

NAVAL AVIATION NEWS

September-October 1991



Orions of Arabia
Patrol Squadrons in Desert
Shield/Storm . . . Page 14

NAVAL AVIATION NEWS

Flagship Publication of Naval Aviation

Oldest U.S. Navy Periodical, Volume 73, No. 6

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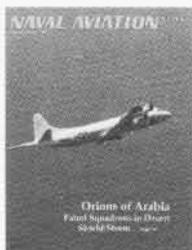
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COVERS – Front: A P-3C Orion on patrol (PH1 Steve Uhde). Back: A VA-46 A-7E rockets off the flight deck of *John F. Kennedy* (CV-67) loaded with ordnance during Operation *Desert Storm* (PH3 Paul Hawthorne).

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Published by the Naval Historical Center
under the auspices of the Chief of Naval Operations

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Publication Policy:

Naval Aviation News considers for publication unsolicited manuscripts, photo essays, artwork and general news about aircraft, organizations, history and/or human endeavors which are the core of Naval Aviation. All military contributors should forward articles about their commands only after internal security review and the permission of the commanding officer. Manuscripts will be returned upon request.

For further guidelines on submissions, contact Managing Editor, *Naval Aviation News*, at autovon 288-4407 or (202) 433-4407; FAX: autovon 335-2104, (202) 475-2104.

Subscription Information:

Naval Aviation News (USPS 323-310; ISSN 0028-1417) is published bimonthly for the Chief of Naval Operations by the Naval Historical Center. Editorial offices are located in Building 159E, Room 512, Washington Navy Yard Annex, Washington, D.C., 20374-1595. Second-class postage is paid at Washington, D.C., and additional mailing offices. ***Naval Aviation News* is for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, phone (202) 783-3238.**

POSTMASTER: Send address changes to *Naval Aviation News*, GPO Order Desk, Superintendent of Documents, Washington, D.C. 20402. The Secretary of the Navy has determined that this publication is necessary in the transaction of business required by law. Funds for printing have been approved by the Navy Publications and Printing Policy Committee.

By VAdm. Dick Dunleavy, ACNO (Air Warfare)

The Beat Goes On...

A year has passed since Iraq invaded Kuwait. *Desert Shield*. *Sharp Edge*. *Eastern Exit*. *Desert Storm*. *Provide Comfort*. *Sea Angel*. *Fiery Vigil*. These are not names of fleet exercises but a continuous string of real-world crises involving U.S. military forces in the last 12 months. Naval Air was a key player in every one of them.

The end of the cold war brought no letup in tasking for Naval Aviation. A look at the past year would indicate that it has increased. Just ask our fleet logistics squadrons based in the Mediterranean (HC-4, VR-22, and VR-24). They sustained operations at a crisis tempo for over a year, from the establishment of Mamba Station off Liberia in June 1990 to the end of *Provide Comfort* in Turkey and Iraq in July 1991 – with a full-scale war to fight in between. Day in and day out, they hauled the people, beans, and bullets with cool, dependable professionalism.

Two days after Iraq rolled over Kuwait, P-3s were on the scene, the first American reinforcements to the region. Two carriers arrived in short order as the first power-projection forces in the region, deterring Saddam from rolling into Arabia. The *Desert Shield* that was erected involved the largest build-up of Naval Aviation since World War II, with Naval Air forming an indispensable cord of the joint embargo that drained Iraq's ability to fight.

The *Desert Storm* that followed had Naval Air flying in the most intense aerial campaign ever waged. Of the six carrier battle groups involved in the fighting, three arrived within 24 hours of the commencement of the war and did not miss a beat – a real tribute to the flexibility inherent in our Composite Warfare Commander concept and in our day-to-day training and operations.

During *Desert Shield*, there was *Sharp Edge*, when Navy and Marine helicopters and transports pulled Americans and foreigners safely out of the Liberian civil war. This scenario was replayed later in the year during *Eastern Exit*, when Marine helicopters,

refueled in flight by Marine KC-130s, launched the daring evacuation of our embassy in strife-torn Somalia.

With Iraq beaten down by *Desert Storm*, Naval Aviation became a force for healing the wounds of many. Navy and Marine helicopters flew relief supplies and security forces into the Kurdish relief effort, *Provide Comfort*, protected overhead by carrier-based jets. Navy and Marine helicopters, on their way home from the war aboard amphibious ships, stopped to help Bangladesh recover from a cyclone that killed over 130,000 people. It was the Bangladeshis themselves, calling their rescuers "angels from the sea," that prompted the operation's name change from *Productive Effort* to *Sea Angel*.

More recently, when Mount Pinatubo erupted in the Philippines

and forced the evacuation of American families, the forces of Naval Aviation were there to help. During *Fiery Vigil*, *Midway* (CV-41) sortied from Japan with her helicopters and picked up some Marine Corps Reserve helicopters in Okinawa on her way to help *Abraham Lincoln* (CVN-72) and *Peleliu* (LHA-5) evacuate thousands of grateful families.

Like the beat of television's Eveready bunny, the last year has been one drumbeat after another for Naval Aviation. The wisdom of having forward-deployed, hard-hitting, flexible forces available to execute the foreign policy of the United States is as valid now as it ever was. The superb performance of the men and women of Naval Aviation verified that. Keep strokin'.

A Marine Corps CH-53E from HMH-461 operates from Raleigh (LPD-1).



Richard Mullen

Arizona Adventure

This story is based on a long-lost report, dated 1953, recently discovered among some misplaced papers.

The pilot of an FG-1D (prop-driven, WW II-vintage *Corsair* fighter) was cleared for landing at NAF Litchfield Park, Ariz., while on a ferry flight from the West Coast to the East Coast. The tower advised the pilot to land on runway 20 and that there was a variable crosswind at 15 to 20 knots. There were also intervals of blowing dust when the sky was partially obscured.

At the abeam position, the tower reported a 30-degree crosswind. The pilot descended and made a three-point landing (conventional landing gear) on the first third of the runway. About 2,500 feet down the strip, the *Corsair* commenced a ground loop to the left. Two other FGs were taxiing north of the east taxiway, about 400 feet apart. Both stopped when they saw the landing FG begin its ground loop.

The pilot of the landing *Corsair* applied power and passed between the two FGs. He was headed for the hangar but altered course to miss it. paralleling the hangar, he passed between a row of aircraft, then made a 90-degree right turn, passing between an R6V and a P4Y.

Just before becoming airborne, the *Corsair's* left wheel was knocked off when it struck an embankment. Tower personnel could not see the aircraft as it disappeared behind the hangar.

As the aircraft came around for another approach, the tower notified the pilot he had lost the left wheel. The pilot had used the air bottle to lock the wheels in position and later attempted, without success, to raise his landing gear. Therefore, as instructed, he made a one-wheel landing without flaps, resulting in considerable damage to the aircraft. The pilot was not hurt. The aircraft was a "strike."



Grampaw Pettibone says:

Ole Gramps hasn't seen one like this in a long while. It sure doesn't



The old Bird Watcher

make me pine for the old days.

This fella only had five hours in model in the last three months and most of that was logged on the hop, which ended with his omni-directional dust-up at the base in the desert.

Plus, the *Corsair*, bein' a tailsitter, shoulda been landed with the tail up a bit – and with less than normal flaps.

Glad a crash like this couldn't happen nowadays. Right?

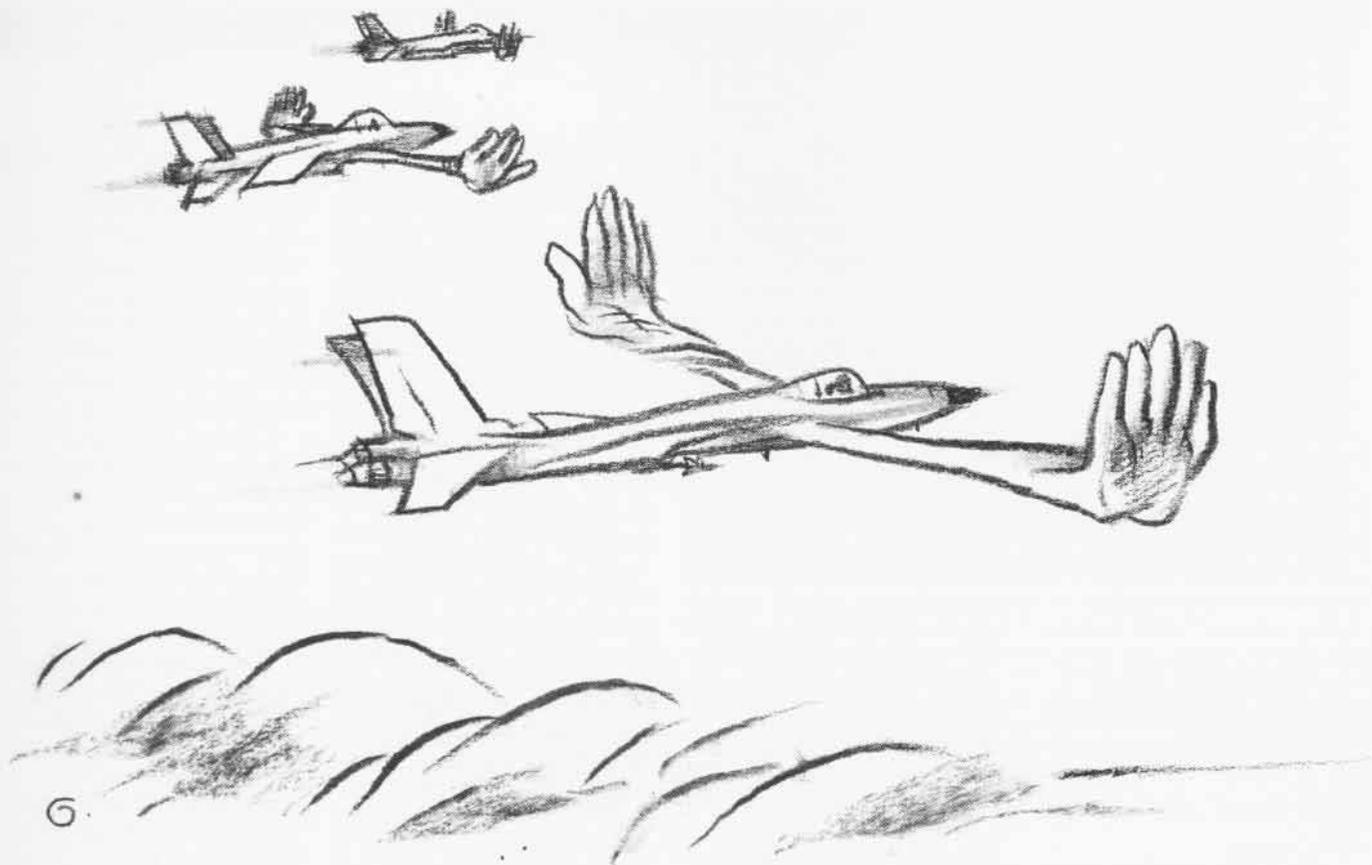
Fatal Vision

Three FA-18 *Hornets* launched from the NAS on an ACM (air combat maneuvering) training flight with an "opponent" section consisting of an F-14 *Tomcat* and an F-4 *Phantom*. The *Hornets* proceeded separately to the working area.

The *Hornet* leader began a left turn to establish a southerly intercept heading, with number two on his left wing and number three on the right. A moment later, number two (the section leader) called, "Let's come right," to reverse the section to the right, accomplish a 270-degree turn, and establish an 8 to 10-mile trail position on the division leader. Number three said, "OK," and maneuvered his aircraft from a right wing position to cross above and to the left of number two in the turn.

Passing through a southeasterly





heading, the section leader called, "Three not visual." (The last time the section leader had visually sighted number three was at commencement of the division leader's left turn.)

The section leader next said, "Two's at 22,000."

"Roger," acknowledged the unseen number three.

The section leader reported his position "on the western side of the ridge."

"Looking," said number three.

The section leader said he was "nine miles in trail [of the flight leader]."

Number three transmitted, "Roger." At this point, three left his position 2,000 feet above and to the left of the section leader in a descent, southward.

After a few more seconds, number three collided with the section leader, nose section to tail section. There was heavy damage to number three's nose section and to the aft underside and nozzle area of the section leader. Altitude was about 22,000 feet at impact. The pilot of number three was subjected to direct exhaust blast from the section leader's engine and sustained fatal injuries when cockpit integrity

was breached. The aircraft crashed one minute after the midair collision.

The section leader's *Hornet* was marginally controllable, the aft portion of the engines and airframe damaged. He headed for a divert airfield. The situation worsened as other systems failed to operate properly. The flight leader joined on him and saw flames, approximately the length of the FA-18, emanating from the left engine area, and reported same to the pilot. Shortly, the section leader was unable to maintain altitude or airspeed. He realized he could not reach the divert field and prepared for ejection. He radioed the divert field about his intentions but got no response. He successfully ejected just above 4,000 feet.

Parachute descent was normal and the pilot was ambulatory after landing. Search and rescue procedures were initiated and the pilot communicated with the flight leader circling overhead, using the PRC-90 emergency radio. Ground parties arrived as helicopter assistance was en route. The pilot was taken to a nearby hospital. He suffered minor injuries.



Grampaw Pettibone says:

Gol dang it, this is a heartbreaker! Troops, you just gotta maintain safe separation distance, specially when you're movin' those high-tech machines around out there. Havin' the best equipment in the universe won't help if you drop your guard even for an instant. The basic rules of safety don't change.

We don't know why the pilot descended through the section leader's altitude. Maybe he misunderstood the geographic position call. Whatever, 'pears he got a couple of thousand feet above and maybe even ahead of the other Hornet in the turn and couldn't see him. He made some adjustments, came down at a good clip, then slammed into the section leader's tail - with tragic results.

The decision to descend, without seeing the other aircraft, was critical. Remember that...and keep your distance...PLEASE!

Last Storm CVs Return

The last two aircraft carriers of six to participate in Operation *Desert Storm* have returned to their home ports.

Ranger (CV-61), which departed NAS North Island, Calif., with CVW-2 aboard on December 8, 1990, returned home on June 8 after being relieved by *Nimitz* (CVN-68). *Theodore Roosevelt* (CVN-71), which departed NS Norfolk, Va., with CVW-8 aboard on December 28, 1990, returned home on June 28 after being relieved in the Mediterranean as part of Operation *Provide Comfort* by *Forrestal* (CV-59).

Carriers Aid Volcano Evacuations

Seventh Fleet aircraft carriers were called into action to aid in Operation *Fiery Vigil*, the evacuation of more than 20,000 military personnel, family members, and Defense Department civilians from Clark Air Base and Subic Bay Naval Base in the Philippines in wake of the Mount Pinatubo volcanic eruptions that began on June 10, 1991.

Volcanic ash rendered Clark Air Base unusable and forced evacuation by road to Subic Bay. NAS Cubi Point, part of the Subic complex, resumed limited operations within a week of the June 15 major eruption. Commander Seventh Fleet, VAdm. Stanley R. Arthur, directed 17 ships to evacuate personnel to the island of Cebu, from which the personnel were flown to points of entry in the U.S. *Abraham Lincoln* (CVN-72), which departed NAS Alameda, Calif., on May 28 bound for the Per-

sian Gulf on its first deployment, flew some of its air wing ashore to NAF Kadena, Okinawa, and pulled into Subic to onload evacuees (over 2,000 people and 500 pets) for the trip to Cebu. *Abraham Lincoln's* helicopter squadron, HS-6, on its first deployment with SH-60F and HH-60H *Seahawks*, found itself busily engaged in support missions.

Midway (CV-41) sortied from Yokosuka, Japan, on June 17 after loading medical teams, 2,000 cots and enough food to feed 3,000 people for two weeks. With HS-12's SH-3H helicopters aboard, *Midway* took aboard CH-53D helicopters from Marine Corps Reserve squadron HMM-772 before proceeding to Subic.

Peleliu (LHA-5), flagship of Amphibious Group Alfa, also assisted in *Fiery Vigil*, with Marine Corps helicopters from HMM-163(C) flying support missions. Four babies were born aboard *Peleliu* en route to Cebu.

Fiery Vigil ended June 27, with subsequent evacuations handled from Cubi Point by transport aircraft.

Bush, House Approve Base Closings

President George Bush approved on July 10 the list of military base closures proposed by the Defense Base Closure and Realignment Commission. A motion in the House of Representatives to reject the list was defeated in a 364-60 vote on July 30, effectively putting final approval on the list. (Any Senate action to reject the list would be ineffective because rejection by both chambers would be required.) The list includes two naval air stations and one Marine Corps air station.

NAS Moffett Field, Calif.;

NAS Chase Field, Texas; and MCAS Tustin, Calif., all on the list forwarded to the commission by Secretary of Defense Dick Cheney, were approved for closure by the President. NAS Whidbey Island, Wash., also on the Secretary's list, was deleted from the closure list.

Planning for MCAS Tustin's closure includes moving Marine Aircraft Group (MAG) 16 to the Marine Corps Air-Ground Combat Center at Twenty-nine Palms, Calif. However, MAG-16's CH-46 and CH-53 helicopters and the AH-1 and UH-1 helicopters of MAG-39 at MCAS Camp Pendleton, Calif., will be shuffled to form two composite MAGs, each operating all four types of helicopters.

U.S. Opts to Keep Subic Bay

The U.S. announced on July 17 that it will opt to retain Subic Naval Base, including

NAS Cubi Point, R.P., under a 10-year lease agreement reached between special negotiator Richard Armitage and Philippine Foreign Secretary Raul Manglapus. The agreement must be approved by the Philippine Senate and the U.S. Congress before finalized.

The pact, reached after more than a year of negotiations, includes cleanup and abandonment of Clark Air Base by September 16, 1992. Clark, like Subic, was heavily damaged by eruptions from Mount Pinatubo. The 10-year lease includes payments of \$363 million for the first year and \$203 million in each of the following nine years.

The Subic complex is a major repair and logistics base for Seventh Fleet carriers as well as other ships. The adjoining Cubi Point air station is home to VC-5, VRC-50, and a rotating VP detachment.

PH1 Ted Salois



HMM-262 completed a deployment in June that was extended from 6 to 10 months as a result of Operation *Desert Storm*. The Flying Tigers deployed to Okinawa from MCAS Kaneohe Bay, Hawaii, but quickly found themselves redeployed to NAS Cubi Point, R.P., for earthquake relief operations and ended up operating there for another nine months in a contingency role.

Kitty Hawk Completes SLEP

Kitty Hawk (CV-63) departed Philadelphia Naval Shipyard on July 30 after completing the Service Life Extension Program (SLEP), the fourth carrier to do so since the program began in the early 1980s.

Arriving in Philadelphia on July 3, 1987, *Kitty Hawk* underwent the most extensive SLEP ever performed at the shipyard, including reconstruction of her engineering plant, upgrading of aircraft launch and recovery systems, combat direction systems and radar suites. She is now able to operate the FA-18 *Hornet* strike fighter. The SLEP is expected to add at least 15 years to the service life of the ship.

Kitty Hawk is operating from Norfolk, Va., and will soon transit to her home port of NAS North Island, Calif., as she rejoins the U.S. Pacific Fleet. *Constellation* (CV-64) is presently undergoing SLEP at Philadelphia.

