

NAVAL AVIATION

NEWS

DECEMBER 1976





Covers -- Cover sampler of Navy aircraft wearing the red, white and blue of America's Bicentennial include, left to right, top to bottom, VT-26 Buckeye, VX-4 Phantom, VT-7 Skyhawk, VT-31 Tracker, VT-10 Sabreliner and VAW-116 Hawkeye. PHCS(AC) Robert Lawson filmed the VS-41 Viking off California, back. At the S-3A's controls were Skipper Commander Robert L. Whittaker and LCdr. Dayton W. Witt. Here, McDonnell-Douglas' Harry Gann photographed a VMFP-3 F-4 on a training mission over California desert.

NAVAL AVIATION NEWS

FIFTY-NINTH YEAR OF PUBLICATION

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Deputy Chief of Naval Operations (Air Warfare)

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Commander, Naval Air Systems Command

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editor's corner

For Sale. "Waco 10 same as new, 22 hours, OXX-6 motor, navigation lights, Department of Commerce equipment, 30 x 5 wheels, booster magneto. Price \$2,600. Will deliver anywhere for expense. E. A. Forner, 518 St. Clair Avenue, Jackson, Mich." Hold it. Don't run to the bank. This excerpt comes from the magazine *Aviation*, May 28, 1928. In the Help Wanted section of the same issue: "Two pilots wanted with limited commercial license, one pilot photographer and one pilot mechanic for photography and joy hopping. Exceptional opportunity. Address Barrett Airways, Inc., Armonk, N.Y."

Wires, Wires, Wires. USS *Kitty Hawk's* skipper, Captain S. W. Hubbard, Jr., forwarded this photo of an unidentified flyer aboard USS *Langley*



in the early 1920s. It was given him by retired Commander Carlton D. Palmer who visited the ship. Palmer is in his 80s and a veteran of 1,000-plus carrier landings as well as three wars including the Mexican in 1914-15 and WWs I and II. Naval Aviator #116, Palmer recalls well the fore and aft wires aboard CV-1 shown here. They seem nearly as imposing as the pilot's nifty flying suit. Palmer commented: "After seeing several of



Reflection in a Shaded Eye. PHAN Ron McClellan rode with VT-5 flight instructor Ltjg. David Blevins over their NAS Saufley home base earlier this year and took some pictures.

Blevins removed his helmet for a brief moment and McClellan clicked away. Reflected in the visor are the photographer, the *Mentor's* right wing and some Florida landscape.

your present-day jet landings, all of which have been most expertly performed, my tale of the first landings seems very unimportant. And I'm happy to have got it out of my system before the jets came along."

Stretching a Point. An NAS Lemoore release described the Navy Parachute Team and mentioned that an expert free-falling parachutist utilizes his body, arms and legs, and can accelerate from a relatively slow speed of 120 mph to a head-down, breath-taking 200 mph. With a change in body configuration, loop rolls, spins and formation flying are accomplished with relative ease. "We can do almost anything an aircraft can do," said one veteran parachutist, "except go up."

Can You Top This? PHCS(AC) Robert L. Lawson, a frequent *NA*News contributor, got out his calculator the other day. In nearly 26 years of service he has flown more than 3,000 hours in 70 types of aircraft (including 125 variations). Lawson's been aloft in 49 Navy types, 11 USAF, 9 Army and 1 Vietnamese Air Force. Writes Lawson, "During the vast majority of this flying, I was serving in the capacity of my rating as photographer's mate. It has been a great experience and a real privilege to have been associated with Naval Aviation all these years." (See back cover.)

Whose Rating Badge? Naval Aviation buff Peter Kilduff's picture of a vintage rating badge may be of interest. What does it represent? Writes Kilduff, "It's the rating badge of a QM1 who was an aircrewman on Curtiss flying boats during WW I. The story I got was that enlisted men who flew in an aircrew status were entitled to add wings to their normal rating badges in lieu of formal aircraft wings. I received the dress blue jumper with the badge, as well as a blue flat hat with the legend on the band 'U.S. Navy Aeronautical Station' and some photos of the man in flight gear and the plane in which he flew."



Lee Fellowship

The Chief of Naval Personnel, with the concurrence of the Chief of Naval Education and Training, has authorized the establishment of the Vice Admiral Kent L. Lee Graduate Fellowship in Engineering at the Virginia Polytechnic Institute and State University. The fellowship has been specifically designated for active officer members of the Naval Aviation Executive Institute.

The Executive Institute was created in 1973 by the Naval Air Systems Command as a vehicle for fulfilling its responsibility for higher level development of both its current and emerging executives. It was part of NavAirSysCom's response to Presidential emphasis on the need for programs to develop the best federal managers possible. Membership consists of all GS-13/LCdr. personnel or above in NavAirSysCom headquarters and its 32 activities. Since the Institute was established, 4,500 members have participated in over 15,000 days of formal executive development programs.

The Naval Aviation Executive Institute is administered by a director and staff. A 22-person executive board, composed of managers from both headquarters and field activities, meets semi-annually to set operating policy. An advisory council, made up of prominent people in the executive development field gives guidance from a national perspective.

Institute seminars are offered, supplemented wherever possible with field trips. Speakers are drawn from private industry, the academic world and all levels of government. The Institute also sponsors a series of forums featuring face-to-face dialogue with individuals of national reputation.

Long-term development opportunities include scholarships at schools such as the University of Southern California and the Virginia Polytechnic Institute, and also a new civilian graduate program at the Naval Postgraduate School, Monterey.

Nominations for the programs may originate with individual members, their supervisors or their commands. In each case, an application must have organizational approval.

The Chief of Naval Education and Training has agreed to reserve one quota in its scholarship program annually for the recipient of the Lee Fellowship, subject to billet reductions by higher authority. Eligible officers will compete for the award. Inquiries concerning the award should be addressed via the applicant's commanding officer to Commander, Naval Air Systems Command, Attn: Air-990.

Farnborough Air Show

An F-14 *Tomcat* and an E-2C *Hawkeye* were among the U.S. aircraft which took part in the week-long international air show at Farnborough, England, in September. The aircraft left Long Island on August 30 and flew to Goose Bay, Nfld., for refueling before going on to Sondrestrom Air Base, Greenland. On each leg of the flight, the E-2 took off first, to maintain UHF communications throughout. It made position reports on HF for both aircraft. The F-14, arriving first at each destination, relayed weather and field information to the E-2. After an RON at Sondrestrom, the two aircraft went on to Keflavik for fueling and then to Farnborough.

The *Tomcat*, piloted by VF-24's Lt. Richard Bradley and Lt. Gerald Hull, RIO, flew daily, demonstrating its capabilities and its various configurations. The *Hawkeye* was on static display. Its crew was Captain Frank Roth, NavAirSysCom project manager for the E-2C; LCdr. Mac Johnson, Cdr. Bob Johnson and AT1 Charlie Otto, all of NavPro, Bethpage. Grumman mechanic Joe Ruggiano also flew the mission.

On the return trip, the *Hawkeye* flew to Prestwick, Scotland, for fueling before continuing against headwinds to Iceland. The F-14, with a more comfortable range than the E-2, flew direct to Keflavik. The two aircraft again stopped at Sondrestrom for the night and refueled at Goose Bay.

Saufley Field Disestablished

Naval Air Station, Saufley Field will be disestablished on December 1. The Naval Education and Training Program Center will be home based there, as well as all tenants from Ellyson Field. The flight training previously conducted at Saufley has been shifted to NAS Whiting Field.

Implementation of the Navy Integrated Flight Training System (NIFTS) removed the requirement to base training squadrons at Saufley. NIFTS T-28 aircraft, which will be based at Whiting, will eventually be replaced by T-34Cs.

