Naval Aviation has come a long way in its 70-plus years. The striking contrast between the Curtiss A-1 *Triad* amphibian of 1911 and the McDonnell Douglas F/A-18 *Hornet* strike fighter of the eighties reflects the progress that has been made in technology alone. With the introduction of new aircraft into the Navy's inventory, the modern force is constantly updating its capabilities.

During the early years of the 1980s, the new SH-60B helicopter demonstrated tremendous potential in antisubmarine warfare. As part of LAMPS MK III, the aircraft provides surveillance and targeting information on surface targets, performs search and rescue operations and is used for vertical replenishment and gunfire support. Shipboard electronics and support facilities are the other major elements of LAMPS MK III. The SH-60B Seahawk went to sea for the first time in January 1981. Its landing aboard *McInerney* (FFG-8) while underway was aided by the ship's recovery assist, securing and traversing (RAST) gear, designed to recover a helicopter in adverse sea states. Later that year, another new helicopter, the three-engine CH-53E Super Stallion, became operational with the Marine Corps. The Free World's largest helicopter, the CH-53E can transport over 16 tons of cargo or ferry 55 fully equipped Marines, and is capable of delivering aircraft aboard carriers.

In February 1981, Fighter Attack (later renamed Strike Fighter) Squadron 125 became the first squadron to receive the new F/A-18 and was designated the *Hornet* training unit. The first operational F/A-18s entered service in the Marine Corps, with VMFA-314, in January 1983. This initiated the Navy-wide transition from F-4s and A-7s to the new strike fighter. Designed for increased reliability and maintainability and improved performance over existing systems, the *Hornet* should pay off hand-somely in both manpower and dollar savings over the long term.

In the 1980s, the Navy has continued to refine its electronics and missile capabilities and update its aircraft and carriers. The AN/SSQ-2 directional command active sonobuoy system (DICASS) and the AN/SSQ-77 vertical line array DIFAR(VLAD) represent the first major improvements in the sonobuoy field since 1968. An A-7E Corsair II launched the first AGM-65F imaging infrared Maverick missile, and the first night flight of a conventional land attack Tomahawk cruise missile was conducted aboard a Navy A-6 Intruder.

Improved aircraft will fill the skies in the eighties. The Navy received the first production version of the P-3C *Orion* Update III, equipped with a new acoustic processing system for faster analysis of sonobuoy signals, while the Naval Air Training

Command moved into the TH-57C SeaRanger advanced instrument trainer. The NFO training pipeline got a boost in late 1984 with the phaseout of the T39D and transition to the new T-47A undergraduate NFO training system. In addition, a new undergraduate jet flight training aircraft and training system were developed to replace the Training Command's T-2Cs and TA-4Js. Originally called VTXTS, the program has been redesignated T45TS, to include the entire training system using the T-45 Hawk aircraft. Plans call for the first flight of a T-45A in July 1988.

New aviation ships joined the fleet in the early part of the decade. The amphibious assault ship *Pelelieu* (LHA-5) and the nuclear-powered *Carl Vinson* (CVN-70) were commissioned in 1980 and 1982, respectively. The first of a new class of amphibious assault ships, the LHD *Wasp* class, is scheduled for delivery in 1989. The combination of the LHD, deploying AV-8Bs and/or a mix of other aircraft, together with the new air cushion landing craft (LCAC), will be a formidable element of future amphibious assault operations.

Along with the technological advances that have highlighted Naval Aviation's eighth decade to date, people continue to share center stage. In 1982, the first graduates of the Limited Duty Officer Aviator Program received their Wings of Gold. Established two years earlier, the program enables enlisted personnel to receive flight training and be commissioned.

Women made Naval Aviation headlines with several firsts in 1983. An all-female crew in a C-1A *Trader* from VRC-30 conducted an operational mission that terminated in a carrier arrested landing. Lieutenant Leslie Provo became the first woman to be designated a landing signal officer, and Lieutenant Colleen Nevius was the first female graduate of the U.S. Naval Test Pilot School.

But present-day aviators were not the only ones to be recognized for their achievements. Twelve pioneers of Naval Air were enshrined in the Naval Aviation Hall of Honor, which was dedicated at the Naval Aviation Museum, NAS Pensacola, Fla., in October 1981. Six more selectees were inducted in May 1983, four in 1984 and eight in 1986.

