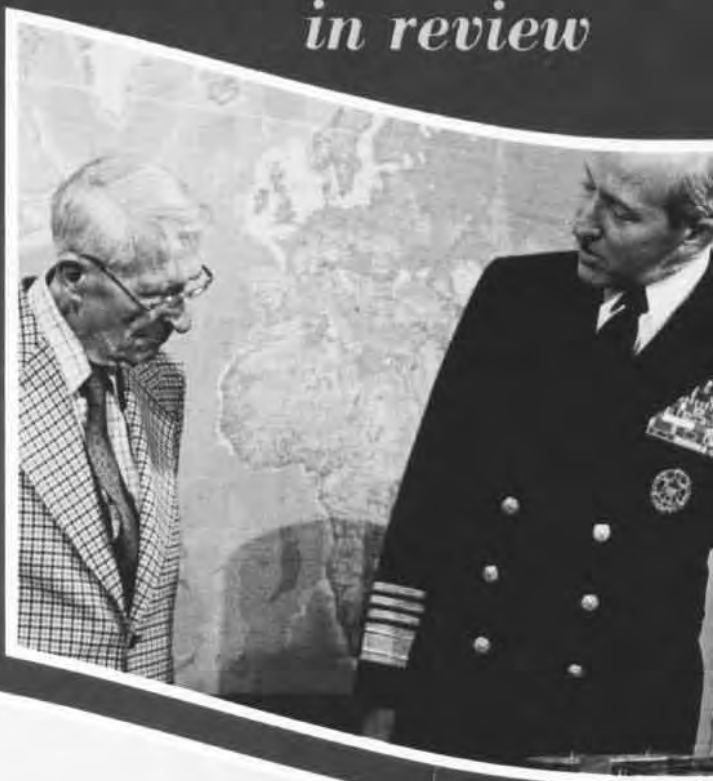
naval aviation news

1979 the year in review



FEBRUARY 1980

naval aviation news

SIXTY-SECOND YEAR OF PUBLICATION

Vice Admiral W. L. McDonald
Deputy Chief of Naval Operations (Air Warfare)
Vice Admiral F. S. Petersen
Commander, Naval Air Systems Command

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COVERS — Front, NANews' Charles Cooney arranged 1979 milestone scenes (see Year in Review feature beginning page 8). Clockwise from top left, F/A-18 Hornet lands during carrier trials aboard USS America last fall; Walter Hinton, pilot and last surviving member of famed NC-4 crew which made the first Atlantic crossing by air, visits CNO Thomas B. Hayward during 60th anniversary of the flight; Sikorsky's LAMPS MK III helo, the Seahawk, made an appearance; and Vietnamese boat people clamber aboard a Navy ship in South China Sea. Back, Marine Corps SSgt. G.L. Hamilton poses with a model he made using an NANews cover as a paint scheme guide (see story page 2). Here, the masterful Harry Gann captured VT-10 T-2C Buckeyes with wheels and hooks down.

EDITOR'S CORNER

U.S. Marine Corps Staff Sergeant Garland L. Hamilton built the back cover A-4 from a "Bob Violett Models" *Skyhawk II* semi-kit. As indicated by the inset photograph, he used a *Naval Aviation News* cover of the last McDonnell Douglas A-4 to come off the assembly line, as a detailed guide for the paint scheme. Hamilton's jet has a 47-inch span, is 57 inches long and weighs eight and three-quarter pounds. It is powered by a K&B 7.5 cc ducted fan with tuned exhaust pipe. The kit has been modified to an A-4M to represent the final A-4.

"The stars and bars and *Blue Angel* shield are the only decals used," explained Hamilton, who was assigned to the Marine Corps Museum at the Navy Yard in Washington, D.C., when he built the model. "Everything else was painted or handmade by me."

The handsome flying machine is radio-controlled through a Kraft seven-channel "signature" using all channels. The throttle, rudder, elevator, ailerons, brake and drop tanks are functional. The landing gear also retracts and extends.

"The plane has a flight speed of more than 120 mph," said Hamilton. The engine turns at about 21,000 to 24,000 rpms and produces two and one-half horsepower."

The talented Marine also "scratch-built" the radio-controlled F4U *Corsair* on this page using Bob Holman plans. It clearly has the same superb quality of realism of the *Skyhawk*. It wears Pappy Boyington's World War II paint scheme which was used for public relations purposes. The *Corsair* won first place honors in all four contests it entered in the Washington area from May to July 1979. It won the second best Marine scale award at the Quantico (Virginia) Museum contest, capturing second place to a precision scale entry. Hamilton's F4U, however, was the only model flown.

Hats off to an extraordinarily skilled model builder!

DID YOU KNOW?

Vietnam Veterans Memorial

The Vietnam Veterans Memorial Fund was incorporated as a nonprofit organization in April 1979 to erect a national monument to those Americans who served in Vietnam, particularly to those who gave their lives. Jan C. Scruggs, president of the fund, is a Vietnam veteran who served with an Army infantry company in which half the men were killed or wounded while he was there. He was one of those wounded, and has testified before the Senate on the problems of Vietnam veterans. Scruggs conceived the idea for a memorial after seeing the movie, *The Deerhunter,* which he said "was very upsetting – like a flashback for me."

Senator Charles Mathias, Jr., has introduced a joint resolution authorizing the use of two acres on the Mall in Washington, D.C., for the memorial. The bill is sponsored by 25 U.S. Senators, including Barry Goldwater and George McGovern. Mathias feels that the memorial "will contribute greatly toward resolving the real and continuing divisions in our society as a result of that war. Its proximity to the Lincoln Memorial is also fitting, for not since the Civil War has this nation suffered wounds and divisions as grievous as those endured over Vietnam."

Tax-free contributions or requests for information should be directed to the Vietnam Veterans Memorial Fund, Inc., P.O. Box 37240, Washington, D.C. 20013.

Pirie Award

The 1979 Vice Admiral Robert B. Pirie Air Traffic Controller of the Year Award has been given to AC1 Kurt C. Benson, stationed at NavSuppFor-Antarctica. The award recognizes his performance while assigned to NAS Brunswick, Maine.

PO Benson maintains a full facility watch supervisor rating which involves some of the most demanding duties in air traffic control, that of a radar approach controller and watch section leader. He has been credited by FAA with two separate acts of life saving.

The first occurred July 19, 1978. The pilot of a small civilian plane with four people aboard became disoriented and inadvertently altered course to a heading which placed the aircraft over the ocean off the coast of Maine. PO Benson observed on radar that the plane had deviated from the assigned flight path. Unable to establish radio contact, he requested assistance from a British *Nimrod,* which he was also controlling, and vectored the *Nimrod* to the lost civilian plane. At the time of interception, the lost aircraft was about 55 miles from shore and heading further out to sea. PO Benson's initiative averted a serious problem.

The second incident involved the worst air disaster in the history of Maine. On May 30, 1979, a Downeast Airline commuter crashed during an instrument approach to Knox County Airport in Rockland, Maine. NAS Brunswick controls all approaches to the airport. When Benson observed the aircraft disappear from the radarscope, he tried in vain to establish radio contact. He asked for SAR assistance from a Navy P-3, and then established and coordinated a search pattern. The lone survivor of the crash was located and evacuated to a nearby hospital in time for life-saving treatment. The National Transportation Safety Board cited PO Benson for his action.

Fiberglass Mesh Stress Tested

Fiberglass mesh impregnated with polyester resin, which starts out soft and sticky but becomes tough and rigid from the sun's radiation, may find many applications in the U.S. space program, such as construction of space platforms.

DID YOU KNOW

The photo shows Hughes Aircraft chemist Pat Salisbury performing a stress test on a tubular specimen of the high-strength material which is only half the weight of aluminum. Hughes is building a prototype beam, made of the fishnet-like material, for NASA's Marshall Space Flight Center, Huntsville, Ala. If the concept proves to be practical, a series of beams could be joined to form a large platform in space where the sun's ultraviolet rays would begin to harden the material in one-half hour and make it completely rigid within six hours.

Maintenance Note

Four years ago a new concept in gyro packaging was developed at the Aviation Supply Office (ASO). Engineered as multi-application containers, these assemblies are designed for packaging all gyros and gyro-type instruments in the ASO system.

There are five different inner handling cases and two different reusable exterior shippers. Each has a different Navy stock number (NSN), so matched sets can be ordered.

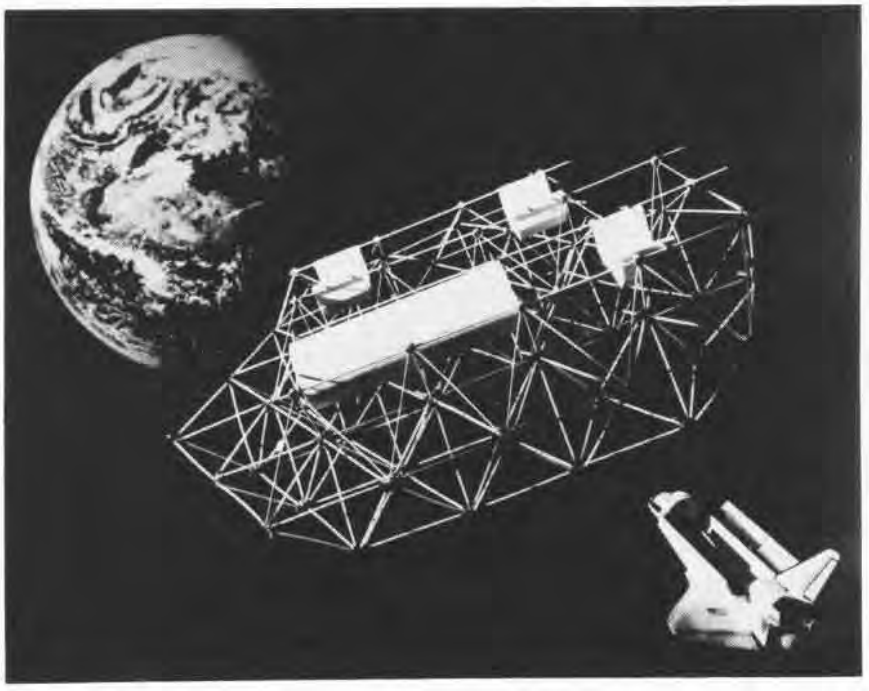
For more information, refer to ASO Special Packaging Specifications 80132-15024 and 80132-15328; call ASO on autovon 442-2886/7; or write ASO, 700 Robbins Avenue, Philadelphia, Pa. 19111, Attn: Code TEP.

Space Platform

Under a contract with NASA, LTV's Vought Corporation is exploring a number of structural concepts which could be used to erect a large space platform in orbit, using the shuttle transportation system. The study is aimed particularly at those structural elements and joints which would be used in building a space platform 100 to 165 feet long. Such a platform could accommodate a variety of

space devices, among them an orbital laboratory, solar energy pilot plant, space telescope, communications modules, and early and celestial observation systems.

Lightweight structures which could be stacked inside the shuttle orbiter's 15 by 60-foot cargo bay are being examined, as are modules which could be pre-assembled, collapsed for the trip into space and then expanded into platform modules in orbit. Vought is paying particular attention to structures which could

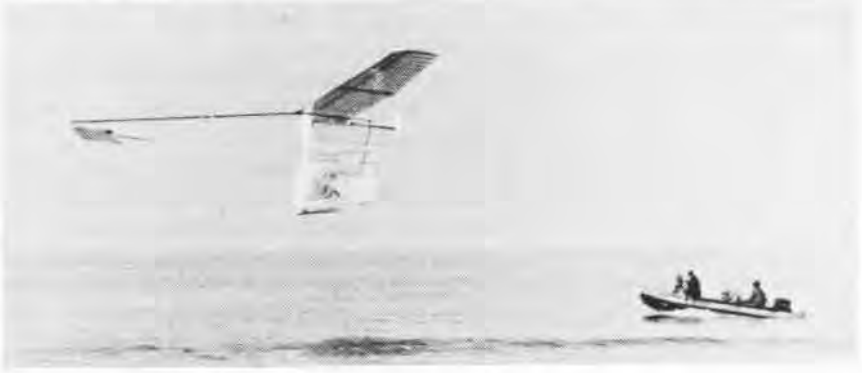


be assembled by crews working inside the orbiter cargo bay, using the vehicle's payload deployment arm and perhaps an auxiliary remote control manipulator for joining of structural components. Besides serving as an efficient platform in its original size during its proposed 30-year lifespan, it could also be a nucleus for far larger platforms which would be built using modular add-on techniques.

