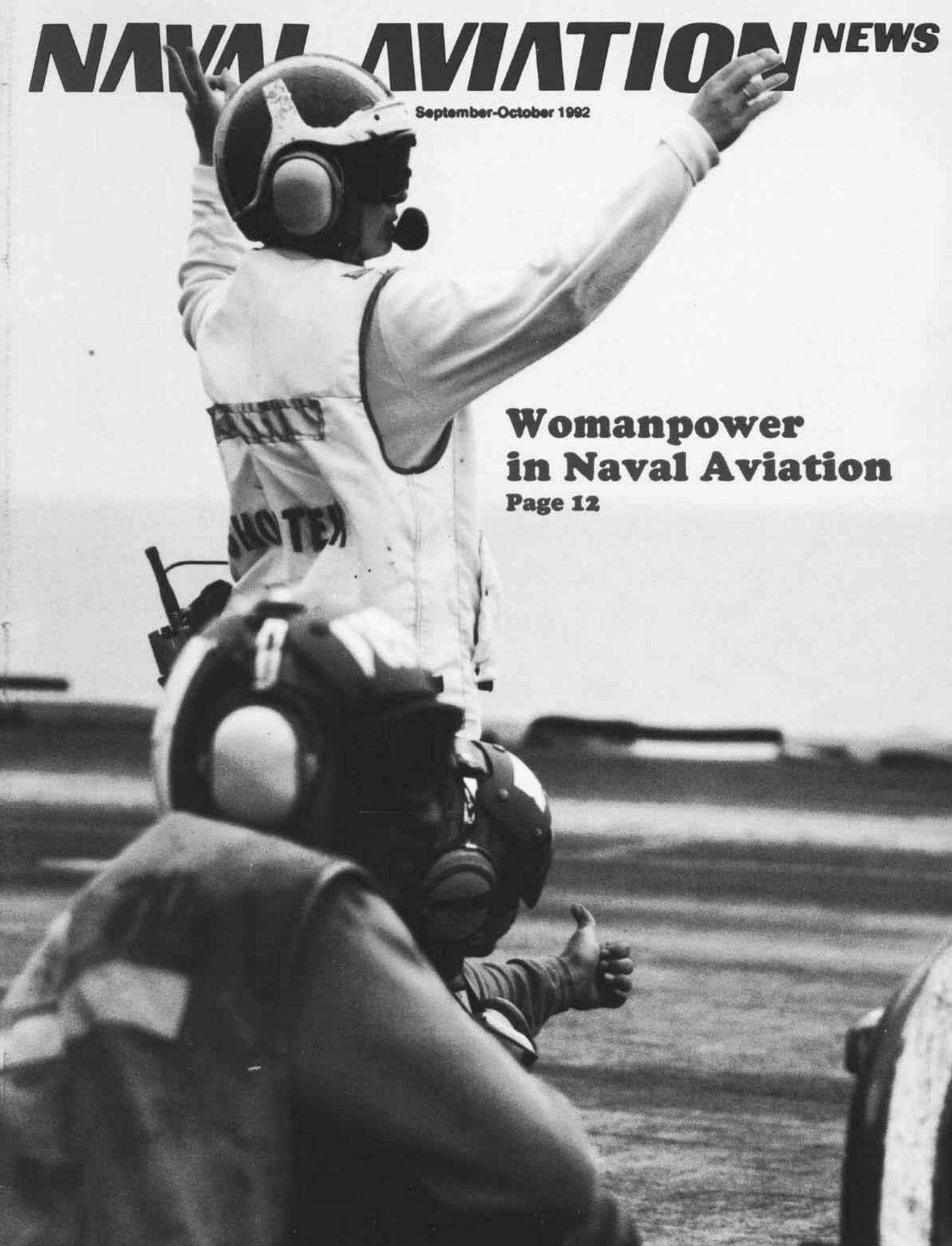


# NAVAL AVIATION NEWS

September-October 1992

**Womanpower  
in Naval Aviation**  
Page 12



# NAVAL AVIATION NEWS

Flagship Publication of Naval Aviation

Oldest U.S. Navy Periodical, Volume 74, No. 6, September-October 1992

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**COVERS** – Front: Shooter Lt. Robin A. Erichsen prepares an A-6 *Intruder* for launching from the flight deck of *Forrestal* (AVT-16) off the coast of Florida. Back: *Forrestal* air department crew members adjust aircraft tie-down chains. Photos by JO1(SW) Eric S. Sesit.

**RAdm. Riley D. Mixson**  
Assistant Chief of Naval Operations (Air Warfare)

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JO1 (SW) Eric Sest



RAdm. R. D. Mixson

Over the past several months, Naval Aviation has borne the brunt of bad press focused primarily on the actions of a few misguided individuals at Tailhook – a sharp contrast to the accolades that we received a year ago subsequent to *Desert Storm*. As with so many controversies, the good news gets steamrolled by misinformation, misquotes, and embellished stories that sell newspapers, – vis-a-vis the facts!

I think it's time we put things in perspective. The purpose of this edition of *Naval Aviation News* is to do just that. Naval Aviation leads the pack in providing an opportunity for women. Women have been successfully integrated into Naval Aviation to the extent allowed by law. A Presidential Commission on Women in Combat is currently in session and due to report out in November. Based on the outcome of that commission, we are ready to implement a plan to put women aviators in tactical combat squadrons if so directed by the president.

In the meantime, I would like each of you to look around your squadrons

# Perspective on Respect

By RAdm. Riley D. Mixson

Assistant Chief of Naval Operations (Air Warfare)

and flight lines and be sensitive to the outstanding work both women and men do for Naval Aviation in sometimes tough conditions. As this issue so clearly shows, women are handling their share of the load – on flight decks, in cockpits, loading bombs, maintaining aircraft – working shoulder to shoulder with their male counterparts.

We respect women in Naval Aviation for the job they do and that should not be distorted by the actions of a few at Tailhook. I challenge each of you, both men and women, to reaffirm that mutual respect. We are a team and we need all the players to succeed.

As a footnote, I was at NAS Miramar on July 28 for the dedication of the new Top Gun academic build-

ing. I had the privilege to escort and introduce a great naval officer and WW II fighter ace, Adm. Mike Michaelis, after whom the new Top Gun academic building was named and dedicated. Top Gun as usual did an outstanding job in orchestrating a most impressive ceremony. After the ceremony, I had the opportunity to get together with the CAGs and COs. I was most impressed with the candor of the discussion we had and the quality of leadership in the fighter community. As an old attack pilot, I'm real glad we have individuals like I saw leading the pack at Miramar. Remember, when you cut through all the chaff, the real objective is to Fly, Fight, and Win. Keep pressing and keep 'em flying – **safely**.



Shooter Lt. Robin A. Erichsen (left) discusses the progress of flight operations with another flight deck crew member aboard Forrester (AVT-16).

JO1 (SW) Eric Sest

## Float Coat

It was nearly daybreak when the loudspeaker of the *Perry*-class frigate boomed, "Flight quarters, flight quarters, all personnel man your flight quarters station for recovery of aircraft."

Having flown late the night before, the landing signal officer (LSO) – a LAMPS MK III SH-60 *Seahawk* pilot – was awakened by the call in a groggy state of surprise. He glanced at his watch. Flight quarters wasn't scheduled for another 30 minutes. He was unaware that the crew of the incoming *Seahawk* had requested an earlier recovery and that the ship approved the request.

The LSO crawled out of bed, pulled on his flight suit, and made his way to the hangar just as the horizon was growing light. Operating in Alaskan waters, the ship was pitching and rolling moderately. Sea temperature was 43 degrees, sea state three, with 800-foot ceilings and three miles visibility. The LSO requested a Recovery, Assist, Secure, and Traverse (RAST) landing. With all stations manned and ready, a "green" deck was prepared for the incoming helo.

The approach and landing were uneventful. The flight crew shut down and disembarked, and flight deck



*The inverted "Falling Leaf" invented by Al Williams.*

status returned to "red." The LSO went out onto the deck to greet the pilots. In the meantime, the ship had planned to continue prosecution of a subsurface contact and the Combat Information



Center asked the bridge to execute a full starboard turn.

The frigate subsequently took a 20-degree roll with a combination of ship and wave action. Water rushed over the flight deck and all hands on deck scrambled for handholds, such as main mounts and tie-down chains. The LSO, however, had fallen overboard.

When he was reported missing, the ship turned back in an attempt to locate and recover him. The search continued for two hours until the weather worsened. Immediate investigation revealed that in his haste to reach the hangar for the recovery, the LSO had failed to don his flotation vest – float coat.



**Grampaw Pettibone says:**

**The LSO, the ship, the premature RAST recovery – they never happened. This was a fictional account submitted, we are grateful to note, by HSL-43, to make a point.**

**The LSO's float coat wouldn't have helped after 10 or so minutes in the cold water. But without it, his chances of survival were more sharply diminished. The point is, could this have happened? In a hurry, might that vital piece of gear be left behind?**

**Ole Gramps forgets his knobby cane now and then – and I'm seldom in a hurry to go anywhere. But when things get rushed, who knows? HSL-43 makes a good point. Gramps hopes it's well taken. Keep that float coat handy and wear it!**

## Hurtin' Hornet

An FA-18C launched in company with a two-seat FA-18D on a basic flight maneuvering (BFM) hop. A replacement pilot (RP) in training was up front in the two-seater, an instructor pilot (IP) in the rear.

Air Control told the flight that there was an altitude cap of 23,000 feet vice the standard 29,000 in the working area due to other traffic. General elevation in the area was 2,000 feet with the terrain rising rapidly, to as much as 7,000 feet, at its north end.

After three BFM engagements, the flight set up for a flat scissors. The *Hornets* were at 16,500 feet mean sea

level vice the briefed 20,000 (proscribed starting altitude for the maneuver) in order to preclude violating the altitude cap of 23,000 feet. The FA-18D was on the right side with about 3,000 feet lateral separation. The RP pulled the throttles to idle, pushed over, and then called "Fox Two," signifying an apparently successful simulated AIM-9 attack. He began a left roll away to disengage, while reselecting afterburner.

The instructor felt that sufficient separation remained for a simulated gun attack and instructed the replacement pilot to reverse back to the right for a shot.

Earlier, the instructor had cautioned the replacement pilot against attempts to use improper (multi-axis) control inputs. The RP had displayed a tendency to use excessive aileron inputs during rolling maneuvers at low airspeed and high angle of attack.

At 17,400 feet, the RP rolled right and pulled to achieve a gun solution. The IP felt something was wrong with the aircraft's response as it rolled. He took control and immediately neutralized the controls but was unable to keep the *Hornet* from departing controlled flight in a violent nose slice departure to the left. The left nose slice continued as angle of attack and aircraft pitch attitude increased significantly. Spin logic appeared on the indicators with the left spin arrow presented. The IP ensured controls were neutral, pulled the throttles to idle, and transmitted to the RP, "I have control. Are your feet on the floor?"

Although pinned up and right toward the canopy, the RP reported feet "on the floor."

The IP put in the left stick and after another left turn, the left spin arrow disappeared. The IP neutralized the controls but the *Hornet* sliced nose right and a right spin arrow appeared. The IP put in right stick and the arrow disappeared after one turn. So, the instructor neutralized controls once again.

At this point, the *Hornet* was extremely nose high. The crew heard the roar of air rushing about the outside of the cockpit. The IP now believed the *Hornet* was in an angle of attack hang-up. He applied full forward stick and selected afterburner. The *Hornet* didn't respond and continued to exhibit random rapid pitch and yaw excursions.

"Check your altitude," called the flight leader in the other FA-18. The IP then initiated ejection after "sensing ground rush."

The ejection sequence was normal, although the flyers felt their descent

was "fast." They landed in rough terrain. The IP's chute did not respond as expected when he tried to avoid a large boulder and he suffered major injuries on impact. The aircraft crashed almost vertically, with little rotation, at about 275 knots.



**Grampaw Pettibone says:**

**Singe my whiskers – with afterburner heat, no less! The RP was cautioned not to be too aggressive on the controls but he yanked too hard anyway! The two-seater had external stores onboard but these weren't a factor in this accident. Excess aileron during a rolling maneuver at high angle of attack was.**

**An FA-18 training document**

**says, "Overaggressive misapplication of stick and/or rudder – that is, full control input or control reversal – may lead to nose slice departure or spin." Just ask these flyers.**

Also, the Hornets commenced the maneuver below the 20,000 feet minimum. There was some question during the investigation as to whether 20,000 was supposed to be mean sea level or above actual ground level – a pretty big misunderstanding in this case, 'specially since this was the RP's introduction to the maneuver. The Hornet hit the ground only 9,500 feet below the start altitude.

Get the most out of your equipment, folks. But don't hurt it, 'cause it can hurt you back!



*The hairy Hornet ride!*

## OP-05 to be N88

In a July 23 press conference in the Pentagon, Acting Secretary of the Navy Sean O'Keefe and Chief of Naval Operations Adm. Frank B. Kelso II announced a sweeping reorganization of the OPNAV staff. The plan, developed by Adm. Kelso, aligns the OPNAV staff with the Joint Staff.

The plan will allow better interface and coordination within the OPNAV staff and with the Joint Staff, Office of the Secretary of Defense, and Navy Secretariat, and allow a reduction of flag officer billets and staff requirements for Washington headquarters.

A major aspect of the reorganization, scheduled to be in place by January 1, 1993, is that the current Assistant Chiefs of Naval Operations (ACNO) for Submarine Warfare (OP-02), Surface Warfare (OP-03), Air Warfare (OP-05), and Naval Warfare (OP-07) will merge into one staff under the Deputy Chief of Naval Operations for Resources, Warfare Requirements and Assessment (code N8), a three-star flag officer. This change has the objective of improving coordination among the warfare communities in program planning decisions and to achieve a truly qualified and capable base force with which to support the president's national security strategy.

OP-05, currently a three-star flag billet, will be re-coded N88 and become a two-star flag billet. VAdm. Dick Dunleavy retired from the Navy on June 12 as the last ACNO (Air Warfare); RAdm. Riley D. Mixson, his deputy, is currently the acting ACNO (Air Warfare).

## Last Tomcat Delivered

Twenty-two years of production of the Grumman F-14 *Tomcat* and *Super Tomcat* fighter ended on July 10, 1992, with the delivery to the Navy of the last new-production F-14D. The last new *Super Tomcat* departed the Calverton, N.Y., factory on July 20 for duty with the Naval Air Warfare Center Aircraft Division at NAS Patuxent River, Md.

F-14D BuNo 164604, the last of 37 new F-14Ds, brought total production of the *Tomcat* to 712, including 636 F-14As (including 79 delivered to Iran); one early prototype F-14B; 38 F-14Bs (called F-14A+ until May 1, 1991); and 37 F-14Ds. Also, 32 F-14As were remanufactured into F-14Bs; two F-14As became prototype F-14Ds; and the remanufacture of 18 F-14As to F-14Ds will be completed in March 1993.

## Wasp, Helos Sting Pirates

During operations in the Caribbean in June, *Wasp* (LHD-1) and its helicopter crews interrupted the piracy of a U.S.-flagged cargo barge in international waters.

A barge under tow was spotted on radar by the crew of an SH-60B from Helicopter Antisubmarine Squadron Light 44's Detachment 5, operating from *Wasp*. A CH-53E from Helicopter Combat Support Squadron (HC) 2 investigated the contact, a tug towing a 500-foot barge loaded with three decks of tractor trailers. The crew of the tug, a quarter of a mile ahead of the barge, was too far away to see that the barge was being plundered by pirates who boarded from five small speedboats.

The discovery by HC-2's helicopter caused the

suspects to flee in their boats in several directions. *Wasp's* Coast Guard law enforcement detachment boarded the barge and found that several trailers were broken into, but little actually stolen, thanks to the helo crew's timely arrival.

## Mayport Reunited

On June 1, 1992, Naval Air Station, Mayport, Fla., was disestablished and re-absorbed by Naval Station, Mayport, of which it was once a part. The consolidation was made for economy and efficiency in force-level reductions.

NAS Mayport, long a home to many Atlantic Fleet antisubmarine warfare helicopter squadrons, was established as a separate air station in 1988, after existing as a naval air facility for many years on the naval station.

With the consolidation, the commanding officer of NS Mayport is now an aviation billet. On June 1, Capt. R. Timothy Ziemer assumed command of the combined base from the naval station's CO, Capt. David Van Saun, and the air station's CO, Capt. Morris Steen.

## Amphibs Switch SAR Helos

The Navy is replacing its "Huey" search-and-rescue (SAR) helicopters aboard LHA and LHD amphibious assault ships with HH-46D *Sea Knight* tandem-rotor helicopters. The switch became advantageous in terms of cost savings, supportability, and capability.

For many years, each LHA and LHD carried one UH-1N (later HH-1N) *Iroquois* ("Huey") for SAR and utility duties, in addition to em-



A TH-57A helicopter is loaded aboard a C-130 transport bound for Warminster, Pa., as one of two destined for ground duty as advanced cockpit displays and avionics test beds. Two helicopters were recently retired by the Rotary Wing Aircraft Test Directorate of the Flight Test and Engineering Group of the Naval Air Warfare Center Aircraft Division at NAS Patuxent River, Md. The two TH-57As were withdrawn from desert storage in 1986 to serve as inexpensive pilot proficiency aircraft and trainers for night-vision goggles. They have been replaced by two TH-57C versions (capable of operations in instrument flight conditions), which will be used for minor projects, pilot proficiency, instrument training, logistics, and photo missions, and will eventually be modified for use in night-vision goggle training.

barked Marine helicopters. Lacking an auto-hover capability, the "Huey" was limited in poor weather and at night in its ability to perform rescues. The HH-46D is optimized for the rescue role with an auto-hover capability and greater capacity.

Also in a change of practice, the HH-46Ds will deploy as detachments of existing helicopter combat support squadrons (HC) rather than as aircraft assigned directly to the ship. HC-5, NAS Agana, Guam; HC-6, NAS Norfolk, Va.; and HC-11, NAS North Island, Calif., are responsible for providing the detachments.



