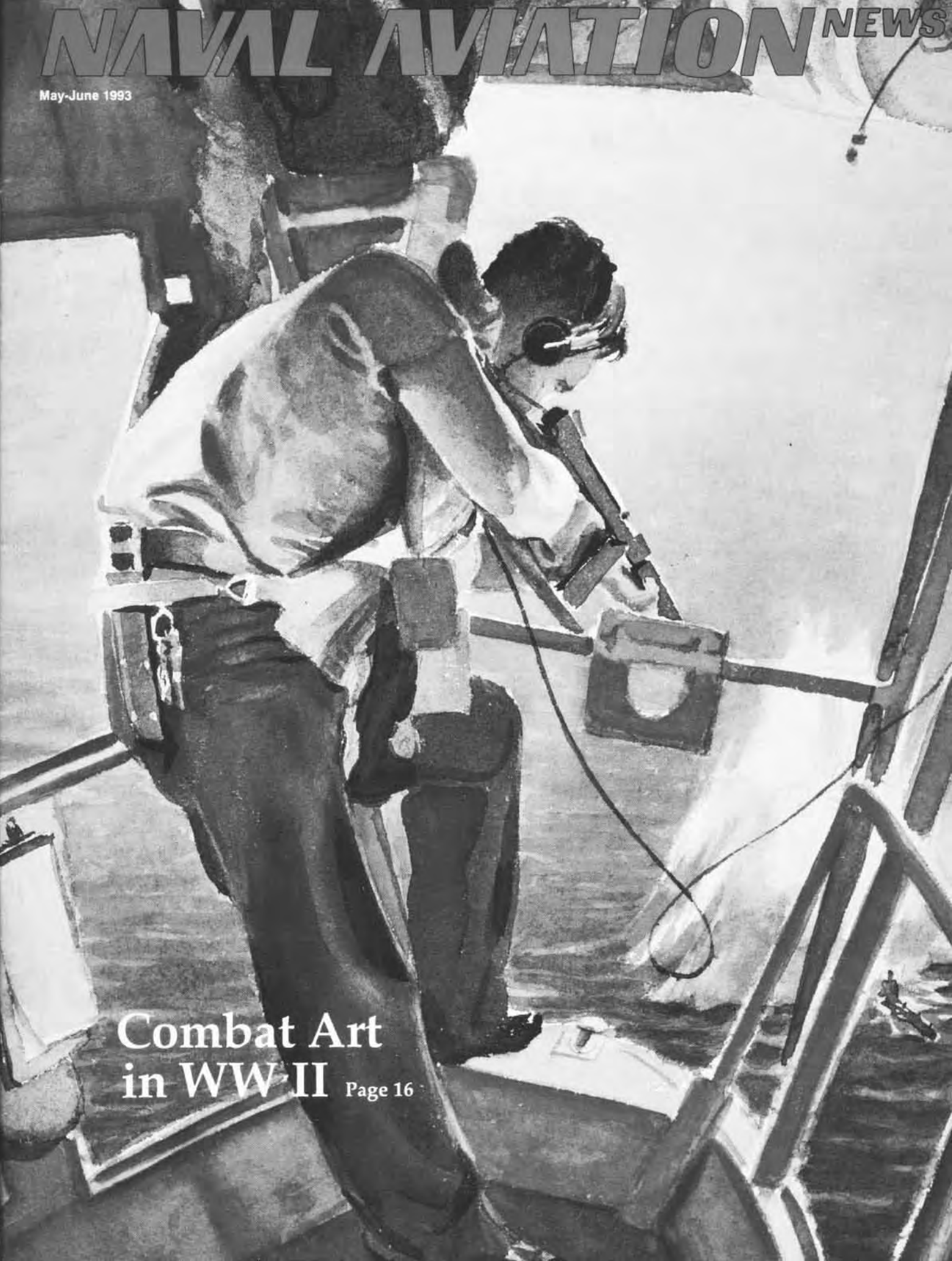
NAVAL AVIATION NEWS

May-June 1993



# Combat Art in WW II

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# NAVAL AVIATION NEWS

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COVERS – Front: "General Quarters," Albert K. Murray (U.S. Navy Combat Art Collection). Battle between sub and blimp. The tail gunner braces himself as he covers the U-boat's deck with his Browning automatic rifle to prevent manning of the German's deck gun while the blimp maneuvered for another bombing run. Commissioned a Ltjg. in March 1942, Murray painted a series on lighter-than-air crews. After the war, he became officer in charge of the Combat Art Section. Back: "Ready Room," William F. Draper (U.S. Navy Combat Art Collection). Many combat artists did scenes of pilot briefings. This effort is one of the best and depicts Navy crews relaxing before a mission or flight planning.

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By RAdm. Riley D. Mixson, Director, Air Warfare

# The Argument for 12 Aircraft Carriers

The 12-carrier requirement is based on a combination of global presence, conventional deterrence, crisis response, and war-fighting capabilities. In the context of "...From the Sea," wherein the Navy and Marine Corps provide the initial enabling force for joint combat operations, and continual participation throughout any sustained conflict, a minimum of 12 carriers is the right size as consistently demonstrated in our wargaming and analysis. During the recently completed OPNAV/CINC's Investment Balance Review, a great deal of sacrifice was made, across all warfare areas, to be able to fund 12 carriers.

Anything less than 12 aircraft carriers, with their awesome complement of aircraft and weapons, undermines our Navy's ability to carry out National Command Authority tasking. A quick run-down of the long list of crises just since 1986 (El Dorado Canyon, Earnest Will, Praying Mantis, Sharp Edge, Desert Shield, Eastern Exit, Desert Storm, Provide Comfort, Sea Angel, Southern Watch, Provide Promise, Restore Hope) illustrates the fundamental need for an effective and responsive military force in a still disorderly and dangerous world. Naval Aviation was a key element in responses to all of these crises.

PH2 John P. Protz

Flanked by two F-14A Tomcats, Carl Vinson (CVN 70) cruises in the Indian Ocean during a six-month deployment in 1988.

In the 1980s, we tried to sustain a 15-carrier force level objective. The continuous presence goal that drove the 15-carrier force was reduced after the cold war to a "tether policy." This flexible presence strategy recognizes the inevitability of carrier gaps and the need for other Naval Expeditionary Forces to complement the carriers. This permits forces to be within a week or so of a potential crisis spot.

The Regional Defense Strategy (based on the National Military Strategy from JCS), which includes forward presence as a foundation for effective crisis response, mandates that we have the capability to react simultaneously to contingencies in different world regions. Our planned 12-carrier force enables us to surge nine carriers within 90 days in a major regional crisis.

With a reduction to 10 carriers, our surge capability would be reduced to seven decks, and the ability to have two carriers arriving on station within one or two weeks would increase to three or four. If we reduced the force to eight carriers, we would be able to surge only four or five carriers in 60 days, and no more than six carriers within 90 days.

A reduction in carrier force levels adversely impacts operational competency and readiness to meet war-fighting demands at a potential flashpoint. Integrated training in the geographical and physical environments of possible contingencies provides irreplaceable experience for our ship and aircrews, and affords us the opportunity to work with allied and friendly naval and air forces. We cannot accomplish any of these important objectives in the VACAPES or SOCAL.

We affect the game by being on the field, not on the sideline waiting for something to happen. Nondeployed carriers cannot respond effectively to short-duration crises or arrive on the scene early on; forward-deployed carriers can! For instance, the *Achille Lauro* incident erupted and was terminated by carrier aircraft from *Saratoga* in three days. When Iraq invaded Kuwait, *Eisenhower* and *Independence* were within striking range of Iraq within 48 hours, and when they were joined by two more carriers within 30 days, Gen. Norman Schwarzkopf noted: "The Navy was the first military force to respond to the invasion, establishing immediate sea superiority, and the Navy was also the first air power on the scene. Both of these firsts deterred, indeed – I believe – stopped, Iraq from marching into Saudi Arabia." The carriers were the first to arrive, and they remain on station in the gulf today.

JO1 (SW) Eric Sesit

RAdm. R. D. Mixson

The contention that a smaller carrier force would be less expensive is true, but ignores the need to meet real world requirements. Alternative naval forces can complement, but not replace, the carrier in modern naval warfare. Carrier forces can dominate the littoral battlespace and generate precise and awesome offensive firepower at a time or place of our choosing, and in any weather conditions, day or night.

We must continue to focus our "...From the Sea" priorities towards matching our capability with the nation's global military strategy. The formidable striking arm of that strategy lies in our carrier force. Maintaining the sharp edge on that capability requires a minimum force of 12 carriers.

Osborn

## Cobra Calamity

A section of AH-1W *Super Cobras* launched at 1900 on a night training mission from MCAS Alpha. They planned a hot refueling stop at MCAS Bravo before flying a tactics training flight and returning to Alpha. While refueling at Bravo, the aircrews learned that Alpha was forecasting IMC (instrument meteorological conditions) weather. The mission commander decided that the section would fly the tactics flight with night vision goggles then remain over night at Bravo. They had even brought clothing along for that eventuality.

The AH-1Ws returned to Bravo for more hot refueling after the tactics flight. It was now 2245 and Alpha was forecasting visual flight rules weather between 2400 and 0100. Alpha's ground control approach radar was scheduled to close down at 2300, but a Tacan (tactical air navigation) approach was available.

The section decided to return to Alpha and launched from Bravo at 2310. En route, the mission commander's Tacan acted erratically so he gave the lead to the second AH-1W. Nearing Alpha, the flight began a section Tacan approach. Prematurely, the flight switched to tower frequency after commencing the approach, requiring approach control to communicate directly with the tower to ensure the flight was under its (tower) control.

At the 13-mile point, at 100 knots in a 500-fpm descent, the *Super Cobras* entered thick clouds. Lead's copilot noted that number two was having difficulty maintaining parade position on the starboard wing. At 10.5 miles, the copilot looked away from the wingman to read his approach plate. The leader reported the final approach fix at 10 miles, 1,450 feet mean sea level. The flight was cleared to land. The leader became VMC (visual meteorological conditions) at 1,200 feet, four miles from the airfield. Lead's copilot had lost visual contact with the second AH-1W.

"Are you still with me?" radioed Lead.

The wingman said, "We have broken off and are climbing away."

Lead continued the approach and landed. A witness saw the flash of an explosion some distance behind the leader. The wingman had crashed, killing both crew members.


**Grampaw Pettibone says:**

**Flyin' wing in the goo is tough business just goin' straight and level. No room for error. The number two Super Cobra simply couldn't stay in visual contact with Lead. Maybe when he lost sight of Lead and had to quickly go on the gages while decidin' a course of action, his duties piled up and he got behind the aircraft. Whatever the distraction, these hard-workin' flyers had been in the saddle for nearly five and a half hours. They didn't egress during refueling. They had to be a bit fatigued. Three of the four pilots had not flown an IMC formation penetration and approach at night. Seems some plannin' for poor weather, approach procedures, and qualification checkin' was in order before launchin' out from the last refuelin'.**

**Hindsight sez they shoulda stayed the night at Bravo.**

**There were many other factors in this accident, but the bottom line is a constant: fly the aircraft – 'specially when the goin' gets tough. Plan your options and trust your gages – fly the aircraft first, then adjust your landin' plans if you have to. Nuff sed!**

## Solos' Lament

Several student Naval Aviators were eager to launch (individually) on their last precision acrobatic solo flight. The FDO (flight duty officer) was anxious to see them airborne as well. Weather was three miles visibility in haze, so the FDO suggested that the students have lunch and return in two hours when the weather might be improved.

When they returned, the weather had hardly changed, but the FDO ordered the students to preflight their aircraft and then come back for a safety briefing. Student "Jones" thought it odd that no other squadron was launching solos that day but complied with the FDO's direction.

After the safety brief, the FDO cleared the solos to launch. Jones was advised, "Don't fly upside down, and make sure the rear cockpit is secure."

Jones, with 20 flight hours of experience, took off. Climbing through 4,000 feet, he realized he couldn't go higher and remain VFR (on visual flight rules). So he stayed under that altitude and tried an aileron roll. During the maneuver, the horizon became a blur due to the haze, and although he could still see the ground clearly, he realized he'd best not continue solo acrobatics.

He reached the initial point on his return, checked in via radio, and heard a panicked transmission from approach control, "Solo, climb. Climb immediately!"

Jones added power and yanked back on the stick. He then looked down and saw two aircraft in formation directly below him.

The approach controller explained to the solo student that an IFR (instrument flight rules) flight had decided to penetrate the weather right next to the initial point, a violation of course rules.

The student recovered safely shortly thereafter, as did the other solos. On landing, Jones described his experience at the initial point but got the sense that others, including the FDO, didn't feel the near-miss was "that big a deal."

**Grampaw Pettibone says:**

**This one yanks my whiskers two ways! First, flight discipline begins on the ground. The FDO was within his rights to authorize the solos to launch,**


**but it sounds like he mighta been feelin' a "push" to get students through the program. Considerin' the shaky weather conditions, the FDO shoulda held off launchin' the solos. Last time I looked, we didn't have a rush on to qualify studs. A midair woulda ruined the FDO's whole day, not to mention the parties who mighta smacked into each other.**

**Second, a midair IS a big deal. In our bird-farm arena, flyin' rules are real important to keepin' one another out of the same airspace at the same time. 'Pears we had a right serious breakdown in how we do that – a closer investigation may have given all of us some ideas as to how to make the area safer next time the weather turns sour. Life is too short and aviation too unforgiving to shrug off an opportunity to learn our business a little better.**

**Students: keep your head on a swivel and your scan goin' – whatever the weather. Seniors: it's up to you to keep the fledglings flyin' safely.**

Attaboy to Lt. Pat Hurley, HSL-34, for his input.

## Bossin' the Boat

A junior Naval Aviator was assigned boat officer duty in charge of a 40-man utility boat during an in-port liberty call. It was 2300 on a dark and boisterous night, and because five Navy ships were anchored in the harbor, liberty launches proliferated.

Personnel filled the boat for the return trip to the ship. A number of them were intoxicated and the boat officer paid special attention to them. Halfway to his ship, there was a loud thud under the boat. The coxswain had inadvertently run over a burlap bag which fouled the prop.

To the boat officer, it seemed as if every passenger, particularly those who had imbibed ashore, wanted to be a savior. A search and rescue swimmer was ready to strip down and dive into the depths, armed only with a bowie knife. At least a dozen engineers were determined to disassemble the engine and fix it on the spot. Several boatswain's mates rummaged through storage lockers searching for oars in order to muscle the boat back to the ship. One sailor vomited on the boat officer's shoes, at which point the latter decided to treat the circumstances as a bona fide emergency and handle it as he would an aerial contingency.

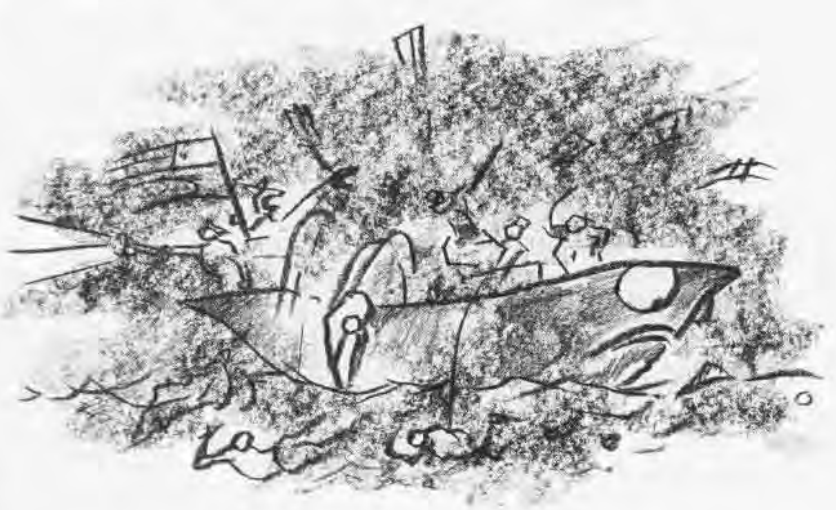
With a commanding voice and the able assistance of the duty coxswain, the boat officer ordered all prospective helpers to desist. His first priority was to "aviate" the boat. This was a nonproblem because the vessel was dead in the water. Next was "navigate." He posted a bow linesman to watch for approaching vessels and hail them with a flashlight to indicate the disabled boat's location. Finally, "communicate." He radioed the ship's officer of the day, who dispatched a whale boat to tow the beleagured group in.

All hands survived.

**Grampaw Pettibone says:**

**Holy calamity! What an excitin' first command at sea for this young aviator! Fallin' back on Navy trainin' was the best thing this young aviator coulda done, and this boatload was lucky a steady hand with a focus on the problem was there. Situations like this have turned to worms with loss of life. Any boat officer who's had to deal with personnel "in their cups" on a liberty boat knows what a genuine challenge it can be. Had the water been choppy, a lad or two here and there mighta gone for an unintentional swim. And swimmin' in the dark, cold sea is no fun for sailors – regardless of rank or paygrade.**

A tip of the boat officer's bridge cap to Lt. Eric Humphreys, HSL-34.



## FY 94: Gains and Cuts

The FY-94 defense budget recommendation submitted on March 27 included significant force-level reductions for the Navy, including Naval Aviation, but also funded many important ships and aircraft programs for force modernization.

The budget proposed funding research and development for the ninth *Nimitz*-class carrier (CVN 76); construction of a sixth *Wasp*-class LHD amphibious assault ship; development of the V-22 tilt-rotor aircraft; and strike upgrades to 210 F-14 fighters. Pending results of a Bottom-Up Review of Defense Needs and Programs, to be completed by late summer, the budget also will fund the FA-18E/F and the AFX programs.

Aircraft procurement planned for FY 94 includes 36 FA-18C/Ds and 12 T-45As. Helicopter purchases will include 7 SH-60B, 8 SH-60F, 9 HH-60H, 12 AH-1W, and 12 CH-53E and MH-53E aircraft. Funding is also recommended for upgrades to the EA-6B, E-2C, and P-3 fleets, as well as the remanufacture of four AV-8Bs into the night-attack version.

In order to maintain a 12-carrier force, the Navy stands to lose its dedicated training carrier, *Forrestal* (AVT 59), and will retire *Saratoga* (CV 60) a year earlier than planned. Carrier air wings will remain at 11 active and 2 reserve wings, and the three Marine aircraft wings will be maintained.

Squadron cuts planned for FY 94 include two A-6, two F-14, and two P-3 squadrons, and four reserve P-3 squadrons. Plans call for fleet readiness squadrons to be consolidated at single sites for all types, except for the FA-18 community because of its size. Several type/model/series of aircraft and their associated logistics are scheduled for phaseout, including the F-16N and TF-16N adversaries, and the SH-2 and SH-3 antisubmarine warfare helicopters.

## DoD Recommends Air Station Closures

The base closures and realignments recommended by Secretary Les Aspin on March 12 included eight Navy and Marine Corps air stations, two naval air facilities, and three naval aviation depots, and the major realignment of several air stations and other aviation commands (see table). After the Base Closure and Realignment Commission received the list, it voted to consider an additonal naval air station for closure, NAS Agana, Guam.

The list was forwarded to the Defense Base Closure and Alignment Commission, which will consider the list and forward its recommendations to the president and Congress by July 1, 1993. President Clinton has until July 15 to approve or disapprove the recommendations. If approved, he must send the list to Congress, which would have 45 days to enact a joint resolution to disapprove the list in total if it desires. If the president disapproves the list, he has until August 15 to submit a new report, after which Congress has 45 days to disapprove the list if it desires.

Many squadrons and other commands on the bases to be closed or realigned will be consolidated at other bases. Once the list is approved, the details of the moves will be executed by the Atlantic and Pacific fleet commanders in chief. Moves will be announced as details become available.

