

Postwar Years

1946–1949

The years following the greatest war in history were highlighted by the problems of demobilization, organizational readjustment and an uneasy international situation not in itself related to the outcome of the war.

Demobilization was rapid. Ships were retired to a mothball fleet; aircraft were placed in storage. Shore stations at home and abroad were deactivated. Within a year after the end of hostilities the on-board figures for the men of Naval Aviation fell to a mere one-quarter of the World War II peak. Only a skeleton of the wartime force remained to carry new operational demands that arose before the forces required for peace could be organized.

The unsettled international situation raised new, yet old, problems for the Navy. Within months fleet elements assigned to areas for the purpose of supporting occupation forces were given the additional and familiar task of supporting the nation's policy in areas on opposite sides of the world. A task force built around one or two carriers cruised the Mediterranean and as the years passed became a fixture in that sea. A similar force in the western Pacific provided the same tangible symbol of American might and determination to support the free peoples of the world.

Organizational readjustment took place at several levels. At the top there were problems of adjusting to a new departmental organization formed by what was really only compromise agreement. At the bureau and office level there were problems of reducing staffs and of realigning the functional elements of technical and administrative units to meet new requirements. In the fleet there were problems of transition, partly in size but particularly in weapons and tactics developed either as a result of combat experience or of technological advances. The introduction of jet aircraft posed special problems for carrier operations, proving once again that after the machine was developed navies had the additional problem of finding the means of taking it to sea. Superimposed were new concepts based upon guided missiles which had been introduced during World War II, but which were still in embryonic development and which required additional efforts in all

areas from design through operational deployment. In all of these, the degree of difficulty was increased by the need to complete the transition without even a temporary loss of combat effectiveness.

It was a period in which changes occurred at an ever accelerating rate and came to be accepted as normal. Technological and scientific advances built rapidly upon each other, and, almost before they could be turned to an advantage, new and greater advances had been made. It was a period of constant readjustment in plans, continual adaptation in force organization, and repeated revision of tactical doctrine. There was no time to sit back for deliberate study of the lessons of war and the careful examination of the various possibilities to determine the most favorable course of action. There existed an urgency that was not lessened by the realization of the truly destructive power that was now available to mankind.

In other respects, however, the period was a repetition of the twenties. There was the same clamor for a separate air force and for a merger of the services, but this time both were successfully accomplished in the unification of three services into a single department of defense. The study of aviation and national air policy by a president's commission and a congressional committee was reminiscent of the Morrow Board and Lampert Committee of 1925. There was new agreement among the services on their respective missions and functions. There was also dispute. As the services sought larger shares of a decreasing budget, old charges of duplication were raised; navies were again declared obsolete. This time the whipping boy was not the battleship, but the aircraft carrier. They were said to be too expensive and too vulnerable. Their capability to perform so-called strategic missions was supposedly a duplication of effort, and if they were not used in that fashion their use was too limited to warrant their existence. Carrier supporters retaliated with criticism of the newest long-range bomber—the B-36—which was equally vulnerable, expensive, and entirely unable to live up to its billing. The Secretary of Defense canceled the carrier already under construction, designed to carry Navy long-range attack

planes, and the Secretary of the Navy resigned in protest. The argument raged and the whole affair seemed out of hand as it reached the fantastic situation in which one service was publicly deciding for another not only how its mission should be carried out but what was needed to do it. But the whole affair came to a halt after Congressional hearings gave the Navy a chance to be heard and when war in Korea provided more immediate problems and a greater national appreciation of the necessity for adequate military forces in an era when survival of the free world was at stake.

1946

2 January FAW-17 was disestablished in Japan.

26 January The Naval Aviation Ordnance Test Station was established at NAAS Chincoteague, Va., under the cognizance of the Bureau of Ordnance and under the air station for administration and logistic support. The establishing order also provided for the transfer from Johnsville of all Bureau of Ordnance guided missile test facilities and staff to operate at the new location with a mission to perform tests and modifications as necessary to develop aviation ordnance and guided missiles.

1 February A major reorganization of the Bureau of Aeronautics aligned the technical divisions into two groups according to function, one titled Research Development and Engineering, and the other Material and Services. An additional Assistant Chief was established over each group and the former Assistant Chief, whose staff divisions were also strengthened by the reorganization, was given the title of Deputy and Assistant Chief.

1 March Operation Frostbite—*Midway* with elements of Air Group 74 on board, and accompanied by three destroyers, left Norfolk, Va., under command of Rear Admiral John H. Cassady to conduct cold weather tests in Davis Strait. In the period 7–22 March, these units operated as a carrier task force off the coast of Labrador and above the Arctic Circle, conducting flight operations with World War II type aircraft and the newer F8F Bearcat, the combination prop and jet FR-1 Fireball, and the HNS-1 helicopter.

2 March The Chief of Naval Operations established an aircraft storage program whereby up to 6,000 aircraft of types in operation were to be stored against future needs and an additional 360 F6F-5s for future conversion to drones.

5 March The Secretary of the Navy approved the conversion of two submarine hulls into guided-missile launching vessels. *Cusk* (SS 348) and *Carbonero* (SS 337) were later selected for this conversion.

7 March The Chief of Naval Operations directed that Ground Controlled Approach equipment (GCA) be adopted as the standard blind landing system for the Navy.

11 March A modification of the class designation of naval aircraft eliminated the VB and VT used for bomber and torpedo aircraft and set up VA to identify aircraft with a primary mission of attacking surface targets. This change was responsible for the subsequent redesignation of most BT2D and BTM aircraft as AD and AM.

12 March In a reorientation and consolidation of Navy guided-missile developments, the Chief of Naval Operations directed that Glomb, Gorgon II-C, and Little Joe be discontinued; that Gargoyle, Gorgon II-A, Gorgon III-A, and Dove be limited to test and research vehicles; that the Loon be continued as a launching test vehicle and a possible interim weapon; that the Bat be completed; and that Kingfisher, Bumblebee, and Lark be continued as high priority missile developments.

15 March The Chief, Bureau of Aeronautics formally proposed to the Commanding General, Army Air Forces that a joint Army-Navy project be established for development of an earth satellite.

