
NAVAL AVIATION
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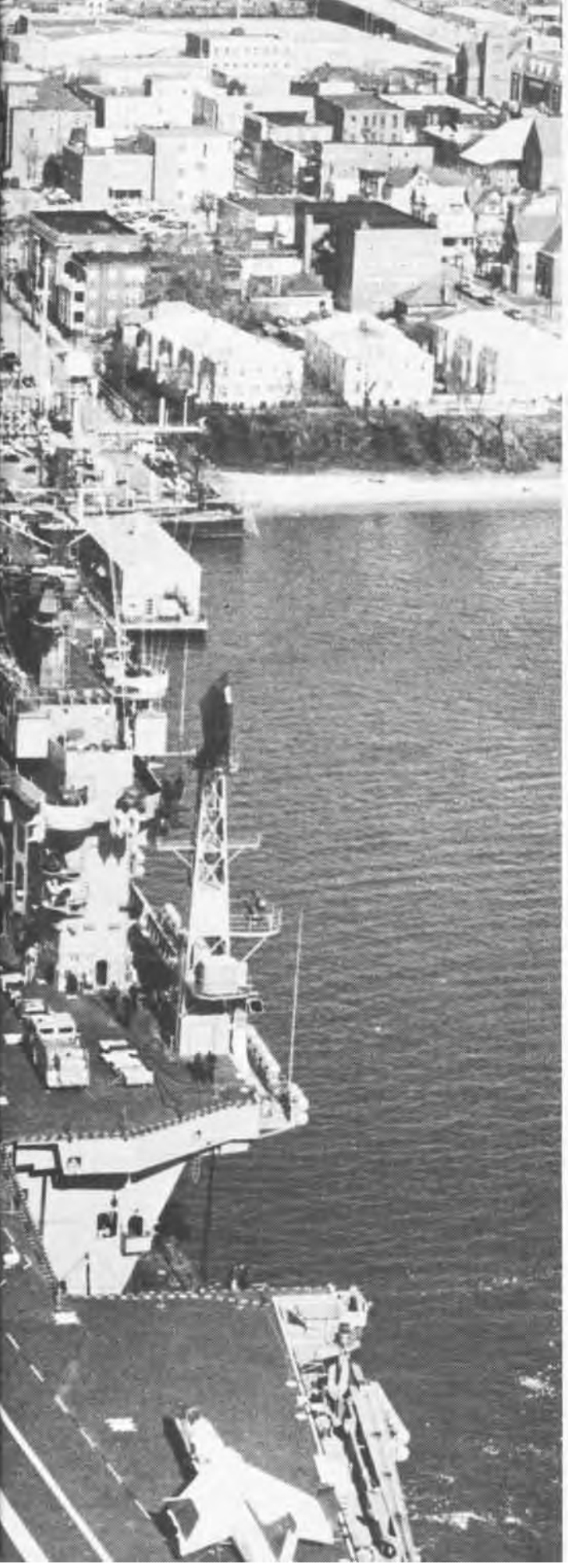
JULY 1975



NAVAL AVIATION NEWS

FIFTY-SEVENTH YEAR OF PUBLICATION

THE STAFF

COVERS — Front, JOC Bob Moeser photographed the VA-93 plane captain giving a signal prior to Skyhawk launch from USS Hancock during Yankee Station operations, April 1967. Back, CVWR-30 aircraft sweep over Lake Tahoe during Fallon, Nevada, deployment last year. Photograph is by VFP-306. Army Specialist 4 Roger Teel was on a helicopter flight when he captured this view of the Navy's newest carrier, USS Nimitz, seemingly an elevated extension of a Newport News, Va., main street.

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Letters

SFTE Symposium

The Sixth Annual Symposium of the Society of Flight Test Engineers will be held August 13-16 at the Rodeway Inn Downtown, St. Louis, Mo. This year's theme is "Toward More Effective Flight Testing."

All those interested in flight testing are welcome, both SFTE members and others.

For more information contact: St. Louis Chapter 8, Society of Flight Test Engineers, PO Box 1112, St. Ann, Mo. 63074.

Fly-In

The Fourth Annual Stearman Fly-In will be held in Galesburg, Ill., on September 5, 6 and 7.

Many exciting events have been scheduled including formation and precision flying, bombing competition, spot landings and an authentic restoration contest. A full air show with aerobatics, skydiving, etc., is scheduled for the last day. A number of WW II war bird owners have indicated they will attend.

All present owners and pilots of the Stearman and all former students, instructors, mechanics – any one who may have nostalgic memories of the Stearman – are invited.

For further information contact Ted McCullough, 1215 Monroe Street, Galesburg, Ill.

For Aircraft Buffs

Aviation Quarterly is a new publication which, through photographs – many in color – and text, is dedicated to the past, present and future of aviation with emphasis on historical events in the age of flight. Subscriptions are available through Airtrails, Inc., 6045 Wilson Blvd., Arlington, Va. 22205.

The Aircraft Owners and Pilots Association, Washington, D.C. 20014, has published *Yesterday's Wings*, a chronological compendium of articles by Pete Bowers. The principal subject matter of the book is historical aircraft and the role they played in helping shape the world of aviation.

Old Issues

My brother in The Netherlands would very much like to complete his collection of *Naval Aviation News*. He needs issues from 1955 to 1965. Would any of your readers have any back issues either for sale or to give away?

My brother's hobby is fighter planes (model and picture collecting), and naval air forces (of most countries but U.S. Air Force and U.S. Naval Air Force in particular).

Theo R. Klopper
642 Arrowhead Drive
San Jose, Calif. 95123

Help Needed

I have subscribed to your magazine for many years and believed it to be the best military pub printed. Please don't change the format; just increase the amount.

I have been in the USAF for 16 years and am doing research on USN and USMC reserve units, their history, aircraft types, especially the colors and markings on their aircraft. Any photos and squadron histories would be greatly appreciated.

Harvey I. Cohen, TSgt.
312 Spaatz Ct.
Selfridge ANG Base, Mich. 58045

Ed's Note: We fumbled. On page 40 of the January 1975 issue, reference was made to USS *Coral Sea's* 20th anniversary last October. In fact, *Coral Sea* was 27 years old on October 1, 1974.

Reunion

An all hands reunion of VQs 1 and 2 will be held at Cameron Station, Alexandria, Va., on July 26. For more information contact Commander John E. Taylor, 5002 Woodland Way, Annandale, Va. 22003. Home phone: 703-978-5862. Office: 703-697-7445 or autovon 227-7445.

PN-7

Enclosed is a photo of an early model seaplane similar to the PN-9 discussed in "One by Air" in the December 1974 issue of *Naval Aviation News*. This photograph has been in my family for many years but no one has been able either to classify the

aircraft or identify the squadron by the unit markings. Inasmuch as my father obtained the photo when he was in the Navy, I would estimate the date as sometime in the early to mid-Thirties. Based on what I know about prewar squadron markings, the aircraft would belong to VS-11 but I also don't recall an outfit with that designation during that period. If it did exist I would expect it to be operating smaller carrier type aircraft rather than *Boats*. Any information you can obtain will be appreciated.

Philip J. Wiest, LCdr., USNR

Ed's Note: The photograph shows one of two PN-7s built. It was probably taken when the aircraft was assigned to Scouting Squadron One in 1925.

The Monitor

In the November 1974 issue of *Naval Aviation News*, page 39, is a comment that VXN-8 recently discovered the wreckage of the *Monitor*.

The January 1975 issue of *National Geographic* carries an article about the discovery of the *Monitor* which mentions the Navy only just barely, VXN-8 not at all, and says the ship was located by a civilian research vessel. Awright, what gives?

David G. Graham, YN1
VQ-2
FPO New York 09501

Ed's Note: Lt. Dale Brehm of the CFTS-1 staff at Norfolk provided the following information: "The *Monitor* was discovered from tapes made on July 17, 1973. The flight was made in an RP-3D from VXN-8 commanded by LCdr. Joe Capley. It was a high-altitude system evaluation flight in conjunction with NavOceano. The operations were conducted off the Cape Hatteras/Cape Charles area in hopes of locating the *Monitor*. The project, entitled Project *Cheese Box*, was a joint undertaking by NavOceano and the Naval Academy. Tape analysis revealed a likely finding which was pinpointed within a few hundred yards by a low-altitude track flown on January 20, 1974. The find was later confirmed as the wreckage of the *Monitor*."

did you know?

Maintenance Awards

The Naval Air Systems Command has announced the 1974 winners of the LCdr. Villard C. Sledge Maintenance Memorial Awards. The annual awards were established in 1973. They are principally designed to promote improvement in jet engine maintenance and to cite those units which achieve excellence in their critical mission of supporting Naval Aviation. More than 100 activities are eligible for the award.

The 13 intermediate maintenance activities which earned the award for excellence during calendar year 1974 are listed below. Winners are categorized by the degree level within IMA.

Activity	Engine	Maintenance Degree
NAS Alameda	TF-30	Second
NAS Cecil Field	TF-30	First
NAS Cecil Field	TF-41	First
NAS Chase Field	J-85	First
NAS Lemoore	TF-41	Second
NAS Patuxent River	T-56	First
NAS Pensacola	T-58	Second
NAS Whidbey Island	J-52	First
NAS Whiting Field	T-53	First
NS Rota	T-56	Second
HAMRon-11	J-79	First
HAMRon-15	J-79	Second
HAMRon-26	T-58	First

In addition to an award's certificate, an appropriately engraved plaque is presented to each outstanding unit. The plaque will be passed to next year's winner.

LCdr. Sledge, USN, deceased, dedicated 30 years of enlisted and commissioned service toward improving Naval Aviation maintenance systems and procedures.

NavAir Inst. 5305.4A of November 25, 1974, contains details of the award.

Harpoon Test-Fired

A *Harpoon* missile was successfully test fired from a submerged submarine at the Pacific Missile Test Center recently, the first time it has been launched from an underwater platform.