GW to Norfolk, JFK to Mayport

The Navy announced that *George Washington* (CVN-73), to be commissioned in 1992, will be home-ported in Norfolk, Va., later that year. *John F. Kennedy* (CV-67), presently home-ported at Norfolk, will move to Mayport, Fla., in 1993.

The shift in home port of *Forrestal* (CV-59) from Mayport to Pensacola, Fla., as she replaces *Lexington* (AVT-16) as the Navy's training carrier will make room at Mayport for *John F. Kennedy*. Norfolk has been the home for *Kennedy* since her commissioning in 1967.

AX Teams Formed

The major aerospace corporations in the U.S. have formed teams to compete in the competition for the AX aircraft contract. The AX is intended to replace the Grumman A-6E *Intruder* aboard Navy carrier decks in the next decade in wake of the A-12 project cancellation.

An unusual feature of the AX competition is the presence of companies on more than one team. Grumman announced on July 16 that it has teamed up with Boeing and Lockheed to propose a new design. On the same day, McDonnell Douglas announced that it would team up with LTV's Aircraft Division to propose a new design as well. General Dynamics is teaming with McDonnell Douglas to offer up a design based on the A-12 concept, and Lockheed is teaming up with General Dynamics and Boeing to advocate a version of the F-22 *Lightning II*, recently chosen by the U.S. Air Force as its next-generation advanced tactical fighter.

Hornet Hoses Hurtin' Hummer

A VAW-122 E-2C *Hawkeye* was shot down over the Mediterranean on July 8 after its crew bailed out to escape an uncontrollable engine fire. All five crewmen were recovered by helicopters from *Forrestal* (CV-59) and *Yorktown* (CG-48).

The engine of the "Hummer" caught fire during a mission off the coast of Cyprus in support of Operation *Provide Comfort*. After the crew bailed out, an FA-18A *Hornet* from VFA-132 aboard *Forrestal* was ordered to shoot down the E-2 to prevent it from crashing into civilian personnel or property. Cannon



Lockheed Al Ross

The first Lockheed ES-3A Viking carrier-based electronic reconnaissance aircraft, BuNo 159401, made its first flight in its new configuration on May 15 at Palmdale, Calif., with Lockheed pilot J. V. DeThomas at the controls. The former S-3A antisubmarine aircraft is the first of 16 planned for conversion and eventual use by VQ-5, NAS Agana, Guam, and VQ-6, NAS Cecil Field, Fla., as a replacement for the EA-3B *Skywarrior* being retired in September.

fire from the *Hornet* destroyed the E-2.

VMFA(AW)-225 Reactivated

The Marine Corps began forming its third FA-18D *Hornet* squadron on July 1 with the reactivation of VMFA(AW)-225 at MCAS El Toro, Calif. The squadron's colors were last folded in 1971, when VMA(AW)-225, an A-6A squadron, was deactivated.

The *Vikings* were originally activated at MCAS Mojave, Calif., on January 1, 1943, as VMF-225, and its F4U *Corsairs* saw action at Guam. After several postwar Mediterranean cruises, the squadron was equipped with AD *Skyraiders* and redesignated VMA-225. The squadron entered the jet age in 1958 when its ADs were replaced with A4D *Skyhawks*, and made one deployment to Vietnam with the *Skyhawk*.

In June 1966, the squadron

was redesignated VMA(AW)-225 when it acquired the all-weather A-6A *Intruder*, and in 1969 made another deployment to Vietnam. VMA(AW)-225 was deactivated in June 1971.

Disestablished... HS-17



HS-17 was disestablished at NAS Jacksonville, Fla., on July 2 after over seven years of active service. Cdr. Stephen J. Bury was the last C.O. of *Neptune's Raiders*.

Established on April 4, 1984, as the antisubmarine warfare (ASW) helicopter squadron for CVW-13, itself then only a month old, HS-17 made three Mediterranean deployments operating SH-3H

Sea Kings aboard *Coral Sea* (CV-43), the first being a combat cruise involving retaliatory strikes against Libya in March and April 1986. Also on that cruise, *Neptune's Raiders* became the first squadron to deploy an SH-3 to the Black Sea.

HS-17 returned from its last major deployment in September 1989 as *Coral Sea* tied up at Norfolk, Va., prior to her decommissioning. From September to November 1990, HS-17 provided ASW and plane guard support as part of CVW-11 for *Abraham Lincoln* (CVN-72) as she transferred from the Atlantic to the Pacific Fleet via Cape Horn.

VA-46



A May 23 ceremony marked the disestablishment of VA-46 (officially June 30) at NAS Cecil Field, Fla., after 36 years of active service. Cdr. Mark P. Fitzgerald was the last skipper of the *Clansmen*, one of the last two light attack and A-7 squadrons in the Navy.

VA-46 was established on May 24, 1955 (officially July 1), as the Navy's first jet attack squadron, making its first deployment the next year aboard *Randolph* (CV-15), equipped with F9F-8 *Cougars*. On this cruise, VA-46 also took the *Sidewinder* air-to-air missile on its first deployment. During the squadron's career the *Clansmen* made 23 more

deployments – aboard *Intrepid* (CVA-11), *Franklin D. Roosevelt* (CVA-42), *Shangri-La* (CVA-38), *Saratoga* (CVA-60), *Forrestal* (CVA-59), *John F. Kennedy* (CVA-67), *America* (CV-66), and *Dwight D. Eisenhower* (CVN-69), equipped successively with the A4D-2 (A-4B), A4D-2N (A-4C), A-4E, A-7B, and finally A-7E.

In addition to many cold war confrontations over the years, VA-46 saw combat on three of its cruises. The *Clansmen's* A-4Es flew combat sorties over Vietnam briefly in 1967 before a devastating fire took *Forrestal* off the line. On April 14, 1986, VA-46 A-7Es struck radar sites in Libya from the deck of *America* as part of the retaliation for terrorist activity. In August 1990, the Iraqi invasion of Kuwait canceled a transition to the FA-18C *Hornet* as the *Clansmen* went off to war aboard *John F. Kennedy* on four days notice. VA-46 hit Iraqi targets in Baghdad on the first strike of Operation *Desert Storm* and logged 369 combat sorties over Iraq and Kuwait without loss, bringing the Navy combat career of the A-7 to a close. (See story on page 10.)

VA-72



A May 23 ceremony marked the disestablishment of VA-72 (officially June 30) at NAS Cecil Field, Fla., after 46 years of active service. Cdr. John R. Sanders was the last C.O. of the *Bluehawks*, one of the last two light attack and A-7 squadrons in the Navy (see



VA-46 above).

The *Bluehawks* started out flying the F6F-3/5 *Hellcat* as VBF-18, established on January 25, 1945, at NAS Astoria, Ore. Redesignation occurred in November 1946 to VF-8A and in July 1948 to VF-72. As a fighter squadron, the unit successively operated the F8F-1/1B/2 *Bearcat* and F9F-2/5 *Panther* and made seven cruises – aboard *Leyte* (CV-32), *Philippine Sea* (CV-47), *Midway* (CVB-41), *Bon Homme Richard* (CV-31), and *Bennington* (CVA-20).

Redesignated VA-72 on January 3, 1956, the *Bluehawks* became the first attack squadron to operate the new Douglas *Skyhawk*, but traded its A4D-1 (A-4A) versions for A4D-2s (A-4Bs) before deploying aboard *Randolph* (CV-15). The *Bluehawks* made 24 more deployments – aboard *Independence* (CVA-62), *Franklin D. Roosevelt* (CVA-42), *Shangri-La* (CVA-38), *John F. Kennedy* (CVA-67), *America* (CV-66), and *Dwight D. Eisenhower* (CVN-69), successively operating A4D-2N (A-4C), A-4E, A-4B, A-7B, and A-7E attack aircraft.

Five *Bluehawk* cruises encompassed combat operations in four conflicts. VF-72's F9F-2s struck enemy

Phantoms: Phewer and Phading Away ... Marine Aircraft Group 41 Det A and VMFA-321 retired their F-4S Phantom IIs in a ceremony held at NAF Washington, D.C., on July 13. As VMFA-321 transitions to the FA-18A *Hornet*, VMFA-112 at NAS Dallas, Texas, remains the last Naval Aviation squadron to operate this "phabulous phighter." BuNo 153904, seen here resplendent for the retirement ceremony, will be put on permanent display at NAF Washington.

targets in Korea during 1952 from *Bon Homme Richard*. In 1965, VA-72's A-4Es from *Independence* led the first successful strike against a surface-to-air missile site in North Vietnam. A second Vietnam cruise followed in 1966 aboard *Franklin D. Roosevelt*. On April 14, 1986, VA-72 A-7Es participated in retaliatory strikes from *America* against radar sites in Libya.

About to transition to the FA-18C, the *Bluehawks* deployed on four days' notice aboard *John F. Kennedy* in response to the August 1990 Iraqi invasion of Kuwait. Making the last A-7 cruise (along with VA-46), VA-72 hammered enemy targets in Iraq and Kuwait, flying 362 combat sorties without loss. (See story on page 10.)

VP-56



VP-56 was disestablished at NAS Jacksonville, Fla., on June 28 after almost 41 years of active service. Cdr. Rush E. Baker was the last skipper of the *Dragons*.

Formed as reserve unit VP-900 in July 1946 at NAS Anacostia, Washington, D.C., the squadron was operating PV-2 *Harpoons* when it was redesignated VPML-71 and later VP-661. Called to active service on September 15, 1950, with the outbreak of the Korean War, VP-661 moved to NAS Norfolk, Va., and transitioned to the PBM *Mariner* seaplane. On March 2, 1953, the squadron was redesignated VP-56 and transitioned to the P5M-1 and eventually P5M-2 *Marlin*.

In January 1961, VP-56 became a landplane squadron when it transitioned to the P2V-7 (SP-2H) *Neptune*. During the Cuban Missile Crisis in October 1962, the *Dragons* deployed to Guantanamo Bay, Cuba, to enforce the quarantine around Cuba.

In 1967, the *Dragons* moved to NAS Patuxent River, Md., and in September became the Navy's first fleet squadron equipped with the highly computerized P-3C *Orion*. During the next 21 years, the *Dragons* deployed to sites all over the Atlantic and Mediterranean, including Sigonella, Sicily; Rota, Spain; Lajes, Azores; Keflavik, Iceland; and Bermuda. During its 1986 deployment to NAS Sigonella, VP-56 supported the carrier battle groups con-

ducting retaliatory strikes against Libya. In 1989, VP-56 transitioned to the Update III retrofit version of the P-3C and made its final deployment in August 1990, returning from Keflavik in February 1991.

The *Dragons* closed out an illustrious career with their final flight on June 7.

VP-MAU Brunswick



A June 2 ceremony marked the disestablishment (officially June 30) of VP Master Augment Unit Brunswick, Maine, after over seven years of service. Cdr. Mike Mora was the last C.O. of the *Northern Sabres*.

Officially established on January 13, 1984, VP-MAU(B) was the first of two master augment units in the Naval Air Reserve, with the mission of training reserve crews to augment active duty patrol squadrons when necessary. Unlike reserve force squadrons, which deploy as units in their own aircraft, VP-MAU(B) used fleet-current aircraft to train individual crews which would be attached to their gaining active duty squadrons in the event of a call-up. (See *NANews*, Nov-Dec 1988, for a feature on VP-MAU(B).)

Although not a squadron, VP-MAU(B) crews often operated small detachments throughout the Atlantic in support of the operations of fleet squadrons. The unit operated P-3C Update IIs in the antisubmarine warfare surveillance and mining roles, and used

older P-3A and UP-3A *Orions* for pilot training.

VP-MAU(B)'s West Coast counterpart, VP-MAU(M) at NAS Moffett Field, Calif., is disestablishing in August.

For the Record...

- November 8 has been set as the date for *Lexington's* decommissioning ceremony in Pensacola, Fla., although the official decommissioning date is November 26. The USS Alabama Battleship Commission in Mobile, Ala., is the first organization to make a formal bid to acquire *Lexington* (AVT-16) as a memorial.

- VMO-4 at NAS Atlanta, Ga., the Marine Corps' only reserve observation squadron, accepted its first OV-10D+ version of the *Bronco* in a ceremony on May 29. The squadron's OV-10A aircraft will all eventually be upgraded

McDonnell Aircraft Company



A TAV-8B Harrier II bearing the markings of the Italian navy crosses the Missouri countryside during McDonnell Aircraft flight testing. The trainer was one of two TAV-8Bs scheduled for transfer in August to the new Italian aircraft carrier Giuseppe Garibaldi. The two TAV-8Bs arrived at MCAS Cherry Point, N.C., in May and were officially turned over to the Italian navy on June 7. They will be used at Grottaglie Air Base near Taranto, Italy, to train Italian navy pilots to fly the 16 AV-8B Harrier II Plus aircraft on order, an upcoming variant equipped with the APG-65 radar.

Cpl. Steven E. Savage



The tails of VMAQ-2 Det X's EA-6B Prowlers line the ramp shortly before returning in July to MCAS Cherry Point, N.C., after almost 14 months deployed to MCAS Iwakuni, Japan, the longest stint ever in the Unit Deployment Program. The normal six-month deployment was extended because of the parent squadron's commitments in Operations Desert Shield and Desert Storm. Det X was replaced at Iwakuni by VMAQ-4, a reserve squadron from NAS Whidbey Island, Wash., on its first active deployment.

to the new configuration, which includes an infrared sensor, a new multi-band radio, a new TACAN, a doppler navigation set, and the ability to fire *Hellfire* missiles.

- Conversion-in-lieu-of-procurement of the **EP-3E Aries II** electronic reconnaissance aircraft was assumed by **Naval Aviation Depot, Alameda**, Calif. on July 31. NaDep Alameda will convert the last 7 of 12 P-3Cs selected to become EP-3Es for VQs 1 and 2. Lockheed AeroMod Center converted the first five *Aries II* aircraft.

- Kuwait's Ambassador to the U.S., His Excellency Shaikh Saud Nasir Al-Sabah, got a firsthand look on July 12 at the first of 40 *Hornets* (32 FA-18C and 8 FA-18D) that his country is purchasing from McDonnell Douglas. The first **Kuwaiti Hornet** will be delivered in January 1992.

- Switzerland's Federal Council announced on June 26 its selection of the **FA-18 Hornet** as the next fighter for the Swiss air force, citing "superior performance capabilities and operational autonomy." Switzerland intends to buy 34 *Hornets*.

- The **Korean** government recently reversed a 1989 decision to acquire 120 **FA-18 Hornets** in favor of procuring General Dynamics **F-16** fighters.

- **A-6E BuNo 151579** assumed its place of honor on static display at NAS Oceana, Va. The *Intruder*, restored in VA-75 markings by that squadron, is a 26-year veteran that saw action over Vietnam and Lebanon and, more recently, in Operation *Desert Storm*.

- **VF-124**, the West Coast F-14 fleet readiness squadron (FRS) at NAS Miramar, Calif., and **VMFAT-101**, the Marine Corps FA-18 FRS at MCAS El Toro, Calif., have acquired a small number of **T-34Cs** for use as spotter aircraft on target ranges. T-34Cs are also in use with VA-42 and VFAs 106 and 125.

- The fifth prototype of the **V-22 Osprey** (BuNo 163915) tilt-rotor aircraft crashed on June 11 at the Boeing test flight center at New Castle, Del., while on its maiden flight. The two pilots suffered only minor injuries.

- The **U.S. Naval Test Pilot School** at NAS Patuxent River, Md., has acquired four **OH-6B Cayuse** helicopters on loan from the U.S. Army for use in training future test pilots.

- The remains of **Capt. Peter W. Sherman, USN**, were identified from a set of 11 repatriated by Vietnam in January 1991. Then-Cdr. Sherman was shot down over North Vietnam on June 10, 1967, while flying an A-4C *Skyhawk* with VA-56 from *Enterprise* (CVAN-65).

- The remains of **PO3 Thomas L. Plants** were the first identified from a set of seven repatriated by Vietnam in March 1991. Petty Officer Plants was a crewman aboard a VAW-13 EA-1F *Skyraider* electronic countermeasures aircraft that was shot down over North Vietnam on June 2, 1965, while on a search and rescue mission from *Midway* (CVA-41). The remains of Plant's three fellow crewmen were identified in November 1988.

Correction to NANAews, Jul-Aug 91, p.5: The correct spelling of the name of the "MiG-Mad Marine" is Capt. Charles J. "Chuck" Magill, USMC (not McGill).

HH-60J Jayhawk Enters Operational Service

Story and Photo by Robert F. Dorr

The U.S. Coast Guard's HH-60J *Jayhawk* MRR (medium range recovery) helicopter formally entered service on July 3, 1990, in a ceremony at Coast Guard Air Station (CGAS), Elizabeth City, N.C.

With Sikorsky Vice President Rick Hellyar and RAdm. Walter T. Leland present, Capt. Terry Beacham, CGAS C.O., accepted the keys and logbook of the new aircraft.

Three HH-60Js assigned to Elizabeth City (Nos. 6007/8/9) had actually begun operations in June and, by the day of the ceremony formalizing initial operating capability, had already flown 225 hours,



including 12 search and rescue cases.

The *Jayhawk* replaces the HH-3F *Pelican* helicopter in the MRR mission. Powered by two 1,690-shp General Electric T700-GE-401 turboshaft engines, the *Jayhawk* can fly up to 300 miles at speeds approaching 175 mph, maintain an on-scene endurance of 45 minutes, and return to base. Coast Guardsmen are pleased with the extra power and speed, but the HH-60J is less roomy inside than two previous MRR helicopters and when the HH-3F goes out of service in 1996, the Coast Guard will no longer have any aircraft capable of landing on the water.

The first six HH-60Js have been assigned to training duties at Mobile, Ala., and Elizabeth City. The next station to become operational with the type will be Traverse City, Mich. Eventually, HH-60Js will also serve at San Francisco, Calif.; Cape Cod, Mass.; Kodiak and Sitka, Alaska; and Clearwater, Fla.

The aircraft is being temporarily operated with two fuel tanks on the left side and none on the right, since the basic H-60 tank for right-hand use interferes with the rescue hoist. This anomaly will soon

be adjusted with delivery of a new-design tank.

The Coast Guard originally ordered 24 HH-60Js by the expedient of having them added to the U.S. Navy's HH-60H production line; the figure was later increased to 32. Coast Guard Commandant Adm. J. William Kime has requested Congress for authority to raise the total buy to 44 helicopters, with the additional dozen being earmarked for the drug interdiction role.

VXN-8 Changes Foxes

By Ens. W. A. Eans

After 18 years of service in the squadron and a total of nearly 29 years of service to the U.S. Navy, the last RP-3A *Orion* of Oceanographic Development Squadron (VXN) 8, NAS Patuxent River, Md., was retired on July 11. Entering naval service as a P-3A in November 1962, BuNo 150500 was converted to an RP-3A, accepted by VXN-8 as its Project Birdseye aircraft in August 1973, and painted with its copyrighted "Arctic Fox" cartoon character on both sides of the forward fuselage. She departed on her final mission

on May 12. The Arctic Fox is being replaced by a newer P-3B which is undergoing a year of modification and conversion to become an RP-3D – the new Arctic Fox!