Michael Grove

**Iranian Top Gun Visit?** – The end of the cold war has spawned a variety of adversary paint schemes on the fighters assigned to the Navy Fighter Weapons School (Top Gun) at NAS Miramar, Calif. F-14A BuNo 159607, shown here, now wears the colors of Iran.

## Gooney Birds Take Over Kure

An era ended on June 30, 1992, when the Coast Guard LORAN station on Kure Island terminated operation. The station, part of the Central Pacific Long Range Aids to Navigation (LORAN-C) chain, along with similar stations on Johnston Island and Upolu Point, Hawaii, was shut down because LORAN was replaced by Omega stations and Global Positioning System satellites for precision aircraft and ship navigation.

A tiny facility on the westernmost island of the Hawaiian Islands (near Midway Island), the Kure Island station came on line in the mid-1960s. The island's airstrip was its vital link to the outside world, hosting Coast Guard C-123B *Provider* and later HC-130 *Hercules* aircraft as they arrived with mail, cargo, and personnel and departed with smiling transferencees.

The Barbers Point-based HC-130Hs serving Kure now have the assignment of removing every manmade object on the island. Kure will be turned over to the state of Hawaii in 1993 as a wildlife refuge, particularly for the Laysan albatross, the infamous "Gooney Bird."

## HSCWs 1 + 3 = HSLW-1

Helicopter Sea Control Wing (HSCW) 3 was redesignated Helicopter Antisubmarine Light Wing (HSLW) 1 on July 1, absorbing HCSW-1 at the same time, placing all Atlantic Fleet Helicopter Antisubmarine Light squadrons (HSLs) under one wing.

HSLW-1, based at NS Mayport, Fla., now exercises administrative control over Atlantic Fleet HSL squadrons flying the SH-2F *Seasprite* squadrons (HSLs 30, 32, 34, and 36), as well as the SH-60B *Sea Hawk* squadrons assigned to it under its former HSCW-3 designation (HSLs 40, 42, 44, 46, and 48). NAS Norfolk, Va.-based HSCW-1, which previously controlled the SH-2F squadrons, has been disestablished and absorbed into HSLW-1.



Lockheed/Denny Lombard via David Reade

## Activated...

### VMAQ-1



A July 1 ceremony at MCAS Iwakuni, Japan, marked the official activation of Marine Tactical Electronic Warfare Squadron (VMAQ) 1. Lt. Col. R. S. Collins is the first CO of the *Screaming Banshees*.

VMAQ-1 was formed from Detachment X of VMAQ-2, which was deployed to Iwakuni as part of the Unit Deployment Program. The new squadron operates six Grumman EA-6B *Prowler* electronic warfare aircraft with tail code "CB" assigned. VMAQ-1 is home-based at MCAS Cherry Point, N.C.

### VMAQ-3



A July 10 ceremony at MCAS Cherry Point, N.C., marked the activation (officially July 1) of Marine Tactical Electronic Warfare Squadron (VMAQ) 3. Lt. Col. Richard C.

Dunn is the first skipper of the *Moon Dogs*.

VMAQ-3 was formed from Detachment Z of VMAQ-2 as a six-plane squadron operating six Grumman EA-6B *Prowler* electronic warfare aircraft. The new squadron, home-based at Cherry Point, is assigned the tail code "MD."

## VMA-322 Deactivated



A July 1 ceremony at NAS South Weymouth, Mass., marked the deactivation (officially June 30) of Marine Attack Squadron 322 (VMA) 322 after over 47 years of service. Lt. Col. Daniel Ventre was the last CO of the *Fighting Gamecocks*.

Activated at MCAS Cherry Point, N.C., on July 1, 1943, as Marine Fighter Squadron (VMF) 322, the "Cannon Ball Squadron," as it was then known, deployed its F4U *Corsairs* to Kadena, Okinawa, in 1945, flying close air support missions in support of the campaign to seize Okinawa from the Japanese. In June of that year, VMF-322 became the

The third P-3 airborne early warning aircraft for the U.S. Customs Service made its first flight recently from the Lockheed plant at Burbank, Calif. The former Navy P-3B (BuNo 152722) will soon join its predecessors in the nation's drug interdiction effort.

first Marine squadron to attack the Japanese mainland. By the time of the Japanese surrender in September 1945, the squadron had been credited with shooting down 29 Japanese aircraft.

After assignments to Midway Island and Hawaii, VMF-322 was transferred to MCAS Edenton, N.C., in 1949 and deactivated there on November 30, 1949. Less than two years later, on July 6, 1951, VMF-322 was reactivated as a reserve squadron at NAS Squantum, Mass., moving to NAS South Weymouth in January 1954. The squadron retired its *Corsairs* in March 1955 for F9F-6 *Cougars*.

On May 15, 1958, in recognition of its primary mission of close air support, the squadron was redesignated VMA-322 and began its heritage as the *Fighting Gamecocks*. The squadron transitioned to the FJ-3 *Fury* in November 1959, followed by the A-4B *Skyhawk* in September 1962. In 1963, VMA-322 absorbed sister squadron VMA-217, also based at South Weymouth. Over the last 30 years, VMA-322 successively operated the A-4C, A-4E, and A-4M versions in numerous training exercises.

## Disestablished



### HSL-31

A July 9 ceremony at NAS North Island, Calif., marked the disestablishment (officially July 31) of Helicopter Antisubmarine Squadron Light (HSL) 31 after almost 25 years of active service. Cdr. Kenneth T. Marion was the last CO of the *Archangels*.

Established on September 1, 1967, at NAS Imperial Beach, Calif., as Helicopter



HSL-31 SH-2F

Combat Support Squadron (HC) 5, the squadron began its life with the mission as a replacement training squadron for Pacific Fleet HC squadrons and search-and-rescue units, and to provide utility detachments aboard Coast Guard icebreakers. HC-5 operated UH-2A/B/C and HH-2C/D *Seasprites*, as well as small numbers of SH-3A, RH-3A, CH-19E, and UH-34J helicopters at various times.

HC-5 was chosen to be the Pacific Fleet's first squadron to evaluate the Light Airborne Multi-Purpose System concept, using helicopters to extend surface ships' horizon of submarine detection, weapons delivery, and electronic surveillance, and deploying HH-2D helicopter detachments aboard destroyers for these missions. The success of the concept led to the March 1, 1972, redesignation of the squadron to HSL-31, eventually operating SH-2D, YSH-2E, and finally the standard SH-2F versions of the *Seasprite* (retaining one HH-2D into the late 1980s to support the oceanographic support ship USNS *Chauvenet* (T-AGOS-29)).

In 1973, with the establishment of HSL-33, HSL-31 assumed its role as fleet readiness squadron (FRS) for Pacific Fleet HSL squadrons, eventually training over 1,500 pilots, 800 aircrewmen, and

4,750 maintenance technicians, while logging over 110,000 flight hours. In addition, the squadron was credited with 112 rescues and medical evacuations.

HSL-31 was disestablished because of a reduction in the number of surface warships in the fleet, reducing the demand for SH-2F detachments. Its FRS mission has been assumed by its Atlantic Fleet counterpart, HSL-30 at NAS Norfolk, Va.

### VC-5



A May 1 ceremony at NAS Cubi Point, R.P., marked the disestablishment (officially August 31) of Fleet Composite Squadron (VC) 5 after 42

years of service. Cdr. William S. Shepherd was the last CO of the *Checkertails*.

The *Checkertails* were established as Utility Squadron (VU) 5 on August 16, 1950, at NAS Agana, Guam, with TBM and JD-1 aircraft to provide target tow services to the fleet. A detachment established at Atsugi, Japan, expanded to the point that the parent squadron moved there in 1954. A detachment at NAS Sangley Point (later moved to Cubi Point), R.P., was set up in 1955. Squadron missions expanded to include photography and aircraft detection exercises for shipboard Combat Information Centers. An air-launched drone detachment was established at NAF Naha, Okinawa, in 1957, followed by a surface drone unit at Yokosuka, Japan, in 1958.

On July 1, 1965, the squadron was redesignated VC-5. Later that year, VC-5 deployed a detachment to South Vietnam to provide target services to Marine anti-aircraft missile batteries there. During this deployment, a Hawk missile was fired at a target towed by a *Crusader*, the first time a surface-to-air missile had been fired at a manned target system.

The role of VC-5 in Vietnam expanded to include carrier-on-board-delivery (COD) services during 1966-67 from Da Nang, Vietnam, to aircraft carriers operating off the coast, using US-2C aircraft. In 1967-68,



VC-5 A-4E and A-4C in 1970

US-2C aircraft also provided logistic support to *Market Time* operations in the Mekong River delta. VC-5 resumed COD services from Da Nang during 1969-70 using nine C-1A aircraft.

In June 1968, the squadron moved from Atsugi to Naha, combining its Yokusuka detachment with the one at Cubi Point. In May 1975, VC-5 moved to NAF Kadena, Okinawa, and finally to Cubi Point in January 1978, locating the entire squadron at one base for the first time in 22 years. From then on, the *Checkertails* provided valuable aerial target, threat simulation, search-and-rescue, and eventually adversary services to the Seventh Fleet, operating from Guam, Japan, Korea, Thailand, Singapore, Malaysia, and Brunei, as well as the Philippines.

By 1974, VC-5 settled on its final mix of aircraft that it operated until this year: A-4E and TA-4J *Skyhawks* and SH-3G *Sea Kings* (CH-53E *Super Stallions* were operated during 1984-88 for vertical-onboard-delivery missions). Before that the squadron operated a wide variety of aircraft over the years, including the TBM-3E/3U, JD-1 (UB-26J), DB-26J, SNB-5, SNB-5P (RC-45J), F6F-5/5K, F9F-2/5/8/8B/8P/8T, F9F-5KD (DF-9E), FJ-3, FJ-3D (DF-1D), FJ-4, P2V-5FD (DP-2E), AD-5 (A-1E), US-2C, C-1A, HUS-1A (UH-34E), UH-34D, F-8A/B/C/D/H/K, DF-8F, A-4B/C/L, and a variety of target drones.

## VS-28



A July 28 ceremony at NAS Cecil Field, Fla., marked the disestablishment (officially October 1) of Air Antisubmarine Squadron (VS) 28 after 32 years of service. Cdr. Stanton C. Greenawalt was the last skipper of the *Gamblers*.

Established on June 1,



Boeing Defense and Space Group



1960, at NAS Quonset Point, R.I., as a split-off of VS-31 and equipped with S2F-1 and S2F-1S *Trackers*, VS-28 joined Antisubmarine Carrier

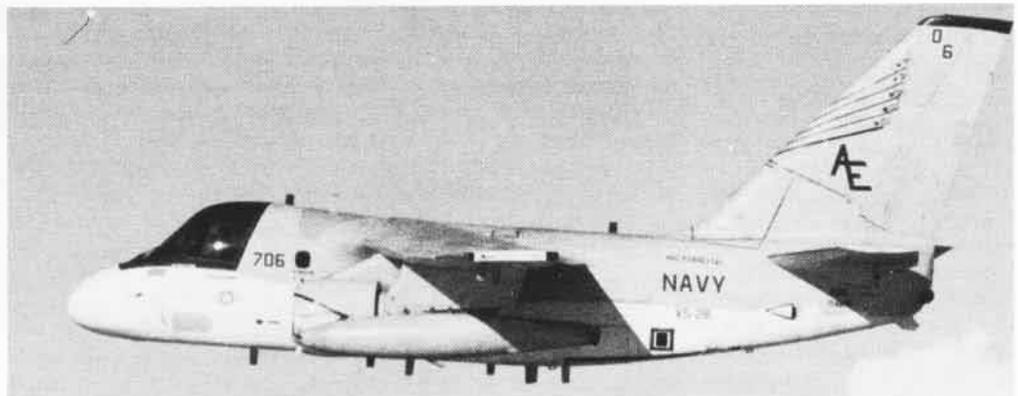
Air Group (CVSG) 52 aboard *Wasp* (CVS-18) in time to patrol off Guatemala during the 1960 crisis there. The *Hukkers*, as the squadron was

The prototype P-3C Update IV, BuNo 160292 (left), first flew in its new configuration on December 16, 1991. Modified by Boeing Defense and Space Group, the new avionics upgrade features the UYS-2 acoustic processor and new tactical crew stations (below left), among other improvements.

then known, also participated in the quarantine of Cuba during the October 1962 missile crisis. In 1963, VS-28 transitioned to the S-2E version. During the 1960s, the squadron assisted in the recovery of one *Project Mercury* and four *Gemini* space capsules, as well as making five deployments with CVSGs 52 and 54 aboard *Wasp* in the Atlantic and Mediterranean.

In 1971, VS-28 joined Carrier Air Wing (CVW) 3 aboard *Saratoga* (CV-60) as the first VS squadron to test the CV concept, deploying that year to the Mediterranean. The squadron made its last S-2E deployment in 1973, with CVW-7 aboard *Independence* (CV-62), during which it supported Sixth Fleet operations during the Yom Kippur War while based ashore at Souda Bay, Crete. VS-28 moved to NAS Cecil Field, Fla., in January 1974.

VS-28 entered the jet age in 1975 when it began flying the S-3A *Viking* and joined CVW-6, making eight deployments to the Mediterranean and Indian Ocean aboard *America* (CV-66), *Independence*, and *Forrestal* (CV-59). During its



VS-28 S-3B

1983 deployment, the *Gamblers* flew support missions from *Independence* for combat operations during Operation *Urgent Fury* in Grenada and during operations off Lebanon.

Transitioning to the S-3B in 1990, VS-28 made its final deployment in 1991, aboard *Forrestal* supporting Operation *Provide Comfort* in northern Iraq. Orders to disestablish in 1992 came as part of force-level reductions.

## For the Record...

→ **Kearsarge** (LHD-3) was christened on May 16 at Pascagoula, Miss., by Mrs. Alma J. Powell, wife of Gen. Colin Powell, Chairman of the Joint Chiefs of Staff. The third ship of the *Wasp*-class amphibious assault ships is the fourth Navy ship to bear the name *Kearsarge*, the most recent being CV-33, an *Essex*-class carrier that saw action in the Korean War.

→ **Ranger** (CV-61) departed NAS North Island, Calif., on August 1 for its **last deployment**, to the Western Pacific. The carrier will be decommissioned in 1993.

→ Embarked with CVW-2 aboard *Ranger* is **VS-38**, taking the **S-3A** version of the *Viking* on its **last carrier deployment**. The North Island-based squadron will transition to the S-3B upon return.

→ **VT-21** became operational on June 27 as the Navy's first training squadron to instruct in the **T-45A Goshawk**.

→ **VAW-122**, NAS Norfolk, Va., has been granted a two-year **reprieve** from its planned October 1992 disestablishment. The E-2C squadron will remain active as a special mission and drug interdiction squadron under the operation-

al and administrative control of its type wing, Carrier Airborne Early Warning Wing 12, and will maintain the capability of carrier deployments, if required.

→ Two fleet Helicopter Antisubmarine Light squadrons (HSLs) will be cut from the SH-2F force structure this year. **HSL-35**, based at NAS North Island, Calif., and **HSL-36**, based at NS Mayport, Fla., will be **disestablished** on December 4 and September 30, 1992, respectively.

→ Also as part of force-level reductions, **VC-1**, NAS Barbers Point, Hawaii, is scheduled for **disestablishment** on September 30, 1992. The *Blue Aliis* fly *Skyhawks* as adversaries in fleet exercises.

→ **VTs 24 and 25** will be disestablished in a joint ceremony on September 18, 1992, at NAS Chase Field, Beeville, Texas, closing out Chase Field's role as a training base.

→ **VMA-513**, MCAS Yuma, Ariz., and **VMA-311**, MCAS Cherry Point, N.C., are tran-

sitioning to the **night-attack AV-8B Harrier II**. Upon completion, all *Harrier* squadrons at Yuma will be equipped with the night-attack version.

→ **VFs 24 and 211**, NAS Miramar, Calif., have transitioned from the **F-14B Tomcat** back to the **F-14A** version. The action occurred because there are not enough F-14Bs on strength to equip six fleet squadrons with some aircraft in depot-level maintenance or required for training. Four Atlantic Fleet squadrons, VFs 74, 103, 142 and 143, operate the F-14B, as do fleet readiness squadrons VFs 101 and 124. **VF-124**, which uses two F-14Bs to train F-14A radar intercept officers at NAS Miramar, is the only fighter squadron to operate all three versions of the *Tomcat* (F-14A/B/D).

→ The **Navy Fighter Weapons School** (Topgun) and adversary squadron **VF-126**, both based at NAS Miramar, Calif., are trading in their old A-4E/F *Skyhawks* for newer **A-4Ms** recently retired by the Marine Corps Reserve.

→ **VC-6** recently deployed a **Pioneer** unmanned aerial vehicle detachment aboard *New Orleans* (LPH-11) during Exercise *Tandem Thrust* in the Pacific. With the retirement of the Navy's last battleships, the *Pioneer* detachments will deploy aboard LPD-4-class amphibious warfare ships to support future amphibious operations.

→ In March, **VXE-6** completed its 37th annual deployment to Antarctica in support of Operation *Deep Freeze*.

→ **HMH-262**, home-based at MCAS Kaneohe Bay, Hawaii, is moving to MCAS Futenma, Okinawa, Japan, this year. The permanent move will alleviate the deployment strain on Marine Corps medium helicopter squadrons.

→ **VP-69**, a reserve force patrol squadron based at NAS Whidbey Island, Wash., is transitioning from the P-3B to the **Update I** version of the **P-3C Orion**, becoming the sixth P-3C squadron in the Naval Air Reserve.

→ **HS-85**, a reserve squadron based at NAS Alameda, Calif., is transitioning from the SH-3D *Sea King* to the **SH-3H** version. The transition marks the retirement of the SH-3D from antisubmarine warfare service in the U.S. Navy, although some remain in utility and rescue roles.



Hughes

Hughes Aircraft Company has developed an enhanced version of the **AIM-54C Phoenix** missile. The new missile is upgraded with a high-power traveling-wave tube transmitter that provides the missile's radar with 10 times the power of its original solid-state transmitter, giving the missile a greater standoff distance than that of previous versions.