Human Powered Flight

NASA is sponsoring a program to study the flying characteristics of the human-powered *Gossamer Albatross* #2. It is the sister ship of *Gossamer Albatross* #1 (shown in photo) which flew across the English Channel last summer. The 22-mile trip across the Channel took 2 hours, 45 minutes.

The aircraft is powered by the pilot, who pedals a bicycle-like arrangement that drives the propeller. It weighs about 70 pounds empty and has a wing span of almost 94 feet. Data from the program may be useful in developing future lightweight, low-speed aircraft.



Grampaw Pettibone

Candid Camera Collision

The flight was scheduled for an exercise involving a section of F-4Ns, launching from a desert-based expeditionary auxiliary airfield on a close-air-support and air-to-air photography mission. Flight lead was delegated to the wingman so that the mission commander's back seat civilian passenger could film the mission. The brief was conducted by the mission commander less the photographer who was allowed to proceed directly to the aircraft and be "strapped in" by the plane captain.

As the flight leader started his roll for a section takeoff, the photographer passenger in #2 aircraft requested a max performance takeoff demonstration. The pilot (mission commander) delayed his takeoff roll for separation and then executed an unbriefed, maximum power takeoff, losing sight of the lead aircraft in the process. Section joinup was delayed due to the fact the two aircraft proceeded to different rendezvous points, lost visual contact, and were on different radio frequencies.

After rendezvous was finally effected, the flight orbited in loose parade formation awaiting clearance onto the training range. During this time, the photographer frequently asked the pilot to change positions on the lead aircraft so he could take photographs.

The flight was established in a 30-degree left angle of bank, 300 kias, in a level orbit at 17,000 feet. The photographer then asked the pilot to execute a canopy roll so he could film the lead aircraft from the top against the desert background. The pilot stabilized his aircraft on the leader's right wing in a loose parade position and then commenced an unannounced right-to-left canopy roll over the leader. As the aircraft reached the inverted position the two aircraft collided. The nose of the #2 aircraft passed slightly aft of the lead aircraft's canopy and to the left of its longitudinal axis.

After collision, the #2 aircraft fell out of control into an upright 30-degree dive, having sustained catastrophic failure of the left wing spar. The entire left wing panel departed the aircraft also. The pilot initiated ejection with the lower handle. Ejection sequence was normal and successful landings without injury followed.

Aircraft #1 experienced a much more violent reaction during the collision. The aircraft immediately went out of control and rolled to the left inverted. The crew were hanging in their straps in a zero/negative G load, 80-degree nose-down, left-spiral condition. The violent roll and yaw threw the pilot's head against the canopy rail with such force that he damaged his helmet and fractured his cheekbone.

Fuel gushed from the broken lines and ruptured fuselage tanks, engulfing the entire aft section as the aircraft fell flaming to earth in a flat left spiral. The pilot desperately pulled himself down into his seat, grasped the lower handle and initiated successful ejection.

Grampaw Pettibone says:

Holy colossal collisions! This is dumber than dirt, gang, and gets old Gramps hotter'n a Franklin stove! For one thing, these fellows took off in a pair of high-performance tactical aircraft with little or no oxygen aboard. Their masks were attached to only one side of their helmet making necessary communication awkward at best during unbriefed maneuvers, and virtually impossible during an emergency ejection sequence. This may explain – but does not excuse – a lot of the unannounced maneuvers.

The fact that the photographer did not attend the flight brief is perhaps of little significance since the actual flight resembled little of what was described in the brief (i.e., unannounced high performance takeoff by #2, losing sight of leader, going to a wrong rendezvous point on wrong frequency, and performing unannounced, unbriefed canopy rolls.)

The quality of the "wingman's" performance as a mission commander

ILLUSTRATED BY Osborn

and the airmanship demonstrated in his canopy rolls blows me away. It probably didn't impress the rest of his flight crew much either!

The net result of this dastardly demonstration of disregard and ad hoc air showmanship was the loss of two expensive aircraft, and a mighty close call for four human beings.

From the Mailbag

Gramps received four items from *NANews'* most important customers, you readers. These short but important summaries address a problem that has been around from the very start of this aviatin' business.

Item 1: A Naval Aviator, embarked as a passenger in the rear seat of a flying club T-34B, failed to fasten his seat belt. During the flight, air turbulence caused him to be thrown violently upward, his head shattering the canopy. Ouch!

Item 2: A Naval Aviator, with about 10,000 pilot hours (including 2,000 in light aircraft), permitted a pilot under instruction to bounce more than twice during an attempted landing in a Citabria. When the dust settled, each prop blade was curled back three inches.

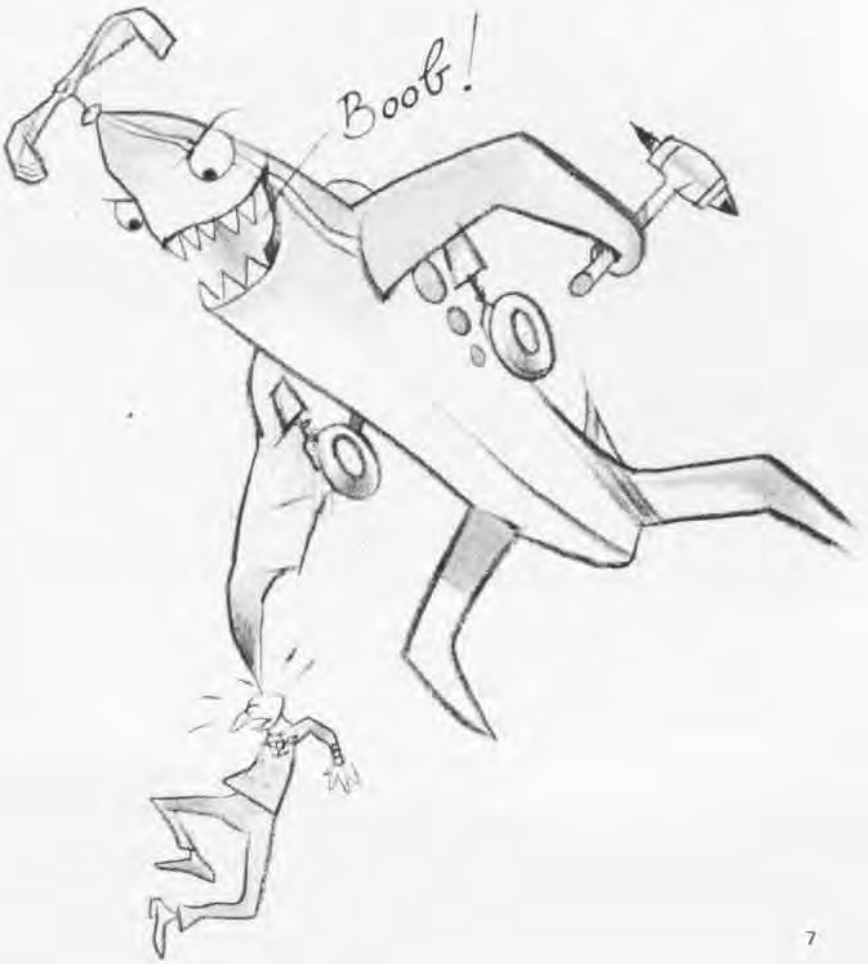
Item 3: Another Naval Aviator, currently qualified in F-4s, "pranged" a Cessna 172 so hard on the nose wheel that each prop blade was curled back two inches.

Item 4: A military aviator with over 2,000 pilot hours departed Offshore Island for a weekend of fun-in-the-sun. The flight, two hours over open ocean, took a little longer than planned. When in radio contact with the destination airport, he reported that he was low on fuel and was experiencing control difficulties. Tower personnel provided priority landing instructions and advised him that he had a large object on a six-foot line dangling from the tail of his aircraft. After landing, an FAA official determined that the object was a 40-pound concrete rock tiedown. Our hero forgot to untie the tail tiedown during preflight. His newly acquired certificate was to be taken away.

Grampaw Pettibone says:

Great jumpin' Jehosaphat! You young bucks have got old Gramps goin' full circle again. This sounds too dang much like the stuff I wrote in my first issues. Aviators have a natural desire to "try' em all out," but you gotta remember which machine you're drivin' if you plan on arrivin'!

Each of these instances occurred because a pilot – *who should know better* – treated light aircraft without appropriate respect. Moral of the story is that you can wound your pride just as severely or get killed just as dead in a Beechcraft, Bellanca or Cessna as in a P-3, F-4, H-3, or any other military aircraft when you treat 'em with a heavy-handed, light-headed, terminal case of disrespect! Nuff said!

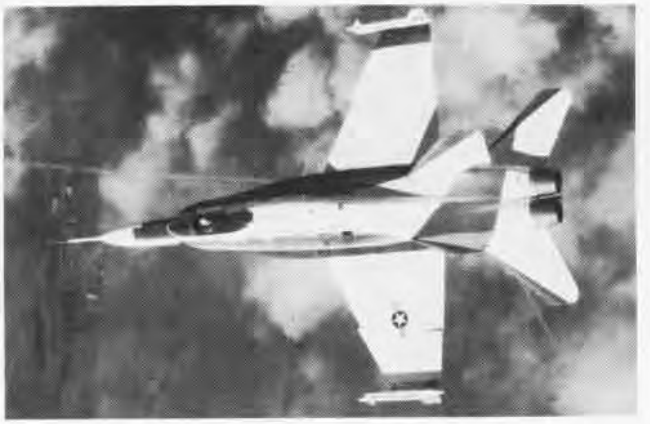


Naval Aviation Review 1979

The year began appropriately with the champagne christening in January of USS *Peleliu*, another amphibious assault ship built by Ingalls Shipbuilding. Named in honor of the Marines' WW II attack on and capture of the Pacific island of the same name, this new ship is the fifth of the *Tarawa* class. *Tarawa, Saipan, Belleau Wood* and *Nassau* are older sisters. All have taken to sea within the last three years. "Machined" for the Marines, these 20-story-high assault vessels displace nearly 40,000 tons, feature 800-foot-long flight decks, and can carry some 1,800 combat troops, 250 vehicles, tanks and landing craft, and 30 helicopters. Five-inch guns, surface-to-air missiles and 20mm machine guns serve as offensive and defensive armaments.

By Clarke Van Vleet Historian

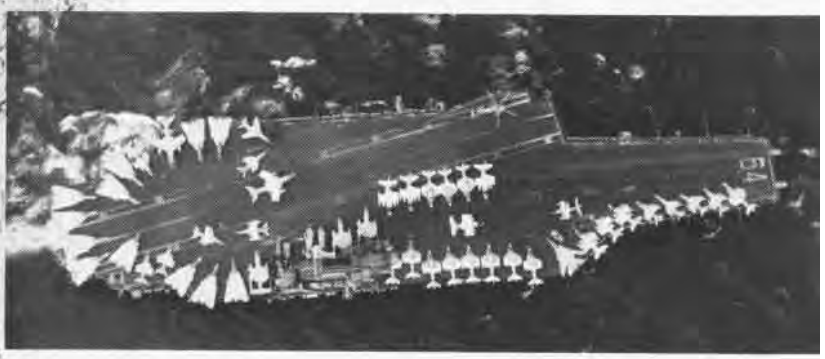
Also in January, the Navy's new F/A-18 *Hornet* arrived at the Naval Air Test Center, Patuxent River, for evaluation trials. Testing during the year included refueling in flight, land-based catapult launchings and arrested landings, speed tests and at-sea carrier takeoffs and traps aboard *America.* The *Hornet's* top speed is 1.8 times the speed of sound or 1,350 mph, with a combat ceiling of over 50,000 feet. Fighter escort radius exceeds 400 nautical miles. The *Hornet* stings with *Sparrow* and *Sidewinder* missiles. This light attack/fighter is earmarked to eventually replace the F-4 *Phantom* and A-7 *Corsair*. It will be operated by both the Navy and Marine Corps.



