

The History of Naval Air Station
Patuxent River, Maryland

The
History
of





Mattapany, named for the Mattapanient Indians who originally occupied the land, dates from the late 18th century and serves as the home of the Commander, Naval Air Systems Command.

Looking Back . . .

The Early Years

The establishment of Naval Air Station Patuxent River at Cedar Point in 1942, forever changed Saint Mary's County, Maryland. This once rural, insular community had, in many ways, remained unchanged since the 17th century, when it was under the proprietorship of Lord Baltimore. Currently home to the Naval Air Systems Command Headquarters, the Program Executive Offices of naval aviation, and the Navy's premier aircraft research, development, test and evaluation center, Naval Air Station Patuxent River remains a catalyst for change within the county.

Situated on a peninsula where the waters of the Patuxent River meet the Chesapeake Bay, Naval Air Station Patuxent River consists of 6,400 acres of what was once Southern Maryland's prime farmland. Before the naval station was built, the property encompassed several large farms; Mattapany, Susquehanna, and Cedar Point; as well as numerous tenant and sharecropper properties; and a few clusters of vacation homes. The Cedar Point community included several churches, a post office, and a gas station.

Although many of the original structures were razed to make way for the Navy's mission, much of Cedar Point's rich history has been preserved through reutilization of many of the historic old houses. These homes now serve as quarters to Navy personnel stationed at Patuxent River.



Susquehanna—In 1942, Henry Ford purchased Susquehanna and had it dismantled and reassembled at his museum village in Dearborn, Michigan



Tobacco being loaded at Millstone Landing, 1912, which was located near the mouth of the Patuxent River opposite of Solomons Island where the Naval Air Station Steam and Power Plant now stands



First Flight to Patuxent River

In the Beginning . . .



First Staff of Patuxent River, Naval Air Station



First plane stationed at Patuxent River with first six officers: (left to right) Pop Pine, John Carmen, C. Frank, Capt. Rassieur, Frank Sivels, and Dr. Wible

Cedar Point's evolution from a sleepy farm community to a bustling naval air station began in 1937, when the Navy's Bureau of Aeronautics saw the need for a base where testing of aircraft could be consolidated. Prior to then, the testing of Navy aircraft had been conducted at several stations, including sites at Dalhgreen and Norfolk, Virginia, the Washington Navy Yard, the Naval Aircraft factory, Philadelphia, Pennsylvania, and NAS Anacostia in Washington D.C. A Navy panel selected Cedar Point based on its remote location on the coastline; the distance from air traffic congestion and adequate isolation for classified testing; and its size, large enough for weapons testing.



Cedar Point Lighthouse, Patuxent River, Maryland

WWII

The Japanese surprise attack on Pearl Harbor and the subsequent advent of United States involvement in WWII, brought a new urgency to the need for another naval air station. The Japanese had proved the offensive power of the aircraft carrier; and America would need to harness all its military and industrial might to win the battle for the Pacific. The outbreak of war prompted Rear Admiral John Towers, Chief of Bureau of Aeronautics, to request approval and authorization to begin construction on 22 December 1941. Secretary of the Navy, Frank Knox, approved construction on 7 January 1942, and construction began on 4 April 1942.



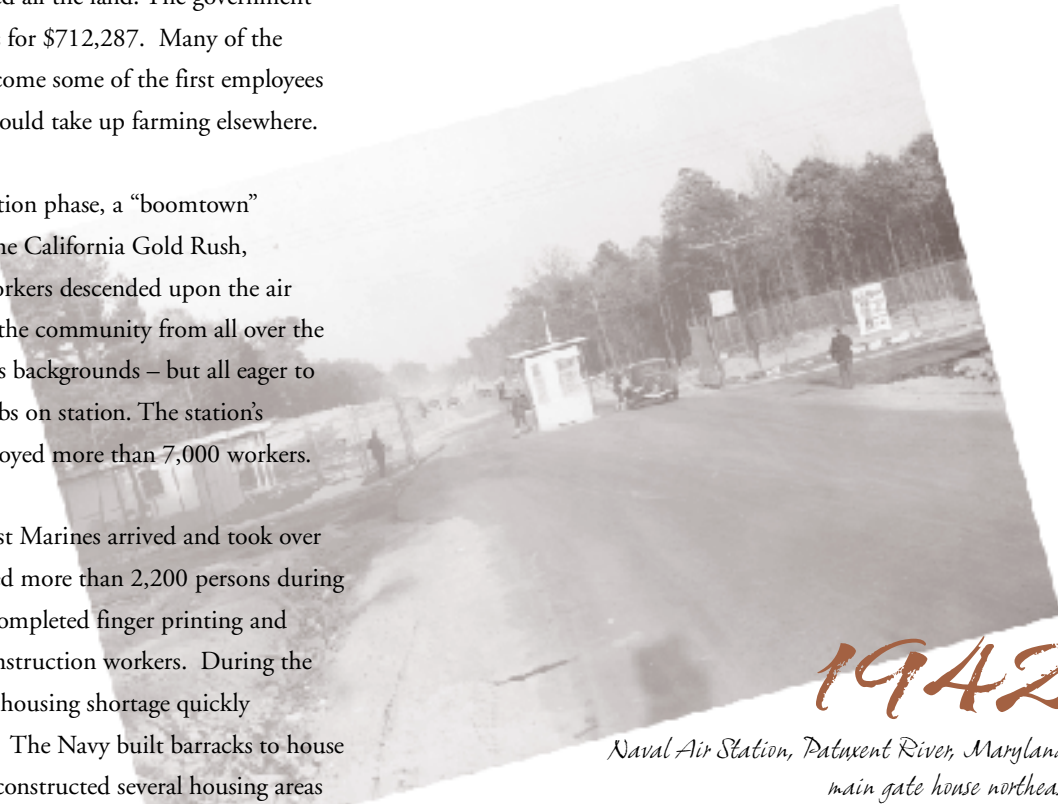
Secretary of the Navy Frank Knox (1940-1944), and the Elementary school named in his honor



In most cases, residents of Cedar Point were given about a month, until 1 March 1942, to relocate as the federal government quickly purchased all the land. The government bought the entire 6,412 acres for \$712,287. Many of the uprooted residents would become some of the first employees of the station, while others would take up farming elsewhere.

During the station's construction phase, a "boomtown" atmosphere, reminiscent of the California Gold Rush, developed as thousands of workers descended upon the air station. People flooded into the community from all over the country – some from dubious backgrounds – but all eager to get one of the high-paying jobs on station. The station's construction eventually employed more than 7,000 workers.

On 20 October 1942, the first Marines arrived and took over security. The Marines arrested more than 2,200 persons during a ten-month period as they completed finger printing and background checks of the construction workers. During the construction period, a severe housing shortage quickly overwhelmed local resources. The Navy built barracks to house workers on station and later constructed several housing areas for workers and their families off the station in Lexington Park, formerly called Jarboesville. The area was renamed Lexington Park in honor of the USS *Lexington* (CV2), one of the Navy's first specially-built aircraft carriers, lost in WWII during the Battle of the Coral Sea.



*Naval Air Station, Patuxent River, Maryland,
main gate house northeast*

One of the few drawbacks in choosing Cedar Point as the location for the Patuxent Naval Air Station was the lack of adequate transportation. Several earlier attempts to build a viable railroad line through Saint Mary's County had failed, so the Navy took on the task and in 1944, completed a rail line to the station. The Navy revamped the railroad from Brandywine, Maryland, to Mechanicsville, Maryland, where the old line ended, and extended the line south to the naval air station. Known as the U.S. Government Railroad, the line was for exclusive government use from Brandywine south.

U.S. Government Railroad



U.S. Naval Air Station Locomotive



NAS, Patuxent River, Maryland, temporary workmen's barracks

The advent of the naval air station brought an extension of the highway, as well as the railroad; and for more than a year during construction, 250,000 tons of material had to be transported by truck or by water routes.

