. James Ross, coordination officer, Chicago, Ill., area.

To: The Honorable J. J. McSwain, chairman, Military Affairs Committee, House of Representatives.

Subject: Junior air corps reserve bill.

Attached herewith is petition of 100 citizens of the Chicago, Ill., area; many of these citizens are members of the National Air Reserve.

Mr. McSwain, it is encouraging to us to know that you are doing all that you can to enable the young men of America to realize their air-minded ambitions. The junior air corps reserve bill will make better citizens of many American youths.

The petition presented herewith is not only a petition per se, it represents, in its circulation in this area, a straw vote in favor of the passage of the junior air corps reserve bill. The fathers of the youths are wholeheartedly in favor of the bill.

The fathers are vitally interested. It may be well to remark here that the old feeling of dislike to military training does not apply to aviation preparedness. The American citizenry take naturally to aviation, and the

accompaniment or direction of "military" is absorbed without comment. Aviation should and must be provided.

America will respond enthusiastically to the passing of the junior air corps reserve bill.

Cordially and sincerely yours,

CAPT. JAMES D. ROSS,

Captain and Coordination Officer, Chicago (Ill.) Area.

This is a sample of many letters I am receiving, especially from young students.

I was interested to know that there was formed in this city 2 or 3 days ago an association of college fliers representing many of the institutions of learning in the country. I believe that the plan of the junior air reserve would fit in successfully, would fit in wonderfully well with their program. It would furnish a profitable and safe pastime from the moral point of view, for the vacation periods of college students, and enable them to become prepared not only to become civilian pilots but to be potential military pilots in the event of its becoming necessary to use them.

I believe that in a few years we can build up a reservoir of reserve officers, or potential reserve officers, from these young men, perhaps to the number of 50,000; because there are a great many already taking their training at their own expense, of course.

I was in Columbia, S. C., the other day for a few hours and was told by the man in charge of the air field there that there are 35 young men taking training in his school, and some of them are students at the University of South Carolina.

We have with us this morning Prof. Edward P. Warner, formerly Assistant Secretary of the Navy for Aeronautics, and also a member of the Federal Aviation Commission, and, I am quite sure, one of its most worthy members. I wanted to ask Professor Warner to explain briefly some of the general principles of national defense that were considered by that committee, and to answer some question that I shall ask him. I want to say that we will call Professor Warner later to assist us in the detailed preparation of the bill relating to procurement, in which I think he is well versed, and for which service he is well prepared.

Today we want to ask him concerning some general suggestions contained in this report.

STATEMENT OF EDWARD P. WARNER, VICE CHAIRMAN, FEDERAL AVIATION COMMISSION

The CHAIRMAN. Professor Warner, I direct your attention to pages 120 and 121 of the report. At the top of page 120 is the following:

It must be noted, however, that there is ample reason to believe that aircraft have now passed far beyond their former position as useful auxiliaries, and must in the future be considered and utilized as an important means of exerting directly the will of the commander in chief. An adequate striking force for use against objectives both near and remote is a necessity for a modern army, and the projected G. H. Q. Air Force must be judged with reference to its effectiveness in this respect.

We have no doubt that there will be a progressively greater measure of independent action of aircraft in military operations as the capacities of aircraft increase. We interpret the present proposals as a step toward provision for such increased independence and as a test of its effectiveness under the strategical conditions dictated for the United States by geography and national policy. Further steps may in due course become necessary. If the degree of inde-

pendence provided under the present plan is so used as to lead to the development of an effective strategy of the Air Force employment (and every opportunity should be provided for that end, both in the Army and in the Navy), the desirability of further organizational changes may in due course become apparent.

That evidently is the view of the Commission. It is the view of some others that the time has now arrived for further organizational changes, in view of the wonderful performance ability of aircraft that has been developed in the last 2 or 3 years.

I am going to ask Professor Warner now to tell us, in view of his subsequent reflections and in view of all of his experience, if he does not think that some organizational change in our national-defense set-up should not be made; whether a department of national defense, with three coordinate divisions under it, or, at this stage, a separate department for air, emphasized and stimulated by a separate budget and a separate promotion list and representation in the Cabinet and before the Congress, is one of these organizational changes that the professor has in mind.

Mr. WARNER. Mr. McSwain, that, I take it, is not a question to be answered yes or no. That invites a considerable discussion, on which I should be glad to embark.

The CHAIRMAN. If you please.

Mr. WARNER. Of course, I do not speak for the Commission which has disbanded, but I accept, as representative of my own view, I accept for myself, the passages that you have just read. So far as I enlarge on them, I express my own view only.

This question of the place of the air force in the national defense has, of course, been a vexed one in this and other countries for something over 20 years. It was a vexed question before 1914. It acquired new complexities, and in certain countries received new solutions during the war.

It has been argued with varying but always substantial heat ever since the war, not merely in the United States but in most of the great powers, whatever solution they themselves might at that time have adopted. It seems to me that the question of the place of the air force is one that cannot be settled, so to speak, on a philosophical basis. There is no abstractly perfect solution. It is a practical matter, and we have to deal with it in a purely practical vein, and with recognition that the solution that was correct in 1924 or 1914 may be wrong in 1934, and that there is a strong probability that the one that we find best adapted to our requirements in 1934 and wisely so find, may not be suitable in 1944, or some other "4."

I would like, because I am afraid that something I have said in the past in conversation with you or otherwise may have been subject to some misinterpretation, to make the development of my own position on this matter clear. I have expressed myself in the past as favoring a department of national defense. I do favor a department of national defense. I think it has been a need of this Government for many years in order that the defense organization may operate with the greatest possible efficiency; in order that there may be a most effective coordination and the greatest possible harmony and the least possibility of misunderstanding among its various parts. I believed that in a general and somewhat vague way before I entered the organization of the Navy Department in 1926. I came to

believe it with a steadily growing intensity of conviction throughout my connection with the Navy Department, and having made it a hobby to make some study of military affairs since that time, I have encountered nothing to shake my conviction.

But, as I see it, there are two distinct issues involved when we talk of a department of national defense, and through some consequence of our experience or of the way in which the phrase has commonly come into our discussions here, we have come too commonly to merge the two.

As I see it, there are two separate questions which we often treat as though they were one and the same. The first, whether or not all national-defense agencies of the Government, whatever their number, should be brought under the common control of a single, coordinating agency which, for purposes of convenience, we will call a "department of national defense."

The second, the question of whether or not there should be a separate air force, distinct from the Army or the Navy, or both.

It is frequently assumed that a department of national defense necessarily divides itself into three fractions, and automatically carries with it the creation of a separate air force. That, as I see it, is not the case. It is possible to have a department of national defense of two fractions. Germany did it for some years after the war.

It is possible to have a department of national defense of three fractions. France tried that experiment for a comparatively short time in the spring, I believe, of 1932, later abandoned it, and went back to separate representation in the cabinet for the Army and the Navy, and the Air Force.

It is possible to have two arms of the national defense without a coordinating head. We have done so for 137 years, I believe.

It is possible, as the fourth and last alternative, to have three separate, distinct arms of the national defense without a coordinating head. Great Britain does that.

We have debated the department of national defense here at length for many years. So have the British. In the British case, the presumption is that if they create a department of national defense it will have three subsections, the Army, the Royal Navy, and the Royal Air Force, respectively. With us, it might have two sections, the Army and the Navy, or it might bring into being coincidentally with its own creation a third, the Air Force.

Now, I go into this matter at some length first, because it seems to me important; and second, because, as I say, I am afraid that I, myself, may not have made by position entirely clear.

I have said repeatedly that I was in favor of a department of national defense as a device for coordinating the activities of the defense department of the Government. I am. That has perhaps been gathered to imply that I was in favor of a separate air force. At present I am not. I go back to the statement that this is a practical question, that we cannot resolve it in accordance with abstract principles.

I have believed for a good many years, I cannot set an exact date, but for a long time, certainly about as far back as the time when I went into the Navy Department; that we shall need, that it will be wise for us to accept the principle of, a united or a separate air force here at some time. Just what that time is, just when it will

come, I have not attempted to define to myself in rigorous terms, because it depends upon a multitude of considerations, on the political and strategical situation; upon the zone of maximum strategical interest to the United States; particularly, most particularly, upon the technological developments of aircraft.

I did not hear all of General Arnold's testimony yesterday, but if I caught his meaning aright, he recommended that something like the present organization should continue, but with a reservation, a conviction, that the time would come to make substantial modifications in that organization, and to give to aircraft that greater degree of independence through further organizational change which the report of the Federal Aviation Commission suggested; and that the arrival of the time would be dependent upon the rate of technological advance in the performance of aircraft. To that I wholeheartedly subscribe.

I guessed in 1928 that the time for a separate air force in this country would come in 15 years. About 6 of those years have passed. I think it will come in less than 9 years. I think we are on the way. But I do not think that we would do a service to aviation, that we would strengthen the national defense, or that we would adopt a policy which I could regard as a wise one, by going into that at the present time.

Let me enlarge on that a little further. I go again back to my statement that it is always a practical question.

The most difficult of all problems of military operations, as I understand them, are those of cooperation, of joint action of two or more separate forces. The pages of military history are overstuffed with the lessons of the difficulty of united operations, either of allies in the field and lacking a common command, or of forces of the same country in the same field and lacking a common command.

There has been a diversity of devices for overcoming those difficulties. In some cases the statesmen, as General Maurice has pointed out so effectively in his study of the action of statesmen in the Civil War, take over themselves much of the responsibility for coordination and control of operations and for the imposition of joint policy.

In some cases there is either a military or a naval leader so outstanding that he automatically, almost by acclamation, acquires the direction of the military effort, be it land, sea, or now, air, or all three, from time to time in combination.

In this country we have developed the so-called doctrine of paramount interest. It is an expedient. It is a good deal better than nothing. It is probably the best expedient that can be developed where you are dealing with two coequal departments. But as I read the records of its development and of its present form I am left personally with a good deal of concern lest the united operations of the United States Army and Navy in a future war might involve those same difficulties and uncertainties that united operations of other services in other wars in the past, in the Dardanelles, and for millenniums back into the dawn of history, seem always to have involved.

That brings us to the Air Force. United operations are difficult. It is a question of where we are going to unite. We have no department of national defense at present; and even if we had a department of national defense, one represented by a secretary of a depart-

ment in Washington, with his staff immediately around him, he is not in the field, and in the field the problem of unified command would still exist and would still be acute.

It has been suggested that there should be only one service, that the Army and Navy should be merged, that they should all wear the same uniform, so that a supreme command would become automatic.

That seems to be impracticable. They have developed separate traditions too long. Their lives are fundamentally too much different. They make too infrequent contact with each other, and joint operations are too small a part of the concern of each to accept the sacrifices that would be involved in a complete merger.

So, as I see it, we have to consider which of two forms of disunion is the least objectionable. We have to consider whether we are likely to get the worst result from having a separate command of air forces now attached to the Army and an air force now attached to the Navy, or whether we will, on the other hand, get the worst results from separating the command of the air forces now attached to the Army from that of the ground forces now attached to the Army, and ditto with the Navy.

On the whole, though, I was without any passion of conviction. I hope I have an open mind on the subject. On the whole, I think that under present conditions, and with our strategical situation as I now see it—I am hesitating, Mr. Chairman, because I know it is not your desire for me to go into particular military situations here, and I think I will not attempt to outline a particular theater of combat, but I am sure you know what I have in mind.

The CHAIRMAN. Yes.

Mr. WARNER. In our strategical situation, as I see it, I think that the disadvantages of the separation of the air forces from ground and surface forces with which the air force must still work in close cooperation in a large proportion of its activities would be greater than the disadvantages of preserving the present type of organization. I have high hopes of the G. H. Q. air force. I think it was overlate in coming. It had been recommended first, I think, by the Lassiter Board. It has been recommended from time to time over a good many years. At last we have it. At last the air force is able to operate as a national unit, to work out its own air problems. At least, that is the presumption, and I am assuming that that will be the case.

It is desirable, by all means, that it should be the case, as the passage that you have quoted from the aviation commission's report again emphasizes.

But without going into more detail, since I know you have not the desire to enter into great detail on forms of organization here, I incline to adhere to the present form for the time being.

If it were only Army aviation that were involved, I might, perhaps, feel differently. I do not think I would, but I might. But the presence of naval aviation creates another sore spot in the problem of the separate air force.

I am not sure that I read your bill aright; but failing any specific mention of the naval aviation force in H. R. 7041, I gather that it is the presumption that the Navy would keep its own air force.

The CHAIRMAN. That is the presumption.

Mr. WARNER. That the separate air force would relate only to that, or would absorb only that which is now a part of the Army organization.

The CHAIRMAN. The reason is this: I, as the author of the bill, do not feel that I am prepared to say just how much aviation the Navy should have.

Mr. WARNER. Certainly.

The CHAIRMAN. I must presume, therefore, that those who are qualified to speak have not obtained more air power for the Navy than they actually need for cooperation with the fleet. That is the reason I have not undertaken to include any of the Navy personnel and craft in this bill.

Mr. WARNER. Nevertheless, though, I think that would be a formula much superior to the merging of all aviation into a single air force, because where that is attempted, naval aviation is always a sore spot, as I shall endeavor to outline with some examples.

I think the effect of having two air forces, one of which would be wholly independent and would presumably have a universal theater of operations over all the air of the globe, while the other would be an arm of the Navy, and while preserving its own doctrine and its own pride of service, would be doing or attempting or planning to do work which would inevitably overlap to a considerable extent and intersect with that of the separate air force, would be to leave us with about as many problems of organization and of potential conflict and disunity as we have today.

I think the time is very likely to come, possibly at a somewhat more remote date than I have mentioned, when we will want a completely united air force, and when the direct attachment of the air force of the Navy will appear of relatively less importance than it does today. Today it appears of very great importance.

Wherever the separate air force has been created, the situation of naval aviation has remained a plague spot for as many years to follow as there have been years since its creation. Great Britain has had its separate air force for almost 18 years, and the Navy has never been happy about it, and the air force has never been happy about it.

I have talked with a good many officers of the Royal Air Force, and almost without exception I have found that they regard a term of service with the fleet air arm as a very unsatisfactory and unpleasant tour of duty. They do not like the uncertainty that exists about the relative status of the Navy and the air force, where they go to sea together on board the same ship. There is not anything like the confidence, the spirit of mutual cooperation we have had in our own service.

With the Army the problem has been less acute. The Army in England is, I think, reconciled to the Royal Air Force and works well with it. The Navy has never been reconciled. It has not worked well for either arm, and the upshot has been that a steadily increasing proportion of the officers who fly with the fleet air arm in England are taken directly from the Navy, trained for the Royal Air Force, but remaining naval officers. I think that proportion at present is about 70 percent. So the Navy has been getting its own aviation back in Great Britain.

The same is true to a considerable degree in France, where, after setting up an air ministry in the fall of 1928, there was a decree in

November 1932, I think, which accomplished a substantial recession and gave back control of a substantial part of naval aviation to the Navy, with naval personnel deeply involved.

Perhaps I am setting up too much of a background, but I do not want simply to say, "This is my opinion", without giving some indication of why I have arrived at it.

I am hoping I am exempt from any suspicion of being hostile to aviation. I have been in it for a long time now as my major interest, and I hope to remain in it for some time to come.

I go back, however, to the statement, though it is not specifically covered by any bill before this committee, unless it be your bill to create a joint commission of inquiry into the subject, that I think with any number of services, two or three, or whatever the number may be, there are so many lines of contact and possible conflict, and there will be so many unsettled issues, and that there have been unsettled issues between the Army and the Navy for a number of years, that of the use of aircraft in coast defense being the most acute, but not the only one, that I do strongly favor the creation of a department which would have the rectification of those issues as its major concern.

That is what I have to say about the general organization, Mr. McSwain.

The CHAIRMAN. And in that connection, pending the time when we can create such a single department of national defense, may I ask you, are you familiar with the provisions of the bill, H. R. 5376, which are virtually included in H. R. 7041, beginning with section 37, that will bring about a positive functioning of cooperation?

Mr. WARNER. Yes; I am familiar with that, Mr. Chairman. I have it right here. I think that is excellent. I want to say that I have not read it critically in the past few days, but I think in its principle it is excellent, except for this: The joint board, of course, is already there. The joint board is composed of men of long experience in their respective services, of great ability, of a sincere desire to promote the interests of national defense as against any localized or factional interest, but inevitably, where there is a direct line of conflict, each member of the board sees the problem from the point of view of his own service.

The CHAIRMAN. That is true.

Mr. WARNER. And occasionally—I am coming to what I am sure you are going to say—occasionally insoluble problems arise. You have provided a means of solving those insoluble problems. The only objection I have to that is that, as a matter of governmental organization, the President of the United States already has responsibilities for most of the details of the daily lives of most of his 140,000,000 citizens. It seems to me that we cannot settle this issue satisfactorily by saying, "We will put it up to the President to solve it." We have to find some functionary who will be able to give it more attention than the President, in the nature of things, ever, by any possibility, can. He has too much else to do.

The CHAIRMAN. All of which is very true, but the mere fact that it can be brought to the President would cause them to settle many differences that are hanging fire now because they have to be settled under the unanimous-consent rule.

Mr. WARNER. I think this would be a good deal better than nothing, Mr. McSwain.

The CHAIRMAN. Exactly. It is, of course, a temporary expedient compared with our ultimate objective. Let me address your attention, if you please, Mr. Warner, to recommendation 54 [reading]:

The aviation reserves, both of the Army and Navy, should be materially strengthened and should receive a higher priority than they at present enjoy in the allotment of funds. Consideration should be given to the establishment of Assistant Secretaries of War and of the Navy for reserve or personnel matters. Their duties would include the encouragement and maintenance of a more effective reserve force in both services, particularly with regard to the fields requiring a specialized combination of technical ability and military training.

Just how strongly do you personally feel on that question of the encouragement of reserves and what suggestion would you offer as to how to bring that about?

Mr. WARNER. I will go into that in just a moment, Mr. Chairman. The thing on which I am very anxious to express my view is the proposed merger of the control of civil and military aviation. Shall I go into that now or shall I come back to that later?

The CHAIRMAN. Take it up as it is in your mind, Mr. Warner.

Mr. WARNER. Very well. I have indicated my views on the unified Air Force. I hold very much stronger views, because, as I say, I can speak there, I think, with no very strong feeling, and with a feeling that we probably would not make any disastrous mistake either way; I hold very much stronger views on any proposal to bring civil and military aviation under a common control.

In the first place, that seems to me to be not altogether in line with the tradition of American life, which has always been a tradition, of the superiority of peace over war and of the civil over the military element, so far as that is compatible with national defense.

In the second place, it seems to me that it is not altogether in accord with the teachings of experience. I have watched this common control of civil and military aviation at work in various countries, particularly in Great Britain and France. It works out after a fashion. I do not think anybody on the civil end is completely happy about it. I am sure that a good many of them are very unhappy about it.

About a year ago—perhaps a little more than that now—there was appointed in Great Britain by the Air Ministry a commission to study, under the chairmanship of Lord Gorell, chairman of the Royal Aero Club, the question of civil aviation and its relation to the Government and to regulation by the Government. That commission brought in a report which was shot through and through with skepticism about the virtues of the quasi-military system of control that almost inevitably existed under the supervision of the Air Ministry over civil aviation and the comparatively minor interest that civil aviation necessarily constituted as compared with the military faction of the Air Ministry's responsibilities.

Two of the most experienced members of the Gorell Committee, including Lieutenant Colonel Moore-Brabazon, a member of Parliament and the first man to fly in the British Empire, looking back on 27 years of aeronautical experience, submitted a minority report which recommended, with all the vigor of language that they could

command, that the control of civil aviation should be completely divorced from that of military aviation, as their common control had been a disappointment and had been a retarding factor in the development of civil aviation.

Although there has been no exactly corresponding episode in France, I think a poll of the French experience would indicate that those whose concern is with civil aviation do not feel altogether happy over a merger of that civil control with a department essentially military.

If our civil aviation were all at sixes and sevens, if it had been laggard in development, if our air lines were inefficient and unsafe and uncertain and unreliable in their operation, then there might be a good case for bringing them under the discipline that association with the military branch of the Government might be expected to create or to establish. That does not seem to me to be the case.

On the contrary, the performance of our air lines is unrivaled. Their record of alertness to technological advance and readiness to take advantage of it is unequalled. Their reliability and their safety are unsurpassed.

I think there is no occasion apparent for separating them from their present civil control and putting them under a military control which, at the very least, would be a disturbing element and, to my mind, potentially a disastrous one.

I see nothing to be gained by it, even from the narrowest point of view; from the point of view most narrowly and exclusively concerned with the national defense I see much of possible loss. I would like to go on record, therefore, against any such association.

I will now turn, Mr. Chairman, if you desire, to the question of the Reserve. I again accept as representative of my own view the language that you have read. I think we are weak in the Reserve, both in the Army and the Navy, in somewhat different senses and in different ways, because the two Reserves have followed quite different lines of development. I will, of course, confine my attention here to the Army problem.

In the first place, I feel there has been a certain lack of continuity in Reserve policy, a lack of clarity in its definition which has necessarily left the Reserve officer feeling that he was an unconsidered element to be dealt with after more important matters, matters considered to be more important, were out of the way. That may be merely an impression without sound foundation. But I am clear in my own mind that it exists.

In the second place, the limited appropriations for the Reserve, very limited indeed in proportion to the personnel who clamored for the opportunity to share in the activity of the Reserve, who had been devoting themselves to it so far as they were given the opportunity for considerable numbers of years, has restricted the amount of Reserve flying to a minor fraction of the amount that is needed to keep an aviation officer, a pilot of military aircraft, in proper condition to go into active service on short notice.

In the third place—this is an unpleasant thing of which to have to speak, but it is an issue which we have to meet, and it is being met to some extent, and I think we have been a little slow, very slow, in fact, about meeting it; I think it is being unquestionably met even

now, so far as my information goes. It is an issue that arises in every country following a great war. That is the question of what to do with the man who is interested in the Reserve, who is eager to remain in the Service, but who, by the passing of years, has lost a good deal of his military efficiency.

Now, there will be place for a certain number of men of highly specialized qualifications in the Reserve in time of war. There will be place for a certain number of reservists on administrative detail in time of war. But the number will be very limited. Dependence upon Reserve will be primarily for flying officers, for men who can take their places in squadrons and go out and fight or bomb, or serve as members of attack or observation units.

It has been said so often that it has become platitudinous; in fact, it has probably become to be exaggerated, that aviation is a young man's game. There certainly is a more or less definite age limit on military aviation. And as we look back on 1918, we see the inexorable workings of time making a rapidly growing number, a number that will in the course of a very few years approach closely to 100 percent of those who served in 1917 and 1918, unfit for military aviation duty.

A great many of them hold Reserve commissions and are very eager to keep on with their active service as long as they can. There is a natural tendency—I have seen it work in the regular service—where men have refused to admit that they were getting physically unfit for flying or that they were slowing up—there is a natural tendency for every man to think that he is as good as he ever was and a natural reluctance on his part to find himself weeded out. But it is bound to happen sooner or later.

But that, it seems to me, is one of the great issues that the Army has had to face over the last 3 years—the Army particularly, because the Naval Reserve is more largely a post-war creation—and that it has to face very definitely now.

So I think there are two parts to the Reserve problem. First, to get enough money so that a proper amount of flying can be done for an adequate Reserve. If anybody wants me to express an opinion on what an adequate reserve is, it is a little difficult to pull figures down out of the sky and defend them against the challenge, but I should say that the strength of the Reserve ought to be, the strength of a first-line Reserve really ready for service, ought to be at least the strength of the regular force and preferably from 50 to 100 percent in excess of the regular force, whatever strength the regular force may have at the time. That is what is in my mind when I seek to interpret the statement of the Aviation Commission that the Reserve deserves and should have a somewhat higher degree of priority than it has so far enjoyed.

The CHAIRMAN. I said two for one, which shows that we are thinking along the same lines.

Mr. WARNER. Did you?

The CHAIRMAN. Yes.

Mr. WARNER. We are not very far apart.

Mr. MERRITT. What does the professor think of the present strength of the Air Force?

Mr. WARNER. Of the regular Air Force?

Mr. MERRITT. Yes.

Mr. WARNER. That involves a long discussion which I should be glad to come back to, if you like, but I should like to finish what I am developing at this moment, if you please.

Mr. MERRITT. Do you believe it to be adequate?

Mr. WARNER. Not at the present time; no.

The second problem of the Reserve—and this, as I say, is one that is difficult and unpleasant and involves a great deal of hardship and heartburn, but must be faced—is the problem of weeding out the Reserve, of getting down to the men who are really fit for constant military flying, and who can be expected to be fit for service 3 or 4 years hence, because, though you cannot always be sure when war is coming—history gives plenty of evidence of that—you always have to act as though it were coming tomorrow. While it is frequently possible to say that there is a strong presumption that there will not be any war for 2 or 3 years, you should concentrate your efforts on training men who will still be good 2 or 3 years hence and taper off the training as you get toward the end of their period of military usefulness unless there is good reason to believe that you are going to have to make use of them right away.

The CHAIRMAN. The recommendation was that there should be an Assistant Secretary of War charged especially with promoting the interest of aviation?

Mr. WARNER. Not aviation; of Reserve.

The CHAIRMAN. I mean Reserve aviation.

Mr. WARNER. No, sir; that was not our thought. We did not go into that in detail. But the thought there was that the present Assistant Secretary of War is concerned especially with matériel. He has a peculiar responsibility for procurement. To a somewhat less degree the same is true in the Navy Department, where The Assistant Secretary of the Navy is given special charge of operations and administration of navy yards and of the Navy's acquisition of matériel and operation of the navy plant.

It seemed appropriate and symmetrical that there should be side by side with a matériel assistant secretary a personnel assistant secretary, and when we began to think of personnel problems we began to think how that headed up in the War Department and felt that the representation of the civilian element there might be helpful, the thought being that the most civilian of our personnel elements is the Reserve—the Reserve which takes men from civil life and sends them back to civil life after a couple of weeks or after a Saturday afternoon of flying and which involves a constant contact and a constant problem of adjustment between the military and the civil elements in the life of the individual. It seemed particularly probable that the services of a special assistant secretary would be particularly helpful in facilitating the objective.

Is there anything else on that, Mr. Chairman?

The CHAIRMAN. No; thank you very much.

Does any member of the committee wish to ask Professor Warner any questions?

Mr. WARNER. I was asked about the size of the Air Force. Do you want me to go into that?

The CHAIRMAN. Please do.

Mr. WARNER. I have said that I do not consider the present size of the Army Air Force adequate. The present estimate is, as I recall it,

that on June 30, 1936, as a result of purchases to be made from appropriations already available, or to become immediately available, or becoming available under the 1936 War Department Appropriation Act, the Army Air Corps will have a total of 1,367 airplanes, of which approximately 1,000 will be service types, eliminating training and cargo machines.

If you eliminate observation machines and get down to combat planes, it comes down to 650 or 700, although I have not the exact figure in mind. The corresponding figure for the Navy, as of June 30, 1936, will be a total of 1,000, of which 888 will be service types, according to the present estimate.

The total for the two services, therefore, would be 2,367. The appropriation for 1936 for new aircraft is being considerably enlarged over that of any—in fact, over any of the last 14 years, I believe, of any year since the war.

The full effect of that will not be felt until into the fiscal year 1937, when we may presume that there will be an increase in the number of aircraft available to the service.

We are still far short in the Army of the 1,800 figure, which was endorsed by the Morrow Board of 1925, which was accepted by the Congress at that time in the enactment of the Army Air Corps Act of July 2, 1926, and which we have held before us as a vague and always remote aspiration since that date; 25 percent short of fulfilling a 5-year program at the end of 9½ years.

That seems to me unsatisfactory and inadequate. But in any case, progress does not remain permanently viable in this ever-changing field of governmental interest. They must undergo change with the technological development of the instrument. They must undergo change with changing strategical considerations and national policies, and most particularly they must undergo change with the changing policies of other nations.

It has been the fashion in this country from time to time, since time immemorial, I should think, to say that we want no competition with any other power in armaments, that our national defense policy will be dictated only by our own interests. With all due respect, I can think of no less strong language to characterize that point of view than that it is nonsense.

In other words, I think it is very apparent, and I think it of advantage in the making of a national defense policy that a great many of these military aircraft be built, and this number suggested would be a great deal more than we have ever had, and to my mind it is not being done.

We recommend in the report of the Aviation Commission that as a first step the force should be built up in accordance with the program the War Department had worked out in considerable detail, and that was also before the Baker board which accepted it after a minute study. That calls for 2,320 airplanes. We have not been able in 8 years to get 800. If we make a serious effort to get up to 2,320 in a reasonably short time, it will be a big step, but one step.

Whether or not that is a sufficient figure to expand to over a considerable period of years, I will not attempt to estimate. I think if we had 2,320 for the Army and 1,910, as proposed by a similar naval program, for the Navy, by the end of 1938, the date planned, that we

might have to build a great many more airplanes in the next 2 years than in the past and we will have obtained a reasonably well-balanced force reasonably well adjusted to the position of the United States in the concert of powers. It is extremely difficult to rank air forces, first because you have trouble getting information, and in the second place, in order to devise an air program you have to assemble a certain amount, which does not mean much.

Comparisons of the number of airplanes per power are not of significance. Some countries keep up large third-line reserves, dead storage to be flown by reserve officers of the service, the attrition of the early days of the war, and they are really superobsolete machines, some of them 12 or 14 years old, nominally ready to fly. Those get into some of the totals. Some countries operate with a much more active period of replacement than others. In numbers I will not attempt to provide a definite rank, but according to the best information I can secure the French stand first in number of aircraft but with the weakest tactical units. The Russians are probably second, and in the light of what we have heard in the last few days, it appears that Great Britain, Italy, Germany, and Japan and the United States are not very far apart. Those five powers are roughly arranged in tonnage strength. There is a certain modesty in these matters which makes every country assign itself a low position and no one of these countries will admit it is higher than fifth in the scale, but they are not very far apart.

Our strength should be increased because most other countries are engaged in increasing their strength. I think our strength in point of power to be exhibited for military purposes is substantially lower in the relative scale than would be indicated by these figures. Again I would prefer not, in using these estimates, to attempt to appraise the relative aircraft equality of these countries, but I would say that the United States is no worse than the country third in actual fighting strength.

As for the position which we should have, that, I think, is a question of policy that transcends the purely aeronautical policy on that. It is a case of national policy, and I will not attempt to comment on it except to reiterate what was said in the Commission's report, that if we start with 2,320 aircraft and keep on going and do not detour and change our minds or back up as we have done in the program of 1926, beyond having this committee, and Congress following its own judgment, views would differ about what is the wise course.

Mr. PLUMLEY. How long can we take to acquire that 2,320 without finding ourselves with 2,320 obsolete planes?

Mr. WARNER. That is the point. That is something that has not always been taken into account. There has been a lot of talk. I am seizing the opportunity to use a great deal of your time to get my impressions off my mind.

The CHAIRMAN. We are glad to have them.

Mr. WARNER. There has been talk for many years of not going too fast until aircraft is standardized. Nothing is standardized in automobiles. If there was standardization of automobiles, the factories would close up. It is only because of 34 years of intensive development that they can still put something new and better in their

newer models each year, and that is the reason that they can continue to build cars. The airplanes may not be standardized. They will have to become obsolete and undergo a heavy attrition by obsolescence.

I think we can take it as a continuing rule that we should have a normal period of replacements against that obsolescence of not more than 3 years, and 5 is safer. It varies from time to time, and occasionally there is an original development that obsolesces everything we have and then we have to scrap them on account of obsolescence. That is something you cannot estimate. If you take into account a number of such things, it is prudent to say everything not written off will be written off for obsolescence in 6 years, and you get a combined net attrition of 25 percent, and when we get 2,320 planes we will have to have replacements of 500 to 750 per year, and in the meantime we will have to buy 750 airplanes a year conservatively, between 750 and 900, if we are to get to 2,320 by 1938. This is one of the cases like Alice in Wonderland—if you run too fast you get out of sight of the desired place.

The CHAIRMAN. Are there any further questions for Professor Warner?

Mr. FADDIS. I was glad to hear you define the idea of our need for armament, but national defense is more or less governed by the fact or almost entirely governed by the armament of other countries rather than from any internal conditions, and it seems to me that the idea is commonly too prevalent in this Nation that our need for national armament is merely a matter of our own internal desire. It is something perhaps the press should take notice of and bring the point before the country that you have advanced. It should be understood throughout the Nation.

Mr. WARNER. We have to keep a lookout and not ease off with anything less, to see simply what obviously they would have to use to fight.

Mr. FADDIS. We have to use them to combat the forces we would have to combat.

Mr. WARNER. Correct.

Mr. FADDIS. But not with any idea of what the Nation determines. It is governed by world conditions.

Mr. WARNER. Yes.

Mr. WILCOX. You very kindly listened to me almost a whole day when you were conducting your hearings in the Federal Aviation Commission on the subject of the unified air force, and I got in just as you were concluding that portion of your testimony. Without asking you to repeat the reasons, what are your conclusions with reference to a unified department of national defense or the creation of a separate department of the air, or in lieu of that the immediate appointment of Assistant Secretaries of War and of the Navy for the air?

Mr. WARNER. The last point I did not touch on. But taking the other, the reverse; I am unfavorable at present to the creation of a separate air force. I am in favor of working along with the G. H. Q. Air Force for some time yet.

Mr. WILCOX. The G. H. Q. is practically an independent air force, is it not?

Mr. WARNER. I should like to consider it so. I will not dissent. It should be independent in the control of its tactical operations to carry on its own exercises. I think that has probably a degree of independence for the time being. I have tried to make it plain I have no rigidity of view in this case. We will probably come to complete independence, but I do not think we have reached that point yet. It is just as dangerous to do our program too fast—to see something coming in 40 years and say, let us do it now—as not to see it forming at all.

Mr. WILCOX. Do you care to discuss the subject whether or not it would be possible to request the President at this time to use the power of appointing assistant secretaries for the air?

Mr. WARNER. That is a little difficult subject for me to talk to you about, because I was one of them 3 years and I would not say the job was useless. At the same time I think that is a grand platform on which anybody who is so inclined and gets the opportunity can stand with you. I had a lot of ideas when I was in the Navy Department and worked on them, some good, some bad, and 8 years have passed, working on them. I think it is capable—and this is probably more true now than in 1926, because we passed through 8 years and learned to know each other better—I think it is capable of becoming something of a fifth wheel and I am more or less neutral. The service can get along perfectly well with or without it. I think, on the whole, my inclination is against the filling of these posts, but I have no strong convictions on the subject.

Mr. WILCOX. In the early part of your testimony, did you dwell on the creation of a national defense department with an Assistant Secretary of War for the Army and for the Navy?

Mr. WARNER. Yes; and I will say one more word on that, because I have definitely advocated it and I have given that a great deal of study. I am in favor of such a department having a separate air force under the department of national defense, working with the Army and Navy—all three—because if you have three you can always get a majority, and with two you would completely disagree. I think a department of national defense with unified agencies is very desirable. I would have an under secretary of department, but he should have more prestige in the Government than adheres to the Assistant Secretary or Under Secretary of State or Under Secretary of the Treasury. They should be as equal to being Cabinet officers as you can get, with direct responsibility for that branch akin to the direct responsibility resting upon the present Secretary of War and of the Navy. The under secretary for air would be appointed in recognition of all possible adjustments, but the coordination and intent of the aircraft forces would be subject to the secretary of national defense, and as to replacements and arms there may be in the two services an under secretary for procurement of munitions with responsibility for the general coordination of the matériel policies of the services.

Mr. FADDIS. At the present time you regard the air force as an auxiliary to other forces, but you think the day may come when it will be capable of being an independent force insofar as accomplishing strategical results in and of itself?

Mr. WARNER. I do not like the word auxiliary in that connection. I decided that Mr. McSwain was right when he said the other day

it has progressed for beyond its original status, getting into the realm of independent action. As Mr. Wilcox points out, the G. H. Q. is predicated on the ability to engage in a large measure of independent action and the Navy is developing at least an active force along the same line, and has recently given new prestige and standing to the air force by the elevation in the Navy of the two-starred flag to the three-starred flag of each commander. I do not like the word auxiliary; it is creating an impression and sounds slighting, and really it would not mean anything much. The airship is an auxiliary that the ground force can use. I think the air force at present can function most efficiently as part of the general military organizations.

Mr. FADDIS. It cannot be independent until it is able to go out and accomplish independent missions by itself.

Mr. WARNER. I would not say that the air force was auxiliary to the ground forces any more than I would say that the coast artillery was an auxiliary to the Navy or the field artillery auxiliary to the Infantry. Those things have been said, too, but they seem to me to create a false impression of an inferior status. All arms work together.

Mr. WILCOX. The field artillery exists for the purpose of furthering the infantry—is that true?

Mr. WARNER. In times of war you are talking of. One of the fellows that kept the caissons rolling along would probably argue that point with you.

Mr. WILCOX. Is it your opinion we ought to give the National Defense Department complete supervision and control over all forms of defense to eliminate the conflict between the Army and Navy, insofar as air power is concerned, and prevent conflicting missions of the two branches. In other words, the Department of National Defense would have control over the air forces and could assign such of them to the Army and Navy as might under the circumstances be deemed necessary.

Mr. WARNER. I would certainly hope that would be the result or I would not be in favor of this department, but in answering that I will come back and pick up something I said before lest I leave a misapprehension. I do not want to exaggerate these conflicts. They come up now and again. These are reasonable men working together in a common interest. One difficulty, Mr. Chairman, about your bill to refer these things to the President is that the joint board does not resolve itself, as we all know, into one group of three men sitting and quarreling with each other, but they exchange views across the table and they produce a compromise. The danger is that the compromise will be ineffective because it will, so to speak, evade the issue, and it very seldom—in fact, I think the joint board is rather proud of never having had to change—they make progress in a succession of wheels. Take this matter of placing aircraft on coast defense, the last subject. I do not regard anybody with unlimited admiration and do not think the Army and Navy so regard them, but it is the best for the time being.

Mr. WILCOX. Our last conference on the subject resulted in a victory for both sides.

Mr. WARNER. That is a keen game to play. May I say one thing more on this same general subject? You have asked me to postpone

the discussion of procurement, as I understand it, until you refer that to a subcommittee. Naturally, I want to go into that at length, as I am profoundly interested in it.

I will say just one word about the block promotion list. I am not an Army officer, and never have been, but I have a decided point of view, and I have given study to this and other matters in the past few months. I would be in favor of a separate promotion list when I think nothing else could be done. The situation of the Air Corps is very bad, indeed. On the permanent promotion list, I think, it is almost an unique sufferer. From what I understand of the situation there are injustices and discrepancies elsewhere. It seems to me a separate promotion list would be applying a sop to a wound that calls for surgical treatment. Until we get a general Army promotional legislation incorporation a much larger degree of the selective system than the Army promotion system has already incorporated, we will continue to have the same trouble with the promotion list that I think they have in the Air Corps, and you simply establish a rotating hump, which in the past other branches have found obnoxious. We would be back in 15 years in the Air Corps with the same hump or with the hump in a new place.

The CHAIRMAN. We thank you, and we will ask you to return when we consider the details of formulating procurement means.

Mr. WARNER. Very well.

STATEMENT OF MAJ. WILLIAM F. CENTNER, NATIONAL PRESIDENT OF THE AIR RESERVE ASSOCIATION OF THE UNITED STATES

The CHAIRMAN. We have with us Maj. William F. Centner, who is the national president of the Air Reserve Association of the United States, an association of civilians who are patriotic enough to give their time and money to the service of preparing for possible emergency. I will ask Major Centner if he will not be good enough to address his remarks to the general situation, and particularly to H. R. 4348, a bill to promote the national air defense; to establish and reorganize within the Army of the United States an Air Reserve; to provide for the supply, equipment, and training of an Air Reserve; and for other purposes.

Major CENTNER. Mr. Chairman and members of the committee, on behalf of the Air Reserve Association of the United States I wish to express appreciation for the opportunity to suggest certain specific needs of the Air Reserve. In presenting this brief I wish to explain that our association is a civilian organization, comprising the most active officers in the Air Corps Reserve, and representing the nine corps area departments of the Army.

We have banded together for the purpose of supporting and assisting in the development of an adequate air force reserve. Our association is entering its fifth year of steady growth, but the nucleus from which it sprang dates back to the local units of wartime pilots, organized as early as 1921, from whom we derive a splendid tradition.

We appear here today on invitation of your chairman. While our national council has unanimously endorsed the Doolittle minority report of the Baker Board, proposing the establishment of the Air

Corps as an independent force, coequal with the land and sea forces, at this time we specifically wish to urge your favorable consideration and report on H. R. 4348, entitled "An act to promote the national air defense; to establish and reorganize within the Army of the United States an Air Reserve; to provide for the supply, equipment, and training of an Air Reserve; and for other purposes."

Our program is as follows: It would help us to give a fairer consideration of this bill and other legislation designed to improve the Air Reserve to bear in mind the exact status of the Air Reserve in our scheme of national defense. This status is quite different from that of the Reserve components of other branches of the service, the Infantry, Artillery, and so forth, since the Reserve components of ground forces, in our opinion, constitute the third line of defense. This is true for these reasons:

First, the Regular Army, constituting the first line, has 163,000 men and more than 12,000 officers, equipped and ready to take the field at once.

Second, the Federalized National Guard, constituting the second line, has 200,000 officers and men, embracing all types of combat and auxiliary troops, satisfactorily equipped and organized, who drill regularly each week, attend summer encampments and are paid regularly for their services.

Thus, the Reserve ground component constitutes a third line. The Air Reserve pilots, however, must be regarded as the Nation's first line of defense in the air. This is true for these reasons:

1. The officer-pilots of the Regular Army number in round figures 1,000 pilots. Probably less than half of these are organized into tactical units, the remainder being occupied with indispensable administrative and technical duties, following courses of instruction at various service schools, acting as instructors of flying cadets and National Guard squadrons. In time of emergency, every one of the Regular Army pilots would be imperatively needed for duties other than fighting pilots of tactical squadrons.

2. The 300 pilots of the 19 National Guard squadrons cannot be regarded as fighting pilots, since each of these squadrons is an observation squadron, organized, equipped, and trained to serve with the National Guard Infantry division with which they are assigned as an auxiliary unit.

3. Pilots of established air lines cannot be regarded as military Reserve pilots, since their duties as air-line pilots would continue in the event of emergency.

4. Private pilots of the Nation would require an extended period of training and instruction to qualify as effective military pilots.

Were proof needed of this assertion that in time of emergency the Air Reserve will constitute the first line, we need only to cite the minor emergency of last year when the Army was called upon to fly the mail; 138 of the pilots assigned to this service were air reservists. This figure appears in tables of the Baker report.

It being conceded, as it must, that our Air Reserve in times of emergency must fill the role of fighting pilots in the tactical squadrons that would actually engage the enemy, we feel that the administration of the Air Reserve as a separate and distinct department of the Chief of Air Corps office is eminently justified by the im-

portance of their mission. It is not enough to administer Air Reserve affairs by a junior Regular Army officer assigned to such duty temporarily. No matter how conscientious such officer may be, he cannot escape his status as a Regular officer, bound by its traditions, his sympathies, as always, remaining secondary to his devotion to the Regular service.

The maintenance of the morale, proficiency, and equipment of the fighting pilots, it seems to us, should be the primary objective of the entire Air Corps Establishment. Under present provisions the training of these pilots seems to be an afterthought, something regarded as an appendage, if not a barnacle upon an otherwise smooth-sailing organization. The training we receive is the most meager and unsystematic; the planes we fly are the very shoddiest that the service will endure; and the expense a Reserve pilot must bear to make his brief practice flights in museum planes is prohibitive, disheartening, and wholly demoralizing. This subject has been impartially investigated. The assertions we make have been found to be true and are so reported by the Baker Board and to the Howell Commission.

The one circumstance we wish to emphasize, as found by the Baker Board, is the lack of flying training provided for Reserve pilots on inactive duty. There was provided for the fiscal year 1934, 12,500 flying-hours. There were more than 1,500 group I Reserve pilots, more than all the Regular Army. This was an average of 9 hours per year, or 45 minutes per month per pilot. It was further provided that no one pilot could fly more than 2 hours per month.