These achievements are continuing testimony to the fact that Naval Aviation's strength is in its people, not only those who fly the aircraft but those who maintain them. Aircraft and weapons are only as good as the people who make them perform. During 1982 and 1983, naval air units had the opportunity to reinforce that fact when called upon to assist in international conflicts. U.S. Marines landed in Beirut as part of the multinational peacekeeping force in Lebanon in the fall of 1982 and remained

there until late 1983, supported by carriers and their air wings stationed offshore. Also last fall, aircraft and crews from CVW-6 aboard *Independence* (CV-62) supported Marine combat amphibious assault operations in Grenada, while patrol squadrons conducted surveillance operations and reserve transport units fulfilled the support mission.

Besides successful operations in international events, Naval Aviation in the eighties has moved forward in the space program. An all-Navy crew manned the Space Shuttle *Columbia* in April 1981 on her maiden voyage. In November of that year, astronaut Captain Richard H. Truly, USN, rode aboard *Columbia* to become one of the first men to fly into space and return in a previously-used spacecraft. In November 1982, former Navy and Marine Corps aviators were on board the Space Shuttle during its first operational flight. As a con-

sequence of the Navy's expanded role in space, the Naval Space Command was established in 1983, headed by Capt. Truly, to consolidate the Navy's space-related activites. And, on February 7, 1984, astronaut Captain Bruce McCandless II, USN, made history when he took the first untethered walk in space.

Naval Aviation marked a major milestone in 1986 with its 75th birthday. Many celebrations highlighted the year, including Vice President George Bush's official kickoff ceremony in January; a week of events in Pensacola, Fla., surrounding the actual birth date, May 8; and reenactment of the NC-4 flight also in May.

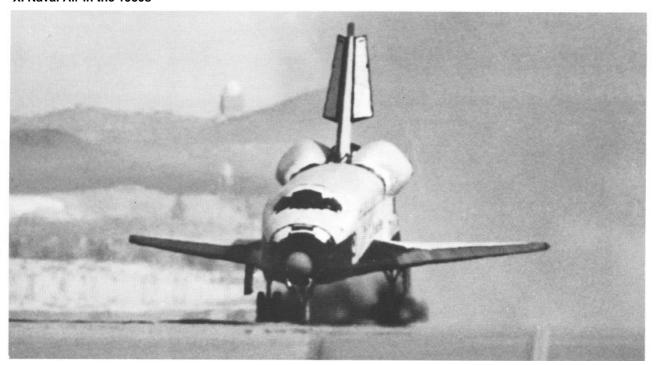
The Diamond Anniversary Year's activities represent a fitting tribute to Naval Air in the 1980s.



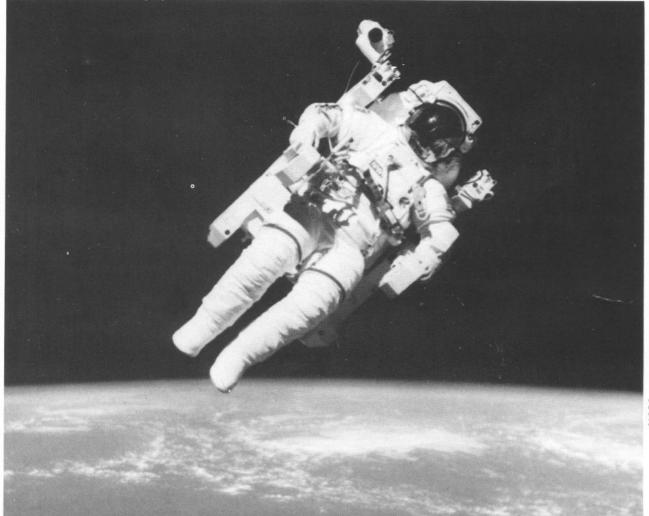
RH-53D Sea Stallions of Fleet Logistics Support Squadron 24 provide disaster relief assistance to victims of a devastating earthquake at Avellino, Italy, in November 1980.