Less than one year after construction initially began, the station was formally commissioned "U.S. Naval Air Station, Patuxent River, Maryland" on 1 April 1943. The unofficial name had been Cedar Point or the Naval Air Station at Cedar Point. However, officials thought there would be confusion between Cedar Point and the Marine Corps station at Cherry Point, North Carolina, so the name was officially designated Naval Air Station (NAS) Patuxent River. A few months prior to the



*WAVE Aviation Machinist's Mate
Grabablowsky works on a plane*



*WAVE Ensign Sheehy operates
machine at Electronics Test*



WAVES Lab Technicians

Women Appointed for Voluntary Emergency Service

*During WWII, 35 women officers and
550 enlisted women served in nearly
every role at the naval air station*

WAVES

ceremony, in November 1942, Navy officials determined that the station would serve as a facility for testing experimental aircraft, equipment and material, and as the east coast's Naval Air Transport Service (NATS) base. NATS was responsible for the movement of personnel, supplies and equipment by air and had its headquarters at Patuxent River. NATS had 43 aircraft on station – seaplanes, DC-3s and DC-4s, which operated across the Atlantic from the British Isles to North Africa and Brazil.



Physiological testing at the Flight Test Division



The development and testing of Airborne Early Warning aircraft at Patuxent began during WWII and continues to evolve today. Initial testing of the APS-20 radar housed in the belly-radome of TBM-3Ws was conducted under Project Cadillac in 1944. Here, and NATC TBM-3W awaits further tests in 1946.

1943

During June through August of 1943, Flight Test and Aircraft Experimental and Development Squadrons from Anacostia, and the Aircraft Armament unit from Norfolk, Virginia, transferred their operations to Patuxent River. The consolidation of these activities was the genesis of the Naval Air Test Center (NATC). On 16 June 1945, the Navy formally established the Naval Air Test Center, and designated that the commander of the NAS report to the Commander, NATC.

The Naval Air Test Center made numerous contributions to the war effort, including testing the first American all-jet powered aircraft, the XP59-A in 1944 and later, the FR-1 *Fireball*, and the FH-1 *Phantom*. The British also brought their aircraft to be tested at Patuxent River. Captured enemy



U.S. Naval Test Pilot School



Planes being fueled on the flight line at the Army-Navy Fighter Conference, October 1944

aircraft were evaluated here during a joint fighter conference held 16-23 October 1944. The Navy conducted radio, armament, catapult and arresting gear testing, as well as tactical and service testing of equipment at Patuxent River. The Naval Medical Research Institute collaborated with the test center to conduct physiological testing of the effects of flying on personnel.

World War II brought about explosive growth in the numbers and variety of aircraft added to the Navy's inventory. This created a problem for the pilots and engineers at the Flight Test Division, who ensured all new aircraft met the Navy's specifications for stability and handling characteristics. Officials at the Flight Test Division recognized that a formal program to teach pilots and engineers aircraft performance and in-flight testing techniques was needed. A handful of the Navy's best and brightest engineers and pilots developed a curriculum, and an informal test pilot program began in 1945. The first class of 14 pilots and engineers graduated from the informal school in May 1945.

TPS

The course not only greatly improved flight-testing, but also earned formal recognition and funding as the Test Pilot Division on 4 March 1948. Ten years later, on 12 June 1958, the division became the U.S. Naval Test Pilot School. In April 1959, four of the school's graduates, Lieutenant Colonel John H. Glenn, USMC, Lieutenant Commanders, Walter M. Schirra, Jr., Alan B. Shepherd and Malcolm Scott Carpenter, USN, were among the first group of seven astronauts selected by the National Aeronautics and Space Administration (NASA). Today, the Test Pilot School continues to turn out gifted and talented graduates who go on to the Nation's space program.



The original seven Mercury astronauts. From left, front row: Virgil "Gus" Grissom, Scott Carpenter, Donald "Deke" Slayton and Gordon Cooper; back row: Alan Shepard, Walter Schirra and John Glenn. Glenn, Schirra, Shepherd and Carpenter all graduated from the U.S. Naval Test Pilot School.

NASA Photo



Immediately following WWII, naval aviation was severely cut; however scientific and technological developments continued at an accelerated pace. Advancing technologies, such as jet engines, helicopters, guided missiles, and nuclear weapons, posed new challenges for naval aviation. The introduction of jet aircraft created special problems for Navy carrier operations. The new jets were faster, heavier and ill-suited for the wooden-decked carriers, equipment and tactics of WWII. Nighttime and all-weather operations were becoming an integral part of the naval aviation mission, and there was much work to be done to alleviate the very

high operational accident rates of the 1940s and 1950s. The expertise of the people at NAS Patuxent River played a critical part in the development of new techniques and equipment that would transform carrier aviation. The steam catapult, angled carrier deck, and mirror landing system, all adopted from Great Britain, were major innovations of the 1950s. In 1954, NAS Patuxent River added a steam catapult and the accompanying new arresting gear to its carrier deck simulation facility – the first of its type.

Aviation technology in the late 1940s and 1950s focused on designing faster, higher flying and better performing jets. In August 1947, Commander Turner F. Caldwell and USMC Major Marion Carl achieved two successive world speed records of 640 mph and 650 mph set in a D-558-I “Skystreak”. Four years later, the D558-II swept-wing model was flown to a record speed of 1,238 mph by test pilot, Scott Crossfield, a former naval aviator, and to an altitude record of 83,235 feet by Major Carl. On 14 October 1947, Captain Chuck Yeager, U.S. Air

1950s

Grumman F9F-2 Panther jet in flight over Patuxent River

The HRP-2 “Flying Banana” at the Naval Air Test Center



Lockheed D2V Neptune being serviced at the Naval Air Test Center

Force, became the first to break the sound barrier; and in October 1949, Commander Caldwell became the first naval aviator to fly faster than the speed of sound. New aviation records were continually set and broken. These early projects provided a wealth of data for creating the necessary knowledge needed for the next generation of high performance aircraft. These new aircraft were dependent on emergent avionics technology; and in 1949, a specially shielded test lab was built at Patuxent River for electronic testing.

New Aircraft

The 1950s and 1960s produced an abundance of new aircraft for naval aviation, and every type was required to undergo the rigors of testing at Patuxent River. In 1955, Development Squadron VX-6 was established at NAS Patuxent River for operations with Task Force 43 on Operation Deep Freeze, scientific operations in Antarctica. This squadron provided services for parties based ashore and made courier flights between Antarctica and New Zealand. Beginning in 1965, NAS Patuxent River-based reconnaissance squadron VQ-4 began using

On 25 August 1947, a Patuxent River test pilot, Commander Turner F. Caldwell, Jr., flew a Douglas Skystreak to a world speed record of 640 mph.



At the height of the Cold War, the station served as home base to three early warning squadrons, flying WV-2 (EC-121K) aircraft from 1955 until they transferred to Argentina, Newfoundland, in the early 1960s



Major John H. Glenn, USMC, a graduate of the U.S. Navy Test Pilot School (Class 12)



Lockheed C-130s, equipped with special communication equipment, to perform their around-the-clock Take Charge and Move Out (TACAMO) mission. VQ-4 provided long-range, very-low-frequency communications relay between the National Command Center and the ballistic missile submarine fleet.

In 1961, the Navy celebrated the golden anniversary of naval aviation. Four new amphibious assault ships and other ships built to exploit the unique capabilities of helicopters in vertical assault and replenishment joined the Fleet. New high

performance aircraft went into operation. Vertical and short take-off and landing aircraft were developed. Man's effort to conquer space began in earnest, as manned orbital flight became reality, and a series of successes culminated in the first manned lunar landing. More than half the Nation's astronauts had Navy backgrounds, and naval aviators made the first American sub-orbital and orbital flights.

In November 1967, the Navy flew its last operational seaplane mission, as helicopters gradually replaced seaplanes during the 1960s. The Naval Test Center took part in the development and testing of helicopters for new roles such as minesweeping. In 1960, the test center at Patuxent River



The first A-7A with an 11,350 lb thrust Pratt and Whitney engine flew in September 1965. The last of 850 A-7s were retired from the Navy's inventory following participation in Desert Storm combat operations.