The runways, control tower and other airfield facilities will continue to be used as an outlying practice landing field. They will be available in the event of mobilization.

Awards

The 1975 Admiral Jimmy Thach Trophy was awarded to North Island's VS-21 on October 2 at the annual reunion of the Tailhook Association. The award is presented annually for outstanding achievement by a carrier ASW squadron. Rear Admiral C. J. Kempf, Commander, Antisubmarine Warfare Wings, Pacific Fleet, presented the trophy to Commander Wayne Stoeckel, former C.O. of VS-21, who accepted it on behalf of the squadron. The squadron was also one of three recipients of the 1975 Arnold J. Isbell Trophy. Both awards are sponsored by the Lockheed-California Company.

Training Squadron 19, NAS Meridian, Miss., received the Chief of Naval Air Training Accident-Free Year Award. The squadron achieved 12,000 accident-free flight hours during 1976 and over 61,000 for four consecutive years.

For the second consecutive year, Marine Fighter-Attack Squadron 323, El Toro, has won the Robert M. Hanson Award for the best fighter attack squadron of the year.

Balloon Observatory

W. Neil Johnson and James Kurfess, scientists at the Naval Research Laboratory, have come up with a computerized system to orient sensors on free-floating, high-altitude balloon flights. Long-duration observations, say the scientists, are required to monitor high-energy solar flare phenomena, cosmic gamma ray bursts and transient x-radiation sources. The system is designed for superpressure balloons which will orbit the earth several times at altitudes of 40 kilometers during flights lasting up to 100 days. Johnson and Kurfess report that they successfully completed two flights of their 300-kg x-ray observatory on conventional balloons launched from the National Scientific Balloon Facility in Palestine, Texas.

As many as 32 observational tasks may be programmed into the NRL microcomputer's memory. The program can be modified during flight by telecommand from ground controllers. Data is received and recorded on the ground in real time via an L-band telemetry link from the balloon. An onboard astronomical-clock signal and the position of the vehicle are used by the microcomputer to orient the detector for its programmed task. Balloon-borne payloads are also used in other research areas such as meteorology, atmospheric studies and solar physics. The NRL system is an orientation platform that will provide real-time monitoring or surveillance by balloon-borne sensors during long-duration flights.

ANA Convention

Over 870 friends and members of the Naval Aviation community, active duty and retired, gathered in Virginia Beach in September for the first an-

nual convention of the Association of Naval Aviation. Vice Admiral H. E. Greer, Commander, Naval Air Force, Atlantic Fleet and president of the Tidewater Squadron of the Association, was host.

The convention featured a symposium by the commanders of the tactical, patrol, ASW and tactical support wings of the Atlantic Fleet. The business meeting was chaired by Admiral Thomas Moorer, USN(Ret.), association president. At the Saturday night banquet, Vice Admiral Jerry Miller, USN(Ret.), master of ceremonies, recognized several of the audience for their contributions to Naval Aviation. George Bush, Director of the Central Intelligence Agency and a former Naval Aviator, was the featured speaker.

The purpose of the Association of Naval Aviation is to acquaint people with the heritage of Naval Aviation and its contributions to our national security.

CNO Safety Awards

The Chief of Naval Operations, congratulating the winners of the CNO Annual Aviation Safety Awards for FY 1976, said, "The commands listed herein have clearly demonstrated that safe and effective operations are indeed compatible." The winners are:

NavAirLant: VAs 344 and 72, VAQ-33, VAW-125, VF-101, VP-30, VR-24, VS-22, RVAH-1, HS-15 and HSL-32.

NavAirPac: VAs 97, 128 and 196, VAQ-133, VFs 2 and 121, VP-22, VQ-1, VS-21, VAW-112, HC-3 and HSL-35.

FMFLant: VMFA-451, VMGR-252, HML-167 and HMM-261.

FMFPac: HMM-363, HMLs 267 and 367, VMFA-212 and VMFAT-101.

CNATra: VTs 6, 19, 21 and 29 and HT-8.

CNavRes: VA-203, VC-13, VF-301, VP-92, VR-51 and HS-84.

MARTC/4th MAW: HMM-764 and VMFA-112.

Repeat winners this year include VAQ-133 for the third time, and VAs 97 and 203, VFs 101 and 121, VS-21 and VQ-1.

Fire-Fighting Truck

The Naval Weapons Center, China Lake, recently demonstrated the capabilities of a new truck for fighting aircraft fires to fire chiefs and fire-fighting representatives of more than 40 Navy and Marine Corps activities. Using a mockup of an aircraft, China Lake fire fighters demonstrated step by step the effectiveness of the vehicle.

The P-4A incorporates the latest in airfield fire-fighting apparatus. NWC helped develop two of the truck's most effective features — a turret gun



and a remotely-controlled bumper turret. The high-flow roof turret pours 800 gallons of fire-fighting agent per minute on a blazing aircraft. The bumper turret, which can be operated from inside the cab, has a 300-gallon capacity. An 80-gallon-per-minute handline provides interior fire-fighting and mop-up capabilities.

The P-4A can also be hooked up to a fire hydrant to provide pumping support in combating a structural fire. Other Navy trucks can pump only the liquids carried in their own tanks. The P-4A also dispenses in a large, adjustable fog pattern. China Lake's fire chief, William R. Knight, feels that such a fog knocks down fires more rapidly and is therefore more effective.



grampaw pettibone

Preoccupied

A Naval Aviator was scheduled for a familiarization flight in an F-8 *Crusader*. He had about 2,400 total hours—with over 100 in the F-8 in the last three months. Start and taxi were uneventful and takeoff was routine. He proceeded to the training area, an ATC assigned airspace, which was 30nm southwest of home field. There he completed the high work associated with his FAM training.

After approximately 45 minutes, he returned to home field for multiple GCAs to burn down to landing weight. Then he intended to perform touch and go's in the VFR traffic pattern. On base leg of his first GCA, approach control informed him that he would have to terminate his approach with a full stop due to impending field closure for parachute drops in the airport traffic area. The pilot informed approach control that his fuel state prohibited a landing on this approach. He was issued clearance to climb to 4,000 feet and vectored overhead. As the *Crusader* passed overhead at 4,000, approach control switched him to tower frequency where the pilot obtained clearance to orbit the field at 4,000.

After two orbits, the pilot requested vectors into a fuel dump range. Clearance was issued and after dumping fuel to landing weight, he proceeded to the VFR initial for the duty runway.

The tower requested the F-8's position. The pilot responded that he was approaching the initial for the duty runway. The pilot broke at mid-field and stated later that in the break he was primarily concerned with raising the wing. At the abeam position, he found himself high and fast and reported, "106 at the 180 with gear, full stop." Because he was so preoccupied with altitude and airspeed, he failed to perform the landing checklist. On this particular day no wheels watch was posted.



As the *Crusader* passed through the 90-degree position, the tower operator picked up binoculars to check the wheels. The controller was unable to get a good wheels check because the *Crusader* was in a tight 90-degree turn onto final. The controller removed his sunglasses and continued observing the F-8. As the aircraft rolled wings level on final, the controller noticed that something was different. He reached for his transmitter key when another aircraft transmitted, "Wheels up, wheels up."

An F-4 holding short made the wheels-up transmission as the F-8 hit the runway. The *Crusader* touched down 750 feet from the approach end of the runway and came to a stop after skidding 3,800 feet. The pilot secured the engine and kept the aircraft on center line through the skid. As the aircraft came to a stop, he opened the canopy and exited. The

pilot was not injured. The aircraft sustained substantial damage.