X. Naval Air in the 1980s



Above, the Space Shuttle Columbia makes its first flight from Kennedy Space Center, Fla., on April 12, 1981, returning to earth at Edwards AFB, Calif., on the 15th. At the controls were Naval Aviators John Young and Bob Crippen. Below, Astronaut and Naval Aviator Capt. Bruce McCandless made the world's first untethered space walk from the Space Shuttle Challenger in February 1984. This marked the first time the nitrogen-propelled manned maneuvering unit was used in space.



NACA



Bell Helicopter Textron's XV-15 tilt-rotor aircraft made 54 takeoffs and landings aboard Tripoli (LPH-10) in 1982. Formerly called the JVX, it was designated the V-22 Osprey for the Navy and MV-22A for the Marine Corps version in 1985. The aircraft combines the speed, range and altitude of a fixed-wing turboprop airplane with the efficient hover capability of a helicopter.



The nuclear-powered aircraft carrier Carl Vinson (CVN-70) on station in the Indian Ocean in June 1983. USN DN-SC-84-00144

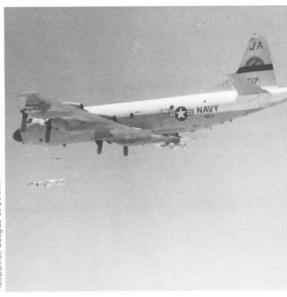


J. D. Solis

The first LDO Aviators, Ens. Mike Gray (left) and Ens. Doug McGowan, try on a large pair of wings for size.



The era of Navy enlisted pilots came to a close on January 31, 1981, when the last Naval Aviation Pilot, ACCM R. K. Jones, retired after 38 years of naval service. In this photo taken earlier in his career, Jones (right) prepares to preflight a US-2B Tracker at NAS Rota, Spain. USN 1161168



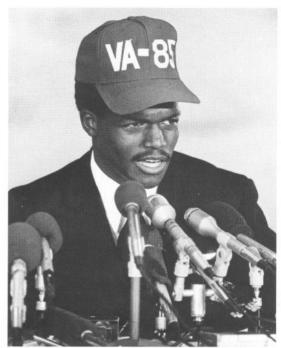
A P-3 Orion of Air Test and Evaluation Squadron 1 boasts a new air-to-surface capability in the form of a Harpoon missile.



Fla. The last instructional flight of the Future Naval Aviators and Naval Flight Officers march past an old T-28 Trojan training aircraft at NAS Pensacola, T-28 took place in February 1984, ending the aircraft's 31-year career in the Training Command.



A Sikorsky HH-3 Sea King of Helicopter Combat Support Squadron 9 plucks a downed airman from a lake in Idaho during a training exercise. This Naval Reserve squadron is ready to conduct combat search and rescue missions in all-terrain conditions, day and night.



Naval Flight Officer Lt. Robert O. Goodman, Jr., arrives back in the United States after being held by the Syrians for almost a month. Goodman's aircraft was downed by missile fire on December 4, 1983.



NAS Sigonella, Italy, has become an important base in the Mediterranean. Here, a variety of aircraft crowd together on the Sigonella parking apron.



During operations in the Mediterranean, two F-14 Tomcats from Nimitz shot down two SU-22 aircraft following an unprovoked attack by the Soviet-built jets. The VF-41 Tomcats, deployed with Carrier Air Wing 8, were flown by (left to right above) Lt. Jim Anderson and Lt. Larry Muczynski; and Cdr. Hank Kleemann and Lt. Dave Venlet.



The Blue Angels Flight Demonstration Squadron poses for a photograph with its logistics aircraft "Fat Albert."



Sikorsky CH-53E Super Stallions of Helicopter Combat Support Squadron 4 get together for a spectacular group shot near NAS Norfolk, Va.

X. Naval Air in the 1980s

A mock-up of the new T-45A jet trainer to be produced in a joint venture by British Aerospace and McDonnell Douglas was on display at the Pentagon in April 1984. The aircraft is expected to enter service with the U.S. Navy in the late 1980s.



JO2 Timothy J. Christmann

Theodore Roosevelt Collection, Harvard College Library



President
Theodore Roosevelt

Richard Blakely

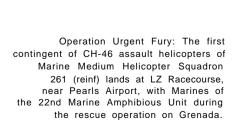


"Speak softly and carry a big stick." USS Theodore Roosevelt (CVN-71) is launched at Newport News., Va., on October 27, 1984.