25 March The XHJD-1, the first twin engine helicopter, made a hovering flight. Designed for the Navy by the McDonnell Aircraft Corporation, this helicopter was intended for experimental use in a flight develop-



The F8F Bearcat, a popular post-war fighter 277123

1946—Continued



Midway, first of the 45,000-ton-class carriers, was placed in commission 10 September 1945 362123



Carrier trials of Ryan FR-1 Jet and propeller fighter 1053774



Carbonero launches the Loon, an early step in the adaptation of the guided missile to the submarine 402800

1946—Continued



Twin rotor XHHD-1 designed for helicopter flight development 395920

ment program and for tactical use in utility and air-sea rescue operations.

3 April A contract was issued to Douglas for the design and construction of the XF3D-1 night fighter.

15 May The designation of patrol squadrons reverted to its prewar status with the change from VPB to VP.

21 May The Chief of Naval Operations outlined a program for the operational introduction of the Bat (SWOD Mk 9) which called for its assignment to VP-

104 of the Atlantic Fleet and VP-115 of the Pacific Fleet and directed transfer to VP-104 of all PB4Y-2s already modified to operate the Bat missile.

22 May The initial operational tests of an XCF dunking sonar carried by in HO2S helicopter were completed off Key West, Fla. During a three-month period in which the tests were conducted, Lieutenant Stewart R. Graham, USCG, and Ensign William H. Coffee, USCG, piloted the helicopter and Lieutenant Commander Roy Rather, Dr. J. J. Coop, and Mr. C. V. Scott operated the sonar which provided good sonic and supersonic listening ranges and a high degree of bearing accuracy against both conventional and snorkel type submarines.

29 May The Aeronautical Board acted upon the Bureau of Aeronautics proposal for a joint Army-Navy earth satellite project by approving the establishment of an Earth Satellite Subcommittee to coordinate projects already underway.

6 June The Joint Research and Development Board was created by charter of the Secretaries of War and Navy for the purpose of coordinating all research and development activities of joint interest to the two departments. Its several committees embraced aeronautics, atomic energy, electronics, geographical exploration, geophysical sciences and guided missiles.

24 June A contract was issued to North American Aviation, Inc., for the design and construction of three



A twin-jet F3D Skynight on carrier approach 652827

1946—Continued

XAJ-1 aircraft, thereby beginning active development of a long-range carrier-based bomber capable of delivering nuclear weapons.

25 June A contract was issued to Chance Vought for the development and construction of three XF7U-1 aircraft. This was a tailless, high performance fighter, equipped with tricycle landing gear, powered with twin turbojet engines, and designed for carrier operation.

26 June The Aeronautical Board agreed unanimously that the knot and the nautical mile be adopted by the Army Air Forces and Navy as standard aeronautical units of speed and distance, and directed that use of the terms be specified in all future procurement of air speed indicators, charts, related equipment, and future issues of applicable handbooks and technical orders.

1 July Operation Cross Roads—Tests to determine effects of atomic bombs on naval targets were conducted at Bikini Atoll in the Pacific. In the first test, a Nagasaki-type bomb, dropped from a B-29 at 30,000 feet on ships anchored in the lagoon, sank five of them outright and did heavy damage to nine others. A shallow underwater burst on the 25th raised the total number sunk directly or indirectly to 32 of the 83 ships of all types used in the tests. Among them were the aircraft carriers *Saratoga*, sunk in shallow water on

the 25th after 19 years of active service, and *Independence*, which was so heavily damaged and contaminated that she was no longer fit for use. Although these tests had broad national impact, to the Navy and to Naval Aviation they not only made clear the importance of nuclear weapons in control of the sea but they also provided much detailed data on the effects of nuclear blasts and a sound technical basis for intensification of efforts to develop tactics and equipment whereby the damage of such attacks against a naval task force could be held to a minimum.

1 July The Naval Air Reserve Program was formally activated under the Naval Air Training Command, with 21 Reserve activities already in operation.

1 July VX-3 was established at NAS New York, N.Y., to study and evaluate the adaptability of helicopters to naval purposes.

3 July FAW-8 was disestablished at NAS Alameda.

11 July To establish clear-cut relationships for aircraft maintenance, the Chief of Naval Operations directed the disestablishment of all CASUs and other maintenance units and their replacement by Fleet Aircraft Service Squadrons (FASRON) by 1 January. The new FASRONs were to be of three kinds according to aircraft types serviced, and were designed to promote higher standards and greater uniformity and efficiency in aircraft maintenance.

21 July In the first U.S. test of the adaptability of jet aircraft to shipboard operation, an XFD-1 Phantom piloted by Lieutenant Commander James Davidson,



F7U-1 a tailless twin-net fighter by Vought 419488



Davidson landed FH on CVB 1053757

1946—Continued



*Phantom on
Franklin D.
Roosevelt
1053790*

made successful landings and takeoffs (deck-launched without catapults) on board *Franklin D. Roosevelt*.

1 August An act of Congress established the Office of Naval Research in the Navy Department to plan, foster and encourage scientific research. The new office came into being on 21 August 1946 by redesignation of the Office of Research and Inventions which had been established by Secretarial order in May 1945.

13 August Congress approved the Hale Plan, also known as the “Flying Midshipmen” or Aviation Midshipmen Program. It was part of the program issued by Vice Admiral James L. Holloway when he was Chief of Naval Personnel. The program was designed to provide the Navy with qualified pilots in the post-World War II period following the loss of a large segment of experienced Naval Aviators returning to civilian life. For those who joined the program, it

offered to pay for two years of college and training as a naval aviator in exchange for a service obligation. Personnel completing their flight training and designated a Naval Aviator were not automatically commissioned at the same time. They remained as aviation midshipmen and were ordered to the fleet, serving as pilots but not as a commissioned officer. After a period of service in the fleet these “flying midshipmen” usually received their commission. The “Flying Midshipmen” program was replaced by the Naval Aviation Cadet program in early 1950. Of the 3,000 Aviation Midshipmen, approximately 1,800 were designated Naval Aviators. Many Aviation Midshipmen were recalled to active during the Korea War.