Contrast this with, first, the 105 flying-hours per year allowed the nonfighting National Guard pilots; and, second, the unlimited flying privileges allowed the Naval Reserve, both of whom are paid for the flying they do in latest planes, while the Reserve pilot must bear considerable expense to make his meager practice flight in obsolete planes.

Now, we believe the proposed enactment of H. R. 4348 will decidedly and definitely improve the status, equipment, proficiency, and morale of your Air Reserve. The enactment of this bill will be a definite recognition by Congress of the Air Reserve Establishment. It will contain a definite mandate from Congress that Reserve pilots must be provided flying privileges on adequate equipment sufficient to maintain a degree of proficiency to ensure their immediate availability as pilots of tactical squadrons in the event of emergency. The machinery for the administration of Air Reserve affairs by an Air Reserve officer under direction of the Chief of Air Corps is mandatory if it is expected to have the Air Reserve develop under sympathetic, cordial direction. The one purpose of the Chief of Air Reserves would be to develop that component. He would be charged with the responsibility of planning and suggesting adequate provision for the equipment and training of the fighting pilots.

Coincident with the provision of more flying-hours must be regarded the necessity of a provision for defraying at least the expense of a Reserve pilot in reporting to distant posts for flying practice. National Guard and Naval Reserve pilots are paid for the flying they do and fly the latest type of planes, and these National Guard and Naval Reserve pilots, mind you, would not be the fighting pilots to guard your shores from invasion by hostile air raiders.

Our final recommendation is that the Reserve pilots be organized into combat as distinguished from observation squadrons. The Regular Army has observation squadrons. All 19 of the National Guard squadrons are observation squadrons. The major number of Reserve pilots, we suggest, should be organized into pursuit, bombardment, and attack squadrons and their training directed to that end. There has been too great a predominance of observation craft to fighting planes in the equipment provided for Reserve use. Almost exclusively, the planes assigned to Reserve squadrons have been discarded observation planes. It would be interesting in this connection to recall the Air Corps field exercises of 1931, the last time our Air Corps attempted to corral its military planes.

On the occasion of this last round-up there were 228 observation planes, 133 pursuit planes, 58 attack planes; and 39 bombardment planes.

Thus it will be seen that on this occasion there were more observation or nonfighting planes than all other aircraft combined. Needless to observe, this situation must be corrected if we expect to have a fighting Air Force worthy of the name.

In presenting these views on behalf of the Air Reserve Association of the United States, I wish to stress the fact that we have been prompted only by an unselfish, high purpose to promote the national defense in this new sphere of military aeronautics, which we think is of paramount concern to all Americans.

STATEMENT OF WILLIAM H. BEATTY, NATIONAL SECRETARY, AIR RESERVE ASSOCIATION

The CHAIRMAN. You gentlemen are civilians and are making a living, and being here at your own expense, we will try to hear all of you today. Maj. William H. Beatty is the national secretary, I believe.

Mr. BEATTY. That is my office.

The CHAIRMAN. I remember someone said you are a lawyer, and I hope you are a good one.

Mr. BEATTY. I am here, Mr. Chairman and members of the committee, representing, we believe, the men who constitute the actual fighting power attached to tactical squadrons called upon to meet the enemy. That is borne out by the recitation given by Mr. Centner here when he showed you that in the minor emergency last year when the Army flew the mails, that 138 boys that flew the mails were second lieutenants of the Air Reserve. If that is true in a minor emergency, how much truer will that be in a major emergency? The scant number of pilots in our Regular Army would be needed for indispensable purposes, not that of combat pilots. They would be commanders and in charge of technical departments and administrative duties which they would have to perform.

I will call your attention as quickly as I can to the salient provisions of H. R. 4348. We are coming here asking you to pass this bill and recommend it favorably regardless of the organizational set-up, and whether you recommend favorably this 7041 or not, we ask you to recommend the passage of H. R. 4348, and I will call the attention of the committee to a few points. This bill is a decla-

ration by Congress which is charged under our Constitution with providing for our national defense. It declares it the policy of Congress to make adequate provision for an Air Reserve, by creating an Air Reserve, and then a department of Air Reserve for Air Reserve officers. I say it is imperative that we have Air Reserve officers in the office of this Air Corps to administer and to formulate plans for the training of the Air Reserve officers if it is ever to get anywhere. It would require no new organization at all. At present we have a junior air officer assigned to do duty in the Chief's office. We need not assign any Regular Army officer there. Put an Air Reserve man there who is with the Air Reserve chiefly and has the Air Reserve primarily at heart, and he is charged with the duty in this act of developing the Air Reserve to an extent where all of his pilots and equipment that he has will be ready for immediate use in time of emergency. I was interested to hear what Major Centner said of the Doolittle report, that we ought to have twice the air force that we now have to have adequate protection in the air. I say that with the salaries of these 1,000 additional aircraft pilots which he says we ought to have you could pay the Air Reserve equal to that of the National Guard pilots. You now have 19 squadrons over the country, and you could provide for 10,000 pilots, because the amendment that we suggest to this bill is to amend section 5a by adding to section 5a the following:

Under such regulations as the Secretary of War may prescribe Air Reserve officers who hold an active aeronautical rating recognized by the War Department shall receive compensation for training flights performed under competent authority at the rate of one-thirtieth of the monthly base pay prescribed for their grade, plus 50 percent time of such pay, for each day such training flights are made not exceeding four in each calendar month. Pay under the provisions of this section shall not accrue to any officer during a period when he shall be entitled under any provision of law to the full rate of his base pay.

Is there a precedent for that? There is. I read from your national-defense law where it says—the officers of the National Guard under such regulations as the Secretary of War may prescribe, captains, lieutenants, and so forth, shall receive compensation at the rate of one-thirtieth of a month base pay, and it allows for six drills a month.

That just parallels the provision you make for your National Guard, and I will remind you the National Guard squadrons are all observation squadrons and cannot be regarded as fighting squadrons in time of war. They would serve only the infantry division with which they are detailed. The chairman's bill, 7041, excludes the National Guard and does not try to take them in.

The CHAIRMAN. We did not have time to include everything.

Mr. BEATTY. It is a salutary thing. The observation service is an arm of the service and required in military aviation the same as with the Infantry and Artillery, but it is not for fighting purposes. Some separate organization ought to be set up by the G. H. Q., and we wish to propose, if you shoot out this favorably, with the passage of 7041, we wish to recommend an amendment at section 21a to include salient provisions in the Air Reserve law, establishing an Air Reserve officer who would serve under the Air Chief, to formulate plans for supply and training.

Let me show why it is necessary to have this provision to pay Reserve officers, not for myself, but I have lived in Birmingham for 5 years, and I had to go to Atlanta to get my instruction. It costs me \$12 on the day coach, and we had to hop around the field in obsolete planes. I do not have that now. I go to Montgomery, \$5 in the day coach and 1 day's time, in the Fourth Corps Area. I am a group 1 pilot, 126 group 1 pilots. The only Air Reserve airdrome for the Fourth Corps Area is in Atlanta. There were 16 Reserve pilots in Atlanta, meaning that 112 of the others would have to go to an expense similar to that I had to go to in order to maintain their proficiency. By the provision of this little pay amendment, men would be repaid the expense they are necessarily put to, and unless the Government exploits the loyalty and patriotism of young pilots they will have to make that provision for them.

It is my opinion in an invasion, if you gentlemen please, we should have a vast network of Reserve airdromes maintained with Regular Army personnel. We do not want it detached from the Army. We want to keep it abreast of aeronautical progress. You are graduating 225 young cadets at Kelly Field and Randolph Field who, after a period of duty, are sent back to their homes, and you will have 3,000 pilots in your group 1 classification. There are today 1,500. Organize those reservists into tactical squadrons forming a network over the country readily accessible to all the pilots and give them two or three or maybe four drill periods a month. Pay them like you do the National Guard squadrons and we will furnish you a supply of tactical pilots ready to take the air and repel all invasion. In the fortunes of war if you have to go abroad we will be able to take our places immediately in the front line. You have to have a personnel adequately trained and you can do it the cheapest way it can be done by the Government. I know the National Guard squadron. I served with one 5 years, an observation squadron. They are quite proficient, as the Regular Army officers will say, and perform their duties satisfactorily. There is no reason why there should not be this organization under the command of the Regular Army, and pursuit, attack, and bombing will be necessary.

The CHAIRMAN. Will you express yourself upon the desirability of some such provision as a junior air reserve to accompany the reservists into this Air Reserve probably?

Mr. BEATTY. The first time I read that was when I read your amended bill. It is a happy solution. It is really pitiable. I come in contact with young men and they know I am a Reserve officer, young fellows 18 to 20 years old, and they are constantly crowding me. I cannot walk down the street in Birmingham without meeting them, and they will say: "How can I get into the Reserve? How can I show my loyalty and patriotism as I want to do?" It is the happiest solution.

The CHAIRMAN. That is a fine way for college students to spend their vacations to learn flying.

Mr. BEATTY. Yes.

The CHAIRMAN. We will hear Mr. Maitland C. Harper, also of the Air Reserve, and their former secretary. What is your office?

STATEMENT OF MAITLAND C. HARPER, WOODSIDE,
LONG ISLAND, N. Y.

Mr. HARPER. I was national secretary of the Air Reserve Association for the past 2 years. At present I am first vice president of the Second Corps Department of the Air Reserve Association.

Mr. Chairman, the National Defense Act as amended in 1920, and congressional enactments give us a military policy, and War Department Bulletin 19, October 3, 1921, states that the President published the following statement of the general intent of the law:

Our present national defense law establishes an economical and democratic military policy thoroughly consistent with our national traditions. It provides for a small Regular Army, to be augmented by great citizen forces in the event of national emergency. This is our traditional military policy. But whereas in the past these larger war forces have been extemporized after the occurrence of an emergency, the new law wisely provides that the framework of their organization shall be established and developed in time of peace, insofar as this is practicable through the voluntary service of our patriotic young men. The Army of the United States as defined in the new law comprises the Regular Army, the National Guard, and the Organized Reserves. Every patriotic citizen should encourage the development of these forces, each within its proper sphere.

It has been stated by competent officials that "the Government receives a greater return on its investment in the Organized Reserves than from any other Federal expenditure."

The representatives of the Air Corps Reserve of the United States Army presented our statements of the needs of the Air Corps Reserve to the Baker Board and the Howell Commission, each of which recognized air needs and recommended their improvement. The Baker Board stated on page 31—evidence has been submitted as to the shortage of the proper types of airplanes for the training of the civilian components.

The Baker Board recommended on page 58 of their report:

It appears from the testimony offered before the committee that conditions for the training of reserve aviators not on extended active duty are not highly satisfactory.

Nevertheless it is apparent that there is a lack of equipment of the later service types for their use; that there is some lack of proper equipment of any kind, including planes, instruments, and other accessories; that the distribution of equipment is such that it does not provide accessibility for training purposes to considerable numbers of reserve officers; that flying time is insufficient even for minimum requirements; that allowances for travel and other items of active service duty are so meager that considerable hardship is imposed upon those who can ill afford to meet the expenses incident to active service out of their own pockets. All of these shortcomings are undoubtedly due basically to the necessities of economy.

It is believed that in the submission of any program carrying an increase of equipment to the Air Corps, careful consideration should be given to the item of airplanes and accessories for these purposes. Economy will probably always prevent the use of the latest models for the training of Reserves, but any plan for the improvement of present conditions should make the best possible provision in this respect.

The inadequacy of pay and allowances is but one item of the broader problem for the whole Reserve establishment.

The committee believes that the Reserve component is an essential element of our national defense system, and that it should be given all the support possible consistent with the needs of the national defense as a whole.

On page 74, this report states:

The committee believes that special consideration should be given, when adequate funds can be made available, to increasing the flying equipment, and to supplying combat types of airplanes and greater facilities for the training of the civilian components.

The Howell Board recommended on page 147:

It seems to us conservative to say that the aggregate of effective Air Force Reserves should be at least double what it is now.

The G. H. Q. Air Force has been started and some Air Corps officers assigned to the same. But no provision, as far as we can find out, has been made for the Air Reserves.

The National Guard has been built up to its present state of efficiency by the officials of the Militia Bureau looking after their interests.

The creation of an Air Reserve section in the Air Corps as provided for in H. R. 4348, would be a first step to improving the facilities and training program for the Air Corps Reserves.

In the appropriation bill for the fiscal year ending June 30, 1935, provision is made under the heading of "Organized Reserves" of \$308,400 for expenditure by the Chief of the Air Corps for the production and purchase of new airplanes and their components. In the appropriation bill for the fiscal year ending June 30, 1936, \$845,725 is provided for expenditure by the Chief of the Air Corps for the production and purchase of new airplanes and their equipment.

The National Guard is consulted as to what airplanes are to be purchased and supplied for their use.

We believe that if there were an Air Reserve officer in the office of the Chief of Air Corps, as provided by H. R. 4348, his advice in selecting airplanes for the use of the Air Reserves and in drawing up the Air Reserve training program would result in securing more and better training out of the present appropriations. This specific bill is necessary to give the Air Reserves a set-up somewhat similar to the National Guard Bureau and give the Air Reserves proper representation in the Chief's office. This bill is necessary to provide proper hospitalization, medical, and other benefits, as allowed pilots of the Air Corps for injuries sustained in line of duty.

The cadets just out of the training schools and the second lieutenants on a year's active duty receive all the training and flying they can use, but after this year, they go into the reserves and receive very little training.

The 5-year program, which was completed a year ago, provided nothing for the Air Reserves. The creation of the G. H. Q. Air Force provides nothing for the Air Reserves.

With the exception of one very able Chief of the Air Corps and Assistant Chief of Air Corps and a few others in the Chief's office, the Air Reserves have no one to look to to plan and provide for their training, and therefore a set-up similar to that provided in H. R. 4348 is vitally necessary.

The Baker board and Howell board's recommendations have been followed in creating the G. H. Q. Air Force. Why not follow up their recommendations and properly provide for the Air Reserves and take the initial step in this direction by passing H. R. 4348. This bill was considered for a year, was submitted to the national

council meeting in Dallas on October 8, 1933; and again adopted and recommended by our national council meeting in Columbus, Ohio, on October 12 and 13, 1934.

It is impossible for the Air Corps to live up to our national traditions, of a small, compact, well-trained Regular Army which is to be expanded in time of emergency, without proper provision for the Air Reserves. Our Nation cannot and should not continue to try to create and maintain a regular Air Corps and regular G. H. Q. Air Force to meet all national emergencies without any reserves at all, and without proper facilities the Reserves cannot function. The Air Reserves need:

First, a set-up similar to the National Guard Bureau. This first step is taken by H. R. 4348.

Second, good cooperation from the Regular Air Corps, similar to that given to the National Guard Bureau by the Regular Army.

Third, a proper appropriation for the proper type and number of training and service airplanes.

Fourth, enough flying hours, and, fifth, a training program drawn up under the Air Reserve section of the Chief's office.

The CHAIRMAN. We will hear now from Mr. A. M. Woody. The Army officers, all of whom are in the city, will remain and be heard at 10 o'clock tomorrow morning. We are hearing just now those from out of town.

STATEMENT OF A. N. WOODY, LOUISVILLE, KY.

Mr. WOODY. Mr. Chairman, I will try to make my comments on points not already covered by my predecessors. The Air Corps Reserve has three main sources of personnel: First, war-trained pilots; second, graduates of the flying schools; third, commercial pilots. The first and third are relatively negligible sources. War-trained pilots like ourselves are beginning to get a little bit old, although not entirely unfit for service. Commercial pilots will be needed in their own occupations during the war with things concerning which their services will be sorely needed in all lines. The graduates of schools, roughly, 225 youngsters coming out of Kelly Field today, is the source, and that is the source of the best fitted pilots the world has any knowledge of today. It is those men to whom we want to ask you to give our careful consideration. Our training today is indeed the world's best. The Air Corps equipment is modern, up-to-the-minute equipment, second to none in the world, in my humble opinion. But the number of planes we have is totally inadequate. Now, then, we have these sources for personnel. We have facilities for production of ships; we have engineers and engineering facilities for keeping abreast of the times in the world's aviation.

After our graduates of the schools have served their 1 year's active duty with the Regular Army, they are passed on to the Reserve. The only two choices we have are to let them die of dry rot or give them training. At present they are dying of dry rot. No pilot can maintain anything like that type of proficiency on a total flying time approximating 45 minutes or less per month. That is our actual case today. No pilot can maintain proficiency for actual combat either by

flying obsolete, if not worse, aircraft equipment; no pilot can maintain anything like proficiency with equipment for tactical maneuvers without sufficient flying time to keep his hand in.

If I were to analyze this, I would say either wash out the Air Corps entirely or continue it on an adequate basis. Any student of military aviation, pilots, will tell you that the fatalities in military aviation are inversely proportional to the flying hours per month. I would much rather for the sake of my wife and babies fly 100 hours during a month. That would be safer. My chances of living would be greater flying 100 hours a month than they would be in flying 2. Lord knows they are bad enough with only 45 minutes per month or less.

I will add one more remark, and that is that the bill, as I see it, is a step toward accomplishment in giving an Air Reserve which is admittedly the Nation's first line of defense in time of emergency, this consideration. The greatest element of Air Corps effectiveness today is the element of surprise. In the event of war, which we hope will not come—we believe we will be attacked in advance of any formal declaration of war—we do not believe for a moment that the point of attack will be either of our coast lines. It will be over our interior commercial centers, and we think possibly over the centers for generation of power.

In conclusion, first, we advocate a separate Air Corps; second, as you have heard these others say, an Air Reserve whose sole duty will be the promotion of a decent, worth-while, efficient, and well-trained Air Reserve that can go in the field and that can justify the confidence the Nation has placed in it; third, and tying up with the separate Air Corps a Chief of Air Reserve, separate Reserve appropriations, separate Reserve equipment, and last, and I place it last in position, flying pay for approximately 1,300 Air Reserve officers in the country. The matter of pay, as I see it, is incidental. The first thing to do is to give us equipment and give us time to use it. Give us a decent chance to remain proficient in performing all our duties and we will promise you good service.

The CHAIRMAN. What does it cost you or the average Reserve pilot yourself to keep up with training?

Mr. WOODY. Approximately \$300 a year.

The CHAIRMAN. You gentlemen of the Air Reserve are contributing that out of your own pockets to keep yourselves in fairly good condition to fly in time of emergency?

Mr. WOODY. Yes. [Applause.]

The CHAIRMAN. I thank you very much.

Mr. MERRITT. I think it devolves upon this committee to introduce a bill to make up that \$300 expense.

The CHAIRMAN. We will take that up at the proper time.

(Thereupon, at 11:50 a. m., the committee adjourned to meet again at 10 a. m., Saturday, Apr. 6, 1935.)

TO PROMOTE NATIONAL DEFENSE BY INCREASING THE EFFICIENCY OF THE AIR CORPS

SATURDAY, APRIL 6, 1935

HOUSE OF REPRESENTATIVES,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C.

The committee met at 10 a. m., Hon. John J. McSwain (chairman) presiding.

The CHAIRMAN. The committee will be in order. We will continue further consideration of H. R. 7041, and other bills relating to the air power as an element of national defense.

I will ask "Casey" Jones to come forward.

STATEMENT OF CHARLES SHERMAN JONES, NEWARK, N. J.

The CHAIRMAN. Mr. Jones, as I understand it, you have had considerable experience in flying.

Mr. JONES. Yes, sir.

The CHAIRMAN. What is your business now?

Mr. JONES. I run a school of aeronautics at Newark, N. J.

The CHAIRMAN. About how many young men are taking lessons from you at your school?

Mr. JONES. I have a little over 300.

The CHAIRMAN. What do you think of this proposal to set up what I have described as a junior air reserve.

Mr. JONES. I am heartily in favor of it.

The CHAIRMAN. What benefits do you think the country would derive from such legal recognition of that body of young men?

Mr. JONES. We, who are close to these young fellows, know of the interest that they have taken in this business. In fact, one of our problems is to tell them what they can do to gratify that interest. It seems to me, if such a bill as you are proposing were to pass, so that these young fellows could be encouraged, it would be an excellent thing and would help us out, would help them out, and I know it would be a good thing for the country.

The CHAIRMAN. Can you estimate about how many young men in the United States, as a whole, are now taking such training; can you make a rough estimate?

Mr. JONES. I think we have some seven or eight thousand student permits out, given by the Department of Commerce, which means that at least they have signified their intention of learning to fly. Of course, there are hundreds of others that are interested in the other ends of aviation—the mechanical and the engineering ends.

I would say that right now there are 12 to 15 thousand young men interested to some extent—taking an active participation in it.

The CHAIRMAN. Are some of the young men who are studying at your school students at colleges and universities?

Mr. JONES. Yes, sir. During the summer we have quite a number—particularly during the summer, of fellows who come in just for the summer to take courses. Then we have other fellows who are graduates from several of the colleges of this country.

The CHAIRMAN. All of these young men are receiving this training, of course, at their own expense?

Mr. JONES. Yes, sir.

The CHAIRMAN. Do you receive any assistance or encouragement, direct or indirect, from any Government activity or agency in your work of training these young men?

Mr. JONES. No.

The CHAIRMAN. Are you a Reserve officer, Mr. Jones?

Mr. JONES. Yes, sir; one of the oldest.

The CHAIRMAN. Were you a flyer during the war?

Mr. JONES. Yes, sir.

The CHAIRMAN. In what outfit?

Mr. JONES. I was in the American Army, and at the front I was attached to the Ninety-sixth Pursuit Squadron.

The CHAIRMAN. You were attached to the Ninety-sixth Pursuit Squadron?

Mr. JONES. Yes, sir.

The CHAIRMAN. What is your rank as a Reserve officer?

Mr. JONES. I am a captain.

The CHAIRMAN. What do you think the Government can do to encourage greater efficiency among the officers of the Air Reserve?

Mr. JONES. I am heartily in favor of this bill, which has been under discussion here for the last few days, to establish some definite status for the Reserve. I heard the testimony yesterday of the representatives of the Reserve Officers' Association, of which I am a member. I am heartily in agreement with the report submitted by those gentlemen yesterday.

I also agree with the statement which one of the speakers made that he would rather see them junk the Reserve than continue the way we have been. I think that is an absolutely true statement.

We have got to have some recognition; we have got to have some more equipment; we have got to have some more money to do it with. We have got to have some standing here in Washington. We have got to get some help.

The CHAIRMAN. Mr. Jones, I have been informed that you have done considerable night flying or blind flying, and that you have perfected some instruments that are helpful in that activity. Will you say whether or not that is true?

Mr. JONES. Yes. We operate a school for instruction in instrument and blind flying, and use a training device in connection with the flying which greatly shortens the hours necessary; that is, the air hours necessary.

The Army at the present time are using some of this equipment. I believe they expect to use considerably more of it. They have tried it out now for a period of almost a year. Apparently it is working out very satisfactorily.

The Navy is also experimenting with it, and we have trained about 40 or 50 commercial pilots. Of course, this type of flying is becoming more and more necessary, as was evidenced during the time that the Army was carrying the mails. We have got to have that sort of thing.

The CHAIRMAN. Did you invent the device?

Mr. JONES. No, sir. I did not make the invention. But we developed a system of training, of using this in training.

The CHAIRMAN. You developed a system of training for the use of the mechanical device?

Mr. JONES. That is right.

The CHAIRMAN. In blind flying?

Mr. JONES. Yes, sir.

The CHAIRMAN. Have you any convictions, based on your experience and observation, as to whether or not the Air Corps as now organized is entirely satisfactory and for the best interest of our country, or whether it would be better for the defense of the Nation if we had a separate department for air; or, if not that, whether it would be better for the Nation to have a separate budget and separate promotion list for the officer personnel of the Air Corps? What ideas have you along those lines? Let me say that it must be manifest to everyone present that I have not conversed in detail with any of these gentlemen who have appeared before the committee. We are laying our cards on the table and we are trying to find out what everybody thinks.

Mr. JONES. It has been my observation that military aviation, during the last few years particularly, has not moved along as rapidly as it might have. Five or six years ago we used to look upon military aviation as being superior to commercial. I think that that is changed now. I think, particularly during the last 2 or 3 years, our equipment and our instruments and our flying in commercial aviation have progressed more rapidly than in military aviation. I think a good many in military aviation will admit that.

It seems to me that somebody must be to blame. It is not because we have not had a certain amount of money to spend. It also seems to me from the testimony that has been given that most people think that this recent change suggested by the Baker Board, whereby we have had a Headquarters Air Force, seems to be a step in the right direction. It seems to me that that has been a long time coming. I know that I have heard it suggested for about 7 years.

It also strikes me that the reason we have that progress today is because we had the Army carrying the mails. It was not very much of a success.

That was followed by the Baker Board. In order to do something, we finally got a Headquarters Air Force. We might have had that 5 or 6 years ago, and we would have been that much farther ahead, it seems to me.

Everybody who has testified here—and I must say that I agree with them—seems to think that eventually a department of national defense will be the ideal set-up. I think that the sooner we can arrive at that point the better off we are going to be. I think it takes too long to get things done. That is why I favor some sort of a separate Air Service.

I certainly favor pushing this thing along, this Headquarters air force, and building up in the Army or in the air force the necessary things to go along with it.

The airplane is not the only thing. We have got to have ordnance; we have got to have cameras; we have got to have all the other things that should be pushed along at the same time. I am rather of the opinion, from the standpoint of the national defense, that if we get into a separate department headed by airmen, that we are going to make more rapid progress.

The CHAIRMAN. Is there any other general statement you care to make, Mr. Jones? You may say anything now that you may have thought of that would be pertinent to this entire subject that we are discussing.

Mr. JONES. I want to stress particularly the need for this help in the Reserve. I have already mentioned it. But I might say that my experience in the Reserve has been very similar to that of the other officers who have testified here.

I went out to Mitchel Field about 2 weeks ago to fly. We have about 70 active officers in that corps area. The equipment available for us to fly up there 2 weeks ago consisted of two airplanes which were 8 years old, one training plane, and another, a sort of intermediate plane. Four planes for the use of 70 officers! You cannot get very far that way.

Anything that this committee can do to help improve that situation I think would be extremely important.

I agree with all that these gentlemen have said concerning the Reserve. As I look back, I can recall that after the war we had some 20,000 young fellows that had been trained. The Government had spent a lot of money on them. We had airplanes. But we never had any kind of a policy to work those things together.

We should have an Air Reserve today of five or ten thousand men. We have not accomplished that because we have not had the equipment available for them. I think we are wasting time and money if we do not build that up. I think that in time of emergency it would be the most important thing that we could have.

That is what I would like to stress particularly.

The CHAIRMAN. Unless there is something else you have to say, we want to thank you for your contribution. Was there anything else you would like to add?

Mr. JONES. No. I think that covers what I had in mind to say.

The CHAIRMAN. We certainly appreciate your cooperation. I know that this is the third day that you have waited here to be heard. We are very much obliged to you.

Mr. JONES. Thank you, Mr. Chairman.

The CHAIRMAN. Is there any other civilian present who would like to be heard at this time, so that he may not have to come back next week?

Mr. MERRITT. There is a gentleman whom I should like to present to the committee, Mr. Chairman.

STATEMENT OF C. E. FAUNTLEROY, NATCHEZ, MISS.

The CHAIRMAN. Mr. Fauntleroy, a memorandum that I have before me recites that you were formerly a major in the Air Service.

Mr. FAUNTLEROY. Yes, sir.

The CHAIRMAN. Are you in the Army now?

Mr. FAUNTLEROY. No, sir.

The CHAIRMAN. Will you please give us some of your experience as a background?

Mr. FAUNTLEROY. Prior to the war I enlisted in the French Aviation Service. Subsequently, after our declaration of war, I was transferred to the American Service. Then, later on, after the World War, I was requested by Gen. Mason Patrick to go to Poland to assist them in their war against Russia, where I remained for approximately 2½ years.

The CHAIRMAN. Since then have you been connected with aviation?

Mr. FAUNTLEROY. I had a small interest in an aviation investment trust in New York City up until about 1930.

The CHAIRMAN. Have you any special interest in it now?

Mr. FAUNTLEROY. No, sir.

The CHAIRMAN. Where is your home, Major?

Mr. FAUNTLEROY. Mississippi.

The CHAIRMAN. Which city?

Mr. FAUNTLEROY. Natchez.

The CHAIRMAN. Natchez, Miss.?

Mr. FAUNTLEROY. Yes, sir.

The CHAIRMAN. Have you been here during the 2 previous days?

Mr. FAUNTLEROY. No, sir.

The CHAIRMAN. Do you know what we are discussing in connection with promoting the air-defense power of the United States?

Mr. FAUNTLEROY. No, sir.

The CHAIRMAN. Will you tell us whether or not, in your judgment, our air defense as it is now set up is antiquated?

Mr. FAUNTLEROY. That is difficult for me to answer; I would not know.

The CHAIRMAN. What is your opinion?

Mr. FAUNTLEROY. I would not know.

The CHAIRMAN. Have you formed any fixed opinions about whether or not the present organization of the Air Corps within the War Department is the best arrangement that we ought to have for that purpose?

Mr. FAUNTLEROY. I have some very definite ideas.

The CHAIRMAN. Please express your ideas.

Mr. FAUNTLEROY. Based on the experiences I have had, the observations that I have made during the World War and immediately thereafter, I have a very definite opinion that we should have an Air Corps in this country for national-defense purposes under the command of a small particular group; in other words, I feel that a unified Air Service in this country would probably be most beneficial in case of a national catastrophe.

The CHAIRMAN. Are you a member of the Reserve?

Mr. FAUNTLEROY. No, sir.

The CHAIRMAN. Are you acquainted with the activities of the Reserve officers in the Air Service?

Mr. FAUNTLEROY. No, sir.

The CHAIRMAN. Is there anything on your mind that you would like to say, Major, that you have not yet touched upon?

Mr. FAUNTLEROY. No, sir; except that I have had an experience and had an opportunity to observe military aviation and the employment and use of military aviation over a period of 2½ years in open warfare which is somewhat different from the experiences that we had during the World War.

The CHAIRMAN. You had that experience where?

Mr. FAUNTLEROY. In Poland, against the Russian Army.

The CHAIRMAN. What special deductions have you to offer as a result of those experiences?

Mr. FAUNTLEROY. A great many things that we had been taught during the World War is affixed, or so-called trench warfare, were not applicable to the efficient operation of military aviation in open warfare. For example, the necessity of moving quickly, moving rapidly; the question of hard roads and suitable railroad equipment; aviation supply depots located at strategic points; the question of proper equipment which would be used for the maintenance of your units at the front installed in railroad cars, and a sufficient type of protection for your supplies and equipment in transit.

Mr. McLEAN. Mr. Chairman, that is more in line with the matter of tactics, and I suggest that the major might submit a memorandum to the committee on that subject, if he wishes.

The CHAIRMAN. I think that is correct. That deals more with tactics and details of combat.

Mr. FAUNTLEROY. Probably so.

The CHAIRMAN. Matters on which we are not prepared to pass.

Mr. FAUNTLEROY. Probably so.

Mr. MERRITT. Major, as a result of your experience, you feel definitely that we are not adequately secure in the air force that we have, because we do not have a distinct and separate head of it; is that correct?

Mr. FAUNTLEROY. No; not that it is inadequate, but I think it could be much more effective.

The CHAIRMAN. If there are no further questions, we thank you very much for your contribution, Mr. Fauntleroy.

If there are no other civilian witnesses, we will call General Westover.

STATEMENT OF BRIG. GEN. O. WESTOVER, ASSISTANT CHIEF OF THE AIR CORPS

The CHAIRMAN. General, you are now Assistant Chief of the Air Corps?

General WESTOVER. Yes, sir.

The CHAIRMAN. First, I want to ask your ideas on this junior air reserve. We are considering the great problem of national defense as it presents itself to us now, and as in all human probably it will present itself to those of us who live or those who follow us when the test day comes.

What do you think of the suggestion made as a means of encouraging air-minded youngsters to prepare themselves for air combat, to fill up the Reserves, and to be given the opportunity finally to find places in the Regular Army, or in whatever other professional fighting force of the air we may have when that time comes?

General WESTOVER. Mr. Chairman and gentlemen, on that particular proposition of creating a junior air reserve, I feel that we are going beyond the necessities at this time. I feel that it would be uneconomical, and I feel it would not be productive of the best results. I would like to state the reasons for that.

The kind of a Reserve we need when war is declared should be the best fighting strength that we can have at that time—the men best trained to do our combat fighting.

Our requirements when war breaks out will run from 2,800 to 3,000 trained pilots who are needed over and above those now in the Regular Army or those who will be in when we complete the 5-year program. We now have something like not quite 1,500—as a matter of fact, 1,457 Reserve officers who are active pilots prepared today to enter into combat after a very short period of refresher training. We are graduating each year from the training center the best type of flyer who can be used for combat work, and we are graduating those at the rate of better than 170 or 200 a year. We are limited by our appropriations in the number that we can get through.

Those men, in addition to getting that wonderful training which Mr. Warner, I think, stated was, in his opinion, the best in the world—and I think we all believe that—these men serve with the tactical units of the Regular Army for a period of time afterward either as flying cadets or as Reserve officers and during that time get the particular practical kind of experience that we need to build upon when we expand our forces immediately upon the outbreak of war.

The strength that we need in the Reserve is that necessary to fill up the existing units that we have to provide, considering what we can anticipate will be the replacements necessary during the period that our production is coming into being, and also the number of additional Reserve officers required to expand our training facilities. Our experience has shown to date that we can train our men faster than we can produce the aircraft. Therefore the crux of the whole thing is production.

There will be a very appreciable time lag between M day—the day we start war—and the day our first production planes come out; that time lag is the period that will be devoted to the expansion of our training facilities and the training of new men.

While it is naturally very desirable to foster the interest of all these young men who are interested in aviation throughout the country, I do not think we should lose sight of the practical results that we may achieve from them nor the economy that we must strive for in order to help build up the Regular Army active units of the G. H. Q. Air Force so that they will in fact really be ready on the M day to do their stuff.

There are some other factors I think that should be considered in this matter; that is the kind of training that these young men would get under the proposed bill. As I understand it, from reading your speech, Mr. Chairman, these students would get during the

summer vacation period, for approximately 3 months the first year, instruction in ground training of airmen. The second year they would get practical flying training probably up to the limit of between 30 and 50 hours per individual.

We have had experience in the Air Corps Training Center in training to assimilate into the advanced flying course at that center men who have previously graduated from civilian flying schools, and who have had not less than 200 hours of actual flying training experience; and men that were selected for this test; men who had received the Department of Commerce air-transport license, which makes that number the minimum number of hours of flying experience.

Of the 16 who were selected for this test in 1929 and 1930, only 6 finally passed the mental, the moral, and the physical requirements.

Of those six that were sent down—they were sent down in time to just go into the primary class, the class that had had 8 months' primary training with a view to sending them right along into the advanced class. Not one of them was able to do that. They were not able to pass the test. They were all, therefore, turned back into the next primary class and put through; and only one of them at that time succeeded in advancing rapidly beyond the others, graduated, you might say, ahead of that group in one of the previous advanced flying classes. The rest of the five—well, one was found deficient and four not.

Now, that was based upon the experience of over 200 hours of practical flying, experienced flying. They were unable to meet the requirements for military flying.

The civilian flyer, when he has completed his training, very seldom requires much supervision after, because his proficiency depends upon actual practice. He gets out and flies a plane and does his stuff, and does it over and over again, and acquires a proficiency which enables him to accomplish his mission.

The military pilot, however, has a much broader field to cover. His training is supervised most carefully from the time he enters the training center, during the preliminary training, and so on. There are two stages, and through both of those stages, if it is at all possible, if he is making any progress, he is being followed through all the time by the same instructor.

Thus he gets not only flying supervision but supervision over his character, his moral, and other qualities that are necessary in order to make a real officer of him if he should be called to active service.

In addition to that, the civilian flyer is required to take only a few of the subjects, to know only about a few of the things that the military pilot must know about. The tactical training required for a military pilot, knowledge of tactics, and so forth, which we give in an elaboration of the training period, we feel, from the results of our experience, from the results of practical tests which have been conducted, and which would be necessary even for a junior air reserve, would not be commensurate in results obtained with the amount of money that would have to be put into it. Estimates of that have varied, depending upon the way in which you figure this training is to be conducted and the proportional amount of the expense that the Government is going to meet.

You can reduce it perhaps to a basis of several million dollars a year under certain suppositions; estimates have been made on the basis of some 10,000 men that would run from fifty to sixty million dollars each year. It would cost that much money without a corresponding recompense. It depends upon the basis upon which you start.

So the War Department feels, from the standpoint of practical results to be achieved, that first it is not necessary to have that big number of men, that big pool of men, because we cannot manufacture airplanes fast enough to use them in time of war. We can train our men much faster than we can get the airplanes.

The second is that they are not trained to a point where we can assimilate them at the training center and cut short that preliminary training period, as is contemplated by the bill, and shoot them right into the advanced training.

Third, we feel, as a matter of practical experience, that they have not, or will not have, acquired the military background of tactical and technical training ideas, qualities of the service, and all those other things that are essential for insuring that the standard of the officer throughout the Army will be reliable and fixed. We feel, therefore, that the War Department should withhold its approval of this bill.

The CHAIRMAN. Very well. Would you please pass to a brief discussion, from your point of view, of the proposal to give greater recognition to the Air Reserve, the Organized Reserve of the air?

You have heard the discussion here by the officers of the National Association of Air Reservists.

General WESTOVER. Yes, sir. Mr. Chairman, with regard to that bill, the War Department is again required to report unfavorably. Before stating the reasons, however, I would like to make these remarks. I would like to express my own personal sentiment with regard to the effort that Reserve officers make, in their enthusiasm and in their patriotism, to carry out the purposes of the National Defense Act and to keep themselves prepared.

In my inspection trips around the country I encounter them repeatedly, and I marvel at, and have probably expressed myself time and again as not being able to understand how they can afford to give so much time, to be so enthusiastic, and to be so patriotic in trying to fit themselves to carry out their part of preparedness for war.

So, when I make these remarks of exception to this bill, it is not because we do not appreciate what they are doing, but rather it is from the standpoint of practical Government administration.

To set apart a section of the office of the Chief of Air Corps charged with the administration of all Reserve affairs is impractical for this reason: There are now decentralized to all the corps areas throughout the country the administrative means and facilities for promoting and examining Reserve officers and for inducting them into active service; for giving them their correspondence courses; requiring them to do all the things necessary to fit themselves to meet the regulations for qualification.

The Chief of the Air Corps has none of those facilities at his disposal and, moreover, this bill would require the Chief of the Air Corps to make available from the already limited source of personnel

that he has with which to do his normal functions, personnel to carry this new administrative unit being set up in his office.

Unless provision were made to turn over to the Chief of the Air Corps the entire facilities now in the hands of all these corps area commanders for doing this work, we could not do it. We could not do it very well. For that reason, we must be unfavorably inclined toward it.

I will say this much, however. We have given recognition repeatedly to the need for a better Reserve. The Chief of the Air Corps has right now set up under orders a field officer to come to his office who, with an officer assistant, will establish, so far as is administratively possible, a separate section in his office to handle Reserve matters.

That is the first time that that step has been taken in our office, and the first time it has been considered practical to do so.

The importance of the Reserve has been impressed upon us more within recent years, with all the complications due to increased flying, due to the matter of blind flying, and the tendency to prepare with combat aircraft. All of those matters are coming to the front. Up to this time the Reserve officers have been outfitted with training planes and observation planes. A few years ago the Chief of the Air Corps made available to them, to each Reserve activity, not less than three service planes and two training planes.

When, as a result of the Morrow Board recommendations and the depletion of our aircraft, it became necessary to reallocate planes to supply the general headquarters air force with a sufficient nucleus at least to begin their training as a real tactical, striking force, we had to reallocate planes to the Reserves; and now, instead of having 70 percent, say, of service planes and only 30 percent of training planes, the percentage has switched about and the Reserves have only about 26 to 30 percent of service planes and the rest are training planes.

That was necessitated, of course, to build up, as I say, the general headquarters air force.

Some remarks were made the other day before your committee deprecating this kind of equipment, and I feel that on behalf of the War Department and the Air Corps I should make some remarks concerning that.

The kind of equipment turned out to the Reserve is old, there is no doubt about it. I have some figures here which show that the oldest plane in use by the Reserves is the so-called training plane, PT-3 on which deliveries were made to the Air Corps in 1929. That makes that type of plane 6 years old. However, the committee should understand that the life of that plane as set up under our experience tables is approximately 95 months, or over 8 years. Therefore, that plane is one of the sturdiest ones that we can still expect several years of good service out of.

The remaining observation type of planes, with one exception, were all procured in 1930, and therefore are in their fifth year, and rapidly approaching the danger point as to age. But the same kind of plane that the Reserves are using, which were delivered at that same time, are also the planes that we are using in our Regular Army air unit. The situation is the same for both.

Take some of the oldest service planes. We are using them in our classes at our technical schools; they are used by the officers at Chapman Field, at the technical school, and the advanced flying school, and the observation squadrons on foreign service. So there has been no discrimination so far as the quality of the equipment is concerned.

There has been a change in policy, it is true, giving the Reserve less of service equipment than was possible before, by reason of the necessity of providing our striking force, the G. H. Q. Air Force, with better service equipment.

The Chief of the Air Corps, however, is on record as having planned, when funds become available, to make possible additional combat types of airplanes and combat types of training planes for the Reserve officers stationed near our group posts. That would not be practicable now.

In the 18 Reserve activities controlled by the Air Corps the kind of training now is individual training. The same thing holds for the reservists who report at our Air Corps fields. Certainly, until the G. H. Q. Air Force itself gets enough planes so that it has enough for its own pilots to fly, it would be unwise to divert any more the Reserve activity.

I could discuss this matter at great length, Mr. Chairman, but I know that your time is short, and if that is sufficient to explain the War Department's action, I will leave it at that point.

The CHAIRMAN. General, are you prepared to say what you individually think on this matter of a separate organization for the fighting air force of the Nation, or are you bound, by reason of your position, to voice solely the views of the War Department; and I assume that you have had some considerable influence in formulating the views of the War Department as such.

General WESTOVER. I am sure that General Moses or General Embick will report the War Department's views. I have no objection to stating my own, or those of myself as Acting Chief of the Air Corps, if the committee desires.

The CHAIRMAN. I would be very glad to have your individual views. I am sure the committee would, and I am sure the War Department, like all gentlemen who differ, if they do differ from you, would not mind your stating your own views. I do not know what your views are, General.

General WESTOVER. My views happen to accord with the War Department's views. I have consistently been opposed to a department of air. In 1920 I made the prediction that such and such would not be worthy of consideration for a period of approximately 15 years. Last year, before the Baker Board, I made the prediction that it would be another 10 or more years before the subject would be worthy of consideration.

I believe that Colonel Arnold, in his testimony the other day, summed up as briefly as I possibly could the basic reasons for such a conclusion, why I have such a conclusion; namely, we have not yet completed the definite programs we have on hand. We have not yet actually trained and organized the combat force to the point of efficiency that is required to carry out our existing program. Until we have trained them to that point, until we have demonstrated by ma-

neuvers here and by Army command, post exercises, and continued studies, and actual practical tests of the G. H. Q. air force—bombing missions, gunnery missions, and so forth—their fitness, I do not believe anyone can say what will be the proper governmental organization to take care of that striking weapon in the future.

I believe in the principle of unity of command; that unity of command now for the armed forces of the Army is very clear-cut. It is true, there may be some difficulties in obtaining joint action between the Army and the Navy during peacetime, but to me that presents no insuperable difficulty. It seems to me that the Commander in Chief, the President, on the few occasions where there is a difference of policy of major character, would settle them by having the heads of those two departments come together, making the decision just as effectively as he does when he has differences of opinion between two heads of emergency relief organizations.

Mr. MAY. Pardon me, General. You said that you believed in unity of action. Would you not couple with that unity of responsibility at the same time on the part of those who are acting?

General WESTOVER. I referred to unity of command, sir. We have that under the present Army set-up with the G. H. Q. air force under the Army, so far as as the Army machine is concerned. When we consider a separate department of air, the creation of a separate department of air, I have great grave doubts in my own mind—while I am not a lawyer or a constitutional authority of any kind—I have grave doubts in my own mind whether a separate department of air would be constitutional. I think questions could be raised on that score. I think a department of national defense heading all three departments, if you want to call them that, into one agency, would probably be constitutional. However, the idea of a separate department of air creating another head which you would have to coordinate with other heads of departments, is something else.

