

# The New Navy

## 1954–1959

Despite the truce that ended large-scale fighting in the Korean War, global peace remained on unsteady footing. The two great superpowers of the United States and the Soviet Union embraced divergent ideologies that led toward repeated confrontations in the Cold War. The rivals expanded their nuclear arsenals but the specter of global thermonuclear war compelled the adversaries to wage their struggle for supremacy through proxies.

The worsening situation in the Far East and a series of crises in the Middle East gave new importance to the traditional practice of deploying naval forces to trouble spots. International maneuverings led to incidents and demands that threatened world peace, and naval forces represented the nation in critical areas. On different occasions, these forces evacuated refugees, patrolled troubled waters, provided support to menaced nations, and presented a physical symbol of freedom as a bulwark between aggressors and oppressed.

Technological and scientific advances also marked the period and naval aviation passed through tremendous changes. The effective exploitation of these advances enhanced the firepower, versatility, and mobility of naval sea and air forces. Guided missiles began to replace guns on board ships, the fleet increased capabilities to deliver nuclear weapons, aircraft speeds jumped from subsonic to supersonic, the adaptation of nuclear power to aircraft proceeded under investigation, and an increased knowledge of space affected naval operations.

Air-to-air missiles became standard equipment on interceptors and ships received air defense missiles. Planners intended fighters to intercept Soviet bombers at long ranges and high altitudes and erroneously deleted guns from the initial design of the McDonnell Aircraft Company F4H-1 Phantom II, a mistake the Navy failed to remedy. Air Force experience gained over Vietnam during the following

decade led that service to fit guns to later models. The Naval Air Reserve acquired air-to-surface missiles and an interceptor missile was introduced into flight training. Polaris fleet ballistic missiles went to sea on board nuclear-powered submarines. *Forrestal* (CVA 59)-class carriers entered service and the basic carrier modernization program attained fruition. The successful application of nuclear power included the construction of nuclear-propelled carrier *Enterprise* (CVAN 65). These additions and improvements strengthened the carrier forces and enabled the operation of a new family of aircraft with high performance capabilities.

Reorganizations within the Navy Department accompanied the application of technological advances that placed greater emphasis on research. Similar adjustments set up special task groups for the progressive improvement of antisubmarine tactics, provided mobile amphibious squadrons to operate in the new tactics of vertical envelopment, and revised the Reserves to provide units trained and equipped to perform specific tasks upon mobilization. These advances in technology and improvements in weapons and equipment challenged the Navy while the sea service played its traditional role of sea control.

The space program dominated the events of the late 1950s. Soviet achievements in space generated United States investigations regarding the state of the nation's scientific advances, education, and progress in missilery. Successful orbiting of Explorer I, Vanguard, and other satellites together with tests that demonstrated the feasibility of retrieving objects from orbit prompted the launch of an astronaut training program in quest of the dream of man in space.



Cmdr. Henry J. Jackson pilots the first aircraft—an S2F-1 Tracker—to be launched by a steam catapult from an American carrier. The operational trials on board *Hancock* (CVA 19) took place on 1 June 1954.

## 1954

**1 JANUARY** • The Naval Air Weapons Systems School was established at NAS Jacksonville, Fla. The school trained cadres in the maintenance of air-launched guided missiles, aircraft armament control systems, missile external control equipment, and bomb directors.

**4 JANUARY** • *Leyte* (CVS 32) became the initial operational antisubmarine warfare carrier.

**19 MARCH** • Multiple U.S. forces in the western Pacific operated on alert because of the Battle of Dien Bien Phu between the French and the communist Viet Minh in French Indochina (Cambodia, Laos, and Vietnam). On 22 March, Task Group 70.2, including *Essex* (CVA 9), *Wasp* (CVA 18),

and *Boxer* (CVA 21), began steaming to an area south of Hainan to monitor the war.

**1 APRIL** • Pilots Lt. Cmdr. Francis X. Brady, Lt. W. Rich, and Lt. j.g. John C. Barrow completed the first transcontinental flights in less than four hours during a 2,438-mile journey in three VF-21 F9Fs from San Diego, Calif., to NAS Floyd Bennett Field, N.Y. Brady made the crossing in 3 hours, 45 minutes, 30 seconds; Rich in 3 hours, 48 minutes; and Barrow in 3 hours, 46 minutes, 49 seconds. All were refueled in mid-air over Hutchinson, Kans. Official timers did not participate.

**18 APRIL** • Twenty-five F4U-7 Corsairs of VMA-324 flew from *Saipan* (CVL 48) to the *Aéronavale* (French Naval Aviation) at Tourane (Da Nang), French Indochina

(Cambodia, Laos, and Vietnam). *Saipan* then entered the harbor, unloaded spare parts and maintainers, and sailed for Manila, Philippines.

**19 APRIL** • A modification of model designations for airships conformed with the designations for heavier-than-air aircraft. The action included the replacement of envelope designation letters K and N by manufacturer's letters, the uniform application of standard suffix numbers and letters, and the division of the patrol class of airships into patrol and antisubmarine classes. Thus ZP2K, ZP3K, and ZP4K became ZSG-2, -3, and -4, respectively; ZPSK became ZS2G-1; ZPN-1 became ZPG-1; ZP2N-1 became ZPG-2; and ZP2N-1W became ZPG-2W.

**20 MAY** • In January, the leftist Guatemalan government requested arms from the Eastern Bloc in reaction to a U.S. decision to support Western opponents of the regime. On this date, the first shipment arrived and the Caribbean Sea Frontier established air and sea patrols in the Gulf of Honduras to protect Honduras from invasion and control the flow of arms to the region. On 3 June, U.S. airlifts of arms to the Hondurans began followed on 18 June by an embargo against weapons to the Guatemalans. On 29 June, a Guatemalan rightist army coup led to the overthrow of the government.

**25 MAY** • After a record breaking flight of 200.1 hours, Cmdr. Marion H. Eppes landed a ZPG-2 airship at NAS Key West, Fla. The voyage of more than eight days in the air began at NAS Lakehurst, N.J., ranged over the Atlantic northward to Nova Scotia, Canada, out to Bermuda and Nassau, Bahamas, and southward over the Caribbean and Gulf of Mexico. Eppes subsequently received the Distinguished Flying Cross and the 1955 Harmon International Trophy for Aeronauts.

**26 MAY** • The port side catapult accumulator on board *Bennington* (CVA 20) burst and released vaporized lubricating oil during flight operations off Narragansett Bay. An unidentified heat source detonated the oil spray and set off a series of secondary blasts that killed 103 men and injured 201 others. The ship proceeded under her own power to disembark the casualties at NAS Quonset Point, R.I. *Bennington* then moved for extensive repairs and rebuilding from 12 June 1954 to 19 March 1955 at New York Naval Shipyard, N.Y.



An HUP-2 Retriever of HU-2 demonstrates a pilot recovery.



The XF2Y-1 Sea Dart hydro ski fighter throws up a massive wake during early taxi trials, which began in San Diego Bay in mid-December 1952.

**27 MAY** • Chief of Naval Operations Adm. Robert B. Carney approved Project 125 of the carrier improvement program, which further modernized the *Essex* (CVA 9)-class carriers that completed Project 27A by changes including the installation of angled decks and enclosure of the bows to improve seaworthiness.

**1 JUNE** • Cmdr. Henry J. Jackson launched in an S2F-1 Tracker from *Hancock* (CVA 19) in the initial operational test of the C-11 steam catapult. The tests continued throughout the month with the ship recording a total of 254 launches by Trackers, F2H-3/4 Banshees, F3D-2 Sky Knights, F7U-3 Cutlasses, FJ-2 Furies, and AD-5 Skyraiders.





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An S2F Tracker lands on board *Valley Forge* (CVS 45).



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The first of two XF4D-1 Skyhawk prototypes, BuNo 124586, lands on board *Coral Sea* (CVA 43) during final carrier qualifications in late October 1953.

**15 JUNE** • The Naval Air Development and Material Center, Rear Adm. Selden B. Spangler commanding, was established at Johnsville, Pa. The center coordinated and guided aeronautical research, development, and material activities in the Fourth Naval District including facilities at Johnsville and Philadelphia, Pa., and Lakehurst and Trenton, N.J.

**22 JUNE** • An XA4D-1 made the first flight of a Skyhawk.

**22 JULY** • The XZS2G-1, formerly designated XZP5K-1, made its first flight at Goodyear Aircraft Corporation, Akron, Ohio. This airship had been designed as a replacement for K-class airships and had unusual inverted “Y” control surfaces.

**26 JULY** • Two Chinese Communist Lavochkin La-7s attacked a pair of AD-4 Skyraiders from VF-54, embarked on board *Philippine Sea* (CVA 47). During the ensuing battle, which included five other Skyraiders and an F4U-5N Corsair, both attackers were shot down without damage to U.S. aircraft. A Chinese gunboat also fired ineffectively at the planes. The Skyraiders had been involved with other commands, including aircraft from *Hornet* (CVA 12), in the search for survivors of a British Cathay Airlines passenger plane shot down by two Chinese La-7s off Hainan on 22 June, which killed ten of the 18 people on board including six Americans.

**4 SEPTEMBER** • Two Soviet MiG-15 Fagots attacked a P2V-5 of VP-19 on a routine reconnaissance mission over international waters. The Neptune ditched 40 miles off the Siberian coast of the Soviet Union, and an Air Force Grumman SA-16 Albatross amphibian rescued nine of the ten-man crew.

**13 OCTOBER** • Helicopters operating from *Saipan* (CVL 48) off the southern coast of Haiti aided humanitarian efforts to victims of Hurricane Hazel through 19 October.

**31 OCTOBER** • Ens. Duane L. Varner of VF-34 completed a 1,900-mile nonstop unrefueled transcontinental flight in an F2H-2 Banshee in 3 hours, 58 minutes, from NAS Los Alamitos, Calif., to NAS Cecil Field, Fla.

**2 NOVEMBER** • Pilot J. F. Coleman made a successful flight in the XFY-1 delta wing experimental fighter consisting of vertical takeoff, transition to horizontal flight, and return to vertical position for landing at NAS Moffett Field, Calif. The first free vertical takeoff had been accomplished on 1 August. Coleman later received the Harmon International Trophy for 1955 for his contribution to the art of flying in testing the XFY-1.

## 1955

**17 JANUARY** • VX-6 was established for operations with Task Force 43 at NAS Patuxent River, Md. The squadron provided services for parties based ashore on Antarctica and made courier flights between that continent and New Zealand during Operation Deep Freeze—the Navy’s renewed support of Antarctic research. VX-6 initially used ski-equipped planes including two R4D-5/6 Skytrains, two P2V-2 Neptunes, and two UF-1 Albatrosses to deal with the harsh conditions on the ice shelf. Two RSD-2/3 Skymasters using their conventional landing gear operated from the relatively smoother sea ice at McMurdo Sound. Additional initial aircraft comprised four UC-1 Otters and three HO4S-3s.

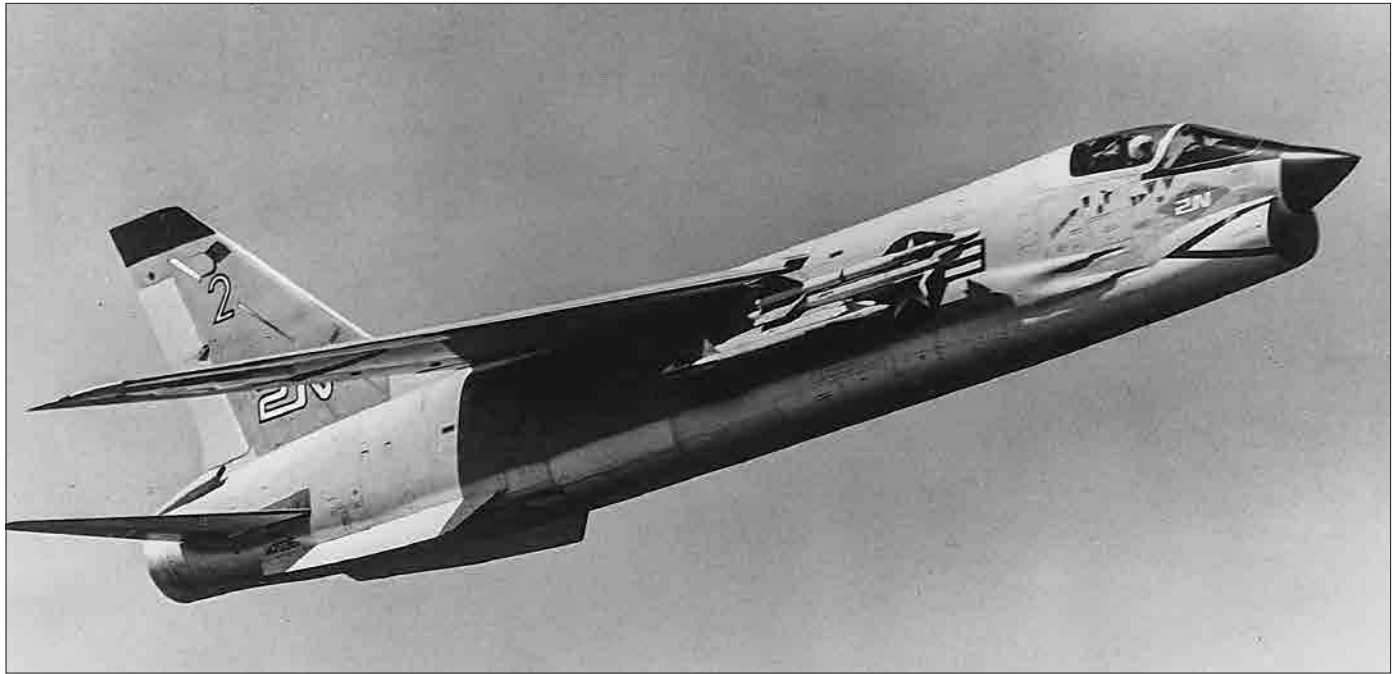
**21 JANUARY** • A one-man direct-lift rotorcraft dubbed the Flying Platform made its first flight at the Hiller Helicopters plant, Palo Alto, Calif. The flight, which occurred during ground tests, was accidental but otherwise successful.