14 August The Chief of Naval Operations standardized missile terminology within the Navy to the extent that he directed the term “Guided Missiles” be used for all types developed by the Navy. Past practice was

1946—Continued

continued, however, in that authorization was given to continue as model designations, and in the description of missile classes, the Bureau of Ordnance term “Special Weapons Ordnance Device (SWOD)” and the Bureau of Aeronautics term “Pilotless Aircraft (P/A).”

15 August An Instrument Flight Standardization Board was established at NAS Anacostia, D.C., under the operational control of the Deputy Chief of Naval Operations (Air), for the purpose of determining the means by which the instrument flight proficiency of pilots could be improved.

1 September A reorganization of the Office of the Deputy Chief of Naval Operations (Air) placed its divisions into four groups titled Plans, Personnel, Readiness, and Air Logistics. An Air Planning Group was also set up on the DCNO (Air) staff to facilitate planning on the top policy level and to coordinate and direct the work of all divisions toward the same goals.

29 September–1 October The Truculent Turtle, a Lockheed P2V Neptune (bureau number 89082), manned by Commanders Thomas D. Davies, Eugent P. Rankin, Walter S. Reid and Lieutenant Commander Roy H. Tabeling, flew from Perth, Australia to Columbus, Ohio, in 55 hours 17 minutes, and broke the world’s record for distance without refueling with a flight of 11,235.6 miles.



Davies commanded the Turtle 703095



The Truculent Turtle flew nonstop Perth, Australia to Columbus 703094

1946—Continued

1 October Naval Air Missile Test Center, Point Mugu, Calif., was established to conduct tests and evaluation of guided missiles and components, Captain Albert N. Perkins, commanding.

2 October A recommendation was made by the Bureau of Aeronautics that the designation XF9F-2 be adopted in lieu of XF9F-1, thereby reflecting a decision to abandon development of the XF9F-1 four-engine night fighter in favor of a single engine day fighter. Involved in this decision was the substitution of a Rolls Royce Nene engine for Westinghouse 24Cs, an action that led to American production of the Nene.

30 October Under a project conducted by NAMC Philadelphia, Pa., Lieutenant (jg) Adolph J. Furtek made a successful ejection from a JD-1, flying at about 250 knots at 6,000 feet over Lakehurst, N.J. It was the Navy's first live test of an ejection seat.

3 November The airship XM-1 landed at Naval Air Facility, Glynco, Ga., completing a flight of 170.3 hours, a world record for duration in self-sufficient flight for any type aircraft. The flight, with Lieutenant Harold R. Walton in command, left Lakehurst, N.J., on 27 October, followed the Atlantic coast to Savannah, Ga., then seaward to the Bahamas, to Florida, to Cuba, over the Gulf of Mexico and back toward NAF Glynco.

7 November A letter identification system for marking all Navy and Marine aircraft, including those of the training command and the Naval Air Reserve, was adopted. Letters were assigned to all carriers and to wings, groups and squadrons not assigned to carrier operations. In addition, a wide orange stripe around the fuselage, forward of the empennage, was ordered placed on all aircraft of the Naval Reserve. By a change issued the following month (12 Dec), the assignment of letters to carriers was discontinued and the letters were assigned instead to Carrier Air Groups and to Marine squadrons operating on CVEs.

8 November The Office of the Deputy Chief of Naval Operations (Special Weapons) was disestablished and its functions relating to guided missiles were reassigned to a new Assistant Chief of Naval Operations (Guided Missiles) and a Guided Missiles Division, both established under DCNO (Air).

11 November Lieutenant Colonel Marion E. Carl, USMC, flying a jet propelled P-80A made two catapult launches, four free take-offs and five arrested landings aboard *Franklin D. Roosevelt*. His first catapult launches

were on 1 November. These operations were part of an extensive investigation of the carrier suitability of jet aircraft which had begun on 29 June 1945 with the delivery of a P-80A to NAS Patuxent River, Md.

15 November To correct the results of demobilization which had left squadron numbers all out of sequence and a system of no apparent order, sweeping changes were made in air unit designation. Carrier Air Groups of four types were designated according to their assigned ship, as CVBG for Battle Carrier, CVG for Attack Carrier, CVLG for Light Carrier and CVEG for Escort Carrier. Carrier squadrons were limited to Fighter and Attack, thus abolishing the VBF, VB and VT designations, and were assigned suffix letters to indicate their carrier type assignment. Patrol squadrons were redesignated to show in addition to the VP, an abbreviation of their aircraft class, as VP-MS-1 for Patrol Squadron 1 operating medium seaplanes. Observation squadron numbers again followed the parent ship division but suffix letters B or C were added to differentiate between battleship and cruiser units. The VJ for utility became VU, VPP replaced the VD for photographic squadrons, and VPM replaced VPW for meteorological squadrons. Reserve units were changed to the same system but were assigned consecutive numbers of a higher series. Marine Corps units were not affected by the change.

20 November At Cleveland, Ohio, an F8F Grumman Bearcat with Lieutenant Commander Merl W. Davenport as pilot, took off in a distance of 115 feet from a standing start and climbed to 10,000 feet in 94 seconds.

25 November The report of a board, headed by Rear Admiral Thomas S. Combs and established to consider the steps required to adapt the Integrated Aeronautic Maintenance, Material and Supply Program to postwar conditions, was approved. Recommendations were largely concerned with measures to improve program administration such as providing for exact planning, rigid adherence to schedules and complements, the receipt of complete information from the field, and its proper evaluation. Many touched on areas so critical that action was taken before final approval.

6 December Captain Victor D. Herbster, Naval Aviator No. 4, died at the Naval Hospital, St. Albans, N.Y. He served continuously in aviation from 8 November 1911, when he reported for flight training at Annapolis, Md., to his retirement on 1 July 1936. Upon his return to active service in August 1940, he again served in aviation until his final retirement on 29 March 1946.

1946—Continued

31 December Special Unit Project Cast was disestablished and its personnel, material and functions transferred to the Air Support Division, National Research Laboratory (NRL), which had been established 1 September at NATC Patuxent River, Md., to provide the NRL with flight test services as necessary to its electronics equipment research and development program.