I can perhaps illustrate the difficulties of that. It is better if you have to coordinate only two heads of departments, the functions of which are well known by everybody, due to an experience of many years. Take our Army and Navy. Over 150 years of experience are back of them. Everybody knows what their basic functions are. It is much easier for the President, as Commander in Chief, to coordinate the views of the heads of those two departments than it would be the views of the heads of three departments, one of whom would not have the background of experience nor even an effective organization to build upon. I think it would also create extra overhead.

However, I am not so blind as to say that the future may not wisely call for such an organization. I think it is unsound now.

Mr. MAY. You mean an organization of a single national-defense unit?

General WESTOVER. Yes, sir. I am personally opposed to that and a separate department of the air.

Mr. MAY. Coordinating all the activities into one?

General WESTOVER. Yes, sir.

Mr. MERRITT. General, you said in your testimony that in 1920 you had predicted that in 15 years we would be ready for a separate department of air; is that correct?

General WESTOVER. No, sir; I said that in 15 years it might be well to begin to consider what the situation should be.

Mr. MERRITT. Is it not a fact that there are so many activities in the War Department that it is not possible to give the necessary attention to the air force? You may predict something every 10 years, or that in another 10 years we might be ready for something else, but this is something that has got to be determined, whether we are going to separate these activities and create an independent air force under one head.

General WESTOVER. Gentlemen, I do not believe the troubles are functional or are due to lack of command, in my opinion. I think the trouble is entirely money. If the Congress sees that sufficient money is appropriated to complete the existing program, in my opinion you will have an air striking force that will have a tremendous influence internationally as well as nationally.

Mr. MERRITT. I am convinced that the air force would represent probably 80 percent of our national defense. The other 20 percent would be divided between the remaining Army force and the Navy force. I think the sooner we get busy and make this a separate and distinct force the better off we will be in the matter of national defense. I make that just as an observation.

Mr. FADDIS. General, Mr. May mentioned unity of responsibility. Unity of command also carries with it unity of responsibility, does it not?

General WESTOVER. That is true.

Mr. FADDIS. It is your opinion that at the present time it would not be to the best interest of national defense to divide this unity of command.

General WESTOVER. That is my opinion.

Mr. FADDIS. You believe, however, that the time may come when the Air Corps will be or may be able to accomplish independent measures without the cooperation of other troops?

General WESTOVER. I think it is able to do that now, but I do not believe it is able, by itself, today, to win a war.

Mr. FADDIS. That is what I mean. That is the ultimate objective of all operations, to bring the war to a successful conclusion. And it is your belief that the Air Corps is not able, today, to accomplish any such thing.

General WESTOVER. Not yet. We have not yet demonstrated the effectiveness of our General Headquarters Air Force. We have not yet completed its equipment, its organization, its training.

Mr. FADDIS. It is all in contemplation so far?

General WESTOVER. Yes, sir.

Mr. FADDIS. It is a potentiality?

General WESTOVER. That is my opinion. Another point. If you did have a department of national defense, speaking of the question of responsibility, still I do not believe that the President could cast off his shoulders the responsibility for the action of that Secretary of national defense.

Mr. FADDIS. However, do you not believe this, that it would simplify the work of the Chief Executive in time of an emergency?

General WESTOVER. I would have to predict that it would, without the expenditure of a great deal of money to set up the overhead

necessary, to give him the same sort of advice that is now available to him from the heads of the departments authorized by the Constitution.

Mr. FADDIS. In the ordinary course it would all come down to him anyhow, and he would have that much more expert advice; it would put the matter to him in a much more concrete way in the end.

General WESTOVER. I doubt if it would be more concrete than he now gets it from the two heads of the recognized departments authorized by the Constitution, the Army and the Navy.

Mr. FADDIS. If we were to establish a department of national defense, it would not disturb the unity of command, would it?

General WESTOVER. No; it would complicate the unity of command, that is what I think would happen.

Mr. FADDIS. How?

General WESTOVER. Through the interjection of an additional agency through him must be set up all of the studies and decisions, and so forth—may I illustrate the background for my point of view?

Mr. FADDIS. Yes. I would like to have the point cleared up in my own mind.

General WESTOVER. We spend years in the Army and the Navy in building up the background for war plans; that is, the machinery necessary so that everybody knows his part, everybody knows his position on the team when a certain line of action occurs in time of war. A change in a war plan is a terrific and a tremendous responsibility all the way down through the entire chain of command.

The procedure, the preparation and study of war plans today has been a result of many years of service. It is sound. The same is true of the Navy. To set up another agency separately with its own formulation of war plans, if such have to be tied in with the Navy plans or the Army plans, would make for a very complicated situation, and it would be much simpler to adhere to your present two-headed organization.

Mr. FADDIS. That is not true in carrying out the ordinary affairs of government, because we realize that conditions change. We must necessarily adopt methods of government suited to changing conditions. You people in the Army are more closely charged with national defense than we are, and I should think you would realize that it was necessary for you to do the same. We must adapt our methods of government to conditions as they change. Certainly, the plans as laid down in the War Plans Division must be flexible. If they are not flexible, they are bound to be valueless.

General WESTOVER. That is true. However, as I said before, you are basing the absolute efficiency of that Air Force, that striking Air Force, upon conjecture. You have not had the proof of how it fits in and what it can accomplish. We have all different views on that.

Mr. FADDIS. Pardon me, I am not talking about an independent air corps. I am speaking of a department of national defense. I agree with you so far as the Air Corps is concerned absolutely. But I am talking about a department of national defense.

General WESTOVER. We have set up now the agencies for coordinating the efforts of the Army and Navy. A recent study at the direction of the President, as I recall, found that the agencies set up for that were actually functioning and accomplishing the pur-

pose, and recommended their retention. I have forgotten definitely who made that report to the President; I believe it was Mr. Richberg. That being the case, there are during the course of a year not more than half a dozen times when some major matter requiring a decision comes up. Those two well-established agencies would have to come to the President. In view of that, why is it necessary to set up an extra agency with the extra overhead and expense, when the President himself can coordinate their views on those few occasions.

Mr. FADDIS. We give a commanding general of an Army corps a chief of staff, do we not? The reason we give him a chief of staff is because it is impossible for him personally to attend to all the minor details. This chief of staff assists him, and he has other staff officers. They go there in order to take care of these details. It seems to me that to set up a separate department of national defense would be consistent with the system that we work under now in the command of a division or a corps of the Army. Perhaps I am wrong about it. But it seems to me plain that in carrying out that policy we are only following along the same lines that we follow in the matter of the command of a division or a corps of the Army.

General WESTOVER. I think probably General Moses, when he testifies, will be able to give you additional reasons. For myself, I am not able to advance any more than I have given to you. I have stated about all that I have ever found as a result of the thought that I have given to the matter.

The CHAIRMAN. Very well, sir.

Mr. WILCOX. May I ask this question? The recent agreement of the joint Board on the subject of coast defense from the air in one paragraph says that the primary duty, the primary responsibility of coast defense from the air shall be an Army function.

Later in the agreement there appears a statement which seems to leave the primary duty and responsibility of coast defense in the air to the Navy.

As I read the agreement, it is a victory for both sides, depending on who reads it, as to what the purported agreement means.

Nobody can say it means just the Navy, and the Army men say it leaves it as the Army's duty.

As I read it, I gather this is about the effect of it: The Navy is to patrol the seas to find the enemy and come back and report that to the Army, and then to go out and attack the enemy and destroy the fleet. That is my conception of what it means.

It seems to me if we had a Department of National Defense in which all these agencies are coordinated into one department that troublesome question would be settled immediately. There would be no question about the responsibility of the Air Force in the Department of National Defense, but it seems to me the Department of National Defense could assign to the Navy and to the Army and to the other branches such duties as might be thought necessary to carry out their missions, and could coordinate the activities of the air with the other agencies, just as a commanding general coordinates his field artillery, his cavalry, his infantry, and everything else he has under his command.

It does not mean that the artillery is subservient to the infantry or to the cavalry. They are all under the commanding general, and

he commands the artillery to function in conjunction with the infantry at this point and with the cavalry at this point. It seems to me that coordinating all of these agencies into one department would have the same effect that you would have under a commanding general of troops in the field.

I cannot see why it would not make for better service for all branches, and it would eliminate some of the duplication and overlapping authority we now have between the Army and the Navy, particularly insofar as the missions and functions of the air are concerned.

That is not a question, General; that is an observation.

General WESTOVER. I believe that undoubtedly if you had a Department of National Defense many routine questions would be settled that way. But I still believe that matters of major policy would have to be settled by the President, the Commander in Chief.

Mr. WILCOX. Unquestionably, he would still be Commander in Chief.

General WESTOVER. Take, for instance, an Army command. The chief of staff of that command is not going to settle major questions of policy; that is the commander's function, not the function of the staff officer. He simply recommends.

The CHAIRMAN. He will study the matter and consider it in detail and digest it, so it will be easier for the Commander in Chief. That is the idea of having a secretary of national defense, to get the ideas of the Secretary of the Army, the Secretary of the Navy, and the Secretary of Air, and get the whole thing coordinated, and go to the President with something for him to act on.

General WESTOVER. It would solve many matters in that way if it were finally established.

Mr. COLLINS. As I understand it, General, your testimony at the present time is to the effect that you consider the Army and the Navy of primary importance, and the air as secondary or auxiliary both to the Army and to the Navy in the set-up about which you are telling us.

General WESTOVER. Yes; I believe that to be the case at present. We are still dependent upon ground facilities, upon the earth for our sustenance and maintenance. We have to have places in which to live, all of which can be provided through existing agencies of the Army and the Navy. I believe that the time has not yet come when the Air Corps can demonstrate its fitness to sustain itself and operate independently of other units, in my opinion.

Mr. COLLINS. What is the reason for that? Do you believe that the Army and the Navy are superior weapons for offense and defense to the air?

General WESTOVER. In regard to striking power there are many comparative studies of importance tending to show that under certain circumstances the air power would be much more potent than it is. But I think it would be futile to go into such a comparison.

I think it would be equally futile to say that the air force is entirely dependent upon the Army or the Navy in order to accomplish its mission. But when it is once in the air, its striking power is terrific.

However, the air force, as a mass, is not yet able to operate under all kinds and conditions of weather. We are still going through a

period of individual training. There are many things that have not yet been accomplished.

Mr. MERRITT. If we had a combination of the aviation in the Army and Navy, would it not be in the lead at the present time, and would there be any question about a single department of air or national defense?

General WESTOVER. If the money were made available to complete our program, we would then be able to apply our air training to a demonstration of the power of the air force and then evaluate what would be a proper organization to meet conditions.

If you have not read a book on aerial bombardment by Mr. Royce, who was an assistant to John Bassett Moore when he was participating in the conference at The Hague, I recommend it to you. It is a study of the history of the development of aviation and the influence of that development on international affairs.

The main conclusion of it is this, and it is proven throughout the book, that no nation has ever discovered an offensive weapon that has ever agreed by international agreement to suspend the use of that weapon. Therefore, the advent of aviation and its demonstrated power to accomplish things is today influencing the international picture, and the events of the last few weeks are paralleled by the studies set forth in Mr. Royce's book, and I would commend it to your attention. That will answer many of your questions.

Mr. MERRITT. If you bring our air force up to 100-percent efficiency.

Mr. ROGERS. Whether or not you look at it from the standpoint of the Army or the Navy, it is a generally recognized fact in the Service that the development of aviation is still constantly increasing as a more and more important factor in either defense or offense; is not that so?

General WESTOVER. I agree with you, sir.

Mr. ROGERS. Then we must build up our defense particularly with that fact in mind.

General WESTOVER. That is true.

Mr. SMITH. If you had a separate air branch of national defense, is it not your opinion that you would be better able to get the funds and develop faster than you do as a part of the Army and a part of the Navy?

General WESTOVER. No, sir; I would not say that. There is no reason, in my opinion, why Congress should not carry out a well-studied and well-prepared and well-defined program enacted by Congress as a directive. The Congress having made up its mind to do that, in my opinion, should have gone ahead and completed that task. I think that is the crux of the whole thing, if you will give us the money to complete the equipment.

I have some figures here that might be of interest to you. There effective combat aviation today to 1,144 planes, as against 1,800 condition, on hand with tactical units. In addition, there are about 260 training planes and cargo planes, bringing the total amount of our effective combat aviation today to 1,144 planes, as against 1,800 contemplated several years ago.

Mr. PLUMLEY. You mean 861 Army planes?

General WESTOVER. Yes, sir.

The CHAIRMAN. Were you in Washington in 1926 when the Air Corps Act was passed?

General WESTOVER. I was called here at that time presumably as a witness, but for some reason that I do not know I was not called.

The CHAIRMAN. Were you familiar with the fact that Congress had to take the bit in its own mouth and set up the provisions of that act against the protest of the War Department?

General WESTOVER. I was not aware of the history back of it.

The CHAIRMAN. One of the general officers who testified said that the possibility of the United States ever being attacked by air was a figment of the imagination.

General WESTOVER. I was not aware of the history of it.

The CHAIRMAN. Congress looked forward then further than the War Department, and we realized that that was a very inadequate step, but we did that in the face of the advice of those who are in most responsible positions.

General WESTOVER. I think that was a wonderful piece of legislation, and all I ask, from a personal standpoint, is that you give us the money to carry it out.

The CHAIRMAN. Did you ever read the debates in Congress at the time the Department of the Navy was created?

General WESTOVER. I have read only very limited parts of them, when I have had to refer to them.

The CHAIRMAN. The same arguments were used against the creation of a Department of the Navy that are now used against the creation of a Department of Air.

General WESTOVER. However, the Constitution provided for the establishment of a Navy, and therefore it was logical.

The CHAIRMAN. I thought you had the impression that the Constitution sets up a War Department and a Navy Department.

General WESTOVER. It gives the Congress the power and directive to set up and maintain an Army and to provide a Navy, in sections 12 and 13.

Mr. WILCOX. It gives Congress the power to establish an Army and provide for a Navy.

General WESTOVER. That is correct.

Mr. WILCOX. But it does not name any War Department or Navy Department.

General WESTOVER. No.

The CHAIRMAN. The First Congress set up the War Department, because when we have a war the Navy is in the war as much as the Army is in the war, and it was decided later to separate the Navy. Now, if we decide to separate the Air, we would still be within the Constitution, would we not?

General WESTOVER. I am not enough of a lawyer and student of the Constitution to know whether that is right, but I thought I had better interject the thing that has been in my mind and bring it to your attention.

The CHAIRMAN. Congress meant anything that would fight and keep the enemy off.

General WESTOVER. Yes; they had a ground nucleus for the Navy.

The CHAIRMAN. Fortunately, the instrument was drawn in a broad, comprehensive form that has allowed it to keep abreast of the progress of time.

When we set up the Navy Department we did not have any steel ships or ironclad vessels.

We thank you very much for your statement, General.

STATEMENT OF LOUIS R. INWOOD, WASHINGTON, D. C., EXECUTIVE OFFICER OF THE NATIONAL CODE AUTHORITY FOR COMMERCIAL AVIATION AND REPRESENTING INDEPENDENT AVIATION OPERATORS OF THE UNITED STATES

The CHAIRMAN. Mr. Inwood, will you state your name and your position and whom you represent?

Mr. INWOOD. Louis R. Inwood; executive officer of the National Code Authority for Commercial Aviation. I also represent independent aviation operators of the United States.

The CHAIRMAN. Did you hear General Westover's testimony with reference to the efficiency of certain flying cadets who had had primary training in civilian air schools?

Mr. INWOOD. I did.

The CHAIRMAN. Did you have anything to do with the training of any of those cadets?

Mr. INWOOD. At that time I was associated with an approved commercial aviation school, approved under the Bureau of Air Commerce. We, in company with a number of other schools, submitted those same men for advanced training at Kelly Field. I would like to tell you just briefly how we trained the men we submitted.

The CHAIRMAN. Without going too much into detail.

Mr. INWOOD. Without going into detail, because I realize that your time is short. That particular man that we trained we selected by competition from a number of transport students, and we employed two instructors who had, within 12 months, resigned from the Army and entered civilian life. Those two instructors were from Kelly Field, and we gave our particular man all of the actual training that was then being given at Kelly Field on our commercial planes. We made an extra special effort to see that he was training or being trained in everything he would have to do by these same men. Eighty percent of our instructors usually come from either the Army or the Navy, so we are fairly familiar with their methods.

The commercial schools at that time were very much interested in cooperating with both service branches. We had been having from two to four hundred men each year, and we felt if we could assist the Army, so far as their cost of training was concerned, it would have a good effect and bring us further business.

We made a very determined effort to see that those men met with approval. They did not. We are still faced with the competition of their releasing men to secure jobs in commercial fields. We have never, up to the present time, had the cooperation of the military department. I do not know why. I am an ex-Army officer myself, but I fail to understand why we have not secured that cooperation.

The CHAIRMAN. Are you familiar with the bill providing for the establishment of a junior air reserve?

Mr. INWOOD. I am very familiar with it; I have read it thoroughly.

The CHAIRMAN. That does not involve any expense to the Treasury of the United States, that is worth while. It involves the time

of some Army officers, either Regular Army officers or Reserve Army officers on active duty, to make these inspections and see that the various schools comply with the standard of training that is prescribed by the War Department.

Mr. INWOOD. That is right.

The CHAIRMAN. Tell us whether or not, in your opinion, such a plan would be an encouragement to the private schools of the country who train those young men to fly, and whether or not, being able to fly, they would be certainly potential flyers in the event of an emergency.

Mr. INWOOD. I think it would be of great assistance to the schools of the United States; it would encourage interest in aviation, just as is done in some foreign countries, like Russia, Germany, Poland, and a few others, who are encouraging mass civilian training. It seems to me, without any question of doubt, that a man who can fly an airplane properly, whether he be trained by commerce or by the War Department, is of actual value, and of greater value than a man who cannot fly at all, and can be trained for combat service in much less time than a raw recruit.

The CHAIRMAN. Just like a man who is a good shot with a rifle, like Alvin York, say, stands a better chance in a fight with the enemy than a fellow who might have been drilled at West Point for 4 years.

Mr. INWOOD. Yes, sir. Flying, however, is peculiar in one respect. Say, for instance, you are flying today and you cease flying for 8 months or a year. You are no longer capable of handling that plane without some instruction. In flying, if you have been doing blind flying, and you stop it for a period of 3 months, you become ineffective.

It does seem to me that under those circumstances the mere releasing of reservists and then counting them as a potential reserve in time of war, not giving them any opportunity to fly in the meantime, is like the well-known ostrich, putting one's head in the sand; because while those men may look good on paper, they are not a reserve unless they are allowed to keep up their flying.

It is not in the same category as the infantry or the artillery. I resigned my Reserve commission in 1922, but I can still tell what the third man in the rear rank or the second man in the front rank does upon the command of squads right. But I defy anybody who stays out of the air a year to be able to handle an airplane.

I know personally of several Reserve officers who have lately graduated from Service schools who have done no flying since, and they have told me the reason was due to the lack of equipment. They have told me that they go down to the Reserve base and spend their day down there and have not been able to get into the air at all. They go down two or three more times and there is somebody ahead of them. There is so much more demand for flying than there is equipment that they cannot get the planes in which to fly, and they have to let their flying lapse. They are not Reserves under any circumstances.

As to the value of commercial training, I would like to cite to the committee one other thing. The statement has been made by General Westover that commercial schools are not turning out a product that the military people can use. I can refute that absolutely by

citing three cases, with names and addresses of graduates of commercial schools who, by dint of political influence, have been appointed to the Reserve Corps. This was about 4 years ago, and they were assigned to active duty, and their service records will speak adequately for them, because their service records, with active service in pursuit groups, were very wonderful outstanding records.

I think we are able to train satisfactory pilots. After all, the majority of our instructors come from the same source; they are ex-Army or Navy men.

I do not believe that an appreciation of commercial training is existent at the present time. I can cite the Boeing School on the Pacific coast. Students out there, mind you, have been landing blind, not only flying, but making blind landings out there. I can cite another commercial school, Parks, where they have blind flying, in training commercial pilots, so that they get their S. A. T. R., showing that they are able to fly. Those men are watched every second of the way by the men who direct their flying in the flying schools, and they are a potential reserve in time of war.

You can go back in the history of the last war and count the dead and the equipment that was smashed in Kelly Field no. 1 and Kelly Field no. 2, and a few of the other fields, and you can see the great expansion which is urgent in time of war, and you can see how those men will be helped.

With slight encouragement and with slight cooperation this nucleus of commercial schools throughout the country would eliminate a great many of those deaths and a great deal of the waste of equipment in the future. I think there should be some kind of cooperation and some kind of recognition for commercial aviation.

I hope I have not made myself obnoxious.

Mr. PLUMLEY. In your judgment, what is the cost in dollars and cents to qualify one of the civilians to become an aviator?

Mr. INWOOD. I would say—do you mean a transport pilot?

Mr. PLUMLEY. To so qualify one of the civilians that his service would be available as a Reservist in time of war.

Mr. INWOOD. I would say the average cost of a transport pilot at the present time is around \$3,500.

Mr. MERRITT. The cost to whom?

Mr. INWOOD. To the student, who pays that. That is a 200-hour student. He has to do blind-flying and get experience in cross-country flying, with a certain amount of acrobatics. Of course, if he is to be a war flyer, he would have to have a further course of instruction. You could not count him as a military Reservist. He is a potential military Reservist; and being able to fly blind and being able to find any spot in the United States and fly cross country, and being able to handle a ship, he could be very easily taught military discipline and maneuvers, having that foundation.

Mr. MERRITT. What further training would he have to have to qualify as a military aviator?

Mr. INWOOD. I am not familiar enough with the present military training to state exactly. I think the Air Corps could answer that question a great deal better than I can.

But I do know that civilian pilots have successfully, on very short notice, gone into pursuit groups and given satisfaction, as their service records will prove.

Mr. ROGERS. When?

Mr. INWOOD. That was about 3 years ago. If you would like the name of one man, I can give it to you.

Mr. PLUMLEY. Who was it?

Mr. INWOOD. This one I happen to know, whom I call my friend, is Christy Bryan, a graduate of the Dallas School of Aviation at Dallas, Tex.

Mr. ROGERS. Do you know of any others also?

Mr. INWOOD. I have known of others. I do not happen to recollect their names at the present moment, but I can furnish the committee with a list of them.

Mr. WILCOX. I was interested in your statement that a man who stays out of the air for a considerable period of time is no longer capable of flying a ship, no longer available as a pilot.

Mr. INWOOD. That is right.

Mr. WILCOX. In your opinion is it necessary to keep a man constantly in training, constantly in touch with a ship in order to make him available as a flyer, either commercially or otherwise?

Mr. INWOOD. That is very definitely true.

Mr. WILCOX. In your opinion a man who might be thoroughly and adequately trained as a military aviator, and then transferred to the ground forces for a year or two, would no longer be available as a military aviator, and the cost of his previous training would be only wasted time and money.

Mr. INWOOD. That is absolutely true.

Mr. SHORR. Mr. Chairman, I think this gentleman has given us some very valuable information.

In my opinion, any man who can get into a plane and take it up, fly upside down, and go in tailspins, and make a safe landing, as many of them do round the country at air meets, can give us a good air defense. I have seen men do those things at different places, and particularly in Chicago, where I was more favorably impressed by the maneuvers of men who were civilian fliers than I was by the maneuvers of some of our Army fliers.

The CHAIRMAN. Of course, we all recognize that having learned to do those things with facility in the air, they must then be trained to cooperate.

Mr. SHORR. Certainly. Of course, war is different from a circus, but the fellow who can take up a plane and do those things can be very readily trained as a military aviator.

The CHAIRMAN. He is like the civilian who already has learned to shoot a rifle.

Mr. SHORR. Yes.

Mr. ROGERS. I have this thought in my mind that I would like to clear up: I had a brother who was an aviator in the Army during the World War. I realize, of course, that he would be unfit for service now. But would not a man who had had such training be able to get into shape quicker than a man who had no training at all, under present conditions?

Mr. INWOOD. A man who has had training can undoubtedly get back into shape a little bit faster than a man who has not.

Mr. ROGERS. Only a little bit faster?

Mr. INWOOD. Yes. Aviation is an art that seems to leave one, to a certain extent.

The CHAIRMAN. It would depend on how long he had been unused to flying.

Mr. INWOOD. Yes; but a year will destroy a man's ability to a very considerable extent, and in the case of blind flying, 3 months will do it. That is brought out by the air lines. They find in the case of their commercial air-line pilots that they do not have enough bad weather the year round to keep their men properly in practice, and almost all of the air-line companies employ blind fliers, or fliers flying ships blind to compensate for that lack of practice.

The CHAIRMAN. The committee will have to adjourn now, and we will continue the hearing on this bill next Thursday morning.

(Thereupon the committee adjourned.)

AFTERNOON SESSION

The committee reconvened at 3 p. m., Hon. John J. McSwain (chairman) presiding.

The CHAIRMAN. The committee will resume its session for the further consideration of H. R. 7041 and other bills relating to adequate air power for the defense of the United States. The first witness today will be Brig. Gen. Stanley D. Embick. Will you please come around, General?

STATEMENT OF BRIG. GEN. STANLEY D. EMBICK

General EMBICK. Mr. Chairman and gentlemen, I shall discuss briefly the major organizational feature of this bill. It is that feature that proposes to withdraw the Air Corps from the Army and combine it with civilian aviation in a separate executive department, which would be charged with the responsibility of aerial defense of the United States.

That, of course, is a far-reaching and fundamental change in our organization. It has been, in essence, proposed before; it has been considered by many boards and committees, and they have come to the conclusion that it would not be desirable, in fact, it would be detrimental, to the interests of the United States to create such an organization under the circumstances in which the United States finds itself.

There appear to be two arguments advanced in support of the proposal, as I gather from the discussions of those who believe in the creation of such a department. One of them—and it appears very logical on the surface—is that inasmuch as the air is as different an element from land and water as land and water are different from each other, that element should be controlled by an independent service.

Another way of putting it would be to say that there would be the same strategical difference between air and land operations and air and sea operations as there would be between land and sea operations.

In the interest of greater precision I will read the comments I have on those arguments.

With respect to the analogy between the land and sea forces it should be said that land and naval forces operate in elements which nowhere overlap. The line of demarcation is the coast line. But

throughout its entire extent the element of the air forces overlaps the element of either the land or the naval forces.

Each of the latter forces remains permanently in its peculiar element, and each can attain decisive results in that element, namely, it can gain and maintain exclusive control of its element. On the other hand, an air force can remain in its peculiar element for only a short time; it must rise from and return to the element of one of the other two forces; and it cannot control any element, even its own, except temporarily throughout a limited area. So an air force cannot obtain a decision against troops on the ground, nor occupy territory, nor exercise control of the sea.

The objectives of the land forces are ground objectives; those of the naval forces, sea objectives. But these are also the normal objectives of the air forces, for air fighting is but incidental to their attainment. Thus, there arises the need of coordinating the efforts of land aviation with those of the ground forces, and of sea aviation with those of the sea forces; that is, of establishing unity of command. Otherwise, we shall have in each case two independent forces operating in the same area and against the same objectives.

A land force is not a constituent element of a fleet; nor a naval force of an army. An air force is obviously a constituent element of each of the other two forces. It is also a dependent element, for it must rely upon those forces to protect the areas from which it rises and to which it must return.

The fact that a modern army and a modern fleet must each include an air component, means that that component must be incorporated in and trained with the army or the fleet, for it must function, not independently, but as an integral part of the machine. That knowledge of the military art that will enable it so to function is just as indispensable to the air component as is a knowledge of the technical art of flying.

Now, the other argument is based upon the situation of western European nations. They have local conditions there which find no parallel here. Of course, it is a small area and the countries are contiguous, or nearly so; distances are very short; their armies are well organized, and probably during the early part of the war would be stationed along the frontier, protecting the air bases of the various belligerents. The only operations which would be effective operations initially, may be the ones each country denies they are going to undertake. Perhaps I should not say "effective operations", for I refer to the temptation to use air forces against noncombatants in unprotected cities. Each country disclaims the idea of doing so, but each is very much afraid the other is going to do so, and each groups its own aviation in the hope that the fear of reprisal will restrain other countries from so using their forces. The fears of the people permit no other organization. The efficiency of their entire organization for war has been sacrificed because of this dread.

The opposite is the case with the United States and Japan. Neither has strong possible enemies on her border. Neither can be subjected to a hostile air invasion except as an element of naval or land forces.

As bearing upon this point, we may note the following extracts from the report of the War Department Special Committee on Army Air Corps, dated July 18, 1934, of which the chairman was

the Honorable Newton D. Baker, referred to hereinafter as the Baker committee:

The limitations enumerated above show that the ideas that aviation, acting alone, can control the sea lanes, or defend the coast, or produce decisive results in any other general mission contemplated under our policy are all visionary, as is the idea that a very large and independent air force is necessary to defend our country against air attack.

Contemporaneous writers describe aircraft crossing the seas and bombarding with high explosives and gas our cities, with resulting destruction of the entire population. The committee has had computed the quantity of gases of various kinds necessary for effective concentration on areas of given sizes; those computations show the fallacy of the idea presented. To carry sufficient bombs for such a destructive effect would require aircraft in numbers beyond the ability of any nation to maintain, even if a type of plane capable of crossing the ocean with a military load, attacking, and returning to its base, can be developed. The losses inevitable in such an attack and the practical hopelessness of obtaining compensating benefit would condemn such a plan of operations, even if a government, desirous of gaining favorable world opinion and allies or at least friendly neutrals, would authorize an attack directed not only against the military and civilian populations of the enemy, but also against neutrals residing in the city selected as the objective.

The "air invasion of the United States" and the "air defense of the United States" are conceptions of those who fail adequately to consider the effect of ocean barriers and other limitations. Aircraft in sufficient numbers to threaten serious damage can be brought against us only in conjunction with sea forces or with land forces which must be met by forces identical in nature and equally capable of prolonged effort.

In view of the foregoing, our national policy has been to maintain two distinct services for the national defense, the Army and Navy, with air forces an integral part of each, recognizing said forces as essential and decisive elements.

The following are pertinent extracts from the Annual Report of the Chief of Staff for 1934:

Because of this country's relatively high degree of isolation our own surest defense against powerful and sustained air attack is to deny to an enemy the use of adequate bases, either land or sea, within practicable striking distance of our vital areas. To prevent acquisition of such bases our Army and Navy must be ready to act promptly and efficiently, and each must be properly supported by its own air forces. Thus it is not only our privilege but our wisest course to differentiate our air forces clearly in peacetime, and to insure in each category the special organization, training, and operative doctrine which will make it of maximum efficiency.

For us, therefore, the technical advantages of an independent air force are totally negative. The disadvantages are, on the other hand, numerous and great. Every gain in scientific development has increased organization and other differences between the Army and the Navy and rendered it more unlikely that any group of men could become expert in understanding of both. Operative skill demands specialization. The group of aviators who are to cooperate with land forces, to be truly efficient, must be qualified soldiers, in all that the term implies.

The existing organization is likewise advantageous from the standpoint of economy. In the Military Establishment the Air Corps is furnished quartermaster, medical, signal, ordnance, and other ground services by the same agencies that provide them for the remainder of the Army. But an independent air ministry, to satisfy its requirements in supply, maintenance, and administration would necessarily establish new organizations of these types, with consequent duplication and additional expense. The only alternative would be to make the personnel of existing supply and maintenance services responsible to two separate commanders, Army and air. Resulting confusion and inefficiency would soon render such an expedient intolerable.

Armies have always found it necessary to combat the concept of vertical organization. Each new arm and technical service has in its early phases of development sought and sometimes obtained a status of relative independence, which in the long run has been found to defeat its true purpose. Artillery,

once separately constituted, was later brought into the Army and planted firmly into the infantry-artillery team by the principle of unity of command. The new arm, aviation, must be given the special consideration afforded to young growing agencies, but to an increasing extent it should become an integral and vital element of the organization through which teamwork is insured.

There will undoubtedly be occasions in war when air operations beyond the immediate theaters of land or sea forces will be desirable. Such operations are provided for in the organization of the General Headquarters Air Force. When the program of the War Department is completed this force will insure air superiority in any operations within practical striking distance of our borders. It will provide units suitable to reinforce our fleet aviation in coastal sea lanes or to operate therein under Army command in the absence of the fleet. It will fulfill all the missions of land campaign that could be performed by aviation of a separate department, with insurance that there will be coordination of all elements in a common plan.

From the viewpoint of higher coordination, the soundness of the existing organization has been demonstrated by experience. The President is the Commander in Chief, and as such decides upon the objectives and broad strategy of any war. The War and Navy Departments employ all forces that they respectively control to execute his decision, each in its own sphere.

The specific consolidation proposed by this bill was considered by the Baker Committee. The following are extracts from its report:

ORGANIZATION QUESTIONS

Has the introduction of aviation as an agent of national defense developed any grounds for a revision in our existing national-defense organization? The Committee has carefully studied this question and all associated proposals.

It is convinced of the soundness of our traditional policy of maintaining separate civil and war functions and attributes to a large degree our present world supremacy in civil aviation to our adherence thereto.

The Committee has studied the various considerations and arguments advanced during the last 16 years in behalf of the proposal to concentrate all national-defense aviation under one executive department, i. e., a department of air, or a department of national defense with three separate subdivisions—Army, Navy, and Air. Thorough study and analysis of the various European organizations indicate clearly that they accord with conditions and circumstances peculiar to Europe, but have no general application to the United States or Japan, which maintain their air components as integral parts of their Army and Navy. The possibilities of economy in such a consolidation were explored with conclusions that the existing organization would be less expensive. Joining the foregoing considerations with vital and far-reaching military objections the Committee is convinced that the adoption of any plan along the lines indicated above would be a serious error, jeopardize the security of the Nation in an emergency, and be an unnecessary burden on the taxpayer.

Consideration has also been given to other organizational proposals such as: (1) Consolidating all civil (Federal) and Army aviation functions under one head, Navy aviation to remain separate as a part of the Navy; (2) creation of a Federal commission, permanent in character, to regulate national aviation. The Committee feels that such approaches are merely compromises to accomplish in part the plans indicated in preceding subparagraphs. For reasons already given, it cannot recommend such changes. If the proposal for a permanent Federal commission is limited to civil aviation, the Committee believes there may be a useful field for it, although the Bureau of Air Commerce, Department of Commerce, and the National Advisory Committee for Aeronautics now handle efficiently practically all Federal civil-aviation problems. The Committee realizes that the full development of aviation has not been reached and its possibilities in the future are extensive and appreciates the bold aviation has on the public. However, it does not believe such considerations warrant sacrificing sound national-defense principles and doctrines or placing unnecessary financial burdens.

* * * * *

From 1926 to a few months ago the Air Corps has operated primarily under the direct supervision of an Assistant Secretary of War for Air. This Committee has studied the present situation and that associated with the air-mail

operations and is convinced that the time has arrived for the Air Corps to become in all respects a homogeneous part of the Army, under General Staff control, and be subject to military coordination, study, influence, and operation.

* * * * *

The report of the Baker committee was submitted to the President, and the following was his action thereon:

THE WHITE HOUSE,
Washington, August 31, 1934.

The Honorable the SECRETARY OF WAR:

DEAR MR. SECRETARY: Referring to your recent letter transmitting a copy of the report of the War Department Special Committee on the Army Air Corps, I have gone over the report of this Committee and have considered the subject matter thereof with interest. The Committee's presentation of the many problems involved in its investigation indicates the thoroughness of its work and the wisdom of its conclusions, which I approve as the basis for the future development of the Army Air Forces.

I have been especially impressed with the Committee's specific recommendation for an authoritative "decision which will remove all uncertainty as to the future national-defense position of the Army Air Corps." Our present organization of military aviation is the result of studies made by many boards and committees and of the experience of officers of the Army and Navy. The views of the War Department Special Committee on the Army Air Corps harmonize with those of the Morrow Board on this subject. I am convinced of the soundness of the conclusions of these Committees in this particular, and I request that you take such action as will insure the future development of the Army Air Forces as an integral part of the Army, in accordance with the recommendations submitted by the War Department Special Committee on the Army Air Corps.

Sincerely,

(Signed) FRANKLIN D. ROOSEVELT.

Passing now to one of the specific provisions of the bill, sections 37 to 40, inclusive, would provide for a joint board of the national defense to consist of five officers of the Army, five officers of the Navy, and five officers of the Air Force (with the Secretaries of War, Navy, and Air, respectively, as ex-officio members), to be appointed by the President, to consider and act upon matters relating jointly to the three services, and to report to and operate directly under the President.

The effect of the bill would be to interpose a new and superagency between the President and the responsible heads of the War, Navy, and Air Departments. It would require those heads to share their authority with subordinates who would necessarily be only partially informed and who would have no responsibility for the execution of decisions reached. It would create an organization that would be unsound from either a military or an organizational standpoint; one that in practice would make for indecision, confusion, and delay in administration; and one that would increase instead of lessen the burden falling upon the President as Commander in Chief.

The existing joint board is the logical and an effective agency for the coordination of the military services. It has functioned efficiently for years. It has acted definitively upon all subjects requiring coordination except a few current cases now under study. To replace it by the agency proposed by H. R. 7041 would be distinctly detrimental to the interests of the national defense.

The effect from an organizational standpoint would be to set up a new agency, of course; an agency really superior to the Secretary of War and the Secretary of the Navy, because while they would be members of it, they would be on a parity only with the other mem-

bers who were their subordinates. They would have to share their authority with subordinates, and yet those subordinates would be only partially informed, necessarily, and would have no responsibility for the carrying out of the decisions reached. That, I think, would not be sound organizational practice, from either a military or a civil point of view. I think it would undoubtedly make for indecision and confusion and greater delay in administration.

Mr. MAY. In other words, it would mean you would leave with 18 men the question determined previously by only one man in each Department?

General EMBICK. One man in each Department. Finally, the responsibility rests ultimately upon each Secretary.

Mr. MAY. Which would mean more avenues for controversy and differences.

General EMBICK. Yes, sir; he would be required to refer all matters having a joint bearing to this board. He would therefore not be following his own discretion in the matter. I suppose he would be free in matters of little consequence, but nevertheless, he would have to refer to this committee questions that he might otherwise have settled through conference with the Secretary of the Navy. This would delay matters, and would leave him uncertain as to whether his jurisdiction would permit him to take action when it was referred to the board.

The CHAIRMAN. I beg your pardon, General. You are speaking now of the single Secretary?

General EMBICK. I am speaking now of this proposed joint board of national defense and the last three sections.

The CHAIRMAN. When you say "he", to whom are you referring? The Secretary or President?

General EMBICK. I am suggesting the problem which would confront the Secretary in his administration of affairs. He would be much embarrassed to have to refer to this board, of which he was only one member, questions that he after all would have the responsibility for carrying out any decisions reached thereon.

He would have responsibility without authority.

The CHAIRMAN. What about the joint board existing now, the Joint Army and Navy Board, which has been set up by Executive order as a sort of a provisional makeshift to constitute a bridge, to do the very thing that I am seeking to give a legal existence for?

General EMBICK. Mr. McSwain, the joint board is subordinate to the Secretaries of War and Navy. This new agency would be in effect superior to them, because it would report directly to the President.

The CHAIRMAN. Surely. They are subordinate to the President now, are they not?

General EMBICK. The joint board is subordinate to the Secretary of War and the Secretary of the Navy.

The CHAIRMAN. Yes.

General EMBICK. The new joint board, proposed in this bill, would be above, in an organizational hierarchy, the Secretaries. Whereas now the Secretary of War can approve or disapprove the present joint-board findings.

The CHAIRMAN. Yes, sir; but did I understand you to say a while ago that the heads of these Departments would have to share their

authority and responsibility if this board was set up, with some persons who are subordinate in authority?

General EMBICK. Yes.

The CHAIRMAN. And perhaps possessed of only a partial knowledge of the situation?

General EMBICK. Yes, sir.

The CHAIRMAN. And yet would have as much share in the decision as would the head of the Department himself?

General EMBICK. Yes, sir.

The CHAIRMAN. Now, just right here—and I do not mind this going on the record—do you not know that the heads of departments, who come in for 4 years, hardly have time enough to find out what it is all about, anyway, and they ought to have that information and knowledge that you officers have acquired through a whole lot of study of these very problems, and we are seeking now to have that set-up as a legal body.

General EMBICK. Yes, sir. Now they can get that information through the organization as set-up.

The CHAIRMAN. Each man gets the views of his organization. The Secretary of War gets the views of the War Department personnel, and the Secretary of the Navy gets the views of that Department. Their views are antagonistic, we will say, in effect at least. It seems that there is an unfortunate rivalry, and perhaps jealousy, which has arisen from time to time, and I can understand it, and it is not unnatural. Members of respective committee of Congress have a jealousy among themselves as to jurisdiction.

General EMBICK. Yes, sir.

The CHAIRMAN. And sometimes there is very considerable battle over jurisdiction. We have got an umpire on that, to whom we have to appeal immediately, the Speaker, and the House, of course, can overrule the Speaker. But in this case of diversity of opinion and authority as between the departments, overlapping functions, and so forth, why, the only appeal, of course, is to the President.

General EMBICK. Yes, sir.

The CHAIRMAN. The President is a very busy man, elected usually upon other issues. He is constitutionally the Commander in Chief of the fighting forces. If there is an issue, why, it has to come through one or both the Secretaries to his ear, and cannot get to his ear otherwise. If both of them bring their complaints, he has either got to let the thing remain undecided, or decide adversely to one or the other. If he decides in favor of one, the other feels that he has been overruled, and he is handing in his resignation, probably, and there you have a Cabinet crisis, which every President desires to avoid if possible.

Now, it seems to me we can have an orderly, legal machine, to which we lawyers are so accustomed, submitting our claims and contentions to it, and if they cannot agree, pass it on up to the President with a brief prepared by the majority and a brief prepared by the minority, and lay it on the President's desk. Then he does not overrule Mr. Secretary So-and so, but he overrules the majority of the Board, and it is no reflection upon either Secretary. And whichever Secretary's Department may be ruled against, why, he just takes it as a part of the game, as a good sport, and goes right on without any whimper.

It is like when we, here in Congress, are voted down; why, we do not kick up a fuss about it. We say, "It is all a part of the game."

There is back in my mind, and it seems to me that this bill, General, is the inevitable, logical outcome of two facts: First, the Joint Army and Navy Board, which was set up because of the very conditions which we have been describing, to seek to iron out, by mutual discussion and negotiations whatever difference might arise; and, secondly, the regulations of the Federal Aviation Commission, with the idea of solving these problems as quickly as possible.

Of course, it does not propose what machinery should be used. I take the argument which it makes, and I take the machinery which the joint board has suggested, and put the two together into a legal machine.

General EMBICK. I do not believe it will function satisfactorily. I am satisfied that it would not; that it would create an impossible problem in administration.

The CHAIRMAN. Let me follow that up. Assuming that your argument is true, as long as we have two departments, I mean. If we should have three, however, would there not be greater need for it?

General EMBICK. That, of course, is the problem of the single department of national defense.

The CHAIRMAN. In effect, it is.

General EMBICK. I can understand how that is an appealing idea, when one thinks of it from the standpoint of a peace-time agency. There is much appeal in it. However, there are objections even from the peace-time standpoint.

Those objections are that under such an agency in time of peace, from an administrative standpoint, there would arise questions of just where you would put the military advisors in the hierarchy; what their positions under the Secretary would be. You should have that allocation of positions, as in any efficient organization, that would give each a measure of authority that is commensurate with the measure of responsibility.

I would say, nevertheless, those peacetime objections are very minor compared with the grave objections to a department of national defense in war.

We had a vast experience in the necessary evolution of governmental structures in modern war, during the course of the World War. It is a most interesting subject, if you gentlemen have not gone into it, to see what occurred as the result of grueling necessity.

It came to my attention during the World War very pointedly, because I happened to be a member of the staff of General Bliss, serving on the supreme war council at Versailles, and saw those governments functioning in concert, both in the theater of operations and the zone of the interior.

Those governments all entered the war with different governmental set-ups, but they modified them from time to time in accordance with necessity, and it is quite striking that by the close of the war they were all assuming essentially the same forms in their governmental set-ups.

Their peacetime machinery was abandoned, and they had new structures, new agencies, which cut across the lines of the old ones, and were regrouped.