The all-weather, anti-ship missile can also be launched from aircraft and surface ships. The *Harpoon* has been successfully fired 21 times in 24 tests from P-3 *Orions* and from surface ships. Future plans call for installation of the missile on all combatant surface ships and on submarines and on several aircraft.

Hush House

This summer the first acoustical enclosure in the United States utilizing the Swedish dry noise suppression system will be completed at NAS Miramar, Calif. For the exhaust system, the system utilizes a long, acoustically lined, stainless steel duct or augmenter tube. The building housing the aircraft is an acoustically lined steel structure. Its front doors contain the specially treated inlet which furnishes air for the jet engines.

Further studies are already under way to improve hush house technology using the new Coanda/refraction effect. A full-scale model has been constructed and will undergo additional testing at NAS Lakehurst.

The Naval Facilities Engineering Command is also initiating a hush house criteria study. Issues relating to hush house siting, optimum utilization rates for aircraft maintenance, total hush house requirement for fleet vs naval air rework facilities, impact of noise reduction on and off station, etc., will be examined.

Association of Naval Aviation

In 1958, Vice Admiral Robert B. Pirie, then DCNO(Air), endeavored to establish a fraternal organization to bring together all designated Naval Aviation personnel. The idea gained strength and in 1974 Vice Admiral William D. Houser, DCNO-(Air Warfare), proposed the concept to Secretary of the Navy J. William Middendorf, who promptly endorsed it as did Admiral James L. Holloway III, CNO. As a result the Association of Naval Aviation, Inc., came into being in January 1975, incorporated in the state of Florida.

The basic objective of the association is to serve as an umbrella and support organization for the thousands of Naval Aviation personnel and for the many diverse organizations and parts of Naval Aviation such as the Museum, Tailhook and Helicopter Associations, the Flying Midshipmen, Silver Eagles, Golden Eagles, ships and squadrons, Navy and Marine Fighter Aces, and many others.

As stated in the certificate of incorporation, the purposes of the association are "...to stimulate and extend appreciation of Naval Aviation, especially the history and achievements of Naval Aviation of the United States of America and to encourage and promote the science, technology, administration, art, advances and strategic application of U.S. Naval Aviation, past, present and future...."

Membership of the Association of Naval Aviation will be open to any officer or enlisted personnel, male or female, who are members of or who have honorably served in the naval aeronautical organization, afloat or ashore, as well as those individuals of the civilian sector who are considered to have contributed significantly to Naval Aviation or who have demonstrated an interest in...and who are prepared to advance the cause of Naval Aviation through education, promotional activities and charitable and philanthropic programs....to foster, encourage and develop popular public appreciation of all Naval Aviation and of United States Naval Aviation in particular.

A main project of the new civilian organization will be acquiring funds for the expansion of the Naval Aviation Museum. That museum, dedicated on April 13, has 70,000 square feet of area displaying dozens of aircraft and historical highlights. Future plans include expansion of the display area to 260,000 square feet.

Further information may be obtained by writing to the Association of Naval Aviation, Inc., Naval Aviation Museum, NAS Pensacola, Fla. 32508.

CAWSPS

Since 1969, the Naval Air Engineering Center, Lakehurst, N.J., has been actively involved in the development and use of computer facilities for preparing weapon-stowage lists for aircraft carriers. These lists provide information used in planning ship overhauls as well as new construction layouts.

The number and arrangement of various air-launched weapons and components specified by the lists then furnish a basis for forecasting and negotiating the costs of the magazine refurbishment necessary to accommodate the weapons.

This has always been a time-consuming manual process requiring extensive research into the configuration of the various magazines, the weapons assignable to particular magazines and their physical limitation. Because of these problems, the Naval Air Systems Command sought a better way. The result is the NAEC project CAWSPS (Computer-Aided Weapons Stowage Planning System).

The program is essentially a management planning tool. The computer accesses readily retrievable ship and weapon data to perform the subsequent shipfill arrangements of the desired weapons inputs. It does it automatically and rapidly according to the algorithm criteria within the program.

CAWSPS is installed on the nationwide time-sharing computer network of DOD's Advanced Research Projects Agency. The network is accessed by a local-

user desk-side display terminal in combination with data communications equipment. CAWSPS, once accessed by a user, is automatically searched by the computer. The required data is retrieved and displayed on the terminal.

The operation is entirely conversational in ordinary "English" language, permitting the computer to be used as a productive tool, without acquiring computer programming experience.

While improvements are planned, application of the program to other areas of engineering are being investigated. In May 1974, Puget Sound Naval Shipyard began a one-year evaluation of the program. The shipyard determined that CAWSPS can be used effectively in its aircraft carrier overhaul planning processes. It has also been demonstrated at the Naval Weapons Station, Earle, Colts Neck, N.J., for possible adaptation to ammunition ships' loadout planning.

F-18 The Naval Air Systems Command has picked the team of McDonnell Douglas and the Northrop Corporation to develop the F-18.

The new combat fighter will be powered by two turbofan engines in the 16,000-pound thrust class. The engine, the F-404, will be developed by GE.

The F-18 will be carrier suitable and able to deliver various Navy inventory air-to-surface weapons. Capable of speeds in excess of 1.5 Mach, it will have a combat ceiling in excess of 45,000 feet and a radius of action of more than 400 nautical miles. Its development will emphasize improved maneuvering performance, improved reliability and maintainability.

Project Manager for the new aircraft is Captain H. L. Halleland.

National Air and Space Museum This is an artist's concept of an exhibit of Sea-Air Operations which is scheduled for public viewing in Washington, D.C., beginning July 4, 1976. It will be located in the new National Air and Space Museum presently under construction on the Mall in the nation's capital. The exhibit represents one element of the Smithsonian Institution's Bicentennial Celebration. It is designed to capture the flavor of Navy carrier operations for the visitor. Special film and sound techniques will be combined with authentic surroundings to dramatize aviation activities at sea.

GRAMPAW PETTIBONE

Taxiway Takeoff

A C-117D arrived at its destination on a scheduled logistic flight which was uneventful in all respects. The aircraft commander was a "senior type." Following a one-night RON, the crew arrived at operations to find the crosswind was so severe that the C-117D could not depart. The same situation existed the following day. On the third morning winds were still too strong for the C-117's 15-knot crosswind limitation.

The aircraft commander elected to attempt a takeoff from the perpendicular taxiway angling towards the approach end of the runway. The operations officer was contacted to check the length of the taxiway. He was unable to find blueprints or accurate charts depicting the exact length.

The aircraft commander estimated the taxiway to be 2,000 feet, but a vehicle odometer measured it at .2 statute miles. The operations officer okayed the takeoff with the understanding that no passengers were to be taken and that the aircraft commander took full responsibility for the consequences.

The pilot estimated he could become airborne in 700 to 900 feet. The weather was 3,000 broken, visibility seven miles, with winds at 16 gusting to 23. The pilot had stated he must return to home base "today" because he had another trip to fly the next day.

The departure path had a large mound of earth and coral that rose 10 to 15 feet, 50 to 100 feet after the pavement ended. The taxiway contained a dip approximately 200 feet from the end, with a slight upgrade. A weight and balance form was filed with the aircraft weight given at 31,806 pounds. Nine passengers plus crew were aboard.

The C-117 was positioned at the "approach" end of the taxiway and the pilot commenced takeoff roll. He used the entire portion of pavement, became airborne and commenced a very steep climb after liftoff. He was observed to have cleared the hill by "maybe ten feet." He continued on to his destination with no apparent problems.

Upon inspection it was found that the aircraft struck two approach lights on the end of the runway at its liftoff point and left a long skid mark where it apparently became airborne over the dip in the taxiway and then touched back before finally becoming airborne. Later the taxiway was measured and found to be 1,340 feet long.

The aircraft sustained no damage and landed safely at home base.

Grampaw Pettibone says:

Thunderin' thunderin's! I couldn't believe my eyes when I read this report. This is by far the grossest violation of common sense I have heard about in years.

The part that really gets to me is that not only was the pilot jeopardizing his own life but that of his crew and passengers also. The fact that this gent was a senior type is particularly distressing. What an example!

Unfortunately, Grampaw Pettibone found out about this incident "un-officially" by two separate letters from different people – with basically the same facts. Boy, would I like to see this pilot's head roll!!

Slight Crunch

Following an uneventful night training flight, an A-6 returned to the ship. The pilot and NFO both had considerable experience in the *Intruder*. The approach and trap were uneventful. As the aircraft was taxied forward, the pilot was directed to a

ILLUSTRATED BY Osborn

spot on the starboard bow, facing aft and canted slighrly inboard approximately five feet behind an F-4. In rapid succession the taxi director gave signals for stop (to the pilot), chocks/tie down (to the handlers), and engine shutdown (to the pilot). The taxi director then left the area.

The pilot stopped the aircraft with normal brakes, pulled the emergency parking brake handle and released the toe brakes. In his own mind, he now began to question the immediate shutdown signal, knowing that the aircraft was not yet tied down. He attempted to relocate the director on the port side of the aircraft. At this point, various deck personnel began inserting the port MLG chock, attaching tie-down chains and opening the pilot's boarding ladder to remove the landing gear safety pins.

The A-6 *began to move forward* causing the ground crew to quickly withdraw. The sailor at the pilot's boarding ladder attempted to signal the pilot using a single blue wand but was unable to attract the pilot's attention.

At the same time, the director looked back from his new position forward and starboard of the A-6 and noticed the movement of the A-6's white radome. The director immediately signaled emergency stop while running toward the starboard side of the aircraft, but was unable to attract the pilot's or NFO's attention.

It is undetermined if this signal was given in time to prevent the accident. The A-6's port intake impacted the F-4's starboard horizontal stabilator. Neither of the A-6 crewmen noticed the aircraft motion or felt the impact. The pilot at this point noted the close proximity of the F-4, reapplied toe brakes, again pulled the parking brake handle and secured the port engine. Although both aircraft were damaged, there were no injuries to any of the deck personnel.