As the military's only squadron dedicated solely to airborne geophysical surveying, VXN-8 will operate five RP-3D survey aircraft. Project Birdseye flights were originated in 1962 in response to a continuing Navy requirement for ice reconnaissance and survey, to develop a capability for predicting Arctic Basin and marginal ice zone oceanographic environmental conditions. Webster defines the adjective "birds-eye" as "seen from above as if by a flying bird." The Arctic Fox easily fits this "seen from above" criteria by routinely conducting visual and instrumented data observations north of the Arctic Circle.

Having accumulated more than 20,200 total flight hours, the Fox's final flight was to

NAS Jacksonville, Fla., where all survey mission equipment is being removed for reinstallation on the replacement aircraft. One of three possible fates awaits this retiring aircraft: preservation at the Aerospace Material Regeneration Center, Davis-Monthan AFB, Tucson, Ariz.; sale to a foreign military organization; or sale to a non-Department of Defense U.S. government agency, e.g., National Forestry Service.

Arctic Fox's replacement (BuNo 154587) will join her sister project planes, "Roadrunner" and "El Coyote" – likewise emblazoned with their distinctive cartoon emblems – in VXN-8's survey aircraft fleet in mid-1992. VXN-8 bids a fond adieu to the old Arctic Fox, but looks forward to continuing its tradition of international geophysical development, cooperation, and goodwill enjoyed worldwide since 1951.



VA-46 A-7Es take on fuel during the long transits from the Red Sea.

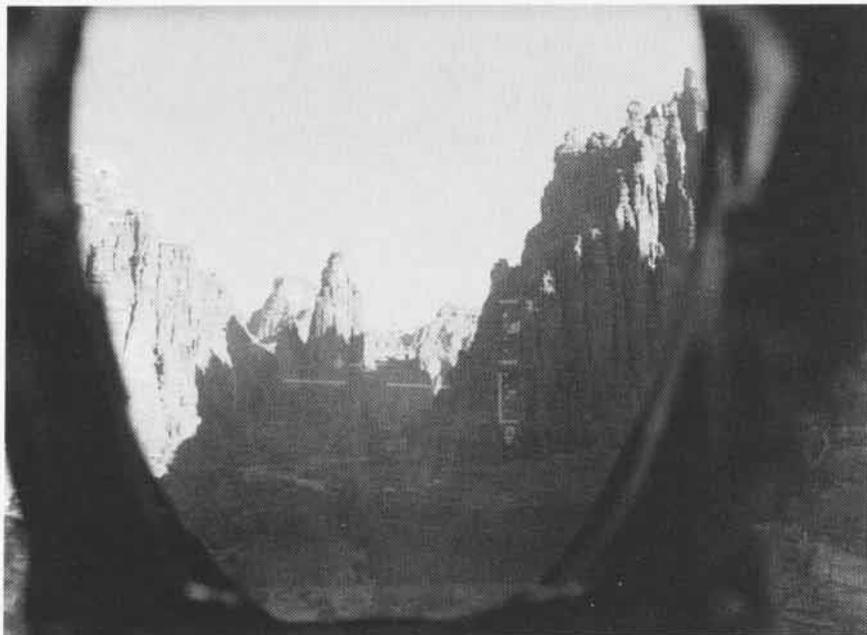
Lt. John D. Kias



The Corsair's Last Cruise

By JO3 Alan D. Day

Lt. John D. Kias



View through the Corsair's heads-up display.

The anticipation of the imminent launch was obvious as the A-7E *Corsair II* gulped the white steam from the ship's catapults through its shark-like intake. The ancient warbird was hurled off the deck, as it had been on hundreds of thousands of sorties over 25 years during six wars, the first in which the legend of the *Corsair* began and the last from which it returned in triumph – but to its end of active Navy combat service.

Carrier Air Wing Three's attack squadrons VAs 46 and 72 represented the last two operational A-7 attack squadrons in the Navy. The two squadrons were on the strikes that left *John F. Kennedy's* (CV-67) moonlit flight deck during the predawn hours of January 17, 1991. The A-7s engaged in their final campaign – Operation *Desert Storm*.

"Our squadron went to Baghdad the first night; that was pretty colorful to say the least," said Commander Mark Fitzgerald, last commanding officer of



VA-46 Corsairs loaded with Rockeye bombs head for Iraqi targets.

Lt. John D. Kias

the VA-46 *Clansmen*. "There was a ring of 'triple A' [antiaircraft artillery] around the whole city. You could see the SAMs [surface-to-air missiles] coming out and everything."

Commander John Sanders, last C.O. of the VA-72 *Bluehawks*, explained that the A-7's versatility made it a valuable platform during the *Desert Storm* air campaign. "We were involved in just about every major strike," he said.

"We provided SEAD [suppression of enemy air defenses] protection at night for bombers and fulfilled our light attack capability by dropping a variety of bombs. The A-7 is very versatile because it can carry just about anything in the Navy weapons inventory," Sanders added.

Commander John Leenhouts, VA-72's last executive officer, explained that the A-7 was ideally suited for the missions with which it was tasked. "In this particular scenario [Iraq], we had hundreds of miles to travel just to get to

Cdr. John Leenhouts



A division of VA-72's Corsairs heads for home after launch from John F. Kennedy (CV-67) for the last time.



VA-46 A-7Es go "feet dry" en route to Iraqi targets.

Lt. John D. Klias

the target, and we're one of the few aircraft capable of doing that with any speed and payload," he said. "We're also the only aircraft in the Navy's inventory that can haul the 'mail' [weapons] regularly with a high probability of survival to the target and back as far away as it was."

"A couple of times we traveled over 1,400 miles round trip – about a five-hour mission," Cdr. Sanders commented. "Not too many aircraft do that consistently like the A-7 can."

Rear Admiral Riley D. Mixson, Commander, Red Sea Battle Group (CTF-155) during *Desert Storm*, is a former A-7E pilot who flew over 250 combat missions during the Vietnam war. RAdm. Mixson marveled at the performance of both A-7 squadrons during the operation. "I'm very, very proud of our two squadrons. They're hanging with the best. As a matter of fact, they are the best. The *Corsairs* are going out the way they came in – with a bone in their teeth," he said with a grin.

The Vought A-7 was born during the Vietnam conflict as a replacement for the A-4 *Skyhawk*. "They took the best parts of the F-8 *Crusader* and made this short, squat, stubby F-8 and called it an A-7," said Cdr. Fitzgerald. "In 1965, they flew the prototype and by 1967 we started to see the A-7 come on line in Vietnam."

RAdm. Mixson stated that the missions he flew in Vietnam were quite similar to those flown by the pilots against Iraq. "The threat they were flying over is very similar to the threat we experienced in Vietnam. There are a few new SAMs, but the triple A is still the predominant threat today as it was then," the admiral said.

Over the last decade, the *Corsair* has been systematically replaced by the FA-18 *Hornet*, the most advanced strike fighter in the world. Most of the

Clansmen and *Bluehawk* pilots had mixed emotions about the transition. Their loyalty to the *Corsair* was unquestionable, but they are eager to tackle the challenges of the FA-18.

"The transition itself is an opportunity of a lifetime," VA-72 pilot Lieutenant Tom Dostie said. "I've recorded a few hundred traps on a carrier in an antique aircraft that flies very well. Now, all of a sudden, I'll be catapulted into the future with the FA-18. It's the best of both worlds."

"If I had it to do over again – the choice between going to the *Hornets* right away or to the A-7s with a *Hornet* transition – I wouldn't change a thing in my career. It's been incredible," Dostie added.

Cdr. Fitzgerald noted that although the A-7 is a generation behind the FA-18 in technology, the *Corsair* had some advantages over the *Hornet*. "The best thing about an A-7 is that you can run it in and out of country full power and still have plenty of gas left," he said. "We were probably traveling just as fast as the FA-18s because we had the gas to do it. The *Hornets* have to watch their gas."

"The thing we miss is air-to-air radar because the FA-18 has the capability of shooting Sparrows [AIM-7 air-to-air missiles] against other fighters," Fitzgerald added. "We lack air-to-air capability but from the air-to-ground side, we can carry a little better load than the FA-18s can. Everything's a tradeoff."

"The A-7 squadrons have the best maintenance record of any two squadrons I have ever seen," Captain Phil Gay, *Kennedy's* skipper, said of the

Clansmen and *Bluehawks*. "They tend to have almost all of their aircraft up every day. On two occasions they had 19 A-7s flying on missions. That's amazing considering we only had 20 on the ship and that one was broken."

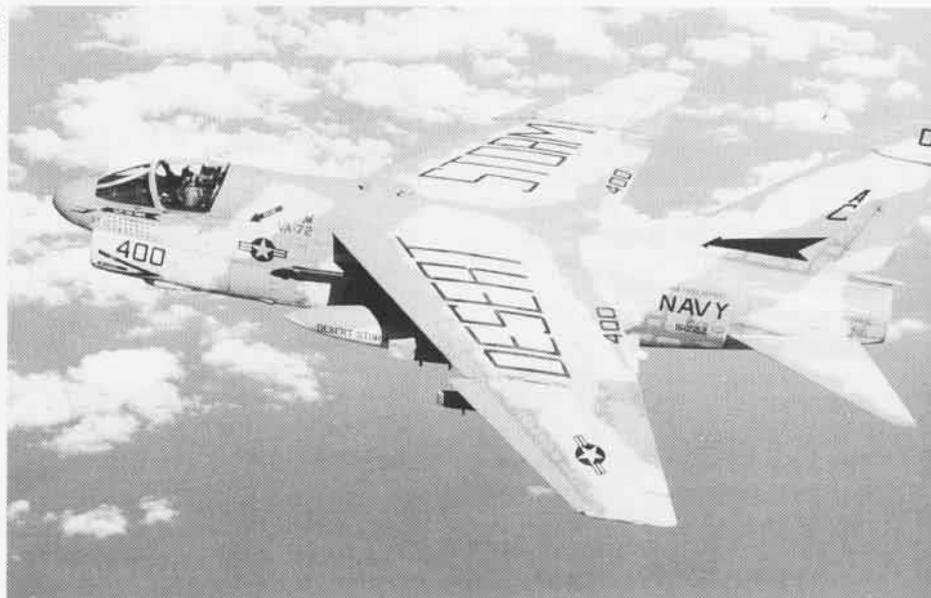
"It was not unusual at all to have every A-7 on a strike," RAdm. Mixson said. "That happened on a day-in, day-out basis. It not only speaks well for the system but also for their leadership and especially the maintenance crews."

Cdr. Leenhouts praised the efforts of his men and declared that the A-7 is yet another great in aviation warfare. "It's stood the test of time and proven that the Vought technology of the sixties was a quality product," he said. "The A-7 covered the gamut of tactical requirements of the Vietnam era and then survived a high threat nineties war. It's a testament to the people who push it, drive it, fix it, and make it work. It's truly another great in Naval Aviation."

When Operation *Desert Storm* was over, the A-7E *Corsair's* career as a front-line attack aircraft came to an end after the old bird delivered 2,000,000 pounds of ordnance while flying 745 combat missions totaling over 3,100 combat hours during the war. The *Clansmen* and *Bluehawks* began disestablishing their squadrons after their war deployment on *Kennedy* concluded.

Cdr. Sanders felt that the disestablishment ceremony not only brought to an end the proud and distinguished history of the A-7 but also the special community that served the aircraft so well. "Anybody who's been in the light attack community has a special affinity for the airplane because we're the last of the

Cdr. John Leenhouts



VA-72 gave AC-400 (BuNo 160552) a coat of desert camouflage for Desert Storm combat operations.

single-seat, single-engine jets," he said.

"I feel that this squadron is the tightest I've ever been in. Combat does that to people, obviously. But these guys have put so much in individually to the squadron to make it a unit that it will be like tearing up a family," Cdr. Leenhouts lamented. "It will be a very sad day when we bury the squadron insignia and all go our separate ways to take our expertise to other commands.... When they close the door and send the last A-7s away, it won't be a celebration; it will be a wake in honor of a historic aircraft in Naval Aviation."

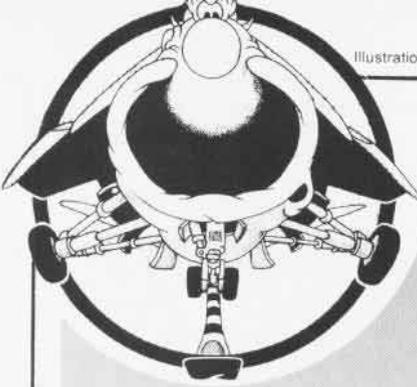
After the disestablishment, most of the pilots and enlisted personnel transitioned to FA-18 squadrons. Some embarked on other paths, but one thing is certain; they will all remember the last flight of the *Corsair*.

The *Clansmen's* Lieutenant Greer, who went on to the FA-18, had mixed emotions about leaving the *Corsair* behind. "I'll step out of the jet for the last time in the desert, but I know I can come back in 20 or 30 years and my jet with my name on it will be right where I left it," he said. "I think stepping out for the last time is going to be sad, but that will go away quickly because I'm looking forward to the new jets."

Cdr. Leenhouts, who will become an executive officer of a *Hornet* squadron after making the transition, said although he will miss the *Corsair*, he is looking forward to the change. "That's what's great about the Navy; it's filled with firsts and lasts," he said. "The last flight will be a sad day because I'll be saying goodbye to a really close friend. The fact is we've all come to trust our dependable *Corsair* so I hate to see it go. But everyone of us has to realize that we've got to tear loose from the past to press onto the future."

Capt. Gay, the veteran warrior who witnessed the *Corsair's* birth in combat and saw it retire in combat, put it all in proper perspective: "She has been a great horse, but her life is pretty well used up. Anytime you close a chapter in history there is a sense of loss. But with the A-7 will also be a sense of pride for an airplane that has done one hell of a fine job."

During the early morning hours of March 27, 1991, VA-72's aircraft number AC-412 (BuNo 158842) approached the catapult for its final launch. RAdm. Mixson gave the ancient warbird its final salute when he personally directed the launch that sent the last of the *Corsairs* hurling off the flight deck of *John F. Kennedy* on a triumphant return from war. ■



PH2 Charles W. Moore

The last *Corsair* cat shot: RAdm. Riley D. Mixson launches VA-72's AC-412 (BuNo 158842) from *John F. Kennedy* (CV-67) on March 27, 1991.

End of an Era

A May 23 ceremony at Heritage Row on NAS Cecil Field, Fla., marked the disestablishment of VAs 46 and 72 as the Navy's last A-7 light attack squadrons. RAdm. John Moriarty, Commander Strike Fighter Wings, Atlantic, retired the wings' last *Corsairs* with a fitting tribute:

"Through the years, the *Corsair* has proven to be a winner in every measured area of Naval Aviation and through those years has carried a lion's share of the load from the decks of our ships. Certainly nowhere has its abilities and versatility been more successfully demonstrated than in the splendid performance turned in during *Desert Storm*.

RAdm. Riley D. Mixson, commander of the Red Sea battle force during the operation, recounted the A-7's yeoman career: "What a workhorse the A-7 has been in combat operations – Vietnam, Grenada, Lebanon, Libya, SS *Mayaguez*, and Iraq. I was privileged to both fly the A-7E in Vietnam and then to have the last two deploying squadrons aboard my battle force flagship."

Since its first flight in 1965, Navy A-7s tallied more than four million flight hours and 410,000 carrier landings. In Vietnam, A-7s logged over 90,000 combat missions; 54 Navy A-7s were lost in combat. One more was lost in the 1983

Lebanon strike. In *Desert Storm*, in 745 combat missions, delivering over two million pounds of ordnance, not a single one was lost to enemy action.

One of VA-46's combat veteran A-7Es, AC-301 BuNo 160714, is now on display at the National Museum of Naval Aviation in Pensacola, Fla.

The A-7 isn't completely retired from the Navy yet, however. Some 50 A-7E, TA-7C, and EA-7L versions remain in service with VX-5; NATC Patuxent River, Md.; PMTC Point Mugu, Calif.; NWEF Albuquerque, N.M.; NWC China Lake, Calif.; and NSWC Fallon, Nev.

Final retirement is expected by late 1992.

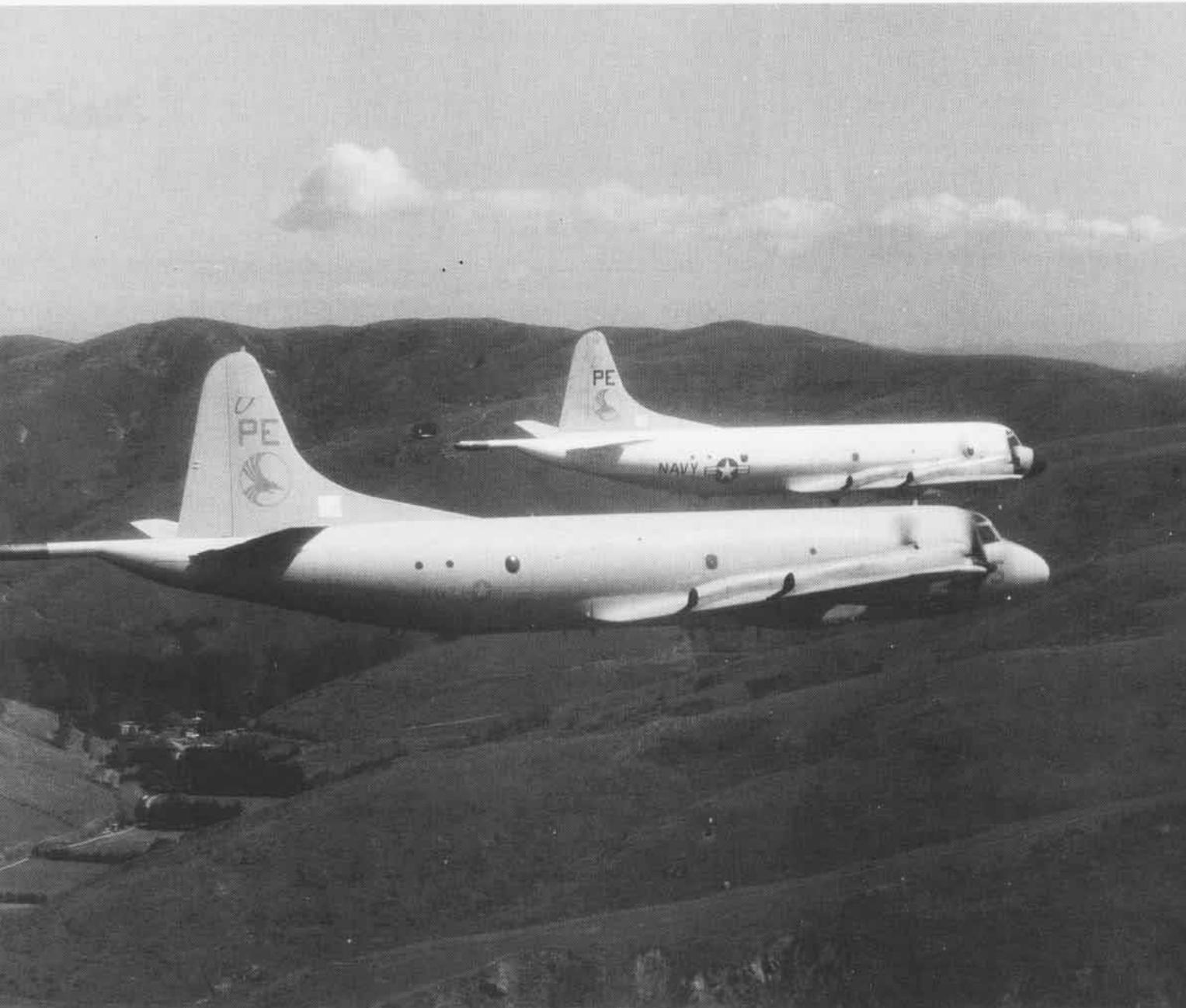
RAdm. Moriarty reflected, "You can bet that every one of us who has ever known the thrill of strapping on this single-seat, single-engine jet, taxied to the catapult, had our bodies hurled into a pitch-black sky, flown through miserable weather to deliver a load of ordnance with pinpoint accuracy, then found our way back to our floating postage stamp 'home away from home' – just to have the privilege of keying the mike and uttering those magic words, 'Corsair Ball' – will occasionally look back and wish we could do it all again, just one more time."