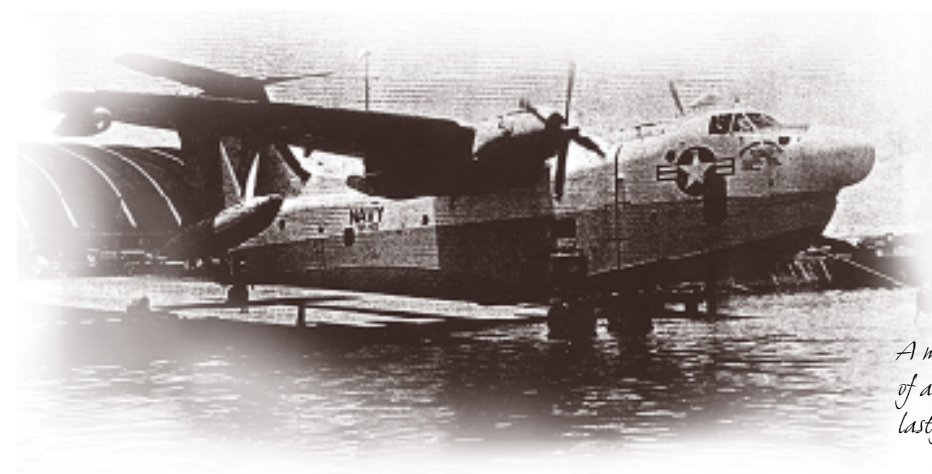
successfully completed test launchings of *Bullpup* air-to-surface missiles from a Marine Corps HUS-1 helicopter. Other advances in ordnance, navigational equipment, and electronics changed tactical doctrine. To combat the Soviet threat, the Navy placed increased emphasis on anti-submarine warfare using both land and sea-based long-range aircraft.

1967

In 1967, two A-7A *Corsair II* aircraft, piloted by Commander Charles Fritz and Captain Alex Gillespie, USMC, made a transatlantic crossing from NAS Patuxent River to Evereux, France, establishing an unofficial record for long distance, non-refueled flight by light attack jet aircraft. Distance flown was 3,327 nautical miles; time of flight was seven hours and one minute.



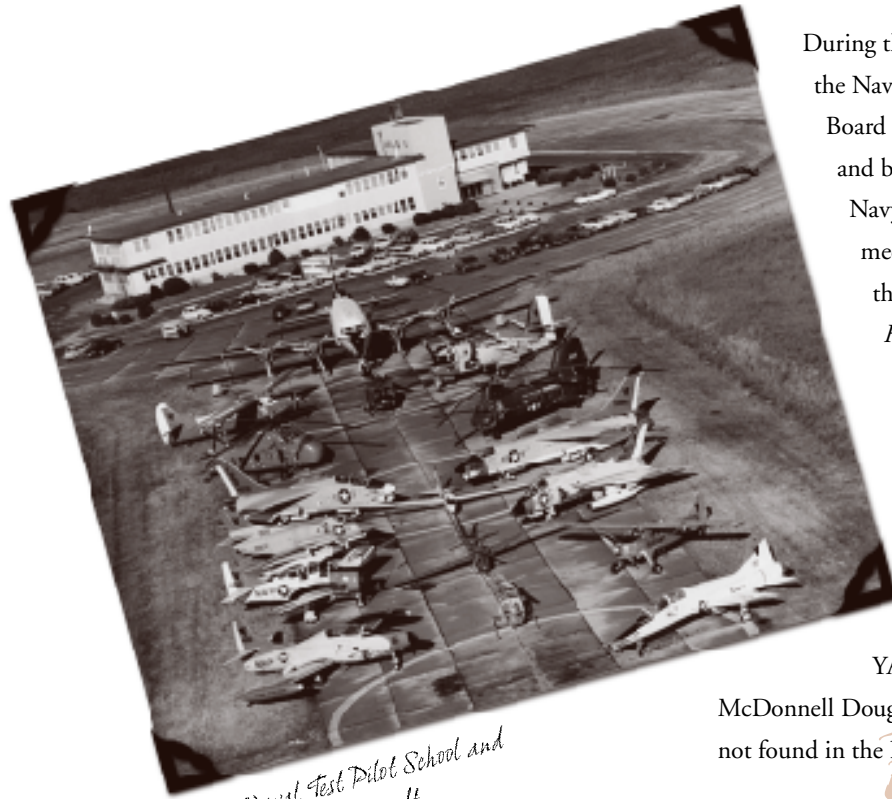
An RA-5C Vigilante reconnaissance aircraft arrives at Patuxent River for testing. The Vigilante was one of the Navy's finest and only all-weather carrier based reconnaissance aircraft. The Vigilante made its last flight on 20 March 1979.



A monument to naval aviation and an end of an era – the SD-5B Seaplane made its last journey from Patuxent River in 1968.

The 1970s

The 1970s were tough times for naval aviation. The surplus aircraft and equipment from the Vietnam War were wearing out quickly with little hope for replacements. High inflation was hurting the limited defense budget. Despite these difficulties, research and development at NAS Patuxent River continued to make headway. The *Harrier*, *Tomcat*, *Super Stallion*, and *Orion* were just a few of the major aircraft programs undergoing test and evaluation at Patuxent River.



U.S. Naval Test Pilot School and Patuxent River aircraft

During the early 1970s, the AV-8A *Harrier* arrived at the Naval Air Test Center for commencement of Board of Inspection and Survey trials. Designed and built by a British manufacturer for the Royal Navy, the *Harrier* underwent improvements to meet American requirements. On 22 May 1978, the first of two McDonnell Douglas AV-8C *Harriers* arrived at the Naval Air Test Center (NATC), Patuxent River, for service acceptance trials. Improvements built into this aircraft included a new UHF radio, a chaff and flare dispensing system, lift improvement devices, a radar warning system and secure voice equipment.

On 25 January 1979, the Navy's YAV-8B, the *Harrier* prototype built by McDonnell Douglas, arrived at NATC to test improvements not found in the British AV-8A.

Research and Development

The P-3 Orion aircraft

On 22 January 1971, a production model P-3C *Orion*, piloted by Commander Donald H. Lilienthal, with a crew of eight, established a world record in the heavyweight turboprop class for long distance flight. They set the record with a flight of 6,857 statute miles over the official great circle route from NAS Atsugi, Japan, to NAS Patuxent River. Commander Lilienthal also established a world speed record in the P-3C of 501.44 mph over the 15 to 25 km course. In 1975, VX-1, the Navy's antisubmarine warfare evaluation squadron at NAS Patuxent River, accepted the first production model of Lockheed's updated P-3C *Orion*. On 29 August 1977, the first production model of the P-3C *Orion* update II arrived at NATC for technical evaluation. On 11 March 1978, a P-3B *Orion* from NATC Patuxent River flew the first transoceanic flight guided by NavStar, the space-based radio navigation system. The six-hour flight was from NAS Barbers Point, Hawaii, to NAS Moffett Field, California. The NavStar system comprised 24 satellites in earth orbit providing radio navigational information.

On 21 May 1973, Patuxent River welcomed VXN-8 home from its U.S. Naval Oceanographic Office Project Magnet deployment to the Southern Hemisphere. During the



deployment, the squadron made two flights around the world within the Southern Hemisphere. An over-the-South-Pole flight by an RP-3D, on 4 March, was a first for that type aircraft.

Helicopter programs also achieved major milestones during the 1970s. On 25 May 1973, the first production RH-53D *Sea Stallion*, specially configured for the airborne mine countermeasures mission, arrived at the Naval Air Test Center for weapons system trials. The final flight of the service acceptance trials for the AH-1T *Cobra* helicopter gunship was made at Naval Air Test Center, Patuxent River. The helo carried an increase of more than 200 percent in its armament payload, and was designed to fly farther and fight longer and harder over a target than previous models of the *Cobra*.