1947

2 January Unit identification letters, assigned in November, were ordered displayed on both sides of the vertical fin and rudder and on the upper right and lower left surfaces near the wing tips. This placement required relocation of several standard markings on aircraft.

2 January A new specification for aircraft color was issued providing for the use of glossy sea blue on all shipboard and water based aircraft and all helicopters; aluminum was retained for landplane transports, utility planes and advanced training planes; and glossy orange yellow was similarly retained for primary trainers. Special color schemes included land camouflage (olive drab above and light gray below) for Marine observation planes; glossy insignia red for target drones; target towing aircraft were to have glossy orange-yellow wings, and glossy sea blue fuselage with glossy insignia-red wing bands and rudder.

14 January A horizontal red stripe, centered on the white horizontal bar, was added to the National Star Insignia.

29 January From a position 660 miles off the Antarctic Continent, *Philippine Sea* launched to Little America the first of six R4D transport aircraft which she had ferried from Norfolk, Va., as a part of Operation Highjump. The first plane off, which was also the first carrier takeoff for an R4D, was piloted by Commander William M. Hawkes and carried Rear Admiral Richard E. Byrd as a passenger.

2 February Colonel Bernard L. Smith, second Marine and sixth naval aviator, died from injuries received when his car was hit by a train at Coral Gables, Fla. From 18 September 1912, when he reported for flight training at Annapolis, Md. until his resignation on 20 January 1920, he served with Marine and Navy aviation elements in a variety of duties including intelligence assignments overseas. For six years 1931–37, he was a member of the Naval Reserve, then transferred to the Marine Corps Reserve and returned

to active duty in World War II, during which he again served with distinction until his retirement in December 1946.

12 February The Loon guided missile was launched from *Cusk* (SS 348) off Point Mugu in the first firing of a guided missile from a submarine.

1 March The development of titanium alloys for aeronautical applications was initiated by a Bureau of Aeronautics contract with P. R. Mallory & Co. for study of methods of producing titanium metal and alloys and of determining their essential properties.

4 March Operation Highjump—Air operations in the Antarctic ended. From 24 December 1946, six PBMs, based on seaplane tenders, operated in the open seas around the continent of Antarctica, and from 9 February, six R4Ds operated ashore from the airstrip at Little America. Together these aircraft logged 650 hours on photographic mapping flights covering 1,500,000 square miles of the interior, and 5,500 miles of coastline, or the equivalent of about half the area of the United States and its entire coastline—Atlantic, Pacific, and Gulf coasts combined.

30 April A standard system of designating guided missiles and assigning them popular names was adopted for use by the Army and Navy. The basic designation adopted was a two-letter combination of the three letters A (Air), S (Surface), U (Underwater), in which the first letter indicated the origin of the missile and the second letter its objective; followed by the letter M for missile. Thus a surface-to-air missile was designated SAM. This basic designation was followed by a model number; odd for Army and even for Navy. For popular names, it was agreed that ASMs would be named for birds of prey, AAMs for other winged creatures, SAMs for mythological terms, and SSMS for astronomical terms or bodies.

20 May The Secretary of the Navy directed that within the period 1 June–1 August 1947, the U.S. Navy Pre-Flight at NAS Ottumwa, Iowa, be relocated and redesigned U.S. Naval School, Pre-Flight, NAS Pensacola.

4 June The Chief of Naval Operations approved new aircraft carrier characteristics to be incorporated in an improvement program titled "Project 27A", by which *Essex* Class carriers were modified to meet the new operating requirements resulting from developments in aircraft and weapons. The principal changes involved in the program were directed toward a capability for operating aircraft of up to 40,000 pounds,

1947—Continued

and included installation of two H-8 catapults, strengthening the flight deck and clearing it of guns, increasing elevator capacity and adding special provisions for jet aircraft such as blast deflectors, increased fuel capacity and jet fuel mixers. *Oriskany*, first of nine carriers modernized under this project, began conversion at the New York Naval Shipyard on 1 October 1947.

7 June FAW-10 was disestablished at NAB Sangley Point, Philippines.

17 June The Navy awarded a contract to Douglas for design study and engineering data for a delta winged fighter. On the basis of the technical information thus obtained, the Navy subsequently initiated development of the XF4D-1.

26 June Development of low drag bombs was initiated as the Bureau of Aeronautics authorized Douglas Aircraft (El Segundo) to undertake design of a bomb release system with smooth flight characteristics at subsonic speeds. This development was undertaken to overcome the aircraft buffeting which was induced by conventional bombs when carried externally at three-quarters the speed of sound. The basic goal was development of an external store shape which could house conventional bombs, machine guns, rockets, etc. and be adapted to use as an external fuel tank.

30 June FAW-18 was disestablished at NAS Agana, Guam, in the Marianas.

9 July A Gorgon IV (PTV-2), powered by a subsonic ram-jet engine, was air-launched from a P-61C and made a 28-second free flight at the Naval Air Missile Test Center, Point Mugu, Calif.

24 July The adaptation of the helicopter to amphibious warfare was initiated when the Chief of Naval Operations established a requirement for a type capable of transporting assault troops from an escort carrier and setting them down ashore along with their necessary combat equipment and supplies.

26 July The National Security Act of 1947 became law providing the most basic reorganization of defense activities since the creation of the Navy Department in 1798. The law established the National Security Council, the Central Intelligence Agency, the National Security Resources Board, the National Military Establishment and the Office of Secretary of Defense. Within the National Military Establishment it estab-

lished a third service, the U.S. Air Force, the Joint Chiefs of Staff, the Research and Development Board and the Munitions Board. It also defined the United States Navy as “including such aviation as may be organic therein.”

7 August An Act of Congress restored the Aeronautical Engineering Duty Only (AEDO) designation abolished in 1940, by authorizing the assignment of qualified officers of the line, including those designated EDO.

13 August Naval Air Development Station, Johnsville, Pa., was established replacing the Naval Aircraft Modification Unit. Its mission was development of aircraft electronics, guided missiles and aviation armament.