The Navy hailed a new hawk in February and said sayonara to an older one. The last McDonnell Douglas A-4 *Skyhawk*, #2960, came off the assembly line. It was delivered to Marine Attack Squadron 331. Earlier in the month, Sikorsky's new helicopter was officially dubbed the *Seahawk*. Its first flight was in December 1979. The anti-submarine warfare (ASW) helo will enter the fleet in the 1980s, operating from ships to perform light airborne multipurpose system missions, including antiship surveillance and targeting.

"In our view there is no basis to speak of a future reduction in the importance of carriers in armed warfare at sea. . . We must speak of an increase in their role." *Soviet Vice Admiral K. A. Stalbo*

In late February and early March, a formidable force of Soviet warships maneuvered in the eastern Mediterranean off the border of Libya and Egypt. The array of power included two 40,000-ton aircraft carriers, *Kiev* and *Minsk*, three cruisers, four destroyers, a frigate, a new amphibious assault vessel and the largest military replenishment supply ship ever built by the Soviets. On this, her maiden voyage from the Black Sea, *Minsk* is shown here with four Kamov KA-25 *Hormone* helicopters and seven YAK-36 VSTOL *Forger* fighters spotted on her flight deck. The maneuvers and exercises took place amid renewed talk that Moscow intends to complete two more *Kiev*-class flattops and is developing its first 60,000-ton nuclear-powered aircraft carrier.



While the Soviets maneuvered in the Med, USS *Constellation*, shown above, headed up a task force consisting of a cruiser, destroyer and an oiler, dispatched in early March from the Philippines. The ships constituted a show of force in the Arabian Sea to demonstrate U.S. support of North Yemen in its conflict with the Soviet/Cuban-backed regime in South Yemen. Some observers postulated that the U.S. move was also intended to dissuade the Soviets from moving planes, tanks and Cuban troops from Ethiopia to South Yemen. Two months earlier, in late December 1978, a *Constellation* task force initially ordered to the Arabian Sea during the height of the Iranian revolution against the Shah was withdrawn to the Philippines.

Quotable Quotes

". . .Thirty years ago we imported no more than 15 percent of our total resource needs. Today that has doubled, and there is a very good chance that it will double again to more than 50 percent of everything we use in the next 30 years. . . . For us, use of the seas is not just convenient; it is vital. . . . The Soviets correctly perceive that any faltering in our resolution to maintain maritime superiority could make the seas the Achilles heel of the U.S., and the Free World. To the extent, then, that they have the capability to carry out effective sea denial, they have an option for economic blackmail or strangulation, all with the gravest consequences, and all below the nuclear threshold. . . . I believe it is indisputable that sea denial is a great deal easier to accomplish than sea control."

Hon. W. Graham Claytor, Jr.,
Secretary of the Navy,
Congressional Hearings, March 1979.

". . . Sea-based tactical air power provides the most significant measure of difference between the U.S. and the Soviet navies, and is essential to assure the existing margin of superiority. . . . My near-term optimism about the Navy is tempered by serious concern over the longer-term trends. . . . My recent predecessors testified repeatedly that the long-term trends do not favor the U.S. Navy, and that one can project a point in the not-too-distant future when the trend lines will cross, and we will lose our margin of superiority to a Soviet navy which remains embarked on an aggressive program of expanding its capabilities for maritime operations worldwide."

Admiral Thomas B. Hayward, CNO
Congressional Hearings, March 1979

"It is fundamental and basic that in judging the military balance between the United States and other nations, the perception held by a potential adversary as to the will and determination of the people of the United States and their government can carry more weight than simply a comparison of inventories of similar military hardware."

Admiral Thomas H. Moorer,
Former Chairman, Joint Chiefs of Staff
Wings of Gold, Fall 1979

". . . I pray that we never again have to fire a shot in anger at a national enemy. But events on this planet suggest that uneasy times are more the norm than those which we call tranquil. Naval Aviation represents a frontline force in maintaining the ideals of our nation. It is imperative that all of us in Naval Aviation continue to work together as a team to combat the problems besetting us today."

Vice Admiral W. L. McDonald,
DCNO(Air Warfare),
NANews, October 1979

Spring skiing began in March at the Naval Air Test Center in Patuxent River with Marine Corps *Harriers* doing the jumping. Developed by the British, the new jump ramp is calculated to cut down takeoff distance. It has a 12-degree angle of elevation and is 130 feet long. Total takeoff distance is 230 feet compared with the 930-foot runway necessary for a *Harrier* to make a no-catapult, flat-surface launch. NATC evaluated the jump throughout the summer for possible use in the fleet.

An aerial refueling achievement also accounted for a helicopter flight being entered in the record books. In a nonstop, transcontinental journey on April 30, a Helicopter Mine Countermeasures Squadron 12 RH-53D *Sea Stallion* flew from Norfolk, Va., to San Diego, Calif. The helo made the 2,077-nm trip in 18.5 hours, air refueling from an Air National Guard HC-130 *Hercules*. The venture demonstrated the long-range, quick-response capability of the RH-53D.

Other testing at Pax included feasibility investigations for flight refueling of a P-3 as a means of increasing the *Orion's* ASW coverage in ocean areas previously inaccessible because of aircraft range limitations.

"Weapons change but man who uses them changes not at all." General George S. Patton in a letter to his son.

1979 could be called a time of progressive aerial weaponry. Major technological advancements were scored in the field. Shown here, a rocket/ramjet test vehicle developed by Vought was fired for the first time in April from an A-7 *Corsair II* as part of the Navy's supersonic tactical missile (STM) program. Also, the automatically-piloted, turbojet-powered aerial target vehicle, the Northrop BQM-74C, made its first air launch in July from an A-6 *Intruder*. McDonnell Douglas' *Harpoon*, already in service with 65 surface ships and 19 subs, became operational in August with Patrol Squadron 23 which flies P-3 *Orions*. Upon acceptance of the 1,000th *Harpoon* in November, Vice Admiral Forrest S. Petersen, Commander, Naval Air Systems Command, said, "The *Harpoon* missile is a modern weapon which has been developed to remain modern for many years to come. With growth, the *Harpoon* weapon system will be capable of surviving projected enemy defensive systems and countermeasures well into the 1990s." Throughout the year various tests, including air launch, were conducted on General Dynamic's *Tomahawk* cruise missile which has an over-the-horizon capability to search, locate and attack ships at sea.

Highlights from the Hill

Following are two major aspects of 1979 legislative action taken by Congress on the Fiscal Year 1980 Defense Budget as provided by Rear Admiral Mark Hill, USN(Ret.), of the Association of Naval Aviation.

- Congress refused to approve the Department of Defense plan to take helicopter training away from the Navy and consolidate it under the Army. For the first time in three years the House, which had previously supported the measure, voted it down by a two to one margin.
- The House and Senate both concurred in the allocation of $2.1 billion for construction of an improved *Nimitz*-class carrier which will be CVN-71. A last-ditch amendment to strike the big carrier from the appropriations bill was defeated by the Senate 72 to 20.

Fix

Truly

Spruill

Larocque

An array of awards, accolades and acknowledgments was bestowed upon present and past Navy flyers throughout 1979. Space does not permit honoring them all here, but they include the Harmon International Aviation Trophy presented by Vice President Walter F. Mondale to Marine Lieutenant Colonel Herbert Fix in January for his command of Marine Heavy Helicopter Squadron 463 in the 1975 evacuations of Phnom Penh and Saigon under enemy fire. Commander Richard Truly received the Distinguished Flying Cross in February for extraordinary achievement in space shuttle test flights. In May, the Chief of Naval Operations honored Walter Hinton, sole surviving crew member and pilot of the NC-4, the first airplane to fly the Atlantic in May 1919 (Front Cover). Lieutenant Donna Spruill became the first Navy woman to pilot a C-1A *Trader* to a carrier arrested landing aboard *Independence* in June. The same month, Captain George Larocque became the recipient of the first Gray Owl Trophy, which honors the Naval Flight Officer on active duty who has held that designation for the longest period. In July, the Aviation Hall of Fame in Dayton, Ohio, enshrined Neil Armstrong, ex-Korean combat Naval Aviator, first man on the moon, and now a professor. In September, the Tailhook Association presented Vice Admiral F. C. Turner, USN(Ret.), with the Tailhooker of the Year Award. The Gray Eagle Trophy, signifying the Naval Aviator on active duty with the earliest date of designation as a Navy flyer, was passed in October from retiring Admiral Maurice Weisner to Marine Lieutenant General Andrew O'Donnell.

Armstrong

Turner

Weisner

O'Donnell

They can because they think they can.

U.S. Navy surface and aviation forces of the Seventh Fleet stepped up their patrols and rescue assistance efforts connected with the Vietnamese boat people, following President Carter's order in July. In the first two weeks alone, P-3 *Orion* patrol planes out of the Philippines made over 800 ship contacts off Vietnam in the South China Sea. *Kitty Hawk's* S-3 *Vikings* also spotted refugee boats in trouble and arranged for help by surface vessels. There were dramatic scenes as hundreds of thousands of fleeing people took to the high seas. Floatable food containers with attached strobe lights were, for example, dropped at night in refugee areas known to have boats without food and water. In one instance, a foreign ship without radio was guided at night to a boat in distress when an aircraft crew flashed Morse code signals with its landing lights. Navy medical corpsmen treated hundreds, particularly children. Ironically enough, 1979 was the International Year of the Child. In the last six months of 1979, the number of refugees embarked on U.S. Navy ships came to over 800. Those picked up by merchant vessels with the aid of P-3s totaled over 1,000.

"Away, bound away" were the last operational unit *Vigilantes* as Reconnaissance Attack Squadron Seven was disestablished in September, with the last RA-5C leaving Key West two months later. Some of these old planes are expected to be transformed for use as drones.

Progress continued in VSTOL development. McDonnell Douglas' YAV-8B and AV-8C advanced *Harriers* were tested at Patuxent River in October aboard *Saipan* (LHA-2). Prototype C features new lift improvements, UHF radio, chaff and flare dispensing unit, and a radar warning system.

A reinforcement exercise at U.S. Naval Base, Guantanamo Bay in October was part of the U.S. response to the presence of a Soviet combat brigade in Cuba. A three-ship amphibious task force was headed by the new assault ship *Nassau* (LHA-4) and spearheaded by the 38th Marine Amphibious Unit. Other U.S. moves included creation of a Caribbean command headquarters at Key West and renewal of reconnaissance flights over Cuba. As a broader follow-on against the backdrop of Soviet troops in Cuba and the subsequent Iranian crisis, DOD disclosed in December plans for establishing by the early 1980s Marine Corps Rapid Deployment Forces which can be airlifted to distant trouble spots. A $9 billion program was initially planned for special transport planes, ships and other equipment.

The carrier *Midway*, heading up Task Group 77.4, steamed for the Arabian Sea with a screen of escort firepower following the taking of the U.S. Embassy and American hostages in Tehran by Iranian student terrorists on November 4. The task group had been in the vicinity of the Seychelles Islands off East Africa, following an earlier move by the U.S. to step up deployments to the Indian Ocean area.

Later that same fateful month, a five-ship task force led by *Kitty Hawk* sped over 2,000 miles to the Arabian Sea from South Korean waters, where she had served as an expression of U.S. concern about the situation on the Korean Peninsula after the assassination of President Park.

By year's end, both task groups were still in the Arabian Sea as U.S.S.R. troops entered Afghanistan, creating further international tensions in what might well be termed *The Year of Crises.*

Before and after pictures of Bradley planes.

TOR

By Peter Kilduff

Disaster struck the country's fourth largest aircraft collection on October 3, 1979, when a freak tornado ripped through Windsor Locks, Conn., badly damaging the Bradley Air Museum located there. The museum (featured in *NANews*, February 1978) had a particularly good selection of U.S. Navy aircraft from WW II and the jet era. In its wake, the storm left an outdoor display area in shambles and destroyed or severely impaired a number of naval aircraft.

Completely ruined were the museum's A-4A *Skyhawk*, F4D-1 *Skyray* and F8U-2 *Crusader*. Significantly damaged, but listed as marginally salvageable because of its scarcity, is a TBM-3E *Avenger*.