Only one of three XFY-1 experimental vertical takeoff fighter prototypes was completed and flown.

**27 JANUARY** • Lt. Cmdr. William J. Manby Jr. of VF-33 set an unofficial time-to-climb mark by reaching 10,000 feet from a standing start in 73.2 seconds in an FJ-3 Fury at NAS Oceana, Va.

**1 FEBRUARY** • Task Force 43, Capt. George J. Dufek commanding, was activated to plan Antarctic operations scheduled to begin in the fall under Operation Deep Freeze. The force’s first expedition mission was the construction of facilities and airstrips and supply delivery in support of U.S. participation in the International Geophysical Year of 1957 to 1958.



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The second of two F8U-2N Crusader all-weather fighter prototypes displays the type's larger radome and Y-shaped fuselage mounted pylon capable of carrying AAM-N-7 Sidewinder heat-seeking air-to-air missiles.

**1 FEBRUARY** • After six days of intensive training at a Spanish air base at Reus, P2V-5 Neptunes of VP-23 left Tarragona, Spain, for NAS Port Lyautey, Morocco. The event marked the first operation of U.S. forces from bases in Spain.

**6 FEBRUARY** • *Midway* (CVA 41) reported to Commander Task Force 77 after a voyage from the Atlantic to the Pacific around the Cape of Good Hope. The ship's arrival initiated the operation of *Midway*-class carriers in the western Pacific.

**6 FEBRUARY** • During January, the Chinese Communists began to bombard the Tachen Islands off the China coast. On this date, carrier aircraft covered the Seventh Fleet's evacuation of 29,000 Taiwanese garrison troops and civilian refugees from the islands through 12 February.

**13 FEBRUARY** • McDonnell Aircraft Company test pilot C. V. Braun set the unofficial record for time-to-climb to 10,000 feet at 71 seconds in an F3H-1N Demon.

**16 FEBRUARY** • The Bureau of Aeronautics issued instructions describing new aircraft color schemes for application to Marine Corps aircraft beginning on 1 July 1955, and to be applied on all currently operating aircraft within the subsequent two years. The action changed the

familiar Sea Blue to nonspecular Light Gull Gray on top and glossy Insignia White below for carrier aircraft, semigloss Seaplane Gray overall for water-based aircraft and overall nonspecular Light Gull Gray for helicopters. Bare aluminum was retained for utility types and landplane transports, the latter having in addition a solar heat reflecting glossy Insignia White top. Orange Yellow remained the color for primary trainers, but a shift occurred for the advanced trainer scheme to International Orange and Insignia White. Other changes included Olive Drab above and glossy Insignia White below for land observation types, and a combination of Orange Yellow, Engine Gray, and Insignia Red for target drones and target tow aircraft.

**23 FEBRUARY** • Douglas test pilot R. O. Rahn reached 10,000 feet in 56 seconds in an F4D-1 Skyray. His achievement marked the fourth unofficial time-to-climb record set by Navy carrier fighters in less than a month.

**24 FEBRUARY** • Chief of Naval Operations Adm. Robert B. Carney directed the use of the term "angled" in lieu of "canted," "slanted," and "flamed" to describe the deck of aircraft carriers in which the landing runway was offset at an angle from the line of the keel.





One of *Hancock's* (CVA 19) bow steam catapults launches an F8U-1 Crusader of VF-154 during carrier qualifications on 25 November 1957.

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**24 FEBRUARY** • The first high-speed seaplane R3Y-1 transport, powered by four Allison turboprop engines, arrived for service suitability evaluation and trials at NATC Patuxent River, Md. Designers intended the Tradewind for long-range over water transportation of military cargo and personnel and the aerial evacuation of wounded.

**22 MARCH** • An R6D-1 Liftmaster of VR-3 assigned to the Military Air Transport Service crashed and exploded on Pali Kea Peak, 15 miles northwest of Honolulu, Hawaii. The accident killed all 66 people on board, nine crewmembers and 57 passengers.

**25 MARCH** • An XF8U-1 Crusader exceeded the speed of sound during its first flight at Edwards AFB, Calif.

**4 APRIL** • The Jet Transitional Training Unit was established at NAS Olathe, Kansas. The unit provided

refresher training for aviators who transferred from shore to sea duty in the rank of commander and below. It also trained pilots making the transition from propeller aircraft to jets.

**22 APRIL** • During a ceremony on board *Bennington* (CVA 20), Secretary of the Navy Charles S. Thomas presented medals and commendations to 178 of the crew in recognition of their heroism fighting the 26 May 1954 fire.

**30 APRIL** • Adm. John H. Towers (Naval Aviator No. 3) died. His career began on 26 June 1911 when he reported to the Curtiss Flying School at Hammondsport, N.Y., for flight instruction. Towers served as Chief of Bureau of Aeronautics; Commander Naval Air Forces, Pacific; Commander Second Carrier Task Force; and Commander in Chief, Pacific Fleet. He retired from active duty on 1 December 1947 while serving as chairman of the General Board.



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An XP6M-1 Seamaster swept-wing jet-powered seaplane.

**2 MAY** • The Navy announced the Aviation Officer Candidate Program for college graduates between the ages of 19 and 26. The plan paralleled the Aviation Cadet Program insofar as flight training was concerned, but in recognition of the higher scholastic achievement of its candidates offered a commission as ensign, USNR, upon completion of the four-month preflight course.

**5 MAY** • Twelve P2V-5 Neptunes of VP-1 returned from the Far East by way of Asia, Europe, and North Africa to NAS Whidbey Island, Wash. Despite a tour of duty that separated the Pacific Ocean leg from the rest of the voyage, their return marked the first round-the-world flight by a Navy squadron. VP-1 had departed the continental United States on 21 April 1955. The achievement bolstered the Navy's claims to strategic airpower in the face of ongoing Air Force demands for control over all land-based airpower and of congressional calls for post-Korean War defense cutbacks.

**12 MAY** • A revision of naval vessel classifications included the designations Escort Helicopter Aircraft Carrier (CVHE) and Utility Aircraft Carrier (CVU). The ships were redesignated one month later.

**1 JUNE** • VQ-1, Lt. Cmdr. Eugene R. Hall commanding, was established at NAS Iwakuni, Japan, as the first squadron of its type. It initially flew P4M-1Q *Mercators*.

**22 JUNE** • Two Soviet MiG-15 *Fagots* attacked a VP-9 P2V-5 *Neptune*, BuNo 131515, on patrol over the Aleutian Islands from NAS Kodiak, Alaska. The *Neptune* crashed on St. Lawrence Island near Gambell in the Bering Sea. Four of the 11 crewmen sustained gunfire wounds, and six were injured in the crash.

**1 JULY** • Naval Auxiliary Air Station (NAAS) Mayport, Fla., was established. The action completed the program that began in 1948 to convert the Jacksonville area into a fleet aviation center. Mayport provided mooring facilities for carriers alongside the airstrip and thus permitted the rapid loading or unloading of special equipment and personnel and the easy movement of carrier aircraft ashore or afloat.

**1 JULY** • *Thetis Bay* (CVE 90) was reclassified an assault helicopter aircraft carrier (CVHA 1).

**14 JULY** • A swept-wing XP6M-1 seaplane powered by four Allison J-71 jet engines and incorporating a new hull design made its first flight. The *Seamasters* were designed for minelaying and reconnaissance tasks but were adaptable to other missions.

**22 AUGUST** • VX-3 began operational evaluation of the mirror landing system installed on *Bennington* (CVA 20). Squadron commanding officer, Cmdr. Robert G. Dose, made the first landing with the device in an FJ-3 *Fury*. Two days later, Lt. Cmdr. Harding C. MacKnight accomplished the first night landing in an F9F-8 *Cougar*. A favorable report from VX-3 formed the basis for a decision to procure the mirror landing system for installation on carriers and at certain shore stations.

**12 SEPTEMBER** • The Navy announced the fitting of all the fighters in production with in-flight refueling gear, thus establishing the technique as a standard operational procedure.

**16 SEPTEMBER** • Guided Missile Group 1 was established at San Diego, Calif., to provide trained detachments to operate Regulus bombardment missiles from aircraft carriers





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*Forrestal* (CVA 59) is the lead ship of her class, and the first operational U.S. carrier designed specifically to operate jets.

and to support the employment of the weapons on board cruisers and submarines of the Pacific Fleet. Ten days later, Guided Missile Group 2 was established at Chincoteague, Va., to provide the same services in the Atlantic Fleet.

**27 SEPTEMBER** • The chief of Naval Research received Navy responsibilities in connection with plans to launch an earth satellite during the International Geophysical Year of 1957 to 1958. These tasks included technical management of the Department of Defense portion of the program.

**1 OCTOBER** • *Forrestal* (CVA 59), Capt. Roy L. Johnson commanding, was commissioned at the Norfolk Naval Shipyard, Portsmouth, Va., as the first of four ships of her class.

**10 OCTOBER** • Following a week of disaster relief operations in the wake of Hurricane Hilda, *Saipan* (CVL 48), with HTU-1 embarked, sailed from Tampico, Mexico. Helicopters flying from the ship rescued 5,439 people and delivered 183,017 pounds of food and medical supplies. Additional commands involved included Marines from the 2d Marine Aircraft Wing, Marine Aircraft Group 26, and VMR-153 and -252.



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The seventh of nine YA4D-1 Skyhawk test aircraft, BuNo 137819, carries a Douglas NAVPAC (navigation package) during a trial flight, c. May 1956.

**11 OCTOBER** • The Navy announced the initial step toward monitoring surface weather in uninhabited portions of the world to provide improved weather forecasting for use in both flight and surface operations. Automatic meteorological stations developed by the Office of Naval Research and Bureau of Aeronautics were set adrift in the hurricane lanes north of Puerto Rico and provided continuous weather data on tropical storm Janet. Subsequent progress included moored automatic weather stations. In September 1960, a station provided the first alert on tropical storm Ethel; beginning in 1956, unit stations on Antarctica achieved increasing success culminating in the provision of adequate data in 1960 and, beginning in 1964, with nuclear energy power as a source for data collection and transmission.

**15 OCTOBER** • Lt. Gordon Gray broke the Class C world speed record for 500 kilometers at 695.163 mph in an A4D-1 Skyhawk over Muroc, Calif.

**1 NOVEMBER** • *Boston* (CAG 1), Capt. Charles B. Martell commanding, was commissioned at the Philadelphia Naval Shipyard, Pa., as the world's first guided-missile cruiser.

**8 NOVEMBER** • The Secretary of Defense established a national ballistic missile program involving joint Army-Navy development of an intermediate-range ballistic missile for shipboard and land-based operations. The decision resulted in Navy support for the Army's program to develop liquid-

propellant Jupiter missiles at the Redstone Arsenal, Ala., in order to adapt the weapons for use as fleet ballistic missiles.

**9 NOVEMBER** • The Chief of Naval Operations informed the chief of the Bureau of Ships of his intention to equip each angled-deck carrier with mirror landing systems, and requested the procurement of equipment for 12 installations during 1956 and 1957.