20 August Commander Turner F. Caldwell, piloting the Douglas Skystreak D-558-1, broke the world's speed record flying at 640.663 mph over the three-kilometer course at Muroc, Calif.

25 August Major Marion E. Carl, USMC, flying the Douglas Skystreak D-558-1, set a new world's speed record of 650.796 mph over the three-kilometer course at Muroc, Calif.

25 August Tests of the Douglas low drag bomb shape were begun at the Southern California Cooperative Wind Tunnel at Pasadena, Calif.



D-558-1 research airplane, set 1947 speed record 704422

1947—Continued



Col. Carl set speed record USMC 11986

6 September A V-2 rocket was successfully launched from the flight deck of *Midway* in the first firing of a large bombardment rocket from a ship at sea. While the missile behaved abnormally after take-off, the feasibility of the operation was demonstrated and considerable experience was gained.

17 September James V. Forrestal, Secretary of the Navy, took the oath of office as first Secretary of Defense. The following day the National Security Act of 1947 became effective and the Departments of the Army, Navy and Air Force were constituted as integral parts of the National Military Establishment.

30 September The Research and Development Board was formally set up in the National Military Establishment as Dr. Vannevar Bush took office as Chairman. This board, which superseded the Joint Research and Development Board, functioned in areas

dealing with research and development coordination, planning and direction. At its first meeting, 19 December, the credentials of all members were accepted by the Board, one of two Navy members being the Deputy Chief of Naval Operations (Air).

1 November The U.S. Naval Parachute Unit moved from NAS Lakehurst, N.J., to NAS El Centro, Calif. Its mission was research, development and testing of parachutes, parachute recovery systems and ejectable seat capsules.

28 November *Norton Sound* was assigned to the Operational Development Force for use as an experimental rocket-firing ship. Necessary alterations were performed at the Philadelphia Naval Shipyard, Pa., beginning the following March.



The Viking research rocket, fired from Norton Sound, May 1950, reached an altitude of 106 miles 415261

1947—Continued

1 December HMX-1 was established at MCAS Quantico, Va., Colonel Edward C. Dyer commanding. Its mission was to develop techniques and tactics for the various uses of helicopters in amphibious operations.

19 December A New Development Board was established to review the programs of the various bureaus and offices and to recommend the priorities of development projects to the Chief of Naval Operations. This Board was replaced in May 1948 by a Research and Development Review Board consisting of the Chief of Naval Research and officers in the Office of the Chief of Naval Operations responsible for development.

19 December The Research and Development Board directed its Committee on Guided Missiles to coordinate the Earth Satellite Vehicle Project, thereby taking this function over from the Aeronautical Board.

30 December The President's Air Policy Commission, Thomas K. Finletter, Chairman, submitted its report based on extensive hearings covering a period of over three months. The report, "Survival in the Air Age," was a broad review of the international situation in terms of the proven effectiveness of air power and its added potential for destruction with the advent of the atomic bomb. The report stressed the need to maintain military forces large enough to make aggression dangerous and particularly emphasized the urgency of building up strong military aviation with its supporting industry and civil air transport, and of encouraging a progressive research and development

program to maintain the existing margin of superiority held by the United States.

1948

1 January The headquarters of the Naval Air Basic Training Command was transferred from Corpus Christi, Tex., to NAS Pensacola, Fla., and Naval Air Training Bases, Corpus Christi was disestablished. At the same time, the Naval Air Advanced Training Subordinate Command was established at NAS Corpus Christi.

1 March The Congressional Committee on National Aviation Policy, headed by Senator Owen Brewster, submitted its report which, although differing in some respects with the earlier report submitted by the President's Air Policy Commission, was a general reiteration of its conclusions in regard to the effect of air power on the national security and the need for a national policy that would build a strong military air force supported by a healthy aircraft industry and civil aviation.

4 March A Test Pilot Training Division was established at the Naval Air Test Center, Patuxent River, Md., to instruct experienced fleet pilots in aeronautical engineering and techniques of flight testing. Ten years later this Division became the U.S. Naval Test Pilot School.

10 March The carrier suitability of the FJ-1 Fury jet fighter was tested on board *Boxer* off San Diego, with a number of landings and takeoffs by Commander Evan P. Aurand and Lieutenant Commander Robert M. Elder of VF-5A.



FJ-1 Fury, early design of an all-jet fighter
1053785

1948—Continued

29 March The Technical Evaluation Group of the Research and Development Board noted that an earth satellite was feasible but recommended that none be constructed until utility could be clearly established.

30 March The establishment of a Naval Air Reserve Advisory Council was approved by the Secretary of the Navy. The purpose of the Council, which was composed of 50 aviation Reserve officers appointed from civil life, was to make available to the Navy the experience and continuing advice of reservists who had held key positions while on active duty during the war.

1 April HU-1, the first of its type in the U.S. Navy, was established at NAS Lakehurst, N.J., Commander Maurice A. Peters commanding.

21 April The Secretary of Defense issued a memorandum for the Secretaries within his Department, attaching a paper defining the functions of the armed forces and the Joint Chiefs of Staff. Based on the policy embodied in the National Security Act, this was the first functions paper drawn up by the services after their reorganization and was commonly referred to as the Key West agreement.

27 April In the first carrier launchings of planes of this size and weight, two P2V-2 Neptunes, piloted by Commander Thomas D. Davies and Lieutenant Commander John P. Wheatley, made JATO takeoffs from *Coral Sea*, off Norfolk, Va.

1 May Changes in aircraft marking specifications made it mandatory for carrier squadrons to use distinguishing colors on propeller spinners and across the top of the vertical fin and rudder. The colors insignia red, insignia white, light blue, light yellow, light green, and black outlined in white, were assigned to squadrons one through six respectively of each carrier air group. The changes also required that arresting hooks be painted in alternate four-inch bands of black and white.

5 May The submarine *Cusk* (SS 348) launched a Loon missile off the Naval Air Missile Test Center, Point Mugu, Calif., guided it over a 46-mile course and splashed it within 100 yards of its target, Begg Rock.