As new aircraft entered the inventory the Test Center bid farewell to the last C-54 *Skymaster* in the Navy's flying inventory in 1974. The twenty-nine year-old C-54Q saw its last service with the Naval Test Pilot School. The *Skymaster*, Bureau Number 56501, had flown almost 15,000 hours with more than 2,500,000 nautical miles since its acceptance on 24 March 1945.



6 April 1972

The Navy's new air superiority fighter, the F-14 Tomcat, arrived at Naval Air Test Center, Patuxent River. The swing-wing, twin-engine Grumman aircraft arrived for a series of catapult launches, Automatic Carrier Landing System checks, airspeed system calibrations and weight and balance checks to determine its suitability for naval operations.

In 1973, the formal Board of Inspection and Survey service acceptance trials of the S-3A began at the Naval Air Test Center, Patuxent River.

On 18 March 1975, the Naval Air Systems Command established an Assistant Commander for Test and Evaluation (T&E) and assigned the office the functions involving management of T&E and its facilities. This important organizational development had its origins in a Secretary of Defense decision of the mid-1960s, which stressed the need for adequate T&E data to provide a basis for determining whether new equipment was sufficiently developed to warrant procurement for service use. In a more historic sense, the establishment of the Assistant Commander for Test and Evaluation was part of naval aviation's long-standing commitment to a consolidation of T&E. This commitment resulted, as early as 1942, in the creation of NAS Patuxent River as a facility for testing experimental airplanes, equipment, and material.

24 March 1977

Initial service acceptance trials for the CH-53E *Super Stallion* were completed at NATC. The growth version of the CH-53E had three turbine engines instead of two. The *Super Stallion* carried mission loads of 16 tons compared to nine tons for the CH-53D. It had seven rotor blades instead of six and could accommodate 56 troops.

25 March 1977

The Naval Air Systems Command announced that its Advanced Concepts Division and the Naval Air Development Center were testing a lighter-than-aircraft known as *Aerocrane*. This project represented the first government-sponsored study of lighter-than-air flight in several years.



OV-10 Bronco

22 June 1977

The new OV-10D *Bronco* was equipped with a night vision sensor, Forward Looking Infrared Radar, at Patuxent River.

13 July 1977

A Patuxent River test pilot landed an F-4J, using a Microwave Landing System for the first time, at the FAA test facility at Atlantic City, New Jersey.

*Test
and
Evaluation*

26 March 1978

The AV-8A *Harrier* was used at NATC Patuxent River to test a new ski jump ramp developed by the British to cut down the take-off distance for the *Harrier*. The new ski jump ramp was designed with a 12-degree angle of elevation and was 130 feet long. The total take-off distance for a *Harrier* using the new ramp was 230 feet compared with the 930-foot runway necessary for a *Harrier* to make a no-catapult, flat-surface launch. NATC Patuxent River evaluated the ramp for possible use in the Fleet.

10 April 1978

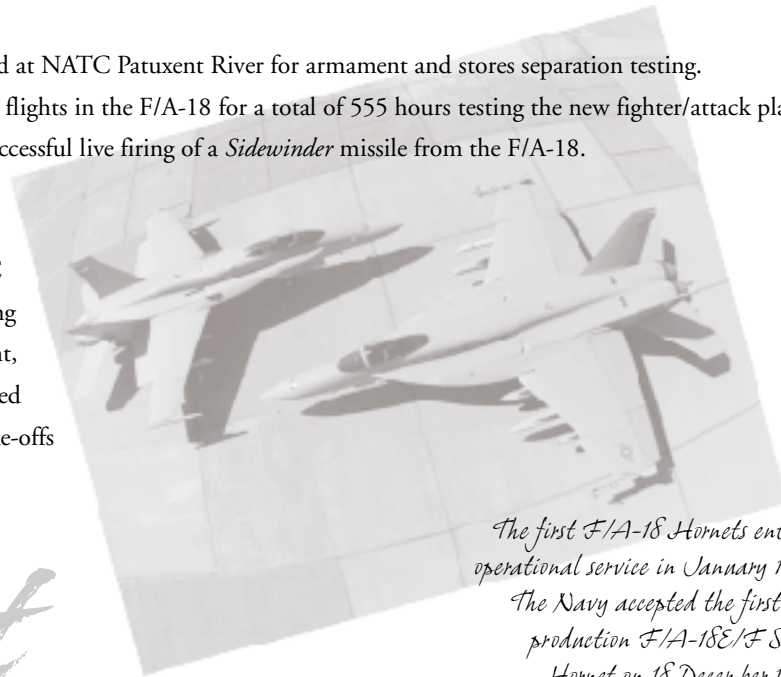
The first TA-7C attack trainer arrived at NATC Patuxent River for Board of Inspection and Survey trials.
The first UC-12B for the Navy arrived at NATC Patuxent River for preliminary evaluation tests.

17 December 1978

The first two-seater F/A-18 *Hornet* arrived at NATC Patuxent River for armament and stores separation testing. During 1979, NATC had conducted 416 flights in the F/A-18 for a total of 555 hours testing the new fighter/attack plane. On 12 December, NATC completed a successful live firing of a *Sidewinder* missile from the F/A-18.

16 January 1979

The first F/A-18 *Hornet* arrived at NATC Patuxent River for evaluation trials. Testing during the year included refueling in flight, land-based catapult launchings and arrested landings, speed tests and at-sea carrier take-offs and traps aboard the USS *America*.



The first F/A-18 Hornets entered operational service in January 1983. The Navy accepted the first new production F/A-18E/F Super Hornet on 18 December 1998.

The Hornet

Strike Hangar



The Harrier, Prowler, Hornet and Tomcat



AH-1F Cobra

The 1980s

During the 1980s, naval aviation saw an increase in its building programs and new technology research. New aircraft such as the F/A-18 *Hornet*, the SH-60B *LAMPS MK III Seahawk*, the MH-53E and the AV-8B *Harrier II* came aboard.

A new aircraft concept was introduced in the form of the V-22 *Osprey*, the world's first fixed-wing, tilt-rotor aircraft capable of vertical take-off and landing and horizontal flight. Naval aviation also celebrated its 75th anniversary in 1986.

Highlights from the 1980s include the following:

15 June 1980

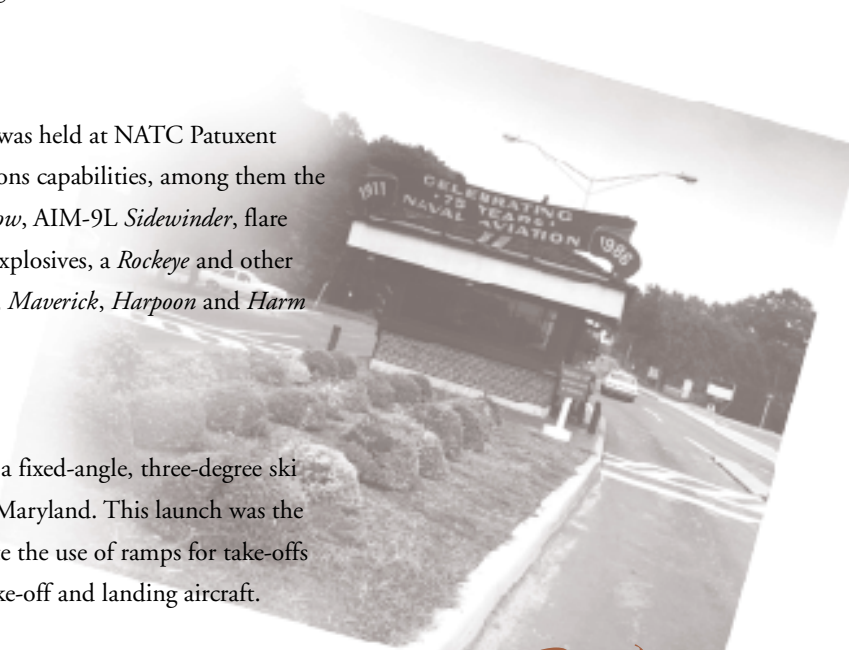
A loading demonstration of the F/A-18 *Hornet* was held at NATC Patuxent River. The aircraft showed off some of its weapons capabilities, among them the 20mm *Vulcan* cannon, AIM-7F advanced *Sparrow*, AIM-9L *Sidewinder*, flare dispensers, rocket launchers, advanced fuel-air explosives, a *Rockeye* and other bombs. *Hornet* weaponry also included *Walleye*, *Maverick*, *Harpoon* and *Harm* missiles, and laser-guided bombs.