Grampaw Pettibone says:

Holy Hannah! I have trouble with these – as with all – accidents involving taxi-and-secure operations. With the night as dark as it was, it is extremely difficult to tell if you're moving or not. This is by no means an excuse for the driver, but it just tees me off that he received such poor service from the taxi director. It 'pears to me that not only do we have hot pilots, but occasionally we have hot taxi directors – that is "Let me show this guy how fast I can run through these signals!" When you give signals, you ought to stick around to see that they're understood.

IN PURSUIT of Carmen . . . and Hazel . . . and Ilsa . . . and Janet . . . and Diane . . . and . . .

Francelia, Fifi, Helene and *Camille* – gentle sounding creatures, aren't they?

Not so. These ladies are long gone now, but they whirled their violent way across land and sea as hurricanes, four of 178 recorded since 1943. Cruel phenomena of nature, these storms constituted unpredictable hazards over which man has virtually no control. Even with advanced technology epitomized by weather satellites and long-range radar, hurricanes have been formidable foes and ultimate conquerors of countless human beings. The damage left in their brutal wake has cost astronomical sums. Those unfortunate enough to have experienced the furious attack of a hurricane have known no greater nightmare. At the same time, many have been warned in time and have taken lifesaving precautions to see them through the onslaught.

Naval Aviation has played a vital and historic role in the struggle against hurricanes. Seven squadrons have flown five different types of aircraft on weather surveillance missions in an attempt to gain knowledge of them.

Last April the final curtain was drawn on Weather Reconnaissance Squadron Four as it was officially disestablished. Although its P-3 *Orions* will no longer fly into the eyes of those terrible ladies, the squadron left an indelible mark on the record books. More importantly, the achievements of VW-4 and those of its predecessors have immeasurably helped to save property and lives, while establishing a vast data bank on hurricane behavior.

WV-2 Constellation and PBM-5 Mariner were workhorses in hurricane hunting, above. Camille left her mark on Buras, La., in 1969, below. Left, Gracie gathers force in 1959.

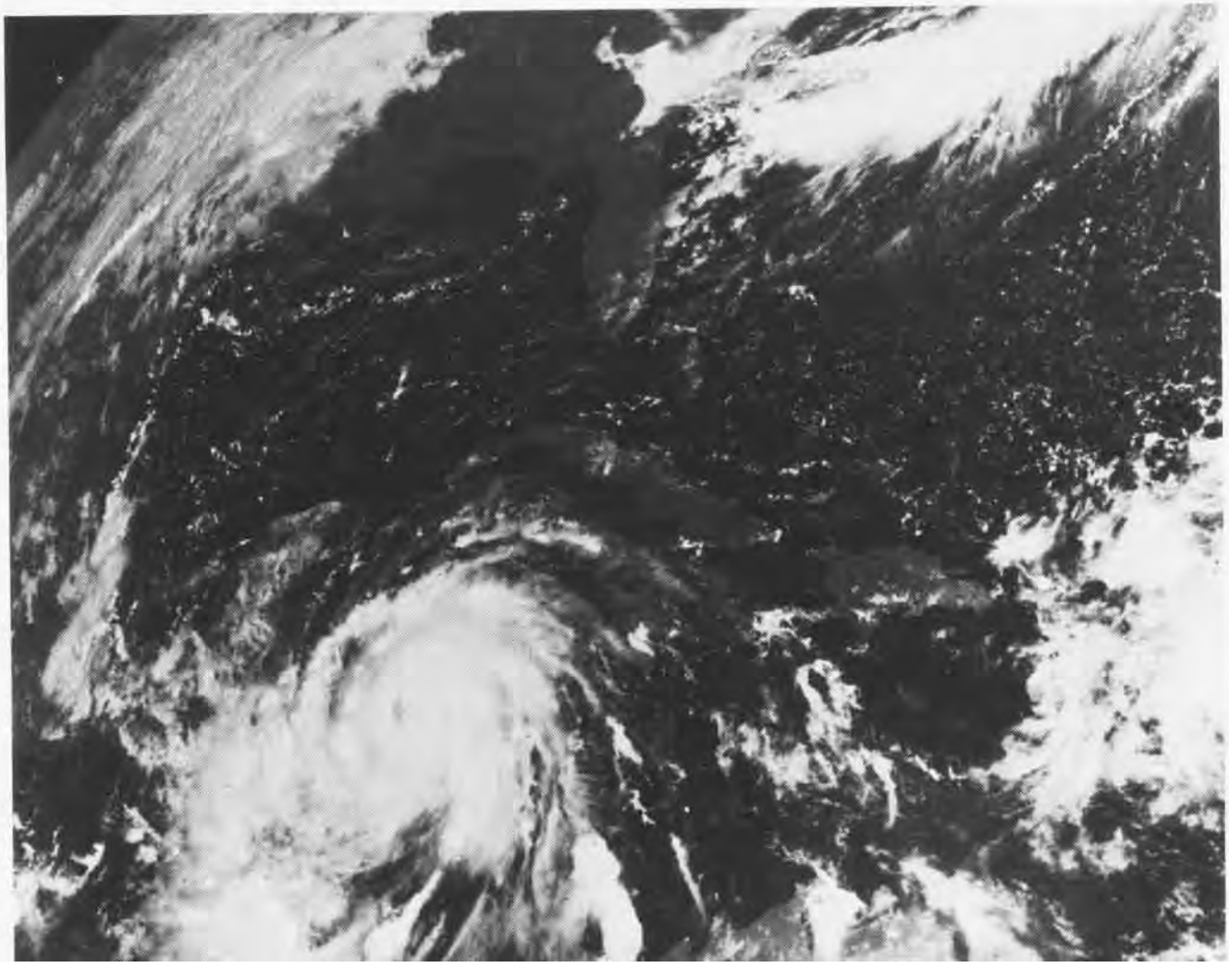
Hurricanes are great heat engines. The moisture in the humid air over the sea is analogous to the gasoline in a car's gas tank; it contains the potential energy (or fuel) for the hurricane. Once the hurricane is born, it draws moist air up from the sea surface in a counterclockwise spiral to the condensation level. Cooling of the air, due to reduced pressure, condenses water vapor in the air. This can be equated to the combustion cycle in the gasoline engine. It converts potential energy to kinetic energy.

The latent heat of condensation heats the air which then accelerates in its upward spiralling journey. It literally goes "up the chimney" formed by relatively cooler air around it. At the top of the chimney of cooler air, the warm air spreads outward in a clockwise spiral. As air spirals upward, through and out of the chimney, it draws more warm, moist air into it from below. This self-perpetuating process intensifies the circulation, causing the "engine" to run faster and the hurricane to grow in size. To be classified as a hurricane, the storm's winds must have a velocity of about 75 knots.

The exact mechanism of hurricane formation is still unknown. Scientists do know that very warm ocean water is required. The warmer the water, the greater the volume of moisture carried aloft. A storm must be some distance away from the equator in order to start spinning because the spin of an object on the earth varies directly with the spin of the latitude. There must be an outward flow of air in the high atmosphere. Otherwise the chimney would be closed off.

The origin of a hurricane is associated with an area where air converges and showers occur. This may be a remnant of low pressure from a cold front which has moved far south. It may be an area of lower pressure moving westward in the trade wind belt or it may be an area where air from the two hemispheres converges. The origin could be due to oscillation of the great high pressure system which dominates the ocean.

Hurricanes occur in the waters adjacent to North America (North Atlantic, Gulf of Mexico, Caribbean Sea and southeastern North Pacific). Typhoons occur in the western North Pacific Ocean. Because of the vast expanse of warm water in the western Pacific, typhoons occur more often than hurricanes and are frequently larger and more intense. There is no record of a hurricane occurring in the South Atlantic or the eastern part of the South Pacific off the coast of South America due to the relatively colder ocean temperature in these regions. It has been estimated that a water temperature greater than twenty-seven degrees is required for the formation of a tropical storm.



Space satellite picture shows Fifi below Cuba and the U.S. mainland in September last year. Jets, like F2H-2P Banshee, above, from VFP-62, worked with VW-4 aircraft in hurricane surveillance in mid-1950s. This Jacksonville-based photo-equipped Banshee investigates tropical storm development off the Florida coast at the beginning of the "season," in August 1956.

Hurricane Hunters

By Ltjg. Galen I. Lutz

Navy airborne hurricane reconnaissance began in 1943. Planes from various activities in the Gulf of Mexico and Caribbean area flew rudimentary missions, mostly in PBM *Mariners*, investigating tropical storm behavior. Miami Hurricane Central was formed that year and served as a reporting point for the data collected by the aircrews. Since the inception of these operations, the central goal has been to locate, track and penetrate hurricanes so that appropriate and timely warning could be issued.

Patrol Bombing Squadron 114 was based in the European Theater on V-E Day. Shortly thereafter its aircrews were ordered to special training at Camp Kearny, Calif. After this, a six-plane detachment of squadron PB4Y-2s was assigned to Boca Chica, Fla. A two-plane detachment of the war-weary *Privateers* was dispatched to San Juan, Puerto Rico. VPB-114 thus became the Navy's first hurricane reconnaissance squadron.

The Boca Chica Det. was disestablished in late 1945 and one year later VPB-114 was redesignated Weather Squadron Three (VPW-3). At the end of the 1946 hurricane season, VPW-3 became VPM-3 (Meteorological Squadron Three) and later Heavy Land-Based Patrol Bomber Squadron Three (VPHL-3).

On September 14, 1946, a PB-1W assigned to NAS New York-based Aircraft Development Squadron Four (VX-4) made the first hurricane surveillance flight using radar. The plane was one of a number of *Flying Fortresses* (B-17s) transferred from the Army. This milestone flight lasted five hours and marked the beginning of extensive use of radar in tracking and identifying tropical storms.

Patrol Squadron 23 was established and assigned to Commander Eastern Sea Frontier in 1949 and, flying from NAS Miami, hunted hurricanes with *Privateers*. The squadron reconfigured its nine aircraft which had been used principally for ASW operations. Two upper deck turrets, armor plate and some electronic equipment were removed to make room for aerological instruments. Guns were left in the remaining four turrets in order that aircrews could maintain quarterly training requirements.