I think there was pending, just as you remember occurred with us, the creation of a committee, or still better, one boiled down to one man, as an industrial director at home. But nowhere was a new agency interposed between the Prime Minister and his naval and military advisers. The Prime Minister was the final authority. It has to be so. In a war in which the life of a nation is at stake, there can only be one man finally responsible, and he must act upon his own understanding and be responsible for the general direction of military and naval operations, each in its own sphere. Such operations are usually not joint tactical operations conducted in close physical contact, but they have to be coordinated strategically though conducted at a distance from each other.

So, the head of the state must get direct military and naval advice, for he must pass upon the relative importance of the various suggested kinds of operations, and see whether each is in accordance with the state policy which expresses the national objectives in the war. He alone can decide that they should not occur if they are contrary to national objectives.

Those problems came up all the time, particularly in 1918, at Versailles.

The CHAIRMAN. I agree with your premise entirely, general, and it seems to me that the objective sought by this bill is to respond to that very state of affairs, because under our Constitution nobody can be the Commander in Chief but the President.

General EMBICK. He must be.

The CHAIRMAN. Yes, sir.

General EMBICK. Exactly.

The CHAIRMAN. All right. Now we know, as you say, that Clemenceau in France, and Lloyd George in England, took such charge.

General EMBICK. Yes, sir.

The CHAIRMAN. And they just told the admirals what to do and where to go.

General EMBICK. They did not wholly do that, Mr. Chairman. They did what they had to do.

Mr. Lloyd George, of course, had constantly to decide questions of a strategic nature. Decisions had to be made as to building up forces in the secondary theaters as compared with building them up on the West Front. Each theater had to be considered with regard to the requirements of the Western Front.

The CHAIRMAN. You say the President of the United States must do that in this country?

General EMBICK. Yes, sir.

The CHAIRMAN. Very good. Now, you say that the result of the war experience was to show that some civil, responsible, single head must be held accountable for the war period.

General EMBICK. Yes, sir.

The CHAIRMAN. Who was that in Great Britain?

General EMBICK. Lloyd George.

The CHAIRMAN. That is to say—

General EMBICK. He was the Prime Minister. If we conceive of the President of the United States as the Minister of National Defense—and he is logically—then we may say we now have a department of national defense, and we may say that all the countries during the World War had departments of national defense. That

is in effect what they were. The Prime Ministers were the heads of the departments of national defense, and my thought is that in the next great conflict, if, unfortunately, we have another war of that magnitude and character, the final set-up would include substantially three different superagencies grouped directly under the President. One would be the president of a war industries board, who would control at home procurement and production. Another would be the military head of the Army, and another the military head of the Navy, and if you had a separate air force, the military head of the Air Force. Each in respect to operations would have direct relations with the President. No machinery could be interposed between the military and naval heads and the President. It is the highest responsibility he would hold, and he must gather information from the very best authority.

The CHAIRMAN. All right. The President, we will say, has been at least, I should say 75 percent of the time, a man elected on purely economic questions.

General EMBICK. Yes, sir.

The CHAIRMAN. We have been so free from war, and from the involvements of the threat of frequent war, that fortunately our country has not been required to consider those qualifications in the selection of a president.

Now, you say that in the stress of war, the Secretary of War himself, the civilian head of the Army, would be swept aside in favor of the supreme military commander.

General EMBICK. In respect to actual operations, that would happen. Pardon me, may I illustrate that?

The CHAIRMAN. Certainly.

General EMBICK. For instance, that was done in England. Lord Derby continued as War Minister, but his activities were largely confined to procurement of men, materials, and so forth.

The CHAIRMAN. We understand each other on that. I mean that when it comes to some particular strategic movements.

General EMBICK. The strategic direction of the war.

The CHAIRMAN. Exactly. Suppose the supreme naval command and the supreme Army command differ, the President interposes.

General EMBICK. He has to decide, and nobody can decide for him.

The CHAIRMAN. Get dice and toss them up?

General EMBICK. No; he weighs arguments. I think a good example of the other method was the Dardanelles campaign. Mr. Churchill was insistent in carrying through the idea and making the decision for the Prime Minister, and the outcome was disastrous, as you would expect.

The CHAIRMAN. I want to interject at this point. How much better it would be, in the event of a crisis, to have this secretary of national defense, who has been giving these matters his consideration, certainly since he became secretary of national defense. Were such a responsibility to be thrust upon a single man, he would be chosen by the President, and if not chosen by the President for his qualifications, the Senate in confirming him would have to check up on it, and he should be a man of sufficiently broad information as to history at least, and his knowledge of general military matters,

strategical considerations, and so forth, to be able to begin study of these problems as soon as he comes in office.

Now then, we will say that we are thrust into the midst of war 2 years after this secretary of national defense assumes office. The President has been busy trying to overcome grave economic problems, trying to pull us out of this trouble and that trouble in an economic way. All of a sudden war comes upon us. The supreme military and supreme naval commanders give different advice as to the policy of our defenses, and so forth.

Would it not be a great help in the cause of that national defense for the President to be able to turn to one man and say, "You have been giving this thing consideration certainly for 2 years. That has been your official responsibility, to consider broad matters, not just little details about whether this particular Army officer shall go to the War College or this particular Navy Officer shall go to the Naval College, or some other petty matter like that." But he will be considering broad questions growing out of his study of war plans for defense. He can say, "Mr. President, I have been thinking about that. I have been studying about that for at least 2 years. It seems to me, as a result of my experience, that General So-and-so is right, or Admiral So-and-so is right. You ought to give an order now that such-and-such a thing shall be done."

It seems to me that that would make for promptness, for efficacy, and be of very great assistance to the President. It seems to me that any President would want that.

General EMBICK. I do not believe you would, Mr. McSwain, if President, under such circumstances. Those are the most important decisions you, as President, would have to make. The industrial problems could wait. War operations do not wait, as you know. The most important decisions you would have to make as President would be those very decisions in which there is a conflict of opinion between the Army and Navy as to strategic operations. They were coming up all the time during the war. The Army wanted the Navy to do thus and so to help them out, and the Navy wanted the Army to do thus and so to help them out. For example, the British Navy wanted the Army to undertake certain operations along the Flemish coast. Such a question had to be taken directly to Lloyd George. The Italians had the same problems; they had to go up to Orlando, and he had to make the decision. Nobody could make it for him. They were the most important things he had to do. An operation that may be suggested by the Navy initially, because from their point of view it is desirable, may reach the stage where it becomes of less Naval interest and predominantly an Army matter. The Palestine operations were of that kind. Decisions must be made.

The CHAIRMAN. That is right; I agree with you that decisions must be made, but it seems to me that the man who has been studying the problem in a general way is better prepared to make the decision than the man who has been busy at something else. That is why I thought you gentlemen go to the Army War College and then get on the General Staff, to study war plans, and things like that, because it enlightens your mind and enables you to make decisions.

General EMBICK. Yes.

The CHAIRMAN. If study is not of some benefit, why study at all? General EMBICK. The problem for the President is not a technical military problem. He gets his military advice directly from the military heads. Shall the man who digests that advice and finally reaches a conclusion be some other one than the President himself?

He must inform himself. I do not believe anybody can do it for him. I believe that if we have a secretary of national defense and he solves those problems for us, he has taken over the most important duties of the President, and the President has abdicated the greatest of his responsibilities. I fully believe that.

The CHAIRMAN. I will not interrupt more; excuse me.

Mr. MAY. If I understand the general's position, he is trying to stress the fact that if we had three branches of an organization, one naval-minded, one army-minded, and one air-minded, we ought not to set up a single head between those three activities and the President?

General EMBICK. Yes.

Mr. MAY. But that the President ought to contact the real man at the head of those branches of the service and in conference with those three arrive at what he ought to do, based upon the information he gets from them?

General EMBICK. Yes.

Mr. MAY. The idea that the Secretary of War, the Secretary of the Navy, and the secretary of national defense would be at the head of three committees of five each, that there would be opportunity for conference and argument, might lead to forced conclusions that might not be exactly what the President would want in the end? Is that the idea?

General EMBICK. Yes; I think that is right, if I understand you correctly.

The CHAIRMAN. General, do you have some more of your general statement?

General EMBICK. No; thank you.

Mr. FADDIS. General, your idea then is this, that if we should establish a secretary of national defense, the only way the matter could ever be handled in a satisfactory manner would be to leave the entire responsibility up to him. Of course, we could not do that under our present Constitution.

General EMBICK. I think we would eliminate him when war came. I think we would be forced to.

Mr. FADDIS. Supposing he were to function during wartime, if he were really to function he would have to have all responsibility on himself, and we could not do that under our present Constitution, could we?

General EMBICK. He would assume a responsibility that the President should bear, so that in effect the President would have abdicated his power and responsibility.

The CHAIRMAN. Are there any other questions? If not, thank you very much indeed, General.

STATEMENT OF ANDREW MOSES, BRIGADIER GENERAL, WAR DEPARTMENT, GENERAL STAFF

The CHAIRMAN. General Moses, would you care to make a statement at this time?

General MOSES. I will make just a very brief one.

I am the head of the Personnel Division, G-1.

General Embick has covered the general phase of the proposed separation of the Army Air Corps and putting it under a new department there. I have this statement here, part of which I have taken from the report of the Chief of Staff for 1934, merely giving the general outline of what the War Department is trying to do.

The possession of a strong and highly efficient Air Corps is indispensable to an army's success in war. In every inquiry into such questions as Air Corps organization, strength, training, and employment this fact must always be borne in mind.

For two reasons the ratio of the peace strength of the Air Corps as compared to its required mobilization strength should be higher than the admissible minimum in certain other portions of the military establishment. The first of these involves the possibility that, simultaneously with the beginning of an emergency, air elements may be called upon to engage in heavy fighting. The second is that, like the Navy, the power of an air force is expressed in terms of equipment which, because of its intricacy, requires a considerable time for its production, and which under no conditions can be efficiently improvised. These considerations explain the extraordinary concern of the War Department as to the peacetime strength, efficiency, and readiness for emergency of the Army Air Corps.

Efforts toward its further development and thorough modernization have been continuous ever since there was confided to the Chief of Staff, in July 1933, responsibility for supervision over the military phases of Air Corps development. Prior to that time this responsibility was centered exclusively in a civilian Assistant Secretary of War. Immediately following this change in higher control, a War Department board, of which one of the members was the Chief of the Air Corps, was convened to study the Army's needs in aviation. Exhaustive analysis resulted in certain definite recommendations for building up this arm to a satisfactory level. Of these recommendations the most important proposed an immediate increase in strength, primarily to establish a G. H. Q. Air Force. Under the plan this unit would, both in organization and mission, occupy an independent status under its own Air Corps commander, subject only to the authority of the military head of the Army.

During the past year two additional important agencies have studied the subject of aviation, both military and civil, in the United States. These were the Federal Aviation Committee, the Honorable Clark Howell, of Atlanta, Ga., chairman; and the Special Committee on Army Air Corps, whose chairman was the Honorable Newton D. Baker, former Secretary of War.

Mr. Howell's commission was primarily concerned with civil aviation. It did, however, arrive at certain conclusions with respect to military aviation. Its conclusions and recommendations on subjects

it considered with respect to military aviation are consistent with the findings of Mr. Baker's special committee.

Mr. Baker's special committee sat for 3 months. It had available for its consideration the records of 14 different groups that had studied the subject of military aviation and its role in the national defense. This committee heard 105 witnesses, whose testimony is recorded in the 4,283 pages of its record. Every important department and agency using aircraft furnished witnesses.

The report of the committee covers the entire field of military aviation. Its recommendations form the bases for the War Department policies respecting the Army Air Corps. It will require time and appropriations to reach all the objectives set up by the committee. However, the War Department has organized the G. H. Q. Air Force; it has provided temporary promotions for Air Corps officers in accordance with the provisions of the act of July 2, 1926, in order to fill the important command and staff positions in the G. H. Q. Air Force and other Air Corps agencies; it has set up tables of organization for that force; it has initiated a system of administration and supply that will free commanders of tactical units from consideration of nontactical functions; it has initiated studies whose objective is to assure instant readiness for war of all Air Corps units.

The War Department is trying to develop under this, following the recommendations of the Baker committee, under the direction of the President, the Army Air Corps in every possible way as an integral part of the Army. It will take time to do it.

I personally was very much impressed with the statement in the conclusions of Mr. Baker's committee which I think stated to the effect that "please let this alone now for 10 years, and let us get somewhere." That is my own language, but that is what I thought. That appeals to me as the best way to promote the efficiency and the development of the Army Air Corps as an integral part of the Army. The War Department must develop the Army Air Force as an integral part of the Army under the directive of the President.

The CHAIRMAN. General, you were not in Washington in 1926 on the General Staff, were you?

General MOSES. No, sir; I was not here. I was in Hawaii.

The CHAIRMAN. That was the same argument that was made to us in 1926 by General Drum, who I think then was G-1 on the General Staff, was he not?

General MOSES. I think he was G-3, sir, operations and training.

The CHAIRMAN. He was the voice of the War Department, largely, and he is a very brilliant officer, as you know.

General MOSES. Yes; I know.

The CHAIRMAN. Very persuasive. That was in effect the attitude of the War Department generally, and particularly voiced by him. The Congress went ahead on the thought the War Department look a little further, and I think now the War Department agrees that the Congress was wise. None of us gainsay the fact, and I think it is very proper that the War Department should be a balance wheel of conservatism, so that we should not go too far and run away from the tracks of experience. For that reason we all value very highly the well-reasoned opinions of you gentlemen who devote your whole thought to the study of these problems.

I want to ask you this, if it is proper:

Is the annual report of the Chief of Staff submitted to the General Staff for study and consultation and advice before it is filed with the Secretary of War?

General MOSES. Each Chief of Division is called upon to submit a report concerning the function of his division and the subjects he thinks should be covered in the report. Like all reports submitted by a subordinate to a superior, they are subject to approval or disapproval or modification, and the Chief of Staff is responsible to the Secretary of War and to the President.

The CHAIRMAN. After the Chief of Staff has gotten these contributions of the subordinate members of the Staff, put them together and taken what he wanted and rejected what he did not want, as a whole is it submitted to the Staff for review?

General MOSES. No; I cannot say that that is done. It is submitted to the Secretary of War as his recommendation. It is bound to be in the final analysis his own decision. I desire to add that the reports of the present Chief of Staff are his and his alone. The reports are not supposed to be a compendium of opinions of the General Staff or of any other group. It is his own work, his own opinions, his own phraseology, and the responsibility is his and his alone.

The CHAIRMAN. General, is it proper for you to say why it was that the findings and conclusions of the Drum Board, that were made in the summer and fall of 1933, were held confidential?

General MOSES. Mr. McSwain, I do not know. (Immediately after the hearing General Moses informed Chairman McSwain of the confidential matter in the Drum Board report.) There was another board appointed, the Baker Board.

The CHAIRMAN. That was a year later. The Baker Board was appointed a year later, and the Baker Board quoted page after page of the Drum Board's findings. When we first heard of the Drum Board, even of its existence, we were told it was confidential. They sent it down to me at my request and told me that I must hold it confidential. I sent it back and said, "I cannot keep anything confidential. It has to be for the whole committee or nobody at all." I would not read a line of it, since it was sent to me personally in confidence.

Now they come in and in support of the findings of the Baker Board quote page after page of the Drum Board's findings and publish it to the world. I am just wondering if the same intellectual forces that dominated the Drum Board also dominated the Baker Board.

General MOSES. I do not believe anybody could dominate that board or Mr. Baker, I have such an outstanding respect for Mr. Baker.

The CHAIRMAN. I know Mr. Baker, too, pretty well.

General MOSES. Speaking from the viewpoint of pure intellect, I think he is one of the most intellectual men I ever had the pleasure of hearing talk. I do not believe anybody can dominate him. I believe he would be glad to listen, but I do not believe that anybody can dominate him on a question of intellectual decision.

The CHAIRMAN. Nobody dominated Jimmy Doolittle, either?

General MOSES. No; not a bit.

The CHAIRMAN. He was a civilian, like Mr. Baker?

General MOSES. I think they were about half and half civilians and military men.

The CHAIRMAN. Most everybody that was on the Baker Board outside of Mr. Baker and Jimmy Doolittle were the same officers that constituted the Drum Board.

General MOSES. No; I think the report will show who signed it.

The Baker Board was composed of Newton D. Baker, H. A. Drum, Karl T. Compton, George W. Lewis, C. E. Kilbourne, George S. Simonds, James H. Doolittle, Edgar S. Gorrell, J. W. Gulick, Benjamin D. Foulois, Clarence D. Chamberlin, and Albert E. Brown, recorder. He had no vote in it.

The civilians on that Board were Chamberlin, Gorrell, Doolittle, Lewis, Compton, and Baker. So there were five military men and six civilians on it.

The CHAIRMAN. General, the Drum Board in the early fall of 1933—I think it was in October—when they filed their report—that came out later, in 1934—but in October 1933 they had filed a report in which they recommended the G. H. Q.—

General MOSES. The Drum Board?

The CHAIRMAN. That was certainly a great step in the right direction, in my humble opinion.

General MOSES. I think so.

The CHAIRMAN. The Chief of Staff report for the year 1933 did not say a word about any G. H. Q. Air Force, but said, as a matter of fact, that to further extend our monetary contributions and our personnel contributions to increase the air power would be folly. I think that is the very word that was used, "folly." That we had already gone to a greater extent in contributions to the Air Force than every other nation, that our contribution was one-fifth as against other nations' one-seventh, and therefore we ought not go any further.

When this committee began to have hearings and dug into the matter in the early spring of 1934, we were told, "The Drum Board has already recommended an increase in Air Force and concentration of the air power so as to constitute a G. H. Q." We were mighty glad to hear it; we wish it well, and we are going to put everything we can behind it. But we think we ought to go a little further than that—some of us do; I do not know how the other members of the committee feel—and give this G. H. Q. Air Force a real legal entity, and a real, definite, independent power to act in the matter of national defense. But that is a fact; the report of the Chief of Staff never said a word about any G. H. Q. Air Force when it was filed for the year 1933.

General MOSES. I do not have that report here. I could not say whether it did or not but I will cover this point in an added statement for the record. But I do think this, that the Morrow Board made certain recommendations, but due to the lack of appropriations all could not be carried out and the Congress passed the act of 1926, I think, based largely on the Morrow Board's recommendations. They were to add a certain number of officers and enlisted men. In fact, the authorized strength of officers as reduced by the act of 1922 was 12,000. The act of 1926 increased it by 403 to increase the Air Force. The Morrow Board proposed legislation

to provide 1,800 planes. The enlisted men were gotten by skeletonizing or making inactive various units of artillery, cavalry, and infantry, to the detriment of a balanced force, to get the enlisted men under a 5-year program. The Congress did not see fit to provide funds to increase the officers and limited them by appropriations to 12,000. We never got our officers that were contemplated by the Congress at that time, due to the failure to give money for them. The only way you could get them was to take them away from some other arm that was already down to the minimum requirements. They were all hard up. We had to rob Peter to pay Paul to get the enlisted men. But the War Department did try to carry that out. We never got the 1,800 planes, not because we did not want them but because the money was not provided to get them.

The reason for the Drum Board, as I understand it, Mr. McSwain, was that for the first time the control of the development of the military phase of the Air Corps came under the control of the Chief of Staff in July 1933. The Air Corps had been handled by the other set-up by the Chief of Air Corps and the Assistant Secretary of War for Aviation. At that time, July 1933, it was put under the Chief of Staff to develop its military phases, and the procurement, as I understand it, went to the Assistant Secretary of War. The Chief of Staff convened this Drum Board to take stock to see what should be done. They made their recommendation, and they were not idle in trying to devise ways and means to find out how they could put it into effect, what would be necessary. It was a matter of some study.

The matter was of such importance—I am giving my own impression—that the Secretary of War desired to have a board composed not only of military men but of civilians who felt that they could contribute to the cause.

The Baker Board was convened and had before it the work of the Drum Board and 14 previous boards. The Drum Board had all before that. All these various boards had met, that are set down with the historical background in the Baker Board report. It shows that the conclusions of all these boards, just like everything else, are a matter of evolution. They had the benefit of the investigations of previous boards. The Baker Board, with all these in front of it, the Drum Board, the Morrow Board and all the others, was thus helped to arrive at the conclusions that they did.

The CHAIRMAN. You know why the Baker Board was set up, do you not, General? That was set up to appease the public feeling resulting from the casualties resulting from the carrying of the air mail by the Air Corps.

General MOSES. Yes. It was convened to study operations of the Army Air Corps.

The CHAIRMAN. The Drum Board had been erected in 1933, and made a study and made its report to the Secretary of War, the Chief of Staff, or somebody, and the report was locked up and held confidential. Nobody would have known anything about it, it seems to me. We began to have hearings here in 1934 on the matter of increasing air power, as the result of a bill or two that I had introduced. We were told, "The Drum Board has considered that. The Drum Board has recommended so-and-so." I said, "Where is the report?" I asked for it, and it was sent down in confidence. I was

happy to find out what it recommended, but as I said, the country or the Congress ought to have had that in the report of the Chief of Staff or the Secretary of War for 1933. If we had had it, probably we would have saved a year of time now in the matter of legislation that would make it really effective.

I have made all the observations I should like to make, General. I hope you will excuse me.

General MOSES. I would like to state that the Chief of Staff, under the Secretary, is doing everything in his power to put into effect the recommendations of this Baker Board. They have set up the G. H. Q. air force. It is an independent striking force. I am not an air officer, but nobody has a greater appreciation of the importance of the air in the next war or any war. It is absolutely indispensable for the success of any army or the navy. But I think that a great stride is being made by the Chief of Staff and the Secretary of War since what I believe was an erroneous set-up for the development of the Army Air Corps, headed up by the Assistant Secretary of War for Air and the Chief of Air Corps. They have now been put under the Chief of Staff. The result is that the G. H. Q. Air Force was organized. I think we are making great strides and will continue to do so if the G. H. Q. Air Force is allowed to develop. It can do everything that could be done under an independent air corps with its own secretary and all that. I do not see how they can do so well. They have the inestimable benefit of having the Army take care of their fields, supplying all of those services that they would have to set up themselves if they were separated. From the standpoint of economy and efficiency, it seems to me we are far better off with this G. H. Q. Air Force.

What we need is money to develop it, and give us a little time, and it is my firm belief that it will answer the prayers of everybody to make the Air Corps the best service possible for the national defense.

Investigation subsequent to my statement before the committee discloses that some of the statements and inferences that the chairman has made in this hearing have no basis in fact, and, in their inferences, present an untrue and distorted picture. I can only protest the attitude of the chairman and challenge his statements, which I do.

The chairman is entirely in error regarding the sequence of events with reference to the report of the Chief of Staff for the fiscal year 1933. These are the facts in the case:

The Drum Board did not make its report until late in 1933 after Congress had adjourned, and its report was made available to Mr. McSwain immediately on his request when the new session of Congress convened. Only those parts were held confidential by the War Department that disclosed war plans and war data, and even those were revealed to Mr. McSwain for executive session use. There is no basis for his statement that originally the Chief of Staff had been silent on the subject of the G. H. Q. Air Force, because reference to that force was not included in his annual report for 1933. The chairman apparently forgot that this report covered the period of the fiscal, not the calendar, year and, therefore, in-

cluded only the period terminating June 30, 1933, before the Air Corps passed to the control of the Chief of Staff, and when it was still a responsibility of the Assistant Secretary of War for Aviation. But even in this report on pages 31 and 32, General MacArthur in discussing "future trends in organization, training, and equipment of the Army" sounded the clear call for a G. H. Q. Air Force. He said:

There is, of course, no question as to the tremendous influence that the airplane will exert upon warfare of the future. * * * That portion of the Army Air Corps classed as its fighting element is maintained as a separate, and, in war, a concentrated unit constantly available for concerted action on missions connected directly with the Army's principal objective, on those of a more or less independent character, and even on those where its cooperative action with the naval forces might be indicated.

And on page 19 he recommended, among other items for immediate procurement beyond those provided in the Army appropriation bill, \$39,000,000 for aircraft and \$45,000,000 for technical construction for the Air Corps, a total of \$84,000,000 for such a force. Shortly after this report the Chief of Staff, in the summer of 1933, was placed in control of the Air Corps, and immediately vivified his conception of the General Headquarters Air Force. He convened the Drum Board, and, based on its report, had prepared a bill authorizing a General Headquarters Air Force and making provision for additional planes and equipment. He promptly appeared before the House Military Affairs Committee and earnestly advocated its adoption. The session of Congress which began late in 1933 and extended to the summer of 1934 terminated with no constructive action on this subject. On General MacArthur's recommendation, the Baker Board was then convened by the Secretary of War, which supported the general's conception of a General Headquarters Air Force. General MacArthur then, without special congressional authorization, but with the approval of Secretary of War Dern and President Roosevelt, actually created the General Headquarters Air Force with such planes as were available. All this took place in the fiscal years 1934 and 1935 and will be found covered in the annual reports for those years.

The CHAIRMAN. Are there any questions? Thank you very much, General.

I want the record to show that I am informed that there were certain portions, not the entire Drum Board report, but certain portions that the War Department thought in the interest of extreme precautions should not be published, which is entirely proper. Having never read it myself, I could not know of those things.

Whom would you suggest next, General Moses, to be heard from the War Department?

General MOSES. There is one of the bills, Mr. McSwain, that is on separate promotion; H. R. 4351.

The CHAIRMAN. Yes.

General MOSES. Would you wish to discuss that, sir? I have here Colonel Peyton, of the General Staff. I would suggest that he be heard.

**STATEMENT OF P. B. PEYTON, COLONEL, GENERAL STAFF,
UNITED STATES ARMY**

The CHAIRMAN. We are considering the bill H. R. 4351, a proposal to set up a separate promotion list for the Air Corps. Is that it, Colonel?

Colonel PEYTON. Yes.

The CHAIRMAN. Will you please proceed, Colonel?

Colonel PEYTON. I would like to say at the start that a promotion system is designed to accomplish three things:

First, to correct any existing conditions that adversely affect promotion.

Second, to set up a system that looks to the future, which I think is a most important thing.

Third, to set up a system that is economical.

We have analyzed H. R. 4351 by sections, and I think it will save time if we follow that outline.

The first section hardly needs any discussion because it simply separates the present Air Corps from the existing promotion list and sets them off by themselves. It has the usual provision in it that when an officer is court-martialed or where his number on that list is changed by law, a corresponding change as the result of court martial or change in law will be made on the promotion list.

The second section of the bill prescribes rates and limits of promotion, and these are important for us to consider because they are very far-reaching.

First of all, it sets up the number of colonels, from 4 to 6 percent of the 1,650 authorized for the Air Corps, and they must have had a commissioned service of 26 years. The number of lieutenant colonels is from 5 to 8 percent, commissioned service 20 years; major, 17 to 26 percent, commissioned service 12 years; an unlimited number of captains of the remainder, who must have 7 years' service; and the first lieutenants, 3 years.

In considering what will happen in case this bill is enacted into law, it seems to us well to compare its provisions with the actual set-up under the organization of the G. H. Q. Air Force and the promotions that have resulted therefrom.

Due to the time limit required in each grade, the full effect of this bill could not be felt until 1938, because officers in the Air Corps in sufficient number would not have the length of service required by this provision. For example, in 1935 there would be only 66 colonels eligible by length of service for promotion to that grade, whereas in 1938, 99, the full 6 percent, would be eligible for promotion.

We may compare that figure with the number of colonels that have actually resulted from the set-up of the G. H. Q. Air Force and other Air Corps agencies, which is 18. We do not believe they are all the colonels the Air Corps is entitled to or will use, but that is the present figure, 18.

We may compare the number of lieutenant colonels. This bill sets up 132, whereas the G. H. Q. Air Force set-up is 55. It sets up 429 majors, whereas the temporary rank and permanent rank in that grade amounts now to 207.

So this comparison is valuable for two reasons:

First, it points out the unbalance in the field grades that will result if the bill is enacted into law, and the possibility of the embarrassment of the Air Corps on account of the fact that it needs all of its officers but it needs fewer in the high grades.

Then when you set up an Air Corps as this bill does, the average age of all officers in the field grades under this bill will be 42 years and 7 months on the 1st of July this year. That is, field officers, majors, lieutenant colonels, and colonels. That has a very marked effect on promotion progress in the Air Corps in the future, if this be done. I will try to explain briefly just why that is so.

Let us take the effect, for instance, right today, of the age of officers of the grade of colonel on our present promotion list. In 10 years all except 10 or 15 of our present colonels on the present promotion list will go out on account of age. That does not account for anybody on account of deaths or disabilities. I mean if they all live and stay on the active list, all but 10 or 15 of them will go out of our present promotion list.

If you enact this bill into law and you provide 99 colonels, in 10 years with a separate Air Corps about 10 will go out on account of age, so you still have 89 of them left. In other words, in the higher grades you will have such a large proportion of relatively young officers that unless you provide some means of attrition, stagnation in the grade of captain is going to result.

Compare the progress of an officer under the so-called MacArthur bill, or the bill that has been proposed here with this one. We take our one thousand six hundred and fiftieth officer, because as I said before we are interested in the progress of the young officer. Take the one thousand six hundred and fiftieth officer in the Air Corps and his classmate that comes into the Infantry, to which I belong. The Air Corps officer will beat him to the grade of captain under the two bills, because it requires less service, and there is an unlimited number of captains, who are promoted on length of service. But under the War Department bill the Infantry officer will beat the Air Corps officer to the grade of major by about 3 years, and thereafter the young Air Corps officer will never catch him in promotion.

It is for that reason that we believe that when you attempt to enact promotion legislation we should not only look to see what happens to the present list, but by all means find out what is going to happen to the young officer, because he is the fellow that is going to fight your battles of the future.

Here is going to be the progress of a junior Air Corps officer who entered the service in 1929, as far as we can project it into the future under the separate Air Corps promotion bill:

He entered in 1929. He would be a captain in 1936, because he is a captain on 7 years' service. In 1941 he would be eligible for promotion to major, after 12 years' service. That is the provision of the bill. But he would be blocked by the 660 officers in the field grades who are comparatively young, the average only 42 years and 7 months.

Using the normal attrition rates for the officers ahead of him, it is estimated that his promotion to major would be blocked until 1954. That is 26 years. By that year he would have 25 years' service. He would remain a captain for 18 years.

Under the War Department proposed system he would attain his majority 3 years ahead of time, and if his classmate were promoted on that system, his classmate would remain ahead of him, if he be promoted under H. R. 4351.

In order to be as nearly accurate as possible in figuring rates of attrition, I found out what was the average strength in each grade, including the grade of captain, during the 10 years from the fiscal year 1924 to the fiscal year 1933. The average number of colonels was 5; lieutenant colonels, 15; majors, 65; and captains, 204. That was the average actual strength of the Air Corps in those grades during those 10 years.

The number of separations from the Air Corps during those 10 years in those grades was 66 during the entire 10 years, or an average of 6.6 officers per year. That figures an average attrition rate of 2.3 percent.

In projecting the career of this young officer about whom I have just been talking, we use figures that give you a greater attrition rate, because these officers now are 10 years older, and the figures we used were such that we would get 3 percent attrition for the first 3 years with the separate Air Corps in the field grades. For the next 6 years we used an attrition rate of 4½ percent, something that has never been obtained in the Army in or outside of the Air Corps. For the next 17 years we used an attrition rate of 5 percent. In other words, this is a very conservative estimate of the progress through the Army.

The CHAIRMAN. Did you base that upon the mortality statistics?

Colonel PEYTON. Oh, no, sir. These are the entire separations from the Army from all causes.

The CHAIRMAN. Death is a cause of separation, is it not?

Colonel PEYTON. Yes; that includes those.

The CHAIRMAN. Are those figures there of 4½ and 5 percent based upon actual mortality statistics?

Colonel PEYTON. No. They are liberal figures, because these officers 289 of them, who had a 2.3 percent attrition rate between the fiscal years 1924 and 1933, will, between 1935 and 1945, be up in another 10-year group. Therefore, the attrition rate due to their age alone is greater, because more of us get sick and die as we get older. The percentage is greater. We applied that 3-percent rate for only 3 years, however. The 4½-percent rate we applied for the next 6 years.

The CHAIRMAN. What I am trying to get at is, Are your rates of 3 percent, 4½ percent, and so on, just arbitrary estimates, or are they based on the mortality experience, or at least the attrition experience?

Colonel PEYTON. Yes, sir.

The CHAIRMAN. From all sources?

Colonel PEYTON. They are experience rates for the entire Army, added to by 1 percent because of the fact that an officer in the Air Corps, due to the extra physical strain, will probably be up for retirement quicker than would an officer of the Infantry, Cavalry, or Field Artillery.

The CHAIRMAN. Did you add the deaths that occur in the Air Corps separate from the regular list?

Colonel PEYTON. We added the percentage of deaths.

I may speak of the casualties in the Air Corps if you care to hear of them. I have the figures on that.

The CHAIRMAN. You will come to that directly?

Colonel PEYTON. Yes, sir.

The CHAIRMAN. All right, thank you.

Colonel PEYTON. While this bill takes the nonflying officer away from the present promotion list, his rate of promotion is going to be that of the present promotion list of the Army. In other words, you get a young officer on a nonflying status in the Air Corps which, of course, you will never do, probably, but if you should, his progress in the Air Corps would be at a greater rate after he reaches the grade of major than would the flying officer.

The CHAIRMAN. There cannot be over 10 percent of them, and as you say, there will probably not be any more, because all of them will be flying officers.

Colonel PEYTON. Yes; they are flying officers. But there are only 21 nonflying officers in the Air Corps today. There were 1,271 on January 15 who were rated as flying officers, and only 21 were nonflying officers.

We are convinced, Mr. Chairman, that the most serious result of this bill will be to create stagnation in the Air Corps in the lower grades. It has been contended, of course, by some people that we got the attrition that resulted from deaths in the Air Corps. I would like to refute that statement by this: Only vacancies in the field grades create promotion. It is the only way you get promotion, is to get attrition in the grades of colonel, lieutenant colonel, and major, because if a second lieutenant becomes a casualty he just creates a vacancy for an appointment.

The CHAIRMAN. That moves everybody below one number nearer a captaincy does it not?

Colonel PEYTON. Not according to this bill, because in this bill he would not get promoted. It would not make any difference if the entire captain's grade were out, this officer cannot get promoted to the grade of captain until he has had 7 years' service, because he is promoted on service, not on casualties. So casualties below the grade of field officer will not help anybody. Maybe that is an unfortunate word; I should say they will not result in anybody's promotion.

The CHAIRMAN. Yes; but it would affect his rank when he gets to the captaincy or majority.

Colonel PEYTON. Yes. His relative rank will not change; it just moves somebody out of his way.

During the 10-year period of which I speak, the total separations from the Army outside of the Air Corps were 2,711 officers. The total separations in the Air Corps itself were 344 officers. That made a total separation from the promotion list, as now constituted, of 3,055 officers.

The total number of field grades separated from the Army outside the Air Corps was 957. The total number in the field grades in the Air Corps was 22. The ratio, then, of separation in the field grades from the Army less Air Corps, under the promotion list was about 42 to 1. Meanwhile, sir, the Air Corps had 9 percent of the strength of the promotion list of the Army.

I would like to make a remark here also as to the character of the casualties from the promotion list from the Army outside of the Air Corps. Many of those men were retired as a direct result of disease or wounds incurred in battle during the war. Many of them are casualties directly traceable to the war. We do not regard them as gains; they are losses to the Army.

The CHAIRMAN. How do you classify a casualty, that is, an injury that results from playing polo?

Colonel PEYTON. I would classify that personally in this way: I think the reason for playing polo in the Army—and I am an infantry officer—is to develop skill in riding, to develop ability in handling their mounts. We lost probably the most decorated man in the Army, one of the two, this last year, playing polo as an act of leadership—an example to his young officers.

The CHAIRMAN. I did not ask about that.

Colonel PEYTON. It is a casualty, sir.

The CHAIRMAN. I am in favor of all sorts of games, myself. I am wondering whether you class that as injured in the service?

Colonel PEYTON. Yes, sir; I do personally.

The CHAIRMAN. How does the War Department do it?

Colonel PEYTON. I think the War Department so regards it.

The bill here will provide the first objective of a promotion list, it will correct an existing condition. In fact, it overcorrects it and provides what I believe to be an embarrassment of field officers; that is, the officers in the higher grades.

The question may be asked, how about the Field Artillery, and so forth? The Field Artillery has 1,500 officers, but it furnishes over 500 of its officers for what we call branch immaterial duties. The Air Corps furnishes about 100 officers for branch and immaterial duties. The Air Corps will probably have to furnish a smaller percentage for branch immaterial duties, due to the fact that it needs its officers if you give them the planes. It needs the officers in the Air Corps directly proportionate to the number of planes that are appropriated for.

The retirement features of the bill are set up in section 3. They permit an officer to count time and a half toward retirement during the period for which he is detailed to flying duties. It permits him to retire when he is 54 years of age, and practically all of them will have 30-years' service at that time.

Mr. MAY. What is the present age retirement?

Colonel PEYTON. Compulsory retirement at 64, sir.

Mr. MAY. This bill permits them to retire at 54?

Colonel PEYTON. Yes, sir.

It also provides for retirement of a flying officer who becomes physically disqualified for flying duties. It is evidently the intent of this section of the bill to make retirement attractive to the Air Corps officer. If an Air Corps officer retires, taking into consideration all the money he receives from the Government, the total is then reduced to about one-third of what it is when he is on active duty status.

In view of the fact that various enactments of the Congress prevented a retired officer from engaging in certain classes of employment, it is very doubtful if the average Air Corps officer could take

advantage of his own specialty in civil life, because almost any activity with which he might become connected has some relationship to the Government, and it is extremely doubtful if he could be employed as a retired officer. He could resign and get such employment, but he could not retire.

Another thing that would probably militate against retirement is that every good officer would like to be a general officer, and it is extremely doubtful if many Air Corps officers who consider themselves available for appointment as general officers within the Air Corps or without would seek retirement at the age of 54 years. They do not do it now in the balance of the Army. Everybody seems to stay on the list.

As for retirement for physical disability, it is the view of the War Department, sir, and I have talked to some Air Corps officers about it, too, that an Air Corps officer's retirement from the service on account of physical disability should be just like anybody else's. If he is disqualified physically for his duties, then he should retire. I mean not just necessarily flying duties, but if he is disqualified for duties in the Air Corps he should be retired on account of physical disability, if that is the cause of it. That same law applies to all of us.

I would like to repeat and emphasize that if I were charged with the duty of advising the Chief of Air Corps what to do with respect to this bill, and you laid before me this bill and the bill proposed by the War Department, I would have to advise him to support the War Department bill, because, in general, the officer is going further at a better rate and his future is more nearly assured under the War Department's proposals than it is under this one.

I will be glad to answer any questions.

The CHAIRMAN. Thank you very much, Colonel.

STATEMENT OF JOHN B. BROOKS, MAJOR, WAR DEPARTMENT, GENERAL STAFF

The CHAIRMAN. Please address yourself to the junior air reserve proposal, Major.

Major BROOKS. I think that that was fully covered the other day by General Westover. I do not think that there is anything that I can add to that from the War Department division of the General Staff that has charge of training. I think that he covered that very fully. I do not think that there is anything that I can add to what he said.

The CHAIRMAN. Could you add anything by way of comment upon the bill proposed to give greater emphasis to air reserve itself, the air-reserve officers' bill?

Major BROOKS. I would like to point out that it is the duty of the G-3 division to consider the training of all reserve officers in the Army in addition to Air Corps Reserve officers. From the standpoint of expense the training of the Air Corps Reserve officers is proportionately very high indeed. For the last few years—these figures are approximate—in 1932 and 1933 the Air Corps Reserve officers received about 25 percent of all the money that was used for reserve training, and they actually had eligible to be trained about

4 or 5 percent of all the reserve officers of the Army. In the year 1934 that jumped up to about 33 $\frac{1}{3}$ percent.

The CHAIRMAN. What was the expense per capita per annum for the training received by an air reserve officer?

Major Brooks. The expenses for ground officers for the 14-day active-duty training are as follows:

Second lieutenant, \$85.40; first lieutenant, \$114; captain, \$150; major, \$194; lieutenant colonel, \$230; colonel, \$243.

The mileage for all grades averages \$20; camp expenses, \$13.03; training ammunition varies, but it averages about \$30. For officers of the Air Corps on flying status that is increased by about 83 $\frac{1}{2}$ percent.

The CHAIRMAN. Of course, not all of the Air Reserve officers got that 15-day training, did they?

Major Brooks. No, sir.

The CHAIRMAN. I am talking about an Air Reserve officer who does not get any 15 days, he just goes for a few hours a month, and to whom is furnished only gasoline and a plane in which to fly. What does that cost the Government a year per man? Have you not some idea?

Major Brooks. No, sir; I do not believe I can give you any figures on what it costs per individual, but I have some figures here on funds for reserve training showing the comparison between what went to the Air Corps and what went to all of the other branches of the service combined.

The CHAIRMAN. That is totals?

Major Brooks. Yes, sir; if you are interested.

The CHAIRMAN. Did you hear the officer the other day state that it costs the reserve officers themselves about \$300 a year out of their own pockets to maintain their training status?

Mr. Brooks. Yes, sir; I heard him make that statement.

The CHAIRMAN. In addition to what the Government contributes in the way of gas and planes?

Major Brooks. Yes, sir. I would like to say that as far as the officer that made that statement concerning himself is concerned, I do not see how he could be, because he happens to live right in the same town where we have a reserve activity, so it should not have cost him anything but the carfare or gasoline for his car to go to the field.

The CHAIRMAN. I do not know what went into it, either. Did he have to buy his own flying togs?

Major Brooks. No, sir; that is all furnished by the Army.

The CHAIRMAN. You believe in the C. M. T. C., do you not?

Major Brooks. To a certain extent, yes, sir; from the standpoint of citizenship and disciplinary training for young boys it is very desirable.

The CHAIRMAN. Do you not think it furnishes a fine reserve for noncommissioned officers as well as privates in a general emergency?

Major Brooks. I do not know, sir, because I have not before me the figures as to how many of those boys complete all their courses. I am not qualified to answer that question.

The CHAIRMAN. That may be, but you did agree that it is a very important activity, a sort of a feeder to the Army in the event of an

emergency. That is what we thought. That is the reason we have been pouring out a lot of money on it.

General MOSES. The War Department does think so, if I may explain. They think it is a very important feeder. It not only develops officers, so that we get some officers from that source, but we get fine noncommissioned-officer material. They are available. They are not in the service, but we hope they will come in.

Then another phase of it, of course, is the fine benefit to any young lad who can get that splendid training there for improved citizenship; but particularly for the Army it is a good thing.

The CHAIRMAN. It is no part of the function of the Federal Government, as I see it, to educate people generally, but if it trains them for possible use in the event of an emergency it is a great thing, because it furnishes this reservoir of material, noncommissioned officers and enlisted personnel for all of the ground arm. It seems to me that the junior air reserve furnishes the same reserve at no expense whatsoever so far as the air forces are concerned. The proposal in the junior air reserve bill is not to cost this Government a penny except the time of some air officer to go around to see that these schools are training according to the standards that have been prescribed by the War Department, which ought not to take but a few days, at least, of study by some officers in the general staff.

If we can get all that enormous asset of the youngsters in whom there is a great enthusiasm for the air at no expense so that they know how to handle a plane, they are a potential asset in event of an emergency.

It seems to me that the same argument that can be made for the C. M. T. C., and for that matter, the R. O. T. C., can be made with equal if not greater force for the junior air reserve.

Have you thought about those considerations, Major?

Major BROOKS. Yes, sir; but I do not believe that they are quite comparable, because the C. M. T. C. is not practically comparable to this, as I see it, for the reason that you must maintain any flying experience that you have by constant and frequent practice. Unless you do that all the instruction that you receive is very soon lost.

The CHAIRMAN. You are not a Cavalry officer, are you?

Major BROOKS. No, sir. I am an Air Corps officer.

The CHAIRMAN. If you have learned how to ride a horse, and have not ridden one for a good while, it does not take as much time to relearn, does it, how to ride a horse, or ride a bicycle, or drive an automobile, or to fly?

Major BROOKS. I think if you stay away from flying very long you cannot ever get your hand back in again.

The CHAIRMAN. I have never held a stick myself, but common sense tells me that if a man learned when he was young, even if he did not fly for 5 years, it would not take very long to learn it again.