31 July 1980

A T-2C *Buckeye* was successfully launched from a fixed-angle, three-degree ski jump at Naval Air Test Center, Patuxent River, Maryland. This launch was the first part of feasibility demonstrations to evaluate the use of ramps for take-offs by conventional, as opposed to vertical/short take-off and landing aircraft.

8 July 1981

A newly modified model 24 Lear jet arrived at NAS Patuxent River to be used by the Naval Test Pilot School as a flying teaching aid.



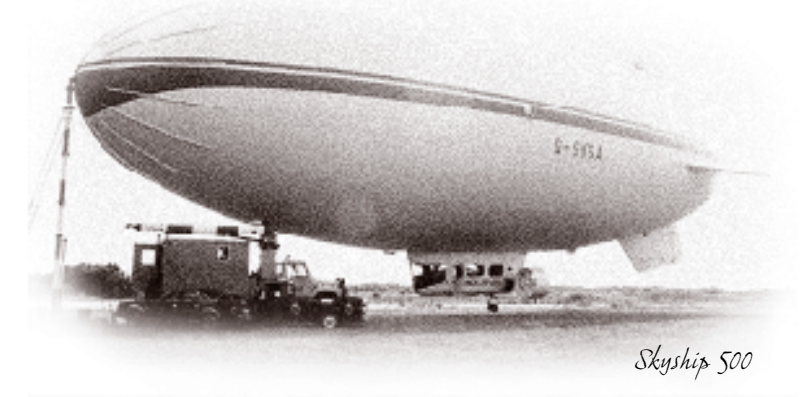
*1986
75th Anniversary
of Naval Aviation*

8 January 1982

The F/A-18 *Hornet* made its first fully automatic landing on a simulated carrier deck field at NAS Patuxent River.

5 August 1982

The test center at Patuxent River successfully completed tests on the first aircraft tire made entirely from guayule natural rubber.



Skyship 500

23 May 1983

The Navy's EX-50 advanced lightweight torpedo made its first launch from a tactical aircraft, the S-3A *Viking*, at Patuxent River.

10 June 1983

Lieutenant Colleen Nevius became the first woman naval aviator to graduate from the U.S. Naval Test Pilot School, at NAS Patuxent River, and to be designated a Navy Test Pilot.

23 June 1983

The British-built airship, *Skyship 500*, arrived at Patuxent River for test and evaluation.



Lt. Colleen Nevins, became the first woman Navy Test Pilot on 10 June 1983

6 July 1983

A Marine Corps CH-53E *Super Stallion* flew 15 hours from Patuxent River, to MCAS Tustin, California; refueling four times in flight.

25 August 1983

The production prototype of the P-3C *Orion* Update III, landed at Patuxent River to begin test and evaluation.

26 September 1983

The first take-offs of an F/A-18 *Hornet* from a ski-jump ramp were conducted at Patuxent River.

26 September 1984

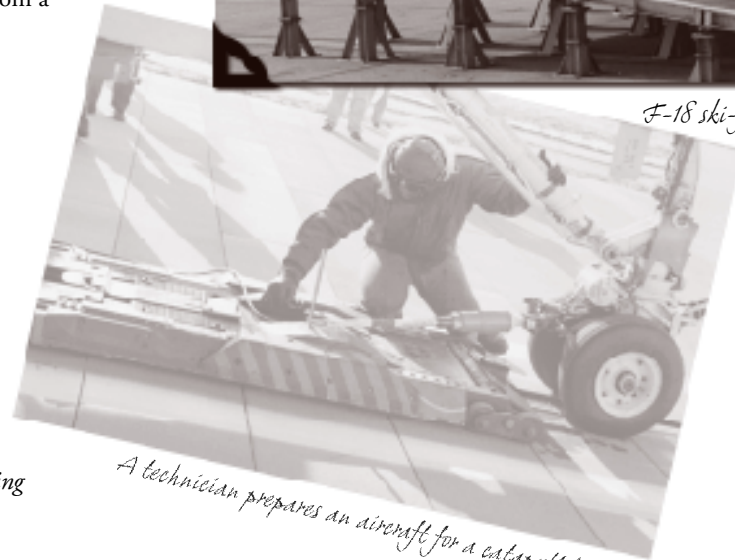
The XV-15 tilt-rotor aircraft demonstrator completed two weeks of concept testing at NAS Patuxent River.

28 October 1985

The first prototype model of the S-3B *Viking* arrived at Patuxent River.



F-18 ski-jump ramp



A technician prepares an aircraft for a catapult launch

7 December 1987

The Test Pilot School received the first of three HH-65 *Dolphin* helicopters on loan from the Coast Guard.

16 May 1988

NAS Patuxent River received the production model of the new E-6A communications aircraft for electromagnetic testing.

The late 1980s brought significant changes for America's military. The world strategic environment began to evolve following the collapse of the Soviet Republic and the democratization of Eastern Europe. A "New World Order" emerged and the United States was the uncontested leader of the free world. America's military had won the Cold War.



Convair UC-880, the only such aircraft in U.S. Navy was assigned to Patuxent River.



CH-53 Super Stallion

As military and political leaders evaluated the strategic situation, a massive drawdown of the military was effected in order to alleviate the growing American budget deficit. In the midst of the drawdown, punctuated by several rounds of traumatic base closures, a new threat from the dictatorial regime of Saddam Hussein of Iraq arose. Soon, the U.S. military would have the proving ground that would once again validate the need for maintaining a strong well-equipped force – just in time to give pause to those who were espousing even deeper defense cuts.

New World Order

The 1990s

The decade of the 1990s was filled with reorganizations and streamlining in the name of efficiency. NAS Patuxent River would not only continue to prove its importance in the aviation research, test and development arena, but would also undergo a major expansion as naval aircraft development functions were consolidated at the station. NAS Patuxent River's parent command, the Naval Air Systems Command, would also relocate its headquarters to the station in 1997. Significant events of the 1990s include:

1991

The creation of Naval Air Warfare Centers (NAWCs) brought about the creation of the NAWC Aircraft Division (NAWCAD) on 2 January 1992. At NAS Patuxent River, on the same day, the Flight Test Engineering group was established under NAWCAD and the Naval Air Test Center (NATC) was disestablished.



E-6 Mercury

4 March 1991

NAWCAD formally stood up at NAS Patuxent River with Rear Admiral Barton Strong assuming command.

7 May 1992

The last Take Charge and Move Out (TACAMO) EC-130 began its final deployment; VQ-4 was transitioning from the EC-130Q to the new E-6A.

6 September 1992

The Navy made its first flight in the X31A aircraft at Patuxent River.



X-31 Enhanced Fighter maneuverability aircraft

NASA Photo

11 June 1993

Groundbreaking took place for the new Aircraft Technology Laboratory.

9 December 1993

The V-22 *Osprey* returned to NAS Patuxent River to begin full engineering development testing. The new program would also usher in a new integrated test team concept of test and evaluation.

V-22 with High Mobility Multi-wheeled Vehicle, December, 1994



16-17 May 1994

Russian pilots tested nine F/A-18s while Navy pilots sat in the back seat.

1 October 1994

Sensor Systems Division was established with the stand up of the Naval Air Warfare Center Competency Aligned Organization. Electronic Warfare and Electro-Optical personnel from the former Electronic Warfare and Reconnaissance Department, radar personnel from Strike Missions Systems Department, Antenna and Avionics and Force Warfare E-2 Department, and acoustic/non-acoustic Anti-Submarine Warfare sensors personnel from the Force Warfare Mission Systems Department joined together to become the Sensor Systems Division.