VP-23's detachments operated from Roosevelt Roads and Ramey AFB in Puerto Rico and perfected the low-level hurricane penetration technique which had been used since 1943. Using this method, aircraft approached the storm no higher than 1,000 feet above the water, ensuring that the surface wind was broad on the port wing. In this way the aircraft was always aimed toward the eye, or center, of the disturbance.

Weather Squadron Two (VJ-2) was established at Miami in 1952 to replace VP-23 and its aging PB4Y-2s. The squadron, which was the forerunner of VW-4, moved to NAS Jacksonville and received P2V-3W *Neptunes* during the 1953 hurricane season. After that season VJ-2 was redesignated as Airborne Early Warning Squadron Four (VW-4).

VW-4 took delivery of its first WV-1 *Constellation* in 1954. This larger, four-engine plane augmented the *Neptunes* but didn't begin actual storm penetrations until 1955 when a WV-1 had its first confrontation with Hurricane *Diane*.

During one storm in this first sea-

son, VW-4 flew 21 missions in *Neptunes* over a ten-day period studying Hurricane *Hazel*. Squadron crews made 148 fixes of the storm's center and actually observed closehand *Hazel's* movements for 22.5 out of each 24 hours of the hurricane's life overwater.

The WV-1s were replaced by WV-3 *Super Constellations* in 1955. Also, the P2V-3W *Neptunes* were transferred and replaced by P2V-5JFs which featured augmenting jet engines.

In the next several years, *Neptunes* made daytime visual hurricane penetrations utilizing the low-level technique while the WV-3s, operating up to 20,000 feet, tracked the storms at night using radar. It was on September 26, 1955, that a *Neptune* flying out of Guantanamo Bay, Cuba, was lost while penetrating the eye of Hurricane *Janet* near Swan Island. Despite exhaustive search efforts by Coast Guard, Air Force and Navy units, no trace was ever found of the aircraft or its eleven crew members and two Canadian newsmen aboard.

By 1958 all the squadron's P2V-5JFs were retired from the VW-4 line and *Super Constellations* were the only planes in use. The WV-3 proved especially effective. With a single sweep of its radars, an area greater than 200,000 square miles could be scanned. On one flight, for example, data could be gathered on a 1,500,000 square mile area.

Another milestone occurred that year when on September 25 a WV-3 was flown into two different hurricanes in the same day on the same flight. The plane first penetrated the eye of Hurricane *Helene*. It then proceeded to the Caribbean Island area where, seven hours later, it made radar fixes of Hurricane *Ilsa*.

In 1960 VW-4's *Hurricane Hunters* moved to Roosevelt Roads, their base for the next five years. They returned to Jacksonville in early 1965 but maintained a year-round Det. in Puerto Rico. In 1967 the unit's title was changed to more accurately reflect its primary mission – Weather Reconnaissance Squadron Four.

WP-3A *Orions* replaced the WV-3s in 1971-72, providing increased range and speed, therefore precluding the need for a Roosevelt Roads Det. The specially equipped *Orion* is virtually a flying laboratory.

Lady met lady in September of 1974 when Lt. Judy Neuffer, the second woman to earn Navy pilot wings, piloted an *Orion* into the eye of Hurricane *Carmen*.

The squadron flew missions other than hurricane surveillance. It helped evaluate weather and sea conditions relating to NASA's *Apollo* program recovery operations. For ten years beginning in 1961, VW-4 was involved in Project *Stormfury*, a joint Navy-Weather Bureau activity which featured the seeding of hurricanes with silver iodide crystals.

In a 17-year span which ended last April, VW-4 aircrews amassed 80,000 accident-free flight hours. Thirteen thousand of these were logged while the squadron was performing actual hurricane reconnaissance. Since 1943, when VW-4's predecessors handled surveillance chores, 281 storms have been investigated. Of these, 178 became full-fledged hurricanes. Overall, 22,000 hours have been logged by Navy crews in hurricane reconnaissance. They have penetrated the "eye" 1,390 times.

VFP-62 Banshees accompany VW-4 Connie on reconnaissance mission, 1956, opposite. Last aircraft used by the Hurricane Hunters was the WP-3A Orion, above. Note hurricane warning flags on vertical stabilizer.

Ltjg. M. H. Henry made the original design of VW-4's insignia when he was in Weather Squadron Three, predecessor of the recent *Hurricane Hunters*. The emblem's background is composed of a gray cloud on a field of white with a green shield and a sea of blue. The large gray cloud represents a cumulonimbus formation, typical of tropical storms. The double red flags with black centers located in the lower left-hand corner of the shield are internationally recognized hurricane signal flags.

In the upper right-hand corner is an eye representing the eye of the hurricane – the goal of a search plane. Across the shield is a bolt of lightning indicating the severity of the weather into which the aircraft must fly.

At the top of the shield are the gold wings of aerographer's mate. These wings denote the importance of the "flying weatherman" in the squadron's mission. Superimposed on the blue sea is a white ribbon pennant bearing the name *Hurricane Hunters*.

Cdr. Sidney R. Overall, X.O., greets Skipper, Cdr. Russell E. Blalack upon return from Surinam. He led three-plane detachment on search for hijacked ship, Angostengui, in 1963 – a radical departure from VW-4s primary mission. Lt. Judy Neuffer makes preflight checks in Orion. One of the first lady Naval Aviators, she flew into eye of Carmen last year.

Jet-augmented Neptune, below, was used principally for daytime storm penetrations. Right, this Super Constellation heads out on cloud control experiment mission in 1958. Carbon black was used in tests off the Florida coast.

'When our perils are past, shall our gratitude sleep? No, - here's to the pilot that weathered the storm.'

George Canning (1770-1827)

DATE: 7 SEP 74, 0300 EDST
Hurricane Bulletin: Hurricane Carmen with winds to 130 mph is expected to make landfall between Grand Isle, La., and Mobile, Ala., in approximately 24 hours. All residents should evacuate this area. The water level is expected to be four feet above flood stage.

These warnings will continue as long as hurricanes exist and endanger lives and property in the United States and Caribbean countries. One difference will be that Weather Reconnaissance Squadron Four (VW-4) will no longer be providing data for these warnings.

For 32 years the Navy has participated in hurricane reconnaissance. Many squadrons and many types of aircraft have had this responsibility. Since 1953 the burden fell on VW-4.

The men and women of VW-4 had esprit de corps surpassed by none. The pride of being a *Hunter* could be seen when you entered the hangar and when you spoke to any of the personnel. These people knew that their job was vital and helped save lives in the southeastern United States.

During the storm season, ground crews had a hectic job maintaining safe and operationally ready aircraft. The aircrews had confidence in the ability of the maintenance force to maintain the planes in excellent condition. These two teams worked together in a battle to warn the public of approaching disaster.

The six, 12-man *Orion* crews were highly trained inflight maintenance personnel, aerographers, meteorologists, pilots, radar operators and navigators. They flew into the storm to find the wind speed, temperature, barometric pressure, direction and speed of the hurricane. They felt the destructive force of wind and rain upon the aircraft as the storm penetration progressed.

"Wind 260 degrees at 115 knots, altitude 500 feet, escape heading port turn to 240, eye diameter 15 miles, wall cloud ahead! We're in the eye! Pilots have the conn, we'll orbit in the eye for two or three turns until nav has a good position." This critical information passed over the intercom system during the penetration will no longer be heard. The excitement generated by the "hunt" will no longer be experienced.

Hurricane reconnaissance will continue by other means but a certain void exists now without VW-4's *Hunters* winging seaward with the familiar hurricane-warning flags emblazoned on the tails of their aircraft.

Capt. Paul R. Rupert, who was NARU Alameda's executive officer, has taken command of the NARU from Capt. Thomas A. Kamm. The latter is now Assistant Deputy Director for Naval Reserve, Chief of Naval Operations.

Command of NARU Lakehurst passed from Capt. Leo P. Zeola to Cdr. Hulan F. Clinkscales on April 30. Cdr. Clinkscales was X.O. of the NARU.

Cdr. Bobby C. Lee has replaced Cdr. D. D. Smith as C.O. of VA-147, NAS Lemoore. Cdr. Lee has logged over 4,000 accident-free hours of single-engine jet flight time, over 900 carrier landings and nearly 300 combat missions in SEAsia. Cdr. Smith reported to NATC Patuxent River as chief test pilot at the Strike Aircraft Test Directorate.

Cdr. Arnold H. Henderson, formerly executive officer, relieved Cdr. Gilbert A. Appelhof as C.O. of VA-83 in ceremonies aboard *Forrestal* in the Med on May 15. The latter has been assigned to the staff of ComCruDesGru-12, Mayport, Fla.

Cdr. John S. McCain III is the new executive officer of VA-174, replacing Cdr. John M. Waples.

Midway acquired a new commanding officer when Capt. Lawrence C. Chambers relieved Capt. R. J. Schulte in a ceremony on March 26 at Yokusuka, Japan, where the carrier was moored. Capt. Schulte is now Chief of Staff, Third Fleet.

Cdr. Melvin D. Munsinger has assumed command of VA-113, NAS Lemoore, relieving Cdr. Judson H. Springer, who will attend the National War College, Washington, D. C.

Command of VA-27 passed from Cdr. R. Patrick to Cdr. James A. Kenney while *Enterprise* was at Subic Bay. Cdr. Patrick has moved to *Coral Sea* as air ops officer.

Cdr. Robert V. Sallada has relieved Cdr. R. E. Whitby as C.O. of VA-81 in a Cecil Field ceremony. The latter reported to ComNavAirLant staff in Norfolk.

Cdr. James F. Hickerson is the new skipper of VA-12, relieving Cdr. John F. Calhoun. Cdr. Calhoun is now A-7 program coordinator in CNO.