### 1993 DoD Base Closure and Alignment Recommendations

**For closure:**

**Marine Corps Air Stations**
MCAS El Toro, CA

**Naval Air Stations**
NAS Alameda, CA
NAS Cecil Field, FL
NAS Barbers Point, HI
NAS Glenview, IL
NAS Meridian, MS
NAS South Weymouth, MA
NAS Dallas, TX
NAS Agana, Guam*

**Naval Air Facilities**
NAF Detroit, MI
NAF Midway Island

**Naval Aviation Depots**
NAD Alameda, CA
NAD Pensacola, FL
NAD Norfolk, VA

**Other**
Aviation Supply Office, Philadelphia, PA
Naval Air Warfare Center Aircraft Division, Trenton, NJ

**For relocation:**
Naval Air Systems Command, Arlington, VA
Naval Air Technical Services Facility, Philadelphia, PA

**For realignment:**
NAS Memphis, TN – Close the airfield, move the Bureau of Personnel from Washington, DC, to Memphis.

**Changes to previous recommendations:**
MCAS Tustin, CA – Close, relocate some units to NAS Miramar, CA, vice Twentynine Palms, CA.

NAS Moffett Field, CA – Turn over to NASA, but receive some reserve squadrons.

NWEF Albuquerque, NM – Retain as Air Force facility.

* Not on the DoD list but voted for consideration by the Base Closure and Realignment Commission.

## SECDEF Directs Consolidations

In a March 29 report to Congress, Secretary of Defense Les Aspin acted on recommendations made February 12 by Chairman of the Joint Chiefs of Staff, Gen. Colin Powell, to consolidate some service aviation training activities into joint training.

The Secretary ordered the services to combine initial fixed-wing flight training and to agree on one common training aircraft. He also directed that some Army and Marine Corps attack helicopter aircrew and maintenance training be combined, while examining the feasibility of consolidating initial helicopter training for all services at Fort Rucker, Ala.

Mr. Aspin also ordered the services to integrate attack helicopters into close air support planning, while standardizing joint doctrine for close air support to allow safe, effective support by all service elements. In addition, the services were ordered to develop a standard accounting system for aircraft inventories.

## TR Relieves JFK in Adriatic

*Theodore Roosevelt* (CVN 71) and Carrier Air Wing (CVW) 8 relieved *John F. Kennedy* (CV 67) and CVW-3 in the Adriatic Sea in late March, changing the guard off Bosnia-Herzegovina in support of Operation Provide Promise. Also embarked in *Theodore Roosevelt* is a special Marine Air-Ground Task Force of 10 helicopters and a reinforced company of Marines. (See NANews, Mar-Apr 93, pp. 12-13.)

CVW-8 stood ready to contribute 12 FA-18Cs to NATO's first combat assignment in its 43-year history, a "no-fly" zone over Bosnia which began April 12.

During *John F. Kennedy*'s operations in the Adriatic, Airborne Early Warning Squadron (VAW) 126 launched an E-2C *Hawkeye* each evening to provide air traffic information and early warning for U.S. Air Force C-130 transports paradropping supplies to relieve the suffering of Bosnian citizens trapped in the country's strife-torn area. Capt.

PH2 John A. Bivora

A VAW-126 E-2C Hawkeye starts engines aboard John F. Kennedy (CV 67) for an air surveillance mission over the Adriatic Sea in support of Operation Provide Promise in Bosnia-Herzegovina.

Jay E. Hedley, an Air Force C-130 pilot based at Rhein-Main Air Base, Germany, remarked, "They would cancel the mission before the C-130s go in without someone up there to look down to perceive the threat. If there was a threat, the *Hawkeye* is the only way the C-130s would know something was coming. It is imperative the *Hawkeye* is up and flying."

Fleet Air Reconnaissance Squadron 2 also monitored the situation in Bosnia with its EP-3Es, keeping the battle group commander updated with information needed to protect the C-130s.

P-3Cs from VP-24 continued to enforce the UN arms embargo with patrols in the Adriatic.

Keeping company with *John F. Kennedy* in the Adriatic were carriers of other nations, including the French carrier *Clemenceau* and the British Royal Navy's *Ark Royal*.

The Saipan Amphibious Ready Group, centered around *Saipan* (LHA 2), with Marine Medium Helicopter Squadron (HMM) 264 (Composite) embarked, sailed from the East Coast on March 17 to relieve *Guam* (LPH 9) and HMM-261 (C) in the Adriatic.

## Helos Begin Somalia Departure

Some of the Marine Corps helicopters deployed to Somalia in support of Operation Restore Hope returned to their bases in California as requirements for their services wound down. (See *NANews*, Mar-Apr 93, p. 4.)

Members from a Marine Heavy Helicopter Squadron (HMH) 466 detachment returned to MCAS Tustin, Calif., on February 27, followed on March 18-19 by portions of HMH-363 and Marine Helicopter Light Attack Squadron (HMLA) 369.

Col. J. P. Kline, Commander of Marine Aircraft Group 16 and the Air Combat Element (ACE) in Somalia, also returned, leaving Lt. Col. David R. Fulton, CO of HMLA-369, as head of the remaining ACE forces.

According to Col. Kline, the mission of the ACE turned out to be somewhat different than expected: "We anticipated a great requirement for the CH-53s for troop assaults and delivering fuel and other supplies. We found that our focus was in close-in fire support and visual reconnaissance missions. The level of action was much higher in Mogadishu and lower in the interior, which was the opposite of what we expected."

PHCM Terry C. Mitchell

Landing Zone Buzzard – Beach detachment personnel from Tripoli (LPH 10) load equipment into an HH-46D Sea Knight from HC-11 at Mogadishu, Somalia. Tripoli and her helicopters supported Operation Restore Hope relief operations in Somalia until relieved in March by Wasp (LHD 1) with HMM-263 (C) and a detachment of HC-6 embarked.

PH3 Byers

Kitty Hawk (CV 63), shown here replenishing from Sacramento (AOE 1), was relieved by Nimitz (CVN 68) in the Arabian Sea on March 18. In three months of intensive operations, embarked Carrier Air Wing 15 flew 446 missions in support of Operation Restore Hope's multinational forces in Somalia and flew Operation Southern Watch air strikes against Iraqi command and control sites in January. (See NANews, Mar-Apr 93, p. 4.)

## Constellation Completes SLEP

*Constellation* (CV 64) departed Philadelphia Naval Shipyard on March 4, the fifth and last carrier to complete the Service Life Extension Program (SLEP).

*Constellation* arrived at Philadelphia on April 11, 1990, for the 32-month overhaul, following *Saratoga* (CV 60), *Forrestal* (CV 59), *Independence* (CV 62), and *Kitty Hawk* (CV 63) in the program. SLEP is designed to extend the life of those carriers for 15 years. *Constellation* returned to sea for trials in February and logged its first trap in nearly three years on February 9, when an F-14 assigned to the Naval Air Warfare Center Aircraft Division, Patuxent River, Md., caught the number four wire while the carrier was operating off the Virginia Capes.

Arriving at NS Mayport, Fla., on March 11, *Constellation* conducted two months of training from there in preparation for its return transit around Cape Horn to its home port, NAS North Island, Calif., with arrival expected in July.

Thanks to JOSN Thomas Morton for information.

## VPs Test Active-Reserve Integration

A plan implemented by Commander Patrol Wing (CPW) 11, NAS Jacksonville, Fla., in January is testing the full integration of active and reserve aircraft, aircrews, and maintenance personnel with the goal of allowing crews and aircraft to be completely interchangeable and mutually supportive – resulting in a more efficient and effective maritime patrol aircraft force.

Active duty patrol squadrons VPs 45 and 49 and reserve squadron VP-62 are participating in the nine-month program. Four VP-62 crews are completing CPW-11's Tactical Proficiency Course (designed to maximize crew coordination and standardize tactics), along with VP-45 crews, and will complete certification training and operational readiness evaluation with VP-45 during its workup cycle.

Eight VP-62 crews will integrate with VP-49 during its upcoming deployment. Squadron officials believe that all crews will

fly CPW-11's P-3Cs using standardized procedures before the program ends on September 30. A report on the program's results will be sent to the Chief of Naval Operations.

Thanks to Ltjg. Craig Dorrans for information.

## Battlecats Bring LAMPS to Fallon

A new flexibility of the SH-60B *Seahawk* Light Airborne Multipurpose System (LAMPS) Mark III helicopter was demonstrated in Exercise Desert Rescue in late 1992 at NAS Fallon, Nev. A detachment of the Helicopter Antisubmarine Squadron Light (HSL) 43 *Battlecats* participated in a combat search and rescue exercise exploiting the sophisticated avionics of the SH-60B.

The command and control capability of the SH-60B made it an excellent platform for the rescue effort's airborne mission commander. The helicopter's Identification Friend or Foe system enabled it to provide a continuously updated tactical plot of the scene, and its electronic surveillance measures system enabled it to locate and identify simulated enemy radar threats.

Thanks to Lt. Adam Taylor for information.

## HC-16 Scattered Around Atlantic

Helicopter Combat Support Squadron (HC) 16, NAS Pensacola, Fla., normally tasked with training H-1 "Huey" crews and supporting the training carrier with SH-3 plane guard detachments, found itself in early 1993 supporting three widely scattered detachments throughout the Atlantic area.

An SH-3 detachment has been providing plane guard services for *Constellation* (CV 64) in the Atlantic as it prepares for its return to California following completion of the Service Life Extension Program. Another SH-3 detachment deployed to NAS Guantanamo Bay, Cuba, on January 21 in support of Operation Able Manner, in preparation for the expected exodus of Haitian refugees.

A third detachment departed March 4 aboard *Inchon* (LPH 12), sending one of its HH-1Ns to sea for the first time since 1985. The detachment was formed to provide search and rescue support for Helicopter Mine Countermeasures Squadron 16, deployed onboard *Inchon* for over two months to participate in NATO mine countermeasures exercises in the North Atlantic.

HC-16 is slated for disestablishment in 1994; its HH-1N training role will be assumed by Marine Helicopter Squadron 303, Camp Pendleton, Calif., by October 1993, and its rescue duties at Pensacola will be assumed by SH-3H helicopters operated by NAS Pensacola.

Thanks to Ens. M. MacPherson, HC-16 PAO, for information.

## Lost Boys Switch Squadrons

The *Lost Boys* of Helicopter Combat Support Squadron (HC) 1 Detachment 6, an institution in the Seventh Fleet since 1973, ended their association with HC-1 on February 1, 1993, when they were transferred to Helicopter Antisubmarine Squadron Light (HSL) 51 as HSL-51 Detachment 11.

With the primary mission of providing transportation for Commander Seventh Fleet and his battle staff with an SH-3G *Sea King* helicopter, the detachment, based at NAF Atsugi, Japan, is the Navy's oldest continuously operating detachment; it was the last of 21 separate detachments of HC-1, NAS North Island, Calif. The *Lost Boys* participated in Operation Desert Storm from the deck of *Blue Ridge* (LCC 19), delivering mail, cargo, and passengers. The detachment has also performed rescues at sea.

By joining the *Warlords* of HSL-51, an SH-60B squadron based also at Atsugi, the detachment will be able to operate with greater administrative efficiency.

Thanks to Ltjg. Chan for information.

Bob Shane via P-3 Publications

**The Chilean navy took delivery of its first UP-3A Orion on March 3, 1993, at Tucson, Ariz. The aircraft (BuNo 151354) was the first of eight ex-Navy UP-3As being acquired by Chile for its Patrol Squadron 1, which will use them in search and rescue, coastal patrol, fisheries patrol, and drug interdiction missions. The first aircraft, being refurbished after desert storage at Davis-Monthan AFB, Tucson, by Western International Aviation, Inc., was flown to the naval air base at Vina del Mar, 60 kilometers outside of Santiago, Chile, in time for the celebration of the 70th anniversary of the Chilean navy.** Information courtesy of David Reade

## For the Record ...

✈ **Naval Weapons Evaluation Facility**, Albuquerque, N.M., in the process of disestablishment, ceased flight operations in October 1992 and is **no longer able to provide logistics and maintenance support to transient aircraft.**

✈ **VFs 1 and 2** recently commenced transition at NAS Miramar, Calif., from the F-14A *Tomcat* to the **F-14D** *Super Tomcat*. Assigned to Carrier Air Wing 2, the two squadrons will eventually deploy aboard *Constellation* (CV 64).

✈ VMA(AW)-224, MCAS Cherry Point, N.C., was redesignated **VMFA(AW)-224** on March 5, 1993, as it prepared for transition from the A-6E *Intruder* to the **FA-18D** *Hornet*. The *Bengals* are scheduled to move to MCAS Beaufort, S.C., by July 1, 1993.

✈ **VQ-4** completed its relocation from NAS Patuxent River, Md., to Tinker AFB, Okla., on March 31, 1993, marking the consolidation of the Navy's two strategic communications (TACAMO) squadrons at one base. On March 12, the *Shadows* opened a new alert facility at Patuxent River, which will remain an alert site for the E-6A *Mercury*.

✈ Found operationally effective and suitable by Commander Operational Test and Evaluation Force, the **SH-2G** version of the *Seasprite* helicopter was approved by the Chief of Naval Operations on February 22 for fleet introduction.

✈ The **ES-3A** *Viking* electronic reconnaissance aircraft was formally approved in April by the Chief of Naval Operations for operational employment aboard aircraft carriers and shore-based detachments.

✈ Five **OV-10** *Broncos* arrived by ship at Port Hueneme,Calif., in February, closing out 25 years of Marine Corps OV-10 service in the Far East. The aircraft, belonging to VMO-2 at MCAS Camp Pendleton, Calif., were assigned to the squadron's detachment at MCAF Futenma, Okinawa, Japan. The *Bronco* was operated in Okinawa over the years successively by VMO-6, H&MS-36, and detachments of VMOs 1 and 2.

✈ **VT-28**, NAS Corpus Christi, Texas, has become a **primary training squadron** after serving three years as an instructor training squadron for the T-44A. The *Rangers*, which flew their first T-34C student on February 16, now train students in the **T-34C** alongside the other primary training squadron at Corpus Christi, VT-27. VT-31 is presently the sole T-44A advanced maritime training squadron.

Thanks to Ens. Elka Weiss for this information.

✈ **HS-85** changed home port from NAS Alameda to NAS North Island, Calif., on March 31. The *Golden Gators*, in addition to maintaining their carrier-based antisubmarine warfare mission, will eventually assume rescue and range support duties from **HC-1**, which is slated for **disestablishment** in 1994.

✈ **VXE-6** returned to NAWS Point Mugu, Calif., in February after completing its 39th annual Operation Deep Freeze deployment to Antarctica in support of the National Science Foundation.

✈ The **Naval Air Warfare Center** Weapons Division has been supporting testing of the **Kuwaiti Air Force FA-18** *Hornets* at NAWS China Lake and NAWS Point Mugu, Calif. The tests involved the aircraft's software, the radar warning receiver, and the AGM-65G *Maverick* missile.

✈ The **Naval Training Systems Center**, Orlando, Fla., delivered three deployable **TOPCAT** trainers in February. The trainers incorporate key aircraft carrier catapult system features designed to meet recurring or proficiency training requirements for catapult officers and aviation boatswain's mates. The trainers can be used aboard ship or dockside.

✈ **Naval Air Warfare Center** Aircraft Division, Lakehurst, N.J., is developing a **Multipurpose Autonomous Vehicle** (MPAV) as part of its Automated Deck Equipment Program. The MPAV will consist of an onmidirectional vehicle platform and a machine intelligence module that will allow for autonomous operation on a carrier flight deck. The MPAV differs drastically from a conventional four-wheeled vehicle in the way it can move in any direction.

✈ **McDonnell Douglas and Lockheed** were selected by the Advanced Research Projects Agency to explore, refine, and validate key technologies of an **Advanced Short Takeoff Vertical Landing fighter**, envisioned as a future replacement for the AV-8 *Harrier* and FA-18 *Hornet*. (See *NANews*, Mar-Apr 93, p. 6.)

✈ **Elsinore Aerospace Services**, a commercial aviation services company based at Newport Beach, Calif., was awarded a five-year contract valued at over $28 million for the total maintenance support of the Navy's **TC-4C** aircraft. The TC-4C *Academe* is used as a navigation and weapons system trainer for the A-6 attack aircraft.

✈ The **MCAS El Toro Command Museum** welcomed two additions to its collection in February, a Lockheed **TO-1 *Shooting Star*** and a Grumman **F4F-3 *Wildcat***. The *Wildcat* was recovered from the bottom of Lake Michigan. Both aircraft were restored by Roy Stafford's Black Shadow Aviation.

# MATVAQWING-PAC Splits

Reorganization of wings in the Pacific Fleet took another step on January 31, 1993, with the disestablishment of Commander Medium Attack Tactical Electronic Warfare Wing, Pacific (COMMATVAQWINGPAC), a flag-level functional wing replaced by two type wings commanded by captains.

In a February 26 ceremony at NAS Whidbey Island, Wash., to mark the events, Commander Attack Wing, Pacific, was established (effective February 1), with Capt. Bernis H. "Butch" Bailey as type wing commander over the Pacific Fleet's A-6 squadrons. At the same ceremony, Commander Electronic Combat, Pacific, was established (effective February 1), with Capt. Baker R. "Bob" Hamilton as type wing commander over the EA-6B squadrons based at Whidbey Island. COMATVAQWINGPAC's disestablishment was also marked at the ceremony; Capt. William A. Dwinelle, who relieved RAdm. Bruce Bremner in December 1992, was the wing's last commander.

COMATVAQWINGPAC has a long history dating back to October 26, 1942, when Commander Fleet Air (COMFAIR), Seattle, was established at NAS Seattle to train combat squadrons at bases in the Puget Sound area and support operations in Alaska. After WW II, the command was heavily involved in the demobilization. On April 17, 1949, the command moved to NAS Whidbey Island (with additional duty as Commander Fleet Air Wing (FAW) 4), and soon found itself activating reserve squadrons for duty in the Korean War.

Eventually, the command was redesignated COMFAIRWHIDBEY and exercised control over the A-3 heavy attack squadrons and patrol squadrons homebased at Whidbey during the Vietnam war. As the patrol squadrons moved to Hawaii, the duty as Commander FAW-4 dissolved when FAW-4 was disestablished on April 1, 1970. The phaseout of the A-3s in the early 1970s and build-up of A-6 squadrons, followed by EA-6B squadrons, led to a redesignation

**Beech Aircraft and Martin-Baker completed certification testing for the ejection seat to be used on the PC-9 Mk II, the Beech entry in the Joint Primary Aircraft Training System competition. The escape system was tested at the Martin-Baker High Speed Test Track in Northern Ireland.** Beech

of the command to COMATVAQWINGPAC on March 1, 1973. Since then, the wing continued to train Pacific Fleet A-6 squadrons and all Navy EA-6B squadrons for deployment, and as reporting senior for NAS Whidbey Island.

## HMH-772 Det A Becomes HMH-769

Marine Heavy Helicopter Squadron (HMH) 769 was reactivated at NAS Alameda, Calif., on April 1, 1993, as part of restructuring of the reserve 4th Marine Aircraft Wing. Lt. Col. Jerry Johnson is the CO of HMH-769.

HMH-769 was reformed from HMH-772 Detachment A, which itself was formed when HMH-769 was last deactivated in 1980. HMH-769 was originally activated on April 15, 1958, as Marine Helicopter Transport Squadron (HMR) 769 at NAS Oakland, Calif. The squadron relocated to NAS Alameda on July 1, 1961, and was redesignated Marine Medium Helicopter Squadron (HMM) 769. On September 1, 1971, the squadron was redesignated HMH-769 and equipped with CH-53A *Sea Stallions*. The squadron was deactivated in 1980 to form Detachment A of HMH-772, a squadron based at NAS Willow Grove, Pa. The detachment transitioned to the RH-53D *Sea Stallion* in April 1990 and was called to active duty to serve in Operation Desert Storm in 1991.

## Deactivated ...

### HMH-772 Det B

HMH-772 Detachment B, a CH-53D unit at NAS Dallas, Texas, was deactivated on April 1, 1993. Col. G. P. Woodroof was the detachment's last CO.