The E-2C Hawkeye in the anechoic chamber. The Aircraft Anechoic Test Facility (AATF) provides a no echo test environment which simulates free-space flight, providing a multispectral stimulation and simulation environment for the aircraft and systems that closely resemble actual combat.

17 February 1995

Ground was broken for the Naval Air Systems Command Headquarters building.

14 July 1995

An F-14D *Tomcat* from NAS Patuxent River flew for the first time using a new digital flight control system.

1996

Software was installed in the Standard Engine Test System to allow testing of the F414-GE-400 engine in support of the F/A-18E/F; five *Super Hornets* underwent engineering and manufacturing development flight testing.

30 September 1996

The Naval Aviation Depot Operations Center was disestablished.

1997

The V-22 *Osprey* entered the flight test phase of engineering manufacturing development.

13 March 1997

The Naval Air Warfare Center Aircraft Division (NAWCAD) at Patuxent River officially opened the DoD's newest High Performance Computing Distributed Center. This center is part of a network of facilities under the DoD High Performance Computing Modernization Program providing advanced hardware, computing tools, the latest technology and training to DoD researchers to aid their mission in support of the warfighter.

*Naval Air
Systems Command*



Groundbreaking, Naval Air Systems Command (NAVAIR) Headquarters. NAVAIR is the parent command of NAS Patuxent River.

March

The Microwave Techniques Facility (MTF), the Navy's lead laboratory for the design, development, test and evaluation of antennas, radomes and related avionics systems for fleet aircraft arrived at NAS Patuxent River in March. The MTF site includes two anechoic chambers, six outdoor antenna ranges, and a one-of-a-kind Rain Erosion Test Facility.

October 1997

The Naval Air Systems Command stood up at Patuxent River after having moved from leased offices in Arlington, Virginia.

1 October 1998

Trenton's engine testing functions were transferred between facilities at NAS Patuxent River and the Arnold Engineering Development Center in Tullahoma, Tennessee. Eighty-four test and evaluation personnel relocated to NAS Patuxent River.



Facilities for antenna and Radar Cross Section measurement

The Journey Continues . . .



SH-60 Helo

For nearly 60 years, the dedicated sailors, marines, civilians, and defense contractors of Naval Air Station Patuxent River have made untold contributions to naval aviation and the national security of the United States. During war and peace, the meticulous and methodical work of research, development, test, and engineering has continued unabated. The talent and skills of the men and women of the Patuxent River team have been the core behind the unsurpassed record of excellence of American naval aviation. While the numerous historic sites and abundant natural resources, found throughout the station, make the site a National treasure, the technology and capability contained within its gates and embodied in its people, make NAS Patuxent River an irreplaceable National asset.

Memorials



Captain Frederick M. Trapnell was one of the main proponents responsible for establishing a formal Flight Test Pilots School at Patuxent River in 1948.



The station's airfield was dedicated in April 1976, to Captain Frederick M. Trapnell.

NAS Patuxent River personnel dedicated this relief replica of the Marine Memorial on 19 May 1973. Artist Felix G.W. deWeldon, who created the Marine Memorial, was present during the ceremony. Mr. deWeldon also sculpted the crucifix that adorns the altar in the station chapel.

In Memory Of...

Throughout the air station, Patuxent River personnel pay tribute to their fallen comrades by memorializing streets and buildings for those who have died while serving their country.



Arnold Road – In honor of Navy Lt. Cmdr Edward Arnold who lost his life in a helicopter flight test on 5 January 1952

Arthur Road – In honor of Navy Lt. Cmdr. Samuel H. Arthur who was killed in an experimental flight at Naval Air Station, Norfolk, Virginia, on 20 August 1936

Bauhof Road – In honor of Navy Lt. Cmdr. William R. Bauhof who lost his life in an XP2V-1 flight test in 1949

Bohne Road – In honor of Marine Corps Maj. Alfred H. Bohne who lost his life in a flight test at NAS Anacostia, on 25 March 1943

Bronson Road – In honor of Navy Lt. j.g. Clarence K. Bronson who lost his life when a bomb exploded prematurely on 8 November 1916

Buck Road – In honor of Navy AT1 David Buck who was electrocuted during a pre-flight test of E6A equipment in January of 1992

Bundy Road – In honor of Navy Cmdr. John Bundy who lost his life in an XP2V-1 test flight in 1949

Buse Road – In honor of Navy Lt. Frederick R. Buse who was killed while making a speed test at NAS Anacostia, on 15 May 1928

Cedar Point Road – One of the few streets not named for aviators, it was named for the original unofficial designation of this area

Crawford Road – In honor of Navy Cmdr. Keith E. Crawford who lost his life in an F/A-18 accident while evaluating the *Hornet* for the Blue Angels flight demonstration test in October of 1986

Cuddihy Road – In honor of Navy Lt. Cmdr. George T. Cuddihy who lost his life when his airplane came apart in an almost vertical dive on 25 November 1929

Davis Road – In honor of Navy Lt. William P. Davis who lost his life during an experimental flight at NAS Norfolk, on 5 March 1934

Delalio Road – In honor of Marine Corps Lt. Col. Armond H. Delalio who lost his life in a helicopter accident during a flight-test on 5 January 1952

Dent Road – In honor of Navy Lt. Cmdr. George M. Dent who lost his life in a T2V accident in North Carolina, on 24 April 1959

Dodd Road – In honor of Navy Lt. Cmdr. Lawrence Hewett Dodd who lost his life during an F8U-2 accident on RW 32 on 19 October 1960

Elmer Road – In honor of Navy SN Jeannette Elmer who lost her life while serving as a crew member of a R7V-1 from VR-1 on 25 January 1954

Emory Road – In honor of Rose Emory, a civilian, who lost her life when an F/A 18 landed on her truck on 1 October 1992

Fisher Road – In honor of Navy Lt. Cmdr. Philip S. Fisher who lost his life in a P4M accident off of Windmill Point on 8 March 1951

Fogarty Road – In honor of Navy Reserves AOM3C John Keating Fogarty who lost his life in the crash of a transport type aircraft on 12 April 1944

Fortin Road – In honor of Navy AD1 Norman Fortin who lost his life in an XP2V-1 test in 1949

Gammill Road – In honor of Navy Capt. James L. Gammil, a commanding officer of test pilot school, who lost his life when an X-26A Powered Glider went out of control and crashed onto the road on 18 May 1972

Green Road – In honor of Navy PH2 Dennis M. Green who lost his life on the USS *Independence* during an F8U trap when he was struck by flying debris on 23 August 1959

Hammond Road – In honor of Navy Lt. Alan W. Hammond who lost his life in a SH60B accident off the coast of Mayport, Florida, on 9 June 1986

Haney Road – In honor of Navy AD1 Robert S. Haney who lost his life in a P4M accident off of Windmill Point on 8 March 1951

Hinkle Road – In honor of Marine Corps Maj. Harvey C. Hinkle who lost his life in a helicopter accident on 14 February 1953

Hoise Road – In honor of Navy Lt. McFaddin Hoise who lost his life in an aircraft accident during takeoff in an *AJ (Savage)* on 4 February 1953

Jackson Road – In honor of Navy Lt. Cmdr. Donald Gordan Jackson who lost his life in a midair accident over the eastern shore of Maryland, on 6 October 1955

James Road – In honor of Marine Maj. Brian J. James who lost his life during a test flight in a V-22 that experienced engine failure on 28 June 1992



*Buse Road is named in honor of Navy Lt. Buse.
Tate Road is named in honor of Navy Lt. James Tate, Jr.*

Johnson Road – In honor of Navy Lt. S.A. Johnson killed in a crash at Anacostia, on 5 March 1941

Joyce Road – In honor of Marine Corps Gunnery Sgt. Sean P. Joyce who lost his life during a test flight in a V-22 that experienced engine failure on 28 June 1992