The new commanding officer of VA-86 is Cdr. Perry W. Gard III. He relieved Cdr. D. O. Schumacher who reported to COMLAt-Wing One staff.

A U.S. Navy destroyer strayed across the path of an Australian aircraft carrier, collided with it, broke in half and sank into a moonlit ocean. So it went in a dramatic re-creation of the collision between USS *Evans* and Australia's HMAS *Melbourne* during SEATO naval maneuvers in June 1969 in which 70 American sailors died. The ocean was a tank of water just inches deep, the moonlight shone from a light bulb, and the ships were electronic models used to train officers at NS Norfolk.

The re-creation was filmed by members of Combat Camera Group 202, NARD Brooklyn, N.Y. The unit is making a training film which will teach young naval officers the necessity of staying alert and of following conventional procedures whenever they take command of the bridge. The film will also include an analysis of the mistakes that caused the collision and footage of the collision's aftermath.

Cecil Field's VS-32 celebrated its 25th anniversary April 20, 1975. With over ten years of accident-free flight operations and a record of accomplishments for which it has received many awards and citations, VS-32 hopes to continue its proud record as it

transitions to the S-3A *Viking*. The squadron is skippered by Cdr. Hugh P. Mouser.

The 490-plus students who have graduated from the HS-1 Search and Rescue School at NAS Jacksonville since 1971 have found their last week of training to be quite damp. Those last five days are spent in pool and open-water work.

The school, which has a staff of eight enlisted men and a division officer, trains helicopter SAR wet-crewmen. Its graduates are sent to helo squadrons, air stations and ship SAR detachments.

It is possible for a student to fail to graduate from the program even after he has passed his final written exams. The pool exercise during the last week is the most demanding obstacle that faces him. The pool

is rigged with the fuselage of a salvaged H-34. Each student must demonstrate his water-entry skills by jumping 15 feet from a "hovering helo" and accomplish a multi-rescue. He not only rescues several survivors (instructors) but must determine who is to be rescued first. The rescue procedure involves approaching a survivor, disentangling him from his parachute, towing him to the rescue sling and putting him in correctly so that the crew can hoist him to safety. After the rescue is completed, the student must minister to an injured man (another instructor) who is "bleeding."

After all this, the SAR students are flown by helo to a designated area in the St. Johns River. There they are exposed to rotor wash generated by the hovering helo, various sea states and signalling devices used by Navy aircrews. Repeating the same rescue techniques used in the pool, students quickly discover that open-water conditions can hamper rescue attempts. The hovering helo drowns out all verbal communication, the waves hide survivors from view, and the wind and current shift both the survivors and their gear. Mastering the skills needed under these conditions is the final step in earning the designation SAR wet-crewman. The last week at SAR school may be all wet, but it enables the wet-crewman to be ready to perform any overwater rescue mission.

LCdr. Daniel L. Rainey, Jr., assistant ship's navigator aboard *Enterprise*, is the first Naval Aviator to be designated a surface warfare officer. A letter from VAdm. David H. Bagley, Chief of Naval Personnel, stated, "You are the first officer of your designator (Naval Aviator) to have successfully achieved certification under the significantly more rigorous qualification criteria now in effect." Designation as surface warfare officer requires qualification as officer of the deck, in the combat direction center, and in damage control and 3M procedures.

HML-167 marked its seventh anniversary in April in an environment very different from that in which it first began operations. The squadron was formed under enemy fire at the Marine Air Facility, Marble Mountain, in South Vietnam. At the end of the U.S. involvement, it transferred to MCAS New River, N.C., where it is based now under Lt. Col. Robert D. Blanton. HML-167 flies the UH-1N *Huey* in its training missions and rescue operations. During 1974 the squadron worked out new procedures for night-flying, overwater SAR operations where there is little or no available light. One helo hovers above the rescue site and drops flares while the other goes in for the rescue. Another method employed is to drop a waterproof flare which illuminates from water level.

An amphibious exercise, *Agate Punch*, was held in April off Camp Lejeune, N.C. Participating forces included Amphibious Group Two, led by RAdm. Frederick Palmer, and the 4th Marine Amphibious Brigade under the command of BGen. William Lanagan, and naval reservists on two weeks' active duty. The landing was a combination surface and helicopter assault operation with close air support.

Detachment Five has returned to HSL-33 at NAS Imperial Beach after a six-week deployment to the Pacific. Det. Five participated in *Readiex 1-75* and demonstrated LAMPS ASW capabilities.

Det. One is back from a six-and-one-half-month deployment to WestPac where it took part in Exercise *Midlink 74*. It operated with U.S., British, Pakistani and Iranian units and was utilized for ASW, radar surveillance, naval gunfire spotting and logistics. In addition, Det. One participated in two other international exercises: *Sea Siam II*, with the Royal Thai Navy, and *Sharkhunt XII*, involving the Nationalist Chinese Navy.

Twenty-nine officers and 160 crewmen of VS-72, NAS Norfolk, participated in Operation *Springboard* earlier this year at NS Roosevelt Roads. The exercise enabled the squadron to obtain maximum qualifications for ASW, to demonstrate its capabilities as an ASW force and to increase its maintenance-ready training while deployed as an operational entity. It also acquired specialized training, gained in operations with allied air naval units, that is normally not available. The squadron pilots averaged 37 hours each during the cruise, flying a total of 448 hours and 65 operational sorties.

The arrival of the British Fleet in Norfolk recently provided an opportunity for HSL-34 to expand its ASW training. H-3 *Sea Kings* of 824 Squadron, embarked on HMS *Ark Royal*, conducted flight operations with HSL-34. Both squadrons coordinated their ground activities to provide a free exchange of techniques, information and procedures. Senior officers from both squadrons participated in an ASW course which provided valuable tactical information and showed the different techniques used by both Navies. The squadron members flew each other's aircraft and found that while the concept of ASW may be the same, the method of execution is different.

In April VA-176 completed over three years of major accident-free operations. During this period the *Thunderbolts* flew 11,250 hours and accumulated 2,752 day and 998 night arrested landings. Flying A-6A/Cs and KA-6Ds, the squadron is skippered by Cdr. Paul Ilg.

VF-124, Navy's F-14 training squadron at NAS Miramar, has logged over 10,000 accident-free flight hours since receiving the *Tomcat* in January 1973. The squadron, charged with introducing the new fighter aircraft to the fleet and training air and ground crews in its operation and maintenance, has trained six squadrons.

On a routine training flight from Oceana on April 17, Lt. Doug Harrington and Ltjg. Jim Stone flew a VA-35 *Intruder* for the squadron's 20,000th consecutive accident-free hour. The 56 months of accident-free flying included combat missions, peace-time deployments, over 8,000 carrier landings and more than 2.5 million aircraft maintenance hours. VA-35 flies under the command of Cdr. R. P. Hyde.

Cdr. Hoot Foote, Commander, Attack Carrier Air Wing Eight, flying a VA-35 A-6E, trapped aboard Navy's newest nuclear attack

carrier, *Nimitz,* for her first jet arrested landing.

When Cdr. Walter Roeser, Raven One, made his 1,000th carrier arrested landing, the members of VA-93 pooled their talents and resources to make a silver-chromed A-7 *Corsair* tail hook for their skipper. It was mounted on a mahogany replica of *Midway.*

Cdr. Bert D. Terry, C.O. of the VA-97 *Warhawks,* achieved 5,000 hours of single-engine, accident-free flight time when he trapped aboard *Enterprise* after a routine mission in the South China Sea. Cdr. Terry has flown over 2,100 hours in the A-7.

Fleet Tactical Support Wing One has acquired two new squadrons – VCs 8 and 10 – transferred from Commander, Fleet Air Caribbean. The transfer, which puts all VC squadrons in the Atlantic Fleet under one command, gives ComTacSupWing One a complement of 11 squadrons with over 3,400 personnel.

At this time of an all-volunteer military force, recruiting plays a role more important than ever in keeping the Navy fully manned. One of the best methods of recruiting is through direct contact between fleet units and prospective recruits.

HC-6, NAS Norfolk, believes this is true and does its part in contact recruiting. In conjunction with the 5th ND youth program, the squadron has arranged for indoctrination flights for various Junior ROTC groups in the area. The groups are welcomed to the squadron spaces by the squadron C.O., Cdr. John W. Osberg, and the public affairs officer, who is also one of the pilots for the flight. After a flight and a training movie, they assemble in the wardroom where their questions are answered. They leave with a much broader perspective of the Navy. The squadron hopes that among the youth are future Navy pilots.

OS1 Harry D. Thomas, Jr., of *Enterprise's* combat information center, has been presented a letter of commendation from RAdm. William L. Harris, Commander, Carrier Group Seven. The award was presented by the carrier's commanding officer, Capt. Carol C. Smith, Jr., and cited PO Thomas for professional achievement in the superior performance of duty while serving as an air intercept controller aboard *Enterprise* on January 14, 1975. On that date an F-14 had a fire in flight and the aircrew ejected. PO Thomas directed and controlled helicopter support in the sea-air rescue. He also vectored the helos to a successful rescue of the two crewmen while maintaining radio circuit discipline. At all times he kept the CIC watch officer and all concerned informed of progress.

VMAT-12's 1st Lt. Ronald R. Rhoads is the recipient of the 1974 Britannia Award, presented to the Navy or Marine Corps student pilot who completes advanced flight training with the highest overall weapons score. The award was originated in 1956 by the Lord Commissioners of the Admiralty of the United Kingdom in appreciation of U.S. Navy assistance.

NAVAL AIRCRAFT

DOUGLAS

Through much of the Twenties, the fleets' patrol planes consisted primarily of WW I H-16 and F-5L flying boats, their numbers decreasing with the passing years. On an experimental basis, a few new flying boats were built, almost all at the Naval Aircraft Factory. With the advent of the Wright R-1750 *Cyclone* and P&W R-1670 *Hornet* radial air-cooled engines, the latest NAF designs were modified to incorporate those engines in place of their previous water-cooled engines. The two PN-12s which resulted set a number of records in 1928, justifying the Navy's confidence in ordering 25 production versions from Douglas in December 1927. The PD-1s followed the PN-12 prototype, being of all metal construction except for wing and tail surface covering, though their hull lines were still based on those of the H-16 and F-5L. Since the Douglas plant was inland, the PD-1s were delivered disassembled to San Diego for initial flight testing.