**14 NOVEMBER** • The flagship of Commander Task Force 43, Rear Adm. George J. Dufek, sailed from Norfolk, Va., for New Zealand to rendezvous with the ships of the task force for the southward voyage to participate in Operation Deep Freeze. The force's mission was to establish bases on Antarctica for geophysical studies during the following year.

**1 DECEMBER** • The assignment of an element of Fleet All Weather Training Unit, Pacific with the Continental Air Defense Command began as a fighter-interceptor group under Air Force control. The element was disestablished on 2 May 1958, raised to squadron status, and designated VF(AW)-3.

**4 DECEMBER** • Lt. Cmdr. Charles A. Mills piloted a ZPG airship in the vicinity of NAS South Weymouth, Mass., on an experimental ice accreting flight during a project to evaluate the all-weather capabilities of airships. In spite of heavy hull and propeller icing, severe vibration, and flying ice particles, Mills directed the collection of data, returned



to the field under instrument conditions, and made a ground-controlled approach landing in a manner that retained a maximum amount of ice on the ship for ground analysis. For his achievement on this and other evaluation flights, Mills received the 1956 Harmon International Trophy for Aeronauts.

**20 DECEMBER** • Two P2V Neptunes and two R5D Skymasters of VX-6 forged the first air link with Antarctica with a flight from Christchurch, New Zealand, to McMurdo Sound, Antarctica.

## 1956

**3 JANUARY** • ZW-1, Cmdr. John L. Mack commanding, was established at NAS Lakehurst, N.J., as the first lighter-than-air unit of its type. The squadron's initial mission was the training of personnel, evaluation of airborne early warning (AEW) equipment, and formulation of tactics in preparation for manning a station in the contiguous AEW barrier system. In February, ZW-1 began project flights into September 1956 to test and evaluate the ZPG-2W airship as an AEW vehicle, and to determine the effectiveness of its equipment for use in continental and fleet air defense.

**10 JANUARY** • Airborne Early Warning Wing, Pacific was established at NAS Barbers Point, Territory of Hawaii, Capt. Edward C. Renfro commanding. The wing supervised and directed aircraft flying defensive patrols protecting the United States against surprise attack.

**29 FEBRUARY** • Growing unrest in Jordan and dissatisfaction with British influence within the kingdom led to the dismissal of British Commander Gen. John B. Glubb of the Arab Legionnaires. The Sixth Fleet subsequently dispatched *Randolph* (CVA 15) and *Coral Sea* (CVA 43) to the eastern Mediterranean. The formation of a new Jordanian cabinet in May ended the turmoil.

**7 MARCH** • The assignment of F3H-2N Demons to the fleet began with the delivery of six to VF-14 at NAS Cecil Field, Fla.

**12 MARCH** • F7U-3M Cutlasses from VA-83 equipped with AAM-N-2 Sparrow I air-to-air missiles sailed



An F3H-2N Demon, BuNo 137010, launches an AAM-N-6 Sparrow III air-to-air missile during testing at Point Mugu Pacific Missile Range, c. 1958.

from Norfolk, Va., on board *Intrepid* (CVA 11) for the Mediterranean in the first overseas deployment of a naval squadron using air-to-air missiles. In June, VA-46 deployed equipped with AAM-N-7 Sidewinder air-to-air missiles.

**12 MARCH** • The Assistant Secretary of Defense for Research and Development established a titanium alloy sheet rolling program and designated the Bureau of Aeronautics as coordinator. This created an organized effort of the armed services and the titanium industry to improve the strength, uniformity, and fabricating characteristics of the alloys for use in aircraft and missiles.

**20 MARCH** • The Ballistic Missile Committee of the Office of the Secretary of Defense approved a Navy program to develop solid-propellant motors for use in ship-based ballistic missiles.

**31 MARCH** • Five A3D-1 Skywarriors ferried from NAS Patuxent River, Md., to VAH-1 at NAS Jacksonville, Fla., completed the first delivery of the type to a fleet command.

**3 APRIL** • The Navy announced the operational integration of Petrel air-to-surface guided missiles designed for use by patrol aircraft against shipping, with the first assigned to P2V-6M Neptunes of VP-24.

**23 APRIL** • The cognizance of an earth satellite launching program designated Project Vanguard within OpNav shifted to the Guided Missiles Division of Deputy Chief of Naval Operations (Air). The division received responsibility for advising the Chief of Naval Operations on general aspects





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One of two A3D-1 Skywarriors, BuNo 135408, used for Naval Air Test Center carrier suitability trials in June 1956 is launched from *Forrestal* (CVA 59).

of the program, and supporting and assisting the Office of Naval Research in the resolution of problems, other than fiscal, that arose within the Navy Department and at missile test activities of other services.

**25 APRIL** • The Chief of Naval Operations announced the planned installation of mirror landing systems at all the principal naval air stations to improve air traffic control and reduce landing accidents.

**26 APRIL** • The Naval Aircraft Factory at Philadelphia, Pa., was renamed the Naval Air Engineering Facility (Ships Installations). Its revised mission included research, engineering, design, development, and limited manufacturing of devices and equipment for aircraft and guided missile launch and recovery. The redesignation ceremony occurred on 1 June.

**29 MAY** • The modification of the ship designation system by the use of the suffix "N" identified vessels propelled by nuclear energy.

**25 JUNE** • The Naval Ordnance Plant at Indianapolis, Ind., was redesignated the Naval Avionics Facility. The plant had been established early in World War II for the development and production of aviation ordnance including the Norden bombsight and was devoted to the research, development, production, and repair of aviation fire control equipment. Its redesignation completed an internal Navy realignment whereby the Bureau of Ordnance became responsible for solid propellant rocket motors and Bureau of Aeronautics for aviation fire control equipment.

**27 JUNE** • The first Fleet Air Gunnery Meet was held at NAAS El Centro, Calif. Six teams selected from Navy and Marine shore-based fighter squadrons, each composed of the

squadron commanding officer and three pilots, competed with two firings each at 15,000 and 25,000 feet during the two-day event. The top team honors and the Earle Trophy went to VF-112 of Naval Air Forces, Pacific, and individual honors to Lt. j.g. H. N. Wellman of VF-43 from Naval Air Forces, Atlantic.

**7 JULY** • VW-12 and Headquarters and Maintenance Squadron 2 were established at NAS Barbers Point in the Hawaiian Islands for patrol duty along the Pacific Distant Early Warning Line of the Continental Air Defense System.

**12 JULY** • The chief of Bureau of Aeronautics approved a reorganization of the Office of Assistant Chief for Research and Development that included the regrouping of various technical divisions with closely related functions under the appropriately titled officers. The move completed a reorganization of the entire bureau initiated the previous year. It included the establishment of an assistant chief for plans and programs with a concomitant strengthening of planning functions and a division of the material and services group into two groups entitled "Procurement" and "Maintenance and Support," each under an assistant chief.

**14 JULY** • In the initial overseas deployment of a fleet command equipped with AAM-N-7 Sidewinder air-to-air missiles, the F9F-8 Cougars of VA-46, embarked on board *Randolph* (CVA 15), sailed from Norfolk, Va., for the Sixth Fleet in the Mediterranean. The following month, the deployment of Sidewinders began to the western Pacific as the FJ-3 Furies of VF-211 sailed from the West Coast on board *Bon Homme Richard* (CVA 31).

**20 JULY** • *Thetis Bay* (CVHA 1), Capt. Thomas W. South II commanding, was commissioned at San Francisco, Calif., as the first helicopter assault carrier. The former escort carrier (CVE 90) had been converted to operate helicopters and to accommodate 1,000 Marines to be flown ashore in the vertical envelopment tactics of amphibious assault. *Thetis Bay* was redesignated an amphibious assault ship (LPH 6) on 28 March 1959, but she never supported a combat landing in this configuration and was decommissioned on 31 March 1964.



Equipment development encompasses all phases of naval aviation. An early mirror landing system aids an A3D Skywarrior as it lands on board an aircraft carrier.

**26 JULY** • The Egyptians nationalized the Suez Canal, and amid Anglo-French preparations for war to assert their claims to the canal, the Sixth Fleet subsequently deployed *Randolph* (CVA 15) and *Coral Sea* (CVA 43) to the eastern Mediterranean. The ships dispersed in mid-September following an apparent lessening of the tensions.

**31 JULY** • Lt. Cmdrs. P. Harwood and Alton R. Henson and Lt. Roy R. Miears demonstrated the performance capabilities of carrier jet attack aircraft with a 3,200-mile nonstop unrefueled flight in an A3D Skywarrior from Honolulu, Hawaiian Islands, to Albuquerque, N. Mex. The trip took 5 hours, 40 minutes, at an average speed of 570 mph.

**15 AUGUST** • The Avionics Division, Capt. William E. Sweeney director, was established in the Bureau of Aeronautics' Research and Development Group. The merger of the electronics and armament divisions and the navigation branch of the Airborne Equipment Division formed the Avionics Division that resulted from a rapid expansion of electronics in aviation armament and air navigation, and from the closely coordinated effort required for its most effective application.

**21 AUGUST** • Cmdr. Robert W. Windsor Jr. captured the Thompson Trophy with a new national speed record of 1,015.428 mph in an F8U-1 over a 15-kilometer course at NOTS China Lake, Calif. This production model Crusader carried its normal armament of 20mm cannon and dummy ammunition during the record performance, making it the first operationally equipped U.S. aircraft to fly faster than 1,000 mph.



An HUS-1 Seahorse of HMR-362 demonstrates an at-sea rescue while operating with *Thetis Bay* (CVHA 1), c. 1956.

**22 AUGUST** • Pilot Lt. Cmdr. Virgil Solomon completed the last scheduled passenger run for Martin Mars seaplanes after a flight from Honolulu, Hawaiian Islands, when he landed the JRM *Marianas Mars* off NAS Alameda, Calif.

**22 AUGUST** • The crew of a VQ-1 P4M-1Q, BuNo 124362, on a night patrol from Iwakuni, Japan, reported themselves under attack by unidentified aircraft over international waters, 32 miles off the Chinese coast near Wenchow, about 180 miles north of Formosa (Taiwan). The Mercator sent no further word and the plane and all 16 men on board disappeared. Carrier and land-based aircraft and ships searched for the aircraft and destroyer *Dennis J. Buckley* (DDR 808) recovered wreckage, empty life rafts, and the bodies of two crewmembers.

**30 AUGUST** • The Air Coordinating Committee approved a common military-civil short-range air navigation system called VORTAC. The system consisted of a combination of the Navy-developed tactical air navigation system (TACAN) with the Civil Aeronautic Authority's very-high frequency omni-range direction finder (VOR). The action resulted in the installation of ground beacons on civil airways that served civilian and military aircraft, each using their own specialized equipment.

**1 SEPTEMBER** • In the race for the North American Trophy at an event of the National Aircraft Show, four FJ-3 Furies of VF-24 took off from *Shangri-La* (CVA 38) off the Pacific coast of Mexico and flew 1,198 miles nonstop without refueling to Oklahoma City, Okla. Lt. j.g. D. K. Grosshuesch won with a time of 2 hours, 13 minutes, 38.6 seconds, at an average speed of 537.848 mph.

**2 SEPTEMBER** • On the second day of the National Aircraft Show, Lt. j.g. R. Carson of VF-124 captured the McDonnell Trophy with a nonstop unrefueled flight in an F3H-2N Demon from *Shangri-La* (CVA 38) at sea off San Francisco, Calif., to Oklahoma City, Okla. Carson covered 1,436 miles in 2 hours, 32 minutes, 13.45 seconds, at an average speed of 566.007 mph.

**3 SEPTEMBER** • Capt. John T. Blackburn, commanding officer of Heavy Attack Wing 1, and Cmdr. Charles T. Frohne launched in two A3D Skywarriors from *Shangri-La* (CVA 38) off the Oregon coast, flew across a finish line at the National Aircraft Show at Oklahoma City, Okla., and continued on without refueling to NAS Jacksonville, Fla. Blackburn received the Douglas Trophy for completing the 1,543.3-mile leg from the *Shangri-La* to Oklahoma City in 2 hours, 32 minutes, 39.7 seconds, at an average speed of



606.557 mph. This flight completed a three-day demonstration of carrier mobility in which *Shangri-La* launched jets to the same destination from widely separated points while sailing from Mexico to Oregon.

**21 SEPTEMBER** • Grumman test pilot Tom Attridge, flying an F11F-1 Tiger, shot himself down when he flew into 20mm projectiles he fired only seconds before while conducting test firings off eastern Long Island, N.Y.

**2 OCTOBER** • The Navy struck *Enterprise* (CV 6) and placed the ship for sale as scrap. The carrier was commissioned on 12 May 1938, served through World War II, and helped pioneer night combat operations. *Enterprise* received the Presidential Unit Citation and the Navy Unit Commendation. The ship was decommissioned during the demobilization period after the war and laid-up with the Reserve Fleet at Bayonne, N.J.