5 May VF-17A, equipped with 16 FH-1 Phantoms, became the first carrier qualified jet squadron in the U.S. Navy. In three days of operations aboard *Saipan* (CVL 48), all squadron pilots plus Commander, Air Group 17 were qualified with a minimum of eight takeoffs and landings each.

8 May The Michelson Laboratory of the U.S. Naval Ordnance Test Station, China Lake was dedicated. The opening of this laboratory was a major step in the transition of the station from a rocket test range to a research and development activity specially equipped to study the various aspects of rocketry and guided missiles.

18 May A contract was issued to Goodyear Aircraft Corporation for design of an ASW airship with an envelope volume of 825,000 cubic feet, approximately double that of the K class airship of World War II. Through subsequent contractual action which was initiated in September, one ZPN airship was ordered.

25 May Two Support Wings were established and placed under Commander, Fleet Logistic Support Wings, to provide, subsequent to the merger of Navy and Air Force air transport commands, such air logistic support services over routes of sole Navy interest as would be required for internal administration and the fulfillment of the Navy's mission.

1 June The Naval Air Transport Service and the Air Transport Service of the Air Force Air Transport Command, were consolidated to form the Military Air Transport Service (MATS) as a unified element of the National Military Establishment under the command and direction of the U. S. Air Force.

4 June To establish and maintain close relationships between the operating forces and planning agencies, arrangements were made for an Air Board to meet quarterly, with DCNO (Air), the Chief of BuAer, ComAirLant and ComAirPac as principal members.

4 June The Airborne Coordinating Group was renamed U.S. Naval Aviation Electronics Service Unit (NAESU).

11 June The Chief of Naval Operations issued standards for training aviators as helicopter pilots and provided that helicopter pilots previously trained by the Coast Guard or VX-3 would retain their qualification.

18 June The Chief, Bureau of Aeronautics authorized the Naval Air Missile Test Center to train, on a noninterfering basis, the Air Force's First Experimental Guided Missile Group in the operation of the Lark guided missile.

22 June Flight training was opened to men between the ages of 18 and 25, with at least two years of college, under a plan that was in essence a reactivation of the Aviation Cadet program. Candidates were

1948—Continued



The P4M Mercator, a long-range patrol plane 1053755

required to serve on active duty for four years after which they would be returned to inactive duty as members of the Reserve, but a limited number were to be given the opportunity to remain on active duty with possibilities for transferring to the regular Navy. First of the new Aviation Cadets under this program reported for training in the latter part of August.

29 June Development of TACAN (tactical air navigation system) was initiated by a Bureau of Ships contract to the Federal Telecommunications Laboratory for development of a surface beacon and airborne receiver that were capable of determining the direction of the aircraft from the surface station. Stringent accuracy requirements were based upon needs growing out of World War II carrier operational experience. A year later, following tests of the initial model, contracts were issued to the same company for development of equipment that would also measure distance.

1 July The Naval Air Transport Service, which had remained in being after the establishment of MATS to assist in the transfer of Navy units to the new organi-

zation, was disestablished after 6½ years of distinguished service.

1 July The importance of rockets in the future of Naval Aviation was emphasized by the establishment of the U.S. Naval Aeronautical Rocket Laboratory, Lake Denmark, N.J. It provided a rocket testing facility on the east coast, similar in function to the Air Force Rocket Test Facility at Muroc, Calif.

3 July Ordnance aspects of the low drag bomb development were initiated as the Chief of Naval Operations requested the Bureau of Ordnance to develop a 250-pound bomb on the lines of the Douglas shape and a container to the same lines that could carry a number of conventional 250-pound bombs.

6 July VAW-1 and VAW-2, were established in the Pacific and Atlantic Fleets with responsibilities for organizing and training AEW teams for carrier operations. Although AEW aircraft had operated from carriers at an earlier date and a land based squadron,

1948—Continued

VPW-1, had been established on 1 April 1948 with a secondary mission of AEW, those squadrons were the first to be organized specifically for the AEW mission and the first to provide the fleet with AEW services from carriers.

20 July The Chief of Naval Operations directed that the standard composition of Carrier Air Groups be changed to three fighters and two attack squadrons, thus adding one fighter squadron to each group. To compensate for this increase, squadron aircraft complements were slightly reduced.

22 July Assembly and Repair Departments (A&R) at Navy and Marine Corps air stations were renamed Overhaul and Repair Departments (O&R.)

23 July The Assistant Secretary of the Navy for Air approved a plan to develop the Jacksonville area as a Fleet Aviation Center. The plan included reactivation of Cecil Field, Fla., and Mayport, Fla., to help support the air groups assigned to the Center, and the relocation of the Naval Air Advanced Training Command based at NAS Jacksonville.

29 July The president approved the construction, in a private shipyard, of a flush-deck 65,000-ton aircraft carrier, subsequently named *United States*, for which funds had been provided in the Naval Appropriation Act 1949.

1 August Because the National Security Act of 1947 had assigned most of its functions to other boards and some duplication appeared to exist, the Aeronautical Board was dissolved after over 30 years as an interservice agency for cooperation in aviation.

17 August The Chief of Naval Operations informed the Chief of the Bureau of Aeronautics of his intention to assign antisubmarine warfare as a primary mission to most of the patrol squadrons, and requested that the Bureau institute a vigorous program to outfit patrol planes in service with the necessary equipment.

28 August The *Caroline Mars*, a JRM-2 flying boat, landed at Chicago with 42 persons on board and a 14,000-pound payload, after a record nonstop flight from Honolulu, Hawaii, of 4,748 miles in 24 hours, 12 minutes.

1 September The system of group and squadron designations, in effect since November 1946, was sim-



The Philippine Mars, a JRM Naval transport, makes jet-assisted take-off at Alameda en route to Honolulu 1053758

1948—Continued

plified. Carrier Air Groups became CVG without regard to their carrier assignment; carrier squadrons VF and VA were assigned two or three digit numbers, the first of which was the same as the parent air group, and suffix letters were dropped. Patrol squadrons reverted to the simple VP designation. Special designations for transport squadrons, as VRF and VRU, became VR. Some VC squadrons became VAW to reflect their air warning mission, while others became VFN or VAN to reflect all-weather capability.