Grampaw Pettibone says:

Thunderin' thunderin's! Where in the heck was this gent's brain—preoccupied with other tasks! How do we get the attention of a pilot who has tunnel vision? It's an amazin' thing. Once a pilot has decided that his wheels are down almost *nothing* will convince him otherwise—save hittin' him over the head with a 2 by 4!

Regardless of all that is said and done, the ultimate responsibility for lowerin' the rollers is the driver's! Yes, others can help—like wheels watch (when available), tower, other aircraft. The solution is so simple, but I'll still repeat it: use your checklist!

Excessive Tab Causes Failure

Recovering from a rocket firing run with the aid of elevator tab, an F4U pilot noticed a slight buffeting, but apparently paid little attention to it. He then executed another run. Buffeting increased and, during the recovery, the elevator completely failed. According to the pilot, the engine pulled the plane out of the dive. With full military power, he managed to maintain flight at a critically low altitude. By making flat rudder turns and by using flaps for increased lift, he managed to avoid hills in his flight path until he came to a valley which gave him 500 feet above the terrain, at which time he made a safe jump.



Grampaw Pettibone says:

This pilot coolly handled a tough emergency. Had he become the least bit panicky at such low altitude, death probably would have resulted.

However, the pilot created his own emergency! Excessive or jerky use of the tab undoubtedly caused the elevator failure. Par. 4 of Technical Note No. 72-44 says: "The use of elevator

tabs as a means of primary control in pull-outs from high speed dives is not recommended except in emergencies such as may arise under compressibility conditions. When tab is used to lighten stick forces in pullouts, caution should be exercised to ensure continuous and smooth control of the resulting accelerations." (June 1945)

Hooded Crash

A lieutenant instructor pilot (IP) was scheduled for an instrument training hop in the T-2C *Buckeye*. He briefed his student and informed him that they would depart home field, proceed to a nearby airport and make a simulated instrument approach followed by GCAs to touch-and-go landings and then return to home field.

The takeoff, en route portion and initial penetration to a touch and go were routine. A simulated no-gyro GCA followed during which the student (hooded) in the rear cockpit flew to minimums. The IP then demonstrated a simulated minimum fuel approach with the student riding the controls.

On both these approaches, the IP stated that he assumed control of the

aircraft at minimums and performed a touch and go landing, returning control of the aircraft to the student when safely airborne.

The third approach was a GCA in the half-flap configuration. It was flown normally without radical heading, altitude or rate descent corrections. However, the IP permitted the student (still hooded) to continue below the published minimum altitude, which, for this airfield, was 113 feet.

At 50 feet indicated altitude (approximately 30 feet AGL), the IP assumed control of the aircraft to perform a touch and go. The aircraft "flattened out." The IP detected an excessively high sink rate. He attempted to cushion the landing with full power on both throttles and retracted speedbrakes shortly before touchdown. The aircraft impacted with excessive Gs in an unbalanced attitude. The left main gear hit first. The right main gear and nose gear struck the runway simultaneously. The nose wheel failed and separated from the aircraft and the nose wheel strut hit the runway. Both engines were "fodded" by nose wheel fragments. The instructor rotated the nose, succeeded in becoming airborne

and retracted the landing gear.

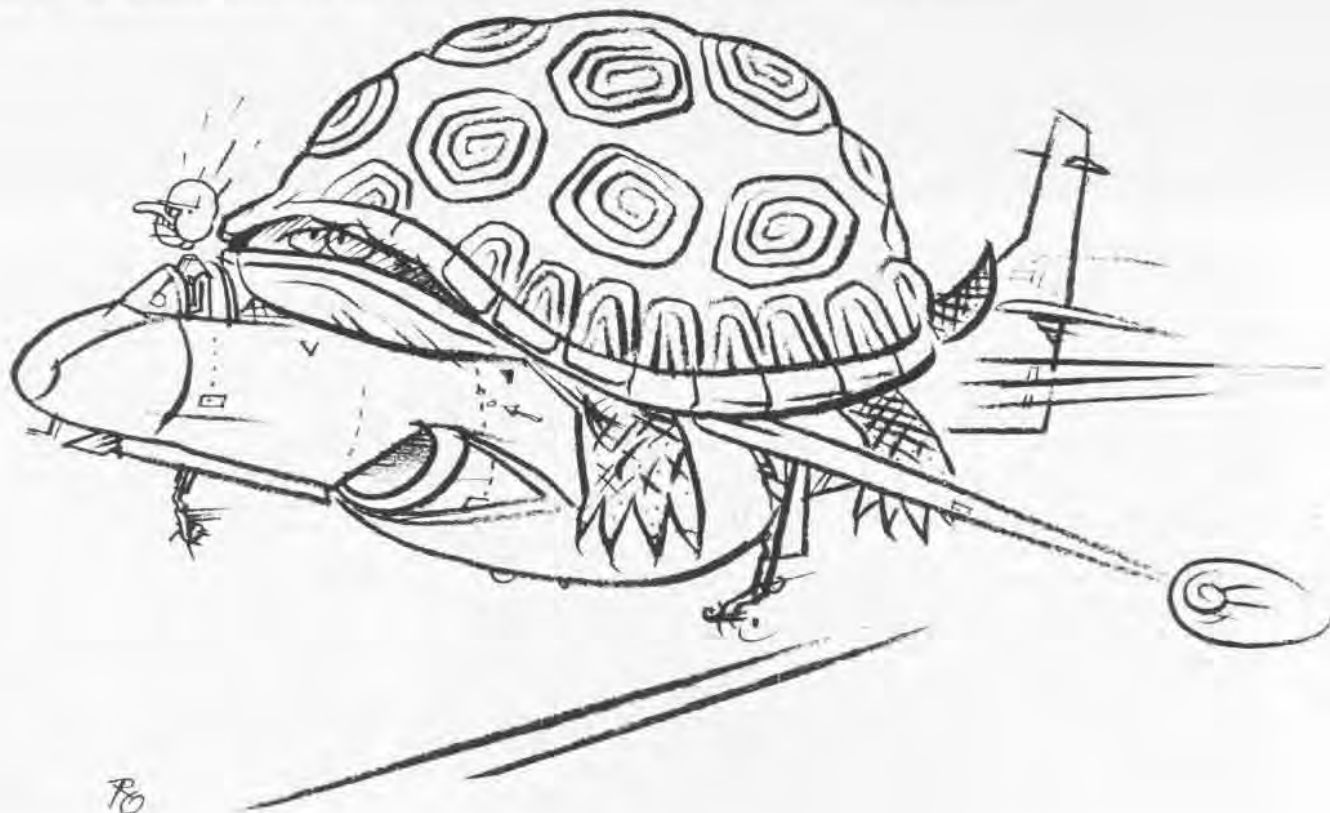
At approximately 100 feet altitude, with the throttle still at full power, violent vibrations were experienced. The instructor, maintaining 15 units AOA and visual reference, noted that the *Buckeye* was beginning to settle. He initiated successful ejection sequence for both cockpits. Upon landing the student became entangled in a riser and was blown down the runway. The instructor chased him down the runway, caught up with him and cut him free. The student sustained minor injuries; the aircraft was a total loss.