Orions of Arabia

Patrol Squadrons in Desert Shield/Storm

By LCdr. Rick Burgess

The following account is consolidated from articles and press releases from LCdr. Mike L'Abbe (PAO, Commander Patrol Wings, Atlantic), Ens. Chinastas Mangronos (PAO, Commander Patrol Wing One), and Ltjg. Jake Elston and Ens. Randy Schriver of VPs 1 and 4.





Opposite page, P-3C Orions from VP-19, seen here over California, saw plenty of action in the Persian Gulf during Desert Storm. Left, a VP-4 P-3C over the Arabian desert during Desert Storm.

In Operations *Desert Shield* and *Desert Storm*, the job of the U.S. naval forces deployed in support of the U.S. Central Command (CENTCOM) was tremendously simplified by the total lack of submarines in the Iraqi navy. However, the U.S. Navy's patrol squadrons (VPs) did not sit idle during the operations for lack of a mission; in fact, their performance in the antishipping and surveillance role in support of the economic sanctions and battle group operations is a story of unqualified success.

First on the Scene

When Iraqi forces rolled into Kuwait on August 2, 1990, VP-1, home-based at NAS Barbers Point, Hawaii, was settled into a routine deployment to NAS Cubi Point in the Philippines, with a detachment in Diego Garcia in the Indian Ocean. Within 48 hours, some of the squadron's P-3C *Orions* were positioned to an airfield on Al Masirah, an island off the coast of Oman, with the rest of the squadron redeploying from Cubi to Diego Garcia. There, VP-1's C.O., Commander Bill Eckart, became Commander Task Group (CTG) 72.8, and the X.O., Commander J. H. Miller, established Task Unit 72.8.3 at Al Masirah. VP-1's crews were the first American forces to arrive in the Persian Gulf region to augment the six ships of the Middle East Force.

The P-3s immediately began surveillance flights to enforce the economic sanctions against Iraq. When the *Independence* (CV-62) battle group arrived in the North Arabian Sea on August 6, the detachment quickly

blended its operations with the battle group. A Mobile Operations Command Center (MOCC) was transported from Barbers Point to Al Masirah and set up in a tent to serve as the focal point of maritime patrol aircraft (MPA) operations in the Persian Gulf. P-3C Update I aircraft and crews from VP-19, deployed to NAF Misawa, Japan, from NAS Moffett Field, Calif., arrived in short order to augment VP-1. Twelve days after the invasion, another detachment was established at Jeddah, a base on the Red Sea coast of Saudi Arabia. Jeddah would serve as the base for surveillance patrols of the Red Sea.

Interdiction

From Al Masirah and Jeddah the P-3s ranged over the Persian Gulf and Red Sea as key elements of the Maritime Interdiction Force, locating and identifying shipping and vectoring coalition warships to interceptions, often involving inspection and boarding. These operations were successfully blended with Royal Air Force *Nimrod* and French Aeronavale *Atlantique* MPA, which were also deployed to the region in support of *Desert Shield*. The radar and infrared detection sets (IRDS) on the P-3s became important sensors in the interdiction effort. Regarding one ship, the IRDS was able to detect painted-out Iraqi markings under newly painted false Egyptian markings, foiling the deception effort. P-3s were also used to escort convoys from the Suez Canal through the Red Sea, and to provide antiterrorist protection to the battle groups at night.

P-3 crews used hand-held VHF

radios to interrogate thousands of merchant ships on their identities and cargoes. "It was like dialing an international operator and asking for anywhere — you knew English was going in, but you never knew what language was going to come out," according to AW3 Darrel Wooley.

During *Desert Shield*, the combined efforts of coalition MPA patrols resulted in the interception of over 6,300 ships.

In one highly publicized incident, Iraq attempted to label the supply ship *Ibn Khaldoun* a "peace ship" in order to circumvent the embargo. P-3s tracked this vessel continually, leading to its boarding by the crew of a U.S. Navy warship.

Atlantic Augment

On September 23, 1990, CENTCOM requested an MPA augment from the U.S. Atlantic Command. NAS Brunswick, Maine-based VP-23, maintaining a detachment at NAS Bermuda, was ordered to send a detachment to Jeddah. Three P-3C Update IIs, led by VP-23 C.O., Commander Brown Word, were positioned at King Faisal Naval Base to relieve the VP-1 detachment at Jeddah. With this change, operational command of the det, now named Detachment Charlie, came under Rear Admiral Peter Cressy, Commander, Task Force 67. On October 31, VP-11, then deployed to NAS Sigonella, Sicily, sent a detachment of P-3C Update II.5s under Lieutenant Commander William Martin to Jeddah to relieve the VP-23 det, by then under Lieutenant Commander Joseph Julius. As part of normal rotation, VP-8 relieved VP-11 at Sigonella and on December 7 assumed operation of Detachment Charlie. VP-8's P-3C Update II.5s, under Lieutenant Commander Mark Kirk and later Lieutenant Commander Paul Hulley, remained the core of the detachment throughout *Desert Storm*.

The interdiction effort was not limited to the Red Sea and Persian Gulf. Tracking shipping of interest in the Mediterranean was a major activity of VP-11 and later VP-8 from Sigonella, as well as the P-3C Update IIIs of VP-45 and later VP-5, deployed to Rota, Spain,



An Iraqi vessel takes hits from attack jets called in by a P-3.



Command and control of maritime patrol operations was centered in this air-conditioned MOCC tent at Al Masirah.

from NAS Jacksonville, Fla.

Building for the Storm

As *Desert Shield* proceeded, the MPA force in the Middle East was changing and growing. By late August, Fleet Air Reconnaissance Squadron (VQ) 1 established an EP-3E detachment at Bahrain (see following article). By mid-September, a detachment from Barbers Point-based Patrol Special Projects Unit (VPU) 2 arrived in theater with its reconnaissance-specialized P-3s. (VPU-1 at Brunswick would also send P-3s later to the Gulf region.) On November 10, as a normal rotation, Barbers Point-based VP-4 (with P-3C Update 1s) relieved VP-1 at Diego Garcia and Al Masirah. VP-4 C.O., Commander Bob Cunningham, took over CTG 72.8 and his X.O., Commander Carlos Badger, assumed the det at Al Masirah. VP-19 continued its augment from Misawa, and additional P-3C Update 11s and crews from Moffett Field-based VPs 40 and 46 also joined in, as well as one plane and crew each from reserve units VP-91 and VP Master Augment Unit, Moffett. The MOCC at Al Masirah was beefed up with watch officers, intelligence specialists, and support personnel from Diego Garcia and reserve unit ASWOC-1080 from Moffett Field. Captain Phil Lenfant, Commander Task Force 72, Seventh Fleet's operational commander for MPA, exercised command over the force.

By January 1991, with the number of carrier battle groups deployed to the theater about to increase from four to six, the MPA force in the region was well exercised and ready for the storm to come. On January 4, round-the-clock surveillance missions in the northern Persian Gulf began. Using radar and special optical sensors, P-3s were used to pinpoint military targets along the Iraqi and Kuwaiti coasts.

Lethal Partnership

When the war began on January 17, P-3s were providing 65 hours of support per day for the battle groups in the Persian Gulf. In addition to defensive surveillance for the battle groups, P-3s went on the offensive and formed a "lethal partnership" with the carrier-based strike aircraft that scourged the Iraqi navy.

Some of the P-3s operating in the gulf were equipped with the APS-137 inverse synthetic aperture radar (ISAR), which not only detects targets over the horizon but provides images of the target in sufficient detail for the operator to classify the ship type. ISAR proved especially effective in detecting small craft in the coastal waterways and among the oil rigs that clutter the gulf. Combining ISAR information with highly accurate locating data from the Global Positioning System made for extremely valid target solutions. Positioned in the northern gulf, ISAR-equipped P-3s routinely detected Iraqi vessels, informed the battle group commander using the P-3's extensive communications suite, and often vectored A-6 and FA-18 jets in for the kill. This model hunter-killer coordination in 31 separate engagements resulted in the confirmed destruction of 53 of the 105 Iraqi vessels put out of action during the war.

During one 34-hour period, P-3s provided the detection and target locating information that resulted in a substantial reduction in the Iraqi navy's offensive capability. A group of 15 Iraqi vessels heading for Maridim Island, an outpost in Kuwaiti hands, was detected by VP-4's Crew 5, who vectored strike aircraft against the force, resulting in five ships sunk and seven or more damaged. This effort ended what would be Iraq's last seaborne assault.

Hours later, VP-4's Crew 2 detected a group of Iraqi vessels attempting a

rapid transit from Iraqi ports around Bubiyan Island, apparently trying to reach the safety of Iranian territorial waters. P-3s from VPs 4, 19, and 46 provided the target locations for the strike aircraft which destroyed 11 Iraqi vessels in what has been named the Battle of Bubiyan.

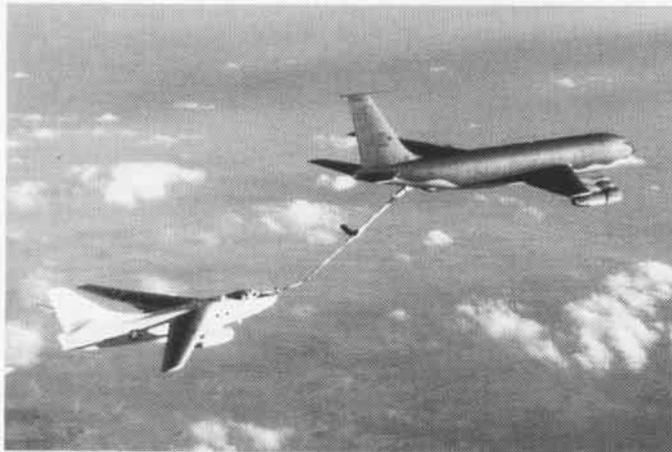
The *Orions* were also used in a variety of other roles, including mine hunting and tracking the positions of oil slicks in the Persian Gulf.

"When's the Next Launch?"

The pace of war meant a grueling flight schedule, but the VP detachments never missed a sortie, a tribute to the superb efforts of maintenance personnel operating from limited facilities at the end of a long supply chain. The dedication of the VP detachment personnel was noted with pleasure by Cdr. Cunningham: "I have never been prouder of any group of airmen — both officer and enlisted — as these of Task Group 72.8...they proved themselves in the skies above the gulf. When they landed, all they wanted to know was when their next launch was!"

From the outbreak of hostilities on January 17 until the provisional ceasefire on February 27, the VP detachments flew 3,787 hours in 369 combat sorties. The end of the fighting did not mean an end to patrols, however. The detachments remain in place, providing shipping surveillance to enforce the sanctions, as during *Desert Shield*. VP-17 relieved VP-4 at Al Masirah in May, and VP-10 took over Detachment Charlie from VP-8 in June. VP-5 has also supplied aircraft and crews to Detachment Charlie.

Maritime patrol operations during Operations *Desert Shield* and *Desert Storm* proved to be a paragon of flexibility, providing the vital link between the antisurface warfare commander and his strike forces. Rear Admiral Ronald Zlatoper, Antisurface Warfare Commander for Battle Force Zulu in the Persian Gulf, congratulated the MPA forces for their achievements: "...You contributed directly to the destruction of the Iraqi navy by detecting, identifying, and targeting hostile surface contacts. Your continuous operations were critical to the offensive operations of Battle Force Zulu during Operation *Desert Storm*." ■



Reconnoitering the Desert

By LCdr. Tom Brennan

In the Desert Shield/Desert Storm article published in the March-April 1991 edition of Naval Aviation News, there was a minor mention of the role that fleet air reconnaissance squadrons (VQ) played in the war. Normally and necessarily silent, VQ-2 stepped forward and submitted this account of its Desert Storm operations.

Both VQ-1, NAS Agana, Guam, and VQ-2, Rota, Spain, were virtually 100 percent committed to the Persian Gulf war effort. VQ-1 established an EP-

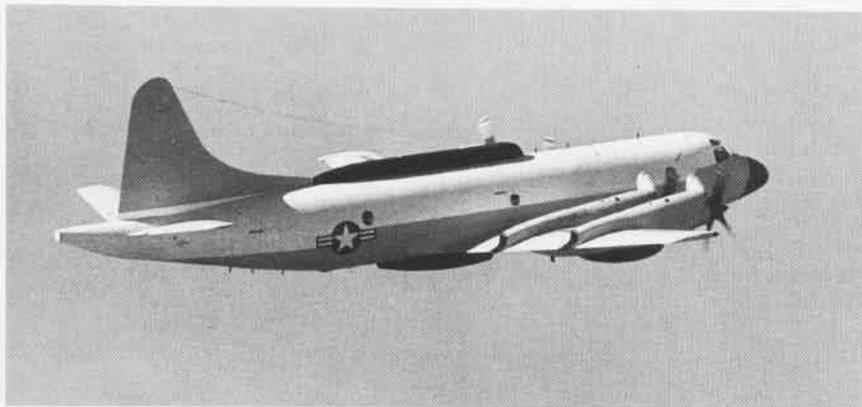
3E detachment in Bahrain early in *Desert Shield*, and in late November 1990, this det was augmented by an additional EP-3E and crew from VQ-2. The combined efforts of this VQ-1/2 detachment ensured around-the-clock coverage for sea and land-based strikes throughout *Desert Storm*. Through March, both squadrons' EP-3Es remained in Bahrain and continued to fly tactical reconnaissance flights for the Arabian Gulf Battle Force and coalition forces.

In mid-November, a VQ-2 EA-3B *Skywarrior* detachment was estab-

lished in Jeddah, Saudi Arabia, and flew daily reconnaissance flights along the Saudi-Iraqi border to monitor the steady build-up of Iraqi forces. When hostilities commenced on January 17, 1991, the detachment stepped up its operations and provided vital intelligence for the furious onslaught of strikes launched from the decks of the Red Sea Battle Force's three carriers: *John F. Kennedy* (CV-67), *America* (CV-66), and *Saratoga* (CV-60). By the end of the 40-day campaign, this single two-plane det had flown nearly 100 combat missions and logged over 575 hours. For an aircraft which started its operational life during the Korean War, this was an impressive performance.

Completing the total commitment of VQ-2's aircraft to the war effort, in late January, VQ-2 was tasked to fly EP-3E reconnaissance missions in conjunction with Allied air strikes originating from Turkey. With this mission, the combined forces of VQ-2 completed the VQ encirclement of Iraq, contributing significantly to the *Desert Storm* successes. In addition to its *Desert Shield/Desert Storm* operations, VQ-2 continued to fly tactical reconnaissance (12-15 hours daily) over the Mediterranean Sea to monitor potential threats to deploying forces passing through the Mediterranean theater. With the commencement of operation *Provide Comfort* in April, VQ-2 was again tasked to fly EP-3 missions to assist that humanitarian relief effort for the Kurdish refugees along the Turkish-Iraqi border.

The EA-3Bs of VQ-2 were the last operational "Whales" in the Navy and, along with the ancient EP-3E *Aries I*, have been providing shore-based intelligence information to the Mediterranean battle group commander since the cessation of EA-3B carrier operations in 1987. The Whales are scheduled to retire by the end of September 1991, but the mission will continue. Entering service now are newer Navy reconnaissance aircraft: the carrier-capable ES-3A and the land-based EP-3E *Aries II*, which will continue to provide tactical reconnaissance well into the next century. Routine integration of VQ aircraft into air wing/task group operations will continue to be a part of Navy operations for a long time to come. ■



EP-3Es of both VQs 1 and 2 provided vital reconnaissance in Desert Storm. Above, an EA-3B "Whale" takes on fuel from a USAF tanker.



The Naval Air Reserve today is a powerful and ready force that plays a vital role in our nation's total defense. Operations *Desert Shield* and *Desert Storm* proved that. But were it not for the success of a relatively small exercise that took place almost 15 years ago, the Naval Air Reserve as we know it today may never have evolved. Despite its relative obscurity, this exercise, known as the reserve tactical air – or TACAIR – test, played a critical part in the history of the Naval Air Reserve. To understand how important the TACAIR test was and why it came about, it is necessary to go back more than 20 years.

In January 1968, the North Koreans captured *Pueblo* (AGER-2), a U.S. Navy intelligence-gathering ship. Six Naval Air Reserve squadrons – three light attack (VA) and three fighter (VF) – were mobilized as part of the ensuing call-up.

The mobilized squadrons ran into problems from the beginning. Their aging A-4s and F-8s were not combat ready or carrier suitable. Squadron pilots were not current in critical skills, such as carrier landings, advanced weapons delivery, or air-to-air tactics. The recalled squadrons had problems

Reserves Pass The Test

By Cdr. Richard Shipman, USNR-R

Photos by Peter B. Mersky

Above, CVWR-30 aircraft fly over Ranger (CVA-61) following completion of the TACAIR test. Below, an A-7A from VA-304 launches off the waist catapult while an RF-8G from VFP-306 prepares to launch off the bow.



maintaining their aircraft due to a lack of qualified and experienced mechanics. Parts support for the older aircraft was poor. When the squadrons moved to active duty bases to prepare for their deployment, their petty officers lacked familiarity with fleet maintenance, supply, and administrative procedures.

Eight months after the mobilization, the squadrons were still not combat ready and, in some cases, had not even completed carrier qualifications. Some squadrons were more ready than others, and all of the squadrons could probably have deployed on schedule, but with reduced combat readiness. Budgetary problems in the military, however, forced the Navy to choose between releasing members on active duty or standing down the recalled reservists. The decision was made to deactivate the reserve squadrons in September 1968.

The reputation of the Naval Air Reserve had been stained badly by the call-up, and questions arose in Congress about spending money on a "ready" reserve that was not really ready. Fortunately, the Navy was allowed to apply the lessons it learned from the *Pueblo* mobilization toward the creation of a restructured reserve force that would be more effective. Unfortunately, memories of the *Pueblo* fiasco did not fade away completely, leaving doubts that would eventually set the stage for the TACAIR test later in the decade.

By Spring 1970, the Naval Air Reserve had been totally reorganized to mirror the structure of the active duty forces. The reorganization created 2 reserve tactical carrier air wings (CVWRs 20 and 30), 2 reserve antisubmarine air groups, 12 patrol squadrons, and 4 transport units.

Commanding officers of the reserve force squadrons assumed custody of their aircraft and reported directly to an active duty wing commander. Squadrons were manned with enough TAR (active duty personnel assigned to the training of reservists) officers and enlisted members to form a cadre of trained personnel who could maintain operational continuity. Naval air reservists filled out the remainder of the squadrons. These reservists, particularly the aviators, were carefully screened for background and qualifications and were sufficiently funded to train for all their missions, including carrier qualifications, if applicable.