The *Flying Armadillos* were activated at Dallas as Marine Helicopter Transport Squadron (HMR) 777 on April 15, 1959, being redesignated Marine Medium Helicopter Squadron (HMM) 777 on April 1, 1962. The squadron was redesignated HMH-777 on September 1, 1971, and was equipped with CH-53A *Sea Stallions*. In 1980, still based in Dallas, the squadron became Detachment B of HMH-772, a squadron based at NAS Willow Grove, Pa., eventually operating CH-53Ds.

### MWSS-173


Marine Wing Support Squadron (MWSS) 173 was deactivated in a ceremony at Marine Corps Air-Ground Combat Center, Twentynine Palms, Calif., on March 4, 1993. Lt. Col. C. A. Lemay was the last CO of the *Gryphons*.

MWSS-173 was activated on June 2, 1986, at MCAS Kaneohe Bay, Hawaii, in support of Marine Aircraft Group 24. The squadron moved to Twentynine Palms in October 1988 as part of Marine Wing Support Group 37. The squadron supported Marine aviation units deploying to Southwest Asia as part of Operations Desert Shield and Desert Storm, for which it was awarded a Meritorious Unit Commendation.

Most of the personnel of the deactivated squadron formed the Aviation Ground Support Element (under Lt. Col. Terry D. Metler) for Marine Wing Support Group 37 at Twentynine Palms.

### H&HS-17


Marine Headquarters and Headquarters Squadron (H&HS) 17 was deactivated in a ceremony on February 1, 1993, at Camp Foster, Okinawa, Japan, after almost 40 years of service. Maj. Michael F. Kimlick was the last CO of the squadron.

H&HS-17 was activated on July 1, 1953, at Itami, Japan, as Marine Air Base Squadron 17 to provide airfield services to the 1st Marine Aircraft Wing. The squadron relocated to Iwakuni, Japan, in November 1954, and deployed to Da Nang, South Vietnam, from June 1966 until August 1970. The squadron was redesignated Marine Wing Equipment and Repair Squadron 17 on September 1, 1966.

The squadron returned to Iwakuni in August 1970. Redesignated as Headquarters and Ground Maintenance Squadron 17 on March 4, 1977, it relocated to Okinawa in June 1979. On July 1, 1979, it was redesignated Headquarters Squadron 17, followed in June 1986 by its last designation, H&HS-17.

Most of the personnel of the deactivated squadron formed Personnel Support Department 17 (under CWO3 Dennis J. Litalien) of Marine Wing Support Group 17.

Vance Vasquez


**Forgotten but not gone – TA-7C and EA-7L Corsair IIs on the line at Naval Air Weapons Station (NAWS) Point Mugu, Calif. The Naval Air Warfare Center Weapons Division consolidated its small Corsair fleet at Point Mugu in late 1992 in an economy move similar to the consolidation of its A-6 Intruder fleet at NAWS China Lake, Calif. The Corsairs are used as chase and photo aircraft for the various missile programs at Point Mugu.**

Ranger (CV-61), seen here with two VA-145 A-6E Intruders, will be decommissioned at NAS North Island, Calif., on July 10, 1993. Ranger logged her last trap (number 330,683) on March 13, when Carrier Air Wing 2 landing signal officer Lt. Mark Garcia and Lt. Jim Taylor, a VF-124 radar intercept officer, brought a VF-124 F-14 aboard during "Ranger's Last Ride," a 24-hour material inspection off San Diego, Calif. The ship pulled into port for the last time on March 14. After decommissioning, Ranger will be towed to Long Beach Naval Shipyard, Calif., for preservation, before being towed to Bremerton, Wash., for storage.

# Disestablished ...

## VA-65 Tigers

A March 26 ceremony at NAS Oceana, Va., marked the disestablishment (officially March 31) of Attack Squadron (VA) 65 after almost 48 years of service. Cdr. James K. Stark, Jr., was the last CO of the *Tigers*.

Established on May 1, 1945, at NAAF Otis Field, Mass., as Torpedo Squadron (VT) 74, the squadron was initially equipped with SBW-4E and SB2C-4E *Helldivers*, moving to NAS Norfolk, Va., in October 1945. During the following month, VT-74 embarked on *Midway* (CVB 41) for her shakedown cruise. VT-74 upgraded to SBW-5, SB2C-5, and TBM-3E aircraft and moved to NAAS Charlestown, R.I., in February 1946. The squadron moved to NAAS Oceana, Va., in June 1946, and was redesignated Attack Squadron (VA) 2B in November. In July 1947, VA-2B transitioned to the new AD-1 *Skyraider*, making its first deployment to the Mediterranean in October 1947 aboard *Midway*.

Redesignated VA-25 on September 1, 1948, the squadron deployed to the Med in 1949 onboard *Coral Sea* (CVB 43), transitioning to the AD-4 version upon return in 1949, and moving to CGAS Elizabeth City, N.C., in 1950. VA-25 returned to NAAS Oceana in 1951 and made four deployments to the Med and north Atlantic aboard *Franklin D. Roosevelt* (CVB 42) and *Midway*. Following transition to the AD-6 (later A-1H) in October 1953, VA-25 made 10 more deployments with its *Skyraiders* over the next 11 years to the Mediterranean, north Atlantic, and Caribbean onboard *Midway*, *Lake Champlain* (CVA 39), *Intrepid* (CVA 11), and *Enterprise* (CVAN 65), being redesignated VA-65 on July 1, 1959. VA-65 participated in the naval quarantine of Cuba in 1962, and sailed with *Enterprise* in 1964 around the world during Operation Sea Orbit.

VA-65 became the Navy's third A-6A squadron in March 1965 and made three combat

deployments to Vietnam, where its *Intruders* proved invaluable in inclement weather. During the 1966 cruise aboard *Constellation* (CVA 64), VA-65 assisted in the sinking of three North Vietnamese patrol boats approaching *Coontz* (DLG 9). VA-65 saw only three days of combat from the deck of *Forrestal* (CVA 59) in 1967 before the ship suffered its devastating fire. A VA-65 detachment remained in the war zone, augmenting VA-196 onboard *Constellation* (CVA 64). The squadron's third war cruise, aboard *Kitty Hawk* (CVA 63), included a few A-6Bs in its complement. VA-65 lost three A-6As to enemy action during the war.

In 1970, VA-65 began a long association with Carrier Air Wing (CVW) 7 that was to last over 15 years, with 14 deployments to the Mediterranean, Indian Ocean, Caribbean, and north Atlantic onboard *Independence* (CV 62) and *Dwight D. Eisenhower* (CVN 69), often responding to international crises. The squadron acquired KA-6D tankers in 1971, and replaced its A-6As with A-6Es in 1973. In 1979, the squadron traded its A-6Es for the A-6E TRAM (Target Recognition Attack Multisensor) version.

In September 1986, VA-65 joined CVW-13 aboard *Coral Sea* (CV 43) as the first night-vision-goggle-capable A-6 squadron. The *Tigers* made two Mediterranean deployments onboard *Coral Sea* before joining CVW-8 aboard *Theodore Roosevelt* (CVN 71) in 1989.

VA-65's final deployment proved momentous, sailing in December 1990 in support of

Operation Desert Shield. The *Tigers* flew Operation Desert Storm sorties against targets of all kinds in Iraq and Kuwait, including employing laser-guided bombs against power stations. VA-65 is credited with sinking 22 Iraqi naval vessels during the short conflict. After the war, VA-65 flew armed missions over northern Iraq in support of Kurdish refugees in Operation Provide Comfort.

VA-65 has been replaced in CVW-8 by Marine Fighter Attack Squadron 312, an FA-18C squadron added as part of the Navy initiative to integrate Marine squadrons into carrier air wings.

## VF-114 Aardvarks


A January 28 ceremony at NAS Miramar, Calif., marked the disestablishment (officially April 30) of Fighter Squadron (VF) 114 after 48 years of service. Cdr. James R. Barnett was the last CO of the *Aardvarks*.

The squadron was established at NAS Alameda, Calif., on January 20, 1945, as Bombing Fighter Squadron (VBF) 19, moving soon thereafter to NAS North Island, Calif., initially flying F6F-5/5N/5P *Hellcats* and F4U-1/1D/4, FG-1A/1D, and F3A-1 *Corsairs*, heading for the war against Japan with F4U-4s and F6F-5N/5Ps when the war ended. The squadron was redesignated Fighter Squadron (VF) 20A on November 15, 1946, flying the F8F-1 *Bearcat*, and was again redesignated as VF-192 on August 24, 1948, transitioning to the F8F-2. Finally, on February 15, 1950, the squadron was redesignated VF-114, transitioning to the F4U-4B *Corsair* and beginning a long association with Carrier Air Group (later Wing) 11.

VF-114 deployed to the Korean war zone in July 1950 onboard *Philippine Sea* (CV 47), flying 1,100 strikes against enemy forces with its F4U-4Bs. The squadron returned to the war in January 1952, flying 700 combat missions from *Philippine Sea*. Upon return, the squadron moved to NAS Miramar, Calif. and transitioned to the F9F-5 *Panther*, followed by the F2H-3 *Banshee*, making three cruises to the western Pacific aboard *Kearsarge* (CV 33) and *Essex* (CV 9) during 1954-57. In 1957, the VF-114 *Executioners* acquired the F3H-2N *Demon* all-weather interceptor.

VF-114 made two cruises to the western Pacific onboard *Shangri-La (CVA 38) during 1958-59, and one aboard Hancock* (CVA 19) in 1960-61. In July 1961, VF-114 received its first F4H-1 (later F-4B) *Phantom II*, becoming the Pacific Fleet's first *Phantom II* squadron. VF-114 took its *Phantoms* onboard *Kitty Hawk* (CVA 63) to the western Pacific in September 1962, returning there again in 1964.

The *Aardvarks*, as VF-114 was now known, entered combat over Vietnam in January 1966, the first of six war cruises aboard *Kitty Hawk*, the last two while equipped with the F-4J. During those cruises, the *Aardvarks* shot down one North Vietnamese AN-2, two MiG-17s, and two MiG-21s. VF-114 lost nine F-4Bs, two F-4Js, and 8 flyers to enemy action during the war.

VF-114 made two more cruises to the western Pacific and Indian oceans before transitioning in 1976 to the F-14A *Tomcat*, which it would fly for the next 17 years. The squadron made one last deployment onboard *Kitty Hawk* in 1977-78, followed by one to the Mediterranean and one to the Indian Ocean aboard *America* (CV 66). In 1982, VF-114 began the first of five major cruises onboard *Enterprise* (CVN 65), this one taking the squadron on the first carrier battle group operations in the northern Pacific since WW II. In one 10-day period, the *Aardvarks* intercepted over 250 Soviet bomber and reconnaissance aircraft.

During 1986, *Enterprise* entered the Med from the Indian Ocean and took station for two months off Libya following hostilities there, with VF-114 covering Sixth Fleet operations. In April 1988, during an Indian Ocean deployment, while protecting Kuwaiti oil tankers in the Persian Gulf, VF-114 provided cover for air strikes against Iranian naval units during Operation Praying Mantis. The *Aardvarks* last cruise onboard *Enterprise* took them around the world in 1989.

VF-114 made its final deployment in 1991, aboard *Abraham Lincoln* (CVN 72) to the Persian Gulf enforcing UN sanctions against Iraq following the Persian Gulf War. The *Aardvarks* were selected for disestablishment following the 1992 Navy decision to integrate Marine Corps FA-18 squadrons into carrier air wings.

## VP-6 Blue Sharks


A March 19 ceremony at NAS Barbers Point, Hawaii, marked the disestablishment (officially May 31) of Patrol Squadron (VP) 6 after almost 50 years of service. Cdr. Scott R. White was the last CO of the *Blue Sharks*.

Established as Bombing Squadron (VB) 146 at NAS Whidbey Island, Wash., on July 15, 1943, with the PV-1 *Ventura*, the squadron saw combat in the Pacific during WW II, supporting amphibious landings at Morotai and Leyte. On October 1, 1944, the squadron was redesignated Patrol Bombing Squadron (VPB) 146. After the war, VPB-146 was based at Barbers Point with PV-2 *Harpoons* and was redesignated VP-146 on May 15, and later VP-ML-6 on November 15. The squadron moved to Whidbey Island in 1947, and was redesignated VP-6 on September 1, 1948, transitioning to the P2V-2 *Neptune*.

VP-6 took its P2V-3 and P2V-3Ws to Japan at the outbreak of the Korean War, flying its first patrols over the Yellow Sea and Sea of Japan on July 8, 1950. The squadron was also used for naval gunfire spotting. On July 29, two VP-6 P2V-3s on a patrol along the northeast Korean coast sighted a train and destroyed it with rockets. On August 13, VP-6 aircraft sank three boats and two barges engaged in minelaying at Chinnampo. Three days later, however, a VP-6 *Neptune* was shot down while attacking a patrol boat near Chinnampo; the crew was rescued.

VP-6 made a second deployment to the Korean war zone before the armistice. The

squadron lost a P2V-3W when it was shot down by Soviet MiG jet fighters on November 6, 1951, over the Sea of Japan; the crew of 10 was listed as missing. VP-6 was the only patrol squadron to be awarded the Navy Unit Commendation during the war.

During the 1950s, VP-6 supported fleet operations from Barbers Point with deployments to the northern and western Pacific, transitioning to the P2V-5 in 1955, the P2V-5F in 1956, and the P2V-5FS (later SP-2E) in 1959. The *Blue Sharks* responded to the Tonkin Gulf crisis in August 1964 by deploying to bases in the Far East. Upon return to Barbers Point in 1965, VP-6 transitioned to the P-3A *Orion* and, after a 1966 deployment to Adak, Alaska, made six more deployments to the Vietnam war zone through 1975. The squadron transitioned to the P-3A DIFAR retrofit version in 1972, followed by the P-3B in 1975. (During 1971, a VP-6 crew took the first photos of the new Soviet *Yankee*-class ballistic missile submarine.)

From 1975 until 1992, VP-6 carried out antisubmarine warfare, reconnaissance, and other missions during 12 major Pacific and Indian Ocean deployments and numerous detachments ranging from Iceland in the east to the Arabian Sea in the west. The *Blue Sharks* kept pressure on the Soviet submarine force and found themselves employed in a wide variety of missions, including the rescue of over 500 Vietnamese "boat people" during 1979.

VP-6 transitioned in 1977 to the P-3B TACNAVMOD ("Super Bee"), and in 1980 became the first Pacific Fleet squadron to be equipped with the AGM-84 *Harpoon* antiship missile. In February 1990, the squadron transitioned to the Update II.5 version of the P-3C. The *Blue Sharks* returned from their final deployment (to NAF Misawa, Japan) in November 1992.

Special thanks to Lljg. Eric Barker, VP-6, for information.

## VR-22 Medriders

An April 2 ceremony at NS Rota, Spain, marked the disestablishment (officially May 31) of Fleet Logistics Support Squadron (VR) 22 after over eight years of service. Cdr. Walter F. Leoffler, Jr., was the last CO of the *Medriders*.

VR-22 was established on October 15, 1984, formed with personnel and four C-130F *Hercules* aircraft from VR-24 Detachment Rota (see *NANews*, Mar-Apr 1993, pp. 8-9, for a history of VR-24). The *Medriders*' primary mission was to conduct medium-lift logistics flights hauling personnel, cargo, and mail in support of the Sixth Fleet operations in the Mediterranean. A secondary mission of aerial refueling was added in 1985 with the delivery of two KC-130F tankers. The squadron also used its flexibility to perform paradrop, airdrop, and medical evacuation missions.

The *Medriders* became a fixture in NATO exercises in the Med, but proved their greatest worth in support of "real-world" crisis response throughout the eastern hemisphere. The squadron supported the multinational peacekeeping force in Lebanon in 1984 and Sixth Fleet retaliatory operations against Libya in 1986.

The years 1990-91 became the busiest for VR-22, starting humanitarian assistance flights to flood-ravaged Tunisia in May. That month, the squadron began support for Operation Sharp Edge, the evacuation of the U.S. Embassy in Monrovia, Liberia, flying over 200 sorties through February 1991 over a life line stretching 2,100 miles. Two days after Iraqi forces invaded Kuwait in August 1990, a VR-22 aircraft arrived in Jeddah, Saudi Arabia, the beginning of a furious tempo of logistics and aerial refueling flights in support of Operations Desert Shield and Desert Storm. At one point, in September 1990, the squadron's five aircraft were simultaneously flying over four continents.

The liberation of Kuwait brought no rest for the *Medriders*. The squadron focused its flights in support of Operation Provide Comfort, the effort to relieve Kurdish suffering in northern Iraq. Retiring its C-130F transports by July 1992, VR-22 continued operations with three KC-130Fs, flying missions into Italy in support of the Bosnian relief effort, Operation Provide Promise. The *Medriders* closed out their history without the loss of a crew or aircraft.

VR-22's fleet support role in the Med is being assumed by rotating Naval Air Reserve VR squadron detachments using C-9B, DC-9, and C-130T aircraft.

Special thanks to Lt. Dave Gluck, VR-22 PAO, for information.

PH2 Garret

NAVSPACECOM

Naval Space Operations Center watchstanders at Dahlgren, Va., monitor the ground station for the Multiple-Access Communications Satellite, developed to provide store-and-forward communications for tactical commanders.

# Naval Space Command

## 10 Years of Service to the Fleet

**By JO1(SW) Eric S. Sesit**

A small task force approaches a hostile coastline. Its arrival time is critical. The invasion must be done during the darkest hours of the night. The seas must be calm enough for the amphibious landing ships to deploy their troops safely, and it must be done without being detected by enemy forces, who may be using surveillance satellites to detect invaders.

The Marines land on the beach and run into a small band of enemy troops. An assessment of the situation is transmitted back to the battle group commander, who calls in air support from the carrier waiting offshore. Using the NAVSTAR Global Positioning System (GPS), the Marines give precise coordinates for the fighters to attack. The air strike persuades the enemy to abandon its position and the coastline is secured.

This scenario exemplifies how much U.S. Navy forces rely on the Naval Space Command (NAVSPACECOM). Celebrating its tenth anniversary on October 1, 1993, NAVSPACECOM was established to consolidate the Navy's space activities and organizations that operate and maintain naval space systems.

NAVSPACECOM is headquartered in the Alan Shepard-John Glenn Space Command and Control Center in Dahlgren, Va. Its mission is to conduct, support, plan, and budget space operations for naval forces worldwide. It is the naval component of the U.S. Space Command, and advises, supports, and assists the naval services' development of interoperable space plans, programs, policies, concepts, and doctrine. NAVSPACECOM

manages three operational Navy activities: the Naval Space Surveillance Center (NAVSPASUR), the Naval Satellite Operations Center (NAVSOC), and the Fleet Surveillance Support Command (FSSC).

## Naval Space Surveillance Center

In 1961, the Naval Space Surveillance System was established as the Navy's first space-related operational command. In 1988, the name was changed to NAVSPASUR in order to more accurately reflect the command's broadened mission as a center for gathering and dispensing a wide variety of information related to space systems. In June 1993, NAVSPASUR will be disestablished. Its activities and functions will be incorporated into NAVSPACECOM.

NAVSPASUR provides information on any threat from space to battle group commanders through its command center 24 hours a day. The command center monitors launches, maneuvers, and breakups of both foreign and domestic satellites.

"Information is gathered by what is called the 'fence,' a network of field stations approximately 5,000 nautical miles, which extends across the United States and portions of the Atlantic and Pacific oceans," Commander Patrick T. Sheehy, head of the Space Support Branch at NAVSPACECOM, said. These nine field stations make up one of the largest antenna systems in the world with a total combined length of more than 15 miles. "The information the fence gathers is kept in a catalog. Any space vehicles we identify are compared to existing data in the catalog so we can tell if there are any new objects in space, or any change in the ones we have already identified.