PH3 James M. Lamont

→ The fourth prototype of the **V-22A Osprey** tilt-rotor aircraft (BuNo 163914) crashed into the Potomac River on approach to MCAF Quantico, Va., on July 21, killing three Marines and four Boeing employees. The remaining three prototypes were grounded pending the results of the mishap investigation.

→ The first **T-45A** prototype (BuNo 162787) crashed during landing at Edwards AFB, Calif., on June 4. The pilot, Lt. Owen Honors, was credited by investigators with avoiding a collision with an occupied van by delaying his ejection.

→ The last **OV-10D+** conversion/service life extension was completed in May by **Naval Aviation Depot, Cherry Point, N.C.** Although 38 OV-10A/D aircraft were scheduled for conversion, only 32 were completed because of the planned phaseout of the *Bronco* from the Marine Corps by the end of FY 94.

→ **Naval Ordnance Missile Test Station, White Sands, N.M.**, has been redesignated **Naval Air Warfare Center Weapons Division Detachment White Sands**.

→ **A-6E Intruders** assigned to **NAWS Point Mugu, Calif.**, have been reassigned to **NAWS China Lake, Calif.**, as a cost-saving consolidation

move to base all of the **Naval Air Warfare Center Weapons Division Intruders** at one site. The aircraft will still provide support for test projects at Point Mugu, as required.

→ **Naval Aviation Depot (NADep)**, Cherry Point, N.C., is becoming the only Department of Defense (DoD) repair site for the **F-4 Phantom II**. In addition to performing conversions of F-4s to QF-4 drones, the NADep is assuming the Programmed Depot Maintenance of Air Force F-4s from Ogden Air Logistics Center, Hill AFB, Utah. The first Air Force F-4G arrived on July 1, the first of 90 expected over the next five years. The NADep recently became the sole DoD repair site for the F-4's J79 engine.

→ "**Vandy One**," VX-4's black-painted F-14A bearing the Playboy bunny logo, is a thing of the past. The aircraft

**Increasingly Familiar** – An HS-4 SH-60F Seahawk antisubmarine warfare helicopter provides plane guard services for Kitty Hawk (CV-63). The SH-60F is steadily replacing the SH-3H Sea King in HS squadrons aboard aircraft carriers.

has now been restored in a standard low-visibility scheme, ending the squadron's two-decade tradition of operating one black fighter (F-4, later F-14), a practice that began as a visibility experiment in 1969.

→ An **HMM-265** detachment became the first Naval Aviation unit to operate in **Cambodia** since the end of U.S. involvement there in 1975. The CH-46E helicopters deployed to the capital, Phnom Penh, for two weeks in July to transport Joint Task Force-Full Accounting investigators to crash sites and locations where missing

Americans were last seen during the Vietnam War.

→ A chapter in Marine Corps aviation history came to an end during the summer when **Marine Air Support Squadron 2** controlled the Marine Corps' **final operational ground-controlled radar bombing mission**. For its last exercise, the squadron's Air Support Radar Team guided two FA-18s to a target area in Korea. The teams are being disbanded after more than 40 years of service.

USN via David Reade



**New Jammer** – One of VAQ-33's newly modified EP-3J Orion electronic aggressor aircraft is seen here on the squadron's flight line at NAS Key West, Fla. The aircraft (BuNo 152719), one of two assigned to the squadron, sprouts several new antennas and carries a variety of specialized external stores (see NANews, Mar-Apr 1992, p.8).

## The Navy's Newest

# George Washington Commissioned

By JO1(SW) Eric S. Sesit

Nestled alongside pier 12 at Naval Station, Norfolk, Va., the nation's sixth *Nimitz*-class aircraft carrier "came alive" on July 4. Chief of Naval Operations Admiral Frank Kelso read the commissioning directive to Captain Robert M. Nutwell, Commanding Officer of USS *George Washington* (CVN-73), and then ordered the ship to be placed into commission.

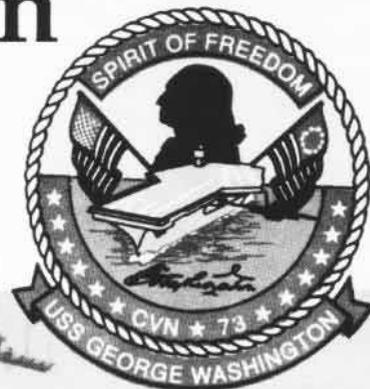
An impressive group of dignitaries – including First Lady Barbara Bush, Secretary of Defense Dick Cheney, Acting Secretary of the Navy Dan Howard, Senator Charles S. Robb from Virginia, and more than 20,000 spectators – watched while Capt. Nutwell ordered the first watch set and commanded his crew to bring the ship alive. As the crew of plankowners boarded the ship and manned the rails, the Navy Band played a medley of patriotic songs. For almost five minutes, antennas rotated, alarms sounded, and whistles blew. Finally, in salute to the newest carrier, four aircraft from Carrier Air Wing 7 flew in formation over the ship and crowd.

Earlier in the ceremony, Mrs. Bush, the ship's sponsor, addressed the crowd commenting that she had been following the progress of *George Washington* closely since she broke the traditional bottle of champagne over its bow during the christening on July 21, 1990. She quoted her husband, President Bush, from the christening ceremony, saying, "America's power is still the world's permanent force for freedom."

Mrs. Bush also commented on how proud she was of the fact that the crew of *George Washington* had quickly become involved in the Norfolk community, exemplified by the essay

**A huge crowd was on hand to welcome the Navy's newest nuclear aircraft carrier, George Washington (CVN-73).**

JO1(SW) Eric Sesit



## USS George Washington Essay Contest

*The George Washington commissioning committee sponsored an essay contest for high school juniors and seniors on the theme, "Why is it appropriate to name a U.S. Navy ship after George Washington?" The following is the winning essay written by Billie J. Shannon of Newport News, Va.*

By Billie J. Shannon

contest the ship sponsored for area high school juniors and seniors (see related article). Mrs. Bush presented the winner of the contest, Billie J. Shannon, with a \$1,000 scholarship and the first runner-up, Kristi Oja, with a \$500 scholarship. Both students are designated plankowners of *George Washington* and will have a chance to ride the ship when she goes out to sea.

The First Lady concluded her remarks, commenting, "Let *George Washington* proclaim America's commitment to remain forever free."

Secretary of Defense Dick Cheney delivered the principal address saying that "Sailors not yet born will ride *George Washington* well into the 21st century with new and greater technology."

*George Washington* is the fourth U.S. ship to be named after the country's first president. The hull number, 73, was transferred to *George Washington* from *Gambier Bay* (CVE-73), a WW II escort carrier that distinguished herself in combat during the Battle of Leyte Gulf. Members of the USS *Gambier Bay* (CVE-73)/Squadron VC-10 Association were present at the commissioning and presented the crew with a painting of George Washington and a lithograph of *Gambier Bay* to be displayed on-board the ship.

Also present, representing the family of President Washington, was Reverend Beverly Tucker, the president's fifth great-cousin, a direct descendant of George Washington's full brother, Augustine.

Built by Newport News Shipbuilding Company, *George Washington's* keel was laid on August 25, 1986. The ship cost \$3.5 billion; it is 1,094 feet long, 257 feet wide, and 244 feet from keel to mast. Powered by two nuclear reactors the ship can travel more than one-million miles at speeds greater than 30 knots before refueling. Additionally, she is the first warship to receive a shipwide computer network for interior communications.

*George Washington* will carry approximately 80 aircraft, including the FA-18 *Hornet*, F-14 *Tomcat*, E-2C *Hawkeye*, S-3B *Viking*, A-6E *Intruder*, EA-6B *Prowler*, and SH-60F *Seahawk*.

With the airwing embarked, approximately 6,000 crewmembers will sail on *George Washington* as the ship steers a course toward the 21st century. ■

The effect that George Washington, the father of our country, had on our history and the way that we live our lives is undeniable. The strong ideals on which he molded this country cannot and should not be forgotten. What better way for those American ideals to be remembered than by naming an aircraft carrier after George Washington.

This carrier, named in honor of Washington, would also serve as a symbol of American pride and spirit to other nations to which this ship will sail. The name George Washington is synonymous with everything that is true about America: power, determination, energy, unwavering spirit, and strength of will. The prestige with which the name George Washington is associated will undoubtedly make this aircraft carrier command respect as the greatest naval ship on any body of water or port anywhere in the world.

While a ship named after George Washington is a symbol of the vigor of America, it will also serve as a representation of the democratic values on which this country was formed. Since Washington was the first leader of a federal democracy, his name will assume the responsibility of providing the greatest good for the greatest number of people throughout the world. Just as President Washington strove to preserve the democratic spirit, the USS *George Washington's* mission is to work toward eliminating dictatorships and ejecting tyranny from the world.

Many times a ship's construction expresses its namesake's ideals. The natural ease with which this ship is made to sail represents the readiness and spontaneity that the U.S. Navy has always possessed. George Washington's skill and wisdom today can be compared to the precise engineering and highly

sophisticated technology that go into building an aircraft carrier. Although Washington never encountered such up-scale techniques as Computer Aided Design/Computer Aided Manufacturing, one can be certain that he would have approved of the technological progress. Washington himself surveyed land all the way up to the Ohio River Valley. Our new technology results in a more efficient, skillful crew. That, of course, is extremely beneficial to the U.S. government and to the American people.

The commissioning of the USS *George Washington* will remind all Americans what this country stands for — hard work, determination, and perseverance. These are among the many ideals to which our first president subscribed. Just as George Washington stood out among men, the United States Navy and the Newport News Shipbuilding and Drydock Company stand out in the world for high-quality workmanship, dedicated members, and dauntless courage.

George Washington would have agreed with the founder of Newport News Shipbuilding, Collis P. Huntington, who in 1886 said, "We have laid our calculations for a shipyard that will be a credit to the country as well as to ourselves." Like the shipyard itself, the USS *George Washington* will be a "credit to our country" and in defending it, the ship certainly will be a credit to all Americans.

Upon hearing the news that a United States naval ship was being named in honor of him, George Washington probably would feel a tranquil sense of accomplishment. For the spirit of this decorated hero will continue to lead America, only this time at sea. His esteemed presence onboard will be a guiding force to all those who sail with him.

## Womanpower in Naval Aviation:

# 20 Years of Progress

By Sandy Russell

*"Women are in Naval Aviation to stay. Once the subject of heated controversy, women are showing up everywhere in the previously all-male preserve. There are still some restrictions dictated by law and a few problems which are always present when breaking new ground, but women have largely scaled the barriers of prejudice by demonstrating that they can perform in a variety of aviation functions as well as men." These words from the article "High Flying Ladies" in the February 1981 issue of Naval Aviation News are still true today.*

PH2 Thomas P. Milne



PH2 Thomas P. Milne

Top, Lt. Tammie J. Shults flies the FA-18 Hornet in VAQ-34. Above, left to right: AN Chantel Simmons, AD2 Kimberly Gault, AME3 Robert Gabijan, and AT3 Richard Darnielle of VAQ-34 remove and readjust an FA-18 drop tank.



Left to right: AMS3 Patrick Joyner, AMS3 Lawrence Stanton, and AMS2 Mary Allen work in aircraft maintenance at NAF Washington, D.C.

**W**omen assumed an increasingly significant role in the military throughout the decade of the 1970s. After the Department of Defense made a commitment to build an all-volunteer force, manpower planners concluded that the number of service-eligible and service-interested males would not support projected requirements. This coincided with U.S. economic and social changes, which drew greater numbers of women into the job market. The growth of the women's movement also focused attention on restricted opportunities for females in our society.

The Navy offered equal opportunity to women who demonstrated talent, capability, and a strong interest in military service. In the mid-seventies, women in the Navy were assigned to jobs considered less traditional. Enlisted women began to serve a larger role in various ground support functions in aviation squadrons, and there was significant growth in the number of enlisted women in aviation ratings.

The seventies marked rapid changes in the career opportunities available to women in the Navy and Naval Aviation. In 1972, the Chief of Naval Operations initiated the first in a series of changes affecting women, including opening all enlisted ratings to them, whereas previously they were excluded from 75 percent of the 102 specialities. In 1973, the first female Naval Aviators were selected for training. In 1975, career patterns for women officers were established, paralleling to the extent possible the careers of male warfare specialists. Title 10, U.S. Code, Section 6015, was amended in 1978 to permit permanent assignment of women to noncombatant ships and to aircraft not engaged in combat missions. In 1979, enlisted women serving in the aviation occupational field were admitted for the first time to nine specialized aircrew classifications. These are only some of the significant changes relating to women during their first decade of service in aviation assignments.

Over the past 20 years, women have assimilated into virtually all aspects of Naval Aviation, proving to be valuable assets in the shrinking ranks of our naval service – caused in recent years by the struggling economy and the end of the cold war. Navy policy has continued to reflect an awareness of the value of women in the service, including the aviation community.

By 1987, the number of enlisted women serving in aviation ratings was 5,202; at the end of 1990, that number

Joan A. Frasher



had increased to 7,733. At the end of 1990, 4,892 women were assigned to aviation squadrons, filling 18 percent of the billets in available squadrons. The goal for assignment of women to squadrons had been increased in

AN Chantel Simmons of VAQ-34 prepares to chock and chain an inbound FA-18.

1988 from 25 to 50 percent per eligible squadron. Also, at the end of 1990, 289 aircrew billets were available, and 159 women were qualified as aircrew, a 130-percent increase from 69 qualified aircrew at the end of 1989. Forty-six women were recruited for the aircrew program in 1990.

Today, women are successfully mastering the varied jobs in Naval Aviation. There are 13 women wearing the wings of the Aviation Supply Officer, a program established in 1984. Twenty-seven women are in flight surgeon billets; another 24 are designated flight surgeons but are completing residency requirements or practicing a speciality. One area which was formerly considered the exclusive environment of men is maintenance. Currently, 75 women are part of the Aerospace Engineering Duty Of-

## Naval Aircraft Flown by Navy Women

### Props

Prop trainer (T-34)  
Advanced prop trainer (T-44)  
Research P-3 (RP-3)  
Electronic reconnaissance P-3 (EP-3)  
Transport/cargo (C-130, UC-12)  
Carrier onboard delivery (C-2)

### Jets

Jet trainer (T-2)  
Attack jet (A-4)  
Advanced jet trainer (TA-4)  
Strategic communications (E-6)  
Tactical electronic warfare (EA-6)  
Passenger jet (T-39)  
Strike-fighter (FA-18)

### Helicopters

Helicopter trainer (TH-57)  
Combat support helicopter (H-2, H-3, H-46, H-53)

Note: Women qualified as test pilots (currently eight) may fly any aircraft in the Navy's inventory.



ficer/Aviation Maintenance Duty Officer program, which fills positions in the maintenance field.

Lieutenant (jg) Nora Burghardt is Assistant Aircraft Intermediate Maintenance Department Officer at NAF Washington, D.C., aboard Andrews AFB. After receiving her degree in Aerospace Engineering from the Naval Academy in 1989, she became an Aviation Maintenance Duty Officer.

Ltjg. Burghardt feels fortunate that she had the opportunity to participate in Operation *Desert Storm* in the Persian Gulf. As material maintenance control officer, she set up all of the maintenance detachments for her squadron. She considers her experience both satisfying and challenging.

As a woman in a nontraditional role, she said the best approach is to be a professional and let your performance do the talking. She realizes that one must earn credibility, and she has met



AN Ann Marie Lockett refuels an FA-18 Hornet in the VFA-125 refueling pits.

any resistance with a willingness to learn. "I have had a lot of good senior chiefs and master chiefs who have taught me along the way," she said. Her advice to women in the aviation maintenance community: "Find out as much as you can about the maintenance side of the house and let your knowledge show them that you can do it." When you "take the initiative to learn, you are going to get somewhere."

Women in Naval Aviation represent positive change and progress – and staying power. Five of 12 members from the first two groups of women aviators are on active duty, and, like their male contemporaries, their careers have taken different paths.

Commander Jane Odea is the Navy's senior ranking woman aviator. As Commanding Officer, Naval Recruiting District, Indianapolis, Ind., she ensures that the 130 people under her purview fulfill the monthly recruiting requirements – from physicians to deck hands. She said, "Our job is to find qualified, high-quality young people in varied skills. It's a tough job today, because we're looking for smarter, better educated, more morally upstanding people than ever before. It's a real challenge but it's fun."

Forrestal shooter Lt. Robin A. Erichsen watches the flight deck between launches.

Commander Rosemary Mariner was the first woman designated to fly tactical jets. Mariner went on to become the first woman to command an operational Navy squadron, Tactical Electronic Warfare Squadron 34, NAS Point Mugu, Calif. She remembered, "We were told we had a pioneering sense. There was no such thing as

Ltjg. Nora Burghardt is Asst. AIMD Officer, NAF Washington, D.C. As an Aviation Maintenance Duty Officer, she is part of a community with growing opportunities for women.



Joan A. Frasher

'never' to us." Whether in the cockpit or behind a desk, she added, "Women have to judge themselves by the same standards as men do, know that aviation is no easy lifestyle, and go on from there." Cdr. Mariner is currently assigned to the Joint Staff in the Operational Plans and Interoperability Directorate under the Joint Chiefs of Staff, Washington, D.C.

Commanders Lin Hutton, Chris Giza, and Catherine Mills were also in the vanguard of women in Naval Aviation. After a tour as Executive Officer of Fleet Logistics Support Squadron (VRC) 40, NAS Norfolk, Va., Cdr. Hutton takes command in September 1992. Cdr. Giza, a TAR (training and administration of reserves), is Commanding Officer, Staff Enlisted Personnel, Director of Administration and Security Manager for Commander, Naval Reserve Force, New Orleans, La. Cdr. Mills works in aviation safety at NAS Pensacola, Fla.

Both Odea and Hutton were "military brats," whose fathers were Navy pilots. Odea's mother was a Supply Corps officer. Hutton said, "The Navy looked like a great opportunity to me when I graduated from college and started looking at the civilian workforce, where the pay scale was not very equitable between men and women doing, in most cases, the same job." Both feel that they just happened to be in the right place at the right time when the flight program opened to women, and they decided to go for it.