5 September The JRM-2 *Caroline Mars* of VR-2, on a 390-mile flight from Patuxent River, Md., to Cleveland, Ohio, carried a 68,282-pound cargo, the heaviest payload ever lifted in an aircraft.

1 October Modification of the seaplane tender *Norton Sound* was completed at the Philadelphia Naval Shipyard, and after a brief shakedown she was placed in operation as the Navy's first guided missile experimental and test ship.

27 October Operation Vittles—VR-6 and -8 of the Military Air Transport Service, were ordered to move from their Pacific bases to Germany to take part in the Berlin Airlift.

1 November The Naval Air Advanced Training Command was transferred from NAS Jacksonville, Fla., to NAS Corpus Christi, Tex., in accordance with plans to convert the Jacksonville area into a fleet aviation center.

5 November To meet the requirements of landing aircraft weighing up to 50,000 pounds at speeds as high as 105 knots, a project was initiated at the Naval Aircraft Factory for design of Mark 7 high energy absorption arresting gear.

9 November Navy transport squadrons, transferred from the Pacific to assist in Operation Vittles, began flying cargo into Berlin.

17 December To meet the mounting requirements for transatlantic airlift in support of Operation Vittles, VR-3 was switched from flying the domestic routes to the Westover, Mass., to Frankfurt, Germany, run.

1949

23 January *Palau* completed a 12-day test period off the New England coast developing the capability of carriers to conduct air operations under cold and

severe weather conditions. This marked the Navy's continued interest in cold weather tests, first demonstrated on the *Langley* in the same area 18 years before.

26 January *Norton Sound*, the nation's first guided-missile experimental test ship, launched its first missile, the *Loon*, off the Naval Air Missile Test Center, Point Mugu, Calif.



Norton Sound, converted from a seaplane tender to the Navy's first guided missile ship, fires a *Loon* 415146

27 January The Chief of Naval Operations authorized conversion of all new-construction cruisers to accommodate helicopters.

3 February The Lockheed R6O *Constitution*, commissioned the day before at NAS Alameda, Calif., inaugurated her transcontinental service, from Moffett Field, Calif., to Washington, D.C., by establishing a new record for personnel carried on a transcontinental flight. With 78 passengers and 18 crewmen, the 92-ton plane crossed the continent in 9 hours and 35 minutes.

25 February The *Caroline Mars*, a JRM-2 flying boat, broke the world record for passenger lift by transporting 202 men from NAS Alameda to San Diego, Calif., and broke it again the same day on the return flight with a load of 218 men. These loads were in addition to a four-man crew.

4 March The *Caroline Mars*, a JRM-2 flying boat of Transport Squadron 2, set a new record for persons carried aloft by transporting 263 passengers and a crew of six on a Fleet Logistic Air Wings flight from San Diego, Calif. to Alameda, Calif. The flight was of 2 hours 41 minutes duration and the passengers were the officers and men of Air Group 15 on a routine transfer of station.

1949—Continued

7 March A P2V-3C, piloted by Captain John T. Hayward of VC-5 was launched from *Coral Sea* off the Virginia Capes with a 10,000-pound load of dummy bombs, flew across the continent to drop its load on the west coast and returned nonstop to land at NAS Patuxent River, Md.

31 March The best monthly total of the Berlin Airlift to date was made as U.S. aircraft delivered 154,475 tons of cargo to the city. In making its contribution to the total, VR-8 set an all-time airlift record of 155 percent efficiency for the month, and daily utilization of 12.2 hours per aircraft.

5 April The disestablishing of the last of the observation squadrons, VO-2, marked the end of one era and the beginning of another as a plan to use helicopters in place of fixed-wing aircraft aboard battleships and cruisers was put into effect, with the changeover scheduled for completion by 30 June.

23 April Construction on *United States* was halted by order of the Secretary of Defense Louis Johnson.

19 May The JRM-1 Marshall Mars broke the record for number of people carried on a single flight when 301 passengers and a crew of seven were flown from Alameda, Calif. to San Diego, Calif.

15 July Douglas pilots flying an XF3D-1 completed an initial flight evaluation of the low drag external store shape at Edwards AFB, Calif. Carrying two of these shapes, the aircraft had a top speed of 51 knots greater than when carrying two conventional 2,000-pound bombs and 22 knots greater than with two 150-gallon external fuel tanks.

31 July The participation of VR-6 and -8 in the Berlin Airlift ended. During their eight months in Germany, these squadrons flew a total of 45,990 hours, carried 129,989 tons of cargo into Berlin, and established a record of payload efficiency and aircraft utilization at the unparalleled figure of better than 10 hours per day per plane for the entire period.

1 August The Naval Air Development Center, Johnsville, Pa., was established and the Naval Air Development Station was disestablished. The mission of the Center was development of aircraft electronics, pilotless aircraft and aviation armament, and research and development in the field of aviation medicine pertaining to the human centrifuge. These functions were performed by four laboratories appropriately named.

9 August The first use in the United States of a pilot-ejection seat for an emergency escape, was made by Lieutenant Jack L. Fruin of VF-171 from an F2H-1 Banshee while making over 500 knots in the vicinity of Walterboro, S.C.



F2H Banshee McDonnell Fighter 1053787

10 August The National Security Act of 1947 was amended providing for a limited increase in the authority of the Secretary of Defense and replacing the National Military Establishment with the Department of Defense. It further provided that the three military departments would continue to be separately administered and that Naval Aviation would “be integrated with the naval service . . . within the Department of the Navy.”

1 October In accordance with an interservice agreement reached in July, an exchange program to indoctrinate selected Air Force and Navy pilots (including the Marines) in the operational and training activities of each other's service, began with the exchange of 18 pilots from each service for the period of 1 year. The agreement provided that all pilots be qualified in the type of aircraft operated by the unit to which they were assigned and that each would occupy a regular pilot's billet in his new assignment.

1949—Continued

5 October In a demonstration of naval air capabilities, a Neptune P2V-3, piloted by Commander Frederick L. Ashworth, took off from the carrier *Midway* at sea off Norfolk and flew to the Panama Canal, then northward over Corpus Christi, Tex., and on to NAS San Diego, Calif., completing a 4,800-mile nonstop, nonrefueling flight in 25 hours and 40 minutes.