"NAVSPASUR plays a key role as the U.S. Space Command's Alternate Space Defense Operations Center (ASPADOC), which backs up the Space Defense Operations Center at Cheyenne Mountain AFB, Co. – in case of natural disaster, equipment outage, or hostile action that may cause a loss of capability at Cheyenne Mountain," Sheehy added. ASPADOC monitors the space environment and informs owners and operators of U.S. and allied space systems of potential threats.

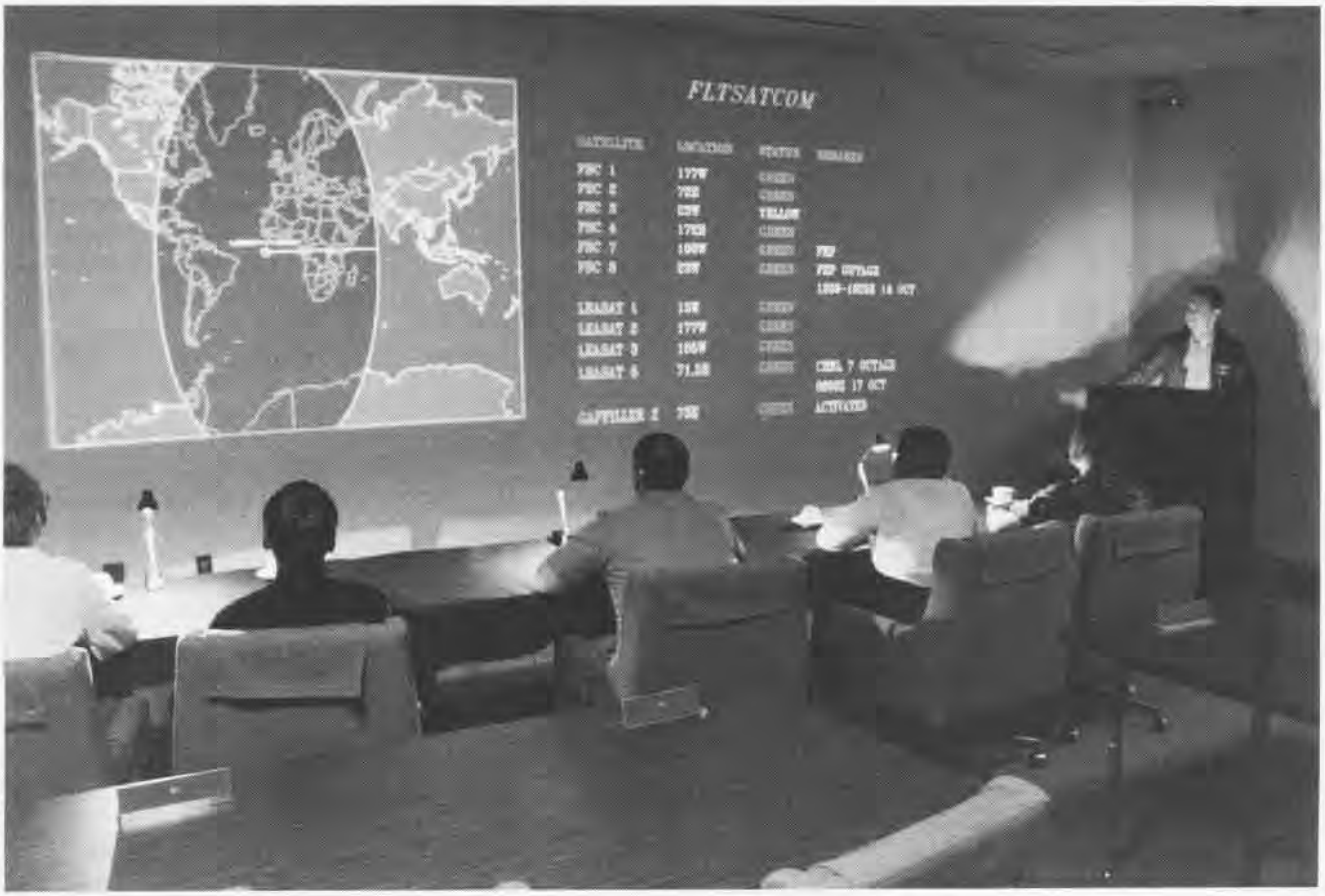
NAVSPASUR also provides backup to the U.S. Space Command's Space Surveillance Center. NAVSPASUR is able to operate the entire global Space Surveillance Network, which detects, tracks, identifies, and catalogs all manmade objects in space and provides ephemerides (coordinates of objects in space at specific times and places) to about 1,000 customers. This information enables the U.S. Space Command to provide timely and accurate threat evaluation and decision making in support of the Joint Chiefs of Staff.

## Naval Satellite Operations Center

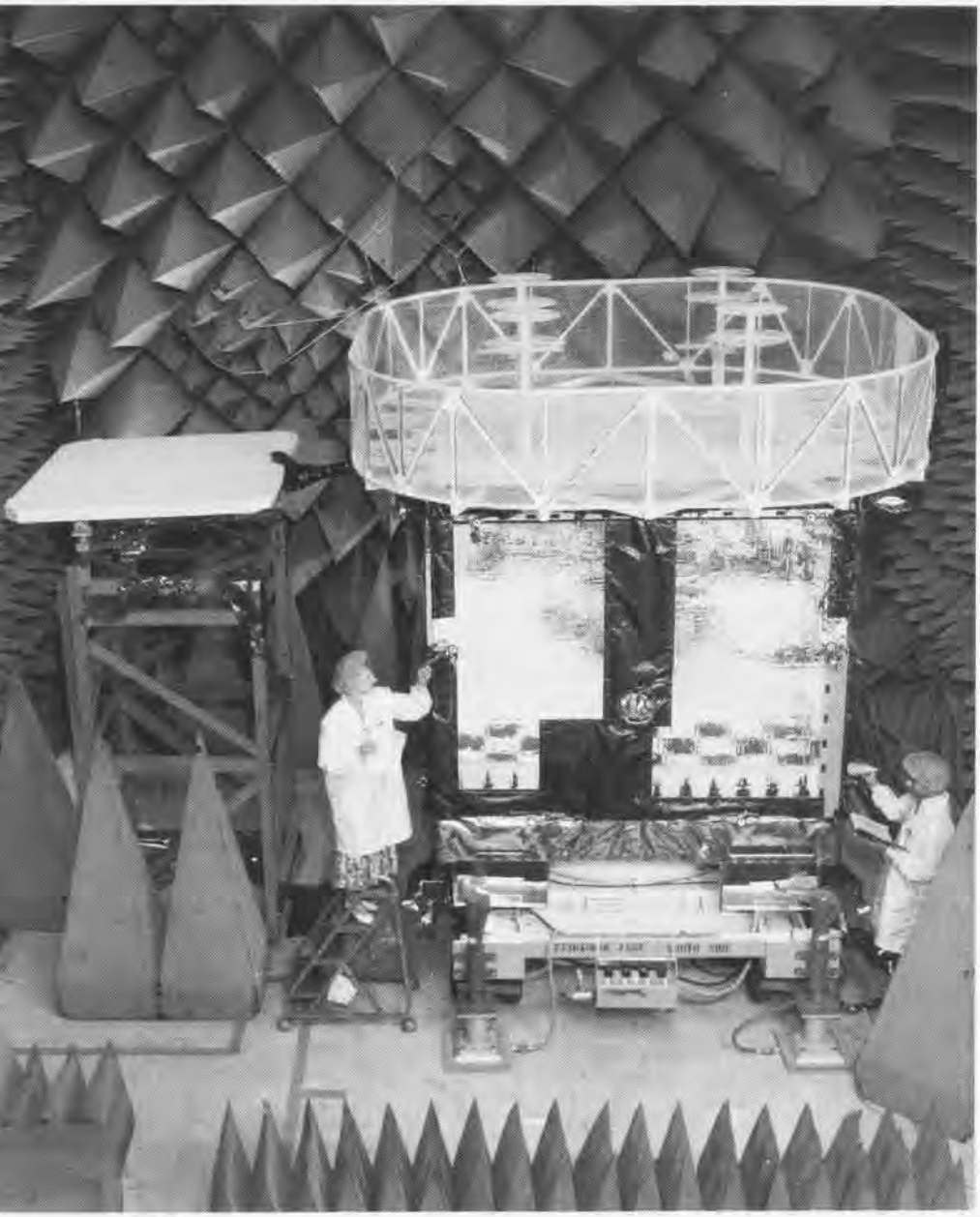
In 1958, satellite navigation was being developed to support the future fleet ballistic missile submarines. This project eventually evolved into the Navy Navigation Satellite System, or TRANSIT. In 1962, the TRANSIT operating group was established as a separate command called the Navy Astronautics Group. In 1990, it was formally redesignated NAVSOC.

TRANSIT was a major development in satellite technology. It provided highly ac-

**Naval Space Command's Naval Space Operations Center in Dahlgren, Va., serves as a central location for monitoring space systems and compiling and distributing space-derived tactical information to naval forces worldwide.**




NAVSPACECOM



Hughes

**The antenna array and electronics section of the UHF Follow-On satellite are being tested in an anechoic chamber at Hughes Space and Communications Company in El Segundo, Calif. This is the first of nine UHF satellites Hughes is building to provide communications for the U.S. Department of Defense.**

curate all-weather satellite positioning capability to naval forces around the world. It was the world's first operational space system as well as the world's first satellite navigation system. TRANSIT is expected to last to the end of this decade; by that time, the NAVSTAR GPS will be fully operational. Most major combatants are already using GPS and the transition for the entire fleet should be completed by 1996.

"Thanks to TRANSIT, and GPS, people just don't get lost anymore," Sheehy said. TRANSIT provides navigation information to more than 80,000 military, commercial, and private users. The system is extremely reliable and has never been out of service since it began operating in 1964.

NAVSOC also manages the Navy's Fleet Satellite Communication system and, in 1991, NAVSOC assumed fleet satellite (FLTSAT) management responsibilities from the Air Force. FLTSAT, combined with LEASAT (leased satellite), is a constellation of satellites that provide worldwide tactical UHF communications to naval and strategic forces and other Department of Defense users. Additionally, NAVSOC will manage the newest generation of communication satellites with the launching of the UHF Follow-On (UFO) satellite, designed to replace FLTSAT and LEASAT, which are nearing the end of their operational lives.

According to Philip J. LaTulippe, deputy director of the Naval Space Command's operations division, "The UFO spacecraft will provide 39 UHF channels. Although this will not support any more users than FLTSAT, the service provided by UFO will be higher in quality since they won't have to operate in power-sharing modes."

## Fleet Surveillance Support Command

Unlike NAVSPASUR, which monitors and tracks space vehicles, FSSC monitors over-the-horizon threats. Established in 1987, the command operates and maintains the Navy's Relocatable Over-the-Horizon Radar (ROTHR) systems. A high-frequency, land-based radar that provides wide-area oceanic surface and air surveillance data, ROTHR systems can detect and track ships and aircraft in excess of 1,000 nautical miles. ROTHR also assists in drug interdiction efforts.

**NAVSPACECOM provides various other services to the fleet using state-of-the-art technology. Some of these programs – which include Space Support Teams, Chambered Round, and Multi-Spectral Imagery – are the keys to unlocking the wonders of space technology to the fleet.**

### Space Support Teams

"Space technology is great, but it is absolutely no good if the commanding officers don't know what equipment they have and how to use it effectively," Cdr. Sheehy said. "The Space Support Teams are currently the number one priority of NAVSPACECOM."

The teams, composed of officers and enlisted personnel, are the primary point of contact to deploying battle groups, Marine amphibious ground task forces, and amphibious ready groups for all space-related matters.

"We produce Space Tactical Awareness Briefs, Space Warfighter Awareness Training, and Space Threat Briefings to inform the fleet commanders how to use space technology to their advantage,"

Sheehy added. "We also equip battle groups, teach them how to use the equipment, and provide tailored briefs of what each battle group's assets and capabilities of utilizing space are."

The Space Support Teams are available for assistance to operational units at anytime they are requested, not just for deployment purposes.

### Chambered Round

While Space Support Teams go out to the fleet to inform battle groups about what systems and technologies are available, Chambered Round provides the tactical commander intelligence (via naval messages) that increases his awareness of and assists in reducing his vulnerability to hostile space collection efforts.

When the Chambered Round team knows who is deploying, what exercise they will be performing, and when and where the deployment will occur, the team can then start to put together a package that assesses the unit's vulnerability to a space threat. Specifically, the analysis uses a threat-specific space order of battle and addresses the potentially hostile capability to detect, track, and target units of the battle group.

### Multi-Spectral Imagery

"The Marines love Multi-Spectral Imagery," Cdr. Sheehy stated. Thanks to this system, which collects data from both aircraft and satellites, a picture of the earth's surface can be produced that helps determine a variety of useful information, including water depth, terrain, and vegetation characteristics.

MSI utilizes the French SPOT satellite system along with the U.S. LANDSAT satellites. A key feature of MSI is its ability to provide real-time mission rehearsal in which MSI and elevation data are combined to produce an interactive, three-dimensional view of what the pilot will see from the cockpit during ingress to the target. Marine aviators successfully used this system during Operation Desert Storm.

The system can also assist in selection of helicopter landing areas, determine fueling and rearming points, monitor battlefield operations, update Defense Mapping Agency maps, and scope out amphibious landing areas.

Valuable assets to NAVSPACECOM are the reserve members of NAVSPACECOM 0166 and the NAVSPACECOM Branch of the Marine Corps Headquarters Reserve Augmentation Unit. According to Cdr. Sheehy, "The reserves, some of whom are shuttle astronauts, are extremely important to NAVSPACECOM. They give us a direct line into NASA. In addition, they are a great public relations tool for the Navy."

NAVSPACECOM continues to push into the 21st century with new plans and programs designed to ensure that responsive space systems are developed and deployed. The key to this endeavor is education. NAVSPACECOM supports the Naval Postgraduate School's space systems engineering and space systems operations courses. The command also sponsors a space research chair in the Aerospace Engineering Department of the U.S. Naval Academy, which is designed to develop an early interest in space among future officers, who in turn will develop the future of the Naval Space Command. ■

This article was compiled from information provided by the NAVSPACECOM Public Affairs Office, and with the assistance of Gary Wagner, Public Affairs Officer, and Cdr. Patrick Sheehy, Head, Space Support Branch.

**An orbital analyst with the Naval Space Surveillance Center monitors space activity.**

NAVSPACECOM

# Combat Art in WW II

By Cdr. Peter Mersky, USNR

Combat art has been around for as long as history can recall. Cave paintings, tapestries, and murals have all shown man in military encounters. By 1860, the camera had begun recording historical events. Civil War photographer Matthew Brady's work is probably the first major use of the new medium in military operations. As powerful as Brady's photos were, there was still room for the correspondent-illustrator – personified by the young painter Winslow Homer, who later became one of America's premier marine and watercolor artists.

country have apparently been without foundation. Fortunately, a few reproductions of Japanese art are part of American service collections.

American combat artists had the entire world from which to choose subjects. Some specialized in one or two theaters, or categories. It was easier to ride aboard a cruiser or destroyer, or even a landing craft, than in a combat airplane where seating was limited. Thus, many combat artists painted life onboard ship, or ashore, relying on interviews and media accounts of air combat for aerial action. Several artists tried their hand at showing surface ships under attack, defending themselves with walls of antiaircraft fire

gram – officially part of the Corps of Engineers – ran up against congressional indifference after only four months. By mid-1943, 23 military and 19 civilian artists were serving on 12 fronts. When the program was dissolved, 17 artists were commissioned by *Life* magazine to continue their work, at the publisher's expense.

In the same spirit, Abbott Laboratories, a pharmaceutical company in Chicago, recruited 12 well-known American painters to tell the public the war's story through their paintings and drawings.

Vice Admiral John F. McCain, then-Deputy Chief of Naval Operations (Air), described these artists' contributions in depicting Naval Aviation: "They covered all phases of the program, from Pre-Flight School up to combat. There are pictures of pilots, enlisted men, and Waves, and of virtually all the Navy's planes.... The oils, watercolors, drawings, and sketches ... provide a spirited chronicle of the Navy in the air."

The Navy, however, wanted its own corps of artists, but didn't want to run into trouble like the Army. Thus, records dealing with the formation of the sea service's artist brigade are sketchy at best.

Griffith Bailey Coale of Baltimore, Md., is credited with starting the Navy's combat art program in 1941, just before Pearl Harbor, to show "neutral" America's defense of its sea lanes and aid to its struggling allies in Europe. Commissioned as a lieutenant commander, Coale sold the Navy on bringing in other talented artists as commissioned officers – along with a few enlisted members – to form the Navy Combat Artist Corps. Eventually, 11 men toured the combat fronts throughout the world to paint the Navy in action. Often, these men saw action alongside their more traditional warrior counterparts.

The Marine Corps also had a small cadre of artists, but ruled that every man

## Naval Aviation in WW I

"The Kill," Robert Benny (U.S. Navy Combat Art Collection). Benny was a successful painter before the war. His view of a Grumman Avenger attacking a German U-boat was done for the Abbott Collection. The big torpedo

"Fighter in the Sky," Tom Lea (U.S. Army Center of Military History). One of the few examples of combat art that shows an actual engagement, this Grumman Wildcat pilot is framed in his cockpit, with the canopy back and the dorsal area damaged by enemy gunfire. The young aviator has been successful three times before as shown by the Japanese "kill" flags below his cockpit. Texan Tom Lea was one of the *Life* artists. An illustrator before the war, he served in the Pacific and saw action at Peleliu.

"Aviators Debriefing," Alex Raymond (Marine Corps Historical Center). A returning squadron of aviators recounts their mission to the intelligence officer using the common hand language of flyers. Commissioned and rising to major, Raymond created "Flash Gordon," a popular futuristic comic strip before the war.

"View From the Tower," Paul Sample (U.S. Army Center of Military History). Kentucky-born Sample served during WW I. He was commissioned by *Life* in Spring 1941 to chronicle America's preparation for war, and after Pearl Harbor to show Naval Aviation in action. He spent time ashore around air stations.

bomber's bay doors are open as it finishes its run. Flying from numerous CVEs, Avengers and Wildcats made a formidable team by 1944 that finished off many of Hitler's submarines.

was first and foremost a Marine and, therefore, had to graduate from boot camp. The tough training was hard on some of the older artists, but most made it through and were assigned as enlisted members of various units. Some managed to gain commissions by the end of the war.

The Navy's Office of Public Relations administered the combat art program and the paintings and drawings produced by roving combat artists, allowing newspapers, magazines, and book publishers to present these eyewitness depictions of the Navy in action to the American public.

Things didn't always go smoothly, however. Lieutenant (jg) William F. Draper's first assignment was in the Aleutians, a scene of bloody fighting between Japanese invaders and American defenders and the only sustained combat action in the western hemisphere.

Draper arrived to find that no one knew he was coming, or what he would be doing. When he asked to see the base commander, he was refused. Undaunted, the young artist began painting what turned out to be one of the most sensitive areas in the camp, the command and control building. He was immediately apprehended by the base security police and taken to the CO.

During an inspection tour of the base, Admiral Chester Nimitz, Commander in Chief, Pacific Fleet, sat for his portrait. He became interested in the combat art program and asked Ltjg. Draper what he could do to help further its success. It was a golden opportunity. "I need to know when and where things are going to happen so that I can be there to paint them," Draper said.

The admiral thought for a moment and then took the artist aside to a secure area to lay out the entire Pacific island-hopping campaign for the astonished Draper. Even-

"Marine Aviator," Kerr Eby (Marine Corps Historical Center). Tired and bedraggled, this young Marine fighter pilot thinks about his next mission. Eby was a sergeant in WW I and served through WW II as a civilian combat artist covering the Pacific. His fine charcoal scenes of Marine aviators and ground crews convey the harsh living conditions and spirit of these front-line servicemen.

"At the Edge of Henderson Field," Hugh Laidman (Marine Corps Historical Center). This watercolor shows an SBD at Guadalcanal. Sgt. Laidman (later commissioned) was one of the Marine Corps' combat artists. He created watercolors and drawings on the Solomons Campaign.

tually, Draper toured the Pacific, seeing action during the bloody invasion of Tarawa, although he did not, thankfully, ride in with the first wave of Marines.