Hutton flew versions of the P-3 until assignment in 1988 to VRC-40 as maintenance officer. She now flies the C-2A carrier-onboard-delivery aircraft. "Landing on an aircraft carrier is clearly one of the most challenging flight evolutions that any pilot could ever face," she emphasized. Odea added, "Carrier aviation is probably the most exciting job in the world, and I loved my time on the ship [*Lexington* as communications officer]. To [carrier qualify] was a real highlight for me, but being in command is great, too. Carrier aviation is a finger-tingling kind of excitement, while being in command is tremendously rewarding and challenging." Odea flew the C-130 and C-1 and still flies the T-34 assigned to her naval recruiting district.

Cdr. Giza has accumulated over 4,000 Navy flight hours in the T-39, A-4, C-12, and the DC-9, which she flew during the conflict in Grenada. She recently attended refresher school in the T-39, which she will have the chance to fly in New Orleans. She said, "I'm thrilled I've had the oppor-



Lt. Mary Cummings (top) and Ltjg. Sarah Applegarth were two of VC-5's A-4 aggressor pilots before the squadron's disestablishment in August 1992.

tunity to fly as much as I have. I owe the Navy and Naval Aviation the opportunity it gave me to fly and to learn so much more about myself. I'm proud to be part of Naval Aviation. I regret nothing."

Any women who break into a male-dominated profession are going to be closely scrutinized. Cdr. Hutton theorized that "about 25 percent of the men think it's really a good idea that women are Navy pilots; 25 percent don't like it; and the rest really don't have an opinion. My approach has been to do the very best job I can so the majority of undecided men learn that, in many cases, women are much



Cdr. Lin Hutton

## Number of Women Pilots and Naval Flight Officers

### Pilots

9,763 in Navy: 172 women  
2,684 prop pilots: 47 women  
3,526 helo pilots: 90 women  
3,235 jet pilots: 33 women

### Naval Flight Officers

5,645 in Navy: 82 women  
2,577 prop NFOs: 60 women  
2,846 jet NFOs: 22 women

### Students

1,732 student pilots: 88 women  
798 student NFOs: 30 women

Note: Community totals do not add up to exact overall totals in some cases due to small number of aviators whose community is not identified in data base.

like men. There are women who are good officers or pilots, and women who are not as strong as we'd like to see, and the rest are pretty average. Hopefully, we can reach a balance and learn to see a person as an individual – whether it's a woman, a minority, whatever. The best approach is professionalism," she concluded.

"I don't think that any male or female goes through an entire career without running up against some stumbling blocks," added Cdr. Giza. "One of the most satisfying things is that if you just keep being yourself and doing a good job, sooner or later people recognize that."

Like many of her male counterparts,

AD3 Kathy Vasquez of VFA-125 helps 1st Lt. Mike Kudsin and Lt. Gregg Sears strap on their FA-18 Hornet.

In April 1974, Cdr. Odea's father, Paul S. Skiles, became the first Naval Aviator to pin his wings on his daughter.



Cdr. Giza got out of the Navy and went to the airlines, in 1980. But she came back on active duty in 1984, as a TAR, because, "I missed doing what was really important to me: being part of the Navy, part of a family that I believe exists.... I feel my peers have truly been my friends."

Cdr. Hutton said her toughest career challenge was missing the opportunity to participate in Operation *Desert Shield/Desert Storm*. When VRC-40 deployed, she was squadron maintenance officer but had been detailed to be a member of the 1990 Women's Study Group, which met in Washington, D.C., for four months. Hutton in no way downplayed the importance of the study group, whose findings address women's issues in the Navy. She said it was hard work with a necessary mission. But it was only human for her to feel that "after all these years of training and preparing, I was very frustrated at being left behind."

Conversely, one of the most satisfying tours of her career was as a detailer. "I worked to get the jet pipeline opened to women, and helped to expand the jet transition syllabus," she stated. "It was not only a challenge, but it had lasting results and impact in the way we do business in the Navy."

When asked what specific contributions that women have made to Naval Aviation, the three commanders interviewed had interesting perspectives.

Cdr. Giza borrowed some words from President Bush, "We've shown that you can be kinder and gentler and do every bit as good a job and be just as aggressive an aviator."



Cdr. Chris Giza

Cdr. Odea stated, "We've added another dimension to the ranks of Naval Aviation in that women can do the same job as men, given the opportunity. We've proved ourselves to be very capable."

Cdr. Hutton said, "I believe that men and women problem solve differently. That doesn't make one better than the other, but sometimes a problem that befuddles a woman is obvious to a man and vice versa. Anytime you have to face an adversary, and you can have many approaches to problem solving, it ultimately enhances your decision-making process and war-fighting capability."

When asked what changes she has seen in Naval Aviation since she joined, Hutton said, "It's been a good, solid, steady progression. When I came in, women could not land on any kind of ship, in any kind of aircraft. We now have women helicopter pilots who not only land on ships but they go on deployments. We have women flying carrier onboard delivery. They opened the VQ (Fleet Air Reconnaissance Squadron) community to women - certainly a great opportunity."

The women aviators who've hung in there through the changes in the Navy over the past 20 years have had satisfying careers. They feel that, for them, the trip was worth any obstacles they had to overcome.

What advice do they have for women interested in Naval Aviation today? "Go for it," advised Cdr. Hutton. "It's one of the most challenging, exciting, and rewarding professions that any woman could seek." Cdr. Odea has two daughters and said she wants them to do what's right for them, but she also knows, "they're both very proud of me." It probably wouldn't break her heart if they followed in her flight path. Ironically, Cdr. Giza's father, a West Pointer, advised her to choose the Navy. She said, "If you want to swim upstream and be the best that there is, go Navy. I truly believe we are the finest group of aviators in the world."

Because the Navy's opportunities have expanded, more women are staying in. The results of the 1990 Women's Study Group showed that women officer's retention rates for 6 to 11 years of service continue to exceed men's by 2 to 3 percentage points, while enlisted women's and men's reenlistment rates continue to parallel each other. Attrition of women is higher during the first-term enlistment than for men but is consistent with that of males during the second and third terms.

Women *are* in Naval Aviation to stay. The facts and figures speak for themselves.

## Just the Facts...

**Total women in Navy: 57,953 (out of 577,000 total)**  
**Total women pilots: 273 (183 winged/90 students)**  
**Total women Naval Flight Officers: 111 (81 winged/30 students)**  
**Total enlisted women qualified as aircrew: 217**  
**Total enlisted women assigned to squadrons: 4,107**  
**Number of squadrons open to women: 110**

Note: Statistics as of March 31, 1992

## NANews Articles on Women in Naval Aviation

Year	Issue	Page
1943	Jun 1	12
1944	Jan 1	7
	Apr 15	8,9
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1947	Jul	24
1948	Feb	28
	Jun	16
1950	May	28
1952	Jul	6
1954	Feb	33
1956	Jul	24
1959	Jul	25
1960	Jan	34
1966	May	33
1967	May	2
	Jul	5,10, 37,40
1972	Jul	26,28
1973	Feb	3
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	Oct	4-5
1974	Feb	22
	Mar	3
1977	Jul	9,18
1981	Feb	6,46
	Nov	53
1982	Oct	48
1985	Nov-Dec	24
1989	Nov-Dec	10
1992	Sep-Oct	12

## Women in Naval Aviation Chronology

- 1973 – First two women naval flight surgeons graduated (Lts. Victoria Voge and Jane McWilliams).
  - First Navy women selected for aviation training.
- 1974 – Navy becomes first service to graduate a woman pilot (Lt. Barbara Allen Rainey).
- 1979 – Naval Flight Officer program opened to women.
- 1982 – First Navy woman selected for Test Pilot School (Lt. Colleen Nevius).
- 1984 – Ground support billets in all operational Patrol Squadrons (VPs) opened to women.
- 1988 – Fleet Air Reconnaissance Squadrons (VQs) 1 and 2 opened to women.
  - Women aviation officer accessions increased from 30 pilots and 10 Naval Flight Officers per year to 52/15.
  - First woman selected as Navy Shore Sailor of the Year (AMSC(AW) Beth Blevins).
  - First woman selected for the Aerospace Engineering Duty Officer Program (LCdr. Patricia Beckman, nonaviator).
  - First Navy woman selected as an astronaut and mission specialist (LCdr. Kathryn Sullivan, USNR, nonaviator).
- 1989 – First woman executive officer of aircraft squadron (Cdr. Rosemary Mariner, Tactical Electronic Warfare Squadron (VAQ) 34).
  - First woman assigned as Command Master Chief afloat (AVCM (AW) Janice Ayers).
- 1990 – First woman commanding officer of aircraft squadron (Cdr. Rosemary Mariner, VAQ-34).
- 1991 – Second woman executive officer of aircraft squadron (Cdr. Lin Hutton, Fleet Logistics Support Squadron (VRC) 40).
- 1992 – Second Navy woman/first regular Navy woman Naval Aviator selected for NASA's space shuttle program (LCdr. Wendy Lawrence).
  - Second woman commanding officer of aircraft squadron (Cdr. Lin Hutton, VRC-40).

Note: This chronology lists most highlights; it is not intended to be inclusive.



Cdr. Jane Odea

Summing up her career, Cdr. Odea emphasized, "I've had a terrific 20 years. If I had it to do over again, I'd do it in spite of the rough times." She added, "We need to take [the current] controversy, put it behind us, and move on as professionals. I'm still glad I'm here, and I'm still proud to be a Naval Aviator."

Cdr. Hutton's message to the Naval

Aviation community: "Look at individuals as individuals. Weigh their merits, capabilities, and their ability to benefit their unit, command, or nation as an individual. Be professional in all things."

When Hutton was aide to Admiral Frank B. Kelso II, then Commander in Chief, U.S. Atlantic Fleet, she said he put it all in perspective: "Anybody can be a professional doing what they like to do or want to do. But being a professional is doing what you don't want to do or don't like to do, and doing it to the very best of your ability as if it were your own personal crusade for success. That's being a professional, and that's what we need more of in the Navy." ■

Thanks to the following offices in the Bureau of Personnel for information/statistics: Public Affairs Office, Women's Policy, and Aviation Assignments. *NANews* Associate Editor Joan A. Frasher interviewed Ltjg. Burghardt.



Lt. Lori Melling Tanner has served as a jet flight instructor, aggressor pilot, and test pilot. The Navy has more female test pilots than any other service (currently eight). She said, "Nowhere in the world could a man or a woman have the opportunities that I have had as a Navy pilot."

## P-59 Airacomet

By Hal Andrews

January 1944 YP-59A

**W**ith this year's main 50th anniversary attention on major WW II naval battles, the initial flight of the prototype of the first jet airplane used by the Navy is easy to overlook. The fact that the XP-59A was an Army Air Force airplane further obscures its significance to Naval Aviation. However, five P-59 series airplanes were later transferred to the Navy, and these were the first Navy jet aircraft. Some 170 of the first 200 Naval Aviators to fly a jet airplane made their initial flight in a P-59.

The Army's Bell XP-59A first flew on October 1, 1942, at the Army Air Force's Muroc facility, later to become Edwards Air Force Base, Calif. The pilot was Bell's Chief Test Pilot, Robert Stanley, a former Naval Aviator. An Army pilot made one of several XP-59A flights the following day, but it would be more than six months before Captain Fred Trapnell, head of Flight Test at NAS Patuxent River, Md., became the first Navy test pilot to fly the still secret new jet fighter.

Gas turbine engine propulsion for aircraft gained its first active support in this country with military contracts in 1941. Principle among these was the Army Air Corps agreement with the British to import one of the early Whittle jet engines and have it produced by General Electric. Whittle's engine powered the first British jet flight in May; Germany's – and the world's – first had been made nearly two years earlier in August 1939. Both the GE engine contract and one with Bell Aircraft in Buffalo, N.Y., for a jet fighter to use the engine were initiated in September 1941.

Like the German and British jet projects, the U.S. program was conducted in full secrecy. Security arrangements were similar to those used in current day "black" programs. GE labeled its engine in its alphabetical supercharger series as the I. The Army designated the three prototype airplanes to be built as XP-59As, nominally a version of an unrelated pusher propeller design then being developed as the XP-59 (and subsequently dropped).

To exploit the jet engine's potential high-altitude performance, and recognize the need for more thrust at low altitude than the 1,300 pounds expected to be available with one



engine, a twin-engine design was developed. Ample wing area and a pressurized cockpit were included for high-altitude flight. Landing gear would be Bell's by-then-typical tricycle. The proposed general design was approved by the Army's Wright Field project engineers, and Bell took over a Ford facility on Main Street in Buffalo, converting it into an operation similar to that subsequently made famous by Kelley Johnson at Lockheed. Very small groups of selected engineers, manufacturing, and other personnel "disappeared" from their usual locations at other Bell plants and moved in. Shop equipment was installed on the ground floor, with assembly space on the second – altogether a compact, secret "factory" and team to design and build the first U.S. jet fighter.

Without access to major wind tunnel facilities, and with a minimum of Army specification oversight, current Bell practice was conservatively followed for much of the design to get the new fighter in the air as soon as possible with minimum difficulties. The new

laminar flow wing airfoil, already being incorporated in two other Bell prototype designs, was used.

Bringing an Americanized Whittle jet engine with the expected thrust up to flight standards proved to be a bigger challenge, and engine availability paced the first flight date. The first XP-59A and its engines were shipped separately to the newly constructed secret flight base north of the main base at Muroc in September 1942, leading to the October 1 initial flight. The other two XP-59As arrived at Muroc in early 1943, followed by their I-A engines. Flight testing proceeded slowly as the problems of the new form of propulsion and regular operation at high altitude, especially the effects of the very cold temperatures, were worked out.

By the time of Capt. Trapnell's April flight, production of 13 nearly identical YP-59A service test airplanes was well along back in Buffalo. The first Navy jet-powered fighter projects had been initiated by the Bureau of Aeronautics (BuAer): the twin-jet McDonnell XFD-1

October 1944 YP-59A



in January and the composite (piston and jet) Ryan XFR-1 in February. With the growing Navy interest, arrangements were made for two YP-59As to be transferred to the Navy for early evaluation of jet-propelled fighter flight – and ground – characteristics, particularly as related to future jet aircraft carrier operations.

Delivery of YP-59s began in the summer of 1943; by this time, the program's special secret provisions were rescinded, though even general public announcement of jet-propelled airplanes did not occur until the following year. The last four YP-59s were to have a revised armament installation and other changes planned for production P-59As, so the Navy received the last two of the initial configuration. These arrived at Patuxent River in December, their separately provided engines were installed along with a minimum of flight test instrumentation, and flying began in January 1944. Pilots were checked out and typical evaluation tests proceeded. Ground investigations, including measurement of temperatures and velocities in the jet wake, were interspersed with flying.

In March, a preliminary report went to BuAer, generally very positive on jet fighter potential, though noting some disadvantages, as well as various problems peculiar to the P-59. Noted were good high-altitude and high-speed performance, lack of vibration, simple and less-demanding operation and control, the in-flight absence of propeller slipstream, and the use of less flammable kerosene fuel. The low power at slow speed was a major concern; also noted were the stiff controls.

Subsequently, modifications dictated from Army and Bell flight testing, including spin testing, were incorporated. These included clipped wing tips, revised vertical tail, installation of a ventral fin, and all metal flaps.

Meanwhile, service testing by the Army led to a decision that production P-59As would not be competitive with piston-engine fighters then in production. An order for 100 was cut back to 50, as fighter trainers for the upcoming P-80s. The need for additional fuel, underscored by the Patuxent River evaluation, resulted in installation of additional fuel cells in the outer wing panels of the last 30, designated P-59Bs.

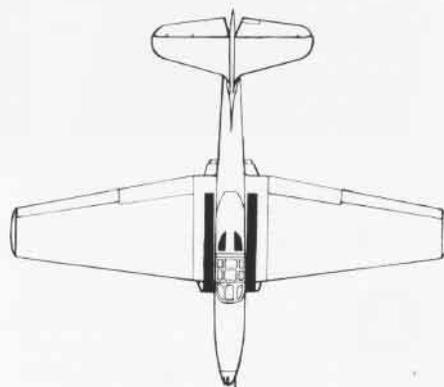
Patuxent River flying continued for evaluation of the YP-59As, for assessing the adaptability of jets to Navy operations generally, and for checking out additional Navy and Marine Corps pilots. One was lost in Summer 1945 – ditched following mechanical problems. After V-J Day, three additional P-59s were allocated to the Navy; these P-59Bs arrived at Patuxent River in late 1945 and early 1946. They joined the remaining YP-59A, with pilot checkout in the different divisions becoming their major function. In early 1947, additional surplus P-59s were transferred to the Navy in nonflight status for spares.

Later that year, phaseout began. By early 1948, all but one were withdrawn from flying and barged to Norfolk for salvage, the YP-59A being held in storage there until stricken in late 1949. The remaining P-59B went to Buffalo in March to be modified with an experimental fuel tank inerting system by Cornell Aeronautical Laboratory. After the system was tested, the P-59B returned to Patuxent River in late 1949. Transferred back to the Air Force, it joined other P-59s at Aberdeen Proving Ground for "live fire testing."