Krenke Road – In honor of Navy AD1 Zane H. Krenke who lost his life during an approach to Patuxent River, on 14 January 1958

Leader Road – In honor of Marine Corps Master Gunnery Sgt. Gary Leader who lost his life during a test flight in a V-22 that experienced engine failure on 20 July 1992

Lilijencrantz Road – In honor of Navy Cmdr. Eric J. Lilijencrantz, Medical Corps, who lost his life while studying the effects of stress or “G” on aviators while pulling out of dives in 1942

Mandt Road – In honor of Navy Lt. j.g. David L. Mandt who lost his life during a strafing run over a target area in the Chesapeake Bay, on 18 March 1945

McClanan Road – In honor of Navy Cmdr. Forest Hope McClanan who lost his life when test flying a YH03BR helicopter on 22 May 1959

McCauley Road – In honor of Navy Lt. Cmdr. John E. McCauley who lost his life during a C-2A flight test to certify crash position locaters in August 1971

McLeod Road – In honor of Navy Cmdr. Murdoch M. McLeod who lost his life while flying a C-2A *Greyhound* out of Bethpage, New York, on 1 May 1965

Millstone Road – One of the few roads not named for aviators, now extends all the way to boathouse one, but it used to end at the famous landmark in the county, Millstone Landing

Moyer Road – In honor of Navy AD1 John D. Moyer who lost his life in a P4M accident off of Windmill Point, on 8 March 1951

Nickles Road – In honor of Navy Lt. Cmdr. W.J. Nickles who lost his life in a A-4D which crashed into the bay after being launched from TC7 on 29 January 1959

Paine Road – In honor of Navy Lt. j.g. Estes S. Paine who was killed when his fighter-type airplane crashed on 14 August 1944

East Patrol and West Patrol Roads – Were given their names by the original Marines at Patuxent River in the fall of 1942

Phillips Road – In honor of Navy AD2 Cleo A. Phillips who lost his life in an R4D on approach to Patuxent River 16 May 1951

Priester Road – In honor of Navy HN Lawrence H. Priester who lost his life during catapult operations from an F8U-2N *Crusader* on 7 June 1960

Ranch Road – In honor of Navy Lt. John R. Ranch who lost his life in an aircraft accident on an F3H-2N *Demon* in September 1957

Randolph Road – In honor of Navy Lt. Cmdr. Beverly Randolph who lost his life during a landing approach to runway 6 in an F11F-1 *Tiger* 4 April 1958

Rasmussen Road – In honor of Navy AMM3 George H. Rasmussen, Jr. of Armament Test Division, who lost his life in a plane crash on 28 April 1944

*Commemorates
the fallen
astronauts of the
Challenger
Seven explosion*



Sandvig Road – In honor of Navy Lt. Cmdr. Goodwin W. Sandvig who lost his life in a P4M accident off of Windmill Point, 8 March 1951

Saufley Road – In honor of Navy Lt. j.g. Richard D. Saufley who died in a crash while making an endurance test on NAS Pensacola, Florida, on 9 June 1916

Saunders Road – In honor of Marine Corps Lt. Col. William D. Saunders who was killed in a crash at NAS Anacostia, on 28 August 1942

Sears Road – In honor of Navy Lt. j.g. Burley Sears who was killed in a test of control equipment on 16 December 1943

Shaw Road – In honor of Navy Lt. Robert C. Shaw who lost his life in a plane crash with *Rasmussen* on 28 April 1944

Shiverdecker Road – In honor of Navy Lt. Cmdr. David K. Shiverdecker who lost his life during a C-2A flight testing to certify a crash position locator in August 1971

Stanley Road – In honor of Air Force Maj. Rowland D. Stanley who lost his life in a KA-3B accident behind Great Mills High School on 26 January 1980

Switzer Road – In honor of Navy Lt. Cmdr. John L. Switzer who lost his life in an A4D-2N that exploded in midair in the Patuxent River, on 21 November 1959

Tate Road – In honor of Navy Lt. James Tate, Jr. who was killed when his fighter crashed into the Chesapeake Bay, on 13 April 1944

Thompson Road – In honor of Navy Lt. David L. Thompson who lost his life in an R4D on approach to Patuxent River on 16 May 1951

Thorston Road – In honor of Navy Lt. Glyn Theodore Thorston who lost his life in an FJ-4B crash during a simulated weapons release over Hopper Island Target, 5 June 1958

Utgoff Road – In honor of Navy Lt. Cmdr. Victor Utgoff who lost his life in an XP6M-1 jet powered flying boat that disintegrated in midair 7 December 1955

Vaughn Road – In honor of Navy AD2 James H. Vaughn who lost his life in an aircraft accident during take-off in an *AJ (Savage)* on 4 February 1953

Williams Road – In honor of Air Force 1st Lt. Frank A. Williams who lost his life along with his crew in an F8U-2 accident on runway 32 on 19 October 1960

Whalen Road – In honor of Navy Lt. Cmdr. John F. Whalen who lost his life because of parachute failure on 3 January 1961

Young Road – In honor of Navy AN Westly Young who lost his life in a ground accident in June 1980

In May 1999, the Naval Air Systems Command (NAVAIR) dedicated its headquarters building in honor of Rear Admiral William A. Moffett, "the architect of naval aviation". Moffett was the first Chief of the Bureau of Aeronautics (1921-1933), the forerunner to NAVAIR. The outstanding contributions of naval aviators during World War II and the legacy that continues today are due to the foundations built during the early years when Admiral Moffett served as Chief of the Bureau of Aeronautics.



*Rear Adm. W. A. Moffett, USN, Chief of
the Bureau of Aeronautics, 1928*

Buildings . . .



Rear Adm. W. A. Moffett Building. Naval Air Systems Command Headquarters, 1999

St. Nicholas Church, after mass, circa 1883. Built in 1795, the church was replaced by the current St. Nicholas church, built in 1924, but served as a church hall until demolished during construction of the Naval Air Station.



1942



St. Nicholas Church, built in 1924, serves station personnel as a multi-denominational chapel. Above the altar is a magnificent crucifix sculpted by Felix deWeldon, creator of the Marine Memorial. DeWeldon carved the life-size statue from marble, while stationed at Patuxent River as a sailor during WWII.



Naval Air Station, Patuxent River, gatehouse, July 1942



Naval Air Station, Patuxent River, Maryland, station maintenance shop, July 1942



The Operations Tower is a familiar landmark at Patuxent River



A view of the Naval Air Station Boathouse and small boat pier looking north toward Patuxent River



The Patuxent River Naval Air Museum opened its doors to the public in 1978 in the building that once served as a United Services Organization club during WWII and as an enlisted service members club during the 1950s and 1960s. The museum strives to tell the story of the important technological developments that have taken place in naval aviation.



*Patuxent River, Naval Air Station
commissioning ceremony, 1943*



*R60-1 Constellation prepares to take
midshipmen for an orientation flight*

Events . . .



*RADM William A. Moffett, II., USN (Ret), stands
beside a portrait of his father, RADM William A.
Moffett. He was the guest of honor during the
dedication of the Naval Air Systems Command building
in honor of his father on 3 May 1999.*

*Victory in Europe Day was celebrated here with military and
civilian personnel attending a program held in VR-8's hangar*



*On Victory Over Japan Day, personnel attend special
Thanksgiving services at the Chapel*



*Secretary of the Navy Forrestal and party watch aerial
demonstration at Patuxent River*

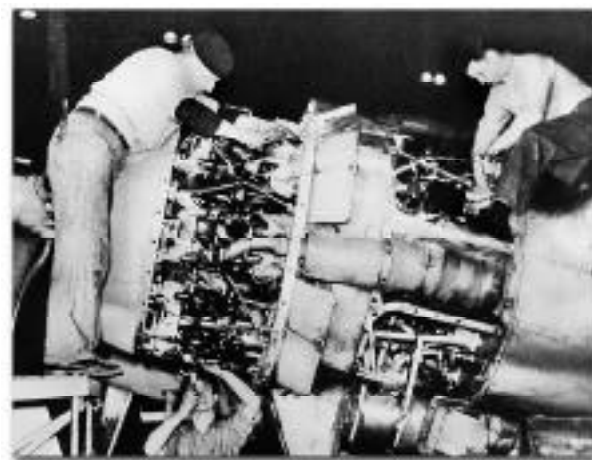
Hard at Work . . .