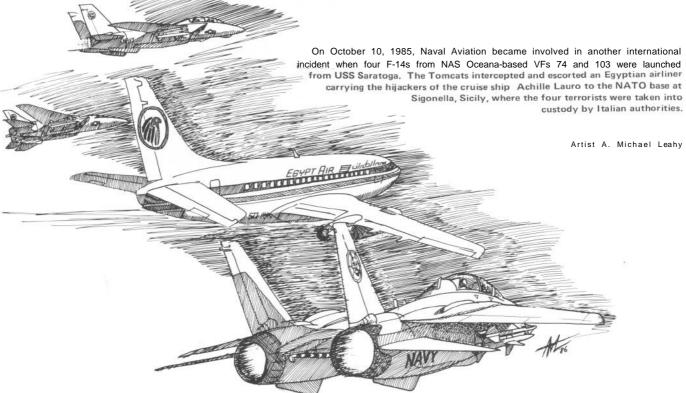


These McDonnell Douglas F/A-18 strike fighters of Marine Fighter-Attack Squadron 314 were photographed after refueling from a KC-130R tanker over the Pacific.





Artist A. Michael Leahy



JO2 Timothy J. Christmann



The Royal Maces of VA-27 became the first recipients of the Grampaw Pattibone Trophy on January 15, 1986. The annual award recognizes the individual or organization that contributed the most toward aviation safety awareness through communications. In photo, SecNav John F. Lehman, Jr. (left) and Cdr. Joseph Sciabarra, C.O. of VA-27, stand beside the cast bronze trophy.

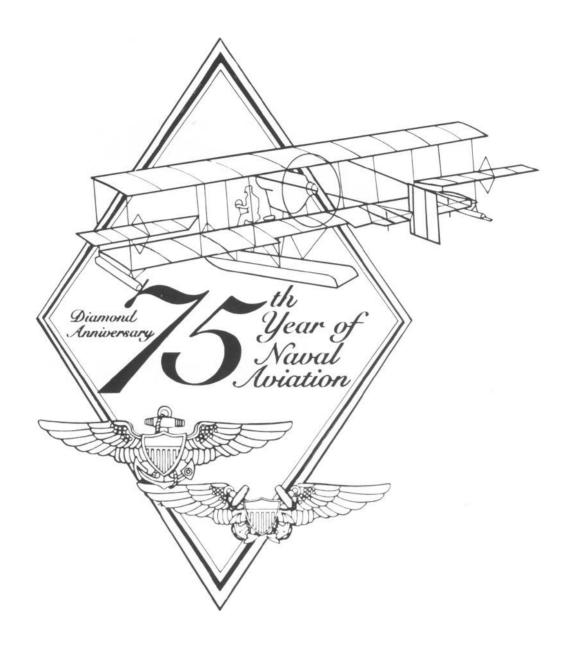


Lt. Colleen Nevius became the first woman graduate of the U.S. Naval Test Pilot School on June 10, 1983.



Vice President George Bush was presented an oil painting by noted aviation artist Capt. Ted Wilbur, USNR(Ret.), during the official inaugural marking the year-long observance of the Diamond Anniversary of Naval Aviation at the National Air and Space Museum, Washington, D.C., on January 22, 1986. From left to right: Frank Bennack, President, Hearst Corporation; SecNav John F. Lehman, Jr.; VAdm. Edward H. Martin, DCNO(Air Warfare); Ted Wilbur; and Vice President Bush.

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Conclusion

Aviation has had a tremendous impact on man's life, bringing many changes that are still unfolding and expanding infinitely into space. Naval Aviator and astronaut Neal Armstrong's ... one small step for a man, one giant leap for mankind" in 1969, after the first lunar landing, was only one of many rungs on the ladder skyward.

Certainly, the design, maneuverability, armaments and speed of today's aircraft surpass

anything that Chambers and Ellyson ever dreamed. The years ahead will surely see the introduction of more improved aircraft and systems, as well as advances in satellites, computers and communication technology that were never thought possible just a few years ago.

With all of these exciting possibilities, Naval Aviation's story is certain to be a continuing saga in the history of the United States. ■