**5 OCTOBER** • Cmdrs. Gerald A. Robinson and Donald Mitchie and Ens. Ronald K. Hess of VF-144 made a round-trip transcontinental flight in three F9F-8 Cougars from Miramar, Calif., to Long Island, N.Y., with fueling stops each way at Olathe, Kans. Although the flight's elapsed time of 10 hours, 49 minutes, 11 seconds, beat the existing record of 11 hours, 18 minutes, 27 seconds, the flight was not under official observation and therefore did not receive official recognition.

**11 OCTOBER** • An R6D-1 of VR-6 on a scheduled Military Air Transport Service flight from Lakenheath, England, to Lajes, Azores, disappeared over the Atlantic with nine crewmembers and 50 passengers on board. Ships and aircraft searched during the following 14 days and found debris from the Liftmaster, but failed to locate survivors.



Cmdr. Robert W. Windsor Jr. set the world speed record of more than 1,000 mph on 21 August 1956 in this production model F8U-1 Crusader, BuNo 141345, and was awarded the Thompson Trophy.

**16 OCTOBER** • Five students received naval observer wings as the first graduates of the Navigator-Bombardier School. The course began on 26 May at NAS Corpus Christi, Texas.

**29 OCTOBER** • The Suez Crisis in the Middle East erupted into open warfare. All available ships and submarines of the Sixth Fleet in the Mediterranean went to sea under conditions of maximum readiness, and the Fleet received orders to evacuate U.S. citizens from the threatened area. At times, *Randolph* (CVA 15), *Antietam* (CVS 36), and *Coral Sea* (CVA 43) responded. Through 3 November, aircraft provided cover while ships and USAF transports evacuated about 2,200 people from Alexandria, Egypt; Haifa and Tel Aviv, Israel; Amman, Jordan; and Damascus, Syria. On 7 November, the United States received information of an impending Soviet deployment of six ships from the Black Sea



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The supersonic F11F-1 Tiger had its origins in the subsonic F9F Panther and Cougar series of aircraft. This early prototype displays the plane's planform.



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The crew—(from left) AMM2 John P. Strider, Rear Adm. George J. Dufek, Lt. Cmdr. Conrad S. Shinn, Lt. John Swadener, AT2 William Cumbie, Capt. William M. Hawkes, and Capt. Douglas L. L. Cordiner—of the first plane to land at the South Pole, 31 October 1956.

to the eastern Mediterranean. The Chief of Naval Operations dispatched *Coral Sea* and *Randolph* to sail off the Egyptian coast, from where they could support the evacuation of Americans or strike against the Soviets, and sent *Franklin D. Roosevelt* (CVA 42) and *Forrestal* (CVA 59) to the vicinity of the Azores to reinforce the Sixth Fleet. Two additional carriers sailed to the western Pacific and Indian Ocean. The operations by the Sixth Fleet during subsequent weeks included the logistic support of the initial UN peacekeeping forces that arrived in the area on 15 November. On 13 December, the Sixth Fleet stood down from a 24-hour alert status.

**31 OCTOBER** • Commander Task Force 43 and Commander Naval Support Forces, Antarctica Rear Adm. George J. Dufek; Capt. Douglas L. L. Cordiner, commanding officer of VX-6; pilot Lt. Cmdr. Conrad S. Shinn; copilot Capt. William M. Hawkes; navigator Lt. John Swadener; crew chief AMM2 John P. Strider; and radioman AT2 William Cumbie landed in *Que Sera Sera*—an R4D-5L Skytrain, BuNo 12418—on the ice at the South Pole. The crew disembarked and at 0834 GMT became the first men to stand at the South Pole since British Capt. Robert F. Scott, RN, had accomplished the feat on 17 January 1912. The party remained at the pole for 49 minutes setting up navigational aids to assist the future delivery of materials and equipment for constructing a scientific observation station at the pole. A Navy R5D Skymaster and an Air Force C-124 Globemaster provided navigational assistance and were to drop survival gear in the event of an accident. The Naval Aviation Museum subsequently preserved *Que Sera Sera* for display at NAS Pensacola, Fla.

**2 NOVEMBER** • The Navy announced the award of a contract to Westinghouse Electric to design and furnish reactor components for *Enterprise* (CVAN 65).

**8 NOVEMBER** • Lt. Cmdrs. M. Lee Lewis and Malcolm D. Ross bettered the existing world altitude record by soaring to 76,000 feet in a Navy Stratolab balloon over the Black Hills of South Dakota. The duo received the 1957 Harmon International Trophy for Aeronauts for this record ascent, which was intended to gather meteorological, cosmic ray, and other scientific data necessary to improve safety at high altitudes.

**9 NOVEMBER** • Maj. Roy L. Anderson, USMC, began a three-day assault on world records in an HR2S-1 helicopter that set three new marks at Windsor Locks, Conn. On 9 November, he carried a payload of 11,050 pounds to an altitude over 12,000 feet; on 10 November, he conveyed 13,250 pounds to over 7,000 feet; and on 11 November, he set a speed record of 162.7 mph over a three-kilometer course.

**29 NOVEMBER** • The ZSG-4 made its initial flight as the first airship fitted with a Dacron envelope at NAS Lakehurst, N.J.



The Marines' HR2S-1 Mojave could carry 26 fully equipped troops or up to three jeeps, c. 1956.

**3 DECEMBER** • *Compass Island* (EAG 153) was commissioned at the New York Naval Shipyard, N.Y., Cmdr. J. A. Dare commanding, as the first ship converted to support the fleet ballistic missile program.

**3 DECEMBER** • *Gyatt* (DD 712), Cmdr. Charles F. Helme Jr. commanding, was recommissioned at Boston, Mass., as the first destroyer fitted with RIM-2 Terrier surface-to-air missiles.

**7 DECEMBER** • The Secretary of Defense directed the placement of air transport operations under a single manager service and designated the Military Air Transport Service (MATS) of the Air Force as the operating agency. This directive required the Navy to transfer to that agency all transport aircraft that it operated under MATS and all four-engine land transports of the fleet logistic air wings, except for 30 retained for fleet service and administrative airlift. The implementation of the instruction was to occur on 1 July 1957.

**8 DECEMBER** • The Secretary of Defense authorized the Navy to proceed with the development of the

solid-propellant Polaris fleet ballistic missile as a submarine-launched weapon system, and to terminate its participation in the liquid-propellant Jupiter program.

**8 DECEMBER** • A Martin Viking rocket successfully launched from Cape Canaveral, Fla., during a test of launching equipment, tracking, and telemetry instruments intended for the Vanguard earth satellite.

**17 DECEMBER** • A WF-2 Tracer carrier early warning plane, adapted from the TF-1 design, made its first flight at the Grumman facility, Peconic River, Long Island, N.Y.

## 1957

**1 JANUARY** • The Naval Air Experimental Station, one of the four subcommands that had been grouped together on 14 July 1943 to form the Naval Air Materiel Center, was disestablished and consolidated within the center at Philadelphia, Pa.





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Converted battleship *Mississippi* (AG 128) first launched a SAM-N-7 Terrier surface-to-air missile during tests in January 1953. This is a later night launch.

**3 JANUARY** • The Bureau of Aeronautics ordered the retirement of the last operational PBY-6A Catalina from naval service at Naval Air Reserve Training Unit Atlanta, Ga.

**10 JANUARY** • The Naval Air Mine Defense Development Unit was established as a full command at Panama City, Fla. The unit had been established on 31 August 1956, under an officer in charge to develop and evaluate aviation systems, materials, and techniques for mine countermeasures.

**14 JANUARY** • In an evaluation of their all-weather capability, ZPG airships of ZW-1 operating in relays from NAS South Weymouth, Mass., maintained continuous radar patrols over the North Atlantic 200 miles off the New England coast through a series of fierce storms into 24 January.

**15 JANUARY** • *Forrestal* (CVA 59), with Carrier Air Group 1 embarked, deployed to the Mediterranean from NS Norfolk, Va. The 12 A3D-1s of VAH-1 that sailed with the ship marked the first deployment of Skywarriors with a *Forrestal*-class carrier. She returned to the United States on 22 July.

**18 JANUARY** • VA(AW)-35 at San Diego, Calif., received TF-1Qs, the first Navy aircraft equipped for electronic jamming.

**1 FEBRUARY** • Lt. Cmdr. Frank H. Austin Jr., MC, became the first Navy flight surgeon to qualify as a test pilot when he completed the Test Pilot Training Program at NATC Patuxent River, Md.



This TF-1 Trader, BuNo 136792, carrier onboard delivery transport has been converted into the aerodynamic prototype—without internal electronic systems—of the WF-2 Tracer carrier-based early warning aircraft.

**4 FEBRUARY** • The Chief of Naval Operations set forth a new policy for billet assignment, which provided the assignment of aviators and non-aviators alternately as either the senior or next senior officer of each important policy generating and administrative billet, and that assignment to all billets of commander-level and above were to be filled by aviators and non-aviators in the ratio of their respective numbers on board.

**9 FEBRUARY** • Chairman and Deputy Secretary of Defense Reuben B. Robertson Jr. issued the final report of the eponymous committee formed to study the means of shortening the time required to develop aircraft. The Robertson Committee concluded that streamlining management and administrative processes eliminated wasted motion and accomplished the development of weapon systems in less time than had been required since World War II. To this end, the services were to take specific action to correct problems. Those taken by the Navy included the establishment of managers for each weapon program within the Bureau of Aeronautics, and a long-range objectives group in the Office of Chief of Naval Operations.

**21 FEBRUARY** • In recognition of the increasing importance of weather information to naval operations, the

Naval Aerology Branch, OP-533, received status as the Naval Weather Service Division, OP-58.

**4 MARCH** • Cmdr. Jack R. Hunt commanded airship ZPG-2 during a flight from NAS South Weymouth, Mass., that circled over the Atlantic Ocean toward Portugal and the African coast and landed on 15 March at NAS Key West, Fla. This set a new world record in distance and endurance by covering 9,448 statute miles and remaining airborne without refueling for 264 hours, 12 minutes. Hunt received the 1958 Harmon International Trophy for Aeronauts.

**7 MARCH** • A turbocatapult powered by the exhaust of six jet engines and designed primarily for use by Marine expeditionary forces, launched its first aircraft at Georgetown, Del. Test pilot Joseph Barkley took off in an AD-4NA Skyraider weighing 16,400 pounds at a speed of 90 knots in a run of 210 feet.

**21 MARCH** • Cmdr. Dale W. Cox Jr. broke two transcontinental speed records in an A3D-1 Skywarrior. The first occurred during a round trip of 9 hours, 31 minutes, 35.4 seconds, from Los Angeles, Calif., to New York, N.Y. The second marked an east-to-west flight completed in 5 hours, 12 minutes, 39.24 seconds.



Cmdr. Jack R. Hunt briefs the crew of airship ZPG-2 for their non-stop 11-day flight, 4 March 1957.

**25 MARCH** • VF-32 received the first F8U-1 Crusader delivered to a fleet unit two years after the first flight of the experimental model.

**25 MARCH** • African American Lt. j.g. Bobby C. Wilks, USCGR, earned his wings as Coast Guard Aviator No. 735 at NAS Corpus Christi, Texas. Wilks thus became the Coast Guard's first black pilot, and in 1959 he also qualified as Coast Guard Helicopter Pilot No. 343. The following year he transferred to the regular Coast Guard as a lieutenant, and in 1986 he retired as a captain.

**5 APRIL** • In the second annual Naval Air Weapons Meet, VMF-314 won the Earle Trophy for first place in air gunnery, and VA-26 took the Kane Trophy for best in the air-to-ground competition. Cmdr. Alexander Vraciu, commanding officer of VF-51 and a World War II ace, attained the best individual score of the meet.

**12 APRIL** • The Sperry Farragut Company of Bristol, Tenn., completed the scheduled production of AAM-N-2 Sparrow I air-to-air missiles with the delivery of the final missile on order.

**13 APRIL** • Aviation officer distribution functions shifted to the Bureau of Naval Personnel. The office of Deputy Chief of Naval Operations (Air) had performed these functions since its establishment in 1943.

**21 APRIL** • *Antietam* (CVS 36) was assigned to the chief of Naval Air Training at NAS Pensacola, Fla., to provide that command with its first angled deck carrier for use in flight training. *Antietam* operated from NS Mayport, Fla., while dredging deepened the channel into Pensacola, and physically shifted her home port in January 1959.