Major BROOKS. I am sorry, sir, I cannot agree with that, because I am an Air Corps officer, and I do not think that that is correct.

The CHAIRMAN. You think that if you would be taken off for 5 years you would have to start all over again?

Major BROOKS. I think so. I think it would be even harder to begin over again.

Mr. MERRITT. That would be because of advancement in aviation?

Major BROOKS. Flying is something that requires frequent and constant practice to maintain your skill. If you do not have that, you have lost everything that you have learned if you stay away from it too long. If you stay away from it 5 years you would have a very difficult, almost an impossible time getting back to a point of proficiency, where you would be safe to yourself and anyone flying with you.

Mr. MAY. It is like a shorthand writer who quits writing shorthand for a few years, except that it is vitally more important because you are carrying somebody in a plane that may be killed. Does that have something to do with it?

Major BROOKS. I do not know anything about shorthand, but the second part of your statement I think is correct, sir.

The CHAIRMAN. Major, then you do not approve of this movement to arouse interest in the youngsters by what is called the Junior Birdmen of America?

Major BROOKS. Insofar as it pertains to the Army, I think that I subscribe exactly to what General Westover said the other day, that you are building up a larger reserve than is necessary, and that the form of training does not fit our Army requirements.

The CHAIRMAN. When did it ever become a military matter that you have too large a Reserve, provided that it did not cost you anything? I thought that if you had a big enough Reserve available you could win any battle in the world. When could you ever get too big a Reserve?

Major BROOKS. We all have military objectives in everything. Our whole country has a military objective. We have a military objective in the amount of reserves that we are keeping of supplies and things of that sort.

The CHAIRMAN. I thought that maybe I could get a little sympathy somewhere for a bill that did not cost anybody anything and might do some good. I am sorry. Maybe we will keep on fishing until we will find something.

Are there any questions, gentlemen?

General MOSES. In my understanding of the bill—General Westover is the best authority on that—I thought it would cost the Government something for this junior air reserve—I mean the furnishing of officers, planes, instructors, and so on; I do not know whether they would pay these gentlemen that own the air fields or not. I did not know it was absolutely without any cost to the Government.

The CHAIRMAN. There is no proposal in there to pay them anything. Oof course, the authorization to issue planes to them is not mandatory. It is only permissive. So if you had all the planes the Air Corps needed and then all the planes that the Reserves needed, and all the planes that the National Guard needed, then if there were some left over, if they wanted to they could let the boys have them. But it is not mandatory at all.

General MOSES. I thought these gentlemen that owned the air fields would want some compensation for teaching these people.

The CHAIRMAN. They will get the compensation from the boys—from the fathers of the boys. They are doing that now. I was

down in Columbia the other day and at a hangar out there in the midst of an old straw field. I did not see any signs of much activity. But the manager there told me that there were 35 boys paying him to teach them to fly.

Casey Jones the other day told us that there are 300 boys up here in his training school at Newark, N. J. Some of them are university students. And who is paying for them? The fathers are paying for them, or they are paying for it themselves. The Government is not paying that.

It is the purpose, I believe, that this bill will stimulate interest in the youngsters to go to these schools. Why? Well, the simple reason that they have unofficial recognition. May I make a little observation that might seem not very dignified? I think it is very powerful in the minds of youngsters.

Suppose a student has just finished his freshman year. He goes and takes a 3-month course of ground-school work, for the summer. Then at the end of his sophomore year he goes back and takes 3 months more and finishes his course. He is authorized under this bill to wear a certain insignia, an official insignia prescribed by the War Department. The War Department also prescribes a uniform that he can wear. Of course, he must buy it, but it prescribes it. When he goes back in the beginning of his junior year, here he is with wings on him and a particular uniform, and he goes out to the junior reception and all the girls begin to flock around him. Do you know every other boy in that college would want to take that course next year, and you would soon have these schools filled up with fellows that learn to fly.

We must adjourn now, gentlemen. We will adjourn now until 10:30 in the morning.

(Whereupon, at 4:35 p. m., a recess was taken until 10:30 tomorrow morning, Friday, Apr. 12, 1935.)

TO PROMOTE NATIONAL DEFENSE BY INCREASING THE EFFICIENCY OF THE AIR CORPS

FRIDAY, APRIL 12, 1935

HOUSE OF REPRESENTATIVES,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C.

The committee met at 10:30 a. m., Hon. John J. McSwain (chairman) presiding.

The CHAIRMAN. The committee will come to order, please, for the further consideration of H. R. 7041, and other bills relating to the air defense.

I have a notation from the clerk that Major Dargue—at least, I knew him as that; he is Colonel Dargue now—is desirous of returning to his base of duty as soon as possible, and I am going to ask Colonel Dargue to be our first witness this morning, so he can get back to the base at Maxwell Field.

STATEMENT OF H. A. DARGUE, LIEUTENANT COLONEL, UNITED STATES ARMY

The CHAIRMAN. Colonel, will you please state for the information of the committee briefly your service in the Army and your familiarity with the necessity for additional or increased air power for the Nation's defense?

Lieutenant Colonel DARGUE. I graduated from West Point in 1911, and since that time have served somewhat over 22 years in the air work. I am naturally interested in seeing the Air Corps maintained in what is considered a proper place in our scheme of national defense.

During these years, especially the last 15, there have been many attempts made to bring the Air Corps further to the front in some sort of an independent organization.

While I have generally been in favor of seeing the Air Corps increased, I cannot say that this can be done all at once; and when taking a bill such as the one under consideration, H. R. 7041, consisting of 38 pages, it is rather baffling to see how this would be put into effect on any particular given date without a great amount of preparation.

This bill provides for a department of air. My thought has been more along a department of national defense, if it were the policy of the Government to change the organization.

The CHAIRMAN. Colonel, the policy would be determined by the Congress, and Congress cannot determine its policy until it gets

information from all sources, military and civilian, as to what is best. If you have any ideas along that line, we would be glad to have them. We want the free and independent and untrammled judgment of trained soldiers as well as expert civilians.

If that is the thing, will you please give us your ideas as to how that would work and why you think it would work? There is no bill here, but there is a bill before another committee, and there is a bill before this committee to set up a special commission to study every phase and aspect of organization relating to national defense. That is House Joint Resolution 168, that is pending before this committee. So if you have something along that line, even though it does not pertain to any specific bill, let us have it, please.

Lieutenant Colonel DARGUE. It is only my personal opinion, but I think in years to come we are bound to come to a department of national defense in which our air forces are more or less coordinated with the land and sea forces. I do not believe that time is here yet. I think that it is going to take a long preparation before the air forces, especially, could assume their place in any such department. In the meantime, should it be desirable to make further study on that matter, it is my own opinion that it could be done by the creation of a commission or some other such organization, which you might say would be the nucleus of the finality that has variously been predicted as from 5 to 15 years off; that in that commission there might be representation from the various departments interested, the Army, the Navy, and the air force, if that is to be a coordinate branch; and that over a period of years they make a continuing study and recommend from time to time changes that might be made to effect the ultimate organization.

I have no specific recommendation to make beyond that.

Mr. FADDIS. In discussing this department of national defense, can you give us the benefit of your observations as to how it worked in other countries, say, during the World War in England, in France, or in other countries?

Lieutenant Colonel DARGUE. There is divided opinion, apparently, on this subject. While I have not made a detailed study of how it works in the other countries, it is significant that particularly in European countries the air power has been lifted to a position coordinate with the army and the navy. There are disadvantages and there are advantages. I think that only time can tell whether it is going to be a proper organization or not. I think it is evident from their experience that we should not jump into it without a considerable amount of preparation.

Mr. FADDIS. Do you believe that this matter has come to the forefront more quickly than it would have otherwise, or perhaps more acutely, because of the progress in air activities?

Lieutenant Colonel DARGUE. I do, because the air activities in both the Army and the Navy have brought our two great Departments very much closer together, and we find ourselves exchanging ideas in all branches of air activity. I feel that the air power of the country is exercised somewhat irrespective of land and sea forces. It does not make much difference to an Army air flyer if he is flying over sea forces below or air forces below, if his mission is at some distant point beyond them.

My own personal observation, from being associated with the naval officers, being a graduate of the Naval War College, is that the air components of our two services think a very great deal in common; and because of this I believe it is bringing our Army and our Navy both closer together.

Mr. FADDIS. Then it is your opinion, is it, Colonel, that the air force has something in common with the two divisions of our service, as tending to unite and make them more in sympathy with each other, with more understanding of each other's problems? Do you think it will add to that?

Lieutenant Colonel DARGUE. Yes, sir; I do. But I might say that I feel that it is the combat forces on ground, sea, and air which are being knit together more closely because of this air element coming in. I do not conceive of them operating very much in entirely independent action. I think the action of these three powers must be very closely coordinated in time of war. I hardly believe that we have come to the place yet where we can elevate air forces to the extent that we have the ground or we have the sea forces to take their place in that time. I believe the time is coming, and I believe steps are being taken year after year to bring us closer to that ideal.

Mr. FADDIS. It is your opinion that at the present time, as far as the Air Corps is concerned, it is not capable of even beginning to accomplish independent missions, insofar as going out and striking blows that will result in decisive results within themselves?

Lieutenant Colonel DARGUE. Yes; I think the time is here, and we have a G. H. Q. Air Force which is being developed and will be able to do just exactly that thing. But my point is that it is not a fighting component alone. It is the whole organization behind that fighting component to support it, in the air or on the sea or in the field, which we have to take into consideration, and we have today approximately 1,300 officers in the Air Corps, largely junior in the service. They have not had responsibility of education, of rank, and a number of other things to bring them up to that point where they can assume an equal status, you might say, with the Army and the Navy forces. Furthermore, I think they must be very greatly increased before that can happen. I believe the creation of the G. H. Q. Air Force recently is one of the great steps in that direction.

Mr. FADDIS. We all agree with that, and I think there is no division of opinion as to the value of the G. H. Q. Air Force. But the division of opinion seems to be as to how far we could go toward establishing a separate division of air. That is what we have been considering for quite a long time, and are trying to get all the testimony we can on, and the benefit of the very best opinion that we can get. I would like to hear you express yourself more fully along that line.

Lieutenant Colonel DARGUE. I think the technical development of aircraft is going to decide more of these questions for us. As we find aircraft of greater power, greater range, greater performance characteristics, I believe we are going to, perhaps, reach out to do more of that independent action that you apparently have in mind. I believe also that air power will demonstrate itself more as we develop this G. H. Q. Air Force, and that there may be a tendency on the part of Congress to increase that force and gradually increase

it along with technical development so that it may take its place some day—I dare not predict when—in a department of national defense.

Mr. FADDIS. But you believe that its own progress will dictate the proper time for that, is that it?

Lieutenant Colonel DARGUE. No; I think it has to be encouraged.

Mr. FADDIS. Of course; but my meaning is this, if I gather your meaning right, it is that you believe that, with proper encouragement toward development, when it develops itself to the point where it should be made an entirely separate branch of the service it will signify that itself; there will be no doubt in people's minds when that time comes.

Lieutenant Colonel DARGUE. I think so; but, in the meantime, we certainly need more personnel and more equipment.

Mr. FADDIS. Yes; I think we are all agreed on that.

Mr. McLEAN. Colonel, what is your idea about the coordination of cooperation between the commercial flying and the regular established services; that is, as to the commercial enterprises being an adjunct to the national defense corps?

Lieutenant Colonel DARGUE. I think it would be a mistake to combine civil aviation and military aviation under the same head, but I think the greatest cooperation should take place between them so as to use the facilities of commercial aviation to the greatest extent possible in time of peace so that we are able that much better to use them in time of war.

Mr. McLEAN. It was stated the other day, as I recall it, that it would not be much use to us, because they would be needed for their ordinary duties as commercial flyers in time of war, and it would be undesirable to take them off their regular routes, and so forth, to enter into national defense. They would not be any use to us.

Lieutenant Colonel DARGUE. That might be said of any means of transportation, but war has advanced to that stage where the whole Nation goes to war, and we are going to use every facility of the Nation to prosecute the war.

Mr. McLEAN. Of course, it is a fact, in my judgment, that the subsidies that were paid were intended to develop the civil aviation as a matter of national defense, but the development of the planes was along lines or uses which disregarded that purpose for the money they got. Do you think that is a proper thought, or is that too controversial and political for an Army man to venture an opinion on?

Let us put it another way: The development of aviation so far as the civil mail carriers who are paid by the Government are concerned was not along lines of national defense but more along the lines of speed and safety in passenger service, was it not?

Lieutenant Colonel DARGUE. I think it is possible, perhaps, to arrange some cooperation between the military and civil agencies, and, as you suggest, perhaps through subsidy to have commercial planes include certain military characteristics.

Mr. McLEAN. None of them do now.

Lieutenant Colonel DARGUE. I cannot say that we could not use a number of commercial planes for certain purposes. Certainly the transports of commercial aviation are very susceptible to use for transport purposes, and it may be possible to convert some of the

others to use. I feel that that is something more or less out of my line, and perhaps it had better be commented on by engineers.

Mr. McLEAN. The development has been so rapid, and a plane becomes obsolete so soon, that anything we know now would probably not apply 4 or 5 years from now. Do you think it would, in view of the anticipated rate of development?

Lieutenant Colonel DARGUE. We certainly do. We think we are going far beyond the point that we have now reached.

Mr. McLEAN. That is all.

Mr. FADDIS. We will have to depend to a large extent on these commercial aviation activities in time of war to fill up the ranks of our aviators and replace the losses, will we not?

Lieutenant Colonel DARGUE. Their ranks are full of Reserve officers of the Air Corps right now.

Mr. FADDIS. In time of war we would have to take them out of the commercial field, or we would have no aviators.

Lieutenant Colonel DARGUE. Certainly we will have to take a good many of them; yes, sir.

Mr. FADDIS. Commercial aviation will have to assume in time of war very much the same position that the merchant marine would?

Lieutenant Colonel DARGUE. I should think so.

Mr. FADDIS. They will have to supplement; it is our only source to draw from, outside of the ones we have in the National Guard and the Regular service.

Lieutenant Colonel DARGUE. Of course, we will not draw on those Reserve officers in the civil aviation to a greater extent, I should say, than we have planes for them; we would disrupt their activities as little as possible. There might be very great need for the commercial activities of the transport lines in any emergency.

Mr. FADDIS. Yes; no doubt that would be true.

Mr. TURNER. What do you think about putting the Army and Navy under one head?

Lieutenant Colonel DARGUE. That is along the same line that I have been talking. I feel that the Army and Navy have had more or less separate spheres of work, and that the greater amount of coordination has been effected through joint agencies fairly satisfactorily. But the advent of air power, I say again, is tying them closer together than ever, and if there is going to be any change, I certainly would be in favor of seeing the air power made coordinate with the Army and the Navy.

Mr. MERRITT. In other words, maybe the Army and the Navy could be subordinates of the Air Forces?

Lieutenant Colonel DARGUE. No, sir. I believe in a strong Army and a strong Navy and a strong air force. Some day, maybe, they will be coordinated.

Mr. TURNER. It just looks like some money might be saved by the Government if we had close cooperation between the Army and the Navy. This committee does not know anything about the appropriations that the Navy Committee is making, and I do not suppose the Navy Committee knows anything about what we are doing. It looks as if there might be some money saved by cooperation in regard to these matters of appropriations for both the Army and the Navy.

Lieutenant Colonel DARGUE. There have been some good statements made along that line, that we could effect economy, but personally I have never been in any position to study that. When we see aviation fields next door to each other, procurement establishments next door to each other, it might appear that there could be some consolidation that would effect economy; but I am not in a position to comment on that.

Mr. SMITH. In the one problem of the defense of the seacoast against enemy naval forces, is there not great difficulty now in coordinating the naval aviation and the Army aviation activities in that one operation?

Lieutenant Colonel DARGUE. I do not know of any experience that we have had particularly in trying it out except on paper.

Mr. SMITH. But there is difficulty on paper?

Lieutenant Colonel DARGUE. There is difficulty on paper and I do know that there are different standards between the Army and the Navy. We speak a different language.

I asked a naval officer just the other day if he should all of a sudden call on me for help, what would he expect me to do. We found out that we could, after a fashion, discuss the problem and understand it, but that nevertheless there was quite a little difference of opinion as to the manner of carrying this out. We are endeavoring to eliminate some of that by educating Army officers in Navy schools, and I believe one naval officer has been designated to come to the Air Corps Tactical School; and naval officers have been going to the Army War College for a great amount of time. Those means are more or less effective. I really cannot say how effective they are. We do have a close point of contact there. I think efforts are constantly being made to eliminate differences of understanding.

Mr. SMITH. In regard to that one problem, would it not be much more effective to have the separate Air Force which cooperates with both Army and Navy, which would train its own men, in cooperation with both the other branches?

Lieutenant Colonel DARGUE. It is my opinion that that would be better. The Army is now charged with coast defense. I believe it can be best carried on, so far as the air activity is concerned, from shore-based aircraft. All history shows that naval battles have been fought within a half hour's distance from shore, for modern aircraft. Over the last 260 years, I made a study which shows that the farthest out to sea any major engagement has taken place is 100 miles, and the biggest of them, the Battle of Jutland, took place between 50 and 100 miles from shore. The Battle of Tsushima, in the strait between Japan and Korea, was one of the decisive battles of modern times. It took place almost within sight of land.

So I feel that shore-based aircraft in, you might say, unlimited numbers as compared with aircraft based on ships or carriers could best carry out that mission.

Mr. FADDIS (presiding). Do you have any further statement you wish to make, Colonel?

Lieutenant Colonel DARGUE. There is one other subject that Mr. McSwain asked me to be prepared to speak on; and that was the matter of the promotion.

Mr. FADDIS. We will be glad to hear you speak on that, I am sure.

Lieutenant Colonel DARGUE. It is my opinion that H. R. 5071—that is, the Army promotion bill—is an excellent bill for promotion in the Army as a whole, but that it fails to provide the necessary promotion in the Air Corps. It maintains the single list for promotion; and if it contained provisions which gave the immediate relief to the Air Corps that it does to the balance of the Army, I should have to say I am wholeheartedly for it.

H. R. 4851, which is the separate list for the Air Corps, is obviously to break the deadlock that has existed ever since the Air Corps has been a branch of the Army. A similar bill met favorable expression in Congress 6 years ago, but was then part of a larger measure which failed of passage in the closing days of the session.

Of these two bills it appears the former does not meet the needs of the Air Corps and the latter is considered unfavorably by the War Department. There must be a common meeting ground, and I have devoted my efforts to try to find it rather than see a stalemate result when promotion is required so urgently in all branches. After all, it is results we are after, no matter what the name by which we term them. We want to get those results.

The separate promotion-list bill was the result, if I understand it, 6 years ago of a study which was made in the Air Corps showing the minimum requirements in the various grades; and for field officers in the Air Corps those minimum requirements have been set forth in this bill as 4 percent of colonels, 5 percent of lieutenant colonels, and 17 percent of majors. The bill fixes a limit of 40 percent on field officers.

It is my belief that if the Army promotion bill, H. R. 5071, could be amended so as to provide additional rank in the Air Corps to the extent of the minimum percentages shown in the separate promotion list, that would certainly adequately meet the needs of the Air Corps at the present time.

The Army promotion bill provides a very limited number of promotions at the present time for the Air Corps. They pile up as years go on. It does provide 40 percent of field officers for the Army as a whole, but I am informed that it is somewhat less than 15 percent for the Air Corps.

Mr. PLUMLEY. What do I understand you to say about piling up?

Lieutenant Colonel DARGUE. That the promotions in the Air Corps under the Army promotion bill would gradually increase as years go on. That was brought out yesterday in the testimony. But the need has been there for 15 years now for a greater number of field officers in the Air Corps, and to postpone getting the total number of those required at the present time for sometime in the future, I believe, would adversely affect the morale of the Air Corps. Therefore, it is my opinion that if sufficient additional numbers are provided so as to give these minimum percentages, they can carry on at the present time, and when their vacancy comes up and is opposite them again, they can slip back in the hole that has been left there on the single promotion list of the Army.

Mr. FADDIS. Are there any further questions?

Mr. PLUMLEY. I presume you may have covered this matter, but I would like to know, are you definitely in favor of a separate promotion list for the Air Corps, or what is your opinion?

Lieutenant Colonel DARGUE. My opinion is that the promotion of the Air Corps can be taken care of on the single list of the Army by provision of additional numbers at this time.

Mr. PLUMLEY. Is that opinion of yours the general consensus of opinion of the Air Corps as now constituted? Do you represent the Air Corps when you make that statement?

Lieutenant Colonel DARGUE. I do not represent the Air Corps. It is my own personal opinion. But I have heard the same opinion voiced by a number of officers of the Air Corps. I think the provision of temporary rank at the present time is adversely affecting the morale of the Air Corps, and that it should be remedied in some manner.

Mr. PLUMLEY. Do you think that the personnel of the Air Corps will be satisfied with this separate promotion list, or will they never be satisfied until they are a separate unit and have a separate promotion list?

Lieutenant Colonel DARGUE. I do not know the opinion of the Air Corps as a whole. I just expressed a personal opinion. There has been a great deal of sentiment in the Air Corps for a separate list. That was 6 years ago. That had crystallized into the form of a bill here in Congress. In 6 years a situation can change very decidedly. I believe that if the minimum percentages which were good enough 6 years ago and seem to be good enough today are provided by additional numbers of on the single list of the Army, that condition will be cared for satisfactorily.

Mr. FADDIS. Are there any other questions?

Is there anything else that you care to add, Colonel? We will be glad to hear it.

Lieutenant Colonel DARGUE. No, sir; I do not think so.

Mr. FADDIS. We appreciate what you have said here, and thank you very much.

STATEMENT OF COL. SAMUEL PRICE WETHERILL, PRESIDENT, AIR DEFENSE LEAGUE

Mr. FADDIS. Colonel Wetherill is president of the Air Defense League and has had a great deal of service in the Army during the war. We will be glad to hear any statements you wish to make, Colonel, regarding any legislation.

Colonel WETHERILL. Mr. Chairman, the Air Defense League, as you know, is dedicated only to one patriotic motive, and that is to try to encourage the formulation of an over-all policy, a national aviation policy that will perhaps expedite the bringing of this country into a position in which it can avoid a repetition of its general military experience. We do not want any more Bull Runs, and we do not want any more experiences like the War of 1812 and the burning of the Capitol.

Our organization has studied the various factors which in its opinion stand between us and the competent, if I might say, initial capacity to defend ourselves in the eventuality of a military emergency. In studying that, our whole effort has been to understand the underlying factors that were essential to the success of the various arms of the service. That is, we recognize the urgent neces-

sity for the Army to have the proper control over the units which it needs as auxiliaries to the land troops, and that includes its proper control over the aviation equipment that must function with land troops. We recognize that aviation has an important part to play with relation to the sea tactics, and that the Navy is the best judge of what part aviation must play with regard to the achievement of the major mission of these tactics.

We would, therefore, be very reluctant to be hastily pushed into a position of advocating any type of legislation that might not be based upon a thorough-going understanding of the consequences of that legislation, upon these two important arms of the national defense. We have been asked very frequently to express ourselves as definitely in favor of a separate Air Corps or a separate Air Force. We have always declined to put ourselves definitely on record on that.

In the light of the amount of information that we now have, we take this position, sir, that the United States through its whole military experience has demonstrated that it is composed of individuals who are themselves courageous, and who fight and fight well when they get into action, but that we are not expert in over-all comprehensive organization, that we need the capacity to see our problems in a larger perspective than they are ordinarily seen. There is no man in the Army but knows when the A. E. F. was organized our experience was practically limited to the concepts of a division, and even then regimental officers wanted to know why bother with all the overhead of a division. When it came to discussing the need for a corps organization, there was resentment at the amount of overhead. When it came to the need for one army organization, even though that Army had to handle 27 divisions, it was hard for our line men to realize that it was essential that those divisions should be organized under corps, and those corps should be organized under army headquarters, and that there should be enough officers in charge of the over-all direction of our activities so that the fighting units would work to the best possible advantage.

The World War taught us that one of the great problems that confronts us now is to be right in our comprehensive organization for defense. For that reason we recommended to the President more than a year ago that the Federal Aviation Commission should be created, and we urged strongly that it should not be merely an investigatory commission but that it should also come through with constructive recommendations as to how the betterments which were obviously to be found necessary could be attained.

We very much regret that the Federal Aviation Commission's report failed to offer a synthetic constructive program dictated by the very splendid analysis which it made of the facts. We feel that the country is in great need of a constructive, intelligent, well-thought-through, comprehensive program of national defense legislation. We naturally feel that the key to that program is the aviation situation.

Do I make myself clear, Mr. Chairman, in that?

Mr. PLUMLEY. As I understand it, then, you agree with President Roosevelt with respect to his opinion concerning that report, that it is indefinite; although comprehensive, it does not point out any solution of the problem.

Colonel WETHERILL. Yes, sir; we believe that it is a very fine scattered, piece-meal analysis, but that it is not synthetic. It does not put the separate pieces of the picture puzzle together and show us any answer.

Mr. PLUMLEY. I will have to say that I agree with you.

Colonel WETHERILL. It is plain to anyone who analyzes the report carefully that it is full of detailed criticisms which are justified by the facts, but that it says, "This condition should be rectified." It, however, does not offer any comprehensive means of rectifying a condition which it acknowledges needs correction.

I have been instructed by our board of directors to say that the Air Defense League as a whole would recommend that the piecemeal legislation that is now necessary should be at a minimum; that is, that we do as little as possible of piecemeal legislation at the moment, and that under the leadership of this committee, which I think enjoys the entire confidence of the country as the only agency which can solve this terrifically difficult problem, a definite program not merely for another one of these commissions to study facts—we are tired of those; the country is tired of those. We do not want any more analyses of break-downs in which the technique confuses the major issue—be set up, but that there shall be a definite compulsion on somebody to bring through a comprehensive program which we can hold before the American people and inspire their confidence that this country can defend itself in eventualities of a military character.

We believe that legislation can be formulated as a result of the studies of the many commissions that have gone before: The Morrow Board, the Federal Aviation Commission, the Howell Commission, and all the different studies which can be presented and placed at the disposal of those who have the ability to formulate a cooperative program, enough data to enable them to formulate their program with intelligence, and to formulate their program with due regard for the necessities of the several services.

For our guidance we have drafted a little chart, and we show that there are nine Departments of the Government—Agriculture, Commerce, Interior, Navy, Interstate Commerce Commission, Post Office, State Department, Treasury Department, and the War Department—every one of whose activities should be, if it is not, related to a national aviation policy.

We can see how the following of a wrong aviation policy might be extremely embarrassing to any one of them, and we can see how any one of those departments having a sectional view, a segmental view, of the problem of air defense might conceivably work to the detriment of our whole program. And with the necessity of running through all those departments, keen sensitiveness to the over-all aviation policy of this country strikes us as being urgent. It is an urgent necessity. They must get it.

We have only just recently had called to our attention Mr. McSwain's Resolution No. 168, for the creation of a national defense committee. I am not authorized by my board of directors to express a judgment on that, for the reason that we have only just had the resolution presented to us, but it certainly contemplates the type of approach to this matter that is essential. There must be an authority senior to the Army, senior to the Navy, senior, so far as

this study is concerned, to any agency that is not under the control of any one of those departments, that would report directly to the President, which must synthesize a program for the best interest of them all. That policy cannot be determined by the professional officers of either the Army or the Navy, nor can it be determined by the Department of Commerce, nor can it be determined by any of the other departments separately. It must be built up and around a national aviation policy.

I disagree heartily with the last officer to testify here that it will take 15 years or thereabouts for us to know what ought to be done. Lots of things can happen in 15 years. I do not think that any of us feels disposed to face the acknowledged fact that there are certain inevitable developments designed to develop air tactics for this country, and then say we have to wait 15 years to have them happen, and then kind of drift sideways into it. We have to have a positive, definite program for achieving that which we want to achieve.

Hugo Munsterberg told George Finley Meyer when he was the Secretary of the Navy under President Roosevelt, that without unity of purpose and constancy of mind there was no fitness to win. That applies today to this problem. We cannot have these diversified opinions, we cannot have these expert testimonies which are mutually contradictory. We have to get somewhere.

I think that we should do as the Secretary of the Navy did at that time. He raised his own slogan. He said, "Hits per second for the Navy", and that was the thing that focused the attention of the Nation on the ability of the Navy to make hits per second.

I think we need a slogan to focus the attention of this Nation on the fact that we are going to be able to defend ourselves in the next war; and we are going to make a good account of ourselves in the first 3 hours. We are not going to wait 3, 4, 5, 6, or 8 months behind some allies' navies and troops while we begin to get organized.

I have to admit very reluctantly that in my experience with the United States Army before the war it took me more than 2 years to convince military authorities that the Army mule was not the finest means of mobility for modern troops. I was laughed at, and I was told that as a rank civilian I had better mind my own business and leave the defense of the United States to professional soldiers, and that they knew what they were talking about, that it was manpower and mulepower and that modern machines and devices had nothing to do with winning wars.

We advocated the use of the automobile and were ruled out. A report went to the War College from Gen. Leonard Wood at the Eastern Department, Governors Island, and it was put in the files here. It was based on recommendations which we made at that time. I was an automotive engineer and was working on the mobilization of motor transport to help the Army out in the event of a military emergency.

England, France, and Germany were using motor transports, and the boys' popular magazines of the country were all advertising how they were using their motor transports. They had their tables of organization. They showed how the Army could be helped with adequate automobiles. And yet the proper representative of the War College told me in this city of Washington to go back home and mind my business, that the Army had no use for the auto-

mobile, it was another one of those fantastic devices, and that tanks and tractors, which I was advocating should be used, had no place in the Army. I was sent back home.

I bring that out not in the spirit of criticism, gentlemen, but to convey to you gentlemen a full realization of the fact that you cannot fight the future wars solely on history and on tradition. Because Hannibal and other early military people accomplished results by the use of the army mule was no reason why the motor truck when it was invented and properly adapted could not be adapted to our use. I believe that our military and naval organizations have to become more courageous in adapting modern machinery and modern methods to achieve our results. I believe that aviation as an instrument to that end has to develop tactics which have not yet entered the minds of the finest leaders we have, in either the Army or the Navy; that is, real air tactics, real air-power tactics.

It has only been very recently that the hand of the Army has been more or less forced in regard to creating this vitally needed G. H. Q. air force. They have recognized this under pressure. They have recognized it as a result of compulsion from outside. They have not seen it from within.

Gentlemen, we cannot trust the future of this country to men who have not the vision to organize, to use the facilities that our great country has developed in civil life, and to make the most of those for instantaneous defense. We have to have the courage and the vision to adapt those instrumentalities to achieve our purpose. We cannot wait and find out by another war that we are wrong. After the World War was over, and I made my report to the War College by orders of the chief motor transport officer of the A. E. F., an officer of the War College came to me and said:

There is in the files in the War College a recommendation in 1915, by a man by the name of Wetherill, that something along the lines of and very similar to what you say was done in the First Army ought to be done.

He said, "Did you ever hear of that man, Wetherill?" I said, "Yes; I was the Wetherill."

There these papers were in the archives, and the War Department had to be brought to a realization of the fact that the thing was necessary. We cannot face another thing like that.

Mr. PLUMLEY. In order to keep this record clear, you are constantly saying "we", so I am going to ask you of what this organization you represent is composed? What is the personnel? When you made this first recommendation, about which you speak, you were an automobile engineer, interested in automobiles?

Colonel WETHERILL. I never heard of air defense at that time.

Mr. PLUMLEY. No; but now are you interested in the manufacture of automobiles or the sale of automobiles or accessories?

Colonel WETHERILL. No, sir.

Mr. PLUMLEY. I know you are not, but I am asking to make this record clear.

Colonel WETHERILL. I have no interest in any way, shape, or form in the manufacture or sale or the operation of airplanes or airplane equipment, or anything pertaining to it.

Mr. PLUMLEY. Has the organization?

Colonel WETHERILL. As far as I know, we may have in our membership men who have identification with those industries; but if they are, they are not in a position of any dominance. We do not accept any contributions from them, and our policy is formulated solely by considerations of patriotism and service to the country. We can verify that to anybody that cares to investigate it.

The CHAIRMAN. Have you a list of the contributing members of the Air Defense League? It seems to me one was exhibited here about a year ago. Have you one with you, Colonel?

Colonel WETHERILL. I do not have it with me, but I would be glad to have Mr. Frazier, our secretary, have such a thing prepared if it is desired.

The CHAIRMAN. Was it not exhibited about a year ago, Mr. Frazier?

Mr. VIRGIL. Yes, sir.

Colonel WETHERILL. Mr. Chairman, I think I have about outstayed my time.

The CHAIRMAN. No; you go ahead. As long as you are saying something good we will be glad to hear you.

Colonel WETHERILL. You stop me if I go too long.

I would like, if I may, to call the attention of the committee to a statement that was made by Gen. Douglas MacArthur right before this very committee on the 26th of April in 1933. That statement pertains so aptly to the present situation that, if I may, I will quote it. He says:

Certainly in every war we have been successful not because of our anticipatory preparations, but because of accidents or incidents that enabled us to eventually muster an adequate portion of our latent resources. But the World War has demonstrated, beyond the shadow of a doubt, that with the new developments, with the new instrumentalities of war, the airplane, the submarine, mechanization, we would not have time or opportunity to muddle through another war if exposed to heavy attacks from the outset. Reasonable preparation purposes to substitute efficiency for muddling.

That is the doctrine of the Air Defense League.

What we believe is exactly that of which Gen. Douglas MacArthur speaks, that we must be reasonably prepared and that we must reasonably plan ahead and visualize the type of emergency that we are likely to be confronted with, and use our resources, brain resources, manufacturing resources, engineering and designing resources, and tactical resources, in order to prevent a disaster and achieve success with a minimum of delay.

The CHAIRMAN. We cannot use our vision just in a mass formation; it has to be concentrated into some authority. Have you discussed so far any plan of organization or proposal whereby these ideas may be made concrete? Have you any definite suggestion?

Colonel WETHERILL. Mr. Chairman, we feel a little modesty—we may not have spoken very modestly, but we feel a good deal of modesty with regard to so large a task. We feel that the problem is receiving the kind of attention by your committee that it needs, and we feel greatly gratified to find your proposed Resolution 168 here which would create a national defense committee to place in the hands of one competent over-all group the responsibility for not further analysis alone but for synthesizing and getting through with a program of action that we can all get behind.

The CHAIRMAN. All right.

Colonel WETHERILL. I believe that is essential, sir.

The CHAIRMAN. What else have you that you would like to say, Colonel, before we ask the members if they would like to ask you any questions? Is there anything now of a general nature that you think would contribute to the promotion of the cause of national defense in efficiency?

Colonel WETHERILL. Yes, sir; I would like to call the attention of this committee, if it has not already been called, to a report that was made up by an Italian aviation officer many years ago by the name of Dohet.

The CHAIRMAN. We have that, thank you.

Colonel WETHERILL. I think it is imperative that we recognize that that program of military organization that is proposed shall be woven around a conception of air tactics. I do not see how it is humanly possible that the finest land officers in the world or the finest sea officers in the world can detach themselves from the necessities that they have as land officers and as sea officers and see the over-all possibilities of adapting the airplane to long-range air power and air tactics in support of a national policy. I believe it is essential that there must be brought into this situation not 15 years from now, but now, the perspective that will formulate a policy around a central program of air tactics, whether that command is going to be vested in land troops or sea troops, or whether there will be a department of national defense, or the land and sea coordinated. Those are questions that we can evolve toward. But let us not drift toward them, Mr. Chairman. Let us go toward them with deliberate intent to go in the direction we are going. Let us hew close to the line and get there quickly, and do not let us drift the way we will go if we do not charge some organization with seeing we get there and get there quickly. We do not know what day war might break, and we have to admit that it would be disastrous if we were not better prepared.

That is all I have to say.

Mr. FADDIS. You believe, then, Colonel, that we should set a definite goal and that we should force our economic, engineering, and other forces to reach that goal in the matter of the airplane problem instead of waiting for the natural development of the aircraft?

Colonel WETHERILL. I believe absolutely it is a matter of leadership. I think the patriotism of our services, the readiness of our industries and engineers to get behind a maximum defense per tax dollar, a maximum instant defense per tax dollar, is such that they would follow authoritative and competent leadership. I see no reason why that cannot be done by you gentlemen right through the work of this committee, which inspires everyone's confidence. I do not see any reason why we cannot defend our goal with, as I say, that unity of purpose and constancy of mind which will not permit of any deviation. We should set our mental gyroscope toward the goal we want and bring this Nation solidly behind that policy. The taxpayers will be glad to pay money when it produces results. The resentment so far as it exists in regard to military expenditures in this country is not because the expenditures are large, but it is the feeling of the overlapping and the duplication and the inefficiency and the frank acknowledgment of our military leaders that it is almost inevitable that we should take a very severe rebuff in the first encounter. We do not like that, and nobody else likes it.

I think the point is well taken that under competent leadership these various forces can be so coordinated under the program and the law can be so laid down that the desired result can be achieved and can be achieved promptly. I do not see any reason for a long-term delay.

The CHAIRMAN. I thank you very much in behalf of the whole committee, Colonel Wetherill. If you care to, we would be glad to have you furnish a list of the contributing members of the league, so that if anybody should say that your motives are selfish in trying to promote air power so as to get more business it can be refuted from the facts, if that is the case. My recollection is from the list shown last year that that is the case, but I would not like the committee to go on my mere recollection.

Colonel WETHERILL. Would it be permissible for me to attach to that an affidavit by the secretary that we have consistently declined large contributions from sources which we believed to be patriotic, but where we knew there was a definitely selfish interest behind it? Would it be permissible to attach that to that letter?

The CHAIRMAN. I think that would be very acceptable. We would be delighted to have that.

Colonel WETHERILL. That is a fact, sir.

The CHAIRMAN. We would be glad to have it, indeed.

Thank you very much, Colonel.

We will adjourn at this time until 2:30 this afternoon.

(Whereupon, at 11:50 a. m., a recess was taken until 2:30 p. m. of this same day.)

AFTER RECESS

(The committee met at 2:55 p. m., pursuant to the taking of recess.)

The CHAIRMAN. The committee will come to order. I will now call Mr. Samuel Price Wetherill, Jr., as our first witness this afternoon. Colonel, I find that the letter I referred to this morning about the activities of the Air Defense League was written to me recently rather than last year. I had an indistinct recollection of it, due to the reason that I get so many letters it is difficult for me to keep up with them. That letter reads:

The following statement of facts is herewith submitted for the information of your committee.

The Air Defense League was formed as a result of an independent investigation made by Mr. John B. Statson, Jr., former wartime flyer, former Ambassador to Poland; Mr. Charlie Biddle; former ace with Rickenbacker's squadron; Mr. Jay Cooke, former captain, A. D. C. to the commanding officer of the Seventy-ninth Division, American Expeditionary Forces; Effingham B. Morris, Jr., former major, Three Hundred and Fourteenth Infantry, Seventy-ninth Division, awarded Distinguished Service Cross, Croix de Guerre, and the Ribbon of the Legion of Honor; Col. Samuel P. Wetherill, major of Mortor Transport, First Army; Dr. H. Penniman, provost, University of Pennsylvania; Col. H. Harrison Smith, colonel, Three Hundred and Sixteenth Infantry, Organized Reserves; Col. Robert Glendinning, who was one of Colonel Patrick's most valued aides, as attested by his book on Wartime Aviation; and about 20 other equally prominent people in this section of the country. It was finally decided to incorporate the league, and this was done in December 1932 as a class A non-profit-sharing organization in the State of Pennsylvania. The annual meeting of the league is held in April of each year. Its officers serve for 1 year, or until their successors are named, without compensation.

The league confines itself to a select membership of responsible American citizens who have no selfish interest other than to see this country adequately

prepared. Our membership extends into 23 States. On the executive committee of the league are some of the outstanding aviation experts of this country who are unable to make public statements but can use the forum of the league to express their expert opinions to the end that the country and the Congress may benefit by a wide contact of opinions.

The Air Defense League is financed by its members and the generous contributions of a group of wealthy Reserve officers and American citizens. It is not subsidized by the aircraft industry. Checks and vouchers are drawn by the order of the president and signed by the executive vice president and the treasurer. The treasurer is executive vice president of the Girard Trust Co. of Philadelphia.

The officers of the league are Col. S. P. Wetherill, national president; Mr. Jay Cooke, executive vice president; Col. H. Harrison Smith, vice president and counselor; Effingham B. Morris, Jr., treasurer. The executive advisory board of the league is composed of Colonel Wetherill, Mr. Cooke, Mr. Morris, Mr. Livingston E. Jones, Mr. Kern Dodge, Col. Charles F. H. Johnson, Mr. Charles W. Baker, Mr. H. B. Grow, Mr. Phil Sharples, Mr. David Newbold, and Mr. Robert Glendinning.

This letter is signed by Virgil H. Frazier, secretary. Of course, you know him?

Colonel WETHERILL. Mr. Frazier is secretary of the Air Defense League, and I believe every statement in there to be correct.

The CHAIRMAN. Have you received any offers of contributions of considerable sums from any aircraft industry that you have declined and returned?

Colonel WETHERILL. Yes, sir; we have. In many cases people have sounded us out in advance before making a firm offer, and we have discouraged them. We had an offer of \$15,000 for contribution to our work which would have financed it for a long while. We had to say, "No" to it, because we knew that the person making that offer was directly related to the industry. We felt there would be a suspicion that he was trying to influence us if we received the money. Therefore we declined to receive the money.

The CHAIRMAN. The Air Defense League pays how much by way of salary to Mr. Frazier?

Colonel WETHERILL. Mr. Frazier contributes his own time. He does not receive any pay at all. All we have by way of expense is a stenographer, with the concomitant expenses going therewith. The Bellevue Stratford Hotel gives us an office there without expense.

The CHAIRMAN. It does not require much money?

Colonel WETHERILL. Our purpose is to have a relatively small group of faithful, energetic, capable, and highly patriotic citizens who are interested in this matter. We prefer to have a small group of faithful workers on this proposition rather than to run a big organization. We want to keep it as small as we can as long as we know that it fulfills the real need that it is designed for.

There was a thing that Mr. Frazier might have called to your attention, and that is this: We have a technical advisory committee which contacts 30 out of 48 States. We have men thoroughly conversant with the aviation problems in every phase of it. They are either ex-service men or who know about the organization and operation of the aviation industry from a technical standpoint through their contact with it otherwise. They have no vote one way or the other in our executive decisions, and they cannot influence our policies. Nevertheless, they are constantly doing research work for us and providing us with experienced information, so that our wisdom is constantly being aggregated by the experience of these people.

The CHAIRMAN. Are they paid anything?

Colonel WETHERILL. Absolutely nothing whatsoever. Most of them are either ex-service men, or, as we have been reasonably informed, are adjutant generals of the various States, and they are motivated by absolutely the patriotic incentive to aid their country in this matter.

The CHAIRMAN. You have no dues, do you?

Colonel WETHERILL. No. We are glad to accept contributions from people who present them with the right motives. We all know, ourselves, that at the end of the year we usually find a deficit which we have to make up. We have to do a certain amount of financing in connection with expenses of coming to Washington and things of that sort.

The CHAIRMAN. Perhaps you find that at the end of a certain period you have a deficit which you must make up yourselves.

Colonel WETHERILL. That is correct.

The CHAIRMAN. How much of that has been paid into this organization along those lines?

Colonel WETHERILL. I would prefer to have Mr. Frazier answer that. I suppose I put in about \$2,000 myself.

Mr. FRAZIER. Colonel Wetherill paid about two thousand five hundred. Mr. Cooke paid about \$2,000. All on the way down the line they paid just about that much. Colonel Montgomery has paid in a considerable amount. Now that I am on my feet, I might say that we have received contributions from different people all over the country. Colonel Wetherill did not indicate that the technical advisers are not required to join the league or to pay any money.

The membership of the league is \$5 per year for technical people and the other membership dues for the various grades are, respectively, \$10, \$100, and \$500. These memberships are passed on by a group of people. The group is a secret one. Colonel Wetherill is the president of the league and is very active in the various movements undertaken by the league. There is no money received at any time from selfish interests. This is carefully gone into, and we are ready to open our books at any time to show just what we have received and from whom we have received it.

The CHAIRMAN. Are you ready for any challenge of that sort? Are you prepared for some disinterested group to examine your books if such a request is made?