Considered damaged but still salvageable are an SP-2E *Neptune*, E-1C *Tracer* and SSM-N-9 *Regulus II*. An A-3B *Skywarrior*, parked outside, sustained minor damage. Fortunately, there was even less harm done to some of the rarer birds displayed in a WW II-vintage hangar that lost its roof to the tornado. These include the last surviving Curtiss XF15C-1,

Photos by Chuck Horner

and an XF4U-4 *Corsair,* F6F-5 *Hellcat* and AM-1 *Mauler.* One of two FJ-1 *Fury* jet fighters, an FM-2 *Wildcat* and an F9F-2 *Panther* were saved because they were undergoing restoration away from the main display area.

The Bradley Air Museum also owns a number of other Navy aircraft which are in a mainly unrestored state. They were parked away from the area of maximum devastation. Unfortunately, the museum's collection of U.S. Air Force and other type aircraft was hit especially hard.

The Bradley Air Museum hopes to attract enough funds to keep the facility open while clean-up operations go on and until some outdoor displays can be set up. While the search continues for a replacement F4D-1 and parts for the TBM-3E and other aircraft, the museum will embark on a major fund-raising effort so that work can begin on construction of an exhibition hall and relocation of the present hangar.

The Bradley Air Museum is a non-profit, tax-exempt educational and historical facility. Its board of directors welcomes any and all assistance during this difficult period. Restoration of the museum's naval aircraft display is a high priority concern.

naval aircraft

Officially the UH-1 series is the *Iroquois.* But its unofficial name, *Huey,* became so commonly used that the AH-1 attack version was officially named the *Huey Cobra* (*NANews*, April 1979). The *Huey* story traces back some 25 years. In 1955, with an interest in a utility helicopter designed around a turboshaft engine, the Army had the Air Force develop a new helicopter for its use. At that time the Army did not have its own aircraft development capability.

The design selected, Bell's Model 204, was to be powered by a new Lycoming T-53 engine of some 850 shaft horsepower and featured a typical Bell two-blade teetering rotor. In the original helicopter designation series, the first three aircraft received the XH-40 designation. First flight of the new design was in October 1956, development and production following. When the Army adopted its own two-letter designation system, the H-40 became the HU-1 (Helicopter Utility). From this designation came *Huey*, the name by which it has remained known. The DOD standard designation system reversed this to UH-1, the first designation in the new DOD helicopter series. With larger engines and increased capacity, the UH was developed through successive models.

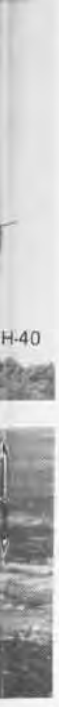
In 1962, after an evaluation of available types, the UH-1E version, generally similar to the Army's UH-1B, was ordered for the Marine Corps. These went into service in 1964 with VMO-1 being the first squadron to receive them. Subsequently, 209 UH-1E aircraft were delivered to the Marines by 1968. All, after the first 67, were equipped with an improved rotor system.

Like their Army counterparts, the Marine *Hueys* served all manner of combat roles, including that of armed gunships. For combat operations in Southeast Asia, Navy Light Attack Helicopter squadrons were also established (Seawolves) using UH-1Bs acquired from the Army.

Other models followed for special Navy use: the HH-1Ks equipped for air station search and rescue duty, the TH-1Ls as advanced instrument trainers, and a few of the L models in standard utility configuration as UH-1Ls. The Air Force had meanwhile ordered a "Twin Pac" engine, improved utility version, the UH-1N, for general utility/transport duties. In 1971 deliveries of this latest model to the Navy and Marine Corps began. A total of 212 have been delivered, six in VH-1N executive transport configuration. These -1Ns equip the Marine Corps Light Helicopter Transport squadrons and are widely used in a utility role throughout the Navy while the Marine Reserves continue to use the -1Es.

The *Hueys* will be meeting Navy and Marine Corps needs for many years to come.

UH-1E



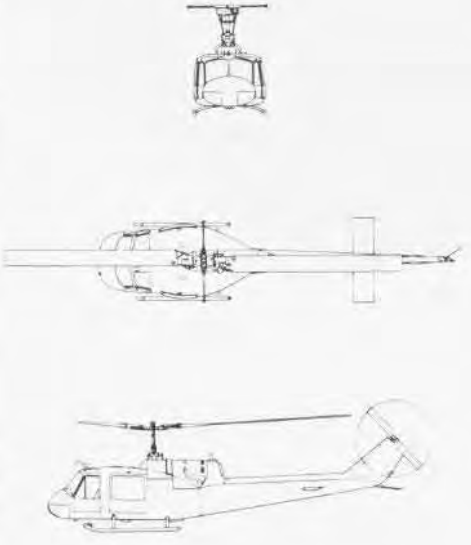
UH-1L

UH-1B

UH-1N

UH-1

Rotor diameter		
UH-1E		44′
UH-1N		48′
Length (over rotors)		
UH-1E		52.9′
UH-1N		57.3′
Height		
UH-1E		14.7′
UH-1N		14.9′
Engine		
UH-1E	Lycoming T53-6-11	1,100 hp
UH-1N	P&W T400-CP-400 Twin Pac	1,800 hp (transmission limited to 1,290 hp)
Maximum speed		
UH-1E		117 kts
UH-1N		128 kts
Maximum range		
UH-1E		221 nm
UH-1N		181 nm
Service ceiling		
UH-1E		15,100′
UH-1N		21,600′
Hover ceiling		
UH-1E		5,800′
UH-1N		13,000′
Crew/Troops		
UH-1E		2/5
UH-1N		2/8
No basic armament		



Aviation in

By JO2 James M. O'Leary

". . . The honour of being the first aeronaut to make an ascent in the Antarctic regions. . . I chose for myself, and I may further confess that in so doing, I was contemplating the first ascent I had made in any region, and as I swayed about in what appeared a very inadequate basket and gazed down. . . below, I felt some doubts as to whether I had been wise in my choice. . . ."

This February 4, 1902, entry of Captain Robert F. Scott during the 1901 to 1904 expedition aboard the ship *Discovery* heralded the humble beginnings of antarctic aviation. He was the first man to achieve flight in Antarctica, aboard a balloon soaring 800 feet into the air. Later that same day, Lieutenant Ernest Shackleton was also airborne and became the first man to take aerial photographs of the area. Once begun, there was no stopping man's pursuit to conquer the upper atmosphere of Antarctica.

Dr. Erick Von Drygalski, leading a German expedition, also launched a captive balloon on March 29, 1902, near Gaussberg. Sir Douglas Mawson and the 1912 Australian antarctic expedition brought a single-engine Vickers to their base of operations at Queen Maud Land. Although, it was damaged in transit, the resourceful explorers converted it into a tractor on skis and used it to tow their sleds. The rigors of a 40-mile march took its toll and the converted tractor stopped, crippled with a broken propeller and a frozen engine block.

The first successful heavier-than-air flight took place on November 16, 1928, when Carl B. Eielson and Sir Hubert Wilkins of Australia took off in a wheel-equipped Lockheed

Antarctica

A dismantled UH-1 Huey is hauled to an LC-130 for transport to a remote campsite beyond the range of the helicopter. Inset, Hercules from VXE-6 makes jet-assisted takeoff (JATO).

Vega monoplane from Deception Island on the Antarctic Peninsula. It was only a trial hop that did not take them to the mainland of Antarctica. Surveying 600 miles of the Palmer Peninsula on December 20, 1928, they also accomplished the first important aerial reconnaissance of the area. Finding no place to land, they had to turn back, reaching Deception Island 10 hours after they had set out.

Commander (later Rear Admiral) Richard E. Byrd's expedition overshadowed the Wilkins-Eielson effort. Byrd took three aircraft with him in 1928, a Ford trimotor and two single-engine monoplanes. With these aircraft, he further opened the doors to aviation in Antarctica.

Byrd and the other expeditionary pilots tested and experimented with every aviation technique known at the time. They performed extensive aerial photomapping of their icy surroundings; set up and established supply caches; placed research parties in the field; and air-dropped mail and materials to the outlying field camps.

Having flown over the North Pole in 1926, Cdr. Byrd highlighted his first antarctic expedition by flying over the South Pole on November 29, 1929, in the Ford trimotor *Floyd Bennett*. Cdr. Byrd noted in his book, *Little America*, about reaching the South Pole, that ". . . one gets there and that is about all there is for the telling. It is the effort to get there that counts. . . ."

The four pioneers on that flight, Byrd, Bernt Balchen, Harold June and Ashley McKinley, had maintained radio communications with their base at Little America. Their transmissions were monitored and relayed to the U.S. The announcement that they had reached the South Pole

electrified the nation. With his meticulous planning, boldness and daring, Cdr. Byrd proved that the aircraft could be used as a primary tool for exploration in that frigid part of the world.

Sir Wilkins returned in 1929 with a pontoon-equipped aircraft and operated it from the RRS *William Scoresby*, an oceanographic and research vessel of Britain's Discovery Committee. This opened up still another facet of aviation: ship-based operations, which became one of the most important means for exploring large coastal areas. Norwegian whaling expeditions used seaplanes extensively to plot the coastlines of Enderby and Queen Maud Lands. In 1937, Mrs. Lars Christensen, accompanying her husband on an expedition, became the first woman to fly over the continent.

In 1935, another American made his mark in antarctic aviation. Lincoln Ellsworth and his pilot, H. Hollick-Kenyon, made the first transantarctic flight in the single-engine *Polar Star*. They flew from Dundee Island, located at the tip of the Palmer Peninsula, to Byrd's camp on the Ross Ice Shelf on the Bay of Whales, a distance of over 1,500 miles. After stopping several times to determine their position or to wait out storms, they landed only 16 miles short of their goal. The aircraft sputtered to a halt, out of gas, and the two flyers were forced to walk the rest of the way.

In 1938-39, Captain Albert Ritscher's German antarctic expedition flew two seaplanes which had a much longer range than the smaller aircraft used previously. Because of this added capability, the German explorers were able to photograph a large portion of previously unseen territory in a short time, taking over 11,000 photographs in a little over two weeks.

Congress established the U.S. Antarctic Service Expedition in 1939 and it proved to be a turning point for aviation and exploration in Antarctica. Commanded by RAdm. Byrd, this force established several bases on the east and west coasts of Antarctica and claimed a number of territories for the U.S. However, the outbreak of WW II temporarily halted all operations in Antarctica.

German raiders used subantarctic islands, such as Kerguelen, as bases during the war and harassed shipping until driven out by the Allies. The war proved to be a testing area for all kinds of weaponry, and numerous advances were made in the field of aviation technology. Aircraft became larger, more powerful, more versatile, and could carry larger payloads.

In 1946-47, RAdm. Byrd returned to Antarctica with the largest expedition ever launched to the continent. Operation *High Jump* involved 4,000 men, 13 ships and a submarine. It was the first such operation to use helicopters extensively. Photomapping flights recorded more territory than all previous expeditions combined, and various aircraft were tested in the cold environment. The expedition investigated various interdisciplinary sciences, the effects of harsh weather conditions on personnel, and scouted for natural resources.

One of *High Jump's* tasks was to circumnavigate the 16,000-mile coastline and map it thoroughly. A two-pronged assault was used. Ski-equipped landplanes made photoreconnaissance journeys into the interior, and seaplanes at various sites explored the coastline and immediate inland regions. This double-edged capability resulted in 64 flights covering 60 percent of the continent's coastline in 70,000 aerial photographs.

During the expedition, Byrd also became the first man to reach the South Pole twice. It was only the fourth time man had seen the Pole – Roald Amundsen in 1911; Capt. Scott in 1912. Byrd by air in 1929 and again in 1947. The hazards of aviation in Antarctica claimed three aviators during *High Jump*. They were killed during a reconnaissance flight on December 31, 1946, at the Thurston Peninsula.

The second antarctic expedition (1947-48) was nicknamed Operation *Windmill* because helicopters were used extensively. (RAdm. Byrd had used a Kellett Auto-Gyro during his 1933-35 expedition. Two icebreakers established ground control points during *Windmill* and were used to construct maps from aerial photographs taken during *High Jump*. Operation *Windmill* was the first of its kind in Antarctica to be primarily dependent on helicopters for transport and accomplishment of the mission.