**25 APRIL** • The Sixth Fleet including *Lake Champlain* (CVA 39) and *Forrestal* (CVA 59) sailed to the eastern Mediterranean in a show of strength to support a publicized warning by President Dwight D. Eisenhower to contain a communist threat to Jordanian independence. On 27 April, Commander Sixth Fleet Vice Adm. Charles R. Brown reported to NATO the Fleet's readiness in the event of an escalation of the crisis: "For deterrent action could launch attack aircraft today and all types first light tomorrow for demonstration." The two carriers operated in those waters for a week.

**30 APRIL** • The Naval Aviation Medical Center was established at NAS Pensacola, Fla. The move combined under a single command the clinical, training, and research functions of the Naval School of Aviation Medicine and the Naval Hospital Pensacola.

**1 MAY** • A two-stage rocket consisting of the first stage of a Viking and a prototype of the Vanguard third stage launched in the second successful test of components of the Vanguard earth satellite launching vehicle from Cape Canaveral, Fla.

**6 MAY** • ZPG-2W made its first flight at Akron, Ohio. The early-warning airship was equipped with a large radar antenna mounted within the envelope.

**17 MAY** • *Badoeng Strait* (CVE 116) was decommissioned at Bremerton, Wash., as the last escort carrier in service.

**23 MAY** • A drone HTK-1 carrying a safety pilot operated from the fantail of frigate *Mitscher* (DL 2) in the vicinity of Narragansett Bay. These tests and other evaluations in which a piloted HUL-1 carried Mk 43 torpedoes in flights



to and from *Mitscher* in February off NAS Key West, Fla., demonstrated the feasibility of assigning torpedo carrying drone helicopters to destroyers. The evaluations led to the development of the Drone Anti-Submarine Helicopter (DASH) later embodied in the QH-50C.

**27 MAY** • The first T2V-1 Sea Star jet trainer arrived at the Naval Air Advanced Training Command, NAS Corpus Christi, Texas.

**28 MAY** • In a reorganization of the Naval Air Reserve, the Chief of Naval Operations directed the disestablishment of the 73 auxiliary air units located across the country during the following six months.

**JUNE** • The Chinese Communists reinforced their forces opposite Formosa (Taiwan). The Seventh Fleet deployed to the region to deter an attack on the island from the mainland, and by September reached a maximum strength of three aircraft carriers operating in the area.

**6 JUNE** • Capt. Robert G. Dose, commanding officer of VX-3, and Lt. Cmdr. Paul Miller Jr., and Lt. Cmdrs. Charles C. McBratnie and John H. Miller completed the first nonstop carrier-to-carrier transcontinental flight in two F8U-1 Crusaders and two A3D Skywarriors, respectively, from *Bon Homme Richard* (CVA 31) at sea off San Diego, Calif., to *Saratoga* (CVA 60) steaming off the east coast of Florida. The Skywarriors accomplished the flight without aerial refueling, but the Crusaders required refueling by AJ-2 Savages of VAH-11 operating from NAS Dallas, Texas. President Dwight D. Eisenhower embarked *Saratoga* overnight and greeted the jet crews upon their arrival.

**27 JUNE** • Lt. Cmdr. Malcolm D. Ross and Charles B. Moore of the Arthur D. Little Company successfully completed a flight in a Stratolab balloon to investigate the interior of a thunderstorm. Ross and Moore ascended from a point close to the summit of Mount Withington near Socorro, N. Mex., into a cumulus cloud above the mountain. Their ascent marked the first of a series of flights conducted during the summer under the sponsorship of the Office of Naval Research and Bureau of Aeronautics.

**30 JUNE** • The release of a transosonde balloon from NAS Iwakuni, Japan, inaugurated a program to gather daily weather



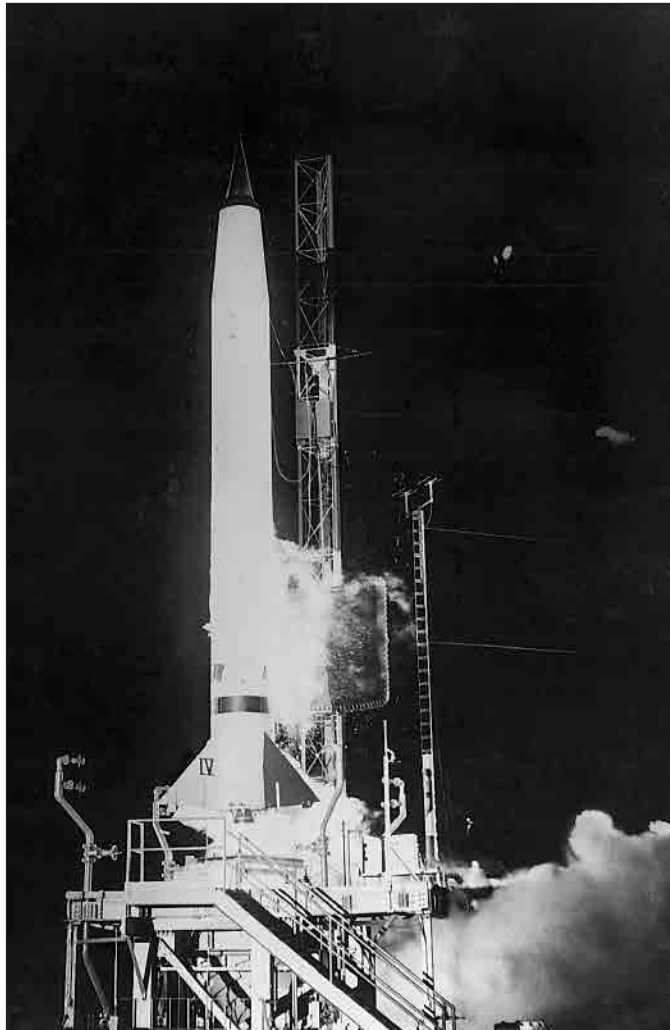
ZPG-2 lifts off for the record-breaking voyage from NAS South Weymouth, Mass.

data by the use of such balloons over the Pacific, North America, and the Atlantic. The balloons were set to float at 30,000 feet and carried instruments that reported pressure and temperature every two hours. Each flight was planned for from five- to eight-days duration with a termination point in the Atlantic, short of the European coast.

**1 JULY** • The mission of ZW-1 changed to providing all-weather airborne early warning to fleet forces and shore warning nets. The squadron worked up to the shift in tasking, and on this date, a squadron ZPG-2W airship flew its first patrol as part of the system.

**15 JULY** • Following the establishment of a single manager for airlift service, fleet logistic air wings were abolished, and transport squadrons not assigned to the single manager underwent redesignation to fleet tactical support squadrons and reassignment for operations directly under the control of fleet commanders.

**16 JULY** • Maj. John H. Glenn Jr., USMC, broke the transcontinental speed record in an F8U-1P Crusader, BuNo 144608, with a crossing in 3 hours, 22 minutes, 50.05 seconds, at an average speed of 723.517 mph from NAS Los Alamitos, Calif., to NAS Floyd Bennett Field, N.Y. Glenn's achievement marked the first upper atmosphere supersonic flight from West to East Coasts.



The modified Viking 14 flew the second successful test of the Vanguard earth satellite program when it launched the Vanguard's third stage motor from Cape Canaveral, Fla., 1 May 1957.

**16 JULY** • Two A3Ds completed a record flight across the eastern Pacific in 4 hours, 45 minutes, from NAS Moffett Field, Calif., to Honolulu, Oahu. The Skywarriors made a routine flight to join VAH-2 at NAS Barbers Point, Hawaiian Islands.

**30 JULY** • The first pilotless helicopter flight occurred at Bloomfield, Conn. Kaman Aircraft designed and built the new helicopter under a joint Army-Navy contract on the basis of principles developed experimentally under a Navy contract using a modified HTK.

**30 JULY** • Air Force, Pacific Fleet and Air Force, Atlantic Fleet were retitled Naval Air Force, Pacific Fleet and Naval Air Force, Atlantic Fleet respectively.

**12 AUGUST** • Lt. Cmdr. Don Walker landed in an F3D Sky Knight using the automatic carrier landing system on board *Antietam* (CVS 36) off NAS Pensacola, Fla. Walker's "hands off" landing began the first shipboard test of the system designed to land aircraft on board during all weather conditions without help from pilots. *Antietam* completed more than 50 fully automatic landings through 20 August.

**27 AUGUST** • The Navy announced the obligation of all naval aviator candidates, with the exception of aviation cadets entering flight training after 1 January 1958, to serve 3 ½ years on active duty upon completion of the course instead of the two years previously required.

**28 AUGUST** • Royal Air Force Lt. Sydney Hughes successfully ejected from an F9F-8T Cougar while flying just above the ground at 120 mph at NAS Patuxent River, Md. The Martin-Baker Aircraft Company Ltd. of England had designed and developed the ground-level ejection seat, and Grumman Aircraft evaluated it for the U.S. Navy.

**3 SEPTEMBER** • The solid-propellant XKDT-1 Teal rocket-powered target drone made its first flight in a launch from an F3H Demon over NAMTC Point Mugu, Calif.

**21 SEPTEMBER** • German sailing ship *Pamir* sank during Hurricane Carrie in the eastern Atlantic. U.S. Navy aircraft including P2V Neptunes flying from NAS Port Lyautey, Morocco, Coast Guard cutter *Absecon* (WAVP 374, formerly seaplane tender AVP 23), USAF, and Portuguese aircraft, joined ships from 13 nations during a week-long search, but only rescued six of the 86 men on board.

**28 SEPTEMBER** • *Alameda County* was redesignated advanced aviation base ship (AVB 1) from tank landing ship *LST-32*. She provided fuel, spare parts, technicians, and facilities necessary to establish and operate an airstrip for patrol and carrier aircraft in locations lacking base facilities.

**1 OCTOBER** • The Naval Air Test Facility (Ship Installations) was established at NAS Lakehurst, N.J., Cmdr. Richard M. Tunnell commanding. The facility evaluated aircraft launching and recovery systems and supported their development.

**3 OCTOBER** • *Saipan* (CVL 48) was decommissioned at Bayonne, N.J., as the last of the light carriers. The ship remained in reserve status, but on 15 May 1959, was reclassified AVT 6, and on 27 August 1966, recommissioned as communications relay ship *Arlington* (AGMR 2).

**11 OCTOBER** • An A3D Skywarrior of VAH-4 bettered the time from the continental United States to the Hawaiian Islands with a control tower-to-control tower flight of 4 hours, 29 minutes, 55 seconds, from San Francisco, Calif., to Honolulu, Oahu.

**15 OCTOBER** • Chief of the Bureau of Ordnance Rear Adm. Frederick S. Withington accepted the Talos Defense Unit from the Radio Corp. of America. The land-based version of the Talos shipboard missile system was designed to launch the missiles automatically. Chief of Army Ordnance Lt. Gen. E. L. Cummings, USA, subsequently used the unit for evaluation and for potential use at Army antiaircraft installations at White Sands Proving Ground, N. Mex.

**16 OCTOBER** • A severe flood inundated the area around Valencia, Spain. *Lake Champlain* (CVS 39), with HMR-262 embarked, subsequently aided in locating, feeding, and rescuing thousands of victims displaced by the rising waters.

**1 NOVEMBER** • ZW-1 maintained an all-weather airborne early warning barrier commitment to fleet forces and shore warning nets with only two operational airships of the four normally required to be available through March 1958. Each airship operated more than 225 hours monthly during this period compared to a monthly average of approximately 110 hours during World War II.

**13 NOVEMBER** • A Regulus II bombardment missile with a range of 1,000 miles made its first launch with rocket boosters from Edwards AFB, Calif. Control aircraft returned the 11-ton missile to the field and landed it after a 48-minute flight.

**21 NOVEMBER** • The Department of Defense terminated Project Arowa (Applied Research: Operational Weather Analysis). The project attempted to develop basic meteorological research data into practical weather forecasting techniques. The people and records assigned to Arowa moved to Navy Weather Research Facility, which had been established the preceding month at Norfolk, Va.

**22 NOVEMBER** • VP-834 from NAS Floyd Bennett Field, N.Y., became the first Reserve squadron to launch guided missiles as a part of its regular training after completing two weeks of instruction at NAS Chincoteague, Va. The squadron fired Petrel air-to-surface missiles under the supervision of Guided Missile Unit 11.

**9 DECEMBER** • The cognizance of research and development programs for space vehicles was transferred from Deputy Chief of Naval Operations (Air) to Assistant Chief of Naval Operations (Research and Development), and the broadening of the responsibilities for the former Project Vanguard included all space vehicle programs prosecuted by the Office of Naval Research in the extension of, or following, Vanguard.