Grampaw Pettibone says:

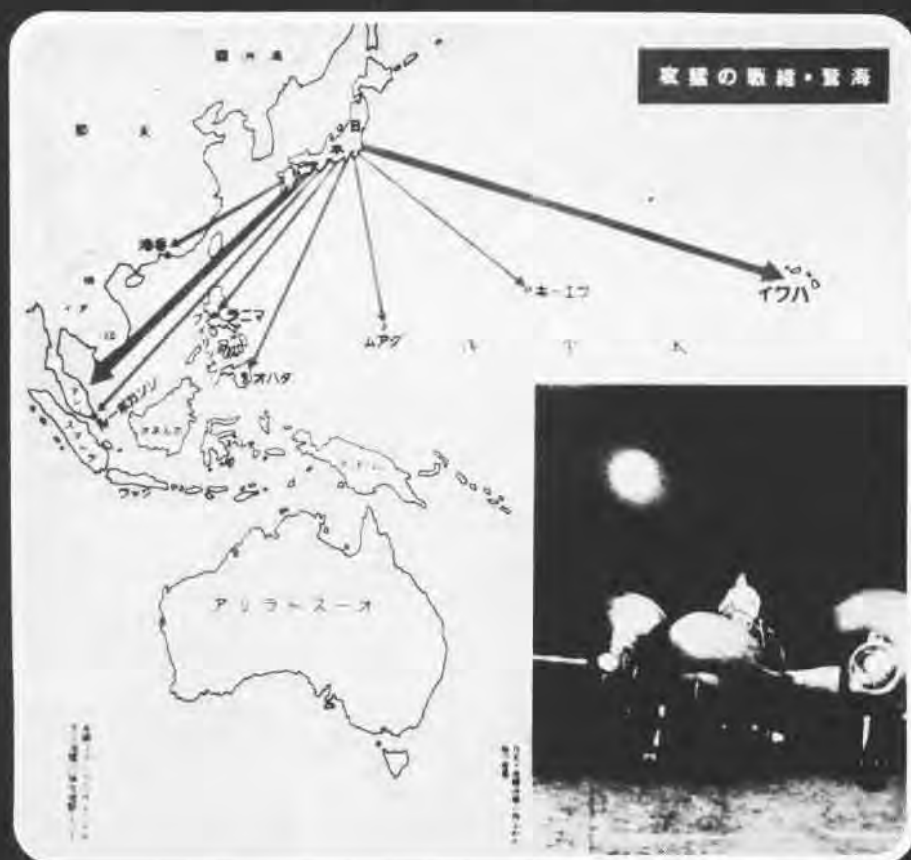
Jumpin' Jehoshaphat! I have trouble with pilots who intentionally break or bend the rules. I can be a little sympathetic with a flyer who makes an error while abidin' by the regs, but not with those who intentionally deviate!

This gent was fully aware that students were not permitted to fly the machine below minimums while hooded—simple enough! As with any game, when you break the rules you get penalized. In aviation, the penalty could be your life or someone else's and the loss of your machine. Is it worth the risk?



Remember - Pearl Wake

By Clarke Van Vleet, Aviation Historian



Japanese propaganda poster: 'This chart shows points attacked by Our Navy Eagles, left to right, Hong Kong, Hanoi, Singapore, Hawaii; and one of the raging Eagles of Our Navy leaving for a moonlight attack.'

USS West Virginia's guns are just above the waterline of her sunken hull. Smoke billows in background. Note upside-down OS2U. Inset pictures beaches enemy midget sub.

A U.S. Navy PBY-5 *Catalina* shared with the American destroyer USS *Ward* the first shots fired against the Japanese in WW II.

The *Cat* flying boat from Patrol Squadron 14, out of Kaneohe on dawn patrol, dropped a bomb on a suspicious submarine off Oahu. This was *fifty-five minutes* before the enemy's aerial onslaught against Pearl Harbor, Sunday, December 7, 1941.

At the time the PBY reacted, *Ward* bored down, fired and then dropped depth charges at 0651 on the midget Japanese sub attempting to sneak into the entrance of the harbor.

The two-man midget, equipped with two small torpedoes, was one of five which had been unclamped from big I-type mother subs off the Hawaiian Islands earlier that morning. They

were dispatched to scout and sink American ships which might attempt to escape once the Japanese attack began.

The four other subs were also subsequently destroyed, but the message which *Ward* sent on this initial incident was so delayed by decoding and transmittal that the Commander in Chief of the Pacific, Admiral Husband Kimmel, did not get the word until about 0730. He was on his way to headquarters when the first enemy bombs started dropping.

Thus, the dawn of the "day that will live in infamy" was shattered by the surprise sunrise attack by Japanese carrier aircraft against the U.S. Pacific Fleet berthed at Pearl Harbor.

Three hundred sixty *Kate* torpedo planes, *Val* dive bombers and *Zero*

fighters made the raid from six Japanese aircraft carriers. They launched from a position some 200 miles from Oahu.

Later, as a prisoner of war, Katsumi Kawakita, on the destroyed *Kasumi* at the time of the launch, said, "As the battle flag rose on the mast of the flagship *Akagi*, the carrier-borne planes left the decks one after another from each of the carriers and a magnificent formation of approximately 300 airplanes disappeared in the direction of Pearl Harbor."

Kenju Nakaya, commander of the leading air formation in the attack, said, "Suddenly the shoreline appeared distinctly before us, Pearl Harbor was still asleep in the morning mist. Fine objectives of attack from all directions. The torpedo airplanes separated

Guam Bataan The Rock?



NAVAL AVIATION
65 in '76

December 1941



individually, some flew so low they skimmed the surface of the water, others approached within 200 to 300 meters of the bellies of the battleships. A terrific column of water flew up into the air from the side of a capital ship.

"The antiaircraft defense guns were still asleep. Even the fighter planes did not come up to challenge us. The dive bombers rushed straight on in a beeline. Shortly after this reddish black flames were flaring up from the hangars of the enemy airdrome and from the airplanes which were lined up."

As the planes struck at 0746, a radio operator at the naval air station reported: "Pearl Harbor area under heavy bombardment by Japanese air. Air arm authentic."

As the attack continued, confusion, rumor and excitement erupted in the battle-charged atmosphere. The operator continued: "Three ships are troop ships escorted by enemy planes," and, later, "Parachute troops at Barbers Point. Enemy troops landed on north shore. Blue coveralls with red emblem."

Arms and ammunition for the Americans were not readily available at all bases, and the men were forced to improvise by using machine guns on damaged aircraft or by hastily mounting them on benches or oil drums.

Aboard the ships, men manned guns while being seared by flames. Others fired from positions awash as the bombed hulls settled to the bottom. On the heavily listing ships,

some of those passing the ammunition needed another man to hold up the passer.

Any potential for effective aerial resistance was knocked out by the first waves of enemy attacks, which left most aircraft, airplane ramps and runways in shambles, with burning wrecks and bomb craters which gutted the fields.

Patrol Wings One and Two at Kaneohe and Pearl, respectively, suffered 25 planes destroyed, 34 damaged and 43 personnel killed. It was PatWing Two Commander, Rear Admiral Pat Bellinger, who first dispatched to the outside world at 0758: "Air raid, Pearl Harbor—this is no drill."

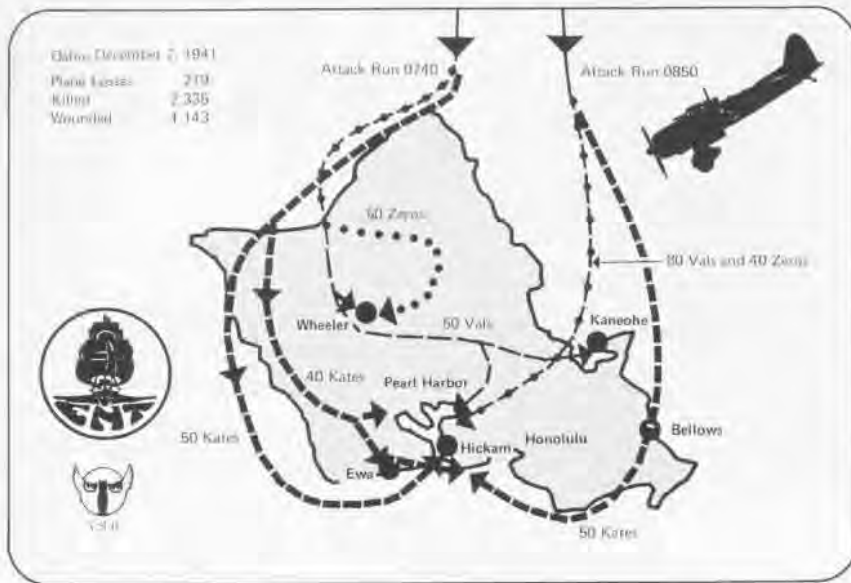
During the battle, a flight of U.S. Douglas SBD *Dauntless* dive bombers

Weary sailors watch as a ship explodes in harbor. Left to right are a PBY, OS2U, SOC and tail of another OS2U. Note flag in the distance, center right.