An Argentine mercy mission demonstrated the possibility of support operations from another landmass. Ice conditions had prevented ships from penetrating Marguerite Bay in March 1953, and had isolated the Argentine station at Barry Island. Loaded with essential food, medical supplies and mail, a long-range Avro-Lincoln of the Argentine Air Force flew nonstop from South America's Rio Gallegos to the Argentine sector at Barry Island. The successful flight proved that support from another landmass could be accomplished if suitable landing areas could be established on the continent.

The International Geophysical Year, which served to further antarctic aviation, was programmed for 1957-58. The Navy began Operation *Deep Freeze* in 1955 to support it. Air Development Squadron Six (VX-6) – now Antarctic Development Squadron Six (VXE-6) – was commissioned on January 17, 1955. (See *NANews*, January 1975.) Supply efforts began in the 1955-56 season when two ski-equipped P2V *Neptunes* and two R5D *Skymasters* with regular wheels flew from New Zealand and landed on the ice at McMurdo Sound without any difficulty. This marked the beginning of *Deep Freeze One*. In addition to ship

LH-34 on the ice.

operations, which had been the basic way to provide support since exploration began, a way had been found to move passengers and cargo into the Antarctic.

April 9, 1961, proved that a midwinter flight into Antarctica could be accomplished. VXE-6 flew into Byrd Station (established January 1, 1957) to evacuate a seriously ill Soviet scientist. The squadron repeated its lifesaving operation with two other midwinter medevacs in 1964 and 1966. VXE-6 also recorded a 4,600-mile flight from Cape Town, South Africa, to Christchurch, New Zealand, via the South Pole and McMurdo Station in 1964, and a midwinter mail drop was accomplished on June 4, 1967, boosting the morale of the winter detachment.

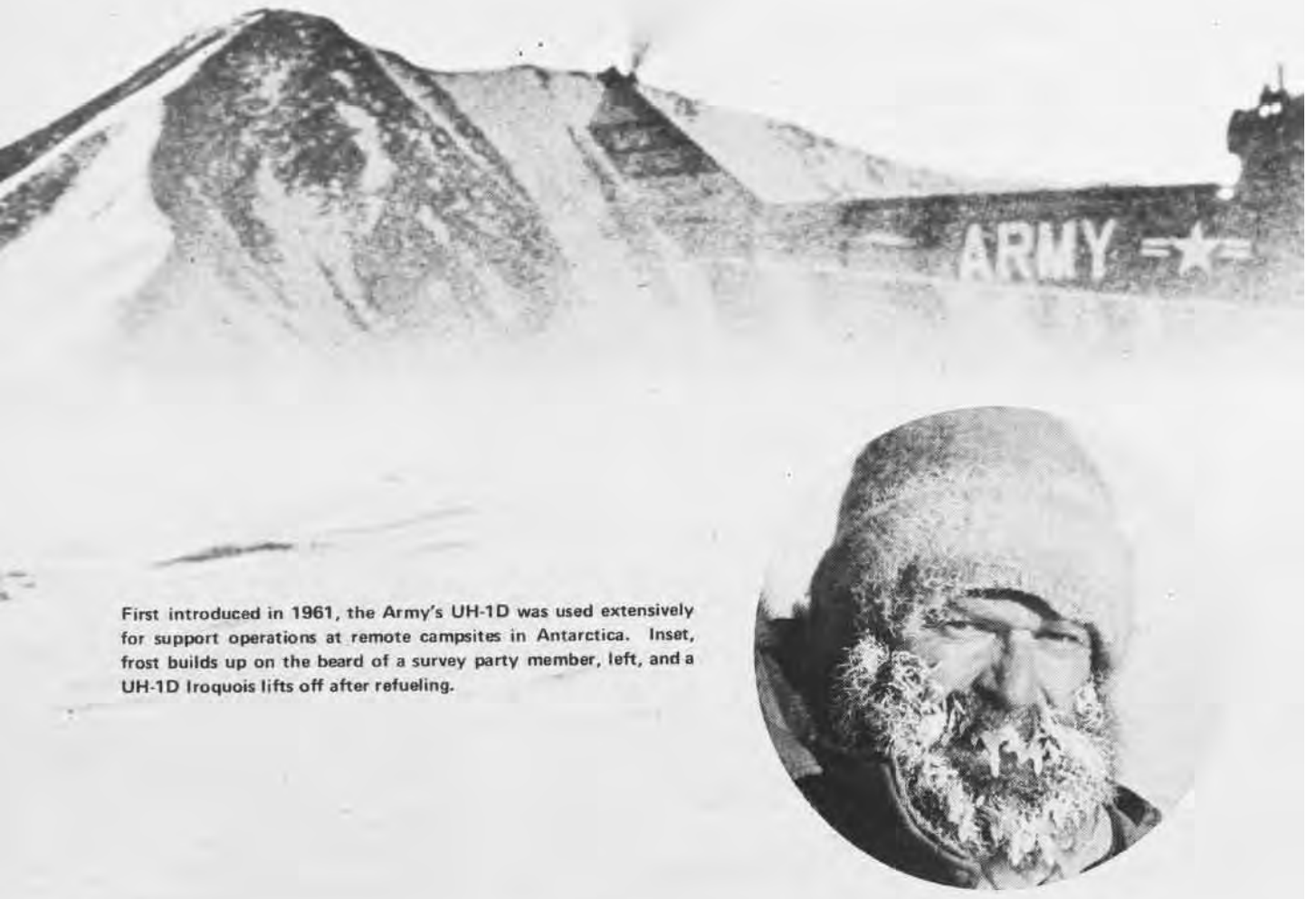
January 1975 was a disastrous month for VXE-6 when two of its ski-equipped LC-130s had accidents 24 hours apart at Dome Charlie in east Antarctica while flying support missions for a French traverse team. On a reconnaissance mission of the crash sites, another *Hercules* crashed. Fortunately, no one was injured or killed in the accidents.

A combined military and civilian operation successfully repaired and flew one aircraft out of Dome Charlie in December 1975, the second one in January 1976 and the last one in December. The salvage effort proved that Antarctica was not going to win all of its battles against determined and dedicated men.

Special units from other branches of the armed forces have helped make Operation *Deep Freeze* a continuing success.

Air Force

Commencing October 1955, the 63rd Troop Carrier Wing (Heavy) provided C-124 *Globemasters* to fly to Christ-



First introduced in 1961, the Army's UH-1D was used extensively for support operations at remote campsites in Antarctica. Inset, frost builds up on the beard of a survey party member, left, and a UH-1D Iroquois lifts off after refueling.

church, New Zealand, from Donaldson AFB, S.D. The 63rd became a part of the Military Air Transport Service in July 1957 and supported Operation *Deep Freeze* through 1962-63, flying *Globemasters* and C-119 *Boxcars*.

During these years, C-121 *Super Constellations* and C-124s provided much of the cargo airlift and passenger service to McMurdo. Until the first ski-equipped LC-130 landed in January 1960, the only practical way to resupply the isolated interior stations was by air drop.

In the operating season of 1960, the Air Force sent a detachment of ski-equipped C-130 *Hercules* (later designated LC-130s) to Antarctica. The capabilities of these aircraft were clearly superior to other types of fixed wing aircraft and caused the eventual phaseout of the reliable *Constellations* from antarctic air space. The single-engine U-1B *Otter* was last used during 1965-66, and December 2, 1967, marked the last flight of the twin-engine *Dakota*. LC-130s and UH-1N helicopters have carried on support of research activities. The C-141 also became a workhorse for antarctic operations in *Deep Freeze 69*, a role it maintains today.

From *Deep Freeze 68* through *Deep Freeze 75*, the 21st Air Force participated in antarctic support. Missions were shared by the 436th Military Air Wing (MAW), Dover AFB, Del.; 437th MAW, Charleston AFB, S.C.; and 438th MAW, McGuire AFB, N.J. Duties were transferred to the 60th MAW at Travis AFB, Calif., in *Deep Freeze 76*.

Army

Starting with *Deep Freeze 62* and ending with *Deep Freeze 69*, Army helicopters dominated the air space at remote campsites on the continent. The U.S. Army

Aviation Detachment (Antarctica Support) arrived at McMurdo in early October 1961, to evaluate two turbo-driven UH-1B *Iroquois*. Two geological missions of the U.S. Geological Survey, *Topo North* and *Topo South*, were the first successes of the 10-man Army detachment. These were topographical studies conducted on the ice shelf.

Although the helicopter support program was to be a temporary mission when first projected in 1961, it proved so successful and vital to the logistical effort that by *Deep Freeze 64*, the Army had agreed to continue the detachment's involvement in the operations.

The Army unit flew over 3,000 miles during the eight summer seasons of operation and proved the versatility of the turbine helicopter in the antarctic environment. The UH models eventually replaced VXE-6's helicopters and caused the phaseout of other models. Most of the unit's geodetic, geological and topographical missions were flown at remote campsites, such as Ellsworth Mountains, Beardmore Glacier, Marie Byrd Land and Ellsworth Land, which are subject to some of the continent's fiercest weather conditions.

Marine Corps

The contribution of the Marine Corps to the aviation program in Antarctica came in the form of well-trained pilots, navigators, crewmen and mechanics. "The Marines

Top, U-1B Otter, used for short-range transport, was eventually replaced by the UH-1N. Emperor penguins greet VXE-6 helicopters during a mission to support scientists studying the birds. Above, a P2V stands ready for another mission to the antarctic interior. Neptunes were last used in Deep Freeze 63. Opposite, VX-6 C-121J is refueled and unloaded during strong winds. Connies were flown in early Deep Freeze years.

always land first!" exclaimed Captain Alton Parker as he jumped off the ship during the 1928 Byrd expedition, landing on the ice at the Bay of Whales. Several Marines served with Byrd in succeeding expeditions.

When VX-6 was commissioned in 1955, a small detachment of Marine Corps flyers and aircrewmen was assigned to the squadron. One of them, Captain Rayburn A. Hudman, formed a 12-man pararescue team in 1956, which still exists today. In April 1955, Lieutenant Colonel H. R. Kolp became the only Marine officer to ever serve as VX-6's commanding officer.

The Marine Corps detachment's last missions were flown in 1972 after almost 45 years of involvement with antarctic aviation. It was removed from VXE-6's roster shortly thereafter.

Coast Guard

Since Operation *High Jump*, Coast Guard icebreakers have helped open supply ship channels into McMurdo. But it wasn't until a trial program in 1967 that a Coast Guard helicopter program and support detachment proved feasible. Operating from icebreakers, the helo detachments have flown over 4,000 hours for scientific research.

Based at Mobile, Ala., the Polar Operations Division of the Coast Guard operates with a staff of approximately 22 officers, 60 enlisted aviation rates and 10 Sikorsky HH-52As. Each detachment deploys with an icebreaker consisting of two helicopters, four pilots and 10 to 12 enlisted aviation personnel. The dets are self-sufficient while deployed and equipped to maintain and repair their aircraft. Rescue capabilities rest entirely with the individual ships because they operate far from populated area.

Aviation in Antarctica has not been without its setbacks. The deaths of over 30 American flyers and crewmen attest to the hazards of flying there. Man is still subject to the whims of the antarctic atmosphere. But aviation will be intertwined with its future, accompanied by the hardy souls of pilots and crewmen who constantly challenge Antarctica's beautiful but treacherous nature.

PEOPLE·PLANES·PLACES

Records

Several squadrons marked accident-free milestones: VAQ-131 – 8 years, 12,200 flight hours; VF-51 – 6 years, 16,000 hours; VAW-123 – 11 years, 19,000 hours; VC-2 – 5 years, 30,000 hours; HS-3 – 5 years, 40,000 hours; and VF-32 – 10 years, 33,000 hours. Both VAQ-130 and HMM-161 celebrated 25,000 safe flying hours, and the following units recorded accident-free flight in years: VC-13, 6; VA-35, 9; VP-26, 17; and The Naval Coastal Systems Center, 13 years, during which the Center has flown various aircraft, including UH-1Es, RH-3s and H-53s.

A number of VA-192 pilots logged 100 traps aboard *America*. They are: Cdrs. J. L. McWhinney and T. B. Latendresse; LCdrs. Paul Valovich and Frank Wesh; Lts.