Mr. FRAZIER. We would welcome that, sir. If such a request comes from the chairman, we will be glad to display our books to them. We would not care to have them shown indiscriminately, because we would not want to expose the names of certain people who might come under the censure of certain superiors.

Mr. MERRITT. What is the incentive for making contributions?

Colonel WETHERILL. Purely a patriotic one. It is the same incentive that will cause people to permit themselves to be killed on the battlefield. If a man is willing to permit himself to be killed on the battlefield, surely he would be willing for the same motive to contribute money to a cause of this character. We receive contributions from people that feel that our country is in dire need of having developed its air defenses, and not only having that done but having it done quickly and in time for some great emergency. We are vitally concerned with the affairs of our country. We do not want to wait until a time of emergency, when it would be a great but futile expense.

This is nothing in the world but the same spirit that would make a man voluntarily risk his life for his country. As I said before, surely a man who would risk his life for his country would be willing to risk a few dollars in strengthening the defenses of his country.

Mr. SCHAEFER. I would like to know if you have any expressions to make regarding the House Resolution No. 168. I have become very much interested in this matter. As far as I am personally concerned, I would like to—and, in fact, I am going to—vote for it, because I think it is a very necessary thing.

The CHAIRMAN. Do you refer to the House Joint Resolution No. 168?

Mr. SCHAEFER. Yes.

Colonel WETHERILL. Mr. Chairman, as I said this morning, the first time I saw that was today.

I have known of this before. I do want to say this one thing: While the United States are talking, other nations are solving these problems of air defense. They are acting and we are talking. I am just as guilty as anybody else in that I advocated the commission that did a lot of talking and did not come through with a specific program of action. I would fear to advocate this or any other resolution if it will result in further conversation. I want some action going to this end. In my opinion, without the opportunity of studying this measure as carefully as I should, I am under the impression that this resolution offers no opportunity and no way out of our present predicament that cannot very readily be taken advantage of. It looks like a way out of our present predicament if it is properly taken advantage of. I think you understand the point that I am trying to make here. We have to recognize, of course, that any commission like that that is instructed to report its findings is a commission where we run the danger of their coming back with merely making a lot of mere generalizations and not coming in here with any specific program. Unless this bill stipulates in no uncertain terms that we want positive recommendations to put the air defenses of this country where they should be, I think it is only going to be another waste of time.

The CHAIRMAN. You could not tell them what to find; otherwise we would simply be telling them in advance what should be done in not giving them the opportunity to investigate and determine.

Mr. SCHAEFER. Do you not think this resolution calls for membership from the bodies of the Government, including the military and naval forces, and other groups, that would strongly tend to cause them to bring in a proper report?

Colonel WETHERILL. We feel very certain that it is the best suggestion that has been offered, and it would certainly tend in that direction, because it will have the approval of these gentlemen here, and their strong support. That will be one of the biggest things behind it. They are getting at the thing from the proper point of view; they are approaching it from the proper prospective. My answer to your question is, therefore, "Yes."

Mr. SCHAEFER. As a matter of fact, our great chairman will be on that committee, and he has been doing a great deal of work in regard to this matter, and he has been studying this subject for years. Do you not think he should and would insist upon a report that would be of some value in the matter?

Colonel WETHERILL. I said this morning, sir, in your absence, I believe the country looks to this Military Affairs Committee of the House to solve this problem. I think the country is considerably concerned that it should be properly solved. Myself and my whole organization have more confidence that this committee will, as far as humanly possible, solve this problem in a way that will provide an adequate air defense for this country.

Mr. SCHAEFER. Do you not think this commission, if immediately formed and organized, would be in position to bring us a report by the next session of Congress?

Colonel WETHERILL. On two conditions they could do so. Those conditions are, first, that the commission would be properly constituted. I mean by that that the men that would be put on this commission are outside of the men that would be named from the House and Senate. The five men would be really properly suited for the position. In other words, that those men would be so zealous and so dedicated to this cause that they would take their coats off and work on this thing day and night and go into it thoroughly; that they would not merely be rubber stamps for \$2,400 or \$3,600 assistants which are provided for in here. I do not refer to the appointees from the Senate and the House in that, of course.

If you are going to put men on this committee who are qualified to render the high service demanded and have the courage to submit their recommendations and who will themselves know that these recommendations are meritorious in the light of all the facts—that is one thing.

If you are going to have men on there who may be named, perhaps, without any due appreciation of the problem but may be biased from the viewpoint of the Army or the Navy or any other special interest, you will find out that the chairman of this committee is going to ask the help and cooperation of a nonpaid \$1-per-year man who will be too busy with his own affairs to take his coat off and work or who will be easily and successfully accessible to the ears of people who hear the point of view of others who have not studied this thing thoroughly. They will be casual about this thing. They will be influenced to an undue degree by others. We will then find a complete defeat of the commission from its true purpose. Then the commission will be in the same kind of pickle that other commissions seeking to accomplish the same thing have been at other times.

Mr. SCHAEFER. There is one other question in reference to Resolution 168. In reference to compensation accorded to those who will be appointed to serve on this commission in the capacity you referred to, what is your impression about that? Do you think there should be some compensation? You may have a situation of some difficulty otherwise. You may have a valuable man who cannot serve because there is not pay commensurate with his work.

Colonel WETHERILL. Mr. Chairman, I am afraid I am going to put myself in the position of sounding like a "yes" man to Mr. Schaefer. I have said it so many times here that that would be a fair inference. I have stood here and said "yes" to his several questions, but I could not do otherwise because they were so pertinent and approached the real situation so directly and so poignantly. In fact, there is no other way I can do but to answer "yes." I must answer "yes" to this man's question.

This commission is in great danger if you do not have on it the men who are qualified to do the work, and if you ask a man to volunteer to work on it and pay him \$1 per year you know, if he has to live, as most of us do, he will have his eye mostly on his main source of revenue or income. He cannot abandon his business. If he is so well fixed, if he is so affluent in his own financial circumstances that all he has to do is to sit down and cut coupons or have somebody cut them for him, the chances are he will not be the type of man you want. The practical, experienced man is the only type of man that would be of any assistance to you in a situation of this kind.

Can you expect these men to abandon all of their businesses and not merely make contributions of their time but abandon their own opportunity to earn their own living at the same time? I cannot see how you can get the services required under such circumstances. I believe it to be of great importance in the bill to have it modified that way; I believe it will be a great improvement in the bill if it were modified to provide for proper and adequate compensation for the chairman and for those men who will be required to do active, aggressive, vigorous work in order to get somewhere.

Mr. MERRITT. What do you call proper compensation?

Colonel WETHERILL. I believe this committee can decide that much better than I can.

Mr. MERRITT. I do not believe the gentlemen that are Members of the Congress who would sit on this committee would act in the capacity of rubber stamps on the commission if they were appointed.

Colonel WETHERILL. Certainly not. I never intended to create any such impression, and I trust I did not do so.

Mr. MERRITT. I really did not think you did.

Colonel WETHERILL. There is the suggestion in this resolution that there should be five members at large appointed by the President, and no compensation is provided for these gentlemen. It does not allow them even the proverbial \$1 per year. I cannot see how any man who is competent and leading an active life, where he needs to be occupied in earning his livelihood, could leave his dependents and come down here and work for the Government for nothing to do a job as vitally important as this one is, where it really means millions and millions of dollars a year to the Government in the final percentages that will result from this development. It seems to me that it is grossly unfair to expect them to do so.

Mr. TURNER. How long would it take to do this work?

Colonel WETHERILL. The provisions of this bill appear to be to insure that it can be done within the time specified in the bill. It is specified that it shall be done and reported to the President on the 15th of December 1935. Assuming that the committee was made up of a personnel who would work together and where there would not be an appointee who would try to nullify the forward policies which the committee should fulfill, you have, also, a provision that the expenses of that commission can be paid for, and therefore, if a large number of statistical compilations are needed, and if a lot of research work has to be done, while no large salaries can be paid, these men could have the power to move forward rapidly, and under the various circumstances which I have just stated somewhat seriatum I believe the work could be performed by December 15. It is neces-

sary to do this rapidly and efficiently, because it covers many aspects, and they would have to move forward simultaneously upon these various aspects. If you provide the money to enable the commission to work rapidly, I think that they could make a proper report somewhere around the 15th of December. If you have the gentlemen from the House and Senate with a group of inactive members to whom I have made reference, with their own personal problems or business problems and other duties, so that they cannot give this their major attention and cannot even get a quorum for these meetings, why, everybody knows that the year is gone in no time.

This thing must be done by wholehearted dedication of energy, time, and money of those who feel that such a dedication to this patriotic service is the proper duty for them to perform. If such is the case, the thing will be done in time to make a proper report by the 15th of December 1935. Otherwise I do not think it will be, unless it has this wholehearted dedication to this patriotic service. I do not think it can be accurately described otherwise.

Mr. SCHAEFER. There have been a lot of boards and commissions appointed to study this question. What do you think of their results?

Colonel WETHERILL. All of these aviation reports and data going back many years, including the Morrow Commission and others, including, as well, of course, the Baker report, all indicate there is a great deal of such matter readily available for the commission to study. I would not be able to truthfully and frankly say that these people would be able to do this work in a year if they did not have all of these data available to them. However, with it available to them, I think they can take care of it within the time specified all right.

Mr. SCHAEFER. They never made any concrete recommendations?

Colonel WETHERILL. They have made specific recommendations, but it is like a picture puzzle with pieces scattered all over the floor. You cannot make anything out of it that is of any value.

Mr. TURNER. Why not have your organization do something in this regard? Why cannot your organization submit all of this information to the Congress without getting outside men who are not interested in the matter?

Colonel WETHERILL. The Air Defense League has always told the chairman that it would hold itself as well as its resources and its facilities at the disposal of the chairman in order to assist in any way in the taking care of this matter.

Mr. SCHAEFER. I was just thinking that men like you and Mr. Frazier would be able to get up the information that these people who are not interested in the matter would find difficulty in doing.

Colonel WETHERILL. We have a vast deal of information that is available today. We would make that available if we could only feel that this commission was going to draw a definite solution and not a fragmentary one.

Mr. TURNER. Would you go outside of your own organization to get men to go on this commission?

Colonel WETHERILL. Feeling as I do that the responsibility for the arrangement of a commission, if this commission were to be adopted, would be that of the President of the United States, I would feel it would be presumptive for us to presume to name anybody; that he could select them much better than we could. Unquestionably, the

President of the United States will be willing to select a proper body for this purpose.

Mr. TURNER. He would probably like for you to make your recommendations.

Colonel WETHERILL. The need for a group of representative men being on this commission is so great that without it we might as well not have the commission at all. I am sure that the selection of those men will not cause any difficulty, because there are so many of them who may be appointed for that purpose.

The CHAIRMAN. Of course, every citizen or responsible organization will have the right to make nomination to the President of the United States, giving reasons, and then the President will have the responsibility of making the selections out of perhaps 100 nominations that might be made.

Colonel WETHERILL. There is one point to be put on the record. There are a great many organizations in the United States, some with definite fish to fry, but many with a great deal of knowledge and experience and insight into this problem. While we would not want to see on that commission people who would be likely to further their own narrow interests but the patriotic interests of the country as a whole, nevertheless we cannot assume that these men would not be amply qualified to make good members of such an organization. It is possible they could suggest patriotic citizens who would see things in the light that the President would want them to. There are many agencies dedicated heart and soul to the progress of our United States, who would be able to nominate people splendidly equipped to do work of this nature.

The CHAIRMAN. Do you have anything else that you desire to present, Colonel Wetherill?

Colonel WETHERILL. I have nothing further that I desire to present. I desire to express my appreciation to you for your kindness and attention in listening to my presentation, and if I may be of any further service to the committee, you have only to call on me.

The CHAIRMAN. We know that. Thank you again. I desire to thank you, on behalf of the committee, for the interest and assistance you have rendered it. I believe, now, we have gone through the list so far as I recall it except for Colonel Strauss. I have been informed that the matter he desires to present is not suitable as a subject for this program, but is something which will be taken up by the subcommittee. It is a rather technical presentation and it is not necessary to take up the time and attention of all the members of the committee in regard to that.

Is Captain McDarment here?

Captain McDARMENT. Yes, sir.

The CHAIRMAN. Your name has been handed to me as an officer who is also a pilot. I desire to inquire if that is the correct statement.

Captain McDARMENT. Yes, sir.

The CHAIRMAN. I shall be glad to hear from you.

STATEMENT OF CAPT. CORLEY P. McDARMENT, AIR CORPS, U. S. A.

Captain McDARMENT. My name is Capt. Corley P. McDarment, Army Air Corps, United States Army. I will give you just a short history of my experience in the past. I entered the military service

18 years ago as a volunteer from Kentucky and I have been in the Army Air Corps ever since.

The CHAIRMAN. What education did you have prior to coming into the Army?

Captain McDARMENT. I hold three university degrees at the present time. I am a member of the American Society of International Law and I also belong to several scientific societies. Research work has always been my specialty.

The CHAIRMAN. What degrees do you hold?

Captain McDARMENT. A. B., LL. B., and A. M.

The CHAIRMAN. From what institution?

Captain McDARMENT. George Washington University.

Mr. Chairman, members of the committee, ladies, and gentlemen, before giving my testimony let me say that I am amazed at the knowledge which this committee has shown on aviation and the modern aspects of national defense. As late as 5 years ago I doubt if a committee so well informed could have been appointed from the whole House. One must know a lot about a subject to be able to ask the intelligent questions which I have heard from different members during these hearings.

Gentlemen, I think I represent that part of the Air Corps which might be termed the middle section. You have heard the top talking here, and gentlemen, I am going to say to you frankly and before this committee, yet with all due respect to the other officers who may not happen to agree with me, certain things.

Some of the bills pending before this committee are of tremendous importance. They may have a vital effect upon the future course of the country. In fact, this Republic may survive or perish under its present form of government through some of these bills. The future political set-up of this country will be affected by them.

I am going to launch directly into a discussion of these bills in numerical order. Let us take no. 4336, providing for a junior air reserve. There is a bill which, at first blush, appears to be a great undertaking to wet nurse several hundred thousand youngsters who are interested in aviation. The chairman of this committee said the other day that he believed 50,000 boys would come into this reserve. He is wrong. That many boys have already asked me a thousand questions apiece on this aviation business—or so it seems. And it is my opinion that the number who would come in would be nearer 300,000.

My duty as instructor for the Organized Reserves at Pittsburgh puts me in close touch with these boys. I make numerous talks to their clubs and the schools, and I help organize their flying clubs, judge their model contests, and so forth; further, I try to answer their questions. I can say to you very frankly that if all boys fly who intend to, the birds will have to ride in taxis.

I have done a great deal of work along this line.

Now, it happens that three big newspaper chains—the Hearst chain, Scripps-Howard, and Paul Block—are sponsoring flying clubs for boys and girls. These newspapers are, of course, doing it indirectly as circulation builders, but they also are giving these young people the rudiments of ground-school aviation through their columns. And in doing this they are helping the country and the future air defenses, and what they are doing would cost the Government thousands of dollars to do. I think it should be appreciated

by the Government. I am of the opinion that the Government should cooperate in that move and put the stamp of approval of the Government on a proposition of that character. I was pleased to hear that this was being done on such a splendid scale; and, as I said a moment ago, I am of the opinion that the Government should cooperate in this at least to the extent of putting the color of Government approval on a proposition of this character. I was pleased to hear that this would not cost the Government anything, and in any case I should hope it would lead to something.

And in connection with this air reserve, gentlemen, let me call your attention to something highly important. I refer to the various youth movements in this country—these movements or organizations, many of which are started by half-baked pseudo-political economists—professional agitators, if you please. Now it is significant that no youth movement has failed to bring about tremendous political changes in any country in modern times. The present regime in Russia started as a youth movement. The Government of Italy—the Fascisti—was a youth movement a few years ago. The Nazi rule of Germany was a youth movement. Youth is on the prowl in this country. The newspapers show it every day. The American Legion, alone, is trying to suppress a lot of the fanatical ideas being put into the heads of immature children today. The result of a youth movement in this country would not be exactly as it is in any other country, but you may be sure it would result in a dictator, for young people are hero worshipers.

The CHAIRMAN. Do you have any idea how many youngsters there are in all of the private air schools today?

Captain McDARMENT. That would be very hard for me to say. Until the department of air bill is passed, when all of this information can be gotten together, I do not think it will be possible to get that information together, because there are so many little schools scattered over the country that no one knows about.

The CHAIRMAN. It looks to me like there should be some organization that would have that information available because it should be of such tremendous importance as a matter of national defense.

Captain McDARMENT. The Department of Commerce can probably come nearer to it than anybody else. In connection with that particular matter let me call your attention to something which is going on in this country which we can do in the schools—control the new movement of youth.

As I said before, there is a definite youth movement today.

The CHAIRMAN. That is why I am so strong for the Boy Scouts. I want to be able to control their direction and their education along such lines of national patriotism. I am for the Junior Birdmen and junior air reserve for the same reason.

Captain McDARMENT. I am glad that somebody is for me and that I am for something worth while. It is something that should be encouraged.

Let me relate something to you which will have a definite bearing upon this matter before you now: Recently I was called upon by the American Legion post to make a speech on the occasion of a boys' contest in connection with model flying. They had about 100 boys at this meeting. The American Legion members got up this splendid movement that they are carrying on in connection with this youth-guidance movement. Through it they are trying to counteract the effects

of these pseudo-political economists and agitators that are going up and down this country waving a red flag and are bringing about the unrest that is appearing in our young people. We all know what this spirit will lead to. These are the people that go about talking about strikes and pacifist movements and things of that sort. I felt that this was a wonderful opportunity to get up and tell the American Legion post that Congress itself was trying to do something about this very thing. Because my position is with the Government I am given an opportunity to see many things of this sort, and they all seem to me to have one common import. The young men and the girls of today are already aviation-bound; they are aviation-minded.

And now, gentlemen, we must admit that youth will be served sooner or later. Further, you know that as the twig is bent so the tree is inclined. Then let me urge that the Government assume some kind of sponsorship over those thousands of young men and young women in then use this organization to foster loyal and patriotic citizens as well come under some form or color of Government proprietorship, and then use this organization to foster loyal and patriotic citizens as well as a reservoir of military strength.

Instead of letting these young people dissipate their energies marching the street under the banner of various isms, take them into the fold and give them the guidance of mature experience through this junior air reserve. I believe a wonderful organization could be made of this reserve, and surely a greater service could not be done the country than forming the nucleus of solid citizens for the future. I would even extend this to other arms of the service. Surely the advantage there would be the same as it is here.

Grover Cleveland once said, "It is to the patriotic youth of the Union that we must look forward to our greatness and national contribution."

There is one other thought I would like to bring out here. I think it is important to consider the other sex.

The CHAIRMAN. You go ahead and speak freely. We do not want you to stand back at all.

Captain McDARMENT. I am living today and dying tomorrow. I do not know just where all of these things will lead, but I want to suggest one other thing.

Girls. Girls are tremendously interested in this aviation business. It is very astonishing how these girls come out to the flying fields and fly their models along with the boys. I suggest that girls be considered very carefully in this matter, because they are going to have their place anyway. I think we might as well do that, because it will have to be reckoned with later in life anyway. You cannot get away from it, and since you cannot get away from it, since you cannot keep them down, I am in favor of taking them into the combination.

I seriously would suggest taking girls into this organization as well as boys. They are becoming air-minded. I see school girls over at Pittsburgh get into a plane, take a few lessons, and into the air they go. They seem to fly as well as the boys. And surely they can be of help to the country.

There is a further point in this connection that I want to bring to your attention. This is a really serious point in this junior air reserve. These boys can move in on us and take us over if we let them get too far. The next thing they want to do after we have

taken them in is to get a plane and fly. There will be pressure brought to bear on us to do so. I received a letter from a youngster the other day which read something like this:

DEAR CAPTAIN: For years my parents have thwarted my efforts from becoming an Army aviator, but after reading your article I am greatly encouraged. I am determined that right away I am going to become an Army aviator. I am now in the seventh grade and 14 years old.

Yet, a youngster of that age talks about his being thwarted in his life's desire by his parents. This is something that we will have to reckon with. There has been a recommendation to put these boys and girls into uniform. I would hesitate to go that far. I know it is good, but there is a difficulty that exists there. I do not think that there is some danger in going too far on this Shiek idea. As I say, I know it is good, but there is the danger of these boys and girls trying to go further than we might desire them to do at first. This junior air reserve is all right as long as we keep it where it should be. As to the workings of this junior air reserve, let me strongly advise that it not be laid into the lap of the already harrassed Army Air Corps. The Air Corps does not have enough personnel to run itself. The Air Corps cannot organize and run this junior reserve. The Air Corps could act in an advisory capacity, and some way may be seen to hook the organization up with the real Air Reserve if that organization is brought back to life. The boys will work on the planes if they are given an opportunity to do so.

The CHAIRMAN. I may be mistaken, but I do not see the objection to having enlisted men learn to fly and secure a Reserve commission in the Air Reserve and still continue to serve as an enlisted man in the Army. At the moment I do not see any inconsistency in that particular proposition.

Captain McDARMENT. There is just one other point I want to suggest. I have already brought that out before to some degree and it is—do not throw this into the lap of the Army Air Corps because we do not have enough personnel to run ourselves. We do not have enough equipment.

That is all I care to say on that particular point.

This brings us to the Air Reserve bill. This is bill no. 4348. This was the bill which was presented and defended the other day before this committee. No doubt you heard some testimony on this subject the other day which surprised you. Some people think I wrote that bill. I did not write that bill. I can explain to you just how the bill came about. Two years ago at the Dallas National Convention the Reserves were talking about abolishing the Air Reserve completely unless something was done for it. Gentlemen, let me take just a moment to tell you what has happened to it. Beginning from the period right after the World War when we had about 20,000 officers who were on a flying status, we have seen it drop from 20,000 to 15,000, from 15,000 to 12,000, from 12,000 to 10,000, from 10,000 to 8,000, from 8,000 to 7,000, and I thought we had the other day 1,800 officers, but since we have been here someone has mentioned 1,300 officers. Perhaps we have dropped 200 more since these hearings have been convened. In view of that situation, I think the matter merits your most serious consideration. At this convention to which I have made reference suggestions were made along the lines of this bill, and at the Columbus meeting last fall the matter

was further discussed, and, later, Major Beatty, the brilliant young lawyer from Birmingham, Ala., whom you heard the other day, and other officers of the association framed the bill.

I do not say that this bill is the best possible one for the situation. However, it is something, and that is better than nothing at all. It is my belief that it may be better that if a high-ranking Regular Army officer were detailed as chief of Air Reserve and have Reserve Corps assistants. One of these should be the assistant of Air Reserve and have field rank and further should be a flying officer. And, if the Reserves are as important as they are supposed to be, the chief of Air Reserve should be a brigadier general, or a colonel, at least.

This bill is being opposed, I know. But, gentlemen, as other witnesses have testified, the Air Reserve has dwindled from 15 or 20 thousand after the World War down until today when we have only about 1,500 who can be depended upon for active flying. Somebody said 1,300 the other day, as I mentioned a moment ago. Something must be wrong when a thing goes backwards as fast as that. The equipment has dropped to almost nothing. The other day two National Guard flyers from a western State stopped at my field, and I asked them how many Army planes they had. They said 8 service planes for their 16 officers to fly. Well, I have only 1, and is of the oldest type in service, for about 43 officers to fly. Perhaps that is the type of plane I should have, perhaps that is the number of planes I should have. I do not know. Many of my younger pilots are going into the National Guard, which is a fine organization, and they can get good planes to fly there, and they can get a little remuneration for travel and for the hazardous duty.

I cannot even hold out any promises for my Reserve officers. The depots that supply our station cannot promise anything for the future in the way of equipment. The Reserve officers who were before the committee the other day told me before leaving that they learned that the \$300,000 allotted to buy planes for the Reserves this year was to be spent for only seven planes, and these were of a type which, in my opinion, are neither needed nor wanted by the Reserves. Maybe I am wrong about that. Maybe they are the type that we need. I do not know. The story sounds fishy to me. I do not believe it is true. Perhaps, some of the higher Air Corps officers here know the truth about it. The question has arisen, now, as to whether the Reserves can fly or not. Further, this is an inquiry as to those who have not gone through our "West Point" of the air in Texas.

The CHAIRMAN. Do you refer there to Randolph Field?

Captain McDARMENT. Yes. Randolph Field. Undoubtedly, that school is the best in the world. A man must be lucky as well as very good to get through it. But, as to declaring that nobody else can be of military use except the graduates of that school, I cannot agree. I have seen too much of the other side of the picture. The Army pilots should make the best combat pilots. They are more skilled in handling battle planes, in the terrific power dives, in the aerial acrobatics that they have to engage in than others; but an aerial combat is only one phase of aerial warfare. The man who can steer a large plane to a certain point and drop a load of bombs or deposit supplies or personnel will surely be of great military value.

Thousands of pilots in this country who have never gone through our modern Army flying school can certainly do that. I do not dis-

parage the graduates of our military school by any means. They are the best pilots in the world, bar none, but they may not be the best fighters in the world.

Gen. Douglas MacArthur, himself, has said that the most brilliant peacetime officer may become a saphead in battle. We do not know how our crack pilots would stack up against commercially trained Reserves in war. It is quite possible that the crack pilot would go all to pieces, and that the commercially trained Reserves would step in and carry the day. However, I do not know that commercially trained pilots learn to fly military planes with any particular difficulty. In fact, I do know that commercially trained pilots learn to fly military planes with ease; with very little difficulty. It is my observation of 18 years that men can fly or not fly. Of course, some are much better than others, but anybody who has mastered the rudiments of flying should be able to fly most anything with wings, after some practice.

Germany blossomed out the other day with a full-fledged air force. How did those military pilots learn to fly? On gliders.

Where do we get our commercial men? Most of the first pilots in the big air lines today are not graduates of our modern military flying school, yet they are doing a successful job. Many of them were trained in the Army schools during the war, and those schools were nothing like as thorough as a modern, first-class commercial flying school.

In fact, no one of the great aces of the war could get a job on a modern air line as even a copilot with the flying experience he had when he first went over the line.

There is something wrong with this whole situation. Probably some of the high-ranking Army officers can answer this question, but I think it is a difficult one to answer. I am just a captain in the Army. Maybe there is something that they know and I do not know of it. There are certainly plenty of things that I do not know. This may be one of the many.

The CHAIRMAN. If anybody were made a brigadier general this morning, would he know any more than he did yesterday when he was a captain?

Captain McDARMENT. No, sir. I do not know that rank immediately confers intelligence, although I think that most officers as they stay in the service gradually learn more and more as they advance along the line.

When we start out, we start out with a single gold bar, and then we gather a silver bar which shines a little brighter as our minds get a little sharper, so I am told, and then we have the opportunity later on to look across two bars as a captain. Then you come along to the rank of major, and a gold leaf, which is an oak tree pinned on you. You are supposed to be up in an oak tree so you can see much farther than you could see as a lieutenant or as a captain. Then the next thing you get is the rank of lieutenant colonel, with a silver maple. The silver maple is a higher tree and as you climb up this higher tree you can see still farther. Then, in due time, you secure the rank of colonel, with a gold eagle, and thus you fly up into the air and you can see the whole country for miles about, and the other people down below begin to take on a perspective which certainly makes them smaller and observable in greater groups.

Then you take a shoot up into the sky with the stars that you get as a general. As a general with a star, you can look down and see the whole firmament and you can survey the whole thing below.

That is the theory of the rank as it was told to me. It is necessary. I have lived up to it gladly and faithfully. I have every respect for all of these things all of the time, and I never deviate from them. In anything I say here, I do not want to imply or infer the slightest disrespect for the Army, its officers, or its customs, or the rank of those above or below me.

As I say, gentlemen, that is the way rank was explained to me when I came into the Army, and I have not heard anything different yet. It is all right.

Gentlemen, the question has come up as to whether Reserve officers are flyers, and the further question has come up in regard to women flyers.

Why, gentlemen, I would trust Helen Ritchey, our famous Pittsburgh aviatrix, to fly me from Washington to Detroit on the blackest night just as quickly as I would one of my brother Army pilots, or even myself. Probably I would trust her more quickly, for Helen flies the route every day, as a pilot on an air line.

There is an entirely different nature in the training of the pilots who fly in the commercial school training and those who fly under the military school system, but the basic system is entirely the same. Of course, the commercial pilot gets a great deal more training in the matter of blind flying as learning to fly military planes; they do not find that so difficult even after very limited practice. It is being done all the time. In fact, you hardly notice the difference. It is my opinion that if you can fly, you can fly any type of plane. You can either fly or you cannot fly. I heard some testimony yesterday; I do not know whether the officer understood the question correctly or not. I am afraid he did not. If you have learned to fly and if you are a person who has flown for a year or two or 5 years, then never again will you have difficulty in getting into an airplane and flying again. I think when he said that if you should drop flying for 5 years you would not be able to fly again—when he said that I think the question was misunderstood. I know of thousands of cases in which men are out of flying for a long time and have come back. Your medical men and your psychologists will tell you it is a little bit like riding a bicycle, only I do not believe it is so difficult. It is really a natural reaction, and I doubt if a man could possibly forget how to fly if he has ever flown for several hundred hours. If you take a man off of flying for 2 or 3 years or if you even take him out of it for 10 years, and then take him up in a fairly safe type of plane, he would go down without killing anybody, although he would probably crack the plane up. He would probably do that, but I do not believe he would kill anyone. It is easier to fly than to drive an automobile. I am sure that some of you, especially the younger men, if you have flown any, you are aware of what I am talking about. For instance, I would rather fly across the mountains to Pittsburgh than I would drive a car across them. Flying is a sort of natural thing today. I have seen boys and girls go out and get into these training airplanes and learn to fly them after just a few hours of instruction and then fly them all over the country.

This idea that you have to be a superman to fly an airplane, I think, is going out. For a long time I held to that somewhat myself, that in order to fly an airplane one had to be some sort of a superman, some sort of a clear individual, who was set apart from the ordinary run of mankind. I do not think that any more. I think that all of this has been taken out of me in the past few years, once I have been around the commercial fields to any great extent.

The CHAIRMAN. Have they commercial training schools in Pittsburgh where youngsters will pay to learn to fly?

Captain McDARMENT. Yes. They are learning to fly there all the time.

The CHAIRMAN. About how many of them do you suppose have taken that training?

Captain McDARMENT. Only about 25 or 30 in that vicinity. The place is overcrowded, and they do not have enough facilities, really, including the planes to take care of more.

The CHAIRMAN. I am amazed that 35 are learning to fly in Columbia, S. C. I also understand that there are in training at Greenville, S. C., 20. I was just informed to that effect. That is my home State and my home city there. I am surprised to learn that you do not have more in the Pittsburgh area.

Captain McDARMENT. That is right. There are several flying fields in the vicinity of Pittsburgh. I am telling you about the ones I know. As to whether or not commercial flyers can fly Army planes, as I stated to you previously, there is not one of the World War flyers that could get a job on a modern air liner today even as copilot with the flying time that he had when he flew across the lines in France. That is something to think about.

I want to bring out another situation with our Reserves here. I want to refer to our older Reserve officers who are being dropped from active piloting duty because of slight physical defects.

Not long ago I heard an Air Corps colonel exclaim, "What can we do with these older Reserves?" And I heard another high-ranking Air Corps officer say that he would be in favor of this bill if some use could be found for these older Reserves who can no longer fly. Now, gentleman, there is nobody before this committee who can answer that question better than I. I was at the bottom of the heap at the beginning of the World War. I went through the various grades, including flying cadet and second lieutenant. We had commanding officers and adjutants and executive officers who knew nothing about flying and had very little sympathy with it. In fact, some of them who could not learn to fly were even antagonistic toward us. I want to tell you that the most valuable officers we would have for our ground organization during an emergency would be these older Reserve officers who know what it is all about and speak the language. These men would be invaluable as executives, adjutants, and even post commanders. I have Reserve majors in my Pittsburgh units; men running big companies, successful businessmen, whom I would be glad to serve under in war or peace. At least these men could be depended upon to run a military command with a lot of common sense. I do not believe these men should be squeezed out. The other branches do not squeeze out their older and more mature Reserves. I believe our Air Reserves should be kept in as supply officers, administrators, engineer officers,

and so forth, and given an observer's status and be permitted to keep on flying as passengers.

I have heard that one objection to this bill is the fear that a strong Air Reserve might try to run the Air Corps, or exert too much political influence. But I can see no logic in this. The National Guard is a powerful and useful civilian organization and it does not run the Army. The big Reserve contingents of the branches do not run those branches.

It is argued that it would take a lot of funds and personnel to run this Air Reserve. This bill tries to provide one extra officer to help the Chief of Air Corps, and extra funds would have to come from the Appropriations Committee. This would be a good talking point for the Air Corps before the Budget and Appropriations Committee. The Air Corps could say, "We have been given an extra responsibility which cannot be carried out unless we have more funds and personnel." It looks to me like a good lever to prize loose some extra money for Reserve purposes and to help the Air Corps. I cannot see why anyone should oppose this bill in principle at least. I believe that anything you do about this bill will be better than nothing at all. The Reserve Air Corps should be abolished if allowed to run as it has been in the past.

Frankly, I believe the Air Corps wants to do something for the Reserves, but it has not the equipment to supply even itself. I believe we have dealt with futures so much that the Reserve Corps itself has just about become a thing of the past.

At this time I want to say a word about H. R. 4351, providing for a separate promotion list for the Air Corps, with time and a half for flying duty toward retirement. Russia retires her Army aviators at the end of 15 years' flying. England retires hers at 20 years. I believe every old-time pilot in our Army will agree with the flight surgeons that, while life may begin at 40, combat flying ends with the physiological age of 40. I have heard the argument that under this arrangement aviators would have to retire on only 38 percent of their pay, and they would not want to do it. However, this is figured in a peculiar way. This 38 percent is figured on all pay, including flying pay and allowances. It is still 75 percent of the base pay. This is all they would get at the end of 30 years. I have heard also that there would be too many younger men at the top of this Army Air Corps. Gentlemen, that is what we want.

When the Civil War broke out and they had to have people to do something and do it quickly, they took Jefferson Davis and Robert E. Lee, and men of that type and that picked captains and majors and even lieutenants, in some cases, and put them in charge. Some of the most illustrious generals of the Civil War were men that went in as captains and majors to take those positions. In fact, the average age of a general in the Civil War was very young. Today, in Russia, the average of a general in the flight army is 33. I do not know whether that is Russian or French Army at the moment. However, that age is about right in those armies in whichever one it may be.

I think that this bill should be favorably reported out and also the provisions of that bill should be included in H. R. 2041.

At this time I want to say a word about H. R. 6810, the bill providing for help to inventors and granting prize money for inven-

tions. This bill would grant prizes of \$50,000, \$30,000, and \$20,000 to spur inventions. This seems like a big wad of money to me. It sounds like the Irish sweepstakes. I believe the same end could be achieved if the prize money were cut down to \$5,000, \$3,000, and \$2,000. But, perhaps I am too Scotch. This bill is certainly a step in the right direction, but I think it needs more study. There should be some agency which could give inventors a sympathetic ear and help those with worthy ideas. I never saw that much money, so maybe I do not know what I am talking about. It is just my idea on the subject.

The CHAIRMAN. Do you know what the British Government offers as an award or prize?

Captain McDARMENT. On the Irish sweepstakes?

The CHAIRMAN. No. On the prizes for the winning competition in the design competition which they conduct.

Captain McDARMENT. No, sir. I do not know.

The CHAIRMAN. It is comparable to the prizes offered here.

Captain McDARMENT. As I said before, I am Scotch, and I was not keeping up with the English.

The CHAIRMAN. I am Scotch too, but I am talking about what the British do.

Captain McDARMENT. I know a man who has an airport, and he is trying to fix up a machine shop to give inventors a chance to make their models and give a test flight. Inventors come to me constantly with their ideas and models. Some of them are good and some are pure "nutty." But, I do not have the time nor the engineering qualifications to pass on them. I usually refer them to our engineering division. But, this division has its own problems to solve and, unless an idea has military angles, it may not get much attention. But these inventors should be encouraged and some of them helped, financially.

While on this subject of new inventions and new ideas, let me call attention to an interesting paragraph written by the eminent author, Rupert Hughes, a colonel in the Reserve Corps of the Intelligence Division during the war. Mr. Rupert Hughes was formerly of the New York National Guard, and served in the Military Intelligence section during the war. He has written an interesting series of articles for the American Legion magazine, called, "Memories of Military Intelligence Department." He told about how certain Army officers, during the hysteria of war, wanted to shoot a lot of civilians on suspicion that they might be spies.

I might just say at that point that I am getting to the age where, when something comes to me it is received with suspicion; when somebody comes to me with something new and I look it over I say, "What is there wrong with this?" I am not as open minded as I was 15 years ago or 10 years ago, or something like that, because you know you get that way in this thing.

You get back to Rupert Hughes, he made a statement here which I think is very interesting and which I think it should receive the attention of everyone who is considering a matter of this kind:

Even the staunchest believer in a strong regular army and powerful general staff has to admit the necessity for an occasional interference by civilian common sense. There seems to be something paralyzing in the effect of a long peace on the mentality of the average regular-army officer. There has been

brilliant exceptions, of course, but at the outbreak of practically every war, the first enemy any nation has to conquer is the group of men at the top of its military establishment. It may be the deadliness of routine, the slowness of promotion, or the fatal habit of high authority. In any case, regular armies tend to die at the top. The leaders grow Bourbon; they neither learn anything nor forget anything.

The only thing that saved us in the last war was the fact that there were the same kind of people on the other side too. When a German genius proposed a gas attack his superiors begrudged him only a small supply and permitted him to try his experiment in only one narrow sector. Consequently, his dazzling success could not be followed up until the enemy was prepared for it. The English genius who devised the tank was similarly suppressed and limited so that the amazing appearance of the first monsters was hardly a flash in the pan. I could tell the story of an American invention that might have saved us a whole year of warfare and Europe millions of lives if it had not been so smothered by our own red-tape worms that it did not come into use.

But now gentlemen, let me hastily add—yes; hastily, indeed—that the present heads of the Army, together with their staff, friends, and sympathizers come under the category of “brilliant exceptions” mentioned by Col. Rupert Hughes. We have a lot of them here today. There they are, sitting in the “Amen” row. I have not heard any “Amens” yet, but—and you can tell by looking at them that they are brilliant exceptions.

The CHAIRMAN. What was this invention that he had reference to?

Captain McDARMENT. I do not know what it is. But, while on this subject of inventions and new ideas, do you remember what General Arnold said the other day? He told about the long-range airplanes that were coming around the corner. According to Arthur Brisbane, Russia already has a plane that can fly 7,500 miles without refueling. And, Dr. E. P. Warner testified that airplanes could not be standardized as they improved so fast. That is true. In fact, Gen. Italo Balbo, the youthful Italian general, who led an armada of planes from Rome to this country 2 years ago, said:

There is no present to aviation—only a past and a future. And, no man can properly develop aviation who cannot change his mind every 24 hours if necessary.

I want to say to you that there are very brilliant exceptions in the Army General Staff as it is constituted today. I am proud of being able to serve under those generals who are sitting here today. They are splendid men, and they are thoroughly alert in every manner, shape, and form. I am proud to do what they tell me to do. They can tell me to do anything today, and I am proud of it. However, I am calling your attention to a condition that can exist and I think that it is clear that when these officers go into an analysis of matters of this kind, due consideration has to be given to all of the aspects of the situation. We have to know that there is a sense of intense conservatism on the part of many high-ranking Army officers that sometimes exists a detriment on rapid progress.

The CHAIRMAN. They are careful because we might go too far unless they restrict us and perhaps by them holding us back, and us pushing them, we reach a happy medium which is a matter of not too much progress and not too much retardation. Do you think that about covers it?

Captain McDARMENT. That is why I feel that this committee will effect some good by getting behind these people and making them do something.

Gentlemen, seriously speaking, on this subject of inventions I want to call your attention to the testimony that was given here by one of the witnesses who told you about some of the new developments that are taking place in aviation. He was telling you about this new airplane that was coming around the mountain, a new airplane that would have a much greater range than any we now have. This is a plane that could travel very great distances under a heavy load; in fact, we are informed of a recent plane which has been developed in Russia that can fly 7,500 miles without refueling. We know these things are coming about from time to time. We know that there is no such thing as a standardized Army airplane at the present time. It is not possible. They change rapidly. They are changing almost overnight.

This idea brings us to the biggest bill before the committee, H. R. 7041, the department of air project. Before entering the vital points of that bill let me call attention to a forgotten man in the Army flying organization. He is the civilian airplane mechanic. He is a man who usually hops upon a plane when it lands and gives it a quick inspection, or he overhauls them in the shops. He must be alert physically and mentally, and he must know all types of planes and motors that come into the field. These men cannot hope to hold out until the usual retirement age for civilian employees. The physical perfection and agility will decline, and they will be left high and dry and probably destitute. They are specialists and they have no other trade. Nobody wants an old man inspecting planes and motors. In justice to these men, only a small number, I want to recommend that on page 19, line 12 of H. R. 7041, an amendment be made by inserting after the word "apply" these words, "provided that civilian employees engaged in mechanical duties upon aircraft or engines shall be eligible for retirement after 30 years of service."

I would not like to touch upon some of the broader aspects of that bill. This bill provides for a department of air and places civilian aeronautics and military flying under one general secretary or head. It is my belief that nobody is smart enough to handle such a job, such a very, very big job as that. It would be analagous to having the Secretary of the Navy in charge not only of the Navy but the Coast Guard, rivers and harbors, coast and geodetic survey, inland waterways, and the merchant marine. That would be a whale of a job, even if he did have assistant secretaries.

While there must be cooperation between military and civil aeronautics, especially regarding air traffic, the purposes of the two are very different and I am inclined against it. Dr. Warner testified that the French were not satisfied with their civil aeronautics under the same head as the military. I believe we would have a lot of opposition from the commercial companies to this kind of a set-up. One official of a commercial company recently expressed the opinion that he was afraid that civil aeronautics might be dominated by a bunch of "jugheaded Army officers." I thanked him for his compliment. That is the way he expressed it.

Commercial aviation in this country has already far outstripped military aviation in its particular line, just as military flying has gone further along its specialized line. The United States Army

will never need as much blind flying and precision as required of air-line pilots. No air commander will ever risk losing a fleet of planes to bad weather except in a dire emergency. And, commercial pilots do not need a lot of acrobatics and formation flying in their work.

However, I do believe we should have a separate department of air for the military force and a coordinating department of national defense. The country is clamoring for a separate department of air. Foreign countries have such a plan. The importance of air power is growing every day, and I think it is illustrated by what you read in the papers in regard to these important transactions that are taking place in Europe every day. European countries, especially France, England, Germany, and Italy are making air treaties and entering into air pacts and combines, and they are fighting for balance of air power. These things, gentlemen, to my mind, are very significant. Take the great country of Russia. Russia today with 840 bombing planes at Vladivostok is holding at bay the third largest navy in the world.

I do not want to be misunderstood in this matter. I do not say we cannot build up a good air force under the General Staff. However, it does appear strange to everybody in the Air Corps as well as to the public that no progressive changes have occurred in the Air Corps without some big catastrophe, or a court-martial of somebody, or after big boards of investigation. The G. H. Q. Air Force appears to be the first real step toward air power that has been made in this country in 17 years. If we are to have improvement only as often as the 17-year locusts swarm, it seems pretty slow.

Mr. SCHAEFER. In 1926, do you not think there was progress made by the legislation which set up the Air Corps instead of the Air Service?

Captain McDARMENT. Yes; after the General Mitchel flare-up and court-martial and the investigation, then came this change in the Air Service.

Mr. SCHAEFER. Do you not think that Congress did more than merely change the name, Captain McDarment?

Captain McDARMENT. Well, perhaps. I would not want to say one way or the other. I do not honestly believe and I certainly would not say that the General Staff has tried to throttle the Air Corps in recent years. However, I do most monestly believe it has been a white elephant on their hands and they have not known quite what to do with it. However, I do recall that after the World War, when other countries were trying to hold and build up their air service, a bill was sponsored by a few, at least of our high-ranking officers, to abolish our Air Service altogether and put it back as a section of the Signal Corps.