## 1958

**2 JANUARY** • *Princeton* (CVS 37) and destroyers *Eversole* (DD 789) and *Shelton* (DD 790) from the Seventh Fleet and seaplane tender *Duxbury Bay* (AVP 38) from the Middle East Force rescued victims of a disastrous flood in Ceylon (Sri Lanka). Twenty CH-19Es from HMRL-162 comprised the principal aviation contingent. *Princeton* left the area on 9 January.

**9 JANUARY** • Naval aircraft began the delivery of emergency supplies to the people of Jaluit and other islands in the Marshall Islands in the wake of devastation caused by Super Typhoon Ophelia.

**3 FEBRUARY** • The chief of BUAER appointed a weapons system team to accelerate the development and introduction of A2F (A-6) Intruders. The team worked under the chairmanship of the program manager and consisted of representatives from production, maintenance, and contracts divisions, and the Research and Development Group. The research and development project officer (or class desk officer) also chaired the research and development project team that included representatives of avionics, airborne equipment, and power plant divisions. This action and the assignment of systems management responsibilities to the airframe contractor marked important steps in the implementation of the management concepts recommended by the Robertson Committee.





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Maj. John H. Glenn Jr., USMC, breaks the transcontinental speed record in an F8U-1P Crusader, 16 July 1957.

**4 FEBRUARY** • The keel of *Enterprise* (CVAN 65) was laid at Newport News Shipbuilding and Dry Dock Company, Va., as the world's first nuclear-powered aircraft carrier.

**13 FEBRUARY** • The creation of a selected reserve within the overall reserve organization provided fully trained and equipped people and commands for immediate deployment to specific active duty assignments during wars. The organization incorporated the entire Naval Air Reserve.

**14 FEBRUARY** • The operational evaluation of AAM-N-6 air-to-air missiles began when VX-4 fired the first Sparrow III.

**1 MARCH** • The Navy accepted and assigned an early warning WV-2E prototype with a rotodome radar antenna

mounted on the fuselage for preliminary evaluation to the Naval Air Development Unit, NAS South Weymouth, Mass.

**7 MARCH** • *Grayback* (SSG 574), Lt. Cmdr. Hugh G. Nott commanding, was commissioned at Mare Island Navy Yard, Vallejo, Calif., as the first submarine built from the keel up with guided-missile capabilities.

**10 MARCH** • The Chief of Naval Operations approved a reorganization of carrier aviation to create uniform air groups, provide a more permanent group assignment to ships, and to permit a reduction of the assigned units and aircraft without also reducing combat readiness. The new organization also established permanent replacement air groups on each coast with responsibility for the

indoctrination of key technicians, the tactical training of aircrew, and special programs required for the introduction of new combat aircraft models.

**17 MARCH** • A Vanguard rocket fired from Cape Canaveral, Fla., placed a 3 ¼-pound earth satellite into orbit in a test of the system designed for launching earth satellites for the International Geophysical Year. The Office of Naval Research supervised the design and development of the satellite. Equipped with solar-powered batteries, the satellite transmitted data for more than six years and initially was estimated to remain in orbit for up to 2,000 years.

**19 MARCH** • VX-4 began the operational evaluation of ASM-N-7 air-to-ground missiles with the launch of the first Bullpup.

**23 MARCH** • The fleet ballistic missile underwater launching apparatus off San Clemente Island, Calif., had its first practical test with the launch of a dummy Polaris missile.

**2 APRIL** • An important step in the development of drone antisubmarine helicopters for operations from destroyers occurred with the amendment of an existing Bureau of Aeronautics contract with Gyrodyne for the RON-1 rotocycle one-man helicopter to provide for the development, installation, and flight test of remote control equipment.

**8 APRIL** • Airborne firing tests of a high-performance external gun in F3H-2N Demons commenced at Naval Aviation Ordnance Test Station, Chincoteague, Va. This twin-barrel 20mm cannon underwent development for a pod installation on aircraft, making it interchangeable with other aviation ordnance.

**11 APRIL** • Rear Adm. John S. Thach issued the first operation order to Task Group Alpha. The group had been formed in the Atlantic Fleet to accelerate the development of antisubmarine tactics and to improve fleet antisubmarine warfare readiness.

**18 APRIL** • The third annual Naval Air Weapons Meet was held at NAAS El Centro, Calif. Fifteen selected squadrons participated and top honors in their class went to VF-111 in air-to-air (day), VF-213 in air-to-air (all-weather), VA-126 in air-to-ground, and VAH-5 in heavy attack events.



*Galveston (CLG 3) launches a SAM-N-6 Talos long-range surface-to-air guided missile during the missile's first at-sea firing, 24 February 1959.*

**18 APRIL** • Lt. Cmdr. George C. Watkins broke the world altitude record for the second time in three days by setting the mark at 76,939 feet in an F11F-1F Tiger at Edwards AFB, Calif.

**21 APRIL** • To clarify command relationships and to permit the closer integration of Navy units into the single manager airlift service, the Chief of Naval Operations directed the organization of Navy squadrons into one naval air transport wing each for the Atlantic and Pacific Fleets.

**4 MAY** • The practical test of an all-jet basic training program began as 14 students reported to Advanced Training Unit 206 for instruction in T2V-1 Sea Stars at NAS Pensacola, Fla.

**10 MAY** • Naval Missile Facility Point Arguello, Calif., was established as an activity of the National Pacific Missile Range.

**11 MAY** • Lt. Cmdr. Jack Neiman completed a 44-hour simulated high-altitude flight in a NAS Norfolk, Va., pressure chamber under conditions existing between 80,000 and 100,000 feet.

**15 MAY** • The Lebanese government informed the United States of the likelihood of their need for assistance because of the infiltration of Syrian troops. The Sixth Fleet subsequently deployed three carriers to the eastern Mediterranean. On 1 July, the Lebanese indicated the stabilization of the crisis and the ships afterward turned around.



*Randolph* (CVS 15) was reconfigured in 1959 for antisubmarine warfare. Throughout that year and much of the next, she and her Task Group Alpha conducted operations off the East Coast.

**17 MAY** • Four F3H Demons and four F8U Crusaders completed nonstop transatlantic crossings in Operation Pipeline—a practical test of the speed of delivery of carrier aircraft from the East Coast to the Sixth Fleet in the Mediterranean.

**22 MAY** • Maj. Edward N. LeFavre, USMC, set five world records into the next day in an F4D-1 Skyray at NAMTC Point Mugu, Calif.—time-to-climb to 3,000; 6,000; 9,000; 12,000; and 15,000 meters with marks of 44.392, 66.095, 90.025, 111.224, and 156.233 seconds, respectively.

**26 MAY** • Sikorsky test pilot Jack Stultz made the initial public flight of an HSS-1N at NAS Corpus Christi, Texas. Seabats proved capable of day and night antisubmarine warfare under instrument flight conditions.

**27 MAY** • McDonnell Aircraft test pilot R. C. Little made the first flight of an XF4H-1 Phantom II at St. Louis, Mo.

**28 MAY** • *Galveston* (CLG 3), Capt. J. B. Colwell commanding, was commissioned at Philadelphia, Pa., as the first Talos surface-to-air missile equipped cruiser.

**16 JUNE** • The Pacific Missile Range, Point Mugu, Calif., was established. The Navy managed the site to provide range support to the Department of Defense and other government agencies in guided missiles, satellite, and space vehicle research, development, evaluation, and training. This was the third site established within the National Missile Range, and the first that facilitated the safe launching of satellites into polar orbit.

**20 JUNE** • The Advanced Research Projects Agency requested that the Naval Research Laboratory modify its Minitrack system under development for Project Vanguard to produce a capability for the detection, identification, and prediction of the orbits of nonradiating objects in space. In June 1959, the development of the Navy Space Surveillance System from this request first produced useful data. On 2 February 1960, the system established the existence of an unknown object in orbit later identified as the re-entry vehicle of satellite *Discoverer V*, which had been assumed lost.

**26 JUNE** • A VR-21 TF-1 from San Diego, Calif., made the first delivery of an aircraft engine by carrier-on-board delivery when the *Trader* transported a J-34 engine to *Yorktown* (CVS 10) about 300 miles at sea.

**1 JULY** • The Pacific extension of the continental air defense Distant Early Warning (DEW) Line began full operation.

**1 JULY** • Submarine Squadron 14, Capt. Norvell G. Ward commanding, was established as the first fleet ballistic missile submarine squadron under the Atlantic Fleet Submarine Force.

**1 JULY** • The first joint Civil Aeronautics Authority–Navy radar air traffic control center began operations at NAS Miramar, Calif.

**15 JULY** • Around this time, factions favoring Egyptian President Gamal A. Nasser stirred unrest in Iraq, Jordan, and Lebanon. Rebellion broke out in Lebanon, followed by the assassination of the Iraqi king and the consolidation of power in that country by the Ba'aths. The Jordanian





An A3D-2, BuNo 142652, aerial tanker refuels the third Phantom II built, the first of five YF4H-1 Phantom II, BuNo 143388, c. 1960.

and Lebanese governments requested assistance, and the United States and Great Britain launched Operation Bluebat—to restore order and to protect Americans and Britons in the area. On this date, aircraft from *Essex* (CVA 9) and *Saratoga* (CVA 60) covered landings by the Sixth Fleet of about 1,800 Marines on a beach near Beirut. Marine helicopters from *Wasp* (CVS 18) flew reconnaissance missions and evacuated the sick and injured from Beirut International Airport. A composite air strike force deployed to Turkey to sustain the northern flank of the landings. By 3 August, the dispatch of reinforcements to the area stabilized the situation. The U.S. forces withdrew by 25 October and the British by 2 November. Naval aircraft flew about 11,000 sorties during Bluebat, and a total of 82 vessels sailed with the Sixth Fleet at times during the crisis.

**23 JULY** • Tests conducted off the Florida coast into the next day by VW-4, Cmdr. Nicholas Brango commanding, established the feasibility of creating or destroying cloud formations by the release of carbon black into the

atmosphere. Dr. Florence W. van Straten of Naval Weather Service Division, Op-58, directed the evaluations.

**27 JULY** • After launch the previous day, Cmdr. Malcolm D. Ross and Lt. Cmdr. M. Lee Lewis ascended in a balloon to 82,000 feet carrying a record load of 5,500-pounds and remained in the air 34 ½ hours. The flight was to test and evaluate the sealed cabin system designed to carry an externally mounted telescope for the observation of the atmosphere of Mars.

**6 AUGUST** • The approval of the Department of Defense Reorganization Act of 1958 provided for more direct civilian control over military operations through the offices of the Secretary of Defense, the Joint Chiefs of Staff, and the respective service secretaries; the establishment of unified or specified combatant commands; the direction of the operations of units assigned from the respective services, responsible for the accomplishment of their mission directly to the President and Secretary of Defense; the revision of the secretarial structure of the department by reducing the



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*Saratoga* (CVA 60) sails from Augusta Bay, Sicily, during a 1958 deployment with the Sixth Fleet.

number of assistant secretaries from nine to seven, limiting the number within each service department to three, and the revocation of the statutory provision for an assistant secretary of the Navy for air. The law also maintained the separate organization of each service under its own secretary and defined the Navy Department to include naval aviation and the Marine Corps. The act became effective six months from this date.

**19 AUGUST** • The first successful flight of a RIM-24A surface-to-air missile occurred when a Tartar intercepted an F6F Hellcat drone at NOTS China Lake, Calif.

**19 AUGUST** • The XP3V-1 prototype of the Orion made its first flight.

**23 AUGUST** • President Dwight D. Eisenhower signed into law the creation of the Federal Aviation Agency. The action assigned the agency broad responsibilities involving the operation of airways, the regulation of military and civil air traffic, and the establishment of airports and missile and rocket sites. The measure also provided for military participation in the performance of agency functions, for military deviations from air traffic regulations in an emergency, and for appeal to the president of disagreements concerning the location of military airfields.

**24 AUGUST** • The Chinese Communists increased shelling of the Chinese Nationalist held Kinmen (Quemoy) and Matsu Islands in the Formosa (Taiwan) Strait. The Chief of Naval Operations directed the Seventh Fleet to support the



The A3J-1 Vigilante had a unique, but unsuccessful, bomb bay—a tunnel between the plane's twin engines from which the weapon attached to two expended fuel cans was ejected rearward. The type went on to become a successful supersonic reconnaissance aircraft.

Taiwanese. *Hancock* (CVA 19) received orders to deploy to the south of Taiwan and ready combat air patrols over the strait and air strikes to deter the communists if required. *Lexington* (CVA 16) and *Princeton* (CVS 37) sailed toward the northeast of the island. The Seventh Fleet prepared to assist the Nationalists to defend and resupply the islands, and to launch air raids against communist airfields near the Chinese coast. The Fleet operated so as to avoid clashes with the communists, however, and directed aircraft to approach no closer than 20 miles of the mainland. On 25 August, carrier aircraft received orders to fly night sweeps over the strait.