The reorganization plan also upgraded the aircraft assigned to the



HC-9, the Navy's only dedicated combat SAR squadron, sent an HH-3A to perform plane guard duties for TACAIR.

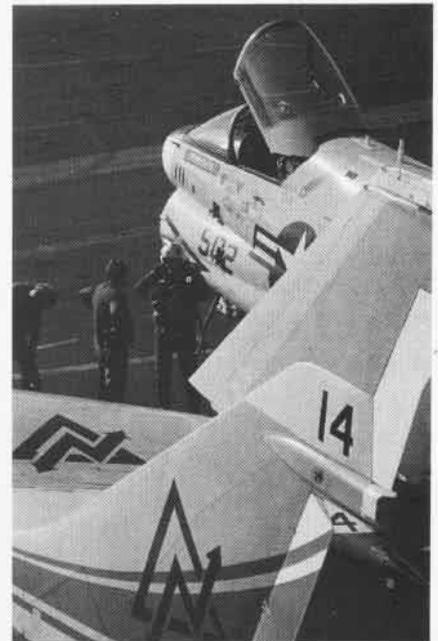
reserve force. F-8As and Bs gave way to F-8H, J, K, and L models for the fighter squadrons. Reserve attack squadrons started flying A-4Cs and Ls instead of A-4Bs. E-1B, KA-3B, and RF-8G photoreconnaissance aircraft rounded out the newly formed tactical air wings. These aircraft were still one generation removed from the equipment the fleet was flying, but they, nevertheless, represented a step up from aircraft previously available to the reserve forces.

The effects of the reorganization were rapid and dramatic. In the fall of 1970, 80 pilots from CVWR-20 and 67 from CVWR-30 carrier qualified without incident. In August 1971, CVWR-20 embarked in *John F. Kennedy* (CVA-67) for two weeks active duty and an operational readiness inspection. They received an overall grade of "Excellent."

Reservist proficiency and capability continued to improve as the seventies progressed. The wind-down of the Vietnam war made available many qualified and experienced aviators, meaning the reserve squadrons could be highly selective. The result was a build-up of talent and experience that paid big dividends. Reserve attack pilots from CVWR-30, flying their newly acquired (but still old) A-7As, finished first, second, and fourth in the annual West Coast bombing derby, competing against active duty forces. Back on the East Coast, CVWR-20 underwent an operational readiness evaluation that tested its performance against the same standards used by the regular Navy. The overall grade was "Outstanding." The reputation of the Naval Air Reserve was on the rise, and the old days of "Weekend Warriors" and "The Navy Flying Club" were fast disappearing.

Unfortunately, two clouds appeared on the horizon that would cast shadows

on the Naval Air Reserve's bright future. The first black cloud formed when Congress received the results of a study about the role of reserve forces in the nation's total defense. This so-called "Total Force Study" was the result of more than 18 months of effort by several different groups. Phase one of the report included many sound administrative recommendations that were, for the most part, adopted by the services. Phase two of the report, however, was the result of research conducted by the Assistant Secretary of Defense (Manpower and Reserve Af-



Cdr. Mike Plattis, X.O. of VA-305, prepares to launch on a workup mission.

fairs), and it was noticeably less favorable to the reserve concept. The final recommendation of this study was to conduct a test that evaluated the operational capability of the Naval Air Reserve.

Support for this recommendation was probably buoyed by the second black cloud that appeared on the reserve's horizon in the mid-seventies: the Navy ran into one of its periodic budget crises. Old memories die hard, and the recollection of the *Pueblo* incident still lingered on – particularly in the minds of those who were not strong advocates of the Naval Air Reserve. Thus, when money became tight, the Office of the Secretary of Defense (OSD) started questioning the amount being spent. If the reorganized reserves were no better prepared than the reserve force that mobilized when the *Pueblo* was captured, we shouldn't be spending all this money on them, the argument went.

The decision was made to go ahead with an operational test to see if the new Naval Air Reserve force was, in fact, ready and worth its expense. If the test was a success, OSD would have a hard time justifying cutbacks. If it failed, the Naval Air Reserve would be a prime target for cost cutting; clearly, its future hinged on the results of this test.

The test selected called for the deployment of one of the two reserve tactical carrier air wings aboard an aircraft carrier for cyclic operations, day and night. This was a predictable choice since the *Pueblo* mobilization involved tactical squadrons and carrier proficiency was one of their big shortcomings.

CVWR-30, the West Coast reserve air wing, was selected for the test, to be conducted in November 1976. Air Wing 30 squadrons would devote their two

weeks annual active duty for training to this exercise, staged aboard *Ranger* (CVA-61). The squadrons involved and the aircraft they flew were as follows:

Squadron	Aircraft	Home Base
VF-301	F-4N	NAS Miramar, CA
VF-302	F-4N	NAS Miramar, CA
VA-303	A-7A	NAS Alameda, CA
VA-304	A-7A	NAS Alameda, CA
VA-305	A-7A	NAS Point Mugu, CA
VFP-306	RF-8G	NAF Washington, DC
VAQ-308	KA-3B	NAS Alameda, CA
VAW-88	E-1B	NAS North Island, CA

Reserve Helicopter Support Squadron 9, although not officially a part of CVWR-30, also participated in the TACAIR test, flying plane guard and combat search and rescue missions.

On November 6, 1976, the squadrons loaded aboard *Ranger*. The first order of business was day and night carrier landing practice. After the aircrews were "up to speed," the air wing settled into a 12-hour schedule of cyclic operations. Typically, the first launch was at 1000 and final recovery at 2215; thus, three launches and four recoveries were flown at night.

Air Wing 30 flew typical training and proficiency missions during its cyclic operations. War-at-sea exercises, practice bombing, simulated aerial mining, low-level training, and in-flight refueling were typical missions that air wing pilots flew building up to the culmination of the TACAIR test – the operational readiness exercise (ORE). The ORE was conducted in the final days of the deployment and was graded according

to fleet standards. The final evolution of the ORE was a major alpha strike, modeled along the line of the multi-plane strikes launched during the Vietnam-war era.

The TACAIR test was a tremendous challenge for the involved reserve squadrons. Selected air reservists had to mentally and physically transition overnight from their civilian lives to the ultimate complexity of Naval Aviation – shipboard flight operations. The squadrons had to pack aboard a strange ship and work out of temporary spaces with little time for adjustment to their new surroundings. The personnel of *Ranger* were cooperative and willing, but they were not used to working with reserve squadrons and the older aircraft that they flew. The F-4s, for example, required a bridle assembly for catapult launch, while the newer aircraft in the active duty air wings used a nose-tow launching system. Additionally, *Ranger* had problems with its propulsion plant that rendered one screw inoperative, making adequate wind over the deck a problem during calm-wind days. And on top of all this was the pressure of knowing that the future of the Naval Air Reserve hinged on how well Air Wing 30 performed.

This time, the Naval Air Reserve was up to the challenge. The TACAIR test could be considered nothing short of a stunning success. The overall score of the operational readiness exercise was "Outstanding." During its deployment, the air wing flew over 1,000 sorties, logging more than 2,200 flight hours and 1,048 carrier landings; 365 of those traps were at night. The air wing ship-

A-7As from VA-304 taxi onto *Ranger*'s waist catapults in preparation for launch.



board boarding rate was 91.5% day, 80% night, and 85.8% overall. The reservists from CVWR-30 had left a lasting impression on all who had observed them.

Vice Admiral R. P. Coogan, Commander Naval Air Force, Pacific: "The success of CVWR-30 during your ORE on *Ranger* serves as an example for all."

Rear Admiral Paul Speer, Commander, Carrier Group One: "Your outstanding planning, scheduling, support,

and execution of the reserve air wing test were superb. The professional, enthusiastic teamwork between USS *Ranger* and CVWR-30 by each sailor and officer was a pleasurable experience to behold. Well done."

Vice Admiral P. N. Charbonnet, Chief of Naval Air Reserve: "The outstanding performance of Carrier Air Wing 30 in the recent ORE aboard USS *Ranger* is noted with great pleasure. From my personal observation, it is clearly apparent that Air Wing 30 can match its record, its combat readiness and elan with any and all fleet carrier air wings."

J. Palmer Gaillard, Jr., Deputy Assistant Secretary of the Navy (Reserve Affairs): "As an onboard observer, I was proud of our air squadrons and saw firsthand their ability to meet mobilization requirements. I was very pleased with the performance of the reserve air wing and know that they scored high marks on the entire operation."

To those "in the know," the success of Air Wing 30 came as no surprise. The experience level of the aircrews and maintenance personnel was truly impressive. Of 69 aircrew members in the fighter squadrons, 65 were combat veterans of the Vietnam war. From the attack squadrons, 50 of the 55 pilots had logged combat cruises, and the average pilot had well over 300 arrested landings. Although not as easily quantifiable, the experience level of the maintenance troops was just as high. This experience was shown as Air Wing 30 mechanics produced an operational

readiness level of over 88% for the air wing aircraft, even though the squadrons were operating out of makeshift spaces and portable tool boxes.

The success of the TACAIR test did not come without a price. Commander Mike Plattis, X.O. of VA-305, was killed following a ramp strike during a night recovery. Even this tragic event failed to sidetrack the reserve aviators from their mission. Some observers expected the wing to stand down after the accident, but that didn't happen. The pilots continued flying with an even greater determination to prove their ability.

This dedication and confidence did not go unnoticed. As one observer put it, "These people don't have to do this. They have good incomes outside their reserve participation, so most of their reserve salaries revert to taxes. I am amazed at the way they bounced back after the accident. I am truly impressed by their professionalism and dedication."

The move to cut funding for the Naval Air Reserve force dissipated rapidly after the success of the TACAIR test. In fact, the force was so impressive that a strong case was built for supplying reserve squadrons with newer aircraft and giving them more missions. Over the next 15 years, the Naval Air Reserve flourished with increased funding and new missions, brought about by a growing awareness of what reservists could do. Many factors have played a role in the development of the Naval Air Reserve, but, without a doubt, the TACAIR test was a pivotal event that enabled the Naval Air Reserve to become the elite, powerful force that it is today. ■

Cdr. Shipman is a naval air reservist, former editor of Approach magazine, and a civilian airline pilot.



Above, an F-4N from VF-302 crosses the ramp during carquals. The ease and speed with which the reserve pilots requalified enabled the air wing to start cyclic operations much sooner than had been initially planned. Below, an F-4N from VF-302 goes into the hangar deck for maintenance.

R6D/C-118

By Hal Andrews

A popular subject in aviation today, both military and civilian, is aging aircraft – the problems that come with extending the service life beyond original expectations. One can easily surmise that when the first Douglas R6D-1 *Liftmasters* were delivered to Navy transport squadrons in 1951, there was little time given to anticipating what it would take to keep them flying for as much as 34 years. And while big advances in aircraft technology were anticipated for transport aircraft, the extent to which their brand-new transports would be anachronisms when finally retired probably wasn't anymore foreseen than were men walking on the moon in less than 20 years.

Like a good many Navy airplanes of the fifties, the R6D-1s – redesignated C-118Bs in the Air Force C-118 series – owed their Navy existence to the Korean War. Their design goes back even further, to the late WW II period. By late 1944, with production of combat-type aircraft well in hand, aircraft company design staffs turned some of their attention to postwar commercial aircraft designs. The airlines were also looking ahead at the advancements in technical features being made, such as cabin pressurization that would allow the comforts and performance of higher altitude flight in future peacetime transports. At Douglas, with its DC-4/C-54/R5D transports the backbone of U.S. intercontinental military air transport, the Army Air Force (AAF) sponsored the initial development of several designs derived from the DC-4; and two major U.S. airlines – United and American – placed tentative orders for a production version of one of them.

This particular design was directed at competing with Lockheed's *Constellation*, already flying and having the participation of TWA as well as the AAF – and the interest of Pan Am and Eastern.

Powered by four Pratt and Whitney 2,400-hp R-2800 Double Wasp engines, the new Douglas transport was based on the C-54, with a longer, pressurized fuselage, and incorporating many improvements based on C-54 and general wartime experience. Following the first flight of the AAF's XC-



VC-118B

C-118B



Harry Gann

112A prototype in early 1946, the first commercial DC-6 made its initial flight that summer. After flight testing and certification, DC-6s went into service with the two initially sponsoring airlines. Interest in replacing the special C-54C transport modified to serve President Roosevelt as the presidential aircraft led to one of American's airplanes being released to become, with suitable modifications, the C-118, the new presidential aircraft for President Harry Truman.

Following correction of an unfortunate fire-in-flight problem, the DC-6s went on to very successful service. Looking at further needs in air transportation – particularly air cargo which was highlighted by the 1948 Berlin Airlift – Douglas came up with a stretch version of the DC-6, with fuselage "plugs" inserted fore and aft of the wing. The forward one was long enough to permit installation of a second large cargo door, allowing both fore and aft cargo loading. Up-rated R-2800 engines with water injection for takeoff allowed increased operating weights to match the new cargo capacity. It was labeled the DC-6A *Liftmaster*. With its heavy cargo floors, it was touted for military operations. However, its commercial use was also recognized and a passenger version, without the heavy floor, cargo doors

and other cargo provisions, soon followed as the DC-6B passenger transport.

While the latter went into production for the airlines, no military DC-6A sales were initially rung up. The North Korean invasion of South Korea in Summer 1950 changed that. U.S. participation in the war deepened; military aircraft procurement jumped to match. Included were transport aircraft, necessary for logistics as well as tactical support. Among several types ordered by the Navy were 11 DC-6As as R6D-1s, paralleled by 11 similarly stretched Lockheed *Constellations*. The Air Force ordered larger numbers of DC-6As as C-118s, and the Navy followed with a contract for 54 additional, giving the Navy a total of 65 and the Air Force 101. Differences were minimal – mainly in avionics, with an additional crew position for a communications operator in the Navy airplanes. The initial 11 R6D-1s had two auxiliary fuel tanks which were incorporated into the main tanks in all subsequent *Liftmasters*.

The first two R6D-1s were delivered in September 1951; one to VR-3, a Military Air Transport Service (MATS) Navy squadron, and the other to VR-5, a Fleet Logistics Support squadron – both at NAS Moffett Field, Calif. While the initial R6D-1s did not have weather



R6D-1



C-118

radars, the need for these led to an APS-42 nose installation in all aircraft, the radome, contour changing the fuselage nose lines.

In 1954, the first of several early R6D-1s was converted at the Navy Overhaul and Repair Facility, Corpus Christi, Texas, to "command" models with appropriate VIP modifications (as well as receiving their weather radars). These served fleet commanders and other VIP assignments as R6D-1Zs while the standard models fulfilled MATS and fleet logistic assignments.

In 1957, MATS became the Air Force's Military Airlift Command (MAC) and 38 R6D-1s were subsequently transferred to the Air Force (though still flown by Navy crews). The remaining Navy R6Ds continued their logistics and VIP assignments.

While jets became the principle air transports of the world in the early sixties, the Navy's *Liftmasters* soldiered on – redesignated as C and VC-118Bs in September 1962 when the Defense Department standardized designations. In the mid-sixties, the Navy reserve fleet logistics operations were expanded to serve fleet as well as

reserve needs, and as the MAC expanded its jet fleet, the remaining former Navy C-118s were transferred back to the Navy. These were followed by a number of additional Air Force C-118As to fill out the reserve complement, redesignated as C-118Bs.

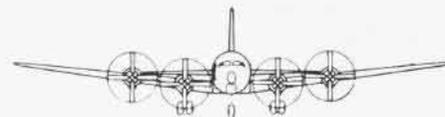
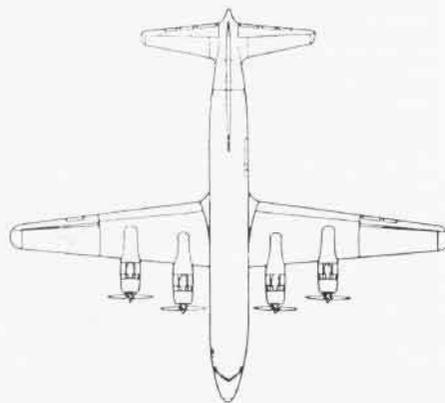
The increased complement was soon pressed into service in support of Southeast Asia combat operations. During the 1970s, after cessation of combat, reserve C-118 operations continued at a peak level, and action was taken to extend C-118 service life for another 10 years – to 1985. While support of R-2800 piston engines posed some problems as both military and civilian overhaul facilities turned fully to turbine engines, the C-118s continued as a major component of Navy and Marine logistics support.

In the early 1980s, with C-118s being gradually retired and the 1985 date approaching, action was taken to replace the fleet logistics squadron aircraft with DC-9/C-9Bs and the remaining C-118Bs – including several VCs – were phased out, the last in early 1985. ■

R6D/C-118



Span	117'6"
Length	107'
Height	28'8"
Engines:	
Four P&W R-2800-52W	2,500 hp
Maximum Speed	300 mph
Service Ceiling	21,900'
Maximum Range	
(12,000 lb. cargo)	3,765 nmi
Crew (depending on conf.)	5/4
Maximum Cargo	
(2,000 minimum range)	32,300 lbs.



POWs in Iraq Survived Thanks to

Story and Photos by Robert F. Dorr

Held prisoner of war in Iraq with no way to know how long they would be in captivity or how they would be treated next, Navy and Marine fliers drew strength from their rigorous survival training. The POWs also applied personal initiative and common sense in coping with their Iraqi captors. Finally, they got through their ordeal in Baghdad relying on deep-rooted American resilience, patriotism, and faith.

The eight Navy and Marine POWs (NANews, May-June 1991, p. 6) included an A-6E *Intruder* crew, two OV-10 *Bronco* pilots, an OV-10 observer, an F-14A(Plus) *Tomcat* radar intercept officer, and two AV-8B *Harrier* pilots. They were imprisoned during Operation *Desert Storm* for periods from 10 to 42 days. The youngest was 24, the oldest 46. Most suffered injuries ejecting from their aircraft.

Lieutenants Robert Wetzel and Jeffrey Zaun ejected from their VA-35 A-6E *Intruder* on the evening of January 17, 1991, the first day of the war, while attacking an airfield.

"We turned the IP [initial point] 30 miles away at 450 knots, flying below 500 feet," remembered Wetzel. "We completed our combat checklist. Everything was going pretty well." To negate the Americans' advantage in night warfare, the Iraqis lit up the airfield with parachute flares, creating the most bizarre display of pyrotechnics Wetzel had ever seen. "It was almost a daytime scenario." SAMs [surface-to-air missiles] flew around the strike force. "We got real busy. There was heavy AAA [antiaircraft artillery]. I saw a missile go [off] in front of us. I saw a missile to the right at two o'clock, turned into it, and dropped chaff. We were hit. The back of the plane was on fire.

"We ejected through the canopy at 500 feet at 400 to 500 knots. Our helmets were ripped off. I lost gloves, watch. Jeff's survival gear was ripped off. We had flail injuries," Wetzel added.

The two men landed near each other on a 20-foot mound. Wetzel was unable to use his arms. They were plotting escape when an Iraqi vehicle drove up and illuminated them with its headlights.

Much later, when Zaun appeared

on Iraqi TV with OV-10 *Bronco* crew Lieutenant Colonel Clifford Acree and CWO4 Guy Hunter, the world feared the POWs had been tortured, drugged, or both. Wetzel had serious injuries to both wrists; he was taken to a hospital near Baghdad where, he recalled, "I was operated on. They put plates and screws in my arm."