I know there has been a change. That has taken place now, and there is nothing of the old spirit there that was quite a few years ago. There used to be a few officers in those years that tried to keep airplanes from flying over fortifications. The bill came up providing for or proposing that any airplane that might fly over a fort—they tried to get Congress to provide in case of such a ship flying over there that they could shoot at and bring down any airplane that might be so unfortunate as to come in range of their guns.

The possibilities there are so obvious that they do not require much attention. If you were up in an airplane and the pilot had to go around a storm and he suddenly found himself over a fort, you would find yourself being brought down in a burst of fire if you did not know where you were. All of that sort of thing has disappeared. We do not hear anything like that any more because this thing is being ironed out and a better and happier understanding of the whole situation exists.

The matter of photographs is something which has been given a considerable attention. There has been a considerable amount of agitation as to the forbidding of photographs being taken by airplanes of any military fortifications of any sort.

Let me say this to you very frankly, that you cannot keep from being photographed anything that is existant unless it is underground. No regulations that you might bring about prohibiting photographs would mean a thing because they cannot be enforced. It seems to me rather foolish to say you won't even try to pass regulations that cannot be enforced, but, of course, I may be wrong on this thing, too. I think it is another point. The fat is already in the fire on this other point, and I am going to bring it out now.

There is another point which I am going to bring out here which has probably never been brought before a committee. As I say, since the fat is already in the fire, I am going to spring it. There is a definite prejudice on the part of the rest of the Army against the Air Corps on account of flying pay. This is one of the sorest spots in the Army. Human nature is the same in the Army as outside, only more so. Sometimes the officers of other branches will admit their prejudice against us. I have been under circumstances when I wished I did not draw flight pay—it was resented so much and I am sure all other aviators have been in the same situation. This prejudice against the Air Corps, and aviators in particular, is probably unconscious with a lot of high-ranking officers who are really great men. But there is no reason to believe that, because a man wears a star or eagle on his shoulder, he is not subject to the same human emotions as one who wears a lieutenant's bar or a corporal's stripes. I believe it is unfair to the Air Corps and unfair to the other branches to have the two together. Army aviators, personally, get along better with naval officers than with the officers of other branches, so it seems to me.

The two lead a more similar life at all events. Their work seems to be more on the same type of hazard, and they certainly do get along better. If there is some way that this can be overcome by putting the proper provision in this bill, now is the time to do it.

I know of the arguments that have been made that we are not ready for a separate department of the air. I do not know about that. I do not know whether we are ready or not, but other countries have a separate department of the air. I know all of the arguments against the department of the air. Yet, I have heard arguments before this committee that we are not yet ready for a separate department of the air. However, why are we not? Other countries have had it for years, as I said before. Are we that far behind? If we never start we will never have one. Of course, we would have to wallow around and stagger like a newborn colt for a while, but the

time to do that is during peace. It would be terrible to find we had to do it during an emergency, and then have it explode right in our faces.

The argument presented here was that we would be ready for it some time in the future. It has been stated and, in fact, witnesses have testified that 10 years is the time. This committee has an interesting situation here. This one witness before this committee said he thought we would not be ready for a separate department of air for 10 years yet. However, he had said the same thing 13 years ago. At least, this witness was consistent. He did not change numbers on you. Back there he said that in 10 years we will be ready for a separate air corps. You must admit, as I say, that he has been consistent in his statement. He might have taken not only 10 years, but he might have said 5 years, or 20, or a hundred, and put it in as the number, and perhaps it is right.

Perhaps I am wrong. It may be that 10 years is the right time. I do not know that I am qualified to state whether it is or not. I do not know what the mystic meaning is in this word "ten" that makes it so applicable here in this particular case and that makes it just as good 13 years later as it was on its original presentation by the witness. If this is true, and a separate air force is like an advance state of mind of civilization, or a culture, or holiness, then we have been going backwards. I do not have any great hopes of our changing particularly in those particular regards in the next 10 years. The question seems to be: Must we be pure and holy before being baptized into this thing, or will we be holy afterwards.

The CHAIRMAN. I understood this gentleman to think that the performance of aircraft had not as yet rendered them independent and that their speed and their range and carrying power and so forth was not sufficient so as to make them logically and justifiably and completely separate from the other arms of the services. That is the way I understood it. Have you any idea about that?

Captain MCDARMENT. Probably so. I have not quite clearly understood that because I heard 10 years back the same thing, and the argument seems to be very similar to me. Certainly, if we are in a position where we will have to wait 10 years for it, the other countries have it. If it is a 10-year period there the other countries have gone ahead just exactly 10 years, because at the present time they are operating under this system, and most successfully.

The CHAIRMAN. As I understood the testimony, the gentleman said that we did not have the speed and range to justify a separation but when we came to the 3,000-mile range then he is of the opinion that you have an addition that would justify a complete independence and separate missions for air power as opposed to the other arms of the service.

Captain MCDARMENT. Yes; I think that he is entirely right and that in that time we probably can do that. However, it is my opinion that now is the time to put the department of the air in. I do not know whether we are ready for the department of the air or not. Probably, I should oppose it. Maybe it is proper to oppose everything new both good, bad, and indifferent. However, I think we are. But, if we are ever going to have a department of the air, now is the time to start it. There is an old Spanish proverb, "By the streets of Bye and Bye, one arrives at the house of Never."

Why does this question of a separate department of the air keep coming up before Congress and before the public? Why does it keep coming up like a perennial plant? It looks strangely like Truth, which, when crushed to earth, will rise again. Of course, as I say, it looks to me, as a humble one of the new junior officers of the Air Corps that we should hurry and put our head into the collar and begin working with these other countries who do have departments of the air, to see if we cannot at least keep pace with them. Gentlemen, why as I said before does this thing still keep coming up if the heads of the Army are against the thing, if the General Staff is against this, it looks to me like the question of a separate air corps would be sunk so it would be dropped and would never come up again. However, as I have said already, this thing does come up from time to time.

Gentlemen, I have spoken frankly before this committee. I have meant nothing disrespectful in anything whatsoever that I have said. I have the greatest respect and the highest regard for all of those under whom I serve, and I have simply expressed my own opinion and I hope that I have done so in a proper manner before this committee.

The CHAIRMAN. Yes, sir. We appreciate the spirit in which your remarks have been made here, and I am certain that no one else could construe them in any other light. I have just finished looking at your record while you have been speaking. I think that it would be well to note that in the record, because I think it is a most unusual and outstanding record and one which the Army should be proud of. I note that you enlisted as a private on April 24, 1917. You became a corporal and a sergeant in the Signal Corps, and I notice that you were made a second lieutenant in the Air Service on August 21, 1918. I note that you were commissioned as a lieutenant of the Army Air Service July 1, 1920. You were a very busy man. When did you take time to get this education that you speak of, this university education?

Captain McDARMENT. When I was stationed on duty in Washington for 4 years, from 1922 until 1927. I took extra work at the university and got my degrees there.

The CHAIRMAN. Then you got your bachelor's degree there and your master's degree?

Captain McDARMENT. Yes, sir.

The CHAIRMAN. I want to comment on that fact, because I think it is a most significant one. It reminds me of the fact that I have two or three letters that I received in the last year or two from a sergeant on duty at Governors Island, N. Y., who is taking his master's degree at Columbia University. I think that is very splendid and something to be highly commended. Many Army officers do avail themselves of the opportunities to pursue studies of general cultural measure. The enlisted men have the same opportunity, or almost the same opportunity, if they would use it, and if they had the foundation in education. When I see an example of that sort, where the man has taken his spare time and used it to improve himself, I feel like calling attention to it.

Captain McDARMENT. I took my work in political science and international relations.

The CHAIRMAN. Did you have any college education before you enlisted in the Army?

Captain McDARMENT. I had not quite finished.

The CHAIRMAN. Where had you gone before that?

Captain McDARMENT. To the Southeastern State College, of Oklahoma.

Mr. MERRITT. I would like to make one observation. I would like to note on the record that I think this witness has been the best witness that has come before the committee since this session has started.

The CHAIRMAN. We would be glad to have your observation. I am sure that the captain has not only entertained us but has been very instructive to us in connection with this matter.

Captain McDARMENT. I only desire to reiterate that I have not meant disrespect in anything I have said. I am only here doing my duty to the Republic through the honored Representatives of the people, and I believe we are all here for the same purpose.

The CHAIRMAN. Yes. You have put your thought in a way that is impressive, unique, and decidedly above the average.

Captain McDARMENT. Thank you. I have nothing further to present.

The CHAIRMAN. I will call upon Lt. Col. Follett Bradley.

I will ask you to give your full name, rank, and position, as well as your station.

STATEMENT OF LT. COL. FOLLETT BRADLEY, AIR CORPS, U. S. A.

Colonel BRADLEY. My name is Follett Bradley, and I hold the rank of lieutenant colonel in the Air Corps. I am assistant chief of staff, G-2, general headquarters, air force, Langley Field, Va.

The CHAIRMAN. Tell us something about yourself, Colonel Bradley. My attention has been called to your splendid record.

Colonel BRADLEY. I am a renegade from the Naval Academy, graduating from Annapolis in the class of 1910. I resigned and came into the Army in 1911. I was learning to fly in about 1916, and have been flying every since.

The CHAIRMAN. When were you commissioned in the Army Air Service?

Colonel BRADLEY. July 1, 1920. I have been flying for 16 years. That was the first time, but I had been flying for 4 years prior thereto as a pilot without a definite commission.

The CHAIRMAN. You have been flying in the Army?

Colonel BRADLEY. Yes.

The CHAIRMAN. I did not follow that last statement of yours. You were an emergency officer?

Colonel BRADLEY. No, sir. I have been a regular officer since 1907.

The CHAIRMAN. Colonel Bradley, you know the situation from top to bottom. Go over the whole field and tell us in a more or less general statement the situation as you see it, which a man of your education, experience, and knowledge should justify.

Colonel BRADLEY. I have three or four things I desire to discuss here today. The first is in connection with the House bill 5577, a bill before Congress now with respect to flying cadets of the Navy. I believe that at least parity should be reached between the Army and Navy cadets. As you know, the flying cadets in the Army now receive \$75 plus \$1 per day and that same rate of pay obtains

whether they are in training at the training center or on active duty. The Navy bill provides \$75 while in training and \$125 for 3 years of active duty and a bonus in addition to that of \$1,500 upon discharge. In all fairness to our flying cadets I believe they should be considered on the same basis; that this matter should be considered and some adjustment made as to bring about parity between the two.

I have a scheme I would like to present in connection with the Junior Air Reserve to be taken in connection with this matter now before the committee. I think the real need at the present time in the Air Corps among their personnel is a certain group which we are very short of: namely, air gunners. The theory we have now will not work in time of war—that of a gunner being a regularly trained member of the crew. You cannot expect a man to fly over the lines in the airplane as gunner and then come back and work on the airplane as a mechanic. We must have men for gunners, alone. If, in times of peace we have these gunners, however, we are faced with a serious difficulty because if they are only allowed to operate as gunners, they are useless except in learning how to shoot. It has struck me, and I might say in this connection that it was not my idea—I would ask therefore, that if you think it is a good idea you credit it to those who did originate it, and if you think it is a poor idea, you may credit it to me—if we had our members of the R. O. T. C., after their first year in college, and upon the recommendation of the professor of military science and technics, be entered into the class for and they should be given the basic first year aerial gunner training. This first-year training would be ground-school training.

He would be sent to such school as may be convenient to the Air Corps and there given the ground-training course on his first year, on the road to training as an aerial gunner. In his second vacation he would report for duty for a very definite technical unit. There he would be given full instruction in his work. He would be taught to fire a gun and receive the other instruction which would be necessary for his full training as an aerial gunner. On his third year he would again go through the same training in the advanced course. In other words, he would have 1 year ground instruction, and 2 years in actual aerial flying as gunner.

This would provide us with an excellent situation as to our aerial gunners which we need so much. In case of an emergency these young men would be called out and could actually serve as aerial gunners from the very beginning. The actual needs of the General Headquarters Air Force in that respect are—peculiarly enough—1,000 men, even. It was not an odd number. That would mean that we would need 2,000 men in training because the first year they do not fly at all. That would assist in some major way a deficit which we have in our program. It would be worked in very nicely into the junior air reserve, in my opinion.

Lastly, just a word on the general subject of air-reserve officers. I have not been sufficiently in touch with Reserve work, nor have I studied sufficiently your bill in that respect. It may be good and it may not. I do not know. I have felt that the Reserves have, of course, had a very difficult time. I do not believe it has been anybody's fault. I think I can state the trouble very definitely. I believe the Regular Army Air Corps should be built up to what they should be and given more than they have been in the past in

the way of training and equipment. Then, I believe you will find even the majority of Army Air Corps officers will be in favor of giving them everything you have. I have seen the men at Mitchel Field, out on Long Island, sitting around there and waiting for an opportunity to fly. I have seen them wait around for a plane all day and then not get one. I believe you have got to give the people who are responsible for their training and for the furnishing of these men with the proper planes, you have the necessity of giving them what they should have in order that they may present these planes and equipment to the men directly. When you spread things too thin the Air Corps and the Reserve both are not getting their proper training in a situation of that kind. I think that they should both have the planes that they need in order to give the training.

Just a word on the separate promotion list. This, of course, is a big subject. I do not believe it should be done on the basis that is proposed. If you think there should be a department of national defense I think that rather than creating a separate air corps or separate air department, that you should do it all at one time. I do not believe this thing should be done piecemeal. I happen to be in the throes of the reorganization of the General Headquarters Air Force. I have not played golf but once in the last 2 months. There has been some pretty good golfing weather, too. There are so many details to be ironed out that I believe to get this finished up and to go into another kink of reorganization in the near future would be simply futile. I think the idea outlined by Colonel Wetherill in which he supported the general principle of this plan is something which eventually might result in a proper functioning of this suggested reorganization, but I do not think you can secure those results if you go about it in a piecemeal fashion. It is something which calls for a general, complete, and thoroughly integrated proposition.

With that thought in view, I suggest that this committee not be permitted to take any hearings. We have thousands of pages of testimony from the various 16 or 17 commissions that have met and functioned in the last 15 years, and it seems to me that all of these facts are there. What we need is to have a synthesis of the facts already ascertained. If the future does point to a department of national defense, then the Air Corps should be in position to take whatever place in that scheme the commission deems advisable. I would like to explain what those who made the statement that the Air Corps would not as yet be ready to stand on its feet mean when they make that statement. It is on account of the interdependence with the other branches of the service upon which they must rely in their missions, and also for aid in supplies, and so forth.

For instance, it is quite true that we have certain airplanes that can perform 3,000-mile missions, which does carry them beyond the ordinary missions of other branches of the service. The changes are sufficiently developed so that that is a practicality. That is not the real problem. It is a question of supply and administration, and they would approach that with a severe shortage of personnel. We have in the Army 1,300 officers in the Air Corps. The General Headquarters Air Force we are happy to have, and in fact, we are hoping to get 365, which is considerably below what we consider

they need. However, we have a present shortage of planes, but even with this serious shortage of planes which now exists, we think we should have that many men or more. This is something which I think merits very careful consideration.

The CHAIRMAN. You mean, in addition to your present personnel?

Colonel BRADLEY. Yes; that is out of the 1,300 we would have 365.

The CHAIRMAN. Are you familiar with the bill to permit the recruiting of the Air Corps personnel up to the authorized strength of 1,650 officers and take in 400 officers or so many as may be necessary from the recent graduates of the Air Corps Training Center and commission them in the Regular Air Corps so as to bring it up to the authorized strength right now?

Colonel BRADLEY. I certainly hope it passes that bill. It is a weighty question and must receive the most careful consideration. This question of planes is also a question which is a very serious one for several reasons. For instance, if you give us \$50,000,000 today we would have no more airplanes tomorrow because it takes time to build them. We have the men. They are splendid young men and it does make my heart bleed to see these people get out from under our control because they are splendid young men. I would like to see 400 of them commissioned tomorrow. Some people say they would create a hump which would exist in the Army promotion list for some time, but that is a very immaterial point. I think that it would flatten itself out in about 10 years anyhow. We can certainly very well take in 400 now.

We would have sufficient personnel to take over a great many of the things that we would like to carry out now and which we are handicapped because of lack of personnel to do so.

Turning to the other phases of the subject. We do not have sufficient personnel to take over the quartermaster function. Yet, we have to eat just the same as anybody else. Medical service the same way, and Ordnance service. We get a tremendous amount of help from the Army in connection with the General Headquarters Air Force. I think there is no question but what the thing will work under the present set-up. When the time comes for a separate department of national defense, and if we are let alone in the meanwhile, I believe we can take whatever part will be necessary.

The CHAIRMAN. Can quartermaster service and medical service be given just the same if they were a separate branch as if they were a component branch? What difference does it make to you if you are in a crash and go to a hospital operated by the Navy or a hospital operated by the Army?

Colonel BRADLEY. That is just the reason I am in favor of the status quo at present. I do not know just exactly what is meant by a "separate air corps" but to me it means just that—separate. If it is separate that means they must have all of the things they now take up under the supply system, the medical system, and the Ordnance, as well as innumerable other things that they secure the benefit of in other ways. The Army now has its supply system which takes care of the Air Corps in that respect. The Navy has it and the Army has it. The medical service is the same. The Army doctors do not treat the Navy personnel and vice versa, the Navy officers do not treat Army personnel. Further, the Army quartermasters do

not furnish beans to the Navy and the Navy quartermasters do not furnish beans to the Army. They should not be expected to furnish all of these services because it does not work out harmoniously.

The CHAIRMAN. I do not see what that amounts to. There is no provision for a naval hospital treating naval patients only as far as around Washington is concerned in any event. It does not seem to me that there would be any difference in the method of treatment that would be administered to a naval officer or an Army officer suffering from the same malady. It does not seem to me that the fact that a person has a certain arm band or insignia on his uniform would have any difference in the treatment which would be prescribed to him, or that he could receive with the same efficacy. I understand now that both Army officers as well as Navy officers and the wives and children of our Army and Navy officers are taken in both at Walter Reed Hospital and treated alike. It does not seem to make any difference as far as the medical end of it is concerned whether the officer is wearing a naval uniform or an Army uniform, the medicine is just as efficacious in either event. I should think the same thing would apply with equal force to the Air Corps.

Colonel BRADLEY. That comes right back to this idea of the department of national defense. There is no question but what many of these economies will be effected in that manner. The disadvantages which are present are not quite so apparent as the advantages. I say, if this time does come, I do want the Air Corps to be ready to take its proper place there.

The CHAIRMAN. As an officer, what would you say about this provision that now obtains in the law as to the temporary promotion list?

Colonel BRADLEY. I am just as dead against it as I ever was against anything in the world. I have been benefited by temporary promotion, but I have yet to find anyone—I am speaking my own convictions only—who feels differently about it from me among the officers. I have discussed these things with my friends and fellow officers, and I have yet to find a single Air Corps officer who is in favor of the temporary promotion.

The CHAIRMAN. How can that be remedied on the promotion basis without a separate promotion list for the Air Corps?

Colonel BRADLEY. General Arnold made the suggestion the other day when he was called on rather suddenly and did not have time to go into the details, and he suggested that an excellent way to accomplish this without the use of a separate Army promotion list was to operate on the Regular Army promotion scheme plus the suggestion that was made here by the colonel the other day. I am heartily in sympathy with that idea. I discussed the thing with the colonel before I spoke here, also. I am in complete accord with an idea that has been presented here. I think it is a plan which is most excellent and which will bring about splendid results.

The CHAIRMAN. Who is going to control this thing if it is to be one promotion list under the control of the War Department as it is now set up, who would say whether or not Air Corps officers may be taken off the regular promotion list and pushed up here as an extra number and given higher rating commensurate with responsibility?

Colonel BRADLEY. I do not make it commensurate with responsibility nor do the other men of the Air Corps desire to make it com-

mensurate with responsibility or type of duty. We follow the Regular Army promotion system of promoting by seniority. I will give you a concrete example and I will take colonels because they are few in number and make the example simpler. There are nine colonels in the Air Corps. We get two extra colonels under the plan of the War Department. Under your bill the minimum number of colonels is 4 percent, if I remember correctly, 4.6 of the authorized strength. Taking your minimum number of authorized strength at 1,650, that gives you 66 colonels. We do not ask for that. But we ask for 4 percent of the actual strength of 1,300, or 52 colonels. There is that discrepancy between 11, which the War Department will give us, and 52 on the percentage basis. The idea would be that the first two lieutenant colonels would be promoted to full colonels under the War Department bill, and the number 3 down to and including 41 would be promoted colonel, and the additional group of 52 would be taken out of the single list and placed over to one side and carried as extra numbers. In that way it does not hurt anybody in the rest of the Army except their feelings of us being promoted more rapidly than they are; but it seems to me it is not hurting anybody. They got exactly the same promotion as if we stayed in the list.

The CHAIRMAN. They get the same but you get more?

Colonel BRADLEY. Yes.

The CHAIRMAN. You can call it a separate list, or extra list, or side list, or anything you want to, but it seems to me, after all, it is a separate promotion list. I am after results and I do not care what you call it.

Colonel BRADLEY. I see your point there. I, too, am also after results. The War Department bill—we want to back that bill if for no other reason, that we do not want to be blamed for that bill having failed to pass. I do not think it is quite sufficient, in its needs, for the Air Corps but if the Air Corps is given a separate list entirely I am afraid the opposition will be so great that neither will pass. I am in favor of supporting this as a satisfactory compromise.

The CHAIRMAN. Will the War Department bill take care of your situation thoroughly? Will the War Department bill make it possible for you to get a substantial increase in generals of the line for the Air Corps?

Colonel BRADLEY. No, sir. That is something that should be taken care of. The Air Corps has approximately 1,300 officers, which is around one-seventh of the officers of the Army. There are no permanent generals of the line, either major generals or brigadier generals. We believe that their duties in the Air Corps do require the degree of general for those officers in certain posts. We also believe that they should have those positions as a matter of proper administration of such posts. We further believe that we should be trained to take our places in the War Department General Staff and other important positions as long as we are members of the Army, and I am playing the game that we are part of the Army, and I believe that is the only fair way to assign—as general officers of the Air Corps—a group in their proper proportion to those assigned from the other branches of the Service.

The CHAIRMAN. We cannot do that by legislation because you have a board to select them.

Colonel BRADLEY. There is no reason why that I know of it should not go into the provision that not less than one or two major generals of the line shall be chosen from the Air Corps and not less than six brigadier generals of the line shall be chosen from the Air Corps. We are not so young. The lieutenant colonels who will be colonels under your bill and thereby eligible to selection, almost all of them are over 50, although not all of them. Many of our outstanding generals were in their forties, so I do not believe it is a serious question of age.

The CHAIRMAN. I had not thought of your suggestion about inserting a provision that a certain minimum number should be selected.

Colonel BRADLEY. I would like to make one specific statement in regard to the question of temporary promotion. I am against it with all of my force and strength, as are all of the officers that I am familiar with. Here is one of the most important reasons. The War Department is always opposed to the principle of promotion by selection. This temporary promotion is by selection but without the safeguards that are always put around such a promotion by selection.

In the Navy the system that they have comprises a board of admirals that can go over the records of most of these officers, and in fact most of them know every officer who is being considered for promotion. In our system it must be worked for convenience more than anything else. There are other factors that enter into the matter which are not entirely connected with the actual efficiency of the officer. The fact that an officer with a certain station and without travel funds could not be transferred to another station has resulted in many cases of inequality in promotion. It is also an opportunity for favoritism. There has been tremendous pressure brought to bear by a young officer who has had 6 years' total service, who is selected for promotion to captain temporarily and pressure has been brought to bear to make him a major because of what reason? Why not, as long as he is being promoted, is the real proposition. The fact that there are three or four captains on his own post with 17 years' service and also qualified who would be deprived of their promotion seems to make no difference.

The CHAIRMAN. Is it not psychological that rank to be really worth while must be promotion that is based upon actual authority rather than a Kentucky colonel or some fellow who is made a general by an act of Congress?

Colonel BRADLEY. I can answer that question very succinctly by the title that they have had in the past which is known as "Mexican rank", or "Sunburst rank", or "Cellophane rank", and by stating that it means that you are putting your insignia on in cellophane so you can look through it and see what you really are.

The CHAIRMAN. What would you suggest about the basis for the proportion of field officers as against the officers in the Air Corps?

Colonel BRADLEY. I believe the immediate minimum percentage prescribed in your bill of 4 percent colonels, 5 percent lieutenant colonels, 17 percent majors will take care of our needs. I do not think it will ever take care of our needs. There are two ways of figuring what our needs are. One is based upon the tables of organization which have been prepared, and which is available in book

form. If you will inspect them you will find that the colonels provided for in the tables of organization provide for a greater group for the actual positions that should be commanded by officers of higher grade than are actually available for those services at the present time.

The CHAIRMAN. What is the effect upon the Air Corps of the retirement now under the prevailing scheme of the Army in general which applies to the Air Corps; and the proper system or basis of retirement that you think should be applied as between the ordinary ground officer and the air officer?

Colonel BRADLEY. You mean the feature of officer retirement in the Air Corps as distinguished from officer retirement in the other branches of the Service?

The CHAIRMAN. Yes.

Colonel BRADLEY. Personally, I cannot get very much interested in the retirement proposition. If it were passed when there were opportunities and jobs for aviators on the outside, then it would be a very attractive proposition, but at this time, with the depression on, and positions on the outside difficult to secure, it is not. Further, I have to differ with my friend Captain McDarment in one thing where he said that it represented 38 percent of the officer's pay. I do not think that is a true picture of the situation. It really is, this 38 percent, a true picture of the exact situation in which he would find himself, however, because we receive base pay, flight pay, rental allowance, and ration allowance. Your retire pay is 75 percent of your base pay. It is not flight pay, ration allowance, or rental allowance. To us money is money, it does not matter whether you call it commutation or whatever it is. I understand that somebody of my rank and service who is retired will receive 38 percent of what he is getting now. I do not believe that the retirement feature will result in any great number of vacancies to stimulate promotion. On the other hand, of course, it is nice to know that you can avail yourself of it if you want to.

The CHAIRMAN. What is your idea of the average age of a flying officer for service as a flight officer?

Colonel BRADLEY. I do not believe anybody knows the answer to that question yet. If you state "pursuit flight" and then you are required to go out in tremendous power dives and so forth, and I think very likely that the age is fairly well set there, and it is fairly low. I might say this because I feel that the ages for pursuit pilots are between 28 and 40 years of age, and the chances are that most of them will remain in that age group. Most of the military flying today is not done in the pursuit type of flying. The modern tendency is less and less pursuit and more and more bombardment and tactical. There I think that the long thing and important thing is experience which is helpful to guide the pilot in the carrying out of his mission successfully.

The CHAIRMAN. A straight away flight and then go right back home?

Colonel BRADLEY. Yes; and the judgment you need in the steadiness and directness of your attack, your formation in line, and other matters of that type which involve good judgment which is based upon experience and practice in such matters over a long period of

time. This enables you to go ahead and turn back at the proper moment. I do not believe that anybody knows what the upper limit for inefficient bombardment pilot is. I do not think that has ever been decided as yet.

The CHAIRMAN. Maybe nobody there will know, but somebody in the Government has to.

Colonel BRADLEY. If I understand your question, just let me say this: We have not reached that yet. We have some of the officers who are 50 years old that are still very good bombardment pilots and they are, as I say, 50 years old and functioning splendidly in that capacity.

The CHAIRMAN. What about enforced retirement upon active services at age 54 or 55 and assigning that officer to some ground duty; what do you think of that suggestion?

Colonel BRADLEY. I have heard of that suggestion. Do you mean as more or less a way of permitting us to increase efficiency, or otherwise?

The CHAIRMAN. We assume that whatever stimulation of promotion will result will bring about a concomitant increase in efficiency.

Colonel BRADLEY. Taking it from the assumption of a stimulation of promotion will result in a similar increase in efficiency, that would be one thing. Of course, you have other considerations there too.

The CHAIRMAN. The idea has been presented to me and I thought it was rather plausible that you have to have certain ground services for the Air, anyway. The officer who gets too old to actually fly properly himself could be assigned to ground duties and be able to perform them and make it more effective in assisting the Air officers than an officer had never been connected with the flying service. For instance, a quartermaster officer who knows the flying game is able to better serve than a quartermaster who has only had the ordinary Quartermaster Corps duties during his career as an officer.

Colonel BRADLEY. I do not think there is any question about that. I think on the G. H. Q. plan an ideal development there will be plenty of opportunity for our officers who are still physically able to perform their duties, but perhaps not flying. As far as arbitrarily saying that the age 54 will be the age for cutting them out, I am a long ways from it so I am not talking about it from my own personal standpoint, but to say that age 54 an officer is not fit for flying duty, I do not think is at all correct.

The CHAIRMAN. If we were to say that all officers of age 64, which would be 10 years older, would you think that would fit into it better?

Colonel BRADLEY. Yes; I do.

The CHAIRMAN. A few years ago a bill was introduced allowing that minimum to be extended in the case of General Pershing. I offered an amendment to prolong that for any officer and providing that no officer should be retired upon reaching the age of 64 unless a board of surgeons showed that he was either physically or mentally unfit to perform the duties of an officer. That was never considered on the floor. I could not see where if General Pershing was able to continue to function, any other officer who was able to function should not be excused from retirement also.

Colonel BRADLEY. Of course, that is one of those things where there are so many advantages for it and disadvantages on the other side you have to make a very careful calculation as to just where it should properly fall. I am not qualified to say what the age is at which somebody should be retired at, or whether it should be based upon some other schedule. I do think that the age limit of 54 and 55 for flying officers is too low entirely.

The CHAIRMAN. As I recall, General Summerall at the age of 64 was retired. He was elected to president of the Citadel of Charleston, S. C., and he is a very busy man there. I saw him night before last, and he looks as fine and young and fresh as he did 10 years ago. It seems to me anything we can get for these retired officers in the Army or anything for them to do that will be helpful should be offered to them. I think Congress, after awhile, is going to get fed up on loading up the Treasury with paying enormous amounts of retirement pay that may not be necessary. Therefore, I do not sympathize with this idea of retirement of an air officer at 54 or 55 years of age. I say we must use him somewhere unless he is unable to perform any duties.

Colonel BRADLEY. I could say use him at such services as he is qualified to render. I think that will increase the value of his service considerably. In a bombardment movement you do not have to be a pilot to be an able commander because the new ships will have six or seven men in the crew. The present ones have four. This probably applies particularly to the bombardment commander, for if he be at the controls himself his time is pretty well taken up with that one airplane. On the other hand, if he is back somewhere else, he can see what the others are doing.

The CHAIRMAN. Is there anything else you would like to say on the general situation?

Colonel BRADLEY. No, sir.

The CHAIRMAN. We will hear this short statement of Capt. Harold H. George, Air Corps.

Captain GEORGE. Mr. Chairman, the following remarks are my own personal opinions and in no way given as a representative of the War Department:

I am heartily in accord with the bill H. R. 7041, creating a department of air and the office of secretary of air. I believe that the creation of this department, as called for in this bill, would be doing at this time what would have to be done in event of a national emergency, when insufficient time would be available for its proper organization.

I believe that one of the outstanding benefits of the department of air would be placing under its direct control all the facilities of the country, such as established landing fields and various airways, so necessary to the maximum performance of an air force; also that it would enable the department to increase these facilities wherever necessary for the proper defense of the country.

It appears to me that the proposed office of assistant secretary of air, as mentioned in section 2, would be of great aid to civil aeronautics in that it could act as liason agency between the various civil aeronautic schools and the departments within the department of air that are interested in such matters. Further, in case of an emergency, this office would be of great value in obtaining

the maximum efficiency of civil aviation activities and facilities in liason with the Air Force.

I believe that sections 13 and 14 would take care of most of the personnel difficulties now encountered within the Air Corps. They would relieve to a marked degree the chance of having a block in the higher grades. It is true that the attrition of the Air Corps in the past few years has been within the junior grades. It must be remembered, however, that these men were performing, in most cases, the duties called for by the proposed higher grades. For example, a first lieutenant acting as a squadron commander is killed. If this bill were in effect, he would be killed as a major, thus creating a vacancy in that rank rather than the junior one.

In reference to section 15, I believe that for the sake of morale and to improve the so-called block now existing of war-time pilots—also to provide the higher grades with officers of more active tactical ability—a proviso, possibly of a temporary nature, should be placed in this section authorizing the counting of time and a half for flying toward retirement. I have no way of knowing how many officers would take advantage of this opportunity. I do know, however, that morale would be very much increased if these officers knew that, after all, 20 years of active military flying is really a considerable length of time—especially when one looks back upon the number of friends lost in flying accidents during that time. Further, a pilot should be retired when he becomes physically disqualified for active combat flying, whether through accident or as a result of his long term of flying duties and the strain incident thereto.

Regarding the junior air reserve, the civilian aeronautical schools throughout the country would, in my opinion, in case of an emergency be taken over by the Government. In the meantime, any encouragement, work, or supervision that would make their courses more valuable and less difficult to incorporate in the air force set-up in event of emergency should be given. It is my opinion that any pilot having 200 hours of supervised instruction obtained within a year previous to the need for his services would be of some immediate use. The amount of additional training necessary would be governed by the exigencies of the existing emergency rather than by any standard set by our present method of training. I therefore believe that the product of the civilian aeronautical schools have a definite place in the scheme of our national defense.

Referring to the air reserve, in 1922 I was detailed to the One Hundred and Fourth Division, Reserve, at Salt Lake City, Utah, to establish an air reserve unit there. I remained on this duty for a period of 3 years. I was of the opinion then, and still am, that the Reserve officer should be compensated for the expense he is put to to maintain his proficiency in flying. This also would give the officer detailed a better status, especially in my case, as I was much more in control over the situation in every way. Further, for injuries sustained in authorized flights, the air-reserve pilots should be entitled to the same pay, hospitalization, medical, and other benefits as allowed pilots of the Air Corps for injuries sustained in line of duty. In the event of death from injuries so sustained, the dependents of the deceased air-reserve pilot should be allowed the same benefits as accorded dependents of Air Corps pilots killed in line of duty.

With the present lack of equipment throughout the Air Corps I do not feel that Reserve flying should be given priority over the Regular Establishment. However, at some future date, and that as soon as possible, sufficient airplanes of service type should be made available for individual flying and organization training within the Reserve. If and when the department of air is authorized all Reserve units should become an integral part of the same, and their training should be given serious consideration by the proper authorities. There is no doubt whatever in my mind that every available pilot qualified and trained to fly military missions will be used in event of a national emergency. I personally know of great numbers of young Reserve officers who have had the advantage of going through the Air Corps training center and of 1 or 2 years' active duty thereafter who are slowly but surely becoming inefficient because of inadequate facilities for continuing their Reserve flying. Without exception, these young officers when separated from the Air Corps could have efficiently carried out any duty that would have been demanded of them in a military emergency relative to their rank.

It is also my opinion that with the organization of the G. H. Q. Air Force a great initial step was made forward in our national defense. This Air Force, the primary object of which is to organize a well-trained, compact, tactical command, would become an integral part of said department of air. I see no reason why the formation of the department of air should curtail their activities or be interfered with by the same in any way. Rather the reverse, inasmuch as the likely first step in the formation of the department of air would be to organize just such a command, to be known as the air operations section. In fact, some of the provisos in the proposed department of air, such as service of supplies, administration, and so forth, would lessen the problems now confronting the complete organization of the G. H. Q. Air Force to a very great extent.

The CHAIRMAN. Thank you. Gentlemen, it is now almost 5 o'clock. The committee is going to resume its hearing along this line next Thursday. I believe that is the 18th. We will resume at that time at 10:30 in the morning, when I expect to have Admiral Kenyon and Admiral Meyers, of the Navy, and maybe some others who we made decide upon in the meantime. Those officers in the Army who have been instructed by the War Department to appear here as representing the Air Corps of the War Department and other branches, we will be glad to have them back if they desire to attend. In the meantime, any officer that feels there has been any point that has not been covered properly, if he will approach me about it and tell me about it very briefly, I will consider as to whether or not we will invite him to speak to us next Thursday. If there is nothing else for the committee to consider, the committee will stand adjourned. However, before it is concluded, I specifically want the record to show that I was informed by Mr. Frazier, who is secretary of the Air Defense League, that he has information to the effect that there are approximately 20,000 of these youngsters now taking flight training in these various private flying schools, for which instruction they pay.

The committee now stands adjourned.

(Whereupon at 5 p. m., the committee adjourned to reconvene as above stated.)

TO PROMOTE NATIONAL DEFENSE BY INCREASING THE EFFICIENCY OF THE AIR CORPS

THURSDAY, APRIL 18, 1935

HOUSE OF REPRESENTATIVES,
COMMITTEE ON MILITARY AFFAIRS,
Washington, D. C.

The committee met at 10:30 a. m., Hon. John J. McSwain (chairman) presiding.

The CHAIRMAN. The committee will come to order.

The stenographer will please take down this statement:

The Committee on Military Affairs resumed its session this day, April 18, 1935, at 10:30 a. m., to resume consideration of H. R. 7041, and other bills relating to creating a department of air and developing the air power.

Admiral William H. Standley, the Chief of Naval Operations, Navy Department, was present and invited to speak. Admiral Standley is the ranking and senior officer of the Navy, and we are glad to have Admiral Standley present.

Will you please come forward, Admiral, and either take the chair by the table, or stand, as suits your convenience?

Admiral STANDLEY. I will take this chair, sir.

The CHAIRMAN. Then we will be glad, Admiral, if you will state such general views as you may have on this subject to the committee, and particularly this: Assume that you had all the power of both Houses of Congress and of the President of the United States combined, and the power to make and unmake laws, Admiral, at your will, what would be your view as to the proper place in the entire picture of national defense of an air force in this modern world where there are already 300 planes now with a 3,000-mile range?

STATEMENT OF ADMIRAL WILLIAM H. STANDLEY, CHIEF OF NAVAL OPERATIONS, NAVY DEPARTMENT

Admiral STANDLEY. Mr. Chairman, you give me rather a broad subject.

When I came here this morning I came only because you had asked Admiral King and Captain Meyers to come before your committee; and I felt that, in any information that you sought from them, or any questions you might ask them, I would be in a better position than either of them to give you the Navy Department's views on the matter.

I have no prepared statement; but I felt that I should be here in case you wanted to ask questions.

In regard to this bill, and the general question and the statement which you have just made, I feel that, while this bill does not directly refer to the Navy, if passed, it will take over some of the functions which are now performed by the Navy, and which are part of the Navy's duty in protecting American interests on the high seas. That is the function of the Navy. And there are certain provisions in this bill which would place the coastal patrol operation off the coast, and beyond the frontier and the coast, under this department of air. That, we feel, would be usurping some of the function that belongs to the Navy, and would be contravening the ability of the Navy to carry out its functions in protecting American interests on the high seas.

In general, that is why we are opposed to that, from a naval point of view.

We feel, from a national defense point of view, that to set up an independent air department at this time would be a great mistake.

The protection of American interests and the defense of American interests are the defense of things either on shore or on the high seas. They are either property on shore or shipping on the high seas; the one belongs to the Army and the other belongs to the Navy. An attack by air must be an attack on our property either on the high seas or on land. The defense of that must be a coordinated effort on the water of Navy and air, and on land of the Army and air. To set up an independent air corps at this time, I think, would be a great mistake.

We have had this question before us for the past 10 years. We fought it before the Morrow board. We fought it because we insisted that the Navy should control her own aviation. We fought it before the Baker board, and the Howell board more recently.

We had this matter up before the investigation on the *Shenandoah*, before the Mitchell board.

We have attacked it from every angle; and it has been our determination, if possible, to hold onto our naval aviation. Naval aviation justifies that determination. We have the finest naval aviation in the world today. To set up an air department which will in any way affect that aviation would be destructive, as far as the Navy's fleets to carry out its function are concerned.

And from both of those angles the Navy is opposed to a measure of that kind at this time.

The CHAIRMAN. Pardon me, Admiral, but there is nothing in the proposed legislation, as I remember having prepared and submitted it, that would in any way impair or reduce the air activities of the Navy. It does not take away one plane or one pilot from the Navy.

Admiral STANDLEY. This is what I had in mind, Mr. Chairman. The bill (H. R. 7041), page 3, says:

which shall include the responsibility for aerial defense of the United States and its foreign possessions, to include air operations off the coasts and beyond the frontiers to the limit of the radius of action of aircraft.

We feel that if you have air operations off the coast by an air department, it is going to duplicate the Navy's functions in patrolling the coast and seaplane bases along the coast, which we must have in connection with the Navy's protection of shipping, both along the coast and in the sea lanes.

The CHAIRMAN. Admiral, have the Army and the Navy ever agreed upon whose function it is to defend the coast?

Admiral STANDLEY. Yes.

The CHAIRMAN. When did they agree to that?

Admiral STANDLEY. There was a joint board set up several years ago, which absolutely assigns functions in the protection of the coast.

The CHAIRMAN. Well, it defines them in general terms, as to which is of paramount interest at the time, does it not? It does not define them so as to enable anybody else to understand exactly what is meant?

Admiral STANDLEY. Well, Mr. Chairman, the only people who work under those functions of the Army and the Navy—they understand it.

The CHAIRMAN. All right. But suppose they differ? How many questions are pending now before the joint board that have not been settled in time of peace?

Admiral STANDLEY. Not one.

The CHAIRMAN. Not one?

Admiral STANDLEY. No. There has never been a case in which the joint board has failed to reach an agreement that would set up the functions of the Army and the Navy.

The CHAIRMAN. How many years would it take to agree to the functions of the Army and the Navy in the coastal defense?

Admiral STANDLEY. It did not take any number of years. We have had an agreement. It has been in effect for a number of years.

The CHAIRMAN. Is that agreement in harmony with the statute itself?

Admiral STANDLEY. Yes.

The CHAIRMAN. Absolutely.

Admiral STANDLEY. Yes. Let me digress a moment—

The CHAIRMAN (interposing). Can you define that agreement?

Admiral STANDLEY. No; I cannot define that agreement.

The CHAIRMAN. How can you execute it if you do not know what it is?

Admiral STANDLEY. I cannot recite it, but—

The CHAIRMAN (interposing). I do not mean word for word; but what is the substance of it?

Admiral STANDLEY. Well, there is no sharp dividing line between the functions of the Army and the Navy in coastal defense.

You cannot divide their functions by putting everybody into line. Somebody has said that the coast line is a naval function; but it is not. In certain cases the Army has paramount interest and in other cases the Navy has paramount interest. We all understand that; so that when the Navy is there with a fleet opposing the enemy's fleet, it is the Navy's function, and the Army cooperates. When the Army comes in first then it is the Army's function and the Navy cooperates. It is an effort of cooperation and you cannot do it in any other way.

You cannot assign functions absolutely in the defense of our country; it cannot be done.

The CHAIRMAN. Well, assuming a case where the Navy had not been inefficient, but simply due to the limitations of speed had not gotten there, because we have 6,000 or 7,000 miles of coast line, and the Navy cannot move as fast as that; suppose an air fleet were

approaching from an unexpected direction and our fleet could not get there with its air fleet. Whose mission would that be?

Admiral STANDLEY. That is perfectly simple. It is the Army's mission, and the Navy would do everything they could to cooperate with the Army. It is perfectly simple.

The CHAIRMAN. Who would order the Navy to cooperate with the Army?

Admiral STANDLEY. This policy which is set down here, and the senior officer, the commandant of the district, would know perfectly well whose function it is. There would be no question about that. The situation would be perfectly obvious. And they do cooperate. The district forces and the coast patrol will cooperate with the Army, and they do cooperate and will continue to cooperate on the water. It is not a question of which force shall function. These forces are operating on the water, and their function is to defend our interests on the water. And they are cooperating. The Army has certain harbor-defense missions, and certain coast-defense guns. Those guns are used in connection with the Navy's effort—the Navy acting on the water and the Army on the land.

The whole question of bombing at sea to defend from an attack on the coast—that is set up as an example; and the G. H. Q. Air Force which was recently set up is an instrumentality or an organization which will carry out the functions of the joint board as they were intended to be carried out.

The CHAIRMAN. Yes.

Admiral STANDLEY. That is why I say that I think any change in this set-up, to provide an independent Air Corps or a separate air department, will be a great mistake; because the G. H. Q., with the Army and the Navy in the air, will set up the maximum possible defense that we can set up.