Although a PBY Catalina was one of first aircraft to fire on the enemy, nearly 60 of them burned at Pearl and Kaneohe.





was approaching the island. They had launched from *Enterprise* at 0630 to fly in ahead of the carrier which was returning to Pearl after delivering a Marine fighter squadron to Wake Island. The Scouting Squadron Six (VS-6) pilots flew smack into the conflagration.

The last radio words heard from Ens. Manuel Gonzales were: "Please don't shoot! Don't shoot! This is an American plane." Meanwhile, Ens. John Vogt is believed to have collided with a *Zero* in an awkward duel between bomber and fighter. Wounded in the leg, Ens. E. T. Deacon emptied his ammunition belts in another hopeless dogfight with a fighter before gliding his riddled *Dauntless* toward Hickam Field.

Sixers Lt. Clarence Dickinson and Ens. J. R. McCarthy were both pursuing an enemy and lost it in the smoke of the burning battleships. Simultaneously six *Zeros* swooped in to shoot up both SBDs, forcing the pilots to bail out.

After the bomb-laden *Vals* and torpedo-carrying *Kates* had completed their two-hour mission, four U.S. battleships lay sunk or were sinking. Four others were damaged. Three cruisers and as many destroyers were crippled and other Navy ships were gutted or set on fire. The Navy yard, base and air station, the patrol seaplane station at Kaneohe, the Marine airfield at Ewa and the Hickam, Wheeler and Bellows Army fields were left smoldering.

Out of nearly 400 aircraft on the island, 188 Navy and Army planes were destroyed completely, 31 damaged. The enemy lost 29 aircraft.

The Americans killed included 2,008 Navy, 218 Army and 109 Marines. The wounded numbered 710 Navy, 364 Army and 69 Marines. The Japanese lost fewer than 100 men.

One aviation man stood out, with acts which warranted the Congressional Medal of Honor. He was Chief Aviation Ordnanceman John Finn. Although painfully wounded many times at Kaneohe, he refused to leave his 50-caliber machine gun, which was mounted on an instruction stand completely exposed to enemy strafing, until he was specifically ordered to leave his post to seek medical aid.

When *Enterprise* arrived at wrecked Pearl Harbor on December 8, Vice Admiral "Bull" Halsey muttered through clenched teeth: "Before we're through with 'em, the Japanese language will be spoken only in hell." A major score was made by his flagship after *Enterprise* sortied on the 9th. The next day, her planes spotted the Japanese sub I-70 some 200 miles northeast of Oahu. In his SBD, VS Sixer Lt. Ed Anderson dive-bombed and damaged it, followed by Lt. Dickinson who sank it.

Wake Island had also been attacked on December 8 (Hawaiian dateline, Sunday the 7th). A formation of 36 enemy bombers struck the airstrip at 1150, demolishing 7 of the 12 new Grumman F4F-3 *Wildcat* fighters of

Marine Fighting Squadron 211 (VMF-211). Major Paul Putnam's unit and its planes had been delivered only four days earlier by *Enterprise*. Of the 55 aviation personnel, 23 were killed, including three pilots.

(In a grim coincidence, the river gunboat USS *Wake* (PR-3), after attempts to scuttle her failed, gave up to the Japanese at Shanghai the same day, the only U.S. ship to surrender during the war.)

Softening up raids for the coming invasion of Wake continued on the mornings of the 9th and 10th. Early on the 11th, a Japanese assault force of 450 men supported by 13 ships failed to make a landing because of rough seas and accurate Marine shore-battery fire, which destroyed one vessel and damaged four others.

Pursuing the retiring flotilla, VMF-211 pilots flew back and forth between the enemy task force and the atoll, where the *Wildcats* were re-armed for each sortie. In 10 such shuttle flights they dropped 20 bombs, destroying 2 more of the retreating ships.

Japanese raids continued from the base at Roi, 720 miles south. Dive bombers from the carriers *Soryu* and *Hiryu* were called in on December 21st to help soften the island for another invasion attempt. Promising aid, Pearl Harbor ironically queried if the Wake garrison was completing its various dredging and construction projects. This came when the men had their hands full just repairing the daily bomb damage and digging in deeper to defend.

By the 22nd, enemy gunnery and operational losses had cut the number of flyable *Wildcats* to two. These had been pieced together through cannibalization. That day, while counter-attacking another carrier raid, Marine Lt. Carl Davidson was shot down by an enemy fighter. Another *Zero* wounded Capt. Herb Freuler, forcing him to painfully push his scorched *Wildcat* back to the atoll and a destructive crash landing. (It was scorched because he had just bagged two *Zeros*, one of which exploded 50 feet below him.)

VMF-211 now had no planes and its remaining 20 aviation personnel joined the infantry. Crippled from the outset, Two Eleven had nevertheless destroyed two ships and, together with AA fire, 21 enemy aircraft.



Captured Marine Wildcats on Wake. Before attack, they were referred to as Fatted Calves.



The invaders came back early December 23rd with 1,500 troops and 21 ships, including *Soryu* and *Hiryu*. They arrived before Task Force 14, which was steaming from Pearl with reinforcements, including the carrier *Saratoga*. This relief expedition was recalled while 425 miles from Wake. Some swore at the no-fight decision, some wept. Others saw it as conserving a force that could fight later at a better time and place.

After bitter battles, the surrender of Wake occurred late in the morning, December 23. Outnumbered by more than two to one, the Americans hoisted a bed sheet above their command post. A U.S. negotiator ventured forth with a white rag tied to a mop handle.

The prisoners, 470 military and over 1,000 civilians, witnessed the Japanese cut down the American flag which had been flying throughout the 16-day siege. The Japanese lost over 800 men, the U.S. 52, including Marine pilot, Capt. Hank Elrod. Posthumously awarded the Congressional Medal of Honor, Elrod shot down two enemy planes and sank a ship with small bombs from his fighter plane. He also led his men, after the loss of his plane, in a daring ground defense of their position until he was mortally wounded by the invading forces.

During the Wake Island siege other American units were in travail. On the 10th of December, the 424 Ameri-

cans on Guam (including five naval nurses) whose heaviest weapons were 30-caliber machine guns, surrendered after the Japanese air force had bombed and strafed the island for two days. (The day before, on the 9th, the Japanese occupied Bangkok, Thailand.)

As at Pearl, it was the *Catalina* flying boat which was featured in the first acts of war in the Philippines. At daybreak, December 8, the Japanese opened their campaign with navy dive bombers from the carrier *Ryujo* which attacked and destroyed two PBVs at their moorings in the Gulf of Davao. Ens. Bob Tills, Patrol Wing Ten's best PBV bombardier, became the first American casualty of the war in the Philippines.