Mike Reese, Jim Knight, Kenny Linn, Tom Ringler, Dane McNeil and Phil Tomkins; and Ltjgs. Pat Laine, John Weiss, Jerry Mumfrey, Roger Buehler and Ed Weikal. LCdr. Al Junker made double centurion. Squadron skipper, Cdr. McWhinney, and X.O., Cdr. Latendresse, each recorded the 800th arrested landing of their careers, while maintenance officer LCdr. Wesh made his 500th.

During its last WestPac cruise aboard *Constellation*, VAW-126 celebrated its tenth birthday and over 17,000 accident-

free flight hours. The squadron, skippered by Cdr. H. J. Long, Jr., is now deployed with CVW-1 embarked in *Kennedy*.

Several pilots marked 1,000 hours in their respective aircraft. From VF-41 in the F-14 *Tomcat:* Cdr. Dave Formo, *Black Aces'* skipper; LCdrs. Jack Shultz, Bill Lindner, Skip Edens and Mike Lyle; and Lt. Bill Hill. VF-171, *F-4 Phantom:* Lts.

Richard Davis and Randy Smith. HSL-36, H-2 *Seasprite:* Lts. Thomas Freeland and Robert Niemczyk.

Eight new double centurions from VF-41 were honored by Capt. Jack Batzler, C.O. of *Nimitz:* LCdrs. Jack Shultz, Skip Edens, Mike Lyle and Bill Lindner, and Lts. Ben Devane, Tom Enright, Todd Brannon and Zeke Bradley.

Rescues

Key West received a call from the Coast Guard recently to medevac a crewman who had lost four fingers while operating a winch aboard the Greek freighter *Naiad*. NAS helicopter pilots LCdr. Woody Woodroof and Ltjg. Larry Roth, along with AE1 Miles White and AT2 Gene Kline, flew to *Naiad*. While the helo hovered 80 feet over her stern, AT2 Kline was lowered to the ship's deck to hoist the victim aboard. He was then flown back to Key West and an awaiting Coast Guard C-131 transported him to a Miami hospital. His condition was last reported as good.

Another rescue mission was performed by Key West's helicopter team a few days later when Lts. Eric Heublein and Gene Burton, and POs David Triglia, David Hill and John Gaines were on a routine training flight. They intercepted a distress call from two fishermen aboard the sinking vessel *Courageous*. The SAR crew lowered an emergency pump which became wet and would not start. *Courageous* was abandoned. Its crewmen were picked up and returned to Key West safely.

Awards

Kitty Hawk won the first annual Habitability Award, established in 1979 by VAdm. Robert P. Coogan, ComNavAirPac, recognizing efforts by individual Pacific Fleet carriers to improve living conditions afloat. *Kitty Hawk's* selection cited the outstanding performance of her quality-of-life division and the excellent condition of the ship's berthing areas. Designation of *Kitty Hawk's* food services program as the best of all Pacific Fleet carriers also contributed to her selection for the award. The carrier is now authorized to display a blue "H" on her bridge, and the ship's name will be engraved on a perpetual trophy to be displayed at AirPac headquarters in San Diego.

The Bronze Hammer Award has been won by *Kennedy*. VAdm. G.E.R. Kinnear, ComNavAirLant, presented the award to Capt. L. Myers, C.O. Given annually to the ship making the most productive effort in self-help, *Kennedy's* crew earned the award by completely refurbishing a berthing compartment inhabited by 100 food service personnel.

AD1 Jerry Dano of VF-2's *Bountyhunters* was cited for quick thinking and decisive action by his squadron. On October 10, AD1 Dano prevented a potential disaster when he saw an engine fire ignite in an aircraft on the flight line. Dano stopped his tow tractor and extinguished the fire with a CO_2 bottle.

Et cetera

Ltjg. John Scheffler, an NFO from VA-34, explains the mission and functions of the A-6E *Intruder* to high school students from Chicago on their visit to Oceana last summer. VF-101 showed the guests a movie on the F-14A and gave the group a chance to sit in a *Tomcat* cockpit.

PEOPLE·PLANES·PLACES

Many aspects of an overhaul physically change the appearance of a ship. But *Enterprise* became the first major combatant in recent history to receive a new mast after she was commissioned. The characteristic dome on top of her island structure was removed in favor of the standard CV mast configura-

tion. With final installation, the old custom of placing a coin under the mast for good luck was resurrected. A stainless steel box with notable memorabilia and a Susan B. Anthony silver dollar were put in place by the ship's C.O., Capt. James W. Austin.

A pilot from VAW-112 aboard *Nimitz* competed against runners from all over the world in the 26-mile, 386-yard race from Marathon to Athens, Greece, last fall. Lt. Walter C. Joller, Jr., finished 85th out of 2,000 runners in the 8th Annual Athens International Marathon. In addition to the distance, runners encountered rough terrain and 90-degree temperatures through much of the race. Winning time was 2 hours, 31 minutes. Lt. Joller finished in 3 hours, 11 minutes, an outstanding achievement considering his training was limited mostly to jogging in the *Nimitz* hangar bays between flights in E-2Bs.

Change of Command

CVW-2: Cdr. John Waples relieved Cdr. R. Charles Schroeder.

HS-74: Cdr. David B. Frye relieved Cdr. John A. Langford.

VA-86: Cdr. Virgil Jackson relieved Cdr. Bernard Smith.

VA-195: Cdr. James M. Hays relieved Cdr. William C. Bowes.

VA-304: Cdr. F. J. Bender relieved Cdr. M. A. McCarthy.

VAQ-138: Cdr. Charles H. Smith relieved Cdr. James R. Shapard.

VC-3: Cdr. Brent D. Foster relieved Cdr. Jon P. Komarek.

VF-21: Cdr. L. R. Canepa relieved Cdr. J. H. Ruliffson.

VF-32: Cdr. Donald L. McCrory relieved Cdr. C. Flack Logan.

VF-202: Cdr. Terry R. Born relieved Cdr. Kenneth J. Fox, Jr.

VP-10: Cdr. John M. Kaiser relieved Cdr. K. D. Sullivan.

VP-24: Cdr. Thomas P. Hinson relieved Cdr. Gene K. Graham.

VP-0919: Cdr. Allan A. Connel III relieved Cdr. Robert C. Zimmerman.

VS-29: Cdr. Brian J. Havey relieved Cdr. J. M. Herring.

By Tom Horton

AIR TRAFFIC CONTROL

Air traffic control teams aboard *Ranger* are reporting increased training effectiveness – faster and at lower cost – following several months of operational evaluation of a prototype training simulator. Designated Device 15G21, the simulator allows carrier air traffic control center (CATCC) teams to maintain high levels of proficiency whether at sea or in port.

The trainer is believed the first to be integrated with a ship's operational radars. It creates a realistic air traffic environment by generating up to 24 primary and secondary simulated aircraft in the carrier surveillance radar system and five primary targets that can be displayed on automatic carrier landing system indicators. The system comprises several compact components which are fully integrated into the ship's operations hardware. Actual and simulated air traffic can be mixed on operations equipment when required for training purposes.

The trainer is also designed for use on the carrier's special direct altitude identity readout radar equipment, which *Ranger* has been evaluating since March 1978.

The air traffic control gaming area simulated by the 15G21 has a radius of 200 miles, and altitude coverage from zero to 50,000 feet.

As early as 1975, the need to give carrier air traffic controllers the capability to practice during extended non-flying hours was identified. Navy studies found that proficiency levels of CATCC teams were directly proportional to the number of air traffic control situations available, and that appropriate training time and methods in a realistic environment were then limited.

After a study of CATCC training in 1977 by the Naval Training Equipment Center, CNO gave the go-ahead to acquire a prototype shipboard proficiency trainer. Upon completion of specifications for the device, proposals were accepted and a contract was awarded to Gould, Inc., Simulation Systems Division, in October 1977.

The project's tight schedule was due to *Ranger's* February 21, 1979, sail date from San Diego for a western Pacific tour, during which the device was to undergo operational evaluation.

Designed to shipboard electronics equipment specification MIL-E-16400, the trainer was subjected to stringent environmental testing during development. Initial acceptance of the device was by the Naval Electronic Systems Engineering Activity, where the trainer successfully met all Navy specificaitons. CATCC personnel from *Ranger* participated in final testing.

After three months' evaluation, the system was transported to San Diego for installation and final acceptance tests aboard *Ranger*. Between March and May, 15G21 was operated in excess of 200 hours, simulating aircraft launchings, recoveries, refuelings and a wide range of other operations.

CATCC reports from *Ranger* indicate the device has increased team effectiveness, eliminated cost and disruption of sending personnel ashore for training, and is a valuable asset to operations.

The 15G21 has been approved for production and installation on the 12 other carriers, and at one shore installation. This simulator concept could also be used aboard other ships such as LPA and LHA types for controller training involving tactical deployment and recovery operations of helicopters and AV-8s.

Second of Two Parts

NIGHT ATTACK

On December 4, Martin submitted two papers through the chain of command, on the use of radar and night warfare. One was primarily a report on radar performance as he and Henry Loomis had determined it. He included some thoughts on search techniques, stressed that operators would require daily practice and requested that "I be permitted to break the ice on night radar experimental flights from this carrier at sea."

The second paper proposed that, "This air group should immediately commence practicing for a night attack," and described a fundamental doctrine. The key points were:

- "A standard night attack procedure should be planned and practiced until it can be carried out without a hitch. This procedure should not necessarily be the simplest one, but should be one having the best chance of launching a successful attack and of safely recovering the aircraft. The bugaboo which surrounds night operations will disappear only as soon as enough of it is done to make pilots and radar operators feel confident and comfortable.
- "For flexibility, ease of rendezvous and simplification of doctrine at the scene of the attack, the night carrier attack group should be comparatively small. Only those pilots who have shown their competence for night flying should be scheduled for a night attack group. If the entire air group is competent at night flying, then the attack should be launched in waves. To be able to stay in the air without spinning in is not sufficient. Since the night flyer over a darkened sea cannot take his course around bad weather, he must be able to navigate while flying on instruments as he does in contact conditions, making intelligent use of all radio aids at his disposal."

The basic points were that night work required instrument flight and constant practice, and stemmed directly from Martin's own experience and observation of other pilots. He stressed that night attacks should be made with a few planes or launched in small waves to avoid confusion and that the safest and most effective procedures should be used.

The particulars reflected not only the points already mentioned but also his estimate of night capability aboard *Enterprise*. He proposed using a radar-equipped guide plane. It would be the first aircraft launched and would circle with lights visible only from above. The other planes would take station on the guide plane and accompany it to the target where the guide plane would drop flares to provide illumination. The others would then attack in order. Fighters would strafe. Dive bombers would make glide-bombing attacks and torpedo planes would launch torpedoes against targets lit by burning ships or flares. The planes would join up on the guide plane for return to the carrier. There, the guide plane would circle, providing a reference point, until all other aircraft had landed.

By Lee M. Pearson

Following the war, Bill Martin became a test pilot, commanding officer of the carrier Saipan, and executive assistant and senior aide to the Chief of Naval Operations, among numerous other assignments. He was promoted to rear admiral in 1958 and to vice admiral in 1967. He was Commander U.S. Sixth Fleet and Deputy Commander in Chief of the Atlantic Fleet. Vice Admiral Martin retired, after nearly 37 years of service, on February 1, 1971.

The most basic element of the doctrine was that night pilots must be competent instrument pilots. In December 1942, Martin prepared a manual entitled *Instrument Flying and the Carrier Pilot*. He envisioned this as a self-teaching course through which any interested pilot could soon become competent in attitude, or full-panel instrument, flying. He emphasized a point made earlier by Lieutenant Colonel Karl W. Day that with good maintenance, the gyro instruments would become trustworthy. Martin wrote, "This night carrier training begins with getting the pilots highly skilled in instrument flying and I would like to say that the very first step in developing confidence in instruments is good instrument maintenance. A definite instrument maintenance plan should be established similar to our plan for engines with a routine for checking and a time plan for replacing instruments before failure."

As Martin developed instrument maintenance in 1943, it became "a plan of changing our gyro instruments after 200 hours of operation. . . .The Navy's practice heretofore has been to change them as soon as they go out, which is a poor time . . . because you might be using them at the time they go."

The air group commander expressed some interest in Martin's recommendations and forwarded them to the Commander Naval Air Force, U.S. Pacific Fleet, for evaluation.