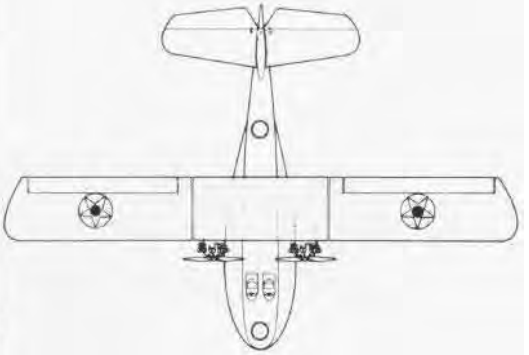
Initial deliveries were to VP-7, with VPs 6, 10 and 4 all using them during their years of fleet service, 1929-1936. They brought a new standard to fleet patrol aviation and additional aircraft were ordered; however, this contract went to Martin for the similar PM-1.

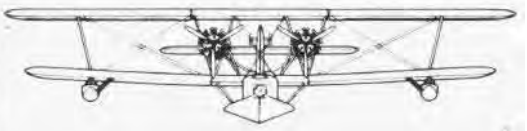
In 1934 the R-1750 *Cyclone* engines of the PDs were replaced with more powerful R-1820 *Cyclones.* The P2Ys already in service had largely dated these first of the Navy's "new" flying boats. As the first of the even more modern PBYs subsequently entered service, the PDs went the usual route to Pensacola for advanced training, starting in 1936. There they finished two more years of service before the last were retired late in 1938.

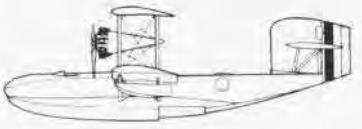
PD-1


PD-1

Span	(upper)	72'10"
	(lower)	67'1"
Length		49'2"
Height		16'1"
Power plant		
initial	two Wright R-1750	525 hp
modified to		
	two Wright R-1820-64	575 hp
Maximum speed		
(R-1750/R-1820)		121/124 mph
Service ceiling		
(R-1750/R-1820)		11,600/12,000 ft.
Range (standard tanks)		1,495 miles
Armament		two .30 machine guns
		four 230-lb. bombs







PN-12

Rescue, Relief and

The people and planes of Naval Aviation have been instrumental in relief and rescue missions since the pioneering days of the age of flight. Critically ill or injured people often had to be strapped to the hulls of flying boats for transport to the nearest medical activity. Later, with modern techniques and equipment, the potential for rendering first aid increased and became more varied.

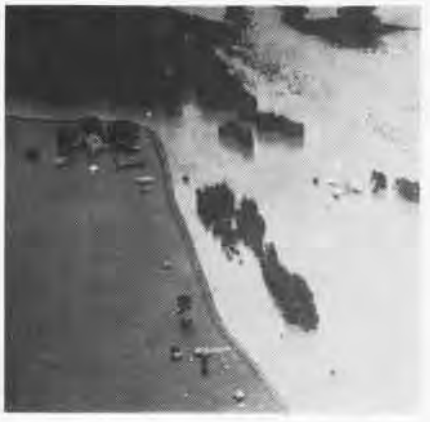
For example, in 1929 relief in the form of emergency electric power was provided for the entire city of Tacoma, Wash., by the generators of the carrier Lexington. The city had suffered a month-long drought. Two years later, the same carrier mustered all its resources to aid the victims of a disastrous earthquake in Nicaragua.

With the advance of helicopter performance in the Fifties and Sixties, many more emergency relief and rescue flights were flown. Aside from the combat rescues made during the Korean and Vietnam Conflicts, helos and transport planes were able to extend greater assistance to victims of hurricanes, typhoons, earthquakes, fires, floods and famines.

In the following pictorial, Clarke Van Vleet, Naval Aviation Historian, describes highlights of these life-saving ventures.

Refugees

In the early days patients were airlifted to safe havens, sometimes strapped externally to aircraft or carried inside a flying boat, opposite page. Above, *berthed at a sand-bagged railroad bed near Vicksburg during the great Mississippi flood of 1927 are a Martin SC with a Vought UO in the background. Float planes such as these sought out marooned people and farm animals in the badly drenched area, bottom right. Top , this De Havilland DH-4B was used as a first aid plane in the early 1920s. It could carry patients in a stretcher-equipped compartment in the fuselage. By 1930, the Navy and Marine Corps had two amphibious Loening XHL ambulance planes, bottom, far right.*



When an earthquake struck Managua, Nicaragua, killing over 1,000 persons on March 31, 1931, flights of Martin T4Ms, right, launched from Lexington 150 miles off the coast. With a load capacity of about a ton each, the torpedo planes carried medics, cots, blankets and provisions for thousands of injured and homeless. Being waved aboard Lex, bottom, is one of the amphibian Loening OL-8s which also served in the relief role. Marine and Navy Tri-Motor transports flew in from the States with more supplies, including typhoid and cowpox vaccines, below.

Two-motor Sikorsky RS amphibians from the Panama Canal Zone provided relief, bottom. Participating, too, were the distinctively marked Curtiss OC Falcons, right, attached to the 2nd Marine Brigade already stationed in the country. Will Rogers, on a good-will flight, visited the stricken area. Commemorating those times, Nicaragua issued a series of stamps with Rogers; and one showing USMC DH-4 aircraft. (Stamp courtesy of Maj. John Elliott, USMC, Ret.)

Two dramatic rescues were performed by OS2U Kingfishers during WW II. In one case, the plane, with a two-man weight capacity, retrieved seven downed aviators. The "passengers" were loaded on the wings and taxied to a waiting sub, USS Tang. In the other instance, a Kingfisher taxied 40 miles to an island with some of those rescued from a ditched B-17 tied to the wings, including WW I ace Eddie Rickenbacker, right.

OTHER MAJOR NAVAL AVIATION RELIEF ROLES

February 12, 1955	–	Participated in the evacuation of 24,000 persons from Tachen Islands off China.
October 16, 1957	–	Lake Champlain with HMR-262 helped thousands flooded in Valencia, Spain.
January 9, 1958	–	Delivered supplies to Marshall Islands, severely damaged by Typhoon Ophelia.
December 28, 1958	–	Yorktown ASW Group aided Koniya, Japan, destroyed by fire.
April 26, 1959	–	HU-2 pilots completed ten days of rescue operations in flooded Montevideo area.
August 20, 1959	–	HMR-261 in USS Thetis Bay finished a week of relief work in flooded Taiwan.
February 29, 1960	–	Assistance rendered people of Agadir, Morocco, razed by earthquake.
July 14, 1960	–	Marlins rescued 56 from DC-7 commercial airliner ditched off Manila.
September 11, 1961	–	Relief operations conducted in Texas, scene of Hurricane Carla.
November 6, 1961	–	Over 57 tons of supplies transported to Honduras, hit by Hurricane Hattie.
January 13, 1963	–	Supplies delivered and marooned rescued in flooded Beth, Morocco.
October 25, 1963	–	Two weeks of relief work completed in Haiti, laid waste by Hurricane Flora.
March 28, 1964	–	Earthquake victims in Alaska received emergency supplies.
November 17, 1964	–	HMM-162 delivered 1,300 tons of aid to flooded areas in South Vietnam.
August 17, 1969	–	Hurricane Camille Gulf Coast victims aided.
October 25, 1970	–	HMM-164 airlifted provisions to Filipino victims of Typhoon Joan.

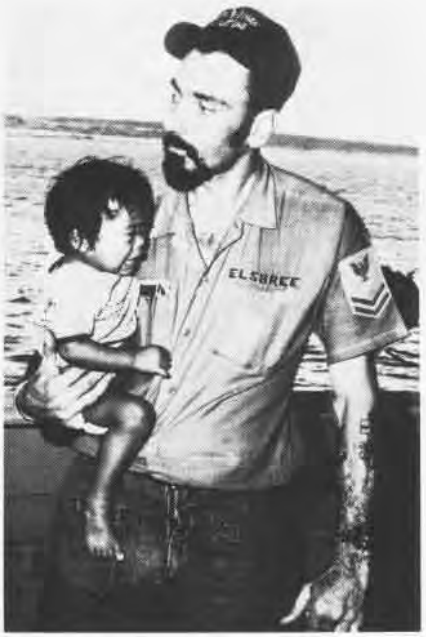
In 1946, a PB2M Mars set a milestone when it flew 100 patients (84 stretcher cases) from Honolulu to Alameda, left. Twenty-one ambulances met the patients who came from various military units. In October 1955, the light carrier Saipan and HTU-1 rescued more than 5,000 marooned persons and delivered over 90 tons of supplies following Hurricane Janet in Tampico, Mexico. Residents sent a roof-top message of appreciation. During Operation Vittles (Berlin Airlift), VRs 6 and 8 flew 45,900 hours delivering 129,989 tons of cargo in an eight-month period, middle photo. Airlift sustained West Berlin in 1948-49. After Typhoon Vera, October 1959, 6,000 persons were evacuated from Nagoya, Japan, bottom.

Top, Russian sailors adrift 49 days in the Pacific were rescued by helos from USS Kearsarge in 1960. Above, left to right, Marine and Navy choppers helped the Dominican Republic after it was hit by Hurricane Inez in 1966. Leatherneck reservists jettison food and supplies from C-119 Packet during 1965 floods in northern California. VP-40 Marlin taxied 70 miles to safety after an engine failure during rescue mission. Seaplanes saved many from ditched or disabled planes and boats through the years. They were phased out in 1967.