Later in the morning, enemy attacks were unleashed by navy land-based bombers from Formosa which hit U.S. Army airfields around Manila. That morning's raid knocked out more than half the Army's bombers and a third of its fighters, leaving only 17 B-17 *Flying Fortresses* and less than 40 P-40 *Warhawks* to the USAAF in the Philippines. In tactics similar to those at Wake, the Japanese had first crippled America's aviation and established virtual mastery of the air at the outset.

Two days later, over 80 bombers struck again, this time totally destroying the Navy yard at Cavite near Manila. On the 12th, *Zeros* swept in against Patrol Wing Ten's seaplane

base at Olongapo, wiping out all seven *Catalinas* stationed there. This left PatWing Ten in the Subic-Manila Bay area with 17 PBVs, 11 of which could fly. The wing had the remnants of a utility detachment, also depleted by strafing: four OS2U *Kingfishers* and three J2F *Ducks*.

With the Japanese advancing from already established landing beaches and with the enemy in complete control of the air, PBV operations became too hazardous without fighter protection and the wing was ordered south to the Dutch East Indies on December 15.

Through sheer ingenuity, and near wizardry, some of the 150 personnel of the wing who stayed behind at Manila Bay patched together and made four of the remaining planes airworthy. Although camouflaged by mangrove branches, three of them were soon massacred like sitting mallards by medium *Mitsubishi* bombers. Only the one *Duck* which had been left behind survived to serve in the coming siege of Bataan.

(On Christmas Day, the British surrendered to the Japanese at Hong Kong.)

By late December, the enemy had established himself at nine different invasion points throughout the Philippines and was marching on Manila. General Douglas MacArthur ordered the evacuation of the capital and the consolidation of American forces on the Peninsula of Bataan.

A colorful and key character in this effort was PatWing Ten's operations officer, Commander Francis J. Bridget. He was an important figure in the contingent left behind. With 150 men from the wing under his command, Bridget formed a force of foot-sailors called "Bridget's Doughboys." They joined the Army's "Battling Bastards of Bataan." Throwing away the infantry handbook and breaking every rule of the ground soldier's code, the Doughboys slugged it out with the enemy under their own terms and tactics in the cliffs and jungles of the peninsula.

For camouflage, the Naval Defense Battalion boiled their whites in coffee grounds which turned them a mustard hue. One Japanese termed the unit "a new type of suicide squad wearing bright yellow uniforms."

Morale was kept high by radioman J. M. Rightmyer who picked up news from the outside world. He monitored radio broadcasts, then wrote, edited and mimeographed a jungle newspaper, distributing two copies per unit, including those of the Army.

Meanwhile, elements of the depleted Army Air Force and most of the Navy's Asiatic Fleet had moved south. Their ultimate destination was Australia. The top American brass began to follow. A PatWing Ten *Catalina* flew air chief General Lewis Brereton out on Christmas Eve. Fleet

Admiral Thomas Hart followed the next day in the submarine *Shark*. Washington ordered General MacArthur to leave Corregidor March 11, 1942, prompting him to proclaim his famous "I shall return."

Meanwhile, General Jonathan Wainwright's Army men were tenaciously holding ground on Bataan. Eventually overwhelmed by 200,000 Japanese, 35,000 American and Filipino troops were taken prisoner April 9 and forced on the infamous Death March of Bataan. Only a small number were able to make the retreat to The Rock, the island fortress of Corregidor.

Striving to help to the last, two PatWing planes voluntarily piloted by Lieutenants Pollock and Deede and enlisted Aviation Pilots Eddy and Bounds flew 3,600 miles over predominantly enemy territory April 27 from Perth to Corregidor to evacuate more staff members and Army nurses. One of those privileged to be evacuated could hardly leave his friends, "... but they seemed happy for me — they knew the end was very near. I took watches, class rings and messages from them for their wives and loved ones at home. This, indeed, was real tragedy — and the tired, worn, hopeless expressions they had was something I shall never forget."

Finally on May 6, the 11,500 beleaguered holdouts on The Rock surrendered and were taken prisoner.



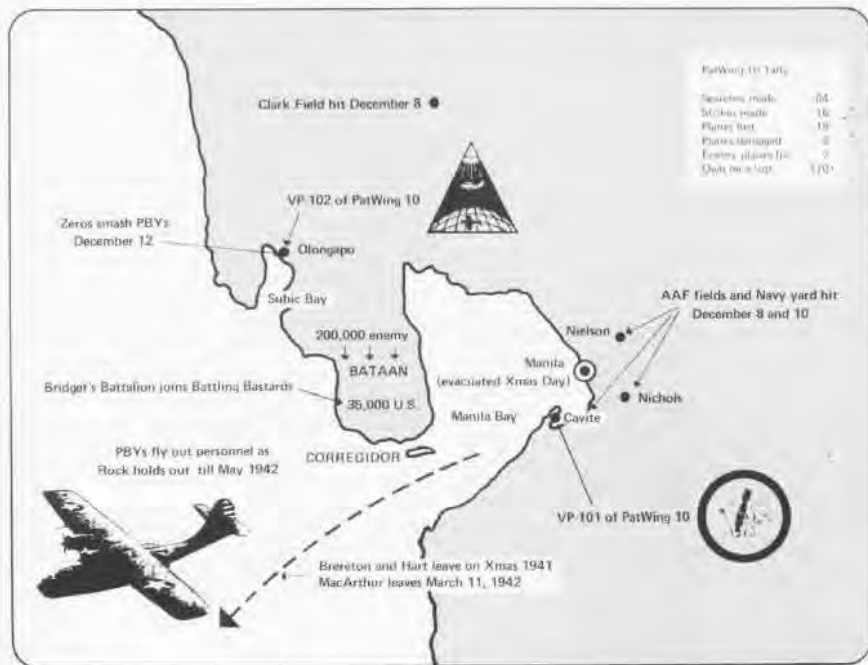
Many ask what happened to Frank Bridget? He died December 15, 1944 — a POW.

Just before it fell, Wainwright wrote: "As I write this we are subjected to terrific air and artillery bombardment and it is unreasonable to expect that we can hold out for long. We have done our best, both here and on Bataan, and although beaten we are still unashamed."

As the radio on Corregidor went off the air, the last words from the Navy were heard. Captain K. M. Hoeffel spoke: "One hundred and seventy-three officers and 2,317 men of the Navy reaffirm their loyalty and devotion to country, families and friends."

The drama that followed the move south of Captain Frank Wagner's PatWing Ten — the unit's indefatigable and undefeatable esprit de corps, its daring search and rescue missions, harrowing long distance flights and rear guard actions, brazen attacks on stronger enemy ships and planes — are all South Sea sagas in themselves.

Shortly after the move, Frank Wagner wrote some realistic and enduring words: "You must count on meeting an enemy who will show smartness, determination, bravery and will hit you hard with everything he has whenever he has an opportunity. The only way to circumvent this is to outsmart him and hit him first and hard. Under those circumstances, he is entirely amenable to reason and will retire in good order, or confusion, according to how hard you have hit him."





I'll Remember

The following is a prologue to Poems 1942-1945 by Richard L. Newhafer, reprinted with permission of his widow, Frederica B. Newhafer.

A combat flyer in World War II, Newhafer received the Navy Cross, three DFCs and numerous other awards. He flew from the deck of Essex, Yorktown and Hancock. He shot down nine Japanese planes and helped sink the battleship Ise.

After the war he served as a civilian advisor to the South Korean Air Force. During the Korean conflict he flew Navy jets. He served two separate tours with the Navy's Flight Demonstration Team, the Blue Angels, before ending his service career.

Newhafer authored six novels, including The Last Tallyho, was a television writer and a member of the Writers' Guild. He was at work on another book when he died in 1974 at the age of 52, a lieutenant commander in the Naval Air Reserve.