Naval Aviation was perhaps the area that was the most difficult to experience for the artists, especially in a combat theater. Besides the obvious danger, space was limited in a combat aircraft; every crewman had to have a reason to be there. That's why many of the examples of artwork depicting aviation themes are somewhat benign, or shown in a narrative, third-person manner. The artist could not have been personally involved in the engagements he showed. A few exceptions were scenes of aircraft carrier flight decks and lighter-than-air crews.

Although the war's art program ended by 1946, the Navy continued recalling artists to record specific events, as well as future conflicts. The other military services also keep a corps of artists on call, as seen by some of the fine work done in the Persian Gulf.

Commander Mersky is a graduate of the Rhode Island School of Design. He is a naval reservist and assistant editor of *Approach* magazine.

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**"Fighter Scramble, Guadalcanal," Dwight Shepler (U.S. Navy Combat Art Collection). A watercolor showing Grumman Wildcats launching to intercept Japanese raiders in late 1942; a P-38 in foreground. Shepler joined the Naval Reserve in May 1942 as a combat artist, seeing action in the South Pacific, at Guadalcanal, and in Europe at Normandy.**

**Below: "Plane Handlers Stacking the Planes," Tom Lea (U.S. Army Center of Military History). Excitement on a carrier flight deck as the crews strain to position aircraft away from the landing area as a recovery begins. Bottom: "Corsairs Fringe Fuji," Standish Backus (U.S. Navy Combat Art Collection). By 1945, Navy and Marine Corps fighters roamed almost at will over Japan. These Navy F4Us are passing one of the most important symbols of Japan, Mt. Fuji. Backus did not join the Navy combat art program until late in the war. He served in the Pacific, recording many 1945 milestones, including the Japanese surrender.**

# Combat Art of other Nations

Wartime art was not limited to the U.S. Every combatant had some form of program, although few details are available for the Axis countries. Germany had a wide-ranging program, and a lot of Nazi paintings and drawings were captured by various Allied units. The Army and Air Force had a considerable number of German works brought to America and occasionally display the pieces, especially in the Pentagon.

Adolph Hitler established the German war art program in 1941. A frustrated artist, Hitler probably fancied himself a patron, and after seeing paintings by soldiers, he decided to memorialize the achievements of his *Wermacht*.

Although much of Hitler's combat artwork was used for propaganda purposes, there was much to commend it. Indeed, if it were not for the horrible political organization they represented, German combat artists might be seen in the same light as many of the Allied artists.

Italy and Russia also had corps of artists, as did Japan. The U.S. Air Force accumulated a wealth of Japanese combat art, although there is very little information on the Empire's program. The Japanese sent photographers and correspondents to the various fronts, but no one seems to recall specific artists. However, there's no denying the large number of high-quality paintings and drawings that show the Emperor's soldiers and airmen at work.

Britain, Australia, and New Zealand had many fine prewar artists who went to work for the war effort. Today, Frank Wootten is probably the best known of these combat artists. He spent many long hours in the field sketching and painting aircraft and flight crews of the Royal Air Force and associated Commonwealth forces. Muirhead Bone was an older artist who had also produced work during WW I. He was knighted in 1937 in honor of his lifelong achievements, which included establishing a long-term relationship with the Imperial War Museum and a fund that enabled the museum to purchase works of new artists. His son, Stephen, was also an active artist during WW II.

Young Richard Eurich presented himself to the War Artists Advisory Committee in June 1941, writing, "Now the epic subject I have been waiting for has taken place. The Dunkirk episode. This surely should be painted and I am wondering if I would be considered for the job!" The British withdrawal from Europe at the beaches of Dunkirk, France, in May 1940, set the stage for the epic Battle of Britain, as Germany prepared to sweep across the English Channel and claim Britain as part of the Third Reich. Eurich painted several striking canvases, some with unique vantage points and close-valued, vibrant colors.

Another British artist was Leonard Rosoman, whose impressionistic, graphic style showed everything from Londoners fighting fires during the 1941 Blitz to Royal Navy *Corsairs* on a carrier flight deck.

**Top: A well-known piece of Japanese wartime art, this watercolor by Arai Shori shows Zero pilots aboard one of the carriers headed for Pearl Harbor in December 1941 (U.S. Air Force Art Collection). Middle: Artist Jun-ichi Mikuriya painted this attack by Japanese aircraft on a U.S. task force (U.S. Air Force Art Collection). Above: "HMS Illustrious Entering the Basin at John Brown's Shipyards, 1940," Sir Muirhead Bone (Imperial War Museum). Aircraft from Illustrious participated in the British attack on the Italian base at Taranto in 1940, which many believe gave the Japanese the idea for their attack a year later on Pearl Harbor. Bone was an accomplished draftsman whose career spanned both world wars. He seemed to prefer drawing in pencil and pen and ink.**

## 50 Years Ago — WW II

**May 11-30:** Occupation of Attu – Air support for the landing of Army troops (May 11) and for their operations ashore was provided by Navy and Marine units on the escort carrier *Nassau* (May 11-20), and by the Navy and Army units of the North Pacific Force (May 11-20). This was the first use of CVE-based aircraft in air support in the Pacific and the debut of a Support Air Commander afloat. His team consisted of three officers and a radioman; his post was a card table aboard *Pennsylvania*. Col. W. O. Eareckson, USA, an experienced Aleution pilot, commanded the unit.

**May 22:** Grumman *Avengers* of VC-9, based on *Bogue*, attacked and sank the submarine U-569 in the middle north Atlantic, scoring the first sinking of the war by escort carriers on hunter-killer patrol.

**Jun 7:** The Commander in Chief, U.S. Fleet, established a project for airborne test, by Commander Fleet Air, West Coast, of high velocity, "forward shooting" rockets. The results of these tests were so favorable that operational squadrons in both the Atlantic and Pacific fleets were equipped with forward-firing rockets before year's end.

**Jun 28:** A change in the design of the National Star Insignia added white rectangles on the left and right sides of the blue circular field to form a horizontal bar, and a red border stripe around the entire design. The following September, Insignia Blue was substituted for the red.

**Jun 29:** Naval Air Station, Patuxent River, Md., began functioning as an aircraft test organization with the arrival of the Flight Test unit from NAS Anacostia, D.C.

# Fleet Aviators Can Shoot for the Stars

By JO1(SW) Eric S. Sesit

Alan Shepard, John Glenn, and Neil Armstrong have left their marks in the history books, along with more than 60 other U.S. Navy and Marine Corps officers who have contributed to the U.S. space program. The Navy has a long tradition of providing the National Aeronautics and Space Administration (NASA) with outstanding men and women. The tradition continues to grow as Navy and Marine Corps aviators, chosen for their exemplary flying skills and technical knowledge, fly as pilots and mission specialists onboard America's most advanced spacecraft, the space shuttle.

How does a naval officer become an astronaut? According to Captain (Sel) John S. Batog, program manager for the astronaut selection board, anyone interested in the selection program should start preparing early. "BUPERSINST 1401.4 says military applicants must meet certain qualifications. A pilot must have a minimum of five years' active commissioned service and a bachelor's degree in engineering, biological or physical science, or mathematics. Candidates must be able to pass a NASA Class I space flight physical and must have a minimum of 1,000 hours pilot-in-command time in jet aircraft. Additionally, flight test experience is highly desirable," Batog said.

"Experience as a tactical aviator and as a Navy-trained test pilot really prepares you mentally as well as skillwise for something like the shuttle program," astronaut William F. Readdy said. A reserve commander attached to the Naval Space Command, Readdy has logged more than 5,000 hours in more than 50 types of fixed-wing aircraft and helicopters. He also has more than 550 carrier landings to his credit. Readdy served as ascent/entry flight engineer and orbit pilot on shuttle mission STS-42, which lifted off from Kennedy Space Center, Fla., on January 22, 1992. He is scheduled to pilot STS-51 which will launch in July 1993.

"The basic requirements as far as NASA is concerned are pretty loose, but when they receive thousands of applications, it seems to narrow down very quickly to the test pilot-trained folks," Readdy said.

In order to become a mission specialist, applicants must be U.S. citizens on active duty with five years' commissioned service. A bachelor's degree is required and must be supplemented by at least three years' relatable experience. An advanced degree is desired. Applicants must also be able to pass a NASA Class II space flight physical.

Mission specialists are needed from all areas of expertise, including naval flight officers, flight surgeons, engineers, and oceanography and surface officers.

According to Capt. Batog, "The Navy's selection board meets every two years. This year's board met in March. There is no quota on the number of applicants we pick. If a person survives our board, we will submit their package to NASA. Last cycle, we forwarded the packages of 42 pilots and 62 mission specialists to NASA for its board to screen; the NASA board looks at candidates from all the services. When the last NASA board completed its research, seven naval officers were chosen to enter the program."

The key to making the board is the ability of the candidates to communicate uniqueness. The board looks at education, leadership skills, and the ability to work as a member of the team. A large part of the selection process is based upon an interview with the NASA board. "Applicants should remember that if they are not chosen, they should keep trying. Persistence is very important from NASA's point of view," Batog added.

Making the astronaut program does not immediately launch a person into space. It's a long, involved training process and much of an astronaut's time is spent doing things that don't resemble flying at all. "People think that you just hang around the ready room until it's your turn. The vast majority of what we do involves technical assignments and supporting missions," Readdy said. "We teach other astronauts and provide technical expertise to various parts of the shuttle program and the rest of NASA."

A very important part of the astronaut's role is involvement with a program called Manned Flight Awareness. "We go out to the different contractors and vendors and try to make sure they know how much we appreciate the dedication and effort they put into their product, which is our spacecraft," Readdy said.

NASA

Things heat up when the shuttle reenters the earth's almosphere. Astronauts Ronald J. Grabe (left) and Naval Reservist Stephen S. Oswald man the commander and pilot stations, respectively, during the entry phase of the STS-42 mission.

"People have the impression that the space shuttle is put together by a lot of lab-coated technicians. Actually, the people who assemble the shuttle carry their lunch boxes to work everyday. They're highly trained but it's the American working person who builds the shuttle. America should be extremely proud of the technical capabilities of its people. It is absolutely unique in the history of the world," Readdy added.

Missions are planned years in advance so pilots and crews have to make the most of their chance to ride into space. "The shuttle is a rocket ship for about 10 minutes. It's a spacecraft for one to two weeks, then it's a hypersonic glider for about an hour.

"The rocket mode is like being on a catapult – for a long time. The spacecraft mode is much like living aboard ship. Everything must be stowed properly. You have to have the same shipboard mentality. The work goes on day after day for perhaps a couple of weeks. We cram our missions full with as much as we can possibly do. When the shuttle lands, it's very much like flying a high-performance U.S. Navy jet aircraft."

Readdy's interest in space was driven by the Mercury, Gemini, and Apollo programs. During those early days, millions of Americans watched every launch as it happened on television. Today, many Americans are not aware that more than 50 shuttle missions have been flown.

"We're anxious to do public relations to let people know where their tax dollars are going. In the grand scheme of things, only about one penny out of every tax dollar goes into space," Readdy said. "The public's interest is still there, it's just not manifested through television.

"A long time ago, airplanes taking off and landing were remarkable. Now it's commonplace. I guess in some ways that's a measure of how successful we've been with the shuttle. However, people shouldn't think for a minute that this is not something unique. It still has elements of risk involved ... [it is] very much an experimental-type program.

"This is the most magnificent job you can imagine, and it all starts with being a fleet aviator," Readdy concluded. "Along the way I enjoyed and savored all the fleet jobs that I had. While you miss the squadron camaraderie, you get your satisfaction from training and flying in space – the most unique opportunity in all the world." ■

NASA

**Space Shuttle Discovery, with a crew of seven and the International Microgravity Laboratory onboard, aims toward space on a clear Florida day in January 1992.**

# HOK/H-43

By Hal Andrews

Readers who follow what's new in rotorcraft will be aware that Kaman is currently flight testing the K-Max, a specialized, medium-lift, no-frills, single-pilot, crane-type helicopter. However, they may not recognize its "back to the future" origins. Its rotor system, two laterally offset counterrotating, intermeshing, two-bladed rotors with servoflaps for control, traces back to the years before the H-2 when it was the foundation for building the company.

Struggling to join the early helicopter companies that had military production contracts in the late 1940s, Kaman applied its experience with this rotor system in its first proposal for a production military contract: a Bureau of Aeronautics (BuAer) 1950 design competition for a Marine Corps reconnaissance/liaison helicopter. With lift and ease of piloting of more importance than speed for the mission, the advantages of Kaman's chosen configuration, and BuAer's desire to broaden the helicopter industrial base, led to Kaman's first development contract as the runner-up to the better established Sikorsky version of an already in-production model.

A small batch of HTK-1 trainers ordered later preceded the first HOK-1s off the line as Kaman built up both its development staff and production facilities, but the main thrust of the company's early Navy contract efforts was directed at meeting the Marines' requirements.

Planning for a Marine reconnaissance helicopter – combat utility might have been a more descriptive title – began in 1949 on the basis of adapting the Bell HTL trainer. It soon became evident that a larger, more capable design would be necessary. After assessing available alternatives, a design competition was initiated in December. Proposals from six manufacturers were evaluated beginning in February 1950. By June, two winners were chosen for awards, the first for a production lot to meet immediate needs, with Kaman getting an order for four HOK-1s for initial development. The contracts were among the first signed after the North Koreans invaded the south.

As Kaman set out to build its development team and facilities, including the production of the HTKs ordered in September, a major decision for the HOK languished. Kaman had proposed using a Pratt & Whitney (P&W) R-985 engine adapted for helicopter use. The Navy and P&W were unable to agree on necessary modifications, and it wasn't until early 1951 that BuAer finally made the decision to use the Continental R-975 being used in Piasecki HUP-1s, already in production. Mockup inspection followed at the beginning of May, initiating the major detail design effort. As the design developed through the rest of the year, the desire for increased mission endurance and capability, highlighted by growing use of helicopters in the Korean War, led to a redesign, increasing fuel capacity and fuselage pod length. R-975 engine uprating to 550 horsepower would offset the increased weight.

With initial flights scheduled in June 1952, the redesign, followed by problems with hardware development and subcontractor production, resulted in progressively slipping the schedule. The new flight date for the first of the 50 HOK-1s by then on order was December. A transmission failure during preflight bench tests marked the beginning of further delays. First flight was reached in April 1953. By this time, the problems of helicopter operation of typical aircraft piston engines generally at high powers, and the R-975 specifically, led to a proposal by Kaman to change the HOK-1 engine to the 600-horsepower P&W R-1340, already being used in other helicopters. With BuAer agreement, flight testing of the first HOK-1, as well as the next two completed with R-975s, continued for rotor and systems development while modification was under way.

The armistice in Korea in July meant that the HOK-1 had missed the war, but its potential continued to figure in Marine Corps plans. Before the first R-1340 powered HOK flew in November, an inadvertent drive clutch disengagement problem and a blade shank failure in whirl tests were experienced and corrected, but vibration problems proved more elusive. As flight testing proceeded, the rear of the fuselage pod got an undressed look when the original engine bay doors were deleted. Improved forward flight stability and the need to avoid the rotor arc resulted in a triple tail configuration. Concern for the low rotor tips at the sides, due to the outwardly tilted rotor shafts, led to major attention on entering and exiting the cabin from the front when rotors were turning.

HOK-1


HOK-1/T53

Strike damage following an in-flight blade failure interrupted development progress in April 1954, by which time an additional order for 31 HOKs had brought the total to 81 to meet Marine Corps inventory requirements, with spares. In August, with formal Navy/Marine testing still in abeyance, the Naval Air Test Center (NATC), Patuxent River, Md., sent a flight test team to Kaman for familiarization and qualitative assessments. Further delays followed and it was November before contractor demonstration tests could begin at Patuxent River. Their satisfactory completion in December signaled the beginning of Board of Inspection and Survey (BIS) trials later that month and of Fleet

HOK-1/R-975

Introduction Program (FIP) flights in January 1955. Unfortunately, the program acceleration to catch up on some of the lost time came to a halt in mid-January with a fatal crash in the Chesapeake Bay.

By this time, identified design deficiencies along with resolution of the accident causes led to restructuring of the flight test program, with further delays. Following correction and redemonstration, BIS trials resumed in July with a review of preliminary results in September signaling the resumption of FIP and subsequent fleet deliveries. Again, a fatal crash, this time a clearly identified in-flight blade collision, brought the program to a halt. As part of the resumption process, following identification and correction of the rotor control cause of the blade collision, Kaman flew a 600-hour flight program on two delivery-configured HOKs as 1955 came to an end.



With the New Year came program success. BIS resumed in January, followed by FIP, with deliveries to Marine squadrons starting in March. By June, VMO-2 in the Pacific had its full complement, and VMOs 1 and 6 on the East and West coast, respectively, had their first ones – as well as HMX-1 at Quantico, Va. While deliveries and operational service proceeded, the HOK-1 was one of three types of helicopters evaluated by NATC for Navy utility and rescue duties. Evaluation included carrier trials on *Siboney* (CVE 112). Successful results yielded an order for 24 HUK-1s in December, essentially the same as the HOK-1s except for equipment differences. Unlike the HOK-1s, which were powered by rebuilt R-1340-48s, the HUK-1s had newly built Canadian P&W R-1340-52s. While the rating was the same, pilots who flew both models recall that you could tell the difference! Following initial deliveries to HU-2 in August 1958, HUKs were assigned to various Navy bases, many of them on Pacific islands.

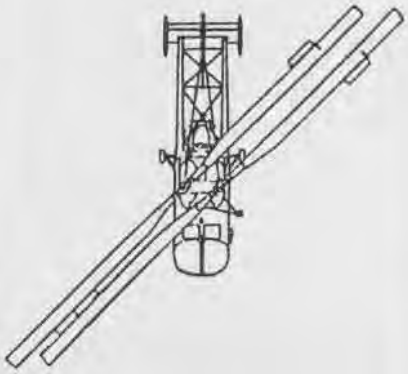
One of the early HOK-1s, building on Kaman's background of installing turbine engines in helicopters, was used for flight testing the Air Force-developed 900-horsepower T53 engine, making the first helicopter flight powered by the engine in September 1956. With the engine mounted at the top of the fuselage pod, the rear end resumed its streamlined shape. The combination set the scene for the last stage in the HOK's development. In 1957, Kaman proposed a T53-powered HOK-1 derivative for the Air Force's Local Base Rescue Helicopter Competition. Selected as the winner, the first H-43s built for the Air Force were H-43As, essentially the same as the Navy's HUK-1s. These were followed by the H-43B; over 200 were built, most of them delivered as HH-43B or F *Huskies* following the 1962 military redesignations.

The HOKs and HUKs were still in wide use at redesignation time, becoming OH-43Ds and UH-43Cs, respectively. While the Air Force *Huskies* served around the world through the Vietnam war period, the Navy 43Ds and Cs were gradually withdrawn. The last of both were serving with VMO-2 when retired in mid-1965 as they were replaced by the ubiquitous Bell "Huey."

A more personal view of some of the above events, as well as other Kaman activities, can be found in *Kaman, Our Early Years*, by Charles H. Kaman.