After an earthquake destroyed the town of Montevago, Sicily, in 1968, right, NAF Sigonella responded with help. Some emotional relief was also extended by LCdr. E. E. Dahill III as he presented one of the dolls his daughter sent him to a girl left homeless by the quake, below. Right, middle, following Peru's earthquake in 1970, which took 50,000 lives and left 800,000 homeless, men of USS Guam and HMM-365 provided victims with over 200 tons of supplies and transported more than 1,000 evacuees and medical patients on 800 mercy flights. Bottom, when winds of more than 130 mph destroyed parts of Luzon in 1970, USS Okinawa extended aid, including hundreds of typhoid shots. During volcanic eruption in Iceland in 1973, Navy Skytrains evacuated 500 sheep threatened by lava.

Top right, Hurricane Celia, wreaked destruction in the Corpus Christi, Texas, area in August 1970. Still there was room for humor. Many victims stranded during 1972 Pennsylvania flood disaster were rescued by helos using the Billy Pugh net, top left. At right, in the photo taken in the aftermath of the same flood, real airplanes and train cars give the mistaken appearance of being fragile models. In July 1974, some 300 Americans were evacuated from war-torn Cyprus to Sixth Fleet amphibious group ships by Marine helicopters. Note identity tags tied to children being fed aboard USS Trenton (LPD-14), below.

In recent rescue operations, thousands were retrieved from South Vietnam. Anxious Vietnamese ride an LCM from USS Durham en route to the Merchant Marine ship Transcolorado, above. 1st Lt. Jim N. Strick, USMC, assists refugee as she crosses deck of Durham after being evacuated by a CH-46D from HMM-165, left. South Vietnamese are loaded aboard C-141 preparing to leave NAS Cubi Point, below left. BM2 Truman Elsbree holds child who had been separated from her mother on ride to Durham in early April 1975.



Set Down To Sanctuary

Submitted by JO2 Kevin F. Warren

It was April 30, 1975. Rain had soaked the deck. The men of *Midway* were bringing order out of chaos. An armada of helicopters, flown by and filled with Vietnamese, flocked to the floating sanctuary. At one point a tiny silhouette appeared on the horizon, heading toward the carrier. It was soon identified as a Cessna O-1 *Bird Dog*, used as an observation aircraft in the war.

The diminutive plane circled *Midway*. The Vietnamese Major at the controls tried to toss a note to the flight deck. He failed twice. But on the third attempt he succeeded. Scribbled on a torn nav chart was a crude but eloquent appeal:

Can you move these helicopter to the other side, I can land on your runway, I can fly 1 hour more, we have enough time to move.
Please rescue me.
Major Buang Wife and 5 child

On the bridge, *Midway's* C.O., Captain L. C. Chambers didn't wait long to act. He directed the flight deck crew to clear the landing area.

Moments later the O-1 pilot turned

into the groove and guided his craft, sans tail hook, toward the deck. He crossed the fantail, touched down, bounced, struck the ship again, rolled forward and stopped with plenty of room to spare.

It might have been a grand slam home run, a 100-yard scamper to a touchdown, a hole-in-one. The topside crew erupted with applause. The Major, his wife and their five children disembarked, safe and sound. The new carrier pilot and his family would promptly be adopted by the crew.

Midway was just one of many units which worked feverishly throughout Operation *Frequent Wind*, the evacuation of Vietnam. CVA-41 became a safe haven for 3,000 evacuees and more than 40 helicopters. Galley crews served up 6,000 meals for the Vietnamese. Doctors and corpsmen helped the sick. There were a lot of men, like AN Ken Butler of VA-93 or LCdr. Al Ryder lending a strong but gentle arm where needed.

Sometimes pressure, confusion and upheaval bring out the best in people. The O-1 pilot came through. So did Captain Chambers' crew.

Nice going Major.

Nice going *Midway*.

ENLISTED RATING SERIES

THE AIR CONTROLMAN

By Bob Moore

PH2 B. Lassiter

The weary pilots grope homeward to their floating airfield through an inky sky that obscures the stars and makes the moon seem murky. Then through their helmet receivers the calm voice of the Air Controlman gives them their individual approach patterns, weather information and even an alternate landing strip ashore.

One Air Controlman (AC) will stack these dozen planes like giant stairsteps, miles distant and a thousand feet high. Then two other controllers, on radarscopes, guide them to within five miles of the ship. "Radar contact 18 miles. Left 230. Report the 10-mile gate. Say your state."

Each of these approach controllers tracks half the returning planes on his medium-range radar, assigning an altitude and bearing for return and providing the aircraft separation for a proper landing interval.

The two final controllers take over when the aircraft are close enough to be depicted on precision approach radar which sweeps aft of the ship, collecting range and elevation data.

In the control room, arrows, little balls, check marks and numbers are all recorded on a plexiglass board to represent an aircraft's status during recovery. Another board contains current divert field information for any pilot who is unable to land safely aboard the ship. A third board displays aircraft call signs and a frequency usage plan.

One of the planes is running low on fuel – but the controllers have kept a careful record of each airborne tanker's location and can vector their thirsty charge straight to a refueling rendezvous.

When a plane diverts to a nearby naval air station, the pilot hears other well-trained voices ashore where Air Controlmen work in flight clearance, the control tower and ground control approach radar units.

As the plane approaches the airfield, the pilot radios the tower. Then the controller starts a flight progress strip which shows the pilot's altitude, type of aircraft and time of contact. Since each man or woman on watch at the tower is responsible for a designated area of space, each receives the

PH1 George Norris

Far left, AC3 Gary Spence works at the aircraft recovery status board in a carrier control approach center on board USS Bon Homme Richard in 1970. Above, AC2 K. C. Benson, ACC J. D. Moore and AC2 K. G. Fox plot helo movement during Operation End Sweep. Below, ACAN Diane Padden makes adjustments to a tape machine which records her conversations with aircraft at the Naval Air Station, Norfolk, Va.

PH3 Ed Bonner

green progress strip as the plane enters his area.

An AC uses an Aldis lamp to signal an aircraft that has lost radio power. Through a series of red, green and white light signals, the pilot knows whether to circle or land. The same lamp is also used for directing ground traffic when necessary.

Some of the Navy's larger air stations handle 12,000 takeoffs and landings a month. The tower clears aircraft for final approach and landing and gives takeoff clearance. The ground controllers are responsible for all moving aircraft and any vehicles on the runways and in the operating areas.

The ground control approach group provides precision approach radar and voice instruction to pilots – under rigid FAA regulations – for separation of aircraft in the skies around the field.

Ground control approach guides the pilot from about seven miles out until he touches down. GCA also gives him his position in relation to the glidepath and runway centerline. As soon as one aircraft lands, the controller picks up another and talks it in.

Each time a controller picks up a microphone for a transmission, he accepts the responsibility for human life. Every word he utters into his transmitter is recorded. In case of mishap, the tape is reviewed to help determine the cause of the accident. Negligence on his part puts lives in jeopardy and him in line for punitive action from both the Navy and the FAA.

The Air Controlman rating originated in 1948 from the ratings of Specialist (Y), control tower operator, radarman; Specialist (X), air station operations desk, time shack; Specialist (X), operations, plotting and chart work; and Specialist (V), transport airman.

Before graduating from a 12-week Air Controlman A School in Memphis, Tenn., each man must obtain his control tower operator's certificate. Air Controlman is the only Navy rating that requires a civilian license. Each must be licensed by the FAA.

Many new controllers are assigned to the flight clearance section to help pilots file their flight plans. After this training, the controller must be recommended for ground control approach or the tower.

Hopefully, tower training will result in an FAA facility rating (VFR). This junior rating gives the AC the authority to control aircraft under visual flight rules in the presence of a facility-rated IFR controller.

Not only does the FAA require a license, it also demands a yearly Class II medical examination. Controllers are prevented from working more than ten hours per shift – a safety precaution.

Regardless of rate, the controller reverts to student status in the event of his transfer. He must requalify each time he reports to a new installation and is not allowed to work in the tower until he becomes familiar with the procedures at his new duty station.

He remains a student until he has successfully passed a written test and a performance evaluation on every position in the tower. Supervisors serve as technical advisors, testing students for the different positions. The supervisor would like to see every AC qualified for every position at his facility.

Navy Air Controlmen supply navigational information by radio, radar or flashing light. They operate field lighting systems and traffic control lights. They provide air traffic information and navigational data. They observe and relay information on meteorological conditions.

From their control tower, ACs provide safe separation and issue clearances to landing and departing aircraft. They control plane-taxiing movements and guide vehicular traffic.

In flight training offices, controllers furnish pilots with current publications and navigational data to assist in filing flight plans which are relayed via teletype to the regional air route traffic control center for approval.

Air Controlmen trainees go to school to learn basic air traffic rules and control theory, all facets of radio communication, radio navigation and the fundamentals of aerology and aircraft identification.

They are taught how to use publications as a ready reference for airspace rules and procedures, and they receive indoctrination in the principles and operation of radar – learning both its capabilities and limitations.

The man with the winged microphone on his rating badge is required by law to keep abreast of all advancements in his field. His training is never ending.

There are 2,700 of these unflappable Air Controlmen working in towers, radar air traffic control centers, carrier air traffic control centers, and ground control approach trailers around the world to help pilots launch and land.

Above, ACs Joe Doherty and L. F. Chadd stand their watches at the NAS Moffett Field control tower which handles 12,000 takeoffs and landings each month. Below, AC1 Robert Wylie handles the local control desk at sunset while other controllers in the tower watch a P-3 Orion patrol plane set down after completing a mission.

PHC Bill Powers

CONTROL ZONE COMMANDMENTS

Pity the poor Air Controlman for his troubles are many and the transgressions against him number into the thousands. Yea, even unto the millions.

Show thou thy mercy unto him for he is sorely tried. He acteth as a guardian angel to misguided birdmen but receiveth harsh words and cruel looks. His acts are guided by the scriptures of the air – AC Supplement and the books of Air Ops Manual, Terminal 7110.8, En route 1770.9, FAR-91 and OpNav. But should he transgress, the multitudes are quick to revile him.