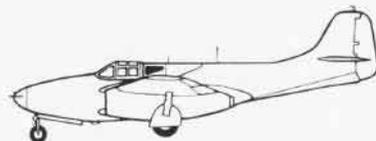


Span (original)	49'
Length	38'10"
Height	12'4"
Engines: Two G E I-16 (J31)	1,650
	lbs. thrust
Maximum speed	409 mph
Service ceiling	43,000'
Range	460 mi.
Crew	Single pilot
Armament	Two 37mm cannon

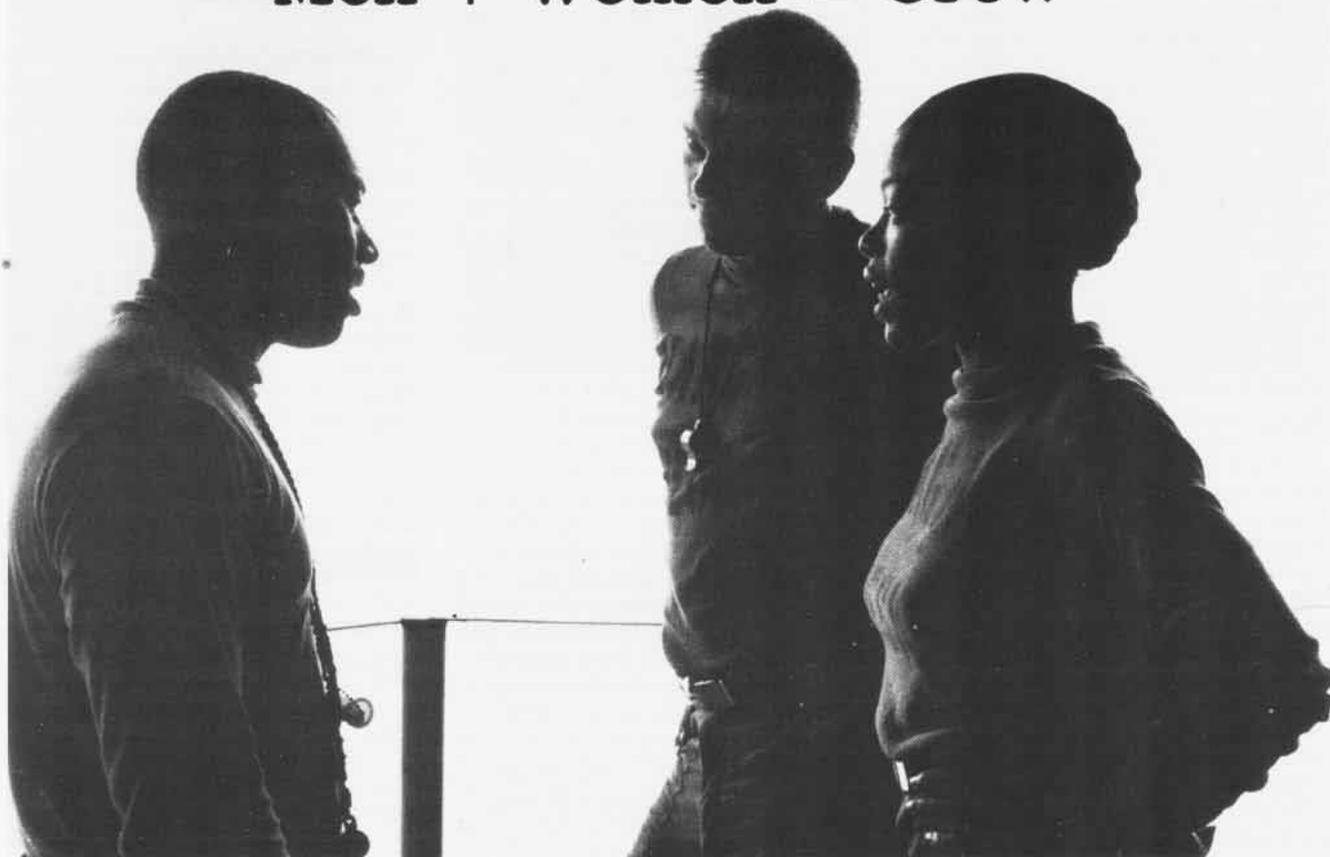
YP-59A



P-59B



# Forrestal: Men + Women = Crew

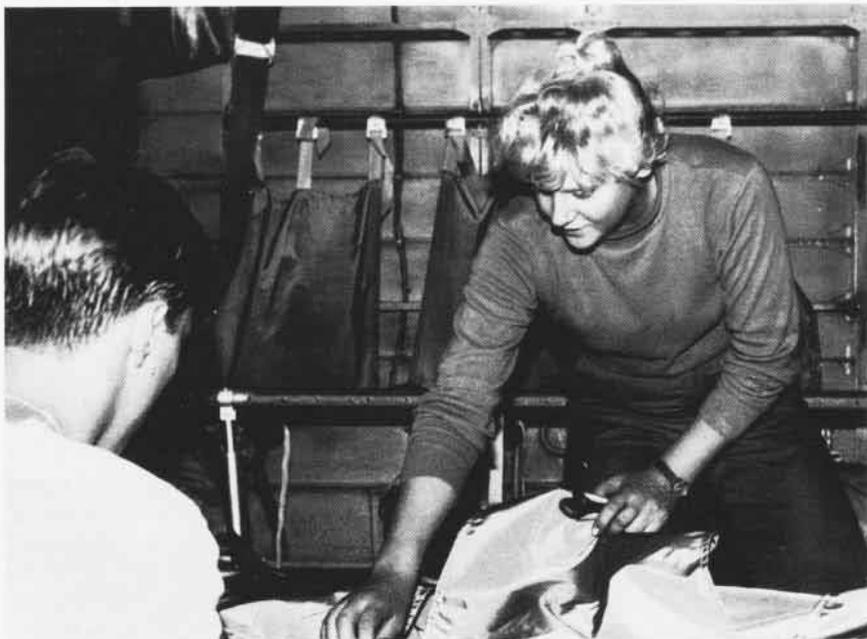


Three Forrestal crew members discuss the upcoming day's events in the hangar deck.

Story and Photos by  
JO1(SW) Eric S. Sesit

**O**n July 29, 1967, a fire broke out onboard *Forrestal* (CV-59) as she sailed through the waters off the coast of Vietnam. When the flames were extinguished, 134 men were dead. Tapes of that terrible day are still shown to new recruits and to sailors throughout the fleet for training and to show the devastation of a shipboard fire. Today, *Forrestal* (AVT-59) is training sailors in a different way and is leading the fleet not with scenes of tragedy but with new, innovative programs designed not only to qualify fledgling aviators, but also to train new sailors, men and women, in shipboard skills as well as working together to develop a team.

Designated an auxiliary aircraft landing training ship on February 3, 1992, *Forrestal* left Mayport, Fla., for her new home port of Pensacola, Fla. Already, the framework had been laid by Commanding Officer Captain Robert L. Johnson, Jr., and his crew for the ar-



PRAN Valerie Nichols prepares a troop seat in a helicopter aboard *Forrestal*.

rival of women crew members to be assigned to the new training carrier. Although there are presently only 200-plus female members of the more than 2,000-person crew, more than half the new acquisitions going to *Forrestal* are expected to be women.

"The actual transition was not as hard as I thought it would be," Johnson said. "On an aircraft carrier you're blessed with berthing that's broken up into small areas with head [toilets and showers] facilities attached, which is just what you need to accommodate women. The actual ship modifications that had to be done were not that complex.

"The change to women in the crew was only one of the changes that *Forrestal* had to face. We changed home ports, and we're getting ready to change home ports again. The ship finished an unusually long deployment, got a new commanding officer, a new executive officer, a new command master chief – all in the space of about two weeks – and a completely new mission. We've had a lot of changes on the deckplates and the assignment of women is just one of those," said Capt. Johnson.

According to Commander Susan L. Laing, the Chief Dental Officer, or "Gum Boss," other areas of the ship needed to be adjusted as well. "We had to look at things we stocked in the ship's stores, the dress code, sexual harassment training, how to manage pregnant service members, and things we stocked in the pharmacy," Laing said.

The key to the successful integra-

tion of new sailors into the crew is a three-week indoctrination course (I Division) that every new *Forrestal* sailor goes through starting the first day he or she reports aboard. According to PNCM(SW) Michael S. Pollard, Training Leading Chief Petty Officer, "We revamped the entire indoctrination process. We had to generate a classroom environment that was not gender specific. We try to center on the fact that women aren't trained differently from men. They're expected to do the same things as men aboard ship."

According to ABE1(AW) Bernard D. Alidor, Jr., the I Division Leading Petty Officer, "I added a few courses, such as Stress Management, Core Values, and Choices."

The Choices course, adopted from a program used by *Santa Barbara* (AE-28) and modified for use onboard *Forrestal*, covers a variety of situations that sailors face every day in their professional as well as private lives.

"Basically, Choices is a program to help educate all our sailors, officer and enlisted alike, to the options available to them," said Laing. "We stress sexual responsibility and social responsibility, such as drinking and driving, but are not limited to these issues. It's about responsibility in every aspect of their lives."

"One of the most important courses added was Core Values," said Alidor. "What do you as an individual value? I give the sailors a worksheet and ask them to rank their basic values. The top values in all the classes have been respect, job, and family, not necessari-

ly in that order. It doesn't matter what race or sex, we all have those same core values and we can build from there."

The indoctrination seems to be paying off. According to AN Tyrenia Jones, the indoctrination helped ease the tension of reporting onboard. "They were extremely helpful during my first few weeks aboard. By the time I finished I Division and reported to my parent division, I had a few friends and knew my way around the ship," Jones said. "I felt more prepared to handle shipboard life."

Men and women's working together aboard ship prompted the program. Master Chief of the Command I. R. Hendershot said, "I tell the sailors at indoctrination that we are all sailors, not black or white, male or female, but sailors."

This basic thought is key to *Forrestal's* success.

Lieutenant (jg) Erin L. James, a Limited Duty Officer, supervises 29 people in OC Division onboard *Forrestal*. She was enlisted when she served on *Lexington*, the first carrier to have women assigned aboard. "I think the women are settling in real well. I'm seeing them get qualified right and left. The women are definitely pulling their load and working hard," James said. "I feel real comfortable here. I have a good relationship with my troops and they with me, and I love going to sea."

ACCS Dianne Feltham, the Leading Chief of OC Division, has been onboard six months. A nineteen-year veteran of the Navy, Feltham added, "The only time you can tell a difference between the men and the women on the ship is when you look at them. You definitely cannot tell it from the quality of their work."

*Forrestal* is a prime example of how men and women can and do work together as a crew in order to accomplish a specific mission aboard ship. The women who first started serving onboard ships in the seventies were the pioneers who paved the way for the women in today's Navy. Women today are making tremendous inroads into the the world of Naval Aviation. The door has been cracked open and the women, and the men, of *Forrestal* are working harder than ever to knock that door off its hinges.

"Here on the deckplates of Naval Aviation, the women's issue has gotten a little bit different spin on it than what you read in the newspapers. I think it's a much more positive and a better story than what we're given credit for by the public," concluded Capt. Johnson. ■



Crewmen in *Forrestal's* hangar deck stow equipment after parking an aircraft.

# Forrestal

## Classroom of the Future

By JO1(SW) Eric S. Sesit

**A**nother challenge facing the crew of *Forrestal* in the near future is the home port shift to the Philadelphia Naval Shipyard for a 14-month overhaul.

"It will be 88 months since the last overhaul," skipper Captain Robert L. Johnson, Jr., said. "The major work will be the replacement of the 12 main feed pumps down in engineering, the rotary retract replacement in the catapults which will update us to the latest state of the art in catapult retraction systems, and, probably right up there in importance is the underwater void and sea valve/sea chest-type work and the tank and void work within the ship that needs to be done."

"The change in home port is probably one of the biggest factors affecting morale," said Master Chief I. R. Hendershot, "and it is going to be tough for some of our families. They will have to decide whether to make the move to Philadelphia or stay in Pensacola."

Responding to some of the negative feelings about the second home port shift this year, Capt. Johnson replied, "In order for *Forrestal* to be a factor in Naval Aviation into the 21st century, it needs to have some significant work done to it. We're telling the crew that they are the people whose efforts are going to ensure that *Forrestal* sticks around for a good long time."

Once *Forrestal* finishes her yard period, she will return to the fleet with some big plans for the future. The ship's vision and mission statement which is still being modified states: "Our vision is to lead the Navy in seagoing training initiatives, emphasizing Naval Aviation, Surface, and Reserve Force training; to support national interests by being prepared to execute a wide variety of noncombatant missions; and to serve as the foundation of the future of Naval Aviation."

"Our vision for the *Forrestal* is not just simply a platform for Naval Aviators but it is as a classroom at sea," Johnson said. "A training ship for reserves, a training ship for active duty. There are all kinds of initiatives. We're talking about bringing quartermasters out here for training. We have

an informal program where we bring one or two people from various shore-based weather commands here every time we go to sea.

"We're trying to be more than just an AVT in the basic sense of the [auxiliary aircraft landing training ship]. We are much more capable at night [than *Lexington*]. This gives us the capability to provide carrier qualifications for the fleet replacement

squadrons," continued Johnson. "We would like to free up deploying carriers from all extraneous carrier qualification requirements."

*Forrestal* is looking to set many firsts in the next few years. It is appropriate that the world's first supercarrier has found a new niche in the fleet as the world's finest floating classroom. ■

JO1(SW) Eric Sesit



OSSN Kimberly Norah checks for surface contacts during night operations onboard *Forrestal*.



Shooter Erichsen

## Shooter: One of the Last 'Firsts'

By JOSN Thomas Morton

training as a shooter onboard *Lexington* (AVT-16).

"Normally, a shooter is going to see about 1,000 launches before he or she qualifies," said Lieutenant Jamie Hopkins, Erichsen's division officer. "She has to see all of the major emergencies and handle them before she can even be recommended. It is strictly a matter of watching and deciding the person is ready to handle it."

Erichsen earned her qualification while on *Lexington*, but it wasn't until she reported to *Forrestal* in Palma, Spain, that she realized the differences in the two carriers.

"It was totally different from working on the *Lex*; *Forrestal* is so much bigger and it's a different class of carrier," said Erichsen. "The experience I gained while overseas was invaluable."

Once selected as a designated shooter, Erichsen attended six weeks of shooter school and Air Division Officer Indoctrination in Lakehurst, N.J. She is one of only four shooters on *Forrestal* authorized to make the final call on an aircraft taking off from or landing on the flight deck. Because a shooter is entrusted with such an awesome responsibility, he or she must be in constant communication

with all of the other flight line decision makers.

"There are four people that the shooter works with at all times – the CO, Air Boss, Console Operator, and the Deck Edge Operator," shooter Lieutenant Mike J. Kurtzke said. Kurtzke is a former P-3 pilot currently going through the shooter qualification process. "There are so many checks and balances, and if there is any doubt, [the aircraft] don't go. There is no such thing as a bad suspend [stopping the launch], especially here where we deal with students," he added.

A shooter's work is literally never done as long as there are flight operations scheduled. It is not unusual for flight ops to run from early morning until well after dark, and like other flight deck personnel, shooters are expected to see everything and be everywhere.

To keep their attention focused on each aspect of operations and to allow them a break in the constant action, shooters are rotated to different stations throughout the day. Erichsen works an hour on the catapults, one hour on the arresting wire, and has one hour off.

Shouldering the responsibility of a shooter is both physically and psychologically demanding, but Erichsen manages to keep a sense of humor. Soon after she met the ship in Marseille, France, she was asked by one French native what it was like to be the only female on an all-male ship. Erichsen replied that she didn't mind and that she didn't get any special treatment. Satisfied with those responses, her fan then asked her if she was the ship's "cook." The name stuck and Erichsen was dubbed with the call sign "Cook."

Her call sign may be stereotypical, but Erichsen's coworkers leave no doubt that to them she is just the shooter.

"She does her job better than some I've seen," said Kurtzke. "Nothing separates her from the other shooters except that she is a female – and that's not a factor."

Erichsen admits that she herself gives the matter little consideration, preferring to concentrate on the tasks at hand. "I'm treated as a person, judged by my knowledge and values, and that is what is important." ■

**D**ressed in yellow, flight deck officers blend together making it difficult for the untrained eye to distinguish who's who amidst the network of people and airplanes moving around the deck. But when the float coats and cranials come off, there is little doubt who was calling the shots – to the initial surprise of first-time visitors to *Forrestal* (AVT-59). Lieutenant Robin A. Erichsen recently earned her place in the history books as the first woman to qualify as a catapult officer, or "shooter," in the U.S. Navy.

"I'm proud of my achievement," Erichsen said. "It is a very physically demanding job, and I have just accomplished one of the last 'firsts' [for women] in the Navy."

The 35-year-old native of New York, N.Y., said the final decision on whether a plane takes off or not rests with the shooter, who must be in tune with everything going on around her.

Qualifying as a catapult officer is a long and arduous process. All shooters must be either pilots or naval flight officers (NFO). Erichsen is no exception to the rule; as an NFO, she logged more than 3,700 hours in P-3 and C-130 aircraft. She began her



Lt. Robin A. Erichsen

## Naval Air Test and Evaluation Museum:

# Rx for an Enjoyable Afternoon

torate is in charge of the *Iroquois* and *Sea Stallion*, while the U.S. Naval Test Pilot School handles the *Skyray*. Chief Aviation Structural Mechanic (Hydraulics) Ray Bryant of the Aircraft Intermediate Maintenance Department supervises NATEM aircraft crews working on the *Vigilante*.

Audiovisual aids and hands-on dis-

By Joan A. Frasher

Traveling down Route 235 toward Lexington Park, Md., through the lush, verdant environment of historic southern Maryland, the traveler will be pleased to come upon what appears to be a quiet museum — with a small town flavor. However, its initial impression is most deceptive for outside from static displays and inside through the detailed exhibits, the story of naval aircraft, their systems and components, and how they are actually tested unfolds.

Under the guidance of Jack Nial, executive director of the Naval Air Test and Evaluation Museum (NATEM), the facility flourishes. While the town continues to grow up around NAS Patuxent River and NATEM, not everyone is excited about its growth. Mr. Nial says, "It's booming really fast. Buildings are going up all over now, but I don't like to see that. I hope it doesn't go that way completely." Somehow, the town still remains a small town at heart.

NATEM currently displays 10 aircraft: an NA-4M *Skyhawk*, RA-5C *Vigilante*, NA-7A *Corsair II*, AV-8B *Harrier*, E-2B *Hawkeye*, NF-6A (F4D) *Skyray*, F-4J *Phantom II*, TH-1L "Huey," CH-53A *Sea Stallion*, and S-2D *Tracker*. Most of these airplanes served at NAS Patuxent River as test and evaluation aircraft. Each base activity participates in ensuring that the aircraft displays are up-to-date and properly maintained. The material condition (paint, decals, bird nest purges, tires, security, and placards, etc.), cleanliness, and overall appearance must reflect the same high professional standards established and maintained for operational test aircraft.