HOK-1

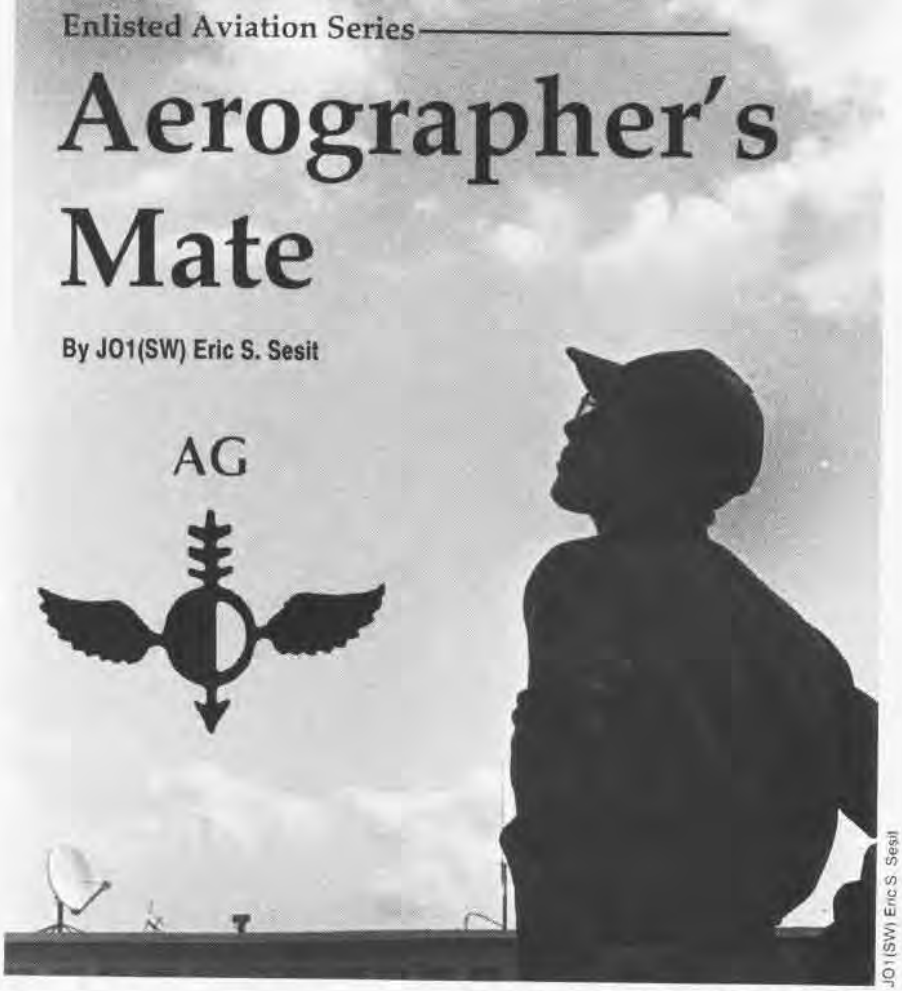
| | |
|---|---|
| Rotor diameter | 47' |
| Overall across rotors | 50'6" |
| Length (over rotors) | 47' |
| Height | 16'4" |
| Engine: P&W R-1340-48 | 600 hp |
| Maximum speed | 90 kn |
| Service ceiling | 17,700' |
| Range | 168 nm |
| Crew | 2 |
| Passengers | 2 |



Enlisted Aviation Series

# Aerographer's Mate

By JO1(SW) Eric S. Sesit




JO1(SW) Eric S. Sesit

**Weather forecasting begins with observing sky conditions. AGAA Jonathan W. Aman checks the cloud cover over Patuxent River, Md.**

Crucial to the planning of any military mission is an uncontrollable factor that can wreck even the best laid plans – the weather. Before a bomb is dropped, before an amphibious task force hits the beach, and before a ship leaves its pier, unit commanders want to know, "How's the weather?"

To answer this popular question, the Navy has its own group of weather forecasters, Aerographer's Mates (AGs). These enlisted men and women provide forecasts and weather information to Navy bases around the world and specific forecasts for every aircrew about to fly a mission.

The Aerographer's Mate rating involves much more than just forecasting weather. AGs are key players in developing strategies. If a P-3 *Orion* wants to find a submarine, the aerographers can tell the aircrew the water conditions and the best depth to locate the sub. Conversely, if a sub wants to avoid detection, the AGs can tell the submarine the best place to hide. Weather-gathering information can also be used to keep aircraft from being detected, while at the same time detecting the enemy.

"Originally, quartermasters (QMs) performed weather observation and forecasting in the Navy," AGCM(AW) Robert D. Bentley, the AG detailer, said. "Back in the early days, the QMs were concerned with aerology, the study of atmospheric conditions, and how it would affect their mission. Today, with the advances in satellite technology, our 'ballpark' ranges from the top of the atmosphere to the bottom of the sea."

An Aerographer's Mate must have normal color perception, score high enough on the Armed Services Vocational Aptitude Battery, and be eligible for a secret security clearance. Aerographers "A" school is a combined Department of Defense school located at Keesler AFB, in Biloxi, Miss. In 13 weeks, the students learn the basics needed to have a successful first tour in the fleet.

Onboard ship, once the airmen complete their shipboard chores that include serving in the galley, berthing compartment cleaning, etc., the AG's first assignment will usually be weather observation. Shore duty sailors can expect to be observers, also.

"Observation is the foundation for all forecasting," said Bentley. "As forecasters, we base our predictions on known factors, such as wind speed, temperature, dew point, and visibility."

"Observing the weather over a period of time and noticing how the changes in atmospheric conditions affect military operations is key to learning how to become a forecaster," said AG1 Cheryl A. Kallenbach, the leading petty officer at the

JO1(SW) Eric S. Sesit

**In preparation for the blizzard of 1993 that struck the East Coast this past March, AG1 Cheryl A. Kallenbach of the Naval Oceanography Command Detachment, Patuxent River, Md., looks for the approaching rain and snow on the WSR-88D radar.**

Naval Oceanography Command Detachment, Patuxent River, Md. "One of the greatest challenges I face is trying to show junior AGs how their observations are directly tied into my forecast by getting them involved with the forecasting process."

According to Bentley, once sailors complete their first or perhaps second tour, they need to request "C" school, also located at Keesler AFB. Those who complete C school earn their Navy Enlisted Classification (NEC) 7412 Forecaster.

"Presently, the 7412 is the only NEC for AGs, and it is a requirement for promotion to chief petty officer, " Bentley stated.

The 1,500 members of the AG community fill a variety of billets around the world, many in isolated or exotic locations. "AGs serve anyplace the Navy has an airfield," Bentley said. "We provide everything from 'picnic' forecasts for the base to providing specific aviation forecasts for every aircrew utilizing our facilities," added Kallenbach.

Approximately 15 AGs will be assigned to the operations department of an aircraft carrier. They are also billeted onboard command ships, amphibious assault ships, and general purpose assault ships. Additionally, six Mobile Environment Teams, located around the world, can deploy with portable weather forecasting gear. The teams provide support for commands that request their services.

Some AGs even get the opportunity to fly, according to AGCS Ron L. Brady, Senior Enlisted Advisor for the Naval Polar Oceanography Center in Suitland, Md. "There are more than 65 AGs stationed at the center. Nine are attached to the Ice Reconnaissance Unit," he said.

After becoming aircrew qualified, these men and women deploy to some of the coldest climates on earth. They "hitch" rides on aircraft from various air facilities to study the ice packs in the arctic regions. "We'll go onboard P-3s, C-130s, Coast Guard cutters, whatever, in order to get to the edge of the ice and observe the ice concentrations. This information is vital in order to keep track of any possible hazards to navigation the ice might cause," added Brady.

The Aerographer's Mate rating is sea intensive. E-6 personnel and below spend 48 months at sea. E-6 and E-5 personnel will then spend 36 months at a shore station, while an E-4's shore tour is 24 months. Chiefs will split their time evenly between shore and sea, spending 36 months at each.

Currently, 18 percent of the AG community is female. "Although there are not many shipboard billets for women, there are many other challenging positions around the world that qualify as sea duty for both men and women," said AG1 Kallenbach. She has already spent time at NAS Chase Field, Texas; Roosevelt Roads, P.R.; Diego Garcia; and now at Patuxent River.

Naval Polar Oceanography Center

**It's arduous duty, but someone has to do it. AG1(NAC) Jeff D. Andrews (right) prepares to launch a weather balloon during an ICEX at Independence Fjord, Greenland.**

According to Master Chief Bentley, advancement remains strong for AGs. "We are undermanned across the board and still offer Selective Reenlistment Bonuses," he said. "It's a good rating to get into. We are currently taking conversions from all Navy ratings provided the members are E-4 and below. For the first-termer looking to reenlist, the AG rating could be a viable alternative.

"And yes, we do watch the Weather Channel," Bentley concluded. "Like anyone else, we want to see how our forecasts hold up to those of our civilian counterparts." ■

## 50 Years of Weather Watching

JO1(SW) Eric Sesit

Joseph R. Meeks joined the Navy during the height of WW II. Fifty years later, he ended his service when he retired as a meteorological technician at Patuxent River, NAS.

Meeks enlisted as an Aerographer's Mate and progressed through the ranks to chief petty officer. He entered the Limited Duty Officer program and finished 30 years of active duty as a lieutenant.

"When I first started in the Navy, we plotted surface maps by hand and didn't look at weather conditions much above 10,000 feet," Meeks said. "Once the jet stream was discovered, things really changed."

Of today's sailors Meeks said, "I think the people coming into the Navy today are sharper and have a better background in science and math. They seem to be more professional than when I entered the service. I'm really going to miss being associated with the young people."

Meeks plans to keep busy during his retirement by volunteering his time to tutor area children in math.

# Navy Flies HARV for

The flight took place nearly a continent away, but the event was closer to NAS Patuxent River, Md., than most could imagine. On that particular day in late November, Lieutenant Dave Prater took the controls of NASA's High Alpha Research Vehicle (HARV). It was a history-making flight. Prater is the first Navy pilot to fly the HARV, which is an F-18 *Hornet* strike fighter similar to those flown at Pax River. However, it is on loan to NASA Dryden Research Facility where it is flown out of Edwards AFB, Calif.

At the time of the flight, Prater was an F-18 flying qualities propulsion and performance test pilot assigned to the Flight Test and Engineering Group's (FTEG) Strike Aircraft Test Directorate (SATD).

The link to Patuxent River does not stop there. The airplane Prater flew is the same one used at Pax for high angle of attack flights during full scale development testing of the *Hornet* in the early eighties. Then it was No. 6, and Bill McNamara, who is currently a technical specialist primarily for the F-18, was working with that particular airplane. No. 6 has since been repainted a unique black and white color scheme to improve visualization and tracking, McNamara said.

There is another link to the NASA flight test. James Lackey, a flight test engineer at SATD since 1986, accompanied Prater to the desert test facility. Lackey also works on the F-18 program at Pax and participated in the historic flight operation.

Prater explained that more than the paint scheme has changed on old No. 6 – it is still an F-18, but has since been fitted with thrust-vectoring paddles. Three paddles, attached near the exhaust nozzle of each of the aircraft's dual engines, give the pilot quicker response and better control in pitch and yaw at high angles of attack and/or lower airspeeds.

The first phase of the HARV program documented the baseline high alpha aerodynamics of the F-18, with flow visualization testing.

McNamara noted that flow visualization uses various techniques. Sometimes smoke is blown over parts of the airplane, or oil is used to study the vortex flow over the fuselage, or strings fastened at one end can show flow paths along a surface. Engineers correlate flight results with predictions made using wind tunnels and computational fluid dynamics computer programs.

NASA is in phase two of the HARV program, which includes flying the airplane with the thrust-vectoring paddles. Lackey


NASA's High Alpha Research Vehicle.

# NASA

By John Romer

said the thrust of the HARV study is to "quantify control power requirements for flying qualities specifications," which dictate the configuration of the control surfaces and control system in the design of an airplane.

Prater said, "The paddles back there give me extra control power in maneuvering flight, making the F-18 do things that a normal F-18 can't do. Without the paddles, the *Hornet* is limited at high angles of attack; the paddles expand the envelope."

All three Pax River team members agreed that thrust-vectoring controls will give tactical airplanes significant benefits in combat maneuvering flight. However, the NASA airplane is a research vehicle, and it's not expected that the paddles will be included on production F-18s. The HARV paddle installation was purely for flight test, using existing actuators and hardware, with NASA Dryden making the installation.

NAS Patuxent River is involved in the NASA HARV program to provide Navy inputs and assessments in reaching quantitative control power requirements. Prater added, "We had experience with the control-power requirements and had worked with NASA Langley last year. The beauty of the HARV is that it is still an F-18. I'm an F-18 pilot. I can bring to bear my fleet experience doing combat maneuvers with the airplane. In HARV, it did fly a little differently, but I can compare results immediately with my F-18 experience." ■

John Romer is a public affairs specialist with NAS Patuxent River, Md.

PH2 Markus White

Lt. Dave Prater, pilot of NASA's HARV, and James Lackey, flight test engineer at SATD.

# At the Merge and Beyond:

## Fighting and Working Together

### Part 2

By LCdr. Bob Frantz, USNR

A fleet FA-18 *Hornet* is pushing the envelope to gain angles on a USAF F-15 *Eagle* over the Mojave Desert. Within 150 miles of the fight, Navy air test and evaluation squadron personnel sit down with their Air Force counterparts to hash out the significance of a recent air intercept missile shot. In line units, as well as specialized commands, Navy, Marine Corps, and Air Force crews are working together and frequently flying against each other in the name of greater efficiency and capability, reduced cost, and, above all, improved combat readiness.

Evidence of Navy, Marine Corps, and Air Force joint cooperation abounds at the Air Force Weapons and Tactics Center, Nellis AFB, Nev., located about eight miles northeast of Las Vegas. The magnitude of joint operations is typified by the flight line of *Tomcats* or Navy or Marine Corps *Hornets* parked near the Red Flag area – or perhaps on the Air Force Fighter Weapons School line(s) or near any of the 57th Test Group's facilities.

Lieutenant Colonel F. C. Richardson, USAF, Commander of the 422nd Test and Evaluation Squadron, explained, "It's pretty obvious we love to have Navy and Marine Corps squadrons here and they love to come to Nellis. They are outstanding adversaries for us. From the standpoint of flying aircraft dissimilar to ours and bringing in a different perspective and new ideas, we'd prefer to have them over other Air Force units. The problem with our own guys is that we know

LCdr. Dave Parsons

Three VF-84 F-14As carry external stores that exhibit the three missions of the Tomcat: (top to bottom) strike, interceptor, reconnaissance.

their tactics and they know ours, so we end up more with gamesmanship than tactics development. This also biases test results which defeats what we're out to accomplish.

"Navy crews, and when I say Navy, I mean Marines as well, do an excellent job of simulating fourth-generation threats. Their *Hornets* and *Tomcats* have a radar-guided missile capability and are an all-aspect threat – which means they have a capability to successfully kill us with a missile from any direction as long as their nose is pointed toward us. Their aircraft also give us a good presentation on our RWR [radar warning receiver] gear.

"While we're similar, we're also different and the Navy gives us a chance to see a different perspective. There is more than one way to do things tactically and the cross talk helps us both improve our product.

"We typically fly against fleet squadrons and, although they all generally do very well, we see a range of air combat readiness and experience related to where they're coming from or where they are in their training cycle," Richardson said. "Squadrons that have recently returned from carrier deployment are typically not as tactically proficient, at least at the outset, as those well into their turnaround cycle. What we see is really very typical of what you would find in a real-world combat environment.

"They are disciplined fighter aviators and are willing to fly their aircraft to replicate the specified threat in the required scenario to support the particular test being conducted. It is very frustrating when a fighter pilot is asked not to fly his aircraft to its full capability," he concluded.

Lt. Col. Richardson's boss, Colonel R. S. Mather, Commander of the 57th Test Group, added, "We are extremely concerned with all-aspect adversaries – face shooters. And their dissimilarity coupled with their ability to operate in a high-performance, high-G environment make them ideal for the job. The mix of experience we get is like what we'd see in combat on the first day or first week. It is a lot more realistic than pitting my F-15s against my F-16s."

The 3,600-hour, combat-decorated (228 F-4 missions in Vietnam) fighter pilot continued, "It is very important to us that they are proficient and disciplined enough to stick to the rules of the test and not fly their FA-18s and F-14s as they would in combat. We need to be able to carefully measure consistently high-value data in order to get meaningful test results. In the test environment, the degree of analysis we perform would be invalid without reliable, high-quality adversaries.

Col. Mather added, "The Navy likes to participate because the flying, scenarios, weather, and facilities are outstanding. They also look at it as a good opportunity for us to learn from each other. Also very appealing, especially when squadrons are low on funds, is that most of the time I'll pick up the tab for them to come. The Air Combat Command funds our tests and I fund the TDY – quarters, messing, vehicles, etc. Usually squadrons are standing in line to come to Nellis."

Air Force Captain Pete Bartos, an F-15 pilot who has accumulated 250 hours thus far in the FA-18 as an exchange pilot, feels that "Air Force fighter guys have advantages in maintaining combat readiness. First of all, they can dedicate more flight time, resources, and preparation to tactics because they don't have to concern themselves with going to the boat.

"Navy squadrons do and should give priority to being capable of operating safely aboard their carriers," he continued. "You can die on any given day at the boat, but nobody is going to die as the result of a fake *Sidewinder* shot. Pride is also a factor. Look bad on the range and who's going to know? Your wing? Look bad at the boat and the whole ship is aware of it.

"Another edge the Air Force has is that operational squadron aviators are not tasked with managing the troops that maintain the aircraft and support the squadron," Bartos said. "The Air Force Command Post system also relieves squadron aviators of many of the watches Navy guys are required to stand. Everybody in the fighter business works 12-hour days, but the lack of carrier operations and difference in collateral responsibilities allow Air Force folks more time and energy to devote to tactics.

"The Air Force also has an advantage in equipment – things like RWR gear and other black boxes – which make their aircraft more survivable and more tactically capable. More sophisticated equipment allows more sophisticated tactics.

"Even something as simple as the video tape recorder, used primarily to verify valid missile shots by taping the radar display and communications, gives Air Force fighters an edge. It enhances training and leads to better weapons employment and better briefing/debriefing skills."

Continuing to reflect on service differences, Bartos went on, "The Air Force is more formal, more structured. In a line squadron, there are formal programs for things like being designated as mission ready or being qualified as a flight lead. The squadron has designated SOFs [Supervisor of Flying], who act as advisors to pilots and are on call during emergencies, and IPs [Instructor Pilots] responsible for teaching skills required for being designated as mission ready. From what I can see in the Navy, mission training varies from squadron to squadron. More is left to the CO's discretion.

"Equipment is also provided to enhance mission readiness. For

LCdr. Dave Parsons

Navy Fighter Weapons School (Top Gun) A-4Ms and an F-14A line the ramp at Nellis AFB, Nev.

example, while in my last unit [53rd Fighter Squadron, Bitburg, Germany], a single-seat F-15C squadron, we had two dual-seat F-15s assigned to facilitate training.

"Planning and scheduling in the Air Force are also more formal and structured. Typically, sorties, adversaries, ranges, etc., are scheduled two weeks in advance. Pilots are usually penned in a week in advance. In the Navy, most guys are happy to know at 5 o'clock the day before if they're scheduled the next day."

Capt. Bartos conceded that "In combat, the Navy's way of doing things may prove beneficial. War is chaotic and requires day-to-day changes. Navy guys are used to being flexible and would have no problem accommodating frequent changes."

Navy Captain E. M. Chanik, Jr., has a somewhat different slant from Bartos regarding the role carrier operations play in achieving tactical proficiency and combat readiness. Currently enduring his first out-of-the-cockpit assignment, Chanik has devoted his career to air combat tactics – training, developing and employing. Capt. Chanik, a former Navy Fighter Weapons School instructor, was one of the handful of nugget pilots selected to be part of the initial cadre of F-14 aviators; he commanded VF-84 during Operation Desert Storm.

"To use a phrase that has become a fighter community cliche, there is no doubt air combat skills are very perishable and must be practiced to be maintained, but carrier operations offer some mitigating considerations," acknowledged Chanik. "Look at the skills or attributes that carrier aviators must possess to be effective. Beyond the required intelligence level and basic motor skills [hand-to-eye coordination] that you don't make it through the training command without, successful carrier operations require a keen sense of situational awareness – that is, the ability to process multiple, simultaneous, sensory inputs, prioritize them, and act on them in order of importance. Also essential is cockpit discipline: the ability to compartmentalize, maintain focus, and ignore distractions. Related to that is the ability to reconcile conflicting psychological and physiological inputs with instrument indications.