Therefore honor thy Air Controlman lest he turn thee final on four left while clearing yet another for takeoff on two-two right. Turn from thy appointed way hurriedly when he instructeth thee, lest thou find thy propeller in thy fellow birdman's empennage. For the tower man observeth much that is hidden from thy sight.

When thou hearest the words "unable to approve, conflicting traffic," beseecheth thy Air Controlman not. No not even from thy lofty position, for if the traffic had not been there, surely he would not have spoken so. For verily he hath the eye of an eagle and his view is unrestricted.

Should thou be surrounded by IFR, ask not for VFR, but turn instead to GCA for thy salvation. For should thy Air Controlman allow a VFR return, he will findeth himself adjudged by ATC.

And should GCA speaketh to thee, saying "take a wave-off, tower directs," then ponder not but ascend toward the heavens in haste, lest thou meeteth another birdman at "ten o'clock, level, converging belly up."

Speaketh to thy Air Controlman gently and treat him as thy brother, lest he become excited, lose his wits, and give thee a left turnout instead of a right turnout. For the Air Controlman loveth a courteous birdman above all things.

Therefore I say unto thee, be thou mindful of all these commandments, lest thy Air Controlman writeth thee up.

EDITOR'S CORNER

The following tale could be entitled "That's Motivation!" The author and principal character is Harold Hodgens "Kiddy" Karr, the Navy's first enlisted pilot (designated in 1920) who retired as an ensign. Karr flew numerous aircraft including the British S.E.5, the Donnet-Donhaut (DD) flying boat, Nieuports and Sopwith *Camels*. He was shot down five times by ground fire and "rode two other flamers" to the ground. At the time of this tale, Karr was an LDS, QM(A) – Landsman for Quartermaster, Aviation. Those in this rating were called Flying Quartermasters.

When Karr checked in to fly with the French at Chalons following the episode he describes below, he received a chilling briefing. "I was told," he recalls, "that the statistical average span of life in the squadron (French 55th) was 30 days. If I was still alive at the end of 30 days, they would give me a few little gifts and a grand-daddy of a binge."

Those were the days!

Aging but enthusiastic warrior reminisces at dining hall dedication, NAS North Island, below. Karr and Naval Aviation Pilot #1 certificate, 1920, opposite. Karr flew 11 missions in DD like one shown.

Early in my Navy life I took a chance that could have ruined my entire naval career – all because I wanted to get into the first world war. After seven months of flight training in dirigibles and seaplanes, I realized that it would still take another five months before I could get my wings and commission and be sent overseas.

I feared the war would be over before I could get into it, so I volunteered for and was assigned overseas duty. I left NAS Pensacola for France on December 3, 1917.

Shortly after arriving at Trompileau for non-aviation related duties, I volunteered to deliver an official automobile from Bordeaux to Dunkirk. I knew a smattering of French and had an excellent phrase book. So I was selected. Dunkirk was a good destination. At the time, it was one of the few stations where air combat was going on.

I had earlier applied for duty to any and all aviation branches. I was willing to accept any assignment, be it as pilot, gunner, bombardier, photographer, whatever. But none of the units had responded to my request.

French pilots were being sent to the front with only 20 flight hours' experience. I had over 50 solo hours. So, I conceived a desperate plan. I wanted combat. Now!

Driving north the first night, I burned my orders – orders which directed me to return to Trompileau promptly after delivering the auto.

I checked in at Dunkirk, told officials that I was a replacement pilot and had been ordered to their base. Since I was coming here anyway, I was to deliver the Cadillac touring car for the skipper, Godfrey deC Chevalier (Naval Aviator #7 – Chevalier Field, Pensacola), better known then as Duke.

I explained that Trompileau was swamped with incoming aviation personnel and was so short-handed on yeomen to write up transfer orders that mine would have to follow by courier in a few days. I was told to report to the Chief Pilot for a flight check, which I did immediately. I passed the test without difficulty and was quickly assigned to a flight crew.

The French single-engine DD flying boats were our machines. I was a copilot and sat side-by-side with the pilot.

We flew submarine patrols over the English Channel and along the French coast. We also met all incoming convoys and provided air cover for them.

We got in plenty of flying from early morning through late evening. Dunkirk was close to Ostend and Zeebrudgge so the station was a frequent target for raids by enemy aircraft. We depended on a French fighter squadron located east of us for protection. Their pilots would launch and give battle to the invaders.

I was never selected to fly night bombing raids, unfortunately. Only the most experienced flyers had that duty.

We had a rigorously enforced recognition system for returning from patrol missions. Just before departure we


DEPARTMENT OF THE NAVY

NAVAL AVIATION PILOT NO. 1

This Certifies that

Harold H. Karr

C.2.M.(M) U.S.N.

born 16 day of Mar. 1897

having fulfilled the conditions prescribed by the United States Navy Department, is hereby issued a certificate of qualification as a

NAVAL AVIATION PILOT

for Heavier than Air

Dated 22 Jany. 1920

for

Received H. H. Karr

were given code names for each of the probable return hours. We would flash this signal to the lookout at the field by Aldis lamp. We could expect AA aimed at us without that signal.

We were forbidden to write down the codes, so the pilot and I would have to memorize them. After one flight, we approached the field at 1640 hours. We had both forgotten the word for that time frame so we had to turn around and go back out, remain aloft and come back in after 1700. We *knew* the signal for that hour. Ground observers had seen us reverse course. We confessed to our loss of memory and received no little reprimand for this.

About a week after I arrived, I was summoned to the administrative office.

"Hey, how come we haven't got orders on you yet, Karr?" asked the exec.

I articulated how far behind Trompileau was in administrative processing and that other air stations were having the same problem receiving paper work from Trompileau. The X.O. shook his head but let me go. I had a sinking feeling that the moment of truth was at hand.

Three days later I was climbing into my DD when a messenger hurried toward me. "You're wanted in the office, right away!" he said. "The Skipper wants to see you."

I stepped into the C.O.'s office. Duke Chevalier wore a scowl that could curdle milk. He stared at me for a long time in silence. I waited, hoping he'd get on with the chewing out. My teeth began to chatter.

Finally he opened up. Not with any secondary battery but with full turret rifles. Seems he had sent a message to Trompileau inquiring about one Harold Karr and learned that not only was I *not* an authorized pilot, but I had been carried in an AWOL status for a week.

"Where are your orders?" demanded Chevalier.

"I burned them, sir," I replied.

He really hit the overhead then. He let go. I expected a bawling out but nothing like what I got.

"You could be court-martialed," he said. "You could be charged with desertion in time of war. I could have you up in front of a wall and shot at sunrise." He went on with the charges. Destruction of orders. Impersonating a pilot. Endangering the lives of other pilots. Endangering government property. Committing falsehoods.

When he was through it was time for my piece. At this point I had nothing to lose.

"Sir," I said, "there isn't another sailor in a thousand who would take the chances I did just to get into this war. I passed up a commission and wings so I could fight. I stuck my head in a noose by burning my orders. There's been someone in my family in every war the USA has been involved in since the landing on Plymouth Rock."

I kept on shooting with both barrels. "Sir, it's a crime to have someone who wants to fight and who is a competent pilot and not let him get into the action. If you had found out earlier that I could fly you would have gladly cut the red tape and put me in a job where I could do the most for the war effort."

I shut up, pleased that he let me have my say. He stared at me for a long time. Then, quietly, he said, "Karr, you should have been a lawyer."

He eventually conceded that perhaps I was right, that I deserved better than a general court-martial. He added, though, that I was a bad example to others who also wanted to get into the war.

"I don't want to smear your record at the start," he said, "but consider this a verbal reprimand. You return to Trompileau. Your C.O. there will handle the case."

Chevalier seemed to be "over his mad." In fact, I think I caught a tiny smile flicker across his face.

I did do one intelligent thing at Dunkirk. I had the ensign I was flying with write a letter attesting to the fact that I proved to be a competent pilot in all respects on the 11 flights we made together.

Before leaving Trompileau the first time, I had been helping out, typing travel orders and other correspondence in the office. So mine was a familiar face when I reappeared after the adventure in Dunkirk. Everyone thought I'd gone over the hill and they were baffled that I wasn't held in tow by armed guards on either side of me. I was ushered into "Daddy" Nourse's office. He was the X.O. When I told him about burning the orders you would have thought I had killed my own grandmother. He did, however, laugh at a few other details about my trip.

I reported for mast next morning with the C.O., Lt. Henry B. Cecil (Naval Aviator #42 – NAS Cecil Field, Fla.). Cecil's comments were similar to Chevalier's although at a lower tempo. Seems that the general feeling was I was safe home, no eggs had been broken, "so let's turn-to and fight the war." And the letter from the ensign carried a lot of weight.

Yet I was informed they needed my administrative skills for office work. No sense wasting time in the brig. Cecil gave me a verbal reprimand and I was hustled back to my oar in the galley.

The escapade did me a lot of good in the long run. The experience had "lowered the steam pressure" inside me and I was more content to wait for the wheels to turn at their normal speed and spit out the orders which would put me back into the middle of things. Not much later the orders *did* come – to Moutchic Lacanau for a flight check and the beginning of another rewarding experience.

Top, Chevalier. Karr recalls the C.O.'s anger and "... the scowl that could curdle milk." S.E.-5 Scout airborne in 1919, one of many airplanes flown by Karr, middle. Bottom, one of vehicles pictured could have been the type the author delivered to Dunkirk.

Training Squadron 26 carries out its mission with the T-2C at Chase Field. Whidbey Island's Attack Squadron 128 flies A-6As, Bs and Es and the TC-4C Gulfstream. Fleet Composite Squadron 1, based at Barbers Point, flies the A-4, US-2C, TA-4J and SH-3G. Glenview is home for VP-60 and its P-3As. RVAH-12 and its RA-5Cs are based at Key West, and Tactical Electronic Warfare Squadron 129 operates out of Whidbey Island with its EA-6Bs.

NAVAL AVIATION
NEWS