Wetzel was also filmed for a TV appearance but it was never broadcast. Zaun, Acree, Hunter, and *Tomcat* RIO Lawrence R. Slade were acknowledged to the outside world. Wetzel, with the OV-10 pilot Major Joseph Small, and *Harrier* pilots Captains Michael Berryman and Russell Sanborn were never shown publicly. They were listed as missing in action, their fate unknown to the Americans. Wetzel's fiancée, Jacqui Curtin, never lost hope that he was alive but was not sure until he was released.

For POWs held at the "Baghdad Biltmore," their worst experience came when an allied bombing raid hit the prison on February 23. After narrowly escaping death as the building collapsed around them, some POWs circulated and talked to each other for the first time. Slade recalled, "There was a great high because we were able to [exchange] war stories and ejection stories." Zaun reached the roof of the building and pondered organizing a mass escape. But some of the prisoners were pinned in their cells.

In fact, Wetzel remained in his cell because "the Iraqis had lost six or seven keys, including mine, so I spent one night in a cell which couldn't be opened. This was scary."

The POWs' courage to resist was heightened by communicating with each other using the Vietnam-era tap code, a method which got Wetzel acquainted with Air Force A-10 pilot Captain Richard D. (Dale) Storr. The men credit their training with helping them to foil their captors.

Captain Russell A. C. Sanborn of VMA-231 had told his wife, Linda, in New Bern, N.C., that if he was shot down, his faith would sustain him. Sanborn's AV-8B *Harrier* was hit by a shoulder-fired SAM on February 9.

Sanborn experienced a time compression in which he actually watched himself eject, saw his seat moving up the rails, and observed his parachute

open overhead.

Climbing out of his parachute harness on the desert not far from where he'd been bombing Iraqi tanks, Sanborn confirmed that he had 15 rounds in his nine-millimeter automatic pistol. He shoved the pistol under his belt and began working on the plan he'd devised "to cover myself up with sand so they couldn't see me, wait until nightfall, and walk south."

But Sanborn was quickly surrounded by Iraqi troops. Within days, he was in Baghdad. The Marine Captain was roughed up a couple of times. Imprisoned in a different location from the "Biltmore," Sanborn did not immediately have fellow Americans nearby. Like all POWs, he suffered because his captors had little electricity and water — thanks to the bombing.

"It helped to be well prepared," said Sanborn. "I kept repeatedly running into situations we'd discussed in training. We had no idea how long the war might go on, but I never lost my belief in my country and in God."

At midday on February 25, day two of the land war, Major Joe Small of VM0-2 was flying a combat mission in an OV-10A *Bronco*. Small's back-seat observer was Captain David M. Spelacy.

"I was in a shallow, right-hand turn when we were hit on the right wing by a shoulder-launched missile," Small said. "I suspect it was something bigger in terms of the warhead than the SA-7 [missile]. It may have been an SA-14. The thing came out of nowhere. Visibility from that direction was blocked by the wing. It hit me from about five o'clock.



Former POWs Marine Captains Joseph Small and Russell Sanborn.

Training, Courage, Faith



Former POW Navy Lt. Robert Wetzel.

"There was a loud explosion. The aircraft was immediately out of control. We were doing about 150 knots. We were in a nose-low, right-handed spin. I made a very brief attempt to recover with left rudder and it became obvious that the airplane was not going to be controllable. I didn't know it at the time, but the right wing had been blown off at the engine so there was no chance of recovery.

"Later on, I found out that my rear seater, Captain Dave Spellacy, was killed when we were hit.

"I have no memory of the actual ejection," Small went on. "A breaker bar shatters the canopy and you just go through the glass, but I don't recall that. The next thing I remember, I'm in the chute.

"Soon as I knew I had a good canopy [parachute], I got out my pocket radio. I got a quick mayday out." Unfortunately, Maj. Small landed almost in touching distance of Iraqi soldiers. Even in the bizarre lighting caused by clouds and oil fires, he had no place to hide.

"They stood me up. I was rather stiff. My knee was in some pain. They immediately stripped me of my weapon, vest, survival knife, and radio. They started trying to cut my parachute harness off me and I helped, one-handed, very cautiously, so I didn't pose any threat to them.

"A land cruiser drove up and they put me in that. There was a driver, a soldier on the passenger side, another soldier between the two front seats, facing aft towards me with an AK-47 in my face. Another, in the back, spoke broken English. Yet another Iraqi soldier sat behind me with an AK-47 at my head – so I kept my hands where they could be seen.

"We started north. Another vehicle full of soldiers tried to run us off the road. I looked at the guy next to me, like 'What's going on here?' He said, 'Oh, they crazy. They want to kill you.' The soldier with me looked scared.

"They brought me to a bunker. Evidently, they were trying to figure out what to do with me. At that time, I was offered a drink of water and a cigarette.

"They put me back in the vehicle. Now they started treating me a little rougher. They knew I was in pain. My leg. They threw me into a similar

vehicle, blindfolded me this time, and I noted from my sense of direction that we were still going north – and we ended up going into Kuwait City.

"That's where I went through my first interrogation session," Small explained. "They brought me into a room, a cellar. They sat me down. It was cold and damp. It was dark. You could smell the oil lamp, an odor that was to become familiar to me; every place you went, they were burning kerosene for their lights. Nobody had [electrical] power.

"Everything started to ache, especially my knee. My hands were tied, so the circulation started to give way. Eventually, I received a beating. They started bumping and kicking. They hit my head, my neck, my ribs. One guy got me real good in the back of the neck with a chop. I thought, 'This is it.' They started talking about President Bush. They called him George Boosh. Every time they said 'Boosh,' it was followed by a blow to the head.

"This escalated. They stopped talking and had their way with me. It stopped, and they stood me up. I thought, 'Okay, now they're going to take me out and shoot me.' Then they started whipping me again – no talk, no questions, just beating.

Maj. Small still felt his captors might shoot him. Instead, in early evening, he was put into a truck again.

In the early hours of February 26, the Marine was taken to Basra, the port on Iraq's tiny coastline. He was repeatedly threatened but not beaten. He was asked questions about aircraft and weapons capabilities.

"Now the treatment was better," Small recalled. "They seemed more professional. Finally, I was given an opportunity to lie down on a bed and given water. Then it was back into a vehicle – for the trip to Baghdad. As we left Basra for Baghdad, it was raining. I had a blindfold on, but I could see out and it was wet and cloudy."

By nightfall, after torturous detours around bombed-out bridges, Small was in the Iraqi capital, in a prison, again being interrogated. He was handcuffed, blindfolded. Once or twice, an Iraqi soldier accommodated his cigarette habit. It helped little.

Small said, "The night of the [February] 26th was the worst night of

my life. I was hurt, cold, lonely, scared. It was dark. It was quiet. I thought, 'This is it.' I reached my lowest point that night." Ironically, the world was seeing the ground offensive against Iraq move forward with enormous speed and power.

Harrier pilot Russell Sanborn, a prisoner since February 9, was a catalyst; he snapped Joe Small up from despair. It happened, Small remembered, on the morning of February 27.

"I heard muffled conversation. I thought it was English. I pressed my ear to the door. Sure enough, it was Russell [Sanborn] conversing with [another prisoner] about me." Although contact was not allowed, the men were able to communicate, though details will not be described here. Sanborn gave Small the good news that he was not alone, that another American was close by. Small, in turn, provided Sanborn with news that the ground battle had been joined, was going well. The Marine pilots learned later that an Army prisoner, SPC Melissa Rathbun-Nealy, was in another wing of the building they shared with four non-American coalition prisoners.

On February 28, an Iraqi doctor came into Joe Small's cell and said, 'You're going home soon.' Small knew the war was over when he heard Iraqis in the streets firing weapons in the air to celebrate what the doctor called Iraq's "victorious victory." Small uttered to himself, 'Yeah, sure.' He understood which side had won.

In early March, the POWs were released in small groups and the Navy and Marine officers came home. Bob Wetzel is still convalescing from serious injuries. Others have returned to their duty – grateful that rigorous training and belief in their country kept them going when things looked worst.

Naval Aviation in WW II

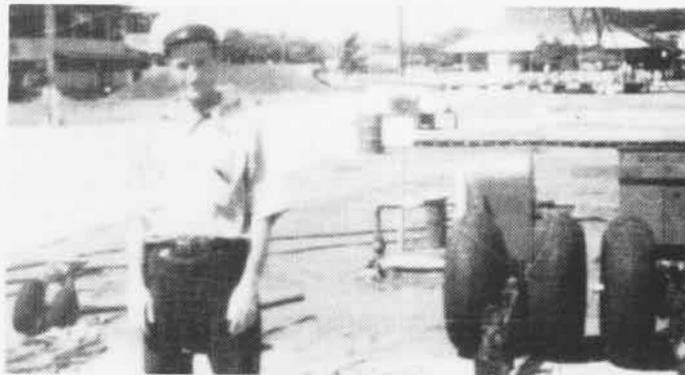


PBY-4 21-P-10 (BuNo 1216) conducted the last PatWing-10 patrol from Java in March 1942, survived the Allied campaign in the Far East, and was later turned over to the Royal Australian Air Force.

Photos courtesy of The Baltic Group Archives

The Pacific Neutrality Patrol

By Cdr. Louis B. Dorny,
USNR



One of VP-21's chief petty officers with PBY beaching gear and barracks under construction in the background, Sangley Point, 1939-40.

Any WW II buff knows about the U.S. effort in the Atlantic known as the "Neutrality Patrol." The United States did all kinds of things in the months before Pearl Harbor to support those who would become its wartime allies short of actually getting involved in the shooting, and it came to that on occasion. Fewer are aware of the extension of the Neutrality Patrol into the Far East. It proceeded under the same guise — that of protecting U.S. interests by active patrolling on a near-wartime footing — but it achieved several other purposes as well. It was these other purposes, such as getting some reinforcements to the hard-pressed Asiatic Fleet in the Philippines, that formed the real impetus of the move.

Extending the Neutrality Patrol to the Far Pacific

By mid-1939, Japan posed nearly as threatening a scenario in Asia as Germany did in Europe, but in the western Pacific, where the U.S. possessions in the Philippines and Guam were dangerously exposed, our ability to build up defenses was limited under post-WW I treaties. Accordingly, our military and naval forces faced a tactical situation — if not strategic — that was simply untenable. In hindsight, our position had already deteriorated beyond recovery, but in the divided opinions of the day, few saw the facts clearly and all were loath to simply concede the issue to the Japanese. One of the stop-gap

measures for the situation was to get the Asiatic Fleet some long-range reconnaissance capability, and in 1939, this meant the Consolidated PBY flying boat, which later became famous as the *Catalina*.

It was, however, not just a matter of sending a squadron to the Philippines; that constituted reinforcement which, under the treaties, allowed Japan to build up their Pacific island mandates to a comparable degree. It was Germany's invasion of Poland on September 1, 1939, that gave President Roosevelt another option and, always looking for ways to put the Navy into the limelight, he created the "Neutrality Patrol" to monitor and oversee the security of American sea approaches in the Atlantic Ocean. It was only a slight stretch of the imagination to extend the idea to the Philippines, and the order went out to the Pacific Fleet as well to provide forces to establish the Neutrality Patrol in the Far East. Thus, it happened that the Asiatic Fleet received a squadron of flying boats in September 1939.

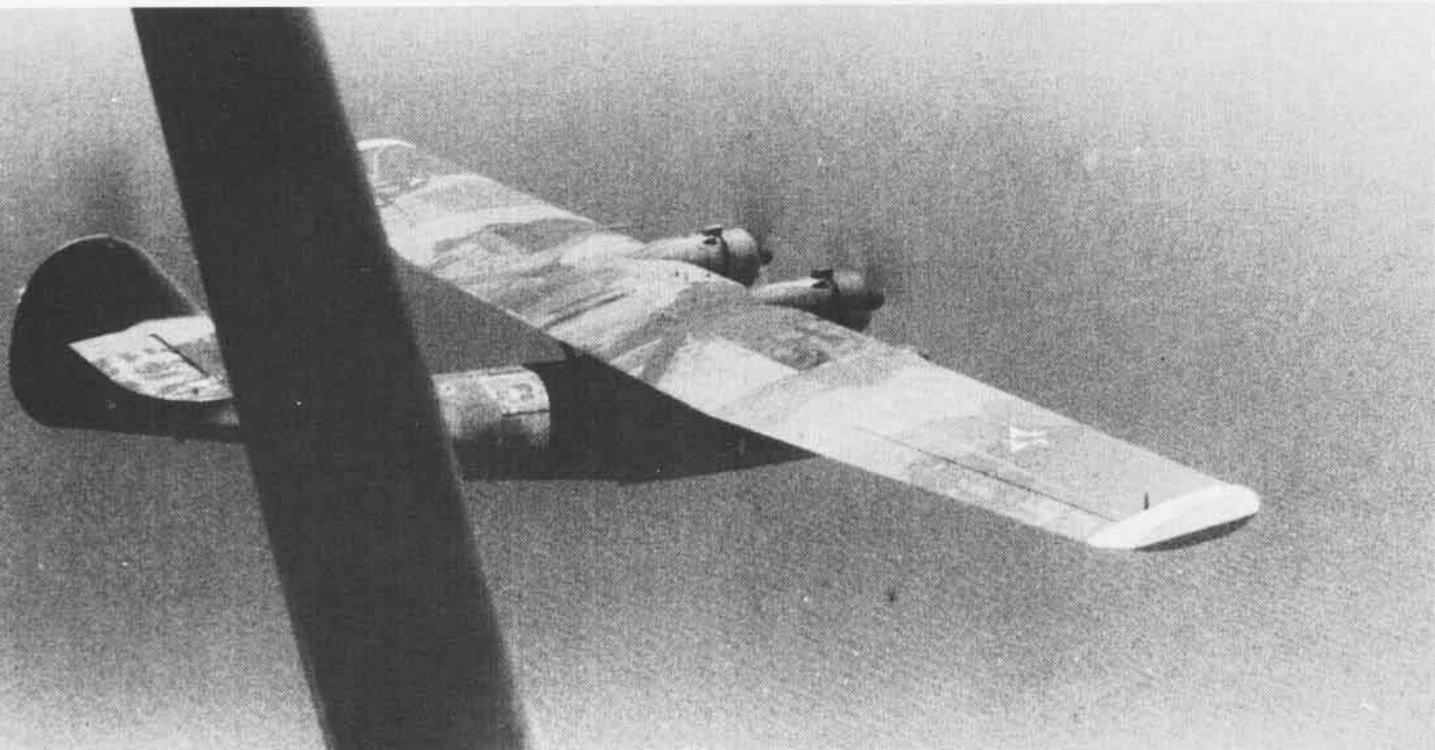
At Pearl Harbor, swift action was the order of the day. The squadron selected would have to make a heretofore unprecedented massed flight across the Pacific from Hawaii to the Philippines. (The image that this evoked in 1939 was something akin to the launching of a space shuttle in 1991 and should not be understated.) The aviators were more than anxious for the chance to prove themselves and their planes. Long-distance flights by bombers and flying boats were often in the news in those days, and Pan American Airways had recently

established its commercial flying boat passenger service across the Pacific, but a squadron-sized transpacific flight on short notice was still a tall order for the 1939 Pacific Fleet. It had never been done before!

Getting VP-21 to Asia

Patrol Wing Two, with headquarters at Pearl Harbor's Ford Island naval air station, selected their newly arrived Patrol Squadron (VP) 21 for the assignment. VP-21 had just completed reequipment with the "Dash 4" model PBY, the most advanced flying boat in Navy service at the time, and it was best suited for the short-fused movement to the Far East. The squadron personnel were assembled in a hangar on Ford Island, told of the deployment, and sworn to secrecy. Swaps with men in other squadrons were quickly arranged, bags packed, airplanes loaded, and VP-21 took off on the morning of September 19 for the Philippines.

Carefully planned to maximize daylight and avoid nighttime landings in the unfamiliar harbors, the first stop was at Midway Island, where they gassed at the Pan Am base and spent the night. When readying for takeoff the next morning, one plane had to be left behind with a bad engine. They spent two nights at Wake Island, then hopped onward to Guam and another two-night layover. It was typhoon season and a storm was brewing in the Philippine Sea, but, undaunted, VP-21 bored onward to Manila Bay



Asiatic Fleet camouflage on a PatWing-10 PBY-4. The lack of waist blisters and the older style rudder identify this as a "Dash 4" but the locally prepared multitone scheme, thought to be shades of blue and gray, conceals nearly all the former markings.

through the fringes of the typhoon – in an open formation with PBYs spread some two miles across the sky.

Supporting a Long Deployment to Asia

Like many other deployments, the logistics and preparations of the men behind the scenes get lost in the shuffle. In the case of VP-21, it was more than simply deploying to the end of a long supply line. In 1939, there was no supply line and no base at the other end to park your flying boat when you got there. The United States had taken Cavite from the Spanish navy in 1898, patched up the place, and painted a little here and there, but certainly never improved the place to handle large fleet units and squadrons of flying boats. Aviation on the Asiatic station had always been the weak sister, and by 1939, amounted to just the floatplane detachments on the fleet's two cruisers and a handful of utility planes based on a converted mine sweeper tender, *Heron* (AVP-2), providing target towing and mail services. The miniscule aircraft overhaul

shop at Cavite could do a fair job on one of the cruiser scouts or utility planes, but supporting a full squadron of large flying boats was another thing altogether.

Fortunately, the Navy's largest seaplane tender was available to be sent along as the primary support facility. *Langley* (AV-3, ex-CV-1) – by then starting her third career after many years as the Navy's first aircraft carrier – loaded spares and equipment at Pearl and sailed for the Philippines in advance of the flight, including several days through the same typhoon, arriving the day before the PBYs. She had laid out mooring buoys and was ready to refuel and service the big planes upon their arrival.

But *Langley* was really only a band-aid-type fix. Days and hours anchored in tropical waters contributes to quickly multiplying marine growth on the aluminum aircraft hulls, impairing performance in the air. The tender could hoist one plane onto her well deck for major servicing; only the small Pan Am seaplane ramp at Cavite allowed two or three more of the PBYs to be pulled out of the less-than-pristine waters of Manila Bay.

Also, the area has its share of storms, and more than one night was spent "under way," i.e., spread out across the bay, taxiing into the storm and trying to stay out of each other's way. This was risky business, chewed up engine hours, and exhausted the crews.

On one occasion, a barge broke loose in a squall and drifted down on some of the moored planes, staving in wing float struts and knocking dents in hulls. One PBY broke its mooring line and was blown ashore in a storm. These experiences were tough on airframes, but fortunately nothing that the ingenious mechanics and metalsmiths could not fix. VP-21 needed a real naval air station!

Commandant 16th Naval District had long planned for a naval air station on Sangley Point adjacent to Cavite and, therefore, was able to immediately start work on a seaplane ramp at the site. When Admiral Thomas C. Hart took over as Commander in Chief, Asiatic Fleet in June 1939, he felt the site on Sangley Point was unsuitable, too restrictive, and far too exposed, but he also recognized clearly that time was no longer a plenti-

ful commodity. NAS Sangley Point was established before war began but was never fully operational until the war was over. Even with these pressures, however, it was no small achievement for at least part of the seaplane ramp to be ready in early January 1940. Thereafter, the planes were beached and the heavy black antifouling paint necessary to protect the hulls when anchored was stripped off. During the process, one PBV caught fire and had to be stricken. It was VP-21's only loss of an airplane.