The Strike Aircraft Test Directorate maintains the *Skyhawk*, *Corsair II*, *Harrier*, and *Phantom II*.



Ed Frasher

The Force Warfare Aircraft Test Directorate is in charge of the *Hawkeye*. The caretakers have already conducted an aircraft wash and are currently working on a new paint scheme. Restoring the aircraft to a presentable condition makes a more interesting display for the general public.

The *Tracker* is being cared for by personnel of the Naval Research Lab. The Rotary Wing Aircraft Test Direc-

An XROE portable helicopter sits beside several other experimental aircraft inside the museum.

plays indoors intrigue both the lay person and the skilled aviator. One particularly noteworthy exhibit is the XF2Y *Sea Dart* wind tunnel model. This aircraft was the world's first and only delta-wing jet seaplane, built for the Navy by Convair. It was designed to blend the performance of high-



Ed Frasher

An RA-5C Vigilante, the last one manufactured, attracts many visitors each year.

NA-4M Skyhawk being preened by the Strike Aircraft Test Directorate led by Lt. Ralph Portnoy, Strike NATEM display aircraft maintenance officer/coordinator. Volunteers are: AMSC Gary Giovagnoli, AT2 Jackie Murray, AT2 John Marlowe, AE3 Adrian Friend, and AT3 Greg Corliss.

speed, land-based airplanes with the inherent versatility and mobility of water-based aircraft.

NATEM is a nonprofit organization; since its opening in 1978, it has gotten most of its operating support from the community and the greatest extent of its physical resources from the Naval Air Test Center, now the Naval Air Warfare Center Aircraft Division.

A relaxing visit to NATEM is just what the doctor ordered. Each step through the museum marks an interesting and informative step into Naval Aviation, present and past. ■

*The museum summer hours (July – September): Wed. – Sat. 11 a.m. – 4 p.m., Sundays 12–5 p.m.; winter hours (October – June): Fri. and Sat. 11 a.m. – 4 p.m., Sun. 12–5 p.m. Admission and parking are free.*



David Muscolino



The XF2Y Sea Dart wind tunnel model – a unique exhibit inside the museum.

David Muscolino



NAVAL AIR TEST AND EVALUATION MUSEUM



The Blue Angels fly over the Naval Postgraduate School; Monterey Bay is in the background. Hermann Hall, once the famed Hotel Del Monte, is in foreground.

# Postgraduate Safety – The Navy Way

By Capt. Rex Hardy, USNR (Ret.)

## Mission

*To educate aviation officers at all levels to identify and eliminate hazards, to manage safety information, and to develop and administer command safety programs;*

*To foster and conduct safety-related research; and*

*To provide assistance in support of the Naval Aviation Safety Program; thereby enhancing combat readiness through the preservation of assets, both human and material.*

Thus, with typical military precision, is stated the objective of the Department of Aviation Safety Programs at the Naval Postgraduate School (NPS), Monterey, Calif.

"The most elegant seaside establishment in the world.... The finest luxury resort in the world." The brochure hyperbole may have stretched a point or two, but the Hotel Del Monte, founded on California's Monterey Peninsula in 1880, certainly qualified as one of the most elegant, most luxurious – and most popular – resorts in the country during the last years of the 19th century and the first three decades of the 20th. The 627 tree-covered acres – including hotel

buildings, lawns, swimming pool, lake, and tennis courts – no longer serve as the playground of fashionable and affluent vacationers. But Del Monte is still there, now the campus of a unique institution of higher education. (See *NA News*, Sep-Oct 89, p. 12.)

In 1943, the hotel and its surrounding grounds were leased by the Navy to serve as a preflight training school for aspiring aviation cadets. With the coming of peace, Del Monte was purchased (for \$2.13 million) to serve as the Navy's General Line School. In 1951, the Postgraduate School at the Naval Academy, which had grown into a fully accredited degree-granting school, moved across the country to its new home at Del Monte.

About 1,800 students, predominantly junior rank naval officers, are enrolled in the present Naval Postgraduate School, which offers advanced-degree courses in the technical and professional fields so necessary to the nation's defense. More than 40 programs of study are offered, ranging from the traditional engineering and physical sciences to new space science programs. The student body, in addition to the naval officers, includes officers from other U.S. defense service branches, the Coast Guard, the National Oceanic and Atmospheric Administration, and from the services of more than 25 allied nations. Among the offerings of

this select institution of higher learning is a very rigorous program of aviation safety education.

Beginning in the early 1950s, aviation safety education for U.S. military officers was conducted for the services by the University of Southern California (USC). In 1965, the Navy established its own aviation safety school at Monterey; the Army followed suit with its school at Fort Rucker, Ala.; and the Air Force, retaining USC as contractor, moved its school to Norton AFB, Calif.

The Naval Postgraduate School initially offered a course in aviation safety within the regular degree program; subsequently, the subject was established as a separately accredited curriculum. The Director of Aviation Safety Programs, a Naval Aviator, wears two caps (usually bearing the "scrambled eggs" denoting rank of commander or captain): as a faculty member on the staff of NPS; and as a principal advisor to the Commander of the Naval Safety Center, Norfolk, Va., on matters of aviation safety education and training.

The first director (the inaugural class consisted of eight students) was Commander Donald Layton, a former fleet patrol pilot who had been serving on shore duty at the Naval Safety Center. At the conclusion of his term, Cdr. Layton retired from the Navy to become a professor at the Postgraduate School and one of a large number of retired military personnel to establish permanent homes nearby.

Captain Vincent J. Huth, who retired as Director of Aviation Safety Programs (sixth since the safety program was established at NPS) in Fall 1990, looks back at a career which exemplifies the wide experience the Navy considers prerequisite for the billet.

Pensacola, Fla.-trained, Capt. Huth received his wings in 1962, later gaining a degree in Engineering Science at NPS. An M.S. from USC and attendance at the British Royal Air Force Command and Staff College followed. Huth's logbooks record service as a carrier attack squadron pilot, in air wing staff positions, and as commander of a carrier air wing on *Coral Sea* during deployments in the Pacific and Indian oceans. His flying experience involved 900 carrier landings and 6,000 flying hours. Shore duty included a tour as Executive Officer at

NAS North Island, Calif. The several rows of ribbons below the gold wings on Huth's uniform represent combat and campaign decorations and include the Legion of Merit.

Since retirement, Capt. Huth has become Chief of Operations and Maintenance at Monterey Peninsula Airport. His office overlooks the field which was once Naval Air Facility, Monterey.

His successor as Director of Aviation Safety Programs is Captain Richard Toft, a carrier attack pilot and former commanding officer of Naval Air Station, Fallon, Nev.

The NPS Aviation Safety Programs are headquartered on the third deck of a wing of Hermann Hall. Named for

lieutenant and captain, respectively, and above. The course fills 28 days (five weeks) of classroom and laboratory studies for each class of about 50 officers, and includes a two-day field trip during which the students conduct a safety survey of an operating squadron. Subjects addressed include safety programs, mishap prevention techniques, operational aerodynamics and aerostuctures, mishap investigation and reporting, psychology, safety law, and aeromedical support. Graduates of the NPS ASO course qualify to fill the position of the Aviation Safety Officer required in every fleet squadron and other aviation organization "conducting aggressive mishap prevention programs," investigating mishaps, and otherwise managing aviation safety information.

The one-week ASC course is offered eight times per year to approximately 30 serving and prospective commanding and executive officers (and to staff officers of major commands). Students must hold ranks of lieutenant commander (Navy) or major (Marine Corps) or above. The course is designed to provide information which will assist commanding officers in supporting a mishap prevention program, and to prepare its graduates for the duties of a senior member of a mishap board. During the 34 classroom and laboratory hours of the course, the students are exposed to such subjects as safety programs, safety psychology, aviation law, aircraft systems, mishap investigation, mishap and incident reports and endorsements, and aerospace medicine. ASC graduates are indoctrinated in the "policies, philosophy, and techniques of an effective command safety program," and are qualified as senior members of aircraft mishap boards.

Aviation officers regularly enrolled in other curricula at NPS may qualify for an Aviation Safety Officer Certificate by completing certain courses and substituting equivalent graduate aeronautical engineering courses covering the essential subject matter of the safety courses.

According to retired Director Huth, "The Safety Program is very involved in the human factor elements in mishap prevention. Pilot error remains the largest single target for improving aviation safety performance in all areas of aviation, including general, commercial, and military." The NATOPS (Naval Air Training and Operating Procedures Standardization) manual is the Naval Aviator's bible, and students are

taught that the concepts of constant awareness and strict attention to prescribed procedures are the keys to incident-free flight.

"Often," says Capt. Huth, "safety is perceived as a list of 'Be Nos': there will be no this; there will be no that. And there will be no fun! In fact, safety is not less of anything; it is more of everything. Safety is more airplanes, more combat readiness." In the retiree director's words, "Safety is not paramount. What we do in Naval Aviation is prepare to fight. Combat readiness is paramount, and safety relates directly to combat readiness."

Each year, Aviation Safety Programs graduates over 400 ASO and 350 ASC officers, ensuring "continued success in improved command safety awareness and combat readiness." In FY 89 (a typical year), in addition to the Navy and Marine Corps students, there were three from the Army, 13 from foreign countries, and seven civilians (FAA and NASA). As proof that the mission of Aviation Safety Programs is being successfully carried out, statistics show conclusively that, as set forth in the mission statement, there has been a significant "preservation of assets, both human and material," certainly "enhancing combat readiness." During 1965, the year that the programs moved to NPS, the Navy/Marine Corps experienced 457 major accidents, with the death of 226 aviators; the mishap rate was 12.5 per 100,000 flight hours. In CY 91, the rates were: 59 major mishaps; 78 deaths; 2.86 mishaps per 100,000 flight hours.

This spectacular improvement, representing major savings in human lives — not to mention taxpayer dollars — obviously owes much to the efforts of the nearly 11,000 ASO/ASC students trained and subsequently deployed throughout Naval Aviation commands during the 25-year existence of the Aviation Safety Programs at NPS. The serious concern of the Navy in fostering safety awareness throughout the Naval Aviation community is paying impressive dividends.

■ Capt. Hardy flew patrol planes during WW II, commanded VD-5, and, at war's end, went on to command a reserve squadron of PV-2s. As a civilian, he was Flight Department Chief for Northrop's Special Weapons Division and, later, Chief Pilot, Lockheed Missile & Space Company. After retirement, he became a staff member of NASA's Aviation Safety Reporting System, where he instituted and edited the monthly safety bulletin *CALLBACK*. He has published a book entitled, *CALLBACK — NASA's Aviation Safety Reporting System*.



Cdr. (retired) Donald Layton, the first Director of Aviation Safety Programs, presents a plaque to Capt. Vincent Huth, left, then director, in a July 1990 ceremony commemorating the 25th anniversary of Safety Programs. Capt. Hillar Sarapera, NPS Director of Programs, looks on.

the admiral who superintended the cross-country move of the school from Annapolis to Monterey, Hermann was the main building of the original hotel and retains much of its earlier elegance. It now houses administrative offices, classrooms, bachelor officers quarters, post office, bank, barber shop and, in prewar ballrooms and lounges, the Officers and Faculty Club, dining rooms, and other facilities.

The Aviation Safety Programs faculty of more than a dozen (principally Navy and Marine Corps officers), includes professors of aeronautical engineering, psychology, aeromedicine and physiology, aerodynamics, and mishap investigation and reporting. This staff, augmented for special purposes by regular Postgraduate School faculty members, conducts two separate courses of instruction: a Squadron Safety Officer/Aviation Safety Officer (ASO) course, and an Aviation Safety Command (ASC) course.

The ASO course is open to aviators and flight officers of the Navy and Marine Corps with the rank of

# Patrol Aviation in the Pacific in WW II



## Part 2

By Capt. Albert L. Raithel, Jr., USN (Ret.)

**F**rom its mid-1942 arrival until September 1944, Fleet Air Wing (FAW) 1 squadrons and tenders were scattered over hundreds of miles covering the South Pacific. They operated from locations such as Henderson Field, Guadalcanal; Vanikere and Halave, Tulagi Island; Mathorn Sound and airfield, Onodongo Island; Segi Point Field, New Guinea; Green Island; Emirau and at Topokina Field, Bougainville Island. Altogether, more than 30 squadrons, including squadrons of PBYs, PB4Ys, PVs, TBFs, SBDs, Marine F4Fs, and several New Zealand PBY and PV squadrons were under FAW-1's control.

As the Allied war machine gathered speed, not only were new squadrons available for forward deployment but new and improved equipment led to new tactics. Where darkness and weather had provided effective cover for early enemy operations, airborne search radars made possible night search and attack. VPs 12 and 54

pioneered these early night missions in the Solomons area. VP-12 has been credited with originating the term "Black Cats" as applied to these night search and attack missions conducted by PBY *Catalinas*. Armed with bombs, torpedoes, and guns, these far-ranging missions proved to be very effective in denying the night to the enemy.

From the beginning of the war, patrol aviation had been a 24-hour-a-day operation, limited primarily by lack of assets rather than lack of targets. The extended Japanese Empire relied upon extensive shipping of all types to transport raw materials to Japan, and to provide logistics support to the garrisons guarding the far-flung empire. These extended shipping lanes provided ready targets for allied submarines and aircraft.

While FAW-1 aircraft battled their way up the Solomons chain, FAW-10 in western Australia and FAW-17 (established in September 1943) in eastern Australia began their moves

**A Privateer, armed with a highly successful Bat antishipping missile, departs on patrol.**

northward through the Netherlands East Indies (NEI) and Papua, New Guinea. Together, they formed a spearhead pointed at the Philippines.

In addition to the coverage of supply convoys sailing from Port Moresby, the PBYs supported a clandestine land scouting force far in the interior jungles of New Guinea. Thirty-six flights were made to the junction of the Yellow and Sepik rivers in central New Guinea, about 100 miles west of Wewak, behind the Japanese lines. Forty-eight tons of supplies and numerous personnel were carried in. These 1,000-mile-round-trip missions crossed the 12,000-foot-high Owen-Stanley Mountains. Since low clouds were almost always found on the north side of the mountains, the *Catalinas* flew just below the clouds and just above the treetops as they followed

the Sepik River down the mountain to the junction where there was an area large enough for landings and takeoffs. Thunderstorm build-ups on the return trip often necessitated flying at altitudes which approached the PBY's 19,000-foot ceiling. In December 1943, Japanese build-ups in the area compelled evacuation of the force; 219 Australian soldiers and 12.5 tons of supplies were flown out.

As Allied forces advanced westward along the north coast of New Guinea, patrol operations increased with heavy air-sea rescue efforts combined with bombing of port, fuel, and communications facilities and attacks on shipping. Through the end of 1943, VPs 101, 11, 52, and 34, supported by *Heron*, *San Pablo*, and *Half Moon*, were assigned to FAW-17. All these units had been previously assigned to FAW-10, based in Perth, Australia. FAW-10 now made plans for movement north to the Philippines.

In the central Pacific, FAW-2 squadrons were busy conducting long-range photoreconnaissance and night bombing raids. As land-based patrol aircraft became more numerous, provisions had to be made for basing and support of their operations. Previously, in order to facilitate detachment operations, most administration and maintenance had been assigned to the new Wing Head-

quarters Squadron. Maintenance detachments called Patrol Aircraft Service Units (PATSU) were assigned to tenders and airfields to provide administrative maintenance services to aircraft being supported. The Navy's code word "ACORN" was used for the organization of men and equipment designed to rapidly build and operate new airfield facilities, or to rehabilitate captured airfields. A PATSU was assigned to an ACORN to provide support for attached patrol aircraft units. Where several aircraft types were operating from the same base, an augmented unit known as a Combat Aircraft Service Unit would be provided to the ACORN. Other type aircraft service units existed and occasionally provided services to patrol aircraft. These land-based facilities became increasingly vital as the build-up of land-based PBY-5A *Catalina*, PB4Y *Liberator/Privateer*, and PV *Ventura/Harpoon* aircraft accelerated.

Operating from bases on Wallis, Canton, Nukefetau, and Funafuti islands in the Phoenix and Ellis Island groups, missions were flown against Tarawa and Makin in the Gilbert Islands, and against Maloelap, Mili Atoll, Jaluit, Kwajalein, Wotje, and targets of opportunity in the Marshall Islands. VB-137 flying PVs and VB-108 and VD-3 flying *Liberators*, combined with VPs 53 and 72 flying PBYs, supported by

the tenders *Curtiss* and *Mackinac*, at Funafuti. The Gilbert Islands were occupied in November 1943.

The Japanese were still established on Attu and Kiska at the beginning of 1943. Adak and Amchitka had been occupied by the U.S. Army and preparations were being made to dislodge the Japanese from the Aleutians. Attu was secured in May and Kiska was occupied without a fight on August 15. The Japanese had evacuated the garrison.

After initial night attacks on the Japanese Kuril Islands by VP-43 PBYs, the mission to carry the fight was passed to the *Venturas* and later *Harpoons* of VBs 131, 135, 136, and 139. This mission came to be called the "Empire Express." The PBYs of VPs 43, 45, 61, and 62 also operated under FAW-4 during this period. Finally, in August 1945, the PB4Ys of VPBs 120 and 122 took over the "Empire Express" mission.

Tenders assigned to FAW-4 included *Teal*, *Casco*, *Williamson*, *Hurlburt*, *Avocet*, and *Thornton*. VSs 48, 49, 56, 70, and 45, flying inshore patrols with OS2U *Kingfishers* along the Aleutian chain, were also assigned to FAW-4.

The long period of preparation and build-up for our final advance in the Pacific had ended. The Gilberts operation had been the prelude to the



The little-remembered inshore patrol. Thousands of tedious hours were logged by Kingfishers on this vital but unheralded mission.

## Naval Aviation in WW II

Marshalls campaign. Operating from bases in the newly won Gilberts, patrol planes flew long-range searches and photoreconnaissance in support of the invasion force. In a near textbook operation, the invasion of Kwajalein and Majuro, supported by the carriers and gunfire support ships of the 5th Fleet, was completed on February 4, 1944. Thereafter, FAW-2 forces moved into bases in the Marshalls in support of the projected invasion of the Mariana Islands.