The CHAIRMAN. It is gratifying to know that there is no unsettled problem between the Army and the Navy on the matter of cooperation. I have been reading the report of the Federal Aviation Commission and of the House committee and of numerous other public hearings that have been conducted, and they seem to indicate that there were differences and a lack of coordination; and the report of the House committee contains considerable comment in that direction.

Are you familiar with those reports?

Admiral STANDLEY. I am very familiar with those reports.

The CHAIRMAN. Is that criticism unjustified?

Admiral STANLEY. Absolutely so. There have been a number of reports by both the Secretary of War and the Secretary of the Navy in which they state that there has been no question before the joint board that has not been settled by that board. There is no question now upon which there has been no agreement.

I would rather go further than that, because I think I have had more experience in the whole question of the joint board than, possibly, any other officer here. There has been no question before the joint board that has not been settled by the joint board and a satisfactory agreement reached. There are a number of questions which have gone to the Secretary of War, and as a result of some interference from somebody other than those in authority on the joint board the Secretary of War has not approved the paper.

The CHAIRMAN. Has the Secretary of the Navy never disapproved anything that the joint board recommended?

Admiral STANDLEY. No.

The CHAIRMAN. All right. The Army being the chief offender, what are some of the matters that the Secretary of War would not approve?

Admiral STANDLEY. To go back to the old Lassiter board report: The joint board drew up a paper and a plan for the development of aviation. There was entire agreement, and the agreement was working, with the air force and everybody that was brought into this. You must remember, Mr. Chairman, that there is no question where this dividing line exists, where the Army and Navy coordinate or cooperate, where there are differences of opinion. You cannot just set up a sharp dividing line between those two forces. It has got to be a coordinated effort, and these various ideas have got to be coordinated and brought into harmony. That is what the joint board does; and, as I say, there is no case where it has not done it.

The Lassiter board drew up a plan for the development of aviation. That went through various phases and eventually got up to the Secretary of War. The joint board drew up a plan and agreed on the various provisions—it has been many years ago and I cannot recall them all.

But this is where the differences came: In drawing up the program—and I might say that in studying that program the Navy insisted that we should not have a joint air corps or an independent air corps or, in the beginning, that we would not accept anything that savored of taking the naval aviation from the Navy. I told you that from the beginning. So carrying that out we drew up two programs, which were submitted by the two services—the joint board, the joint aeronautical board, the joint planning committee, all working together, drew up two programs.

The Army's program was based on a 10-year program.

The Navy's program was based on a 5-year program.

The Navy said:

We cannot foretell the development of the art. In view of the development of the art, we do not want to project our plans too far into the future. We think that a 5-year program is as far as we can go even now.

That was in 1923—12 years ago.

The CHAIRMAN. That was the Lassiter board?

Admiral STANDLEY. I cannot give you the exact date.

The CHAIRMAN. Yes.

Admiral STANDLEY. And we do not want to project our force too far into the future, and we think 5 years is plenty of time.

Events have justified that program. The Army's 10-year program—we will say that the Army had a \$50,000,000 program and the Navy had a \$25,000,000 program. One was for 10 years and one was for 5 years.

When it went to the Secretary of the Navy, the Secretary of the Navy approved it. When it went to the Secretary of War, the Secretary of War held it for a long time and did not approve it. Finally, he wrote a letter to the Secretary of the Navy, and suggested that, in view of the fact that the Army set-up was for \$50,000,000 and the Navy set-up was for \$25,000,000, the two could get together and make a joint report to Congress, and that whatever

money was obtained for aviation should be divided in the proportion of two for the Army and one for the Navy.

Evidently, we could not accept that, because our program was a 5-year program and theirs was a 10-year program. If we had made a 10-year program, it would have been a 50-50 proposition.

So we felt that we could not accept it.

So the Secretary of the Navy drew up a letter to the Secretary of War stating that he felt he could not accept that.

The joint board recommended that in case the Secretary of War could not accept the recommendations that came from the joint board, he refer the matter back to the joint board for further study. That was done. The joint board again studied the paper, and again came to an agreement, and again adhered to their former decision in the matter and their recommendation.

That paper was never approved by the Secretary of War.

Then another disagreement was on North Island. The Army and Navy, in the joint board, reached an agreement, and that agreement was that if the Army would get facilities somewhere else, so that they could get away from Rockville Field, North Island would be turned over to the Navy. That agreement was never carried out.

And so there have been a number of cases where the joint board has agreed and the recommendations were not carried out by the Secretary of War. There has never been a case where the joint board was not able to reach an agreement.

The CHAIRMAN. Did you notice that beginning with section 37 of this bill (H. R. 7041), on pages 35 and 36 there is a proposal which is really an effort to effectuate the recommendations of the Howell board, and give an equal status to both branches? It is beginning on page 35 of the bill, at the bottom of the page, section 37.

Admiral STANDLEY. Yes.

The CHAIRMAN. That is designed to give a legal status to the joint board, whereby it will be obliged to function, and if there should be any possibility of a hitch in the action, that they shall submit the issue to the President of the United States as Commander in Chief, and that he shall make a decision binding on both parties, or all three of the parties, as contemplated here.

Now, of course, you remember when the joint board was first set up. It was set up in response to criticisms such as have been going on ever since—that there was a great deal of duplication and a lack of coordination and cooperation. That was in response to that general condition.

Now, what is the objection to giving it a legal status, so that it will actually function in law, by providing that in case of difference it shall be submitted to the President as Commander in Chief? Is there any objection?

Admiral STANDLEY. Well, we feel that it is entirely unnecessary, because they function now; and the President, who would be Commander in Chief, is the Commander in Chief now. If he wants to step in at any time, he can.

And, as I say, the joint board has never disagreed. And if you have an agency which has worked in accord for some years—and I feel that this General Headquarters will function more satisfactorily than ever, because I feel that with the General Head-

quarters under the control of the General Staff of the Army, we are not going to have the differences that have arisen before.

The CHAIRMAN. Well, assuming that all of our defense policies and plans are for defense only, and not for an attack on any other country, assuming that to be the settled and fixed policy of this country, have you ever visioned the possibility of any attack upon this Nation ever being possible, except by an initial attack from the air?

Admiral STANDLEY. Well, I do not visualize it, but, of course, it can happen. You can have raids along the coast, and the—

The CHAIRMAN. Yes; but do you think that under conditions as they exist today regarding air power, any country will ever undertake to invade America until she had first "cracked away" or "cracked an opening" by air power?

Admiral STANDLEY. Well, I do not see how, when you are talking of "cracking away" by air power—I do not see how air power is going to crack her way through. I cannot visualize any attack by air power on the United States today, from the set-up that we have today. I cannot visualize it at all.

The CHAIRMAN. Can you not visualize, in an attack from an enemy fleet, that the attack may be made from an enemy fleet by air?

Admiral STANDLEY. Well, we do not propose that the enemy fleet shall get in that range. Of course, an enemy fleet may; but we do not plan to permit that—if you keep your Navy where it should be, an enemy fleet is not going to get there. That is why we say that there is no necessity for an independent Air Corps, because, if you have the fleet built up to where it should be, no enemy can approach our coast, except by spasmodic raids; and that is not "cracking through." You can make a spasmodic raid with a plane almost any time. You can send a plane over Canada, for example, and it might do some damage.

The CHAIRMAN. If that was true, what would be the objection to maintaining this fleet to the maximum necessary under your standards, and then abandoning all efforts at land protection whatsoever; because, if the fleet is off the land, what is the use of having the expense and effort of a land army?

Admiral STANDLEY. Now, Mr. Chairman, you are going into the whole theory of war.

The CHAIRMAN. Surely. That is what this committee is charged with.

Admiral STANDLEY. No war will ever be settled by the air force. You take the Army and the Navy—the whole effort is to put pressure on the other fellow.

The CHAIRMAN. Admiral, my recollection from reading Admiral Harmon's writings was—and he was a great scholar and student of war—and he said that undoubtedly the naval operations in modern times determined ultimately the issues in war.

That is true, is it not?

Admiral STANDLEY. They will determine, yes; by getting control of the sea and enabling you to get your Army across and put your pressure on the other fellow.

The CHAIRMAN. And that whoever controls the sea controls the land?

Admiral STANDLEY. That is true.

The CHAIRMAN. Is it not true that whoever controls the air, in modern warfare, will control both the sea and the land?

Admiral STANDLEY. I do not think so.

The CHAIRMAN. Why not?

Admiral STANDLEY. Take England's case today. England would starve to death if she had not a fleet to oppose the enemy's fleet and to reach clear out of air range, and she must control the sea far enough so that no one can prevent England from getting her food.

The CHAIRMAN. And if she did not have also air power to defend her fleet and land forces, what would become of her? She has both.

Admiral STANDLEY. She has got to use that air power in connection with land and sea forces. Independent air power is not going to give her the immunity from attack or victories that she will get from both of them. It has got to be a coordinated effort.

The CHAIRMAN. All right. I beg your pardon for interrupting you so much.

Have you anything further to submit, Admiral?

Admiral STANDLEY. No, sir; unless you have some questions.

Mr. WILCOX. On the question of coast defense, Admiral: As I understood it, the policy adopted by the joint board as to responsibility for coast defense is that the Navy has it if the fleet is in the vicinity, and the Army has it if the fleet is not in the vicinity. Is that a true statement of the conditions?

Admiral STANDLEY. No; that is not a true statement. The question of coast defense, gentlemen, is a very much misunderstood question.

Admiral Dewey's fleet in Manila Bay defended our coast. It sank the Spanish fleet and prevented them from coming over here.

Now, coast defense reaches from the enemy's shore right up to our own shore. And the question of defense of the coast—you use "coast defense" as a term describing some particular function. There is no such function as coast defense.

Mr. WILCOX. Of course, the point I had in mind was the one that you discussed a few moments ago—that is, the defense of the coast against an attack by the enemy—the coast defense from the air, which, as I understand it, was a matter for determination by the joint board.

And I want to fix in my own mind what the agreement was as to responsibility for coast defense from the air against an attack by the enemy. Whose responsibility is it?

Admiral STANDLEY. The same question comes up in the defense of the coast by the Navy or the Army as by the air.

When you are protecting the American interests on the sea you are defending against an approaching fleet, and that is the Navy's function. And it may be 10 miles off the coast and it may be a thousand miles. But that is the Navy's function, and as long as the Navy is in being and able to protect our shores, that is her function. And as long as she is there, and the threat is from the air—and it is coming over the sea—the Army cooperates with the Navy, not only the Army shore force but the Army air force, when they are not close enough. They work with the Navy, and they must work with the Navy.

Mr. WILCOX. It is the Navy's primary responsibility to do that?

Admiral STANDLEY. Of course, it is somebody's responsibility.

Mr. WILCOX. Whose?

Admiral STANDLEY. It is the Navy's responsibility where she is opposing the enemy's fleet.

Mr. WILCOX. In order to visualize it, let us say that the Navy, anticipating an attack from the enemy's navy on the Atlantic side of the country, is in New England waters; but the enemy undertakes an air raid from the Caribbean area, while the fleet is in the New England waters. Whose responsibility is the defense of the coast against attack by the enemy air forces in the Caribbean area, with the fleet located in the New England area?

Admiral STANDLEY. When you set up a situation like that you set up a special situation which could not exist.

Mr. WILCOX. Well, assume that it does exist.

Admiral STANDLEY. If you assume that it does exist, then you have got to assume your own answer, because a problem like that would mean that you are going to set up a hypothesis which is not correct.

Mr. WILCOX. Do you mean that it is impossible for an enemy to attack this country from the Caribbean area by air?

Admiral STANDLEY. No; I do not mean to say that, but I think it would be highly impossible for the enemy's fleet to be in the Caribbean with our fleet in New England waters.

Mr. WILCOX. I did not say anything about the enemy's fleet. I said the enemy's air forces.

Admiral STANDLEY. Well, I do not see how they are going to get in the Caribbean.

Mr. WILCOX. If you assume that the enemy's air forces cannot possibly attack us from the Caribbean area—

Admiral STANDLEY. No; I am not assuming that.

Mr. WILCOX. Well, let us assume that.

Admiral STANDLEY. If an aircraft comes in the Caribbean area and the Navy is not there, it is going to be an Army function.

Mr. WILCOX. That is what I am getting at. Whose function is it? Unless the fleet is actually physically present, is it the Army's duty to defend against an enemy's attack?

Admiral STANDLEY. It is the Army's duty if the Navy is not there.

Mr. WILCOX. If the Navy is there, it is the Navy's responsibility, but if the Army is there first, it is the Army's responsibility?

Admiral STANDLEY. It all depends upon circumstances. The situation that you set up in the Caribbean, with no naval fleet there—in that situation, it is an Army function. The Army function and the General Headquarters and the whole thing is an Army set-up, and any force that we have there—we will have some force there, of course; the coastal patrol and the air patrol—they will function in giving information to the Army and cooperating with the Army, giving any assistance they can render.

But, of course, it will be an Army function, protecting the country from that attack.

Mr. WILCOX. Against that enemy attack?

Admiral STANDLEY. Yes.

Mr. WILCOX. Assuming that some situation existed such as I stated a few moments ago, would it be the duty of the Navy to go into that territory and take over that responsibility, or would it be the duty of the Army to continue in the responsibility?

Admiral STANDLEY. I do not quite understand. After the attack is launched—

Mr. WILCOX (interposing). Yes; would it then be the duty of the Army to protect the coast from the air, or would it become the responsibility of the Navy to move into that territory and take it over?

Admiral STANDLEY. Well, there would not be any such situation as you set up; because if an attack comes over the land, the Navy naturally—if it comes from the air, the Navy will naturally move into that area to ward off that threat. But there is no question of taking over the responsibility, because there is no such thing as any individual's responsibility for the defense of the coast. It depends on the coordinated efforts of the services.

Mr. WILCOX. All right.

The CHAIRMAN. Mr. Plumley.

Mr. PLUMLEY. I would like to ask, is it or is it not a fact that planes having a speed of 500 or 600 miles an hour, with a cruising range of 3,500 miles or more, will minimize the necessity of the employment and mobilization of a large naval air force?

Admiral STANDLEY. I do not think so. That is a matter of opinion. Of course, you have got to study the whole situation—take in the whole premises that you put forth. If you got a plane of that range, and with that speed and everything else—

Mr. PLUMLEY (interposing). There is not any question about that range, is there?

Admiral STANDLEY. No; I do not think there is any question about the range. But you must always consider what is to be carried along to do damage with when he gets there.

Mr. PLUMLEY. Well, there is 49 tons of high explosive on her?

Admiral STANDLEY. Then what is he going to do? Is he going to turn around and come back with that?

Mr. PLUMLEY. Yes.

Admiral STANDLEY. Those are things that will come later—500 miles an hour has not come yet.

Mr. PLUMLEY. Well they have done it experimentally, have they not? They have gone 544 miles an hour, have they not?

Admiral STANDLEY. No.

Mr. PLUMLEY. Well, have they not done that?

Admiral STANDLEY. No—maybe they have, but there is no plane that will stand that.

Mr. PLUMLEY. Am I correct in saying that the cost of an airplane carrier equals that of 2,500 extensively-equipped military planes?

Admiral STANDLEY. I prefer not to discuss that; because I am not as well equipped to do so as Admiral King, to give you that information. So that it would not be advisable for me to try to give you that information.

Mr. THOMASON. In view of your statements about the conflict of authority and jurisdiction, and inasmuch as we have a Secretary of War and a Secretary of the Navy now, and it is proposed that we have a secretary of air, why should we not have a department of national defense and be through with all of this discussion?

Admiral STANDLEY. Well, we have gone into that question pretty seriously; and, as I say, that is another one of these questions that we have discussed and studied. We have it before the joint board.

We have had it before our general board, and in every case we have come to the conclusion that a department of national defense would simply result in nothing more than creating a superimposed super-authority, and he would have to have a secretary for war and a secretary for the navy to carry out the functions just as they are carried out today. In other words, it would be just surplusage.

Mr. THOMASON. Then you are opposed to a department of national defense?

Admiral STANDLEY. Yes; we have always opposed a department of national defense; and to set up a department of national defense, with a third secretary, the secretary of air, would simply complicate the question of coordinating the efforts in national defense.

Mr. MAY. I was interested in your discussion of the joint responsibility of the Navy and the Army, where the line of distinction seems to exist, and where the line of cooperation seems to exist along the coast. Of course, we understand that the Army has charge of a certain part, the land part, of the coast defense, and the Navy is on the sea, and it is confined by the range of its guns and its ability to move, if it does not have an air force, and until the Navy gets in there it is the Army's responsibility.

Now, the whole question of success in the defense of the American coast depends upon the actual cooperation between the Army and the Navy, and that is all there is to it.

Admiral STANDLEY. Yes; that is all there is to it.

Mr. MAY. It is just a question whether they cooperate or do not cooperate?

Admiral STANDLEY. Whether they cooperate or do not cooperate. And we have the agency to bring about that cooperation.

Mr. MAY. And your idea is that if we were to set up one national air unit, with a secretary of air and a department of air, that that would just lead to additional chances for lack of agreement?

Admiral STANDLEY. It could not help but lead to just additional complications.

Let me add just one thing here about the Lassiter Board:

The disagreement in the Lassiter Board was on a question of funds for the Army Air Corps; and I predict that if you give the Army and Navy enough money to provide the Air Corps that they have recommended these questions of responsibility and lack of cooperation will not come up.

Mr. MAY. I was interested in your testimony on the question of where the line of coast defense began as to the Navy. As a matter of fact, the United States Navy won the Spanish-American War in the end by reason of the fact that Schley and Sampson bottled up Admiral Cervera in Santiago Bay, and Dewey bottled up the other fellows in Manila Bay.

Admiral STANDLEY. He sank the other fellows.

Mr. MAY. Now, Manila was several thousand miles away, and Santiago Bay was some distance away; but that was coast defense in the end, was it not?

Admiral STANDLEY. Absolutely. Coast defense starts from the enemy's shores and goes to your own shores.

Mr. MAY. And when they wrecked the Spanish Navy they wrecked the whole attack?

Admiral STANDLEY. Yes; they wrecked the whole attack; and it finished the war. But even in that case you must remember that our Army in Cuba put pressure on in the end.

Mr. MAY. Then the land force—the Army—really performs the function, regardless of what kind of Navy we have?

Admiral STANDLEY. No; the Army cannot function unless the Navy is sufficient to clear the way so the Army can go across. You could not put an Army transport—

Mr. MAY (interposing). No; I am talking about defense in war, where we are going to have somebody else attack us; and we are expecting them to come here and attack us.

Admiral STANDLEY. Well, I was thinking of carrying the thing to its conclusion. You have to have a decision in the end, and I was thinking of that, because the war has got to be settled.

Mr. HARTER. The development of military aviation—that is, the aviation of both the Army and the Navy—has kept pace with the development of commercial aviation in this country, has it?

Admiral STANDLEY. It is my opinion that it has; but that is only an opinion, of course. I do not know the details of the development, but I think it has.

Mr. HARTER. When was the last Navy flight from California to Hawaii?

Admiral STANDLEY. That was in January 1934 that that flight was made.

Mr. HARTER. In January 1934?

Admiral STANDLEY. Yes.

Mr. HARTER. I presume you have noticed the record made by the commercial ship that made a flight a day or two ago?

Admiral STANDLEY. Yes, sir.

Mr. HARTER. How do you explain the differences in time required to make the flight by the military aircraft and the time required to make it by the commercial ship? Has there been that much development in the last 14 months?

Admiral STANDLEY. It is my opinion that there has. But I would rather leave that to Admiral King, because that is another detail. He might tell you that we could probably put planes in the air that might do that today. I think it is a question of how you equip them—whether they are commercially equipped or whether they are militarily equipped. And there is a big difference, of course, and it is hard to compare military performance with commercial performance.

Mr. HARTER. Speed necessarily has to be considered as one of the main characteristics, however, of military aviation, does it not?

Admiral STANDLEY. Yes. And then there has to be considered the uses to which you are going to put it. And our fighters have to be of much greater speed than bombers or patrol planes, or what not. That varies with the type and use.

Mr. HILL. Of course, the Navy considers the air force an auxiliary to your fleet?

Admiral STANDLEY. No; that is not correct.

Mr. HILL. That is not correct?

Admiral STANDLEY. No. We consider naval aviation as an integral part of our fleet. It supplements the other arm of our fleet. It has not displaced the fleet. No; we do not look upon it as an auxiliary. I object to that word.

Mr. HILL. But it supplements your arm?

Admiral STANDLEY. Yes.

Mr. HILL. You have no air fleet which has a mission of its own; it helps the fleet in carrying out its purpose?

Admiral STANDLEY. Yes.

Mr. HILL. So whatever the air does, the fleet gets the credit of it?

Admiral STANDLEY. Whatever our naval air force does, the air force gets the credit. The function of the Navy is to protect the Navy's interests and the country's interests on the seas; and naval aviation just supplements the Navy's effort toward that end.

Mr. FADDIS. Admiral, when we assume a situation wherein we undertake the defense of this Nation at the time of emergency by any other means except striking out at the enemy's forces wherever they might be and attempting to annihilate them, are we not putting ourselves in a very defenseless position to start with?

Admiral STANDLEY. Well, you know the old strategic theory that the best defense is a violent attack.

Mr. FADDIS. Have we ever won a war on our own territory?

Admiral STANDLEY. No; and no war was ever won on purely defensive tactics.

Mr. FADDIS. And no war was ever won except on the enemy's territory?

Admiral STANDLEY. That is true.

Mr. FADDIS. Take, for instance, when we were a young Nation and were expanding along what was then the western border—such as what are now the western borders of Pennsylvania and Kentucky, for 60 years the Indians invaded that country continuously. Every year they came into the country to fight the settlers—until we went into their country with General Wayne and his army and crushed the Indians in their own territory; until that time they did not cease to worry the settlers.

Admiral STANDLEY. That is true. The force never could subdue the Indians.

The CHAIRMAN. Well, I do not recall any battle of the Revolutionary War that was not fought in our territory.

Mr. FADDIS. There was not any American territory. It was all Indian territory. [Laughter.]

The CHAIRMAN. Has any gentlemen on the left any questions?

If not, Admiral, unless you have something else you wish to submit, we want to thank you for coming here.

Admiral STANDLEY. No, sir; I have nothing else.

STATEMENT OF REAR ADMIRAL ERNEST J. KING, CHIEF, BUREAU OF AERONAUTICS, NAVY DEPARTMENT

The CHAIRMAN. My recollection is, Admiral, that your name is Ernest J. King and you are Chief of the Bureau of Aeronautics?

Admiral KING. Of the Navy Department; yes, sir.

The CHAIRMAN. Admiral, if you have a statement to make, we will be glad to hear it.

Admiral KING. Yes; I have a statement, having had a little more notice than Admiral Standley had.

The CHAIRMAN. Yes. You can sit or stand as suits your convenience.

Admiral KING. Mr. Chairman and members of the Military Affairs Committee, I come before you as Chief of the Bureau of Aeronautics, Navy Department, to present views on the subject of the Department of Air, proposed by H. R. 7041, now under consideration by your committee.

Proposals for a department of air or for a separate air force are not new. They have been put forward in many forms over a period of years. The question has been continually agitated before the Congress and in the press, and the arguments, for and against, sound and unsound, have been heard so frequently as to have become practically shopworn, so to speak.

I shall endeavor, therefore, to confine my remarks to basic principles as far as the department of air idea is concerned, and to brief, specific comments on this particular bill.

The arguments for a department of air, or for a separate air force fall chiefly into five classes: Other countries have them; increased economy in national defense; increased efficiency in national defense; the "three-element" point of view; claims as to the performance of airplanes.

I shall discuss these points briefly.

The argument that other countries have separate air forces we hear frequently. And we may be sure that it is not only in the matter of air forces that the argument is brought forward. I take no stock in any argument which requires that this country should have something, just because someone else has it. The facts of the case are what count. Those charged with national security in any country have always one main consideration to deal with: What is the geographic and strategic situation of our country with respect to probable enemies?

Upon examination we find that our situation is far different from that of Great Britain, of France, of Italy, or even of Japan. The European powers have, with the advent of air power, found their frontiers far more vulnerable. For them, an attack may materialize in hours rather than in days or weeks.

Consider Great Britain. The English Channel, once a safeguard, controlled by her naval forces, may be crossed in a few minutes by hostile air forces. France, whose borders abut upon those of traditional enemies, finds her capital city and her great industrial centers subject to the menace of speedy, overpowering air attacks in the event of war. Italy, although somewhat protected by her geographic situation, is also concerned by the possibility of devastating raids through the air.

Those responsible for national security in these countries have determined their requirements in the matter of defense. They had adopted separate air forces, or departments of air, by reason of the fact that their strategic geographic situation appears to them to demand it. They have determined their requirements after due consideration of their own particular problems.

Let us do likewise. Let us continue to base our scheme of national security upon careful consideration of our problems, taking into account our particular strategic and geographic situation, rather than that of someone else.

There are definite indications in both England and France of a change in their policies regarding the functions of a separate air

force. Their navies are gradually obtaining complete control of the air forces that operate with the sea forces.

Our probable enemies include neither Canada nor Mexico, whose territory adjoins our own. It is an indisputable fact that no potential enemies can reach our shores except via the sea.

As to our overseas possessions, Puerto Rico, Canal Zone, Hawaii, Alaska, Philippines, not only must potential enemies approach them via the sea, but we, ourselves, must go via the sea to protect them.

What is the answer to this?

There is only one answer, and that is sea power. A mobile fleet, adequately equipped in all branches, with a complete and powerful air arm, together with the supporting shore establishment. The proposed department of air is not the answer.

As to increased economy in national defense, very little legislation comes before you in these times without the economy label plastered on it. I am sure that your experience has indicated that such a claim frequently will not bear careful scrutiny.

In the matter before you, the claim of economy has often been forwarded. Although not mentioned in the title of the bill being considered, economy has, no doubt, been advanced to you as an argument to be considered. Do not mistake my meaning.

In the broad sense, it is good economy to provide adequately for our national security without regard to dollars and cents. It is poor or worse than poor economy to spend the Nation's wealth and strength on the wrong plan. What are the facts in the matter under consideration?

All premises for the argument of increased economy in national defense, as regards air power, refer to consolidation of air activities, with alleged resultant economies in "overhead"—management, et cetera—and elimination of duplication.

It is difficult to reconcile these claims when we stop to recognize the necessity for setting up, under the proposed legislation, a new department in the executive branch of the Government, a new secretary with his staff, a new organization complete with its various department in the executive branch of the Government, a new secret-supply, construction, public works, et cetera. Do not believe for a moment that these various activities can be transferred complete from existing agencies. Consolidation of similar activities can be of value. Building a structure out of existing, dissimilar activities in the hope of administrating and operating all at a lower cost is futile.

With regard to increased efficiency of national defense, the argument of increased efficiency has been a standard one for years on the part of proponents for a department of air. Is there any truth in it or any basis for it?

I do not think so. If there are to be separate land, sea, and air forces, there will inevitably be innumerable, and prevailing, situations requiring the cooperation and coordination of the three separate forces. It is obvious that it is vastly more difficult to coordinate three forces than to coordinate two.

The increase in difficulty is not, as it might appear, of the order of 50 percent, but rather of the order of more than 300 percent, for coordination must be arranged not only between *a* and *b* but also between *a* and *c*, between *b* and *c*, and, finally, between *a*, *b*, and *c*.

We have at present a joint board, Army and Navy, which has existed for many years. In spite of the difficult problems which have been placed before it, it has established a splendid record of planning for joint operations of the Army and the Navy. The experience, however, has indicated that extension of this arrangement to include three or more services, rather than two, would present an insuperable problem.

The development of the uses of aircraft during the past 20 years has demonstrated beyond question that whether there is a separate air force or not, the Army and the Navy each require air forces which are indispensable to the efficiency of each.

For the Navy it may be stated without qualification that it is the intention to continue to develop by all possible means the air power required to fulfill the functions which the Navy is called upon by law and regulation, and by common sense, to fulfill. These include the guarding of the sea approaches to our coasts and bases, the guarding of sea lanes, the protection of sea lines of communication, and the provision for offensive action against attacks arriving via the sea. These are naval functions and cannot properly be fulfilled by other means.

The adaptation of aircraft to naval needs is a new science about which the Navy has learned and is still learning by actual operation of aircraft at sea. It is desired due to the fact that, in the Navy, aircraft almost never operate independently.

They are part of a task force group composed of surface vessels and aircraft, the type of each being appropriate for the mission to be accomplished. For example, a coastal patrol force consists of mine sweepers, subchasers carrying torpedoes and depth charges, patrol planes, and possibly some of the older cruisers and destroyers. Weather and sea conditions may prevent part of this force from operating, but some of it can always operate. Airplanes alone cannot accomplish the entire mission of coastal patrol. They can, of course, fly in nearly all weathers, but if they are blind, no useful military purpose is served by flying. They can sink ships, but they cannot capture them. They cannot board suspicious vessels, or remove the crews to safety before sinking them. They can, however, find enemy vessels approaching our shore far more efficiently than any other agency and give timely warning which permits a suitable force of surface vessels and aircraft to assemble. Raids do not win wars, but they may do considerable damage to morale and prestige as well as to property. The proper use of patrol planes working with surface vessels in coastal defense will make unattractive to any possible enemy the mission of raiding our coasts. All attacks on our shores must come via the sea.

The possession by any navy of a large number of efficient patrol planes may well change the entire naval campaign of an enemy. No fleet would willingly come within range of a powerful striking force of patrol bombers. Heretofore all naval battles have been fought relatively close to land. If our Navy can attain the strength in patrol planes that we have planned, we expect to be able to force any naval battles in which we are concerned to be fought far out to sea, beyond the range of ship-borne aircraft to our shores.

When we declared war in 1917, in answer to urgent requests from our Allies 22 United States naval aviation bases were established abroad—12 in France, 7 in the British Isles, and 3 in Italy.

More were being built when hostilities ended.

Daily from each of these stations patrol planes scouted the sea lanes through which convoys and shipping must pass. This could sight submarines before being sighted by these vessels, make swift bombing attacks, which sank the submarines or compelled them to submerge, then summon surface vessels and direct them in continuing the attack with depth bombs.

These planes also sighted many mine fields laid at night by submarines in sea channels through which our convoys must pass. Mine sweepers were summoned and the channels kept clear. As a result of these tactics, submarines were forced to operate far at sea beyond the range of the patrol planes.

After the war, statements of submarine commanders showed how greatly they dreaded patrol planes, and how greatly their difficulties were increased thereby.

Thus naval aviation came through the war with but one function definitely established, that of coastal patrol from shore bases. Strange to say, this is the only function of naval aviation, as it exists today, which has been questioned.

Still another gross fallacy is connected with this idea of a separate or independent air force. We hear of independent and separate objectives—*independent of Army objectives and separate from Navy objectives.* Could anything be more inefficient than to disperse our defense efforts? Could anything be more unwise than to plan, and to advocate, different objectives?

The Nation is to be unified in emergency but it is proposed to disperse its efforts. Surely efficiency, and even true economy, demand that there be unified and concentrated effort, all means of defense working to a common, and not different, goal.

The argument of the three-element point of view is appealing because, at first glance, it appears logical:

Three elements: Land, sea, and air; therefore: Land forces, sea forces, and air forces. The fallacy is readily apparent. Man is a land animal, dependent on the land for every means of survival. Navies cannot exist without contact and communication with the land. Air forces are dependent on the land, directly or through ships at sea.

It is true, and has been demonstrated throughout the centuries, that he who controls the land controls the situation. Control of the sea or of the air will, undoubtedly, be vital under many circumstances, but it is control of the land that is always vital and all efforts must be directed to this end.

The inability of air forces alone to seize and hold territory is obvious. Air forces are today valuable, in fact indispensable, in war operations on the sea or on the land, but their dependence on support from the earth's surface must be recognized.

There is a functional division of usefulness in and on each of the three elements. There are activities, military and commercial, on the land; there are activities, naval and commercial, on the sea; there are activities, military, naval, and commercial, in the air. The

existing set-up includes these activities in three functional divisions—military, naval, commercial. The proper arrangement from the true three-element point of view exists under our present system.

It is fundamentally true that land forces—armies—only can control permanently the element that is vital to man, the land. It is also fundamentally true that sea forces—navies—only can control permanently the sea, the other surface element. It is not fundamentally true that air forces can control permanently either the land or the sea.

On the question of the claims as to the performance of airplanes, the public is bombarded daily, through the press and over the radio, with demands for a separate air force to meet threatened air attacks from overseas. Predictions of such attacks are supported by claims of performance in range of bombing airplanes which the most casual examination of facts would brand as preposterous. While it is true that numerous transocean flights have been accomplished successfully, in every case the greatest possible useful load was carried in fuel.

In the present state of the art it is impracticable for airplanes with offensive armament, in sufficient force to cause any essential damage, to fly to this country from the territory of any probable enemy, let alone return, without the support of intervening bases or naval forces. The answer to hostile aerial attacks now and as far as we can see into the future lies in the establishment and protection of bases flanking the approaches to continental United States in the Pacific and Atlantic Oceans, and in the continued provision for adequate naval forces, including air.

I turn now to specific comment on the bill under consideration. I note that this proposed legislation has been drafted, as stated in the introductory sentence, for the purpose of promoting the national defense. As this is a matter which comes close to all of us and to all other citizens of our country, I have examined the bill carefully. I am unable to find in its provisions any justification for the belief that its enactment would promote the national defense. It is contrary in spirit and in letter to the well-considered opinion and finding of three separate and independent investigating bodies which have met within the past 8 years. I refer to the Morrow Board, the Baker Board, and the Federal Aviation Commission. These bodies were composed of men of national repute and of broad experience. Their thoroughness and sincerity cannot be questioned. Their findings cannot be taken lightly. In addition to the opinions available to us through the activities of these boards we have the well-considered reports of several most able congressional committees. Invariably, their action has been to condemn a proposal such as is contemplated in House bill 7041. I cannot help being impressed by these considerations.

I object to this proposed legislation for the following specific reasons:

(a) It is inimical to the interests of national security in that it divides authority and responsibility for national defense among three different executive departments, which would result in increased expenditure, duplication of effort, decreased efficiency, decreased coordination and cooperation.

(b) It provides for an organization not required by the proper plan of national defense for this country.

(c) It provides for a single administration of civil and military aeronautics, which, by their very nature, should be completely separated.

(d) It assigns functions to the proposed department of air which, by their nature, are naval functions.

(e) It abolishes a great independent research agency, the National Advisory Committee for Aeronautics, which has functioned admirably since its beginning in the promotion of basic aeronautical research, which has been a great contributing factor in attaining our preeminent position in aeronautical development today.

(f) Its enactment would promote controversy, retard development, diminish national security, and give us less national defense per dollar than we have ever had.

In closing, I wish to say that I appreciate the opportunity which has been so kindly offered to appear before the Military Affairs Committee, particularly as the subject under consideration is one to which I have given much study. Please be assured of my desire to be of all possible assistance in these matters which are of prime importance to us all.

The CHAIRMAN. We thank you very much, Admiral.

We must be on the floor of the House very promptly at 12 o'clock today; but I wish to ask you one question, Admiral, before we adjourn:

From your knowledge of the development of the art at the present time, and projecting your thinking for a reasonable distance into the future—say 5 years—and assuming that the art will continue to develop at something like the same rate that it has been developed, in speed and range, in the past 5 years, what do you say as to the likelihood of there being an independent air raid upon the United States, separate from its connection with any naval fleet, and impossible of interference with or prevention by the fleet, because of the fact that the air forces would move perhaps 10 times or 15 times faster than the fleet could move upon the surface of the water:

What would you say as to the likelihood of any such attack by water which would be possible within the next 5 years?

Admiral KING. I do not consider it likely within 5 years, Mr. Chairman, which is the term you used.

The CHAIRMAN. Mr. Plumley?

Mr. PLUMLEY. In view of the fact that certain statements were made before the Senate committee with reference to the naval air question, would you answer the question that I asked Admiral Standley, which was with respect to the probable cost of an aircraft carrier as compared with what it would cost to manufacture 2,500 effective military planes?

Admiral KING. The cost of each of the ships *Yorktown* and *Enterprise*, which are now building, is \$20,000,000. And before I could even undertake to consider your question, Mr. Plumley, I would have to know what class of airplanes were to be built. There are several classes, and they cost varying amounts. For instance, for the cost of one of these carriers at \$20,000,000, if the planes cost \$100,000 apiece, the answer is apparent. We have very effective military planes in our service which cost in the neighborhood of

\$30,000 apiece, which would give another answer. And I do not happen to know, at the moment, what the average cost would be; but then there are varying numbers of the different classes; so that this would have to be a weighted average, and I have not gone into that.

Mr. PLUMLEY. I think you have answered the question.

STATEMENT BY CAPT. G. J. MEYERS, UNITED STATES NAVY

This bill sets up a defensive organization that will not be able to perform its functions, because—

(a) of faulty organization, in that it removes from the Army as a task force for operations on land, a weapon that should be an integral part of that task group;

(b) the weapon used by itself is not capable of carrying out an effective defense, in that it is limited to only intermittent employment;

(c) the aviation base installations will in themselves require the defensive efforts of the Navy and of the ground forces of the Army.

The joint board, as set up in the bill with the powers conferred on it in the bill, takes away authority from the Secretary of War and the Secretary of the Navy. Decisions affecting the Navy can be made by a vote of 12 to 6 against the Navy, the majority in this instance being unfamiliar with naval operations or the requirements to carry on naval operations. It is doubtful if any decision will be made by the proposed joint board during war in time to take effective measures against an enemy. Many an army has succeeded with a bad commander, but no army has ever succeeded under a debating society.

The bill apparently visualizes a posture of defense, aviation being the chief instrument of defense. It is not indicated how security will be maintained when aircraft are unable to fly on account of weather, and cannot carry out their functions on account of low visibility. Furthermore, no war was ever won by remaining on the defensive.

The picture presented by the bill seems to be one based upon the probability that the United States will be invaded on both coasts at the same time and that aviation is the only arm that can repel invasion. In the first place, aviation in itself cannot repel invasion. In the second place, if all the aviation in the world were to invade the United States and "bomb cities, factories, and farms", as visualized by the proponents of the bill, little damage would be done, and there would be few enemy planes left, because few would be able to return to enemy air bases. I can visualize such an invasion only under the condition that our Navy has been totally annihilated by an enemy fleet, and then only by the greatest stretch of the imagination. The picture ignores the fact that we have a navy, the existence of which is the greatest deterrent to any major movement overseas to invade our shores, either by aircraft alone or by armies carried on transports. The picture likewise ignores the fact that Army ground troops would prevent the enemy's establishing air bases with all the paraphernalia required to support air operations. Such aircraft as could be transported on carriers would be insignificant, even if we assume that such carriers would have complete freedom to approach our coasts. The aircraft that we should be concerned about are those operating in conjunction with an enemy fleet against our fleet. They are the ones that can assist most in bringing about our defeat. The planes projected against our cities and civilian activities will seldom, if ever, reach their objectives.

The principle of unity of command has been invoked as the answer to the visualization that the Nation will be destroyed by air invasion. Unity of command is determined by the military objective to be attained. Navy objectives are on the sea, hence the Navy is one of the task groups of national defense. The Army objectives are on the land, hence the Army is one of the task groups of national defense. In order to proceed to attain objectives under each condition—sea and land operations—task forces are formed each under one commander. All arms or weapons assigned to that task force must operate under command of one commander. That is unity of command. Unity of command does not mean that all of any of one type of weapon shall be under one commander. By such a system we would attain chaos. And that is what will result if you take away from the Army and Navy one of the essential arms by which

each is to be assisted in achieving its objective. Place aviation under a separate commander, allow him to select his own objectives without regard to the objective of the major task forces—the Army and the Navy—and defeat, if not disaster, will ensue.

The only conclusion that can be reached is that if you place any restriction upon either the Army or the Navy as to the weapons either may use, as to the characteristics of those weapons, or as to their fields of action, you are doing something to hamstring the national defense. That is what I see this bill will do. It attempts to eliminate the Navy from the coastal areas and allow only aircraft to carry out defensive measures in those areas. What is it proposed to do in those areas if an enemy enters them and the air force cannot fly at that particular time and the Navy is prohibited from operating in the area? The bill takes away from the Army a weapon that should be used to assist the ground forces in accomplishing their tasks. How can this assistance be rendered against enemy aircraft if our own aircraft are out on independent missions that the air commander considers more important than the objectives the Army as a whole is attempting to achieve?

My impression is that the whole matter of coastal defense has by a great many proponents of this bill been deliberately misrepresented. I have seen statements to the effect that the Army and the Navy have been in a controversial status regarding coastal defense—a misstatement of fact. The truth is that the Navy never has proposed or hinted that it desired to restrict the Army from flying over the sea; and in justice to the Army, the responsible officers of the Army have never proposed any restriction on the Navy's carrying out its functions on the sea. There have been some few air enthusiasts who have striven hard to drive the Navy from the shore; to prevent it from having air bases on shore, although a Navy cannot exist without getting its support from shore bases; to prohibit it from operating within flying distance of the shore; and even have attempted to take over the vessels, aircraft, and radio of the Coast Guard Service and make them another navy as a part of the aviation coastal defensive system. And when we have resisted these fantastic schemes, they have called it an Army and Navy controversy over coastal defense or over aviation or over radio—anything to suit their purpose. The truth about coastal defense is that no controversies exist. Neither service restricts the other in the performance of its functions or in the weapons it uses. Each service assists the other to the full extent of the means available. In actual plans, the Navy's patrols for local defense are task groups composed of surface vessels, aircraft, and possibly submarines. All types work in coordination and the task group is capable of maintaining some sort of patrol in any kind of weather, even when aircraft cannot fly. Any enemy discovered by a patrol vessel of whatever kind is reported to all agencies of the Army and Navy in the area, and all means at the disposal of both the Army and Navy commanders are used to attack. And in this set-up, the more planes the Army can send out to assist in the attack, the happier the Navy will be. Let us hope the Army pilots will be good navigators and good radio operators so the planes will not be lost at sea, and so that they can find their objectives. We welcome the Army's support, and we believe the Army feels the same way toward naval support. Place any restriction on either service and you will hamper the lending of support to the other service, and this weakens national defense rather than strengthens it.

While not of direct concern to the Navy, the bill, as drawn, deprives the ground forces of the Army of one of the weapons that form the task group designed to achieve missions against enemy army forces. Take aviation away from the Army commander charged with the responsibility of carrying out a task, whether it is against an enemy advancing over the frontier or by way of the seacoast, and you are assisting the enemy in our defeat. And to act in coordination with the ground forces of the Army, the aviation operating with them should be trained with them. You cannot expect the aviation task to be accomplished efficiently or successfully by aviation borrowed from another agency that has no responsibility for the success of the Army's operation. Furthermore, the Navy feels strongly that it will get better support from aviation trained and disciplined to act in concert with the rest of the Army than from aviation trained only to operate on independent missions.

One other point should be brought out in connection with the whole subject of a separate air force and a separate department of national defense. That is, that the Army and the Navy seldom will be called upon to act together tactically. Those rare occasions will be in joint overseas expeditions and in

joint local coastal defense. Where such occasions can be visualized, the Army and the Navy are agreed upon the form of procedure, the methods of cooperation, and the responsibilities and limitations of each service. These general policies are embodied in agreements and are carried out in war plans. No disagreements exist in the joint board. There is no air controversy, and there is no coastal-defense controversy.

Another line of attack of proponents of this bill is that there exists duplication of effort in the two services that should be eliminated by amalgamating aviation into one department of air. In view of the difference in the functions performed by naval planes from the functions performed by Army planes, the specifications and characteristics of naval planes are different from those of Army planes. Training is different because operations are different between the two services. In fact, there is no duplication. What does this bill do for duplication? It avoids the issue at present by providing that agencies now servicing aviation will continue to service the new department of air. That condition, if established, would not last long because there will be times when one department cannot or will not give the services, and the question of costs will always be one of dispute. The new air department will then request funds to establish all those services now in the Army—quartermaster, commissary, ordnance, communications, transportation, medical, engineering. The bill creates duplication rather than reduces it. No one can predict what the mounting costs will be. There might be some excuse for the enormous costs of this bill if we obtained defense for our money. Defense is not obtained. The strength of the Army and the Navy is weakened.

The CHAIRMAN. Are there any other questions to be asked Admiral King?

If not, the committee stands adjourned, subject to the call of the chairman.

(Thereupon, at 11:55 a. m., the committee adjourned, subject to the call of the chairman.)