30 October Lieutenant Guiseppe A. Rullo and M. D. Kembro, CAP, flew a Sikorsky helicopter, HO3S, from NAS Seattle, Wash., to NAS Alameda, Calif., in 10 hours and 50 minutes and unofficially bettered

the existing distance record for helicopters with a flight of 755 miles.

1 December In a reorganization of air transport services, the Atlantic and Pacific Fleet Logistic Support Wings ceased to exist and all air transport units were consolidated under a single command — the Fleet Logistic Air Wing.

9 December A reorganization of the Naval Air Reserve was completed in which 128 Fighter, 41 Attack, 25 Composite, 29 Patrol, 26 Transport, 57 Service, and 5 Blimp Squadrons were placed under command of 27 Air Wings established at as many Reserve Air Stations spread throughout the country.



P2V Neptune JATO take-off from Midway 407668



Firing Lark surface to air missile, at Pt. Mugu 400916



The Aerobee, high altitude sounding rocket 408012



Skyraider displays its capacity and versatility 419472



P5M-1 Marlins show new shape of boat hulls 1053754

F6F fires Tiny Tim, rocket with a heavy punch 705452



The XF5U-1, the first short take-off fighter 1053786





The AM-1 Mauler carries 9000 lb. payload 706902



F7F Tigercat twin engine fighter by Grumman USMC 44731



Flight test of an early jet fighter, F6U-1, Pirate 419467



Flight deck of Coral Sea portrays activity with jets, props, and helicopters as F2H Banshees fly over 626130



Vertical envelopment exercise, Marines aboard Palau, embark in HRP-1s for landing on beach 707741



HRP-1, Tandem rotor transports of Marine Experimental Helicopter Squadron 1, take-off from Quantico 1053788



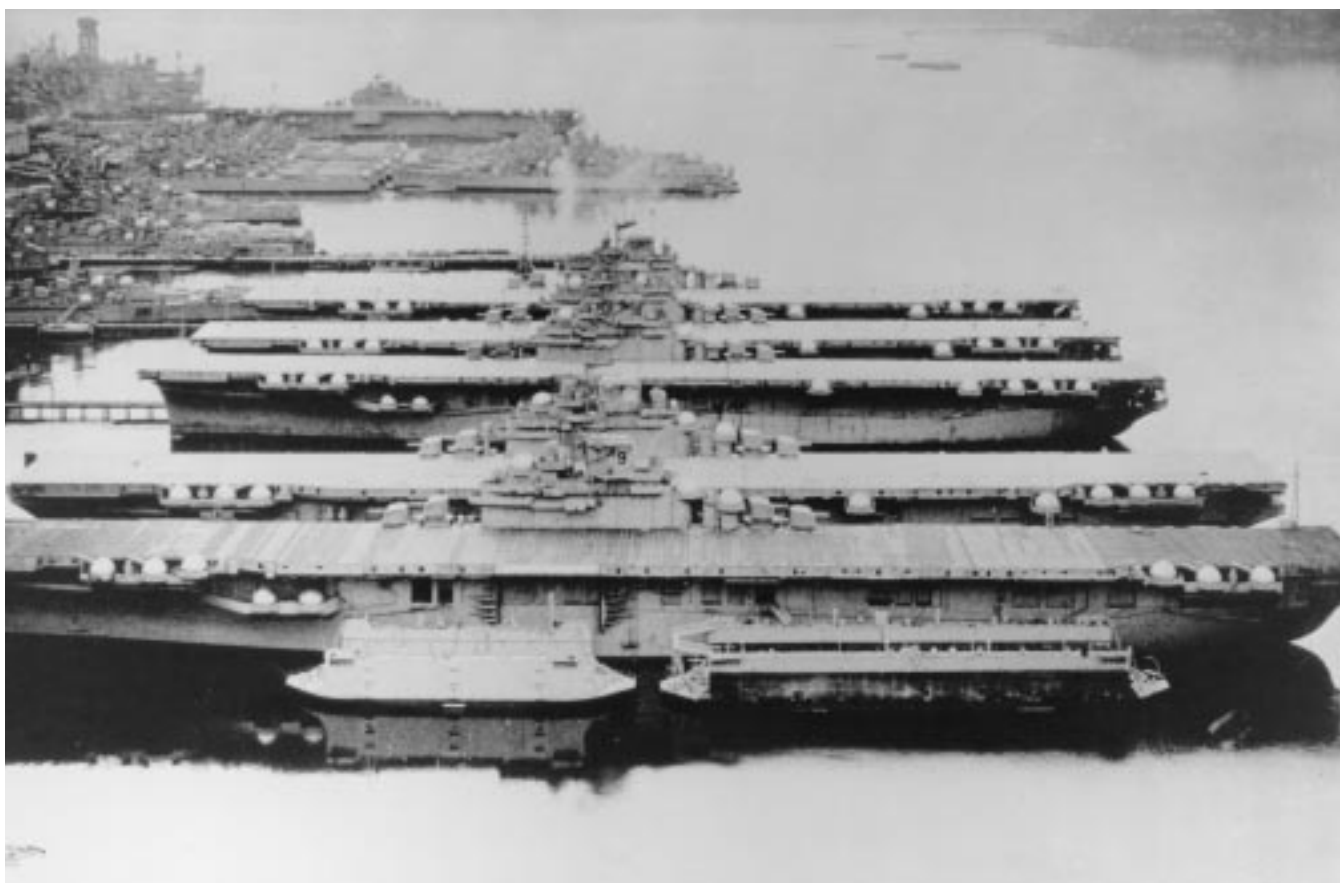
HTLs taking off from carrier 424773



The landing signal officer directs an HO3S helicopter landing aboard Franklin D. Roosevelt 1053756



Three converted Essex-class carriers are moored at North Island in this 1955 view of a modern air station 1053798



Ships on a leash, Essex-class carriers and other element of the reserve Fleet mothballed at Puget Sound 428458