"Knowing your jet and its associated systems and how to make it respond so well that you become an extension of the aircraft are also key attributes. Add to these things a good understanding of tactics and a good understanding of the threat, his aircraft, weapons, and tactics. I'll bet the same guy who is proficient flying the ball [Fresnel lens approach to the deck] sea period after sea period, and cruise after cruise, is also proficient at the merge."

Chanik, who is slated to became XO of *Abraham Lincoln* (CVN 72), emphasized, "There is no substitute for practice, but when you consider that aviators who continue to have difficulty or prove unsafe around the ship are eventually removed from carrier duty, you realize that the carrier requirement provides a very high-level cut for Navy squadrons. The guys who consistently do well at the boat generally get up to speed tactically very quickly. The CO's challenge is to ensure that a tactical focus is maintained within the squadron and that every opportunity to assign a tactical purpose for a hop is exploited."

As to the future of Air Force/Navy cooperation, sentiment across the board indicates a desire for increased joint operations, including training, testing, and tactics development and evaluation. Echoing the feelings of many, Captain Tom Perkins, CO of Air Test And Evaluation Squadron 4, explained, "In an era of decreasing resources, we already do a good job providing bogeys for each other; we support many Air Force tests and they many of ours. We also fund and take advantage of the opportunity to frequently work with our sister service's line units. This is particularly beneficial when you consider that the existing dedicated adversary aircraft as well as the Fighter Weapons School's are heavily consumed in training operational squadrons and less available to act as bogeys for operational testing or tactics development and evaluation."

Capt. Perkins would like to see more emphasis on joint tactics development. He said, "Bogey test support is very important, but there is also benefit for cross-service, operational-to-operational tactics development. Although driven by different mission requirements, we would each get to see new wrinkles and share new ideas. As I recall the tactics we settled on for protection of high-value unit aircraft – AWACS [Airborne Warning and Control System], tankers, and the like – came about as the result of joint tactics development.

LCdr. Dave Parsons

**A Top Gun F-14A Tomcat visits Nellis AFB, Nev., for joint training.**

"It's also important to go beyond limiting tactics and performance required for threat replication," Perkins continued. "One thing that we learned as a result of the Vietnam experience is that you tend to fight like you train and, therefore, it's important to train like you fight. Since we are both faced with fourth-generation threats, and we each can be comparable adversaries, there's something to be gained by also flying our aircraft full up against each other.

"We need to integrate as much as possible in areas of weakness," he added. Each service has inherent abilities. The Air Force is good at employing large numbers of aircraft over long distances. The Navy strength is the ability to position smaller numbers of small, tactical aircraft close to where they need to be. The Air Force is the only outfit on the street with lots of gas. They also have most of the powerful electronic support assets. The more we work together, and the more we learn about each other, the stronger we each become and the stronger we are as a total force."

In a profession that requires self-confidence, aggressiveness, and competitiveness as much as fighter aviation does, one would not be surprised to find interservice rivalry and one-upmanship among its front-line participants. However, the atmosphere among Navy, Marine Corps, and Air Force aviators is one of mutual respect for each other's professionalism, competence, and personal caliber.

Col. Dick Mather expressed a view of U.S. fighter crews consistent with those who fly in that environment, "Brown hat or blue hat, it makes no difference. A fighter pilot is a fighter pilot. The natural aggressiveness is there. They're smart, experienced, disciplined, and professional – the best!"

■

LCdr. Frantz is a reservist who drills with VF-84; he provides public affairs support to the fighter community on both coasts.

# (Former) Soviet Thoughts on Carriers

The following quotes are extracted from a Department of Defense report (JPRS-UMA-92-005 dated 12 February 1992), featuring an article which appeared in *Moscow News*, No.2, January 12-19, 1992, pages 6-7. The article is a roundtable discussion on the future of the former Soviet navy moderated by *Moscow News* military analyst Yuri Teplyakov with 13 senior admirals and captains of the former Soviet navy, including the five quoted below: former Pacific Ocean Fleet Commander Admiral Nikolai Amelko; Chief Navigator of the Soviet navy Rear Admiral Valery Aleksin; Captain Vladimir Zaborsky; Captain Anatoly Shlemov; and Captain Albert Khraptovich.

**Capt. Khraptovich:** "Our first true aircraft carrier – the *Admiral Kuznetsov* – recently arrived at its permanent base in the north. It was built over 10 years, and from the start it was known where it would be based. So what? Neither the moorage nor any other vital facilities at the base or the compounds for the personnel have been built yet. This is a political defeat, as well as a strategical setback. This only helps discredit the idea of aircraft-carrying ships and casts doubt on the feasibility of their exploitation."

**Capt. Shlemov:** "If the republics drift apart, we may as well abandon the idea of aircraft carriers...."

**Adm. Amelko:** ...The idea of conquering the oceans originated with Admiral Sergei Gorshkov, who commanded the navy for more than a decade. To catch up with the U.S. naval might and outstrip it – that was a bee in his bonnet. The ambition was shared by Dmitry Ustinov, master of the military-industrial complex, that state within a state, a juggernaut. But what was the ultimate objective? No one knew. That was how this country got its first aircraft carriers and four *Kirov*-type missile-carrying cruisers.

"I can't exclude the possibility that the *Admiral Kuznetsov*...will turn out equally useless for everyone. I have heard an argument that aircraft carriers impart stability to naval task forces on the high seas. But we don't have such task forces. Suppose the nuclear-powered submarines venture out to the ocean; they will immediately be covered by anti-sub aviation based on U.S. aircraft carriers. Any sub is an easy prey for them. The *Admiral Kuznetsov* is a bluff.... Billions from the public coffers have been squandered. The effectiveness of that capital investment is nil: if the *Admiral Kuznetsov* takes attack planes onboard, it will lose its defense altogether. Six *Intruders* could easily dispose of it, putting one air-to-ship missile each into its side.

...but the country doesn't need the ship...for defense purposes, the country needs a hovercraft fleet more. Hovercraft are highly effective and comparatively cheap. We were developing them at one time but later abandoned them for the sake of aircraft carriers...."

**Capt. Zaborsky:** "The esteemed Comrade Admiral proceeds from the defensive doctrine invented mainly for propoganda purposes. But a defensive doctrine is gibberish. No professional can take it seriously. We have a military doctrine which contains components of offense as well.... But for your intervention, Comrade Admiral, we would have at our disposal now as many as four true aircraft carriers. Remember, a navy development program extending for 10 years was discussed in 1980. You said then that there was no need for aircraft carriers, and that the General Staff wouldn't know what to do with them. Your argument was that to combat U.S. submarines, we needed helicopter carriers converted from transport ships.

"I call this approach voluntaristic. Only in 1982 did a commission headed by the late Marshal Sergei Akhromeyev conclude that aircraft carriers could really be useful. That was how the *Admiral Kuznetsov* was born. Two more carriers are being built in Nikolayevsk: the *Ulyanovsk* and the *Varyag*. God help them see the ocean. The fate of the [Soviet] aircraft carrier was sealed even before WW II. The year 1935 saw the first large governmental program for the development of a large-scale navy. However, the implementation of the program was stalled by Hitler's invasion. After Marshal Zhukov's spectacular victories, army top brass succeeded in advertising the importance of the land armies. Stalin had a very positive attitude towards the navy but couldn't understand the potential of air strikes. It really pains me to hear discourses about returning the emphasis to torpedo and missile boats, small ships, and coast guards. To believe in that means to wish an easy defeat for this country."

**RAdm. Aleksin:** "The composition of the Navy corresponds to changes in national policy and reidentification of national objectives in the world arena. Therefore, we can't speak here about some 'petrified' forms. We must follow the example of the U.S. Navy in its dynamic quality and ability to concentrate on a chief objective. The aircraft carrier task force is a versatile weapon in its application. If we don't have something akin to that, we won't ever have an efficient navy. A navy is quite helpless without aircraft carriers, as much so as without a single central command....

"It is up to the experts to discuss the individual advantages and disadvantages of the *Admiral Kuznetsov*. All the same, we don't believe that U.S. aircraft carriers must be allowed to plow the ocean waters unmonitored: it would already be too late after attack planes with nuclear weapons onboard took off from the carriers. It would be stupid to leave it to land defense to await their approach.... If we wish peace for our country, we must maintain military presence in the world oceans. That's why the navy opts for aircraft carriers. They are like a sword threatening the enemy and simultaneously a shield for our attack submarines." ■

JO1 (SW) Eric S. Sasit

Historian Steve Hill logs and maintains the records and histories of each squadron and command.

# So You Are Going to Disestablish?

By Cdr. Stephen R. Silverio

In this time of drawdown, the disestablishment of aviation units and decommissioning of aircraft carriers poses many concerns. One is that the history of each unit might be lost through neglect or simply not knowing what to do with the historically significant materials that have been accumulated by the command over the years. It is imperative that the history of our aviation squadrons be preserved properly so that the material is accessible for retrieval by future researchers.

What is significant? What is fluff? What do you do with the records and other materials that are significant? These are a few questions that are routinely asked of the Naval Historical Center (NHC). Amid the myriad personnel and logistics requirements for the command being disestablished, the disposition of records can easily be overlooked, leading to the loss of the historical record of the command.

The primary reference for finding out what to do is SECNAVINST 5212.5C CH-1 27 Sep 88 (*Navy and Marine Corps Records Disposition Manual*). The Naval Historical Center, located in the Washington Navy Yard, is the primary collector of operational records and artifacts. The Director of Naval History is also the Curator for the Navy. Other records are stored in Federal Record Centers of the National Archives and Records Administration.

The Naval Aviation History, Operational Archives, and Curator branches of the NHC can help you determine what is needed for retention. Files (both electronic and paper), photographs, books, logs (even the ones kept in the administrative spaces ashore during port visits), videos, and other materials make up the historical record of your command. One thing is cer-

## Retained in Aviation History Branch

**"personal-for" messages**
**periodic or situational reports**
**cruise/deployment reports**
**intelligence reports**
**major staff, command studies or briefings (including technical/scientific reports)**
**action/combat reports**
**major exercise reports**
**published documents (i.e., Welcome Aboard/Alongside, cruise books, news releases, staff or crew orientation pamphlets, booklets used for public or staff orientation, etc.)**
**reports on performance of weapon systems, major projects or material**
**reports of major conferences**
**hazardous waste reports (storage, disposal, spillage)**
**photographs of ship/base (particularly when major change occurs)**
**biographies and photographs of CO/XO**
**major awards and citations received by the command**
**staff directory and organization charts**
**cruise books (will be forwarded to the Navy Department Library to add to its collection)**


JO1(SW) Eric S.Sesit

With more and more squadrons being disestablished, the workload in the Aviation History Branch of the Naval Historical Center has grown to monumental proportions.

tain: if you shred, toss out, burn, or destroy anything, it is lost forever to the Navy and future naval historians. If in doubt, SAVE IT! Let the curators and archivists determine what is to be thrown out. It's their job.

## Retained in Curator Branch

**official award plaques, such as Battle "E" and Ney awards**
**plaques listing commanding officers (names and dates of tenure)**
**historical data plaques listing history of command**
**approved unit insignia plaques from disestablished command (not from other commands, visiting VIPs, other units, communities, or organizations)**
**official trophies awarded for fleet and squadron competition (not athletic trophies)**
**artwork acquired by the command**
**photographs relating to the command and its mission**

**Objects that are an integral part of a command's history and tradition should be forwarded with an explanation of their significance.**

**Upon receipt, all materials will be examined and their value to the history of the disestablished command will be weighed.**

## Naval Historical Center Points of Contact

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**Building 157-1 Washington Navy Yard**
**Washington, DC 20374-5059**
**(202) 433-4355; DSN 288-4355**

**Curator Branch**
**Naval Historical Center**
**Washington Navy Yard**
**901 M Street, SE**
**Washington, DC 20374-5060**
**(202) 433-2220; DSN 288-2220**

**Shipping Address (for large items which must be crated):**
**Receiving Officer**
**Supply Department**
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## Rescue

A Cherry Point, N.C., aerial refueler crew aided Air Force search and rescue (SAR) helos in the rescue of three ill Lithuanian seamen from the decks of two Russian trawlers in separate incidents in the North Atlantic last year. **VMGR-252** was on a two-week deployment assisting the 56th Air Rescue Squadron with aerial refueling of the squadron's H-60 helos off the coast of Iceland. NAS Keflavik received a distress call from a Russian trawler with an ill seaman. The call was relayed to the KC-130 which flew back to the air station to pick up more fuel for the mission and headed for the trawler, 250 miles southwest.

The ship was not designed to have helos land on the deck; consequently, it had to lower its antennas so the helo could set down. After a successful evacuation, the SAR team flew back to the mainland with the KC-130 leading the way and providing fuel as needed.

A week later, on another training mission, the crew received a distress call from a second Russian trawler. Although the second rescue was similar to the first, the crew managed to locate a Russian translator which facilitated communications with the ship. The SAR team was again successful in landing the helos aboard the trawler and evacuating two sick Lithuanians to the naval hospital in Reykjavik.

Two P-3 *Orions* from Naval Station, Rota, Spain, flew to the scene of a burning merchant ship in the Atlantic as part of a joint search and rescue mission. The mayday call was sent by the ferry boat *Armonia* approximately 630 nautical miles southwest of the Canary Islands.

After coordinating with the Iberian Atlantic Area in Lisbon and Task Force 67, NS Rota received permission to launch the P-3s to search for the ship. The first Navy aircraft dropped several first-aid kits and a radio to the ship and received a signal from the vessel's captain that all 19 crewmen aboard were accounted for.

The P-3s were flown by crews from two squadrons stationed at Rota: VP-66, a reserve squadron from Willow Grove, Pa., and VP-23 from Brunswick, Maine.

## Honing the Edge

"Mission accomplished," is how Steve Teague described the Naval Aviation Depot, Cherry Point, N.C., field team's successful repair of a crash-damaged LC-130 *Hercules* on Antarctica.

Mr. Teague was leader of an 11-member field team that left for Antarctica on January 14 to repair the aircraft, arriving at Willie Field, near McMurdo Station, on January 18. After working 20 hours a day in temperatures down to zero minus 50 degrees Fahrenheit (including wind chill), the team's determination and perseverance paid off. They completed the aircaft repairs nine days ahead of schedule and returned to work at the NADep on February 8.

## Scan Pattern

Four years after the idea was born, the Aircraft Carrier Memorial obelisk was dedicated on February 17, 1993, at NAS North Island, San Diego, Calif. Founder Lawrence Pepin, a Marine who served on *Lexington* (CV 2), recruited carrier veterans to help with the project, and they continued it after Pepin became ill.

The eight-foot-tall black, four-sided stone is engraved with the hull number and name of every U.S. aircraft carrier.

In the dedication book, the following quotation appeared: "This aircraft carrier memorial obelisk is dedicated to those in Naval Aviation who manned the ships and flew from their decks. It will serve also as the headstone for those who sleep forevermore beneath the eternal sea."

PH1 Bob McRoy

**President Bill Clinton and Secretary of Defense Les Aspin visited Theodore Roosevelt (CVN 71) on March 12, 1993, off the coast of Norfolk, Va. President Clinton is shown shaking hands with a pilot of the VFA-14 "Valions." Pictured left to right are: Commander Carrier Group 8, RAdm. Jay Johnson; Commander in Chief Atlantic Command, Adm. Paul Miller; President Clinton; and Secretary Aspin.**

The Aircraft Carrier Memorial is appropriately located aboard NAS North Island – the "birthplace of Naval Aviation."

Randy Hepp

**A MiG-21 flies in formation over St. Mary's County, Md., with a Navy FA-18 Hornet from the U.S. Naval Test Pilot School. The MiG occasionally is seen over the area when students from the U.S. Air Force Test Pilot School visit NAS Patuxent River. Last February the Air Force test pilots under instruction were at Pax River to tour facilities, fly different aircraft, and exchange ideas and information with their Navy counterparts.**

Displaying VAQ-136's new nose art – "Kanji" meaning "Spirit of Attack" – from left to right: AEAN Gerald Jackson, ATAN Robert Kaufman, AMS2 Jay Matias, AMS2 Richard Schultz, and AMS1(AW) Henry Cruz. Other Corrosion Control Team members not pictured are AMSAN Fanco Velazqueoni, ATAN Patrick Crawford, AMSAN David Murray, AMSAN James Worley, and AEAN Robert Daddona.

## Change of Command

**CVW-3**: Capt. T. M. Bucchi relieved Capt. H. D. Connell II, 31 Dec 92.

**CVW-5**: Capt. Kenneth F. Heimgartner relieved Capt. Arthur N. Langston, 22 Jan 93.

**H&HS-38**: Maj. James A. Summers relieved Maj. Vincent M. Dubois, Jr., 29 Jan 93.

**HSL-34**: Cdr. Gary R. Jones relieved Cdr. Kenneth E. Clements, 19 Nov 92.

**HSL-40**: Cdr. Frederick R. Ruehe relieved Cdr. David W. Willmann, 12 Feb 93.

**HSL-42**: Cdr. John D. Furness relieved Cdr. Clyde T. Walters, 18 Feb 93.

**HT-18**: Col. Michael A. Coulman relieved Capt. Paul E. Roberts, 11 Dec 92.

**VAQ-33**: Cdr. Roger A. Arrowood relieved Cdr. James R. Powell, 13 Jan 93.

**VAQ-134**: Cdr. James S. Mackin relieved Cdr. Michael G. Bamford, 11 Jan 93.

**VAQ-138**: Cdr. Douglas R. Swoish relieved Cdr. C. W. Kennard, 11 Jan 93.

**VAW-117**: Cdr. James C. Tellefson relieved Cdr. Frank N. Clark, 7 Jan 93.

**VAW-123**: Cdr. Stefan L. Smolski relieved Cdr. Michael J. Winslow, 21 Jan 93.

**VAW-126**: Cdr. Jeffrey D. Weedle relieved Cdr. William J. McCarthy, 21 Dec 92.

**VC-13**: Cdr. Walter L. Baker III relieved Cdr. Jerry M. Harris, 23 Jan 93.

**VF-74**: Cdr. "Skip" Sayers relieved Cdr. Charles Wyatt, 22 Jan 93.

**VF-124**: Cdr. Thomas G. Sobieck relieved Capt. Daniel M. Chopp, 25 Mar 93.

**VF-126**: Cdr. Gregory D. Ingles relieved Cdr. J. P. Bergamini, 25 Feb 93.

**VF-211**: Cdr. George R. Luechauer relieved Cdr. David R. Bryant, 13 Jan 93.

## Flag Moves

**RAdm. Robert W. Nutwell**, from Commanding Officer, *George Washington* (CVN 73), to Deputy Director for Plans and Policy, J-5, U.S. European Command, Stuttgart, Germany, Jan 93.

## Anniversaries

The **Naval Aviation Engineering Service Unit** celebrated its 50th anniversary on December 31, 1992. The organization was formed by the Bureau of Aeronautics in late 1942 due to the development of search radar and other electronic devices which forced Naval Aviation into an era of expanded maintenance.

**Naval Air Station, Willow Grove, Pa.,** celebrated the 50th anniversary of its commissioning on February 26, 1993.

February 20, 1993, marked the **50th anniversary of the establishment of Naval Auxiliary Air Station, Cecil Field Fla.** Originally a daylight-only training base for student aviators, Cecil Field changed from an outlying field to a major master jet base.

Established on April 1, 1943, **Naval Air Station, Patuxent River, Md.,** recently celebrated its 50th anniversary. Various events are scheduled for the remainder of 1993 to commemorate this milestone.

## Awards

HSL-44 and NAS Patuxent River, Md., were recognized as the Navy's **FY-92 Personal Excellence Partnership of the Year** award winners.

Naval Air Reserve, San Diego, Calif., was chosen as the FY-92 recipient of the **Ens. C. H. Hammann Award.** The Commander Naval Air Reserve Force award is presented to the most efficient Naval Air Reserve command. Selection criteria includes fiscal management, timely submission of reports, and contributions to overall command readiness, retention, and long-range planning.