The air group commander did have problems, however. The planes equipped with radar were assigned to VT-10. Martin was executive officer of VS-10 and, shortly became its commanding officer. If he were to divert himself from his primary duties, the scouting squadron would probably suffer. No one else had the interest and determination to push night warfare.

Moreover, radar maintenance problems were close to unmanageable. In April 1943, the British carrier, HMS *Victorious*, was operating with a task force in the South Pacific. She was outfitted with a squadron of radar-equipped TBFs and began working on radar-guided torpedo attacks. *Victorious* had hopes of duplicating the success of HMS *Illustrious* in 1940 when she sank major Italian fleet units in a night torpedo attack at Taranto. However, *Victorious* was frustrated by the poor performance of the radar and the inadequate flare load that the TBF could carry.

In any event, the air group commander forwarded Martin's recommendations to the Commander Naval Air Force, U.S. Pacific Fleet, Vice Admiral John H. Towers. According to Lt.Col. Day, it was Towers who was responsible for his work on instrument flying in 1940-41. Thus, the admiral would probably be receptive to the recommendations. However, sometime in early 1942, Henry Loomis returned to Pacific Fleet headquarters at Pearl Harbor. Henry's brother, Lee, was flag secretary to VAdm. Towers. As Henry recalls, he told Lee of his and Martin's radar trials

and that they were developing a promising technique for night attack against shipping. The major requirement was good night pilots and Henry knew one who should be reassigned from dive bombers to torpedo planes. Lee was impressed and arranged for Henry to explain his views to VAdm. Towers. This is the reason why, after *Enterprise* returned from the South Pacific in early summer, Martin became commanding officer of Torpedo Squadron 10.

It was about that time that the air intelligence branch of BuAer began conscientiously reporting on such subjects as night warfare and low altitude bombing. It is tempting to ascribe a cause and effect relationship: Martin's views led VAdm. Towers to request that all pertinent information on night warfare be circulated to the operating forces. Lee Loomis had helped organize the air intelligence branch before he went to Pearl Harbor and it was logical that he advise the air intelligence branch that Towers was interested in night warfare. It seems more likely, however, that the air intelligence branch, in its efforts to make certain all aspects of the air war were adequately described, independently decided that matters pertaining to radar, night warfare, etc., should be analyzed and reported. In any event, air intelligence reports distributed at squadron or air group level covered the night efforts of Navy and Marine Corps land-based aircraft and patrol planes of the Army Air Force which was doing more night than day flying in the Pacific. The reports also contained considerable information on night work of the Royal Navy and Royal Air Force.

Of equal value, Towers built up the radar expertise of his staff at Pearl Harbor. One officer whom he assigned to radar work was Lieutenant William B. Chace, an air combat intelligence (ACI) and communications officer. Chace had first seen airborne radar in a TBF at Pearl Harbor in 1942 and found that Henry Loomis was one of the few officers who could explain it to him. As ACI and communications officer for VB-13, Chace embarked with the squadron in *Saratoga* in October 1942 and remained aboard until July 1943. During that time he spent two months as an exchange officer on HMS *Victorious*, where he found more appreciation and understanding of radar than he had on *Saratoga*. As a result he was able to help *Saratoga* squadrons investigate radar and establish a maintenance organization as well as a doctrine on teaching and instructing radar operators. He also established a training course for radar operators at Tontouta Airfield, New Caledonia. Chace returned to Pearl Harbor in July 1943 and was assigned to the AirPac staff. One of his duties was to indoctrinate air group commanders and squadron commanding officers in the capabilities of airborne radar and the techniques for its use.

In May 1943, *Enterprise* returned to Pearl Harbor and then went on to Bremerton, Wash., for repair and modernization. The air squadrons and air group reformed at Seattle.

During the first month VT-10 was at Seattle with Cdr. Martin as its new C.O., aircraft were acquired and administrative and tactical organizations were formed. Martin had the opportunity to develop his beliefs about night warfare. All gunners were sent to gunnery school. The two slots allotted his squadron in the radar maintenance and operations school were expanded to accommodate 16 aviation radiomen. Two mechanics attended Boeing's flight instrument maintenance course and one received a certificate which assured pilots that he was a top notch instrument maintenance man.

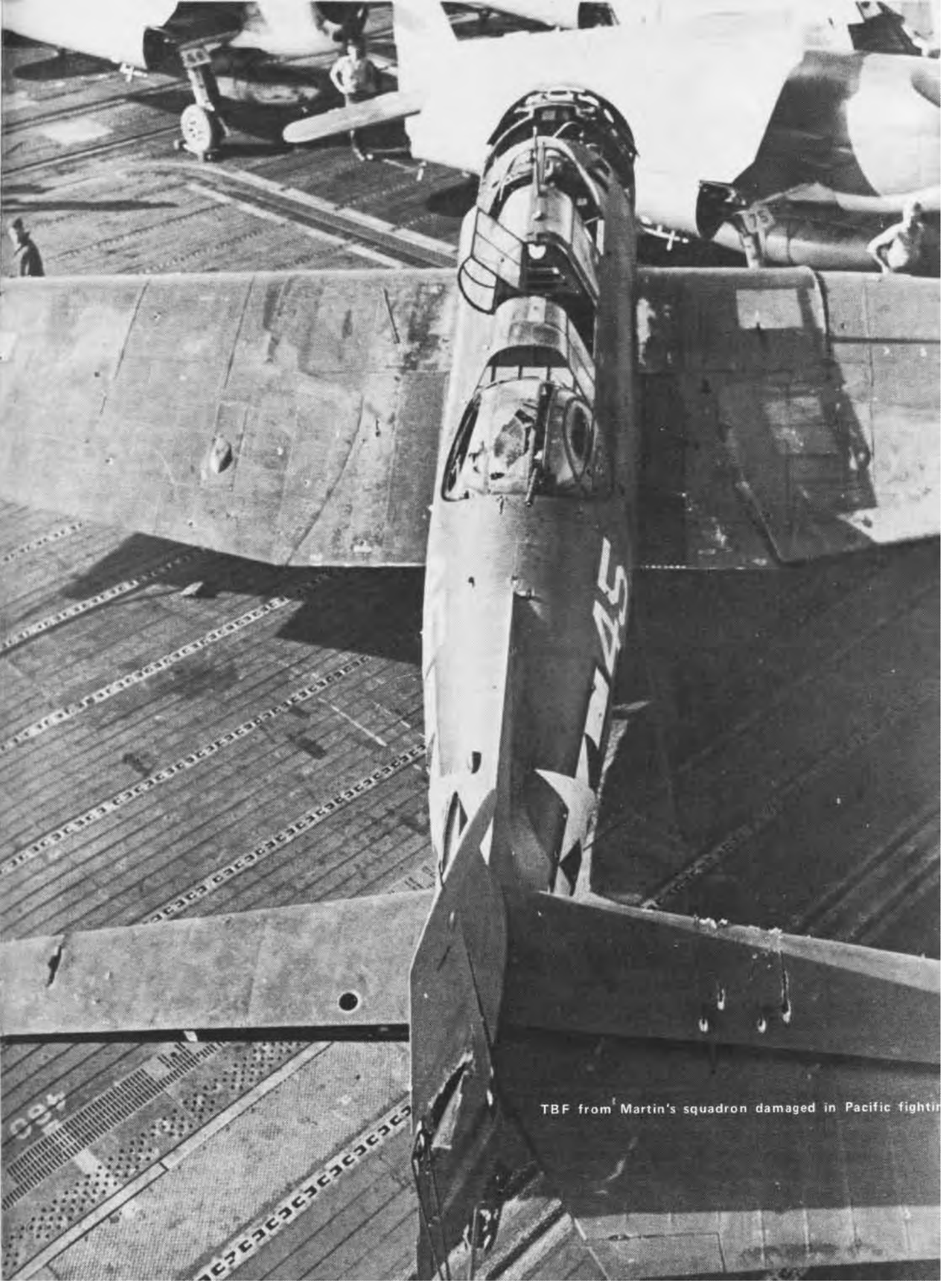
The pilots received indoctrination, and tactical and instrument flight instruction. While the aircrewmen were away at ground school, flying was limited to formation and instrument work, which did not require crewmen. At Seattle, the pilots were handicapped by weather, terrain, lack of targets and distance from the sea. To accommodate Martin's insistence on night work, the air group commander arranged for VT-10 to operate briefly at Pasco, Wash., which almost always had good weather. But the night they arrived, Pasco experienced ground fog and the foul weather continued the entire time they were there.

The second-tour members of the squadron, who knew Bill Martin and his enthusiasm for night work, arrived at Seattle expecting a lot of night flying. They were probably somewhat surprised at the minimal amount they accomplished although they did get a review of fundamentals. On November 1, carrier-qualified pilots flew their planes aboard *Enterprise* and she set a course for Pearl Harbor, first stop on the way to the war zone.

As the Pacific Fleet officials were planning the invasion of the Gilbert Islands, they found they had more carrier air groups than carriers. Air Group Six, commanded by Lieutenant Commander E. H. "Butch" O'Hare, had been intensively trained at Hawaii, and was scheduled to replace Air Group 10 on *Enterprise*. Torpedo Squadron Six, under Lieutenant Commander John L. Phillips, Jr., had conducted experiments in radar-directed night attack including both torpedo attack and masthead bombing (or skip bombing as the press preferred to call it). Phillips reported to AirPac that the radar-directed masthead bombing was the most effective.

Phillips' reports indicate that a carrier squadron in the Hawaiian area engaged in tactical night training while Air Group 10 was still in Seattle. These reports also shed some light on the background of a night team operation that O'Hare and Phillips developed in conjunction with Rear Admiral A. W. Radford: two F6Fs, flying wing on a radar-equipped TBF, provided a defense against night raids by Japanese planes. The reports say little as to the intensity of VT-6's night training. Bill Chace recalled some 35 years later that Air Group Six exhibited little interest in night work. He was probably contrasting VT-6's night activity in September and October 1943 with that of VT-10 in November and December.

Bill Martin welcomed the opportunity to complete training with his squadron and to develop night attack tactics. He knew that the new aviators in VT-10 needed more skill and discipline to minimize casualties and that even the second-tour men needed intensive night training. However, the young flyers regarded their beaching as an unnecessary delay in getting on with the war. On November



TBF from Martin's squadron damaged in Pacific fightin

VT-10 C.O., Bill Martin, is flanked by his aircrewmen J. T. Williams, left, and W. R. Hargrove.

5, Ensign Gibby Blake wrote, "We got word this morning that the whole air group was to leave the ship as soon as we got to the Hawaiian Islands. That was a big surprise and was sort of a blow after everyone was ready for a long voyage on the *Big E*." On November 6, the pilots of Air Group 10 flew ashore, and VT-10 and VB-10 were based at NAS Puunene on the island of Maui.

The first week of training was routine: gunnery practice against towed sleeves, strafing, instrument flying and a couple of night flights. On November 10, VT-10 flew inner and intermediate patrol over the task force which would participate in the invasion of the Gilbert Islands. They were somewhat goggle-eyed at the size of the mighty fleet. Gibby Blake wrote, "There will certainly be an island of great importance taken by that outfit."

After that, serious night training began. One cardinal point that Martin insisted on was that flights be made in the pre-dawn hours. If any of the pilots encountered difficulty – engine or radio trouble, or bad weather – and could tough it out for a couple of hours, they would have daylight to help solve the problem. Martin also watched the pilots carefully. When anyone became fatigued he was grounded for a day or two of rest. Fatigue might turn into fear and fear might infect other pilots. During the first month, Martin scheduled a flight every night. None were cancelled because of bad weather. The field always met minimum instrument conditions, that is, 300-foot ceilings. Gibby Blake made his first pre-dawn flight on November 16: "We flew down to Hilo and back practically on instruments because it was raining over the ocean most of the way." He returned at 0615 and was off again at 1030 on a radar bombing hop.

Through the next month, Blake recorded a total of 10 more night flights – one every third night. Initially, he was not enthusiastic. His third hop, he noted, "was dull as hell and I was sleepy as hell." After the fifth, he complained ". . . as if I haven't had enough," but he added the judgment that it was "quite a bit harder to judge runs at night." They "stayed up two hours in pitch black and ran into storms, etc. Not much fun." Another flight "was pretty dull." Gripes gradually gave way to pride in his increasing skill. "We got out to the cruisers and DDs by radar and then made minimum altitude attacks, turning on our landing lights as we'd go over the top of them." Another night, "We made a night radar attack on a carrier and two DDs and really gave them hell." Finally, "I flew wing on the skipper and we both went right over the new CA [heavy cruiser] *Boston*."