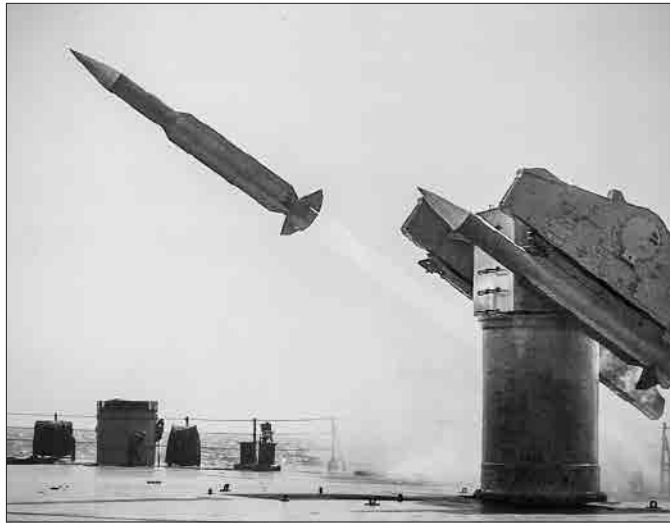
The next day, Marine Aircraft Group (MAG) 11, consisting of 20 FJ-4 Furies of VMF-323 and 16 and 20 F4D-1 Skyrays of VMF(AW)-115 and -314, respectively, received deployment orders to Taiwan. Despite delays from foul weather, the group completed the move by 9 September, supported by two TV-2 Shooting Stars and two R4D Skytrains. Planners also recommended shifting the fixed-wing aircraft of MAG-13 from Kaneohe Bay, Hawaiian Islands, to Atsugi, Japan, to restore the air defense capability of the area after the departure of MAG-11.

Additional reinforcements included the arrival of *Shangri-La* (CVA 38), *Midway* (CVA 41), and *Essex* (CVA 9)

in Taiwanese waters on 30 August and 4 and 16 September, respectively. On 2 September, *Lexington*, *Princeton*, and *Shangri-La* moved south of Taiwan to evade Typhoon Grace. *Lexington* and *Princeton* returned to Taiwanese waters the following day, but repairs delayed *Shangri-La* by a day in Subic Bay, Philippines. The rotation of shore-based aerial reconnaissance patrols ensured that at least one P2V Neptune at a time covered the islands, but the carrier aerial night sweeps ceased on 7 September. The show of resolve deterred the communists, a cease-fire was signed on 6 October, and the crisis diminished by December.

**25 AUGUST** • Cmdr. Forrest S. Petersen was assigned to the National Advisory Committee for Aeronautics (NACA) to fly the X-15. The rocket plane program emerged from NACA's effort to research the problems associated with controlled, manned aircraft at extreme altitude and at high Mach (speed of sound) numbers—as high as 250,000 feet and as swift as 4,093 mph. Petersen's specialty was the exploration of the angle of attack envelope to obtain information on aerodynamic heating and stability and control. He completed five X-15 flights of about 40 minutes by 30 January 1962.





Guided missile ship *Norton Sound* (AVM 1) fires a RIM-24 Tartar surface-to-air missile from a Mk 11 twin-arm launcher. She conducted tests on that missile and the SAM-N-7 Terrier from 1955 to 1962.

**28 AUGUST** • The situation in Lebanon eased and *Essex* (CVA 9) sailed from the Sixth Fleet in the Mediterranean to join the Seventh Fleet off Formosa (Taiwan) where tensions continued to flare. *Essex* transited the Suez Canal and, on 16 September, relieved *Hancock* (CVA 19) off Taiwan.

**29 AUGUST** • A Lockheed Electra made its first flight in the external configuration of a P3V-1. In April, the Navy selected the plane as the design most closely meeting the requirements for long-range antisubmarine warfare.

**1 SEPTEMBER** • The Anti-Submarine Warfare Laboratory was established at the Naval Air Development Center, Johnsville, Pa.

**5 SEPTEMBER** • A coordinator, missile ranges was established on the staff of Deputy Chief of Naval Operations (Air) to serve as his principal advisor on missile range matters, to determine operating requirements, and to coordinate the establishment of policies relating to missile range use.

**6 SEPTEMBER** • Guided missile ship *Norton Sound* (AVM 1) launched her third and final atomic tipped rocket to an altitude of about 300 miles while operating midway between the southern extremities of South America and Africa. This series of test firings included shots on 27 and 30 August conducted under the auspices of the Advanced

Research Projects Agency as Project Argus. The nuclear explosions produced a visible aurora and a radiation belt around the earth that extended for almost 4,000 miles into space, lasted for several weeks, and provided significant scientific and military data.

**8 SEPTEMBER** • Lt. Richard H. Tabor, MC, completed a 72-hour simulated flight wearing a Goodrich lightweight full-pressure suit in a hypobaric chamber at NAS Norfolk, Va., in which he endured simulated altitude conditions up to 139,000 feet.

**15 SEPTEMBER** • Project officer Lt. William P. Lawrence performed an evaluation flight in an XF8U-3 Crusader at Edwards AFB, Calif. During this mission, Lawrence became the first naval aviator to fly at twice the speed of sound in a fleet-type aircraft.

**16 SEPTEMBER** • Submarine *Grayback* (SSG 574), off the California coast, made the first sea launch of a Regulus II bombardment missile. The missile continued under radio control inland on a simulated mission to Edwards AFB, Calif.

**28 SEPTEMBER** • In a preliminary test of equipment for use within International Geophysical Year solar eclipse studies, dock landing ship *Point Defiance* (LSD 31) launched a sounding rocket accelerated by a Nike missile booster from near Puka Puka Island to a height of 800,000 feet. This marked the highest altitude reached to date by ship-launched rockets.

**30 SEPTEMBER** • Chairman of the National Advisory Committee for Aeronautics (NACA) Gen. James H. Doolittle, USAF, issued the committee's final annual report. The forwarding letters pointed out that at the close of business that day, NACA was to cease to exist, and noted the absorption of all the committee's facilities and employees by NASA. Vice Adm. William V. Davis Jr. and Rear Adm. Wellington T. Hines comprised the final Navy members of the committee. NASA was established the next day.

**30 SEPTEMBER** • Commander Naval Support Force, Antarctica Rear Adm. George J. Dufek and four of his staff arrived on board a VX-6 R5D Skymaster at NAF McMurdo Sound. Their arrival marked the beginning of Operation Deep Freeze IV.

**1 OCTOBER** • Project Vanguard was transferred from the Navy to NASA. On 17 February 1959, NASA launched the first full-scale Vanguard earth satellite.

**8 OCTOBER** • FJ-4B Furies of VMA-212 and -214 completed Operation Cannonball by landing at NAS Atsugi, Japan, after a transpacific flight from MCAS Kaneohe, Hawaiian Islands. The Marines made the flight in two sections of 12 jets with layovers at Midway Island and Guam, and refueled from Air Force Boeing KB-50 tankers in the vicinity of Wake Island and from Navy AJ Savages near Iwo Jima, Volcano Islands.

**10 OCTOBER** • The Secretary of the Navy directed the replacement of the terms “aerology” and “aerological officer” by “meteorology” and “meteorological officer.”

**21 OCTOBER** • To provide a highly mobile unit capable of employing Marine helicopter squadrons and troops in the fast-landing concept of vertical envelopment, the Commander in Chief Atlantic Fleet announced the formation of a new amphibious squadron consisting of *Boxer* (CVS 21) and four dock landing ships to be equipped with helicopter platforms. *Boxer* was redesignated LPH-4 on 30 January 1959.

**23 OCTOBER** • The fighting between Cuban revolutionaries led by Fidel R. Castro and the government troops of Gen. Fulgencio Batista threatened Americans living within Nicaro, and the State Department ordered the evacuation of U.S. nationals from the port. The next day, *Franklin D. Roosevelt* (CVA 42) provided distant air cover while transport *Kleinsmith* (APD 134) evacuated 56 Americans and three foreigners.

**10 NOVEMBER** • The first permanent Marine aviation detachment afloat was activated on board the *Boxer* (CVS 21) to provide supply, maintenance, and flight deck control functions necessary to support the operations of Marine helicopter squadrons.

**5 DECEMBER** • Experimental miscellaneous auxiliary *Observation Island* (EAG 154), Capt. Leslie M. Slack commanding, was commissioned at the Norfolk Naval Shipyard, Va. The ship’s design incorporated launching, fire control, navigational, and other devices required for the fleet ballistic missile testing program.

**5 DECEMBER** • A Navy RIM-2 Terrier-type missile launcher fired sounding rocket Hugo from NASA’s Pilotless Aircraft Research Station, Wallops Island, Va. Hugo reached a height of 86 miles and obtained the first extremely high-altitude photographs of a frontal cloud formation. The Office of Naval Research carried out Project Hugo with assistance from Bureau of Aeronautics, NASA, and the Weather Bureau, and used a camera package designed and constructed by New Mexico State University.

**8 DECEMBER** • F3H Demons of VF-64 flying from *Midway* (CVA 41) made the first firing of an AAM-N-6 Sparrow III air-to-air missile by a squadron deployed beyond the continental United States. Eleven days later, VF-193, embarked on board *Bon Homme Richard* (CVA 31), conducted a similar exercise. Both squadrons operated with the Seventh Fleet in the western Pacific.

**12 DECEMBER** • The Secretary of the Navy directed the termination of the Regulus II bombardment missile program as a measure necessary to achieve an overall balance in missile weapons systems with the available resources. The decision followed the first successful Regulus submarine launch barely three months before, but emphasized the development of Polaris submarine-launched intercontinental ballistic missiles.

**16 DECEMBER** • The successful firing of a Thor missile from Vandenburg AFB, Calif., inaugurated the intermediate-range ballistic missile portion of the Pacific Missile Range at Point Mugu.

**19 DECEMBER** • Naval Air Missile Test Center, Point Mugu, Calif., was redesignated Naval Missile Center, Point Mugu, and placed under the command of Commander, Pacific Missile Range.

**25 DECEMBER** • Aircraft from NAS Port Lyautey, Morocco, rescued 134 people during heavy flooding in that country.

**28 DECEMBER** • Nine ships of an antisubmarine group including *Yorktown* (CVS 10) turned from operations to aid people made homeless by a fire that swept through Koniya, Japan. Within 24 hours of the disaster, the ships had delivered food, medicine, clothing, blankets, and tents to victims, and sailors and Marines continued to help until the arrival of Japanese relief workers.



The first prototype HSS-2 Sea King, BuNo 147137, all-weather antisubmarine helicopter made its initial flight in March 1959.

**16 FEBRUARY** • The Naval Air Reserve participated for the first time in a full-scale fleet exercise. Fifty-five crews from selected Reserve squadrons and 36 P2V Neptunes and S2F Trackers took part in a three-day antisubmarine defense exercise along the West Coast with the Pacific Fleet and the Royal Canadian Navy.

**24 FEBRUARY** • Cruiser *Galveston* (CLG 3) fired a Talos surface-to-air missile in the vicinity of Roosevelt Roads, P.R. The launch marked the missile's operational sea deployment.

## 1959

**21 JANUARY** • Tests of a new type of movable nozzle for the Polaris at Indian Head, Md., demonstrated a successful major advance in the directional control of ballistic missiles.

**24 JANUARY** • Maj. John P. Flynn, USMC, and Capt. Clifford D. Warfield, USMC, of Marine Aircraft Wing 2 made a nonstop unrefueled flight covering 2,082 miles in 4 hours, 25 minutes in A4D Skyhawks from El Toro, Calif., to MCAS Cherry Point, N.C.

**27 JANUARY** • The Naval Air Development and Material Command, Johnsville, Pa., was redesignated Naval Air Research and Development Activities Command, and its scope expanded to include aeronautical research and development activities in the Third Naval District.

**5 FEBRUARY** • The abolition of the office of Assistant Secretary of the Navy for Air occurred in accordance with the provisions of the Defense Reorganization Act of 1958. The Secretary of the Navy assumed the functions of the office pending an appointment to fill the newly created office of Assistant Secretary for Research and Development.

**10 MARCH** • The Chief of Naval Operations approved the transfer of lighter-than-air (LTA) training from the Naval Air Training Command to AIRLANT, and the end of the requirement for all LTA students to receive heavier-than-air training.

**11 MARCH** • Sikorsky pilot R. S. Decker made the first flight of an XHSS-2 Seabat.

**13 MARCH** • Aviation Cadet E. R. Clark became the first naval aviation student to solo a jet without previous experience in propeller aircraft when he flew a TT-1 Pinto.