I remember the things of the past four years. They are as much a part of me now and forever as my very soul. The years of my life may be many or may be few, but I'll remember . . .

I'll remember a glistening bar atop the El Cortez in San Diego in September of 1943, cloudy with cigarette smoke and noisy with a hard and forced laughter. I remember the gold wings and battle ribbons on the chests and Bates sitting beside me looking westward out over the sea.

'Well, Batesy, tomorrow we go. A week from today we'll be in it. So tonight we either get drunk or go to church. What'll it be?' And Bates smiled and ordered a drink for the house.

I'll remember sailing past Diamond Head on a clear, incredibly blue day. The beach and the pink of the Royal Hawaiian and the soft warm green of the rolling hills behind Pearl Harbor had a significance of their own that seemed to deny the very existence of war. I remember the tightly packed ships standing at anchor in the harbor and the ugly, rusted turrets of the battleships sunk on December 7th. The beauty of the hills and mountains lying in the background was incongruous with the magnificent display of power and might lying in the water like a lion ready to spring. . . .

I'll remember a quiet ready room in the hours before dawn and the grim, strangely old faces of the pilots as they awaited 'Launch Aircraft.' I'll remember how soft that cloud looked the day over Wake Island, and how quick the Zero came out of the sun. He came from four o'clock and above, but I saw him against the background of lazy clouds. He looked like a fiery rose as he tumbled earthward. I caught him with a thirty-degree angle burst and blasted him fifteen thousand feet into the ocean beside Wake Island. We sent you more Japs, Major Devereaux. . . .

I'll remember a gray Sunday morning on the pitching hangar deck of the carrier and the look on the Skipper's face as the weighted sack con-

taining his wingman slid from under the flag on the edge of the deck and slipped into the choppy waters. I can't recall the song they play at a naval burial at sea, but it is poignantly sad and beautiful. But I do remember the Skipper's softly murmured, 'All secure Bill . . . and good luck.'

I'll remember the wardroom after the big fight at Palau, and Pope standing against the bulkhead, his face tired and lined by something that no man has yet been able to describe with words.

'The bastard was hiding in a cloud,' he said. 'I didn't see him till he'd opened fire. Then it was too late. Bates didn't know what hit him. He burned. . . .' And there is your war. Simple. Brief. Be quick and neat and cold about it. Make your eyes hard and learn to laugh and grow old in a few hours. Never be a seeker but take today for what it's worth, forget yesterday and to hell with tomorrow. Tomorrow's strike will be a tough one and may be a last one, so forget it . . . and Bates burned. . . . So long Bates!

I'll remember a lovely little palm-studded islet in the Marshalls . . . the broad toothless grin of an old native as he paddled by in his canoe . . . the deathlessly calm and clear water near Espiritu Santo. I'll remember a Navy nurse aboard the *Solace* and the unforgettable tropic moon as we danced on the deck.

'It can't last forever, my lovely, and someday all this will be ours forever. So let's take this moment, hold it close to our hearts . . . let's stand here on the deck in the moonlight, under these millions of stars, ten thousand miles and a year from home, and pretend we're at the country club at Westchester, or the beach at Melbourne or maybe just the drugstore in Cairo, Illinois. And if we can't pretend, then it's okay, let's forget it and go out quietly and do what we're told and win this damn war and find the lasting peace or maybe just die like Bates. . . .'

I'll remember the early morning of August 15th, 1945. We were ten thousand feet over Tokyo Bay, cir-

cling to begin our attack. Then it came . . . it crackled over the air from Nitrate Base some two hundred miles out to sea . . . it roared over the water from the carrier to the planes and brought with it all the hope and unreasoning happiness that salvation can bring. It brought tears and laughter and a numb sense of unbelief. It was old news to most of the world by that time but to us it was wonderfully new. Again and again it pounded in our ear-phones.

'All strike Able planes, this is Nitrate Base. All strike Able planes return to base immediately. Do not attack target. The war is over. We say again, this whole goddamn war is over. . . .' and I'll remember the echo of the Last Tallyho.

I'll remember a dirty, dusty, winding street in Yokosuka . . . the funny looking little Jap policemen with their big swords, who saluted every officer who passed within sight of them . . . the disgusting poverty of the people . . . the dead smell over the whole city . . . the grandeur of Fujiyama . . . the tiny old woman sitting on a corner curb in Yokohama, her head bowed and resting on her arms. When she raised her head as we passed she looked ten years older than God . . . the ugly young girls standing in the alleyways beckoning and grinning with their rotting teeth, unaware that they were too repulsive even to ply the oldest profession on earth . . . trying to buy a bottle of 'sake' and getting cleaner fluid instead, and the look on Burns' face when he took a swallow of it . . . Haley trying to buy a kimono and pointing to one the proprietor's wife was wearing and the proprietor thinking Haley wanted to buy his wife . . . the last glimpse of Japan as the towering snow-capped peak of Fujiyama faded over the horizon. . . .

I'll remember sailing under the Golden Gate and the pretty young girls in blue uniforms lined up at the dock to greet us . . . the first sound of my mother's voice on the telephone . . . the wild farewell parties as the squadron broke up . . . the hearty

promises to meet again when we all knew we never would, that the whole thing was over. . . .

'Well, Willy, take it easy, lad. I'll be out your way before long. Sure I'll look you up. We'll tie a beauty on. Yeah, it's been a lot of fun. Thanks for everything. Sure. So long fella. . . .'

I'll remember the first breathless sight of home . . . tears in loving eyes . . . the hard handclasp of friends . . . trying to find something to say when they wanted to know what it was like out there, if it was tough, and how did it feel to kill a Jap. . . . You couldn't tell them they weren't talking to the same person now, that you weren't the same entity you were then. Then you were part of a machine, a part of six .50 caliber machine guns, part of a pair of steady wings and a roaring engine, part of cloud cover and a clear sky. You were his target and he was yours and he wasn't quite good enough. That's all. Nothing more. But there aren't and never will be words to explain it. You have to live it.

I'll remember the gusty briskness of the wind off Lake Michigan . . . the flow of traffic down the Boulevard . . . Randolph Street at night and in the early dawn . . . the first civilian suit and the gold eagle in the lapel . . . taking the wings and row of ribbons off the uniforms and laying everything away till the world goes mad again someday. . . .

And this last I don't have to remember because it belongs to the present and is a part of me now. It's the shutting off . . . the forgetting . . . the starting anew. It's putting the past four years away, storing them and all that belongs to them in the back of my mind where they can play no part in the present or future. They were full years, each of them choked to the brim with life and death and excitement and glory. The blood ran quick and hard. They have no place beside the years now and ahead. . . .

But it will be difficult to subdue them in the face of so many things that demand remembrance.

1910 The first naval officer to undergo flight training, Lt. T. G. Ellyson, was ordered to report to the Glenn Curtiss Aviation Camp at North Island.

1912 Lt. J. H. Towers reported completion of a series of tests to determine ability to spot subs from the air.

1916 LCdr. H. C. Mustin reported that an Eastman Aero camera, tested at NAS Pensacola at altitudes of 600 to 5,100 feet, was the best camera tested up to that time, and that it produced photos satisfactory for military use.

A commission which was to select new sites for expansion of navy yards and for submarine and air bases along the coast, submitted its preliminary report. It said that "... the present development of aeronautical machines ... and the practical experience so far obtained in the utilization of such machines to meet the tactical and strategical requirements of the fleet and the defense of the coast, is such as to preclude the determination at this time of any extensive system of aviation bases." The commission recommended that a joint Army-Navy board choose locations that might be used by both services.