At that time, less than a third of the flying was done at night. According to Blake's diary, he made 26 daylight flights during the same month that he made 10 night sorties. These were for radar indoctrination, bombing, gunnery, search for missing planes, transport of crewmen, etc. Martin viewed one hour of night training as worth two of day work and maintained that a squadron trained for night attack would not lose daylight proficiency. Despite that, he superimposed the night training on top of the normal day training schedule, thus adding to the squadron's workload. "It was extra duty, and in consequence was looked upon by most pilots with distaste."

During the training, Martin looked over the young officers assigned to the AirPac staff or attending schools of one kind or another. He recognized that Bill Chace, with his air intelligence background and radar skill, would be a useful member of his squadron. Ensign James W. Plummer was the top man in a course on airborne radar operations that AirPac was giving to young officers with radar maintenance training. He was an electrical engineering graduate from the University of California at Berkley and had attended Navy courses in radar maintenance at Harvard, MIT and NAS Corpus Christi. Martin managed to get both Chace and Plummer assigned to VT-10 where they counseled the aviators, led and trained the enlisted men and flew on many of the combat missions.

One last element needed for low-level bombing attack began to materialize in late December. VT-10 obtained two bomb fuses with a four to five-second delay, making it possible for the squadron to try an actual masthead attack. They found that the bomb detonated four to five seconds after it was dropped, throwing up a water spout and debris which subsided in about eight seconds and made it safe for another plane to pass over the target. Thus, they established a minimum interval of 15 seconds between bombing runs. Night masthead bombing with its high probability of hits became a reality.

Masthead bombing was not new. Essentially, it was low altitude, horizontal bombing. The Germans and English had both used daylight masthead bombing in antishipping attacks early in the war. As the antiaircraft protection of merchant ships was increased, aircraft losses also increased

and the method fell into disfavor. When General H. H. Arnold visited England in April 1941, Winston Churchill gave him glowing accounts of it. Arnold promptly assigned a project to Eglin Field. By the end of 1942 Eglin had submitted an optimistic report of its worth. In the southwest Pacific, Major William Benn of the Army Air Force (AAF) developed it into an effective tactic which sank a sizable Japanese convoy in the Battle of the Bismarck Sea, March 1-5, 1943.

The bomb fuses used by the AAF lacked the safety features required for carrier use. This was particularly evident after an episode at Espiritu Santo in early 1943. While watching a movie, men were sitting on a bomb, in which the AAF delay fuse was installed, when the bomb detonated with considerable loss of life. It was nearly a year later when a "carrier-safe" fuse with appropriate delay became available.

VT-10 boarded *Enterprise* on December 23, 1943. In mid-January, Task Force 58, which included the carrier, departed Pearl Harbor for the Marshalls campaign. During the invasion of Kwajelein, *Enterprise's* air group neutralized the enemy air base at Taroa on the atoll of Maloelap and flew pre-landing strikes and landing support on Kwajelein.

Truk, at that time a Japanese naval stronghold, is about 1,000 miles west of the Marshall Islands. Some of the Pacific Fleet planners had wanted to hit Truk in early February, immediately after the landings in the Marshalls, when it would have contained major elements of the Japanese fleet. The amphibious force commanders were concerned that they would still require close air support and refused to release the fast carrier forces at that time. Consequently, the Truk strike was scheduled for mid-February instead. By that time the Japanese had recognized that Truk was vulnerable and the naval vessels had fled the atoll. Thus, the Truk strike was against a heavily fortified island group with many merchant ships but nearly devoid of naval vessels.

When Martin learned that the Truk strike was scheduled, he planned to make a surprise night raid on February 16. The senior commanders, doubting the effectiveness of a night strike, preferred to surprise the Japanese with a dawn hit. Thus, the 16th was devoted to daylight strikes against air stations, shore installations and shipping in the harbor. It was at the end of the busy day that Martin told his aviators that they would be going out early the next morning to make a pre-dawn strike on shipping. This would mark the Pacific Fleet's first night aerial strike from a carrier. (See *NANews*, January 1980.)

Martin's interest in night flying dates back to his days as a student flyer at Pensacola in 1937. In early 1942, he learned the simplified techniques of attitude instrument flight and also heard about the electronic eye of airborne radar. From that time on, he took positive action towards introducing night combat into carrier warfare wherever possible. In late 1942, flying from Noumea, New Caledonia, and Espiritu Santo, New Hebrides, he and Henry Loomis worked out techniques for airborne search and explored various forms of radar-guided night attack. Based upon their findings, he submitted formal proposals for night combat flight from carriers.

Martin was not the only advocate of night and bad weather flying. Karl Day identified a number of senior flag officers who supported night warfare: John H. Towers, William F. Halsey and John S. McCain. Other supporters, at staff and task group command levels, included Arthur W. Radford, Ralph Ofstie and Forrest Sherman. As Martin's formal recommendations passed through the chain of command, they received a mixed reception – from substantial support, through indifference, to active opposition.

Politically speaking, Martin's task was to marshal the support of the men in high places who were receptive to his views, and to avoid antagonizing the skeptics. In this he was aided by Henry and Lee Loomis.

Navy air intelligence, made up primarily of civilians in uniform, believed that all types of techniques should be examined for possible advantageous use in the conflict. It was largely through air intelligence reports that Martin learned of the successes and failures of other organizations and thus channeled his efforts into more promising directions, while avoiding blind alleys.

At his own level, that of a senior Naval Aviator in the squadron and air group, Martin also found a broad range of opinions. Few objected to his working at night as long as he did not ask them to join him. He won some over to his point of view but soon recognized it was more profitable to work with younger aviators who were less firmly committed to contact flying. As an instructor, he prepared flight manuals and reviewed the basics of instrument flight with his young pilots. He taught them to have confidence and reenforced it with constant drilling.

He insisted that their instruments be properly maintained since confidence in night flying begins with instrument reliability. He also reminded them that they were relatively invulnerable to antiaircraft gunfire, because it is hard for a gunner to hit something he can't see. As he put together an organization, he sought out men with skill and drive to perform complex tasks involving radar technology.

In this way, Martin put together a squadron which he was convinced would open a new day (more correctly, a new night) in carrier warfare. The first chance to prove his concepts came during the February 17, 1944, night strike on Truk. Ironically, when the opportunity came, he was grounded with a broken elbow.

He kept his thoughts to himself that early morning as the last plane left the catapult for rendezvous and the flight to Truk. Anxiously, he awaited their return. As the darkness of night faded into dawn, his squadron returned, less one plane. As the number of hits was totaled and divided by the number of planes, even he was astounded to note an average of 1.08 hits per plane (108 percent hits per sortie as his action report described it).

In his report, Martin urged immediate creation of a night air group and designation of a night carrier. More months would pass before these steps would be taken, but the Truk raid was both vindication of his approach and a harbinger of things yet to come.

Letters

Enlisted Pilots

I am gathering information on the pros and cons of having enlisted pilots in the military. Would appreciate receiving opinions and references to articles, reports, etc., on this subject.

Also, in *Naval Aviation News*, June 1979, Neil Callahan says that Butch O'Hare is "undoubtedly the only military aviator with two airports named for him. . . ." Not really. Frank Luke, Jr., America's second-ranking ace of WW I (and my cousin) gave his name to Luke Field, the Army Air Force field on Ford Island, Hawaii, in 1919. Later on, Luke Air Force Base in Arizona was named for him. There is also a Luke Field in Binghamton, N.Y., but I do not know if it is named for the WW I aviator.

Lt. Robert G. Schipf, USNR(Ret.)
Science Librarian
University of Montana
Missoula, Mont. 59812

Hawkeye Salute

We East Coast *Hawkeye* pilots salute the accomplishment of our West Coast brothers in VAW-88 as evidenced by the picture (*NANews*, September 1979, page 23) which recorded a formation flight of five E-2Bs.

We wonder, however, where the other five airplanes were. There was obviously sufficient room left in the formation for another squadron. We also wonder how long the flight lasted and what was the percentage of full systems capable.

While our West Coast brethren were busy setting new PAO records, we of VAW-78 established a few records of our own, although they were less photogenic. VAW-78 was the first reserve E-2B squadron to carrier qualify, the first to deploy for AcDuEra aboard a carrier, the first to fly the E-2B at night aboard a carrier, and the first and last to deploy to the Canal Zone (effective October 1, 1979, the Zone was disestablished).

The undersigned hereby challenges VAW-88 to fly five FSC aircraft in formation and will buy a keg of suitable spirits for its maintenance department if it does so within one year or prior to the undersigned being transferred from VAW-78.

Cdr. James A. Metcalfe, USNR
VAW-78
NAS Norfolk, Va. 23511

Ed's Note: Over to you, VAW-88.

Numbers Needed

Bob Lawson, editor of *The Hook*, voice of the Tailhook Association, is seeking a list of Navy numbers used in identifying overseas air stations and bases during WW II and for a couple of decades afterwards. For example, an air station somewhere in the Pacific would be identified by its name and a number. Anyone who might help, please write.

Bob Lawson
Editor, *The Hook*
5121 Central Ave.
Bonita, Calif. 92002

For Want of an R

I'm writing to correct an error in the July 1979 issue, in "People, Planes, Places." Miss America 1979 is Kylene Barker not Baker.

Obviously, her beauty must be the distracting factor. A fellow Hokie sends.

R. K. Kaplon, LCdr., USNR
NAS Atlanta
Marietta, Ga. 30060

P.S. Hokie is a nickname for a VA tech person.

While reading "People, Planes, Places" in the July 1979 issue, I noticed that *Naval Aviation News* reported Miss America 1979's name as Kylene Baker. Kylene Barker, a VPI and SU graduate, is the current Miss America.

Jody Scott
VPI and SU, '75
Op 982
Washington, D.C. 20350

From an Argentine Reader

Thank you very much for your kindness in answering my letter of August 12 and sending me the material I requested. Through it, I can continue to learn more about U.S. Naval Aviation and its men and women. *NANews* helps would-be Naval Aviators to feel like a part of aviation.

Perhaps you could dedicate two pages regularly to new developments in military aviation around the world, on the order of "Did You Know." Another suggestion is a name for the new LAMPS III helicopter. I would call it the Sea Eagle, as it will fight against missiles, ships and subs and will be a sea control masterpiece. It is also the American symbol. [LAMPS III has been named the *Seahawk*.]

I can only add to this letter my best wishes to you and, through you, to all those who make the U.S. Navy and Naval Aviation the best team one can find.

Fermin Luis Gil
Colodrero 3364
1431. Cap.Federal
Argentina

A Thank You

Today I received our first copy of *Naval Aviation News* which you were kind enough to send me. The Denver Flight Operations staff here at Continental Airlines consists of seven 727-rated pilots, three of whom are ex-Naval Aviators. While we most certainly appreciate and value your publication for its professional reputation and contributions to the aviation community, I must admit that as one of the true brotherhood, I enjoy sharing our naval tradition with our land-locked friends.

Darryl W. Christian
Assistant Flight Manager
The Robert F. Six Operations Center
Stapleton International Airport
Denver, Colo. 80207

SOS (Save Our *Sally*)

When I was in England last spring, I saw an article in the British press about the *Sally B*, the last airworthy B-17 *Flying Fortress* in Europe. This symbol of American WW II air power is in desperate need of parts and maintenance to keep her alive. As the article appealed: "A complete overhaul and four new engines are needed. . . if *Sally B* is to continue flying as the only memorial to the gallant sacrifice of the 79,000 young Americans who died far from family and home to preserve the freedom of the world." I would be most grateful if you would include a story on the *Sally B* in your publication.

John Walsh
44 Dietz Road
Hyde Park, Mass. 02136

Note: *Sally B*, built in 1944, is privately owned and run as part of the USAAF, WW II Memorial Flight in memory of U.S. airmen who died in Europe. Donations are needed to keep her flying. The address is: USAAF Memorial Flight, 277 Chiswick High Road, London W4 4PU, England.

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