Line Mechanics at the Flight Test landplane hangar



Personnel of the Print Shop



Night Check Crew repairing the engine of a PV



MARS COMES HOME. Martin Mars, a seaplane referred to as the "mighty Mars" and "giant flying boat". Crewmen who flew with the first MARS are at the hatch of the flying boat as she returns to VR-8 at Patuxent after service in the Pacific Fleet.



Working hard after hours

Technology . . .



A Plane Captain washes down the canopy of an F/A-18



An Aviation Jet Mechanic works on a P-3 engine



Air Traffic Controllers keep watch over the flightline



Testing of a Norton phased array antenna installed in an A-6A airplane, 1968



The F-18 on the steam catapult

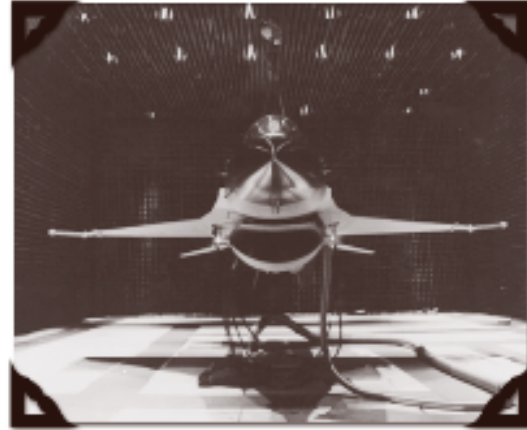


Flight Simulator at the Test Pilot School



The VP Department performs the first launch of a Sidewinder missile from a P-3, 1960s

The Aircraft Anechoic Test Facility (AATF) Anechoic Chamber supports operations with more stringent test requirements than the Shielded Hangar can accommodate. The effect is an anechoic (or "no echo") test environment which simulates free-space flight. Several test facilities utilize the anechoic chamber to provide a multispectral stimulation and simulation environment for the aircraft and systems that closely resembles actual combat.



Community . . .



Vocational training for civilian employees offered opportunities to both workers and supervisors to learn more about their jobs



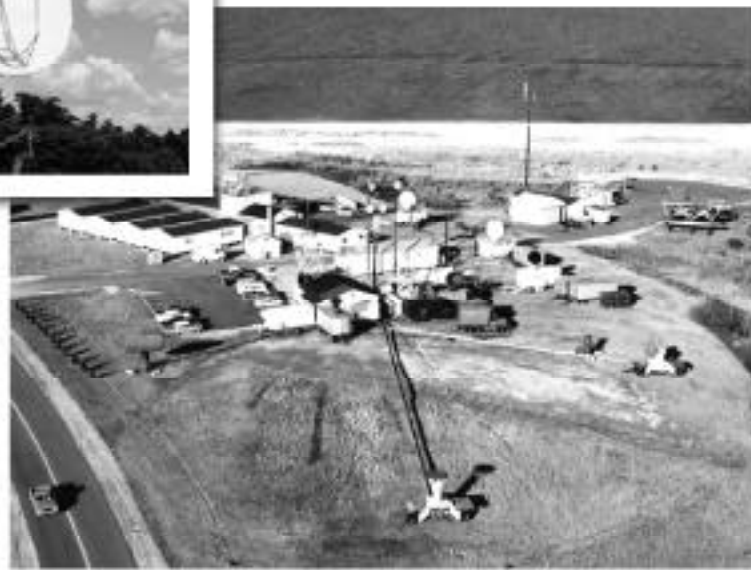
Station personnel and St. Mary countians have always enjoyed a close relationship. Station members and their families are actively involved with community programs for the betterment of all residents



Lt. Bryan Herdlick, F-14 flight test pilot, teaches school children about the Navy



Radar Dish located at the Atlantic Test Range Facility, Patuxent River, Naval Air Station



Radar Complex, Patuxent River, Naval Air Station, 1966

The Atlantic Test Range (ATR) has added a new antenna to their facility. The 65 foot (20 meter) diameter VHF/UHF parabolic dish antenna expands existing capabilities in Radar Cross Section (RCS) measurements and emitter signal simulation. The Naval Air Warfare Center Aircraft Division (NAWCAD) is expanding their existing business base from primarily other military and DoD work to private industry application.



The Blue Angels are often the featured performers during the station's air expositions



*Sailors enjoy Southern Maryland
blue crabs, a local delicacy.*

Good Times . . .

*Pie eating WAVES,
Pross and Harris*



*Women Appointed
for Voluntary
Emergency Service
(WAVES)
Brissenden and
Hall on the
tennis courts*



Picnickers at the Jitterbug Contest, 4 July 1945



WAVES sunning on the grounds behind Barracks 402



Patuxent first dance band was composed entirely of volunteers



The "gang" at the Ship's Service Fountain.



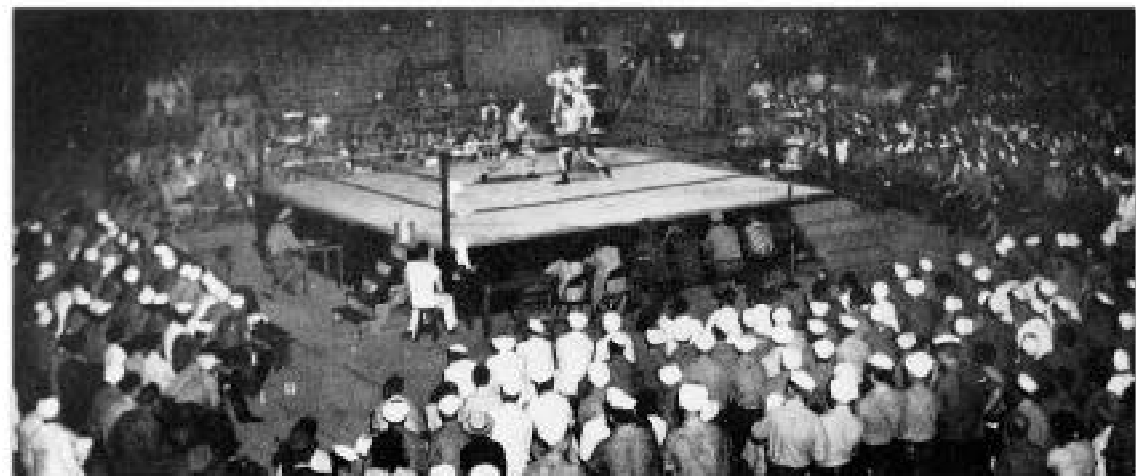
4th of July, 1944, the Coast Guardsmen staged a rodeo at the all hands picnic, grand entry



Action shot from the 1945 Patuxent baseball season



NAVAR's paper airplane contest has become an annual event at the headquarters building.



Boxing season, "fight night" in the hangar



Who says you can't have fun at work?



You've got to be good to fly at Pax!

*Special thanks to: Mr. Dave Seamans, retired
Grumman Aircraft Engineering Corporation test pilot
and graduate of the U.S. Navy Test Pilot School;
Mr. Henry Bonner, Director of the Museum of Naval
Aviation Technology, and his staff of volunteers; Martha
Hoover and John Romer, from the Naval Air Station
Office of Public Affairs; Marianne Graham,
architectural historian, CAM Systems; and Bob
Richards, U.S. Navy Test Pilot School for their
technical expertise and photos.*



Last running of the Patuxent River, NAS train

*Written by: Linda C. Drew, Naval Air Systems Command Historian
Art and Design: Ava Armendariz and Jennifer Shizak with assistance from Michael Carr
Senior Editor: Michelle Derus*

Acknowledgements