By mid-February 1943, the southern Solomons campaign came to an end with the occupation of Green Island. From this time, FAW-17 "Black Cats" targeted the Rabaul-bound supply convoys. Enemy strongholds, principally Rabaul and Kavieng, were targeted by the *Liberators* of VB-106, beginning in early 1944.

Michael G. Kammen, in his extensive study of tender-based open-sea seaplane operations, has noted: "The Marianas represented the next logical stepping stone. They lay directly across our path north to the Imperial homeland and west to the Philippines. The Marianas enabled the Japanese to stage land-based aircraft to any island in the western Pacific. The larger islands of Saipan, Guam, Rota, Tinian, and Pagan were valued as bases for defense and communications. Tanapag Harbor, Saipan, provided the Japanese with a fueling and supply station for ships en route to and from the Empire.

"The American objective was the es-

**JATO – first used at Iwo Jima – greatly increased the capability of Mariners in open-sea and heavy takeoff situations.**



A war-weary warrior from VPB-216 ready for the trip home – Saipan, November 1944.

establishment of air and surface bases from which future operations against Japan might be launched. The airfields on Saipan, Guam, and Tinian would provide bases for long-range bombers, while fleet facilities at Guam would be useful in the establishment of advanced fuel and supply bases nearer the home grounds of the Japanese fleet." Extensive preparations for the Marianas campaign were put into high gear.

As the Allies advanced up the north coast of New Guinea, patrol aircraft were able to extend their area of operations. In April 1944, supported by Task Force 58 carriers diverted from the central Pacific specifically for the operation, General MacArthur's southwest Pacific forces captured the Hollandia area, providing additional



A PB2Y Coronado preparing to launch. Though few in numbers, they were very effective in the Okinawa campaign.

bases for the eventual invasion of the Philippines.

The Marianas campaign imposed new conditions on patrol aviation. Extensive search and patrol coverage of the approaches to the Marianas was required to guard against Japanese interference with the vast support and amphibious forces involved in the invasion of Saipan. As no airfields were available to support operation of shore-based patrol aircraft, it was planned that patrol support for the invasion would be provided by tender-based seaplanes. The PBM-3 was available for the first time in the Pacific in sufficient numbers to support the operation.

Garapan anchorage and Saipan Harbor provided the initial seadromes. After several days of bombing, landing forces went ashore on June 15, 1944.

Within 48 hours, PBMs of VPB-16 had commenced open-sea operations from that area. *Ballard* provided tending and seadrome control initially, followed by *Pocomoke* and *Onslow*. On June 20, a detachment of three VH-1 PBMs arrived. Heavy weather made it necessary to move the seadrome to a less exposed area. This reduced the exposure to bad sea conditions but potentially exposed the aircraft to anti-aircraft fire during takeoffs into the offshore wind. VPB-16 was followed by VP-216 with PBMs and a detachment of VP-72 PBVs. VP-202 initially provided daily mail flights to Kwajalein and return. It forward deployed to Saipan on July 17, operating off *Pocomoke*, *Chandeleur*, and *Mackinac*. *Onslow* also assisted VP-202. *Yakutat* supplied subsistence and quarters for a PATSU. These forces provided the vital search, patrol, reconnaissance, and rescue services that were necessary for the success of the initial phase of the operation prior to the arrival of land-based squadrons.

Following the gigantic air battle between Japanese strike aircraft and American carrier aircraft, known as the "Marianas Turkey Shoot," the Japanese carrier forces were located by PBMs. The resulting battle is remembered as the Battle of the Philippine Sea. Next, plans were made for the assault on Peleliu, Anguar, Ngesebus, and Ulithi in the Palau Islands, as a prelude to the projected invasion of the Philippines. Patrol aviation carried out wide-ranging search, patrol, bombing, and photoreconnaissance missions in support of preparations for this assault. In August, FAW-1 departed the Solomons and moved to Saipan, as-

suming responsibility for patrol operations in the central Pacific. FAW-2 resumed preparation of squadrons gearing up for later operations in the forward area, and such patrol activity as was required in the South Pacific.

In the Palau operation, it was again decided to use seaplanes as the advanced patrol force until the arrival of land-based aircraft. The seadrome was established in Kossol Passage, an open roadstead, on September 16, 1944. Squadrons participating in this operation, which was characterized by very rough water conditions, were VPs 16, 202 and 216, VPB-21, and VH-1. The seadrome was maintained by *Chandeleur* (CFAW-1 flagship), *Pocomoke*, *MacKinac*, *Yakutat*, and *Onslow* which arrived at Kossol Passage on September 16. In addition to covering the western Caroline operations, patrols were flown in support of the capture of Morotai, NEI.

Carrier sweeps covering the southern Philippines were conducted in support of the western Carolines operation. Japanese air opposition was minimal and, consequently, the date for the invasion of the central Philippines was advanced to October 1944.

From formation of the first PB4Y squadron in the Pacific in October 1942 until October 1944, the patrol forces grew from 20 to 77 squadrons. The October 1942 mix was 19 seaplane squadrons and one landplane squadron. The October 1944 mix was 38 seaplane squadrons and 39 landplane squadrons. Thereafter, the total numbers of squadrons decreased when those squadrons flying older aircraft were disestablished as they returned from the

## Naval Aviation in WW II



A Mariner crew, back from patrol, poses for the folks back home.

forward areas. Another factor that was increasingly felt as the war progressed was a major change in policy initiated by Commander in Chief, Pacific Fleet, in the summer of 1944, whereby all multiengine patrol squadrons, except those assigned to FAW-4 in Alaska, would remain permanently deployed in the forward area and relief of personnel would be by rotation of aircrews.

This policy change was opposed by most of the forward-deployed squadrons as well as CFAW-10 and CFAW-17. Commander, Aircraft, Seventh Fleet, explained the position taken by these forward-deployed commanders stating the resulting disadvantages of the policy, including: the squadrons were never entirely fresh, squadrons were in a constant state of flux, crews did not know each other and squadron esprit largely dis-

appeared, the squadron commander was forced to commit crews to combat without sufficient opportunity for evaluation, the squadron commander never became the veteran of the squadron until he and his crew were about to rotate home, and constant training on fundamentals diluted the amount of time and effort available for development of tactics as changes occurred in the combat area.

The letter was forwarded by Commander, Air Force, Pacific, recommending against changing the new policy. He noted that under the new policy, greatly decreased assets were required to meet combat commitments. The policy was still in various stages of implementation at the end of the war.

From September 1944 until the end of the war, CFAW-10 and CFAW-17

operated under Commander, Seventh Fleet, and since operations were conducted by Task organizations, determination of the wing assignment of individual squadrons became difficult. At this time, PBY, PB4Y, and PV squadrons were assigned, and with the arrival of VPB-20 at Morotai in late October 1944, the PBM was introduced into the two wings. Operating with black painted aircraft, in operations similar to the PBY "Black Cats," the black PBMs were known as the "Nightmares." The name never received public acceptance.

The invasion of the Philippines, beginning at Leyte in October 1944, was supported by VPs 33, 34, and 54 flying PBYs; and VPBs 20 and 25 with PBMs. As operations expanded through the Philippines, missions were flown against the Japanese forces

throughout the southwest Pacific area. In January 1945, major landings took place at Lingayen Gulf on the island of Luzon. This operation was supported by VPB-71 with PB4Ys; VPBs 104, 111, and 119 with PB4Ys; and VPBs 28, 20, 25, and 17 and VH-4 flying PBMs. From the bases secured by the liberation of the Philippines, the Japanese-occupied areas in Southeast Asia and along the coast of China and Formosa provided fruitful targets for patrol operations.

In February, the invasion of Iwo Jima in the Bonin Islands took place. Iwo was needed as a base for fighter escorts for the 20th Air Force B-29 operations against the Japanese homeland, and as an emergency recovery field for damaged aircraft that would otherwise be lost. The operation was supported initially by the PBM-5s of VPB-19. These were the first jet-assisted takeoff (JATO)-equipped planes in the Pacific. PB4Ys of Rescue Squadron 2 also participated in the operation. Due to the extensive ship and small boat traffic close to the beach, it was necessary to lay the seadrome in exposed open sea, 10 miles off the beach. *Williamson, Chincoteague*, and *Hamlin* supported the operation until March 6 when PB4Ys began to operate from the airfield.

By March, the Japanese had been pounded but they were not ready to surrender. One more major base was required to support the projected invasion of Japan proper. Okinawa would be that base. Again, facilities for land-based patrol aircraft would not permit the search coverage required, and the seaplane was once again called upon to meet requirements. The Okinawa campaign extended from April 1 until June 21, 1945. The seadrome was laid out at Kerama Retto, a group of small islands lying 10 to 20 miles southwest of Okinawa, which had been recently captured. On March 26, the seadrome and a small boat repair facility were established. For the most complete protection of our forces possible, an extensive pattern of air searches was necessary. These searches reached south to Formosa, west along the coast of China as far north as the coast of Korea, across Tsushima Straits and along both coasts of Kyushu.

For the first three weeks, PBMs and PB2Y-5 *Coronados* carried the search load. More than 8,000 flying hours were flown covering the invasion. Squadrons involved included

VPs 18, 21, 27, 2, and 26 and VHs 1, 3, 4, and 6 flying PBMs; VPB-13 with *Coronados*; and VH-2 with PB4Ys. Fourteen seaplane tenders: *Hamlin, Onslow, Yakutat, St. George, Bering Strait, Shelikof, Chandeleur, Kenneth Whiting, Casco, Suisun, Norton Sound, Duxbury Bay, MacKinac*, and *Gardiners Bay* provided support to a total of 95 aircraft.

On April 7, flying from Kerama Retto, two VPB-21 *Mariners* located the Japanese battleship *Yamato* and its escorts. The *Yamato* was the world's largest warship at the time. The *Mariners* reported the force, vectored carrier aircraft into the kill, and rescued several aviators who had been downed by anti-aircraft fire from the Japanese task force.

Kammen notes: "It was in this area in the concluding months of the war that the air-sea rescue work of the flying boat reached its climax. The spectacularly successful rescue operations for pilots and crews whose planes had been forced down were a vital part of the Okinawa campaign. Seventy percent of those forced down in the open sea during March, April, and May were rescued. On July 14, the seadrome was moved to the east coast of Okinawa to the more

protected area at Chimu Wan, later named Buckner Bay. It was from this seadrome that patrol operations by the seaplane squadrons continued to the end of the war.

On April 23, 1945, *Privateers* of VPB-109 launched two Bat missiles against Japanese shipping in Balikpapan Harbor, Borneo. This was the first use of an automatic homing missile in combat during WW II.

FAW-18 was established in May 1945 to support operations in the central Pacific from the Marianas and Iwo Jima in support of the invasion of Japan. Commencing in June, VD-1 PB4Ys photo-mapped the islands of Kyushu and Honshu in preparation for the invasion.

When the end of the war came, patrol squadrons were dispersed over the vast reaches of the Pacific, keeping pressure on the Japanese anywhere they could be found. Patrol aviation had amassed a glorious record of achievement. ■

Capt. Raithel served on active duty from 1947 to 1981. He was assigned to VP-45, VX-6, VP-28, and commanded VP-47. He flew PBM, P5M, P2V, and P-3 aircraft.

## 50 Years Ago – WW II

**Sep 1:** U.S. Naval Air Force, Pacific, RAdm. A. W. Fitch commanding, was established for the administrative control of all air and air service units under the Commander in Chief, Pacific, replacing the offices of Commander Carriers, Pacific, and Commander Patrol Wings, Pacific. The subordinate commands Fleet Air West Coast, Fleet Air Seattle, and Fleet Air Alameda were established at the same time.

**Oct 1:** Three functional training commands were established for Air Technical Training, Air Primary Training, and Air Intermediate Training, with headquarters initially at Chicago, Ill.; Kansas City, Kans.; and Pensacola, Fla., respectively.

**Oct 19:** The initial installation and deployment of the ASB-3 airborne search radar was reported. Developed by the Naval Research Laboratory for carrier-based aircraft, this radar had

been installed in five TBF-1s by NAS New York and five SBD-3s by NAS San Pedro, Calif. One aircraft of each type was assigned to Air Group 11 (*Saratoga*) and the others shipped to Pearl Harbor. Remaining sets on the initial contract for 25 were to be used for spare parts and training.

**Oct 22:** Westinghouse Electric and Manufacturing Company, by amendment to a design study contract, was authorized to construct two 19A axial flow turbojet powerplants. Thereby, fabrication was initiated for the first jet engine of wholly American design.

**Oct 28:** Procurement of the expendable radio sonobuoy for use in antisubmarine warfare was initiated as the Commander in Chief, U.S. Fleet, directed the Bureau of Ships to procure 1,000 sonobuoys and 100 associated receivers.

# SAR Swimmers = Saviors

By JO2 Steven Galvan

Occasionally, reports of a rescue at sea are run in newspapers and radio/TV stations. Some reports end on a good note with the survivors pulling through. Some don't. But all too often, the rescuer is labeled as a hero with a response also familiar, "I don't consider myself a hero, I was just doing my job."

What does it take for someone to put his life in jeopardy and jump into shark-infested waters to save a Naval Aviator whose jet has just crashed, leaving debris in the water that could turn on them at any moment in a bad storm? What goes through their minds as they fly in a helicopter to a scene that may be their last rescue attempt?

Rescue swimmers of the Helicopter Anti-Submarine Squadron (HS) 11 *Dragonslayers* onboard *America* (CV-66) are often in these situations. Although being rescue swimmers is not their primary mission, they are always prepared for the job.

"Just like the other day, we were conducting training about 10 to 12 miles away from the ship when we picked up on the radio that a *Hawkeye* had fumes in the cockpit due to hydraulic oil leaks," said AW2 Bob Powell, one of 20 qualified rescue swimmers in the squadron and a former search and rescue (SAR) instructor. "Within a minute and half I was dressed out and ready to go in the water. All I kept thinking was what I could expect. I knew how many were in the plane and what situation they were in. I was mentally prepared and knew exactly what to do once we got there."

Fortunately, the pilot was able to land the plane on the flight deck without an incident. But the ability to respond to any crisis during a mission by immediately adapting to different situations is something the crew of the SH-3 *Sea King* is trained to do.

"Our primary mission is antisubmarine warfare," said AW2 Jon Bushman, HS-11's SAR training petty officer. "Our secondary job is SAR."

Bushman ensures that all squadron rescue swimmers are qualified in every requirement of their job — whether it's knowing the different types of aviation equipment, first aid, cardiopulmonary resuscitation, or rescue techniques.

"Our training starts when an in-

dividual gets to SAR school," said AW1 Jamie Vaughan, also a former SAR instructor in Pensacola, Fla. "There, students enroll in a four-week course that is very demanding mentally and physically."

"Most of the rescues we will do will be Naval Aviators who wear a SEAWARS mechanism on their torso harnesses which ejects the canopy. As soon as they hit the water, the flotation device on the harness will inflate within two seconds, keeping them up and hopefully not entangled in their parachute," said Powell.

At SAR school, rescue swimmers are taught how to disentangle a person and inflate the flotation device in the water if it didn't work. The possibility that a rescue will be extremely tough is instilled in them. Constant training and preparation for the unexpected might serve rescue swimmers well someday, and they know it.

"Recently, a rescue swimmer from HS-11, AW1(AW) Scott Mathis, successfully rescued two aviators who ejected from a KA-6 tanker," said Vaughan. "It was an extremely difficult one because the water temperature was 45 degrees and the seas were 15 feet. During rescue of the first survivor, he lost his face mask and the low water temperature was affecting the feeling in his hands. Due to the loss of his mask and fuel in the water, it was difficult for him to check the survivor for shroud lines when he submerged. At anytime he could have quit. With the loss of feeling in his extremities and his body temperature slowly decreasing he continued to push on. He jumped back into the water and got the second survivor out in record time. This to me is the pride and professionalism indicative of the search and rescue community.

"You never know what situation you'll be in; you may have high seas, it may be windy, or you may be surrounded by fuel. So in school we stress that you have to be very aggressive," added Vaughan.

The SAR swimmers of HS-11 have shown that their training pays off. Within the last six months, they have been called to perform their skills in three different rescues. One incident involving civilian sailors brought national and international media attention to the squadron.

"We all want to do the job we've trained for," concluded Vaughan. "But,

unfortunately, the only time we get a chance is when someone has an accident. We never hope for accidents, but ... we're confident that when we're called on, we can get the job done."

SAR school graduates don't leave with a pin or wings to wear on their uniforms, but they leave with self-assurance and more. "It's a personal satisfaction," said Powell. "You're a totally changed person. In many respects you've grown physically, mentally, and emotionally. You're definitely more confident in yourself. You get out there and you're ready to do what you have trained to do — save lives." ■

Photos by PHAA Lewis Martin

Right, ready on short notice, AW2 Bob Powell heads for a rescue mission. Below, Powell, one of 20 HS-11 rescue swimmers, loads aboard an SH-3. Bottom, pilots of a *Sea King* onboard *America* (CV-66) prepare for an antisubmarine warfare mission.



## Awards

PH1 Ted Salois is the winner of the 1991 **Military Photographer of the Year** contest sponsored by the Department of Defense and the National Press Photographers Association, with support from Eastman Kodak Company. He is currently a staff photographer for *Pacific Stars and Stripes* in Tokyo. Salois was a former photographer for the Navy's Seventh Fleet based at Subic Bay, R.P. His winning portfolio included a picture story about the eruption of Mount Pinatubo.



PH1 Ted Salois receives a plaque honoring him as 1991 Military Photographer of the Year from Pete Williams, Assistant Secretary of Defense for Public Affairs.

The aircrew of HMH-461 won the American Helicopter Society's 1992 **Frederick L. Feinberg Award**, presented to helicopter aircrews in recognition of the most outstanding achievements during the preceding year.

VP-6 won the 1991 **Coastal Command Trophy**. The award, named in honor of the legendary British Coastal Command of WW II, is given to the P-3 squadron in ComPatWingsPac that has demonstrated the highest level of antisubmarine warfare skill in the Pacific Fleet.

HSL-84 received the 1991 **Moran Award** which is given each year to one of the 54 Naval Air Reserve squadrons which best demonstrates readiness through safety.