Neutrality Patrol Operations

With the completion of the ramp, basic living quarters, and maintenance facilities at Sangley, the squadron entered a new phase. *Langley* could be released from direct support at the main base and commence exercising at what the Navy then called "advanced base operations." Considering that Cavite was, in a very real manner of speaking, an advanced base, the resolve to push operational readiness yet farther was remarkable. In advanced base operations, planes from the main base flew out to a tender – located at some geographically advantageous point in a sheltered bay or cove which offered the planes a suitable landing site and anchorage – took on fuel, and launched their patrol from this advanced point. The Navy's seaplane tenders were designed, equipped, and outfitted for precisely this type of challenging yet highly effective and tactically flexible operation. Given a nearly ideal collection of islands and bays like the Philippines, advanced base operations allowed VP-21 with a tender or two to extend the already significant range of the PBV.

Actual patrolling of the waters in and around the Philippines, the purpose of the Neutrality Patrol, was started soon after arrival under the direction of the naval district commandant. Movements of merchant shipping was a high priority item, as was a continual watch for submarines.

While there was a remote threat from the Axis powers in Europe (several German raiders did work in Pacific waters in 1940), it was a very

remote threat, indeed. No one was under any illusions. It was the Japanese who we were watching, and a large merchant and fishing fleet under their flag meant that their vessels were constantly popping up everywhere, not always with only commercial interests in mind and often just where we didn't want them at all. With the PBVs flying "neutrality" patrols, few merchantmen moved in and around the Philippines without being rigged at some point by a U.S. Navy flying boat. District Operations was soon awash in contact reports and able to maintain a reasonably good plot of shipping movements in the area.

From February 1940, the movements of *Langley* and *Heron* read like an exotic travelog of minor ports and remote anchorages, at each place perhaps only a few hours to fuel and service a section of flying boats, launch patrols, and then on to the next one: Puerto Princessa, Palawan, from where a division of PBVs refueled before flying their first patrols far out over the South China Sea; San Pablo Bay off Tacloban, Leyte, near where MacArthur would return only a few years later; and more. To get a feel for what his new flying boats could do, Adm. Hart himself signed on for a patrol from the southern islands toward the Japanese base at Truk in the Carolines. It turned out to be a "nothing to report" patrol, but the ad-

miral had a better view of his forces and their capability.

The squadron quickly accumulated the experience not only with the PBV-4 itself but with the weather and geography of the area, and developed the teamwork and sharpness of an organization doing everything they would do in wartime, short of dropping live bombs and torpedoes at real ships and shooting bullets at other airplanes. But this was the limit of the objectives of the Neutrality Patrol in the Pacific, and the spin-off benefit was the increased operational capability and readiness of the Asiatic Fleet.

During this period, the PBVs wore the additional marking unique to the Neutrality Patrol. By March 1940, the star on the bow was in common use. Unlike their Atlantic Fleet counterparts, the Philippine-based boats also wore a large national ensign painted across the upper hull aft of the wing and again on the underside of the wing on each outer panel. The merchant sailors may not have been able to recognize the silhouette of a PBV as American, but they certainly could identify the Stars and Stripes and the white star insignia.

To allow for major overhaul of VP-21's planes, VP-26, another Patrol Wing Two squadron at Pearl and the only other one equipped with PBV-4s, flew out to the Philippines in June 1940 to exchange 14 of its newly over-



NAS Sangley Point, 1939-40. The Neutrality Patrol star on the bow was not yet applied to these planes, although 21-P-12 (BuNo 1214) wears the national ensign across the hull amidships, signifying the Asiatic Fleet. 21-P-12 was destroyed by Japanese fighters at Darwin, Australia, February 19, 1942. 21-P-3 (BuNo 1222) was one of a PBV det on Luzon upon which Adm. Hart was depending for air transport to Java on Christmas Day, 1941. All three were destroyed by enemy fighters and the admiral made the journey by submarine.

hauled "Dash 4s" for VP-21's 13 aircraft. The entire operation went off without a hitch.

Patrol Wing Ten Established

At this point in the story, the swiftly evolving development of patrol aviation and the prewar build-up of the Navy catches up with the often neglected Asiatic Fleet. Not only was the Navy organizing most of its patrol squadrons into wings, but there was serious consideration of major reinforcement of U.S. positions in Asia. At one point, the Commander in Chief, U.S. Pacific Fleet even identified *Yorktown* (CV-5) and the Second Marine Air Wing for assignment to the Asiatic Fleet! But as it worked out, most of the Pacific Fleet's modern submarines, plus two destroyer seaplane tenders, *Childs* (AVD-1) and *William B. Preston* (AVD-7), and the now veteran VP-26 with their overhauled PBY-4s actually made the trip. With their arrival on December 16, 1940, Patrol Wing (PatWing) Ten was established at Cavite, Captain Frank D. Wagner commanding, with two squadrons – VP-101 (ex-VP-21) and VP-102 (ex-VP-26) – Utility Unit Asiatic Fleet, and the four tenders *Langley*, *Childs*, *William B. Preston*, and *Heron*.

Neutrality Patrol activity increased accordingly. Patrols out to all points of the compass – from westward over the South China Sea through the northern vectors toward Japanese occupied Hainan Island, the China coast and Formosa, to the east over the Philippine Sea – filled in the picture of maritime movements throughout the sea approaches to Luzon. Then as now there was heavy traffic through San Bernadino Strait, the main transpacific waterway from eastward through the Philippines between Luzon and Samar, and PBY patrols covered the entire region every few days. Occasionally, some official liaison flights took a PBY to Hong Kong, Borneo, or even Singapore.

Both circumstances and initiative combined to achieve a remarkable result. Within a rather short period, the two squadrons were operating at a

very high level of efficiency and a remarkable degree of integration. Just before the war started, the wing renumbered VP-102's 14 planes from the series 102-P-1 through 14 to 102-P-16 through 29, in order to avoid confusion with VP-101's series 101-P-1 through 14. Seldom were naval aircraft given squadron-assigned numbers in a series so high, but this innovative move reflected the close cooperation between the two squadrons and contributed to the wing's effectiveness by reducing communications confusion.

With all this, however, the operating tempo was not as great as it appeared. Remember, this was pre-WW II and operating budgets were still encumbered by the low allocations of the depression years. Many of the pilots would have flown more often had the schedule allowed, but there had to be the continual weighing of the basic managerial equation: how much of my resources do I expend in what areas to focus on which parts of my job and still retain some flexibility to respond to

the unexpected. It was no simpler then for Capt. Wagner than in 1991 for General Norman Schwarzkopf.

Other measures were taken to improve readiness during these last few weeks of peace. The PBYs were cycled through the shops in pairs for minor maintenance and repair. When possible, engines with high hours were changed to maximize operational flexibility. The fabric on the wing was changed and other details attended to. It is an indication of the prudence of those sailors working under great pressure that when war came, the last pair, 101-P-13 and 101-P-14, were nearly completed.

On Patrol During the Last Days of Peace

On Luzon, with the feelings of being virtually surrounded by the Japanese, the southern route to the Dutch East Indies and Australia seemed very vulnerable to a Japanese thrust into the Celebes Sea from the Mandates. A



PBY-4 21-P-8 (BuNo 1218) anchored off Cavite, September 1939. This aircraft was shot down by enemy fighters during a bombing run on invasion shipping off Kema, Celebes, in January 1942.

PatWing-10 detachment based on first *Langley* then *Preston* at Malalag Bay on Davao Gulf sent daily PBY patrols eastward over the Philippine Sea and informally but effectively linked up with similar Dutch navy patrols farther south.

There was great jubilation at the arrival of the first of the Army Air Corps' impressive B-17 *Flying Fortresses* in October 1941. There was also great concern and question as to how the big bombers should be used in wartime. Short of that, they clearly added to the reconnaissance resources, and their greater speed and higher altitude performance made them most suitable for the northern sectors flying up to the Formosan coast and beyond. The Army was promptly assigned these sectors and used their bombers to good effect, but the Army came without any pretext of "neutrality patrol" – their job was reconnaissance in advance preparation for strategic bombing, and they were very serious about it.

One interesting special mission directed by Washington was a photo recon flight to the Spratley Islands located in the South China Sea. The Spratleys didn't really amount to any more than now, but there was perceived potential for surreptitious use by an enemy. And so the order came for the wing to scout the islands and report. The pilots were briefed for the worst and would not have been surprised to find Japanese fighters over the islands upon their arrival. In this event, a lone PBY flew over and took a batch of photos that revealed no activity at all. The photos were sent by an Army bomber onward to Washington and the matter was closed.

With the Japanese occupation of French Indochina in July, the western sectors became very sensitive, but only from about mid-November were they extended to actually come in sight of the Indochina coast. The PBYs, of course, were watching for Japanese shipping movements along the coast. This was not difficult in itself, but the question on everyone's mind was how long the Japanese fighter planes would allow the PBYs to continue. Many patrols during this

period encountered fighter planes, and some even made passes on the flying boats that were much like attack runs. Capt. Wagner's metaphor was one of "two stiff-legged dogs" meeting each other in the alley. The fight had not started, but the lines were being drawn ever more sharply. A PBY sighted 20 transports in Camranh Bay on December 2. The next day's patrol counted more than 50, with cruisers and destroyers in support. On the third day, the patrol reported the harbor empty! Within 48 hours, British and Australian planes from Malaya had sighted the invasion convoys steering across the Gulf of Siam.

On Sunday evening, December 7, 1941, the same day that would in a few hours dawn so abruptly in the mid-Pacific, the last PBYs returned from their patrols after dark. By the time the men had hosed the planes down with fresh water to get the corrosive salt water off, serviced, and gassed them to be ready for immediate takeoff the following morning, it was well past midnight. Only two hours later the staff duty officer in the Asiatic Fleet headquarters on the Manila waterfront was handed a flash message originated by Patrol Wing Two headquarters at Ford Island: "AIR RAID ON PEARL HARBOR. THIS IS NO DRILL!"

The Neutrality Patrol's work was finished.

War Comes to Asia

War brought disaster for Patrol Wing Ten, the Asiatic Fleet, and all the Allied forces in Asia; events would show the measures to reinforce the United States' position in the Philippines were too late and, in any case, too little. The most serious deficiency was the marginal ability of the Allied forces to field really proficient fighter aircraft to control the skies. Patrol Wing Ten was among the many Allied units to suffer at the hands of the Japanese Mitsubishi A6M *Zero-Sen* fighter planes. On the very first morning of the war, six *Zeros* from the carrier *Ryuyo* scoured Davao Gulf. *Preston's* patrols missed the carrier, but the *Zeros* found *Preston*, worked her over, and sank two PBYs on the water. Altogether, in the 80-plus-day campaign that followed, Patrol Wing Ten – including VP-22, which flew out to reinforce the wing in January – lost a good many excellent people, 42 of 45 PBYs, and the tender *Langley*. By March, the remaining PBYs were in Australia, with the Philippines and the East Indies under the Rising Sun. ■

Cdr. Dorny is a naval reserve intelligence officer and a German/Russian/Dutch linguist who works for the U.S. State Department in Germany, as the deputy director, Berlin Document Center.

50 Years Ago — WW II

October 1: The Aviation Supply Office was established at Philadelphia to provide centralized control over the procurement and distribution of all aeronautical materials regularly maintained in the general stock.

October 8: Organizational provision of guided missiles was made in the fleet by the establishment of "Special Project Dog" in Utility Squadron 5, to test and operate radio-controlled offensive weapons and to train personnel in their use.

October 13: The Bureau of Aeronautics directed that all fleet aircraft be painted nonspecular light gray except for surfaces seen from above the aircraft, which were to be blue-gray. In late December, this color scheme was extended to shore-based airplanes except trainers.

October 20: USS *Hornet* was commissioned at Norfolk, Va., Capt. Marc A. Mitscher commanding.

October 21: In tests with MAD (magnetic airborne detector) gear, a PBY from NAS Quonset Point, R.I., located the submarine S-48.

October 29: Patrol Squadron 82 received the first of a planned full complement of PBO-1s at NAS Norfolk. Assignment of these aircraft, originally destined for the British and painted with British markings, was the beginning of what became an extensive use of landplanes by patrol squadrons during the war and, although it was not yet apparent, was the first move toward the eventual elimination of the flying boat from patrol aviation.

ANA Bimonthly Photo Competition



PH2 Joseph Horner won the fourth bimonthly ANA Photo Contest with his photo (left) of a sailor aboard Abraham Lincoln (CVN-72) enjoying a sunset after completing maintenance on an FA-18. Top, a night catapult shot on Dwight D. Eisenhower (CVN-69) was captured by PH2 Tracy Lee Didas. Above, Richard Mullen photographed CH-53Es at landing zone "Lonesome Dove" in the ground war during Operation Desert Storm.

The Association of Naval Aviation Photo Contest

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

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

For deadline and submission details, call (703) 998-7733.

Mail photographs to: Association of Naval Aviation Photo Contest, 5205 Leesburg Pike, Suite 200, Falls Church, VA 22041.

Awards

The 1990 **CNATra individual training achievement award** winners are:

David S. Ingalls top flight instructor; Capt. Robert E. Clay, HT-8, NAS Whiting, Fla.

George M. Skurla top NFO instructor; Lt. Raymond T. Fuller, VT-10, NAS Pensacola, Fla.

Orville Wright Achievement, highest overall grades: Ens. Adam M. Taff.

Texas Society, Daughters of the American Revolution award for the Navy, Marine Corps, and Coast Guard student pilots with the best performance in overall flight grades: Lt. Beth Crawley, USNR; 1st Lt. Sean P. McBride, USMCR; and Ens. Todd Tschannen, USCG.

National Society, Daughters of the American Colonists award for the highest overall academic and flight grade performance for the year: Lt. Thomas P. Lalor.

RAdm. Thurston H. James Memorial Award, outstanding NFO graduate of the year: Capt. William L. Bartels II.

Britannia Award, established by the Lord Commissioners of the Admiralty of the United Kingdom in appreciation of the assistance by the U.S. Navy in training British naval pilots: Ltjg. John D. Tougas.

American Fighter Aces Association Award in honor of Capt. David McCampbell for Navy students and Maj. Joseph Foss for Marine students, for outstanding performance in air combat maneuvering: McCampbell Award – Ltjg. Scott K. Kelly; Foss Award – 1st Lt. Robert A. Bishop.

HSL-34 won the 1990 **Commander in Chief, U.S. Atlantic Fleet Golden Anchor**. This award is presented to commands which excel in all areas of retention, career development, and career management training.

VFA-305 received the 1990 **John P. McLaran Award** for achieving the highest individual score during the ComLAtWingPac bombing derby.

A crew from HS-11 – LCdr. Frank Pierce, Lt. Dan Kletter, AW1 Andrew Jones, and AWAN Ronald Pochman –

was recognized as the **Naval Helicopter Association Aircrew of the Year**.

The 1990 **Battle Es**, awarded for combat readiness, efficiency, and excellence were presented:

ComNavAirLant: HC-4, HS-15, HSLs 34 and 46, VAs 46 and 176, VAQ-130, VAW-121, VC-6, VF-143, VFA-83, VP-49, VQ-2, and VS-31.

ComNavAirPac: HC-5, HS-12, HSLs 33 and 45, VAs 95 and 97, VAQ-131, VAW-114, VF-51, VFA-25, VP-9, VQ-3, VS-38, and VXE-6.

Records

LCdr. Wayne Lachowicz of HSL-36 recently exceeded 3,000 flight hours in the SH-2F *Seasprite*.

The **Black Panthers** of VA-35 recently returned from an extended combat cruise in the Red Sea onboard *Saratoga* (CV-60) where night vision goggles (NVG) were used extensively during Operation *Desert Storm*. The squadron has accumulated over 1,000 NVG hours since acquiring them in May 1988; 300 hours were accumulated during actual combat missions in the Republic of Iraq and Kuwait theater of operations.

Three pilots in three separate aircrafts reached their **1,000th career arrested landings** within minutes of each other onboard *Ranger* (CV-61). The *Desert Storm* veterans are all attached to the carrier's embarked CVW-2. They are: LCdr. "Tugg" Thomson; Cdr. Denby Starling, C.O., VA-145; and CVW-2 senior LSO Cdr. "Bug" Roach. The pilots all caught the number three wire.

Rescues

An LC-130 *Hercules* based at NAS Point Mugu, Calif., landed at McMurdo Station, Antarctica, to complete the first midwinter medical evacuation of critically ill personnel since 1966. Navy pilots and crew from **VXE-6** evacuated a member of New Zealand's Division of Science and Industrial Research – the New Zealand counterpart to the U.S. Antarctic Program that is managed and funded by the National Science Foundation.

Peter Harding, stationed at Scott Base, traveled by ambulance to the Williams Field skiway, the only suitable airstrip for a ski-assisted landing in the area. Harding was flown 2,400 miles to a medical facility in Christchurch, NZ, for further care.



Five "Gunbearers" of HC-11, Det. 4, from NAS North Island, Calif., were involved in a search and rescue operation with an Omani freighter during Operation *Desert Storm*. Upon receiving the distress call, the helo searched for and located the vessel. After hovering above the stricken ship to serve as a locator for ships heading to the area, the helo was forced to return for fuel. The CH-46 then turned

the vigil over to other helos until the 19 stranded people were rescued by another Omani ship. HC-11, embarked aboard *Kiska* (AE-35), flew logistics missions to provide ships in the gulf with men and equipment. Left: Lt. Ann Jackson, PR1 Tom Denham, Lt. Clifton W. Curtis, Jr., AD2 Keith Johnson, and Lt. Bernie Sise.

The evacuation marked only the fifth time in 30 years that such a mission was conducted during the austral winter season. Complete darkness, subzero temperatures, and fierce winds dominate this time of year, making flight operations perilous. With the exception of a midwinter airdrop over McMurdo Station and Amundsen-Scott Station at the geographic South Pole each June, no flights go in or out of Antarctica during the austral winter.

A ski-equipped LC-130 Hercules which is similar to the aircraft that performed the medevac.



PH3 Craig Peterson

The **MCAS Iwakuni, Japan, search and rescue team** received a call from the Rescue Coordination Center (RCC) in Kadena for assistance. RCC Kadena is in charge of Far East rescue assets. A civilian on the liquid nitrogen gas ship *Virgo* had suffered a tonsillar abscess, causing his throat to swell and air to be cut off to his windpipe. Due to severe weather, it took the crew of the CH-46 90 minutes to locate *Virgo*. Because of the victim's location, the helo had to hover above the water instead of the ship, making the rescue awkward for the rescue swimmer and medical technician. Eventually, the patient was hoisted onboard the helo and transported to Sasebo Naval Base for further transport.

Three Italian rock climbers, attempting to scale Yosemite's 7,570-foot El Capitan peak last May, ran into a late-season rainstorm that threatened to cut short their climb and their lives. The climbers had a lot of experience in snow-covered mountains, but rain and near-freezing temperatures caused the climbers' ropes to freeze. The rain pouring off the slick rock funneled down sleeves and into the climbers' clothing and gear.