**7 APRIL** • NASA announced the selection of seven prospective astronauts—including naval aviators Lt. Col. John H. Glenn Jr., USMC; Lt. Cmdrs. Walter M. Schirra Jr. and Alan B. Shepard Jr.; and Lt. Malcolm S. Carpenter—to Project Mercury, a basic program in the development of space exploration and manned orbital flight.

**15 APRIL** • Elements of the Naval Air Reserve took part in Exercise Slamex under the leadership of Commander, Anti-Submarine Defense Force, Atlantic. The event marked the second such participation in a full-scale fleet exercise since the organization of the Selected Reserve.



22V Neptunes and S2F Trackers manned by 78 crews from 12 reserve stations trained round-the-clock through 22 April, logged 2,800 flight hours, and reported 75 submarine contacts while operating from Naval Air Stations Brunswick, Maine; Quonset Point, R.I.; and Lakehurst, N.J.

**25 APRIL** • FJ-4B Furies of VA-212, embarked on board *Lexington* (CVA 16), carried out the first deployment of ASM-N-7 Bullpup air-to-ground missiles overseas when the carrier sailed for the western Pacific from NAS Alameda, Calif. The following August, VA-34 A4D Skyhawks extended Bullpup deployments to the Mediterranean when they embarked on board *Saratoga* (CVA 60) from the East Coast for the Sixth Fleet.

**26 APRIL** • Helicopters of HU-2, embarked on board ice breaker *Edisto* (AG 89) while she returned from the Antarctic, completed ten days of rescue operations in the Montevideo, Uruguay, area during which they carried 277 flooding victims to safety.

**28 APRIL** • The office of Assistant Chief of Naval Operations (Research and Development) was disestablished and replaced by Deputy CNO (Development), Vice Adm. John T. Hayward commanding, with the authority and responsibility to execute the research, development, test, and evaluation responsibilities of the CNO.

**5 MAY** • The Guided Missiles Division was transferred from Deputy Chief of Naval Operations (Air) to the newly established office of DCNO (Development), and its director was designated Assistant CNO (Development).

**7 MAY** • The classifications of 36 escort carriers designated CVE, CVU, and CVHE were changed to cargo ship and aircraft ferry, AKV. A change of hull numbers accompanied the redesignation and marked the end of escort carriers as U.S. Navy men-of-war.

**15 MAY** • The classifications of four support carriers (CVS) and seven light carriers (CVL) were changed to auxiliary aircraft transport (AVT). The change removed the CVL designation from the Navy Vessels Register.

**15 MAY** • The establishment in the office of Chief of Naval Operations of more direct channels for technical control

and program guidance over the Operational Development Force occurred to centralize and strengthen the research and development program. The revision and broadening of the mission of the force included test and evaluation, and it was thus redesignated Operational Test and Evaluation Force.

**26 MAY** • A concept of aircraft maintenance that assigned responsibility directly to the units having custody of the aircraft and the gradual elimination of FASRONs received approval for implementation.

**27 MAY** • The Naval Weather Service Division shifted from Deputy Chief of Naval Operations (Air) to DCNO (Fleet Operations and Readiness) to reflect the ever-broadening scope of the division's duties.

**8 JUNE** • Submarine *Barbero* (SSG 317) launched a Regulus I bombardment missile from a position about 100 miles off the Florida coast that delivered a package of U.S. Post Office mail ashore after a 22-minute flight to NS Mayport, Fla.

**16 JUNE** • Two North Korean MiGs attacked a VQ-1 P4M-1Q, BuNo 122209, on a routine flight over international waters about 50 miles east of the Korean demilitarized zone. Gunfire seriously wounded the tailgunner and damaged the *Mercator*, knocking out both starboard engines and some flight controls. The plane made an emergency landing at Miho AFB, Japan.

**19 JUNE** • A ZPG-3W, the first of four airships designed for use in air warning patrol and the largest nonrigid naval airship ever built, was delivered at NAS Lakehurst, N.J.

**5 JULY** • During mounting tension between the Chinese Communists and Nationalists, the Seventh Fleet deployed *Lexington* (CVA 16) and *Ranger* (CVA 61) to Formosan (Taiwanese) waters for six days.

**11 JULY** • After a lapse of 18 years, the Marine Aviation Cadet program was reinstated when a class of 12 began preflight training at NAS Pensacola, Fla.

**13 JULY** • The Chief of Naval Operations approved the policy recommendations of the Connolly Board that enunciated organizational responsibilities in the CNO



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An FJ-4B Fury, BuNo 143494, of Air Development Squadron (VX) 4 carries a full load of five ASM-N-7 Bullpup air-to-ground missiles and their guidance pod, 16 April 1958.

office. The new policy included the Navy's use of space to accomplish naval objectives, full participation in space technology, and the assignment of a high priority to astronautics in research and development.

**14 JULY** • A two-stage Nike-Asp solid-propellant rocket fired from Naval Missile Facility, Point Arguello, Calif., was the first of 12 rockets designed to record radiation at altitudes of 150 miles. The event also marked the launch of the first ballistic missile from the new facility.

**15 JULY** • The Aviation Safety Division of Deputy Chief of Naval Operations (Air) was changed to a staff office headed by a coordinator to act as principal advisor to DCNO (Air) in all matters of air safety, and to coordinate the planning and implementation of aviation safety programs throughout the Navy.

**22 JULY** • Within Deputy Chief of Naval Operations (Air), the office of the Coordinator, Missile Ranges was disestablished and its functions shifted to a simultaneously established Astronautics Division. This division assisted DCNO (Air) in performing his overall task of directing the Navy astronautic program including the formulation of plans, policies, and the determination of requirements.

**28 JULY** • The Naval Research Laboratory issued its initial report indicating the feasibility of adapting Omega

navigation to aircraft use. Researcher A. F. Thornhill of the Radio Division prepared the report, which consisted of a theoretical analysis of the problems involved in designing an airborne receiver. Thornhill described Omega as a phase comparison radio navigation technique using very-low frequency radio waves of such range that six appropriately located shore-based transmitters would provide global coverage.

**30 JULY** • The Navy announced the assignment of AAM-N-7 Sidewinder air-to-air missiles to Advanced Training Command units and Reserve squadrons. Program implementation began the next week when Advanced Training Unit 203 began carrying Sidewinders on its F11F-1 Tigers at NAAS Kingsville, Texas.

**3 AUGUST** • The first flight test of a UUM-44 Subroc antisubmarine missile took place with a launch from NOTS China Lake, Calif.

**18 AUGUST** • An act of Congress created the Bureau of Naval Weapons and abolished the Bureaus of Aeronautics and Ordnance upon the transfer of their functions. The bureau was established on 1 September, and on 10 September, Rear Adm. Paul D. Stroop took the oath of office as its first chief.

**20 AUGUST** • HUS-1s from HMRL-261, operating from *Thetis Bay* (LPH 6), completed a week of relief operations in flood-stricken Formosa (Taiwan). The Seahorses airlifted more than 1.6 million pounds of cargo and 833 passengers during 898 missions.

**25 AUGUST** • Lt. Cmdr. Ed Decker took off in an A3D Skywarrior at a gross weight of 84,000-pounds during suitability trials on board *Independence* (CVA 62). This was the heaviest aircraft to fly from a carrier to date.

**27 AUGUST •**

Experimental miscellaneous auxiliary *Observation Island* (EAG 154) off Cape Canaveral, Fla., completed the first launch of a prototype Polaris A-1 fleet ballistic missile from a ship at sea.

**9 SEPTEMBER •** Naval aircraft and ships located and recovered an Atlas-boosted Mercury capsule in the Atlantic Ocean about 700 miles short of the predicted point of impact.



This F9F-8 Cougar, BuNo 141140, carries AAM-N-7 Sidewinder air-to-air missiles in addition to two auxiliary fuel tanks.

**18 SEPTEMBER •** The Air Warfare Division of Deputy Chief of Naval Operations (Air) was disestablished and its functions pertaining to aviation combat readiness were transferred to DCNO (Fleet Operations and Readiness). The Aviation Plans Division was established to perform the planning requirement functions of the disestablished division.

**21 SEPTEMBER •** Submarine *Barbero* (SSG 317) sailed in the North Pacific on the first deterrent patrol of a submarine equipped with a Regulus I bombardment missile.

**25 SEPTEMBER •** The final class of lighter-than-air students also qualified in heavier-than-air completed training at NAS Glynco, Ga. Ens. John B. Hall was the last to receive the dual designation.

**29 SEPTEMBER •** *Kearsarge* (CVS 33) supported relief operations in the wake of a typhoon at Nagoya, Japan. This included the evacuation of almost 6,000 people, the delivery of 200,000-pounds of supplies and medicine, and more than 17,000 doses of typhoid vaccine and antibiotics administered. The ship departed on 6 October.

**30 SEPTEMBER •** Airship flights by reservists of Naval Air Reserve Training Unit, Lakehurst, N.J., marked the end of the airship training program after 12 years of service under the Chief of Naval Air Reserve Training.

**1 OCTOBER •** Lt. Cmdr. John A. Henning of VX-6 landed an RSD Skymaster at NAF McMurdo Sound, Antarctica, after a flight from Christchurch, New Zealand, with Commander, Naval Support Force Antarctica Rear Adm. David M. Tyree on board. The arrival of this first flight of the season marked the operational start of Operation Deep Freeze 60.

**1 OCTOBER •** Fleet Air San Diego, Calif., was established, Rear Adm. Dale Harris commanding.

**2 NOVEMBER •** The use of T2J-1 Buckeyes in basic training commenced with a flight at NAS Pensacola, Fla., by instructor Lt. Cmdr. Rieman A. MacDonell and student 2d Lt. David K. Mosher, USMC.

**30 NOVEMBER •** The Airship Training Group was disestablished at NAS Glynco, Ga. This ended lighter-than-air training in the U.S. Navy.

**1 DECEMBER •** The Bureaus of Aeronautics and Ordnance were abolished as Chief of the Bureau of Naval Weapons Rear Adm. Paul D. Stroop relieved Rear Adms. Robert E. Dixon and Miles H. Hubbard, the chiefs of those bureaus, respectively, and the Bureau of Naval Weapons absorbed their functions.





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From left, Chief of the Bureau of Naval Weapons Rear Adm. Paul D. Stroop relieves Rear Adms. Robert E. Dixon and Miles H. Hubbard, the Chiefs of the Bureaus of Aeronautics and Ordnance, respectively.



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The Navy bypassed the prototype stage making this, the first service test YT2J-1 Buckeye, BuNo 144217, the first of the advanced trainers.



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Cmdr. Lawrence E. Flint Jr. flew the second YF4H-1 Phantom II, BuNo 142260, to a world altitude record 98,560 feet on 6 December 1959.

**3 DECEMBER** • Following a dam burst in the San Raphael area of France, *Essex* (CVA 9), cruiser *Boston* (CAG 1), and destroyers *Myles C. Fox* (DD 829), *Vogelgesang* (DD 862), and *Mullinnix* (DD 944), aided relief efforts.

**4 DECEMBER** • Teams from selected fleet squadrons completed four days of competitive gunnery, bombing, and missile firing in the championship round of the annual weapons meet at MCAAS Yuma, Ariz. VF(AW)-3 and VF-41 took the all-weather fighter titles in the F4D Skyray and F3H Demon categories, respectively. VMF-232 won the day fighter competition, VA-56 the jet light attack, VA-85 the prop light attack, and VAH-4 the heavy attack. 1st Lt. G. A. Davis, USMC, of VMF-232 was the top individual scorer in the day fighter event.

**6 DECEMBER** • Cmdr. Lawrence E. Flint Jr. bettered the existing world altitude record by reaching 98,560 feet in an F4H-1 Phantom II over Edwards AFB, Calif.

**7 DECEMBER** • *Dewey* (DLG 14), Cmdr. Elmo R. Zumwalt Jr. commanding, was commissioned at the Boston Naval Shipyard, Mass., as the first of a new class of guided-missile destroyer leaders designed to employ RIM-2 Terrier III air defense missiles.

**30 DECEMBER** • *George Washington* (SSBN 598) was commissioned at Groton, Conn., Cmdr. George B. Osborn commanding. She was the first of nine such nuclear-powered fleet ballistic missile submarines authorized by Congress.



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*Coral Sea* (CVA 43), *Midway* (CVA 41), and *Hancock* (CVA 19) moor at NAS Alameda, Calif., November 1960.



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*Intrepid* (CVA 11) and *Independence* (CVA 62) prepare at Norfolk, Va., to deploy to the Mediterranean, summer 1960.