The award is named for Ens. Charles Hammann, who was a Naval Air Reservist during WW I. While evading enemy aircraft, Hammann landed his damaged flying boat alongside a downed fellow aviator in open water, took the victim onboard, and flew back to base. He was awarded the Congressional Medal of Honor for his heroism.

HT-8 won the **Admiral John H. Towers Safety Award** for FY 92. This award is presented annually to the Naval Air Training Command squadron that has achieved the most outstanding mission-oriented safety record during the fiscal year.

NAS Pensacola, Fla., won the **CNATra Award for Achievement in Safety Ashore** for FY 92. This award is presented annually to the naval air station having the best overall shore safety program and record in the Naval Air Training Command.

NAS Atlanta, Ga., received the **ComNavAiResFor Activity Award for Achievement in Safety Ashore** for FY 92.

Aviation winners were announced for the FY-92 **Golden Anchor Award**, which recognizes career motivation programs – Commander in Chief, Atlantic Fleet: *America* (CV 66); *George Washington* (CVN 73); *Guadalcanal* (LPH 7); HM-14; VA-65; and HC-8.

Commander in Chief, Pacific Fleet: *Enterprise* (CVN 65); HS-8; NAS Moffett Field, Calif.; *Nimitz* (CVN 68); *Peleliu* (LHA 5); and VP-4.

Commander in Chief, U.S. Naval Forces, Europe: HC-4.

## Special Records

**Cdr. Larry J. Stack, CO, VAQ-136, logged his 3,000th flight hour in the EA-6B Prowler.**

**LCdr. Ken Solomon**, HSL-43, accumulated 3,000 flight hours in the SH-60B *Seahawk*.

**Capt. Donald Roulstone**, CO, NAS Roosevelt Roads, P.R., reached a milestone of 3,000 hours in the S-3 *Viking*.

**Col. George Woodroof,** a reservist with MAG-41, was presented the Sikorsky Helicopter 5,000th Hour Flight Award by United Technologies. He flew all 5,000 hours in the CH-53 A and D versions of the *Sea Stallion*.

**LCdr. William H. Beeson, Jr.,** NAS Lemoore, Calif.,passed his 5,000th flight hour. He logged over 2,000 hours in the UH-IN "Huey" and over 2,700 hours in the CH-46 *Sea Knight*.

**Cdr. Ronald P. Cosgrove**, CO, VP-94, recorded his 5,000th career flight hour while at the controls of a P-3 *Orion*.

## Records

Several units marked **safe flying time**:

| Unit | Hours | Years |
|---|---|---|
| HMM-364 | 10,000 | 3 |
| HS-15 | | 8 |
| HSL-32 | | 2 |
| HSL-43 | 16,200 | 2 |
| HSL-45 | 25,500 | 3 |
| HSL-48 | 20,000 | |
| HT-8 | | 18 |
| NAF El Centro | 6,752 | 11 |
| NAF Kadena | 33,300 | 31 |
| AF Mildenhall | | 33 |
| NAS Keflavik | | 17 |
| NAS Norfolk | 32,000 | 11 |
| NAS Sigonella | | 27 |
| SOES Cherry Point | 140,000 | 28 |
| VA-65 | 37,400 | 9 |
| VA-85 | | 1 |
| VA-95 | 66,000 | 14 |
| VA-145 | 14,300 | 3 |
| VAQ-134 | | 22 |
| VAQ-135 | 21,760 | 13 |
| VAQ-136 | 9,500 | 5 |
| VAW-114 | 42,500 | 22 |
| VAW-121 | | 26 |
| VF-1 | 4,700 | 1 |
| VF-2 | 5,080 | 1 |
| VF-14 | | 6 |
| VF-101 | | 3 |
| VF-103 | | 13 |
| VF-124 | 38,000 | 4 |
| VF-154 | 30,000 | 8 |
| VFA-86 | | 2 |
| VFA-94 | 4,700 | 1 |
| VP-9 | 89,300 | 14 |
| VP-90 | 52,200 | 13 |
| VP-11 | | 15 |
| VQ-4 | 233,800 | 21 |
| VQ-6 | | 1 |
| VRC-30 | 107,750 | 17 |
| VS-22 | | 1 |
| VS-24 | | 9 |
| VS-30 | | 12 |
| VX-5 | 43,600 | 9 |

By Cdr. Peter Mersky, USNR

Handleman, Philip. Introduction by Walter J. Boyne.

*Aviation: A History Through Art.* Howell Press, 1147 River Rd., Charlottesville, VA 22901. 1992. 216 pp. Ill. $45.

This is a long-awaited collection of modern aviation art by members of the prestigious American Society of Aviation Artists (ASAA). The modern movement of aviation art, with it prodigious production of expensive prints and accompanying promotional campaigns, has given rise to a self-promoted appreciation of those artists who have focused their considerable skills on the subject of flight.

We noted ASAA's formation some years ago, and while the group has not become a household word in aviation or fine art circles, it has served as a gathering place and forum for some of this country's finest aeronautical painters and illustrators.

This is a good book, dedicated to the memory of Bob Cunningham of General Dynamics, a fine painter and gentleman, himself, who died suddenly in 1991. There are two examples of Cunningham's work in the book. The text is generally succinct, well-written, and supportive of the many color reproductions of works by such well-known artists as James Deitz, Mike Machat, Jerry Crandall, Craig Kodera, and Bill Phillips. Older practitioners of aviation art, who inspired many younger artists, are also well represented, including R. G. Smith (whose biography is especially well deserved), Jo Kotula, and Keith Ferris.

If there is any fault with the collection, it is the relative lack of subjects dealing with Naval Aviation. There *are* a few scenes of Navy and Marine Corps aircraft, but they are lost among all the depictions of USAAF and commercial types – a shame and something that highlights a problem in the modern movement. For some reason, artists have not found Navy and Marine Corps aviation as compelling a subject as its history indicates.

Certainly, the recent war in the Persian Gulf and the 50th anniversary of WW II events have elicited some scenes of Navy aircraft, but they are in low proportion to those paintings of the Army and Air Force in action. R. G. Smith and Bill Phillips – with an occasional entry by James Deitz, Stan Stokes, and Keith Ferris – have the field pretty much to themselves. (I wonder why Ted and Morgan Wilbur are not represented by even one piece in this volume.)

This book *is* nicely done and shows how a group of highly skilled researcher-artists do their work.

# ANA Bimonthly Photo Competition

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 22041-3863.

**Randy Duran of Barstow, Calif., won the bimonthly ANA Photo Contest with this striking shot: Hornet tranquility – a pair of FA-18s ride out a storm at NAS Fallon, Nev.**

### Cubi Point

Rockriver 101, your signal Bingo. Cubi bears 120 at 125. Clean up, hook up, go Button 8.

Cubi Approach, Rock 101; at Redhorse for the Hi-Tacan penetration.

Cubi Tower, Rock 101; approaching Grande Island. Have you changed runway orientation and airfield configuration? Leyte Pier and the Midway Hangar are on the wrong side of the runway. Request holding over Snake Island until you get the Seabees to move the runway.

How many other WestPac "fleet sailors" realized the aerial photograph of Radford Field (NAS Cubi Point) on pp. 16-17 of *Naval Aviation News*, Jan-Feb 93, was reversed?

LCdr. Bruce J. Herman
ATC Facility Officer
NAS Whidbey Island, WA 98278-5000

**Ed's note: Rock 101, thanks for the "transmission"! You were the first to write us, but we got several phone calls. Our staff also noticed the flopped photo, while the ink was still wet from the printer.**

I talked to a Marine who had just returned from Cubi Point in November 1992. He told me that as the head supply honcho in charge over there, he had been personally responsible for the inventory of all property on NAS Cubi Point. As a young aviator, my first question naturally concerned the status of the Cubi Point O' Club aviators' bar. He sadly informed me that a majority of the plaques still remained in the bar and they had been turned over to the Filipinos. Names familiar to all graced these hallowed walls. Their loss would be a tragedy!

Capt. Phillippe D. Rogers, USMC

**Ed's note: You can feel confident that the contents of that hallowed spot are intact. Robert Macon, Deputy Director, National Museum of Naval Aviation, Pensacola, Fla., credits Capt. B. V. Wood, the last CO of NAS Cubi Point, R.P., for ensuring that the museum received all historically significant material from the O' Club Plaque Bar. Mr. Macon assures us that 60 crates of memorabilia are being safeguarded and preserved for future display in the museum.**

### Kudos

Jan-Feb 93 is another great issue. It is good to see a photo of my *Midway* CO, Riley Mixson, on page 1 with the CV-41 logo on his helmet – maybe when he flew the F-4S at Cubi in 1986?

**Korea: The Forgotten War and Navy to the Moon: The Apollo Program**
**Symposium '93**
**May 6-7, 1993**

The Naval Aviation Museum Foundation presents its seventh annual Naval Aviation Symposium, hosted jointly with the U.S. Naval Institute. This series of educational and social events features the presentation of Naval Aviation in the Korean War, and an analysis of Naval Aviation's participation in the quest to put man on the moon.

For details call 800-327-5002 or 904-453-2389.

Grampaw Pettibone is always a good read. Thanks for noting the award trophy and photo on p. 37. The [second] winner was *Midway* when I was the ship's safety officer and particularly prolific in print. My predecessor, Cdr. Steve Jones, and then-Capt. Mixson were also major players in the honor. Being forward deployed in Japan, none of us ever saw the trophy. I later saw it in the Pentagon in 1989. Curiously, we never knew of the award until we received it. We just did what we did for "fun and profit."

Thanks also for the Cubi Point article and efforts to maintain the history of the Plaque Bar. But fix the photos: center pp. 16-17 and top p. 23, which are backwards. Keep up the good work!

Cdr. Bert Polk, USN (Ret.)
2101 Harbor Drive
Annapolis, MD 21401

The *Chargers* of VFA-27 enjoyed your Jan-Feb 93 issue. Operating on station in the North Arabian Gulf, we welcome all news of Naval Aviation around the world. We do wish to correct a small error regarding our command safety record. On p. 36, you list VFA-27 as having 3,000 hours in 6 years of mishap-free flying. The *Chargers* have actually flown in excess of 24,000 hours in over 7 years.

We look forward to your next issue and find the magazine extremely readable with an excellent format.

Lt. D. Peter Schnorr
Aviation Safety Officer, VFA-27
FPO AP 96601-6204

### A-7 Sendoff

The last operational A-7 unit, the Ohio Air Guard's 178th Fighter Group, is hosting a farewell to the A-7 *Corsair II*. POC: SLUF Registration, 178 FG, ATTN: Lt. Col. Marshall, 801 Fontaine Ln., Springfield Municipal Airport, Beckley, OH 45502-8789, DSN 346-2297 or 513-327-2297.

### Correction

**NANews, Mar-Apr 93, p. 32: Ms. Terry Taylor took the photograph of one of VAQ-33's EP-3Js.**

### Reunions, Conferences, etc.

**Guam Liberators reunion**, JUL 94, POC: Col. Warren H. Weidhahn, USMC(Ret.), POB 1179, Alexandria, VA 22313-1179.

**EA-6B Prowler Symposium**, MAY 17-20, NAS Whidbey Island, WA. POC: LCdr. Rick Morgan, DSN 820-8148, 206-257-8148.

**Bunker Hill (CV 17/CG 52) reunion**, MAY 24-26, Norfolk, VA. POC: Lloyd G. Taylor, POB 171, Union, SC 29379, 803-427-3817.

**MAG-61 reunion**, JUN 2-5, Quantico, VA. POC: John E. Manning, 4942 Belpre Rd., Rockville, MD 20853, 301-460-5992.

**VR-22 reunion**, JUN 4-6, Columbus, OH. POC: Russ Riley, 3076 Woodgrove Dr., Grove City, OH 43123, 614-875-4737.

**Princeton (CV 37/LPH 5) reunion**, JUN 14-16, San Diego, CA. POC: Bob Neumeyer, 7159 Navajo Rd., San Diego, CA 92119, 619-287-7887.

**Shangri-La (CV 38) reunion**, JUN 23-27, Buffalo, WY. POC: Charlie Brown, POB 209, Buffalo, WY 82834, 307-684-2401.

**Norton Sound (AV 11/AVM 1) reunion**, JUN 24-27, Port Hueneme, CA. POC: R. F. Houestadt, 805-485-6144, or Norton Sound Assoc., POB 487, Port Hueneme, CA 93044.

**Enterprise (CV 6) reunion**, JUL 7-11, San Diego, CA. POC: Tom Powell, 860 Piccard Ave., San Diego, CA 92154, 619-690-3528.

**EAA Fly-In Convention**, JUL 29-AUG 4, Wittman Regional Airport, Oshkosh, WI. POC: Dick Knapinski, 414-426-4800.

**Ranger (CV/CVA 61) reunion**, AUG 5-8, Memphis, TN. POC: John Muzlo, POB 49, Round Top, NY 12473.

**Intrepid (CVA/CVS 11) 50th anniv.**, AUG 12-14, New York City. POC: Dr. L. H. Blackburn, Jr., 22 Watercrest Dr., Doylestown, PA 18901, 215-345-5690.

**NASWF reunion**, AUG 12-15, Albuquerque, NM. POC: Wayne Downing, 614-474-2496.

**Bon Homme Richard (CV/CVA 31) reunion**, AUG 13-15, Biloxi, MS. POC: Ralph Pound, POB 1531, 410 Clark St., Tupelo, MS 38802, 601-842-0572 or 601-842-8247.

**NavAlResASWTraCen reunion**, AUG 20-21, Willow Grove, PA. POC: AWCS S. Heathcock, Res. ASW Trng. Cen., NAS Willow Grove, PA 19090, DSN 991-6530, 215-4433-6530.

**VS-721 reunion**, AUG 26-29, NAS Glenview, IL. POC: George Lockwood, 3091 Ridge Rd., West Bend, WI 53095, 414-334-5738.

**NAS Twin Cities reunion**, AUG 28, Minneapolis/St. Paul Intl. Airport, MN. POC: K. E. Johnson, 7325 14th Ave. S., Richfield, MN 55123, 612-866-7194.

**Guadalcanal (LPH 7) reunion**, Summer/Fall 1993, Norfolk, VA. POC: P. L. Sullivan, 73 Windwhisper Ln., Annapolis, MD 214-03-3474, 410-268-3982.

### Hornet Photo

Reference the VFA-97 FA-18C (not FA-18A!) *Hornet* photo on page 33 of the Nov-Dec 92 issue: the pilot must be an Air Force exchange dude considering the standard USAF looooong HIGH approach he is making to *Kittyhawk*. Also, I note he is using his in-flight refueling probe to help with line-up. (Most Navy guys use the heads-up display while ignoring the lens and landing signal officer.)

All in fun – your staff is doing a fine job with a great mag. Congratulations on your 75th anniversary and here's to 75 more. But, please, get the *Hornet* designation right – with the slash!

Bob Lawson
1297 Palmer Circle
St. George, UT 84770

**Ed's note: Thanks for correcting our caption on the winner of the ANA Bimonthly Photo Competition, which stated that the Hornet was "preparing to land aboard Kitty Hawk." (By the way, CV 63's name is two words!) Regarding the slash in FA-18, the Department of Defense directs that the Hornet designation is FA-18, not F/A-18, a designation chosen by the Navy after high-level deliberation. It's a long story which deserves an entire article devoted to it.**

### Mount Pinatubo

I am writing in response to the article in *Naval Aviation News* by Lt. Michael C. Heavey, "VC-5 and Mount Pinatubo" (Jan-Feb 92), which incorrectly stated that VC-5 was the only squadron flying in the Philippines during the Mount Pinatubo eruption. HML-776 was also flying and supporting the Republic of the Philippines and U.S. military interest during the eruption. In addition, the article stated that VC-5 flew over 70 missions since the major eruption. That double-digit figure doesn't compare to HML-776's 430 flights (not to mention almost 150,000 pounds of cargo). Another inaccuracy is that VC-5 provided the only SAR/medevac services in the Philippines. Again, HML-776 also filled this role.

Sgt. Morris G. Froscher
MACG-48, 4th MAW
NAS Glenview, IL 60026-5120

**Ed's note: Many thanks for the information on your squadron's participation. Without a fleet of reporters throughout the world, we sometimes don't get the word unless a squadron or individual takes the time to tell us. HML-776 certainly deserved more press.**

### F8C/O2C Helldiver

On page 18 of your Nov-Dec 92 issue, the first paragraph of Hal Andrew's "F8C/02C Helldiver" refers to the 1931 movie *Dive-Bomber*. The correct title of the movie is *Hell Divers* (MGM) and starred Wallace Beery and Clark Gable. *Dive-Bomber* was probably confused with a 1941 Warner Bros. movie that starred Errol Flynn and Fred MacMurray titled *Dive Bomber*, which had no connection with the earlier Curtiss *Helldiver*.

James R. Shock
11104 Racine Avenue
Warren, MI 48093

### NANews Collector

Not only has *Naval Aviation News* provided the best in what is new in Naval Aviation, but it also has included some of the best accounts of events in the past, such as "Patrol Aviation in the Pacific, Part 1," by Capt. Albert L. Raithel, Jr. (Jul-Aug 92), and the articles on the Battles of Coral Sea and Midway by Dr. Edward M. Furgol and Robert J. Cressman, respectively (May-Jun 92).

As a reader of your magazine since the 1950s while on active duty in naval air, through the early 1980s as a reserve C-118 aircrewman in VR-52, I have also been collecting *NANews*. I would like to hear from other collectors or anyone who wishes to sell or trade issues.

AMCS Daniel A. Ciarlo, USNR (Ret.)
84 Phyllis Drive
Naugatuck, CT 06770-2524

### WW II Vets

We are conducting a research project involving the development of Parkinsonism-dementia complex (PDC) in those servicemen who were stationed on Guam during WW II. PDC on Guam is associated with a toxic agent, cycad. Seeds of this plant are made into pancakes and eaten as a traditional delicacy by the island natives. Exposure to the Guam environment before or during the period 1949 through 1954 is a common feature of all persons diagnosed with PDC. If you are a U.S. veteran who served on Guam during WW II, please contact the Department of Veteran Affairs, Information and Referral Center, 1000 Locust St., Reno, NV 89520, 702-328-1766/68. A questionnaire will be sent to you. Confidentiality will be maintained by the investigators.

The Department of Veteran Affairs is searching for thousands of veterans exposed to mustard gas while participating in classified tests of protective equipment and ointments during WW II. They participated in these tests under an oath of secrecy recently lifted when evidence indicated long-term health effects related to that exposure. Many of them, or their survivors, may be eligible for VA benefits based upon certain health conditions. For information, contact: Office of Public Affairs, VA Central Office (80), 810 Vermont Ave., NW, Washington, DC 20420, 202-535-8165.

### Battle of Midway

With all due respect to CPO Roy Leverich and our shared interest in U.S. Navy history (*NANews*, Jul-Aug 92, p. 44), his lack of attention to detail caught my historical eye. To be precise, of the four Japanese carriers sunk during the Battle of Midway, not one but *two* were equipped with port side island structures. *Akagi* was indeed one of them; the other was *Hiryu*. I issue a dart to the *NANews* research department for only doing half of their job and a second dart to CPO Leverich for awarding an undeserved accolade. Gotcha, Chief!

Elliott Stoffregen III
6501 Hwy. 98 W. #106
Pensacola, FL 32506-5973

**Ed's note: Thanks to your eagle eye, we stand corrected.**

### Cubi Point Display Aircraft

I served with VRC-50 for almost four years during the base closures in the Philippines. I wonder if the two aircraft on static display at Cubi Point – an F-8 *Crusader* and A-5 *Vigilante* – are going to be left behind or taken back to the States to grace a naval air station. I also want to comment that I enjoy your articles on aircraft from the past; they're very informative.

AMH2 Robert J. Chafin, Jr.
PSC 812 VR-24 Box 236
FPO AE 09627

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