The Park Service summoned **NAS Lemoore's search and rescue (SAR) crew**. They followed the Merced River up into the Yosemite Valley and remained there until the weather cleared enough to attempt a rescue. The SAR crew flew seven rangers to

the top of El Capitan. From there, the rangers were able to rappel down 900 feet to the climbers who were three-fourths of the way up the side of the sheer-walled peak.

The crew then left for the valley to wait out the bad weather. Later that day, the weather cleared and the helo was able to make two trips, evacuating the climbers and the rangers to safety.

Scan Pattern

At 58 years of age, **Airman Ernest R. Fields** is probably the oldest airman on active duty in the Navy. Fields left his reserve unit at NAS Whidbey Island, Wash., on January 25, 1991, and reported to active duty with VAW-136, flying the EA-6B *Prowler* aboard *Mid-*

NANews and Aviation History Director Retires

Captain Steven U. Ramsdell retired on July 31, bringing to a close his 26-year naval career. He had been Director, Naval Aviation History and Publication Branch in the Naval Historical Center since September 1988, as well as Special Assistant for Publications and Operational Records to the Assistant Chief of Naval Operations (ACNO) (Air Warfare).

After designation as a Naval Aviator in 1966 and training in the F-8 *Crusader*, Capt. Ramsdell completed two Mediterranean cruises with VF-13 aboard *Shangri-La* (CVA-38). He then taught military history and national security policy at Stanford University's NROTC unit, followed by instructor duty in VT-25. After training in the F-14 *Tomcat*, he made one Med and one North Atlantic cruise aboard *John F. Kennedy* (CV-67) as maintenance officer. After attending the Armed Forces Staff College, he became maintenance officer and then executive officer of VF-101. In his

next tour, he served as executive officer and later skipper of VF-143. After command, he was assigned to *Dwight D. Eisenhower* (CVN-69) as the air operations officer. Two more tours of instructor duty, at the Naval Amphibious School and the National War College, preceded his assignment to the Naval Historical Center.

NANews Editor Lieutenant Commander Rick Burgess said, "Capt. Ramsdell's broad understanding of Naval Aviation and its history was a superb resource. He was a fine gentleman to work for and his leadership made this a great place to work."

Capt. Ramsdell plans to retire in the Bremerton, Wash., area with his wife of 26 years, Gretchen.

The *Naval Aviation News* and Aviation History staffs enjoyed working with Capt. Ramsdell, and we wish him the very best in the future. Happy landings!

way (CV-41), then on station in the Persian Gulf.

His Persian Gulf duty is his second combat tour. At the age of 18, he joined the Air Force and served throughout the Korean conflict as a military policeman. He left the Air Force in 1962. Five years ago, he joined the Naval Reserve. Fields now serves in VAW-136's maintenance department.

Anniversary

Naval Air Reserve...75 Years Old

The poster by Capt. Tony Turpin depicts some of the aircraft flown by the Naval Air Reserve over the past 75 years. During the 75th anniversary kickoff ceremony at NAF Washington, D.C., in April, RAdm. Richard K. Chambers, ComNavAiResFor, noted that the Naval Air Reserve has come a long way since its beginning as a naval militia whose personnel were drawn from college flying clubs. Earning its wings in WW I and II, Korea, Vietnam, and recently the Middle East, the Naval Air Reserve has a proven record of outstanding service. Today, flying state-of-the-art aircraft, RAdm. Chambers said it is the tenth largest air force in the world.



Doris I. Alston

Former Secretary of the Navy John Lehman, a reservist himself, applauded the Naval Air Reservists for their contributions to the military strength of this country, especially their performance in the Desert Shield/Storm operations.

Change of Command

ComThirdFlt: VAdm. Jerry L. Unruh relieved VAdm. James F. Dorsey, Jr.
CVW-3: Capt. H. D. Connell II relieved Capt. A. H. White, Jr.

FitWing-1: Capt. James Flaherty, Jr., relieved Capt. Richard W. Potter.
HC-2: Cdr. John L. Dailey relieved Cdr. Joe A. Baker.

HC-5: Cdr. Joachim T. Mihalick relieved Cdr. Thomas R. Ford.

H&HS-27: Maj. Jeffrey L. Brown relieved Maj. Gary A. Eisenmann.

HMH-465: Lt. Col. Russel L. Llewellyn III relieved Lt. Col. Ron S. Johnston.

HS-1: Cdr. Christopher W. Cole relieved Cdr. Steven J. Tomaszewski.

HS-11: Cdr. William D. Molloy, Jr., relieved Cdr. James A. Bowlin.

HSL-74: Cdr. Peter J. Murphy relieved Cdr. Robert M. Baxter.

Lincoln: Capt. James D. Ellis, Jr., relieved Capt. William B. Hayden.

MATWing-1: Capt. Louis P. Lalli relieved Capt. W. Craig Chewing.

MAWSPac: Cdr. James A. Symonds relieved Cdr. Douglas A. Undesser.

NAS Kingsville, Texas: Capt. James R. O'Hara relieved Capt. John Heilig.

NASL-3490: Cdr. Larry A. King relieved Cdr. Paul Vander Schuur.

NavSuppForAntarctica: Capt. William M. Ferrell relieved Capt. Joseph D. Mazza.

VA-196: Cdr. Harvey McDonald relieved Cdr. Dave Nichols.

VC-6: Cdr. Edward C. Ferriter relieved Cdr. Donald C. Fox.

VF-31: Cdr. J. Michael Denkler relieved Cdr. Royal P. Gordon III.

VF-103: Cdr. Brian D. Fitzpatrick relieved Cdr. Donald J. SantaPaola.

VF-124: Capt. George Moe relieved Capt. Mike McCabe.

VF-126: Cdr. P. C. Chisholm

relieved Cdr. M. A. Szoka.

VFA-27: Cdr. Donald Davis relieved Cdr. Stanford Hlavka.

VFA-82: Cdr. Elmer L. Standridge relieved Cdr. Jim Ross.

VFA-83: Cdr. Robert Stumpf relieved Cdr. Dennis Gillespie.

VFA-97: Cdr. Donald Bullard relieved Cdr. James Noland.

VFA-303: Cdr. Barry C. Douglas relieved Cdr. Charles B. Askey.

VMFA-251: Lt. Col. Norman G. Schlaich relieved Lt. Col. Richard W. Walker.

VMFA-314: Lt. Col. John P. Cushing relieved Lt. Col. George G. Stuart.

VMFA-323: Lt. Col. Steven J. King relieved Lt. Col. Robert E. Houser.

VP-4: Cdr. Carlos S. Badger relieved Cdr. Robert L. Cunningham, Jr.

VP-9: Cdr. Anthony J. Ruoti, Jr., relieved Cdr. Paul E. Hallowell, Jr.

VP-24: Cdr. Stephen J. Burich relieved Cdr. Michael L. Holmes.

VP-40: Cdr. Steven K. Shegrud relieved Cdr. George C. Hill.

VP-45: Cdr. Allen S. Eframson relieved Cdr. James R. Cannon.

VP-49: Cdr. Ed Waller relieved Cdr. Bob Coonan.

VQ-1: Cdr. George F. McKnight relieved Cdr. Bruce N. Coburn.

VR-55: Cdr. William Lee relieved Cdr. Steve Zandstra.

VRC-40: Cdr. Robert D. Littlefield relieved Cdr. Stephen R. Silverio.

VT-3: Cdr. Wayne E. Smith relieved Lt. Col. Michael F. Monigan.

VT-4: Cdr. Patrick T. Tilley relieved Cdr. Daniel J. Rowe.

VT-22: Cdr. Paul E. O'Brien, Jr., relieved Cdr. Jon F. Ault.

VX-4: Capt. Thomas A. Perkins relieved Capt. Philip G. Howard.

VXE-6: Cdr. Wayne R. Reeves relieved Cdr. Stacy E. Sebastian.



By Cdr. Peter Mersky, USNR-R

Ginter, Steve. *Vought's F-8 Crusader, Part Four: Navy Fighter Squadrons*. 1754 Warfield Cir., Simi Valley, CA 93063. 1990. 217 pp. Ill. \$25.95.

Part of the continuing "Naval Fighters" series, this paperbound book is the last of a four-volume set on the legendary *Crusader*. Part Four focuses on F-8 fighter variants in Navy squadrons and provides a numerical listing of the squadrons, which includes a history, insignia, and photos of the unit's aircraft.

Southeast Asia service is, naturally, a part of the histories of those squadrons that deployed during the war. The Naval Air Reserve used the F-8 for over 20 years and those reserve units' stories also appear, along with some unusual photos.

There are a number of typos and two of the photos are reversed, but this is a worthwhile, quick reference for a researcher's library and for any F-8 buff.

Francillon, Rene J., and Peter B. Lewis. *Navy Attack: Spads, Scooters and Whales*. Motorbooks, Box 2, Osceola, WI 54020. 1990. 128 pp. Ill. \$14.95.

Another volume in the prodigious Osprey color series by two well-known authorities, this book is an entertaining, sometimes nostalgic look at the light and heavy attack communities. Perhaps the section with the best shots is the first, on the Douglas A-1 *Skyraider*. Color photos of the "Spad" are somewhat rare, but the authors have filled over 30 pages with

such photography. The A-4 *Skyhawk* and A-3 *Skywarrior* are also well served. There is a unique shot of a VMA-121 combat-weary A-4E which is obviously on a ferry mission and has stopped at a USAF base in the late sixties. There are many photos of adversary A-4s, as well as "Scooters" from other communities.

The Douglas A-3 was one of the most important jet aircraft in the Navy and serves even today in limited numbers. There are many variants of the ubiquitous "Whale," and most of them are shown in the final section.

Grove, Michael and Jay Miller. *North American Rockwell A3J/A-5 Vigilante*. Aerofax, Box 200006, Arlington, TX 76006. 1989. 56pp. Ill. \$10.95.

Like its reconnaissance stablemate, the Vought RF-8A/G *Crusader*, the North American RA-5C was developed from an operational tactical aircraft. While the A-5 carrier-based nuclear bomber enjoyed only moderate success and a brief career, the RA-5C served long and hard in Southeast Asia.

This book, Aerofax Minigraph 9, details both the bomber and recon versions of the *Vigilante*, certainly one of the most attractive carrier aircraft. There are squadron synopses, deployment dates, color and black-and-white photos, and a four-page gatefold featuring scale drawings of the A-5A and RA-5C.

WEATHER FRONT

By Capt. Neil F. O'Connor, USN(Ret.)

The Ozone Threat

In case you haven't given much thought to the ozone layer, now might be a good time to make an effort to understand it. It could have an effect on aviation in general and your lifestyle in particular.

Ozone, a corrosive, toxic gas, is one of the elements that makes up smog. It can damage plants, animals, and structural materials and is an air pollutant. It exists in minute quantities at all levels in our atmosphere. With all of its faults, it is one of the most important components of the upper atmosphere. The ozone layer is the atmospheric filter that minimizes the sun's biologically damaging ultraviolet rays!



A Massachusetts Institute of Technology study released in 1970 calculated

that the Concorde, Tupolev 144, and the (canceled) Boeing 2207 would cause grievous damage to the environment. The result of the supersonic transport fleet flying at an altitude of 65,000 feet in the mid-latitudes could possibly destroy 16 percent of the ozone.



The atmosphere is made up of several layers. The troposphere is the layer nearest to the earth where the majority of flying occurs. Average depth over the mid-latitudes is about 35,000 feet, and it is characterized by decreasing temperatures with altitude. The layer above is the stratosphere, which virtually extends to outer space. Temperature in the stratosphere increases from the

top of the troposphere to about 150,000 feet, then cools again. It is estimated that 90 percent of atmospheric ozone is concentrated in the inversion layer, which is also defined as the ozone layer. Incidentally, those higher temperatures are created by ozone, absorbing solar energy which it releases as heat.

What does all this mean in the hangar bay? Many of the chemical tools used in aircraft maintenance today will soon be replaced by benign substitutes. Industrial nations of the world agreed in 1987 to halve the use of complex fluorocarbons by the year 2000, and a complete phaseout by 2005. In the interim, however, if you are on the line or flight deck, using a strong sun block might not be a bad idea.



Desert Storm

Capt. Ramsdell's article, "Impressions of the Desert Storm Carriers," is an excellent summary of a critical aspect of the *Desert Storm* air campaign and accurately highlights the many examples of joint and combined cooperation exhibited during the war. However, it referred to the Joint Force Air Component Commander (JFACC) as a "coordinator." Joint Publication 3-0, "Doctrine for Unified and Joint Operations," states that the JFACC's responsibilities will normally include "planning, coordination, allocation and tasking." Reference to the Air Tasking Order was omitted.

The article does mention that the integration of U.S. and coalition air forces "put the best combination of weapons on the right target," but does not connect the two concepts. Air power is most effective when it is centrally controlled, so that it can be used to meet the Joint Force Commander's (JFC) objectives and priorities. The JFACC provides that central planning and control. He integrates the expertise of his joint staff and the capabilities of his various forces to plan an air campaign, then conducts aerial operations to meet the JFC's overall campaign objectives. You cannot have full integration of combat capabilities without centralized control and unity of command; it's a principle of war that goes back millennia. The JFACC is much more than a "coordinator."

Lt. Col. Daniel T. Kuehl, USAF
HQ USAF/XOXWD
Doctrine Development Division
Pentagon, Washington, DC 20330

The Shape of Wings to Come

VAdm. Dunleavy's article, "The Shape of Wings to Come," (*NA News*, Jul-Aug 91) was an excellent update on the status of **fixed wing** aircraft in today's carrier air wings. However, it failed to include one of the "power projection" support squadrons which is

Attention: Correspondents

Due to a new Navy mailing requirement, all outgoing mail from our office must use nine-digit zip codes. When corresponding with *Naval Aviation News*, please provide your complete zip code in order to receive a timely response.

an integral part of every carrier air wing (CVW), namely, the helicopter antisubmarine (HS) squadron. Today's HS squadrons are flying the newest CVW aircraft, the SH-60F and HH-60H. While the HS community's roots are in antisubmarine warfare (ASW), the carrier-based HS squadrons have expanded their multimission role in the coordinated CVW power projection mission by not only performing all-weather ASW for the carrier battle group, but also life-saving search and rescue, priority logistics support and strike rescue, plus special operations support. The Navy's first H-60 HS squadron, HS-2, is currently deployed aboard *Nimitz* (CVN-68) with six SH-60Fs and two HH-60Hs. They are as much an organic part of the CVW as any of the fixed wing airplanes.

As VAdm. Dunleavy says, "Keep strokin'." You and your staff are doing a great job, and we in the Naval Aviation profession need to keep the interest level high in the CVW ready rooms, hangars ashore, and here in D.C.

Capt. Stephen R. Arends
OUSD(A)/TWP/NWM,
3D1048 Pentagon
Washington, DC 20301-3100

Naval Air Reserve History

Wings At The Ready, written by naval air reservists, traces the history of the Naval Air Reserve from its beginnings as a college flying unit to the present. The book retails for \$32.95 from the U.S. Naval Institute, Annapolis, MD 21402, 301-261-2700 or 800-233-USNI. Special discounts are available to members of the Naval Air Reserve.

Reunions, Conferences, etc.

A-3 Skywarrior ("Whale") retirement, SEP 26-27, VAQ-33, NAS Key West, FL. POC: SDO 305-292-2838.

Anzio (CVE-57) reunion, OCT 2-6, Charleston, SC. POC: Paul Swander, 1741 N. 10th St., Terre Haute, IN 47804, 812-234-3654.

VP-74 reunion, OCT 9-12, Las Vegas, NV. POC: John McGann, 2008 Stockton Ave., Las Vegas, NV 89104-3838, 702-457-8235.

Bismarck Sea (CVE-95) reunion, OCT 14-19, San Antonio, TX. POC: James Taylor, HC 2, Box 298W, Canyon Lake, TX 78133-3005, 512-935-3547.

VP/VPB-122 reunion, OCT 17-20, Chattanooga, TN. POC: John Chayka, P.O. Box 207, Bridgeport, CT 06601, 203-366-0500.

P-40 Warhawk Pilots Assn. reunion, OCT 30-NOV 2, El Paso, TX. POC: John Roth, 1017 Adams SE, Albuquerque, NM 87108, 505-268-2903.

VPB-208 reunion, OCT 2-5, Nashville, TN. POC: Edward Burns, 143 Jacksonian Dr., Hermitage, TN 37076-1818, 615-889-2050.

National Chief Petty Officers Assn. reunion, OCT 9-12, Biloxi, MS. POC: Chief W. A. Williams, Rt. 7, Box 2408, Boerne, TX 78006-9513.

Kadashan Bay (CVE-76) reunion, OCT 17-19, Reno, NV. POC: Zack Zink, 602 Sunset Dr., Clarkston, WA 99403, 509-758-6253.

MCAA Convention, OCT 17-20, San Francisco. POC: Col. Donald R. Treichler, 345 Camino Sobrante, Orinda, CA 94563.

VR-24 reunion, OCT 17-20, Hilton Head, SC. POC: Pete Owen, 24633 Mulholland Hwy., Calabasas, CA 91302, 818-348-4056.

VC-9 reunion, OCT 24-26, Pensacola, FL. POC: James Perkins, 10250 Valle Dr., Tampa, FL 33612, 813-932-5172.

Fanshaw Bay (CVE-70) reunion, OCT 24-27, Pensacola, FL. POC: Duane Iossi, 310 Edwards St., Ft. Collins, CO 80524, 303-482-6237.

VS-721/VA-722 reunion, OCT 3, Seattle, WA. POC: George Krosse, 2208 Alta Vista Dr., Newport Beach, CA 92660-4127, 714-644-7099.

Saratoga (CV-3/CVA-60) reunion, OCT 3-6, Valley Forge, PA. POC: P. R. Tonelli, Box 9540, Las Vegas, NV 89191-0540.

VPB-74 50th Anniversary reunion, OCT 9-12, Las Vegas, NV. POC: John McGann, 2008 Stockton Ave., Las Vegas, NV 89104-3838, 702-457-8235.

Leyte (CV-32) reunion, OCT 10-12, Newport RI. POC: Edward Prunier, Rt. 1 Bay Path Rd., Box 457-A, Charlton, MA 01507, 508-248-7265.

Aviation Repair & Overhaul Units 1 and 2 reunion, OCT 10-13, Valley Forge, PA. POC: Rhessa Shaw, 101 Grove St. Ext., Sewickley, PA 15143, 412-741-6228.

Carrier Air Group 3 reunion, OCT 10-13, Newport, RI. POC: Dick Harris, 4 Burrows Dr., Rochester, NY 14625, 716-586-5871.

Carrier Air Group 14 reunion, OCT 10-13, South Padre Island, TX. POC: J. L. Oswald, Box 2799, Harlingen, TX 78551, 512-423-3411/0576.

VP-24/VA(HM)-13/VPHL-4/VPB-104 reunion, OCT 10-13, Corpus Christi, TX. POC: F. C. Kolda, 6938 Aswan Dr., Corpus Christi, TX 78412, 512-991-5703.

Saipan (CVL-48) reunion, OCT 21-24, Myrtle Beach, SC. POC: Carl Boutilier, 27920 Birmingham Rd., Freeport, OH 43873, 614-658-3739.

Suwannee (CVE-27) reunion, OCT 25, Bremerton, WA. POC: Edward Reichenbach, 15022 47th Ave. E., Tacoma, WA 98446, 206-537-3603.

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