## Anniversary

The 75th diamond jubilee anniversary open house on August 7 at the **Naval Air Warfare Center Aircraft Division, Lakehurst, N.J.**, celebrated the origins of the Navy Lakehurst command. Historic Hangar One, one time housing the tragic Hindenburg airship, was filled with displays depicting the past, present, and future of Naval Aviation.

## Rescues

On May 31, four aviators of the **VS-21 Fighting Redtails** attached to *Independence* (CV-62) assisted a sea rescue of 19 crewmen from a sinking Panamanian cargo ship, located 580 nautical miles off the coast of Diego Garcia in the Indian Ocean.

*Great Eagle* sent out a distress message saying she had suffered flooding in a large compartment the night before and was now flooding throughout the lower decks of the ship. It took the helo about one hour and 45 minutes to arrive at the operation area where its crew made contact with the designated rescue ship, *ALS Express*. After establishing positive visual identification, the helo crew radioed the rescue ship with continuous headings to the sinking vessel. All 19 crewmen from the *Great Eagle* were rescued.

## Records

**Cdr. J. K. Stark** of VA-65 logged his 3,000th career flight hour.

**LCdr. Larry Bezold** of VAQ-138 passed his 2,000th flight hour in the EA-6B *Prowler*.

### Several units marked safe flying time.

Unit	Hours	Years
HC-3	119,000	18
HM-12		19
HMT-303	71,500	13
HS-1	60,000	9
HS-14	7,000	2
HSL-37	13,400	2
HSL-45	20,000	2
NAS Dallas	26,978	21
NAS Guantanamo Bay		9
NAS Key West		18
NAS Moffett	3,205	5
NAS Roosevelt Roads		19
VA-35		7
VA-42	9,800	1
VAQ-131	8,250	5
VAQ-137	23,100	12
VAQ-141		9
VAW-113	49,370	25
VAW-123	47,000	23

**P-3 Orion RD-03** from VP-47, NAF Misawa, adds to the 19 years of accident-free flying time for the squadron.



PHAN Raymond S. Kraszyk

## Scan Pattern

### Safe Flying Time Continued

Unit	Hours	Years
VC-1	26,000	9
VF-21		6
VF-41	47,000	12
VF-114	6,750	2
VFA-113	78,300	18
VFA-136		2
VFA-303	49,895	17
VFC-13	34,000	7
VMAQ-2	50,000	9
VMAQ-4	12,900	10
VMAT-203	15,000	1
VMFA-232	40,000	13
VMFA-314	35,000	
VMGR-252	320,952	33
VMO-2	10,000	
VMO-4	60,000	19
VP-23		14
VP-30	266,000	28
VP-94	75,000	21
VX-4	10,300	3



PH3 Paul Hawthorne



LCdr. Emmett Francols

Top, John F. Kennedy, Jr.; Capt. Tim Beard, CO, John F. Kennedy (CV-67); and Caroline Kennedy-Schlossberg stand on the bridge of the carrier during the ship's visit to New York for Fleet Week '92. The Kennedys were onboard to commemorate the anniversary of the late president's 75th birthday. Above, CV-67 steams into New York Harbor. The crewmembers enjoyed liberty in the "city that never sleeps" and hosted more than 30,000 visitors.

**ETCM(SW) John Hagan** has been selected as the eighth Master Chief Petty Officer of the Navy. Formerly assigned as Command Master Chief of HSL-48, Hagan reported to Washington for duty in July and relieved AVCM(AW) Duane R. Bushey as MCPON on August 28, 1992.

## Honing the Edge



**Capt. Robert Parkinson**, director of the Flight Test and Engineering Group, NAWC AD, Patuxent River, Md., recently visited St. Mary's Airport, Md., to check out an experimental aircraft on display called the Freebird MK-IV. The manufacturer of the Freebird developed a wing attached to the fuselage with a hinge system that allows the wing to absorb the turbulent air which minimizes the movement of the fuselage. There is a potential for a derivative of the aircraft to be used as an unmanned aerial vehicle.

PH2 Markus White

## Change of Command

ASU Bahrain: Capt. Billie L. Tempel relieved Cdr. John A. Etter.  
*Carl Vinson*: Capt. John S. Payne relieved Capt. Doyle J. Borchers II.

ComCarGru-3: RAdm. Joseph J. Dantone, Jr., relieved RAdm. Timothy W. Wright.

HCS-4: Cdr. Thomas Broderick relieved Cdr. Neil Kinnear.

HMM-163: Lt. Col. Jeffrey L. Hull relieved Lt. Col. William D. Catto.

HMT-301: Lt. Col. John K. Feuerriegel relieved Lt. Col. Thomas P. Milne.

HS-1: Cdr. Russell E. Tate relieved Capt. Christopher Cole.

HS-5: Cdr. Hartmann Kircher relieved Cdr. John Smith.

HSL-30: Cdr. James F. Boland relieved Cdr. Augustus W. Clark III.

MAG-13: Col. George G. Goodwin III relieved Col. Joseph T. Anderson.

MAG-31: Col. Earl B. Hailston relieved Col. James D. Wojtasek.

MAG-42: Lt. Col. Martin Macy relieved Lt. Col. James Gevock.

MALS-13: Lt. Col. Gilda A. Jackson relieved Col. Robert I. Sickler, Jr.

MATSG Meridian: Capt. Leonard L. Bernat relieved Lt. Col. E. J. Hamilton.

NAS Alameda: Capt. Denny K. Major relieved Capt. L. I. Williams, Jr.

NAS Cecil Field: Capt. Sam B. Houston, Jr., relieved Capt. Robert W. Nordman.

*Nimitz*: Capt. John B. Nathman relieved Capt. Robert C. Williamson.

SOMS El Toro: Lt. Col. Eric A. Jones relieved Lt. Col. David H. Jacobs.

VAQ-130: Cdr. William J. Luti relieved Cdr. Jon F. Lemen.

VAW-112: Cdr. Norvell L. Lilly relieved Cdr. Daniel B. Summerall.

VAW-116: Cdr. Byron P. Compton relieved Cdr. Paul T. Hauser.

VAW-124: Cdr. Thomas A. Parker relieved Cdr. J. J. George.

VAW-125: Cdr. Mark D. Sullivan relieved Cdr. H. O. McDaniel.

VC-1: Cdr. Russell F. Plappert relieved Cdr. Gary W. Deulley.

VC-10: Cdr. Keith C. Naumann relieved Capt. (Sel.) J. W. Bean.

VF-2: Cdr. Brian E. Flannery relieved Cdr. James J. Quinn.

VF-154: Cdr. Thomas J. Kilcline, Jr., relieved Cdr. John C. Dailey.

VFA-15: Cdr. Joseph Capalbo relieved Cdr. Steven Kunkle.

VFA-192: Cdr. Timothy L. Heeley relieved Cdr. James B. Godwin.

VMGR-352: Lt. Col. John J. Pellicone relieved Lt. Col. Arlen D. Rens.

VP-6: Cdr. Scott R. White relieved Cdr. James S. Cooper.

VP-24: Cdr. Stanley Bozin relieved Cdr. Stephen Burich III.

VP-45: Cdr. Robert Brannon relieved Cdr. Allen Efraimson.

VP-68: Cdr. A. Ray Miller, Jr., relieved Cdr. R. John Walker, Jr.

VQ-4: Cdr. Paul J. Jackson relieved Cdr. Paul A. Moore.

VQ-5: Cdr. Angelo J. Spadaro relieved Cdr. John F. Teates.

VR-24: Cdr. Allen Murphy relieved Cdr. Jack Panches.

VR-61: Cdr. Joel R. Horning relieved Cdr. Kevin R. McCauslin.

VT-22: Cdr. Charles W. Nesby relieved Cdr. Paul E. O'Brien.

VT-23: Cdr. Stephen J. Himes relieved Cdr. James R. Stapleford.

VT-31: Cdr. Robert C. West relieved Cdr. Randy G. Yerigan.

Capt. Roy Cash, Jr., checks out his newly stencilled name on an F-4 Phantom at the Naval Air Technical Training Center (NATTC), Millington, Firefighting School, Millington, Tenn. Cash flew the aircraft on a training mission in 1964 when he was stationed with VF-101, Key West, Fla., and recently discovered the plane as he drove down a road at the training center. A check of the plane's numbers against those in his logbook proved that it was the same plane he flew on April 28, 1964. The aircraft will be used to train students at the NATTC Firefighting School.

JO1 Walter H. Panych

VAdm. Stephen Loftus (left) became the Gray Owl in June 1992, succeeding VAdm. Dick Dunleavy who retired. The Gray Owl trophy goes to the active duty Naval Flight Officer with the earliest date of designation.

JO1 (SW) Eric Sesit

## PROFESSIONAL READING

By Cdr. Peter Mersky, USNR

Micheletti, Eric. *Air War Over the Gulf*. Motorbooks, 729 Prospect Ave., Osceola, WI 54020. 1991. 64 pp. Ill. \$15.95.

One of the many picture books coming from several publishers on the Gulf War, and actually first published in the UK, this small book's main appeal is its photographs. The supporting text and captions are full of typos and errors. Also, when listing several of the Navy and Marine squadrons that participated in *Desert Shield/Storm*, the author frequently names units that did *not* take part. He also occasionally offers incomplete designations, such as VMA for Marine A-6 squadrons which are VMA(AW)s.

However, while some of the photos have been used in other publications and articles, having come from USAF sources, the book's photos are interesting, especially those of the Marine Corps aircraft. There are some good shots of VMO-2 OV-10s in desert camouflage. The *Harrier II* does not come off as well, and the collection includes a few company photos taken in the U.S. over the southwest instead of Kuwait as the captions suggest. French and British flight operations are well shown, and there are interesting photos of French *Mirage* and *Jaguar* pilots.

Polmar, Norman. *The Naval Institute Guide to the Soviet Navy, Fifth Edition*. U.S. Naval Institute, Annapolis, MD 21402. 1991. 492 pp. Ill. \$49.95.

The Russian enigma that British Prime Minister Winston Churchill first described in 1939 has become even more confusing and complex in the succeeding 50 years. But the current confusion has not come from Soviet military or political action, rather from the dissolution of the Soviet Union itself.

Thus, describing the current state of the Soviet navy, its organization, equipment, and future, is a herculean task fraught with pitfalls and analytical danger. However, Norman Polmar is well up to the task, and this fifth edition of his now-standard reference is a welcome addition to the literature on the Russian military of the post-Gorbachev era.

Using a different, vertical format from its four previous editions, this volume still includes the customary photos, drawings, and tables that make it such an important reference. Readers of this column will be especially interested in the chapters on Naval Aviation, Missions and Tactics, Naval Aircraft, and Aircraft Carriers.

## ANA Bimonthly Photo Competition

LCdr. Eddie Daniel, VF-124, NAS Miramar, Calif., won the bimonthly ANA Photo Contest with his shot, below, of an F-14 Tomcat at dawn in the Persian Gulf. Below left, Lt. Lance Chang received honorable mention for capturing these VAW-113 E-2C Hawkeyes in flight.



### The Association of Naval Aviation Photo Contest

The Association of Naval Aviation and its magazine, *Wings of Gold*, is continuing its annual photo contest which began in 1989. Everyone is eligible except the staffs of *Wings of Gold* and *Naval Aviation News*. The ONLY requirement is that the subject matter pertain to Naval Aviation. Submissions can be in black and white or color, slides or prints of any dimension. Please include the photographer's complete name and address, and **PHOTO CAPTION**.

Cash Awards: Bimonthly – \$100; Annual – First, \$500; Second, \$350; Third, \$250.

For deadline and submission details, call (703) 998-7733. Mail photographs to: Association of Naval Aviation Photo Contest, 5205 Leesburg Pike, Suite 200, Falls Church, VA 22041.

## Year in Review 1991

As I skimmed through your "Year in Review 1991" issue (Jul-Aug 92), I was disappointed to find that you omitted a significant piece of history from *Desert Storm*. I am referring to the mine explosion damage to *Princeton* (CG-59), which occurred the morning of February 18, three hours after the mine blast damage to *Tripoli* (LPH-10). With respect to the significance to Naval Aviation, HSL-47 Detachment 8 was deployed in *Princeton* and was onboard during the explosion. Miraculously, no one on the ship was killed and only three crewmembers required medevac by helicopter (two in one helicopter from Det 8). The ship, although unable to get underway due to damage to her prop and rudder, was still capable of defending herself and the ships under her area of responsibility. In fact, within one hour of the mine explosion, she set flight quarters to launch and recover her LAMPS MK III detachment helo and one other LAMPS helo which continued throughout the remainder of the day.

*Princeton* was later towed south to Dubai, UAE, for two months of repair. HSL-47 Det 8 was reassigned to *La Salle* (AGF-3) for mine countermeasures support and other duties under RAdm. R. A. K. Taylor, Commander, Middle East Force, and Capt. W. H. Ide, CO of *La Salle*. Det 8 and *Princeton* were reunited on April 23, 1992, when she began her return home with the *Ranger* (CV-61) battle group.

LCdr. Jon F. Berg-Johnson  
Head, Officer Programs Section  
Bureau of Naval Personnel (52)  
Washington, DC 20370-5000

## Kudo

Nice publication! You and your current staff continue the excellent naval reportage started many years ago. It's good to see that at least one part of the Department of Defense is continuing a long-standing tradition in these times of cutbacks. My congratulations for a fine magazine.

William J. Havrilla  
4112 Buckboard Trail  
Allison Park, PA 15101

## Acronyms

In your May-June 1992 issue, "Flight Bag" asked for the meaning of ACORN and MODEX. I know nothing about the latter, but I was attached to ACORN 12. These units usually proceeded with CB battalions.

There are probably many versions of ACORN but my recollection is: A = Aircraft, Assault, or Amphibian; C = Communication, Corpsman, or Construction; O = Ordnance; R = Radio; N = Navy.

ACORN 12 was more aviation. We took with us a tremendous amount of aircraft support equipment and tools, large medical staff and supplies, and communications. Some ACORN units suffered heavy casualties, such as during the Guam and Saipan invasions. Our unit had the only hospital and medical staff during the operation. The Army Air Corps and other naval units had little or no medical support. The ACORN provided medical, communications, and aircraft support for all of the forces involved.

Hope this helps. I might add that I really enjoy reading *Naval Aviation News* and look forward to the next issues. I learned a trade in the Navy and stayed with aircraft from 1943 to 1988, and a little consulting to date. One thing about working around airplanes: it sure beats working!

David E. Bales  
5121 S. Hazel Street  
Seattle, WA 98178

## HMS Columbine

I wish to contact interested family members of the nine crewmen killed in a U.S. Navy aircraft which crashed at NAS Chaguaramas, Trinidad, on July 12, 1942. I have four different official photographs taken at the burial service for these men of Patrol Squadron 31, aircraft P-5. I'd like to pass them on to relatives more entitled to possess them than myself. I do not know the victims' names nor much about the accident except that it occurred at night. At that time, I was serving on HMS Columbine (K94) on loan to the U.S. Navy, operating as Task Force 90. These photos came into my possession while we were at Chaguaramas Bay.

Edward G. Lamont  
66 Ashkirk Drive, Mosspark  
Glasgow G52 1JY Scotland

Ed's note: Since our article on COD operations during Operation Desert Storm (see "A Gathering of Greyhounds," *NANews*, May-Jun 92, pp. 16-19), more information has become available. VR-24 had five C-2s at Jeddah, and moved over 1,253,000 pounds of cargo, 1,017,000 pounds of mail, and over 9,000 passengers. VR-24 returned to Bahrain with a detachment and supported America (CV-66) in the Persian Gulf, February-May 1992. (Information courtesy of VR-24)

## Reunions, Conferences, etc.

**50th anniversary of jet flight in America commemoration**, DEC 3. Hosted by the National Air and Space Museum, Washington, D.C., and General Electric, the special program in the museum at 8 p.m. is open to the public.

**VT-8 reunion**, SEP 8-16, Asheville, NC. POC: Leo Burrows, 107 Jumping Brook Rd., Lincroft, NJ 07738, 908-747-3970.

**Santee (CVE-29) reunion**, SEP 17-20, Virginia Beach, VA. POC: James Day, 8830 Brougham, Sterling Heights, MI 48312-3529, 313-569-1173.

**VT-8 reunion**, SEP 25-27, San Francisco, CA. POC: Frank Balsley, 742 Illinois Ave., San Jose, CA 95125, 408-971-8413.

**VTs 24/25 disestablishment ceremony**, SEP 18, NAS Chase Field, TX. POC: Lt. Klothe, DSN 861-5348/5752 or 512-354-5348/5752.

**VC-1 disestablishment ceremony**, SEP 30, NAS Barbers Point, HI. Former VC-1/VU-1/VJ-1 personnel and media are invited to attend the ceremony at 1000 in Hangar 111.

**Lake Champlain (CV-39/CG-57) reunion**, OCT 92, Jacksonville, FL. POC: Phillip Nazak, PO Box 34, Vestal, NY 13851-0034.

**VMFA(AW)-225 reunion**, OCT 2-4, MCAS El Toro, CA. POC: Majors Bill Macak or Mike Lobb, DSN 997-4111/3190 or 714-726-4111/3190.

**Rudyard Bay (CVE-81/VCS 77/96) reunion**, OCT 9-11, San Diego, CA. POC: Carlos Broyles, 2614 Murray Ridge Rd., San Diego, CA 92123, 619-277-2819.

**VC-99 reunion**, OCT 30-31, San Diego, CA. POC: Jill Serrett, 619-224-3411, or Carl Gilbert, Dept. of History, University of San Diego, San Diego, CA 92110.

**Korean War Devil Dog reunion**, OCT 30-NOV 1, Philadelphia, PA. POC: Lawrence Moore, 2817 8th Ave. SW, Huntsville, AL 35805, 205-533-4832.

**Intrepid 50th anniversary reunion planned**, 1993. Seeking names of former shipmates/aircrew to receive information. POC: Capt. L. H. Blackburn, USN(Ret.), 22 Watercrest Dr., Doylestown, PA 18901, 215-345-5690.

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