1917 Policy regarding helicopter development was established by the Secretaries of War and Navy Departments. Support of such development was to be limited to moral encouragement until a helicopter of military value had been demonstrated.

Navy fighter-type aircraft development began with authorization for the Curtiss HA, a single-pontoon seaplane with dual synchronized machine guns forward and dual flexible machine guns in the rear cockpit.

The addition of an aerography school to the training program at MIT was marked by the start of classes with one student enrolled.

1918 Efforts to develop aircraft which would operate from ships were renewed when CNO requested that the Bureau of Construction and Repair provide the simplest kind of aircraft with the slowest flying speed possible.

1921 First flight of an airship inflated with helium was made at Norfolk.

1924 The NM-1, an all-metal plane designed to develop metal construction for naval airplanes, was flown at the Naval Aircraft Factory.

1926 RAdm. J.M. Reeves, commanding Aircraft Squadrons, Battle Fleet, reported on results of first dive bombing exercise in the formal fleet gunnery competition. Marine and Navy fighters made 45-degree dives from 2,500 feet, and at an altitude of 400 feet dropped 25-

pound fragmentation bombs. Observation squadrons similarly attacked from 1,000 feet.

1928 Fourteen fighting-plane radio telephone sets, operating on a frequency of 3,000-4,000 kc and featuring an engine-driven generator, were sent to VB-2B Squadron aboard *Saratoga* for service tests and evaluation in single-seat aircraft.

1930 *Aroostook* and one utility and two patrol squadrons of the Battle Fleet reported for duty to Commander Base Force, providing that command with its first aviation organization.

1931 *Langley* completed nine days of operations off New England testing cold-weather operating capabilities of carrier deck gear and carrier aircraft, and the effectiveness of protective flight clothing.

1934 Flight test of the Stearman NS-1 biplane was completed at Anacostia.



1937 A successful unmanned, radio-controlled flight was made with a JH-1 drone at CGAS Cape May, N.J. Takeoff and landing were made using a land-based radio set. For flight maneuvers, control was shifted to an airborne TG-2.

1938 Board appointed by SecNav reported on its survey of the aviation shore establishment. Recognizing the need for expansion in the event of war, it recommended enlargement of 11 existing stations and construction of 16 new ones.

1939 Largest single order for naval aircraft since WW I was given to Consolidated for 200 PBV-type aircraft to support the increase in the number of patrol plane squadrons required by the Neutrality Patrol.

DECEMBER

- 1941 Japanese carrier aircraft launched attack on Pearl Harbor.
Aircraft from *Enterprise* sank Japanese sub I-70 in waters north of Hawaiian Islands, the first Japanese combatant ship sunk by U.S. aircraft during WW II.
Naval Air Transport Service established to provide rapid air delivery of critical supplies and personnel to naval activities and fleet forces all over the world.
SecNav approved expansion of pilot training program from 800 students to 2,500 per month.
- 1942 USS *Santee*, first of 11 escort carriers assigned to hunter-killer duty, left Norfolk with Air Group 29 on board for free-roving antisubmarine and raider operations in the South Atlantic.
Because of an urgent need for airborne radar, BuAer requested the Naval Research Laboratory to continue providing electronics specialists to operate and maintain radar equipment until personnel could be trained and supplied to fleet units.
USS *Essex* commissioned at Norfolk, first of 17 ships of her class commissioned during WW II.
- 1943 CNO directed that a helicopter pilot training program be conducted by the Coast Guard at Floyd Bennett Field under the direction of DCNO(Air).
Naval Air Training Command established at Pensacola.
Navy carriers and aircraft took part in close of Gilbert campaign and in continuing attacks against Rabaul.
- 1944 Six escort carriers and Marine Corps shore-based air units aided landings on Mindoro.
VMPs 124 and 213, the first Marine fighter squadrons to operate from fast carriers in combat, reported for duty aboard *Essex* at Ulithi Island.
- 1947 HMX-1 was commissioned at Quantico to develop techniques and tactics for use of helicopters in amphibious operations.
- 1950 VP-892, the first all-reserve squadron to operate in the Korean war zone, began operations from Iwakuni.
- 1951 Naval Aviation Safety Activity established at Norfolk under CNO.
A Kaman K-225 helicopter equipped with a Boeing YB-502 turbine engine made its first flight at Windsor Locks, Conn., in the first demonstration of adaptability of gas-turbine engines to helicopters.
- 1952 *Princeton*, operating in the sea test range of the Naval Missile Test Center, catapulted F2H-2P control planes and launched a *Regulus* assault missile. Pilots of control planes guided the missile to target point where they transferred control to other pilots who landed the missile.
- 1953 First successful test of boundary layer control on a high-speed airplane, an F9F-4 *Panther*, made at Grumman Aircraft Corporation. A BuAer engineer, John Attinello, was credited with developing this practical application of an aerodynamic principle.
- 1955 The first air link with Antarctica was made by two P2V *Neptunes* and two R5D *Skymasters* of VX-6 in a flight from Christchurch to McMurdo Sound.
- 1958 *Yorktown* and eight other Navy ships were diverted from operations at sea to aid people of Koniya, Japan, made homeless by a fire which swept through the town and destroyed most of the homes.
- 1960 Helicopters of HS-3 and HU-2 from *Valley Forge* rescued 27 men from the oiler SS *Pine Ridge* as she was breaking up in heavy seas off Cape Hatteras.
- 1961 Installation of the pilot landing aid television system (PLAT) was completed on *Coral Sea*, the first carrier to have the system for operational use.
- 1964 Cdr. T. G. Ellyson, Naval Aviator No. 1, was enshrined in the National Aviation Hall of Fame at Dayton, Ohio, the first naval officer to be so honored.
- 1965 *Enterprise*, carrying CVW-9, the largest air wing deployed up to that time to the western Pacific, joined the action off Vietnam, the first nuclear-powered ship in combat.
- 1970 The F-14A *Tomcat* flown by a Grumman test pilot made its first flight at Grumman's Calverton plant.
- 1971 *Enterprise* and a task force of eight other U.S. ships entered the Indian Ocean for possible rescue of American citizens during the fighting in the India-Pakistan war and to counter the build-up of Soviet naval ships.
- 1972 U.S. Navy aircraft and carriers resumed combat operations in WestPac, following breakdown of peace negotiations.
An HC-1 from *Ticonderoga* picked up *Apollo XVII's* crew, Naval Aviators Capt. Eugene Cernan and Cdr. Ronald Evans, and geologist Harrison Schmitt. It was the last flight of the lunar program which began in 1960.
- 1973 *Tarawa* (LHA-1), the first of a new class of amphibious assault ships, was launched at Pascagoula, Miss. (See *NA News*, November 1976, page 8.)

Bicentennia



Birds . . .



As America's Bicentennial year draws to a close, a tip of the hat is in order for those who designed and painted patriotic schemes on their unit aircraft. Complementing the color cover and centerspread pictures, are these from a variety of commands. Unfortunately, NANEWS couldn't feature every Naval Air outfit which had created impressive patterns of red, white and blue. Also, space precludes listing all those personnel whose imaginations and hard work resulted in these artistic salutes to the Nation's first 200 years. Units and their aircraft depicted are: Left column, top to bottom -- VP-66 Orion; Cdr. Leo Hyatt, C.O. of VA-45 and squadron Skyhawk; VT-23 T-2C; and VS-29 Viking. T-38, top, flies out of China Lake. Left, VA-215 Corsair over USS Oriskany. Below, NAS Corpus Christi Trader. Right, NAF Milledenham C-131; HS-8 SH-3D; NAS Lemoore T-39D; and Lemoore's C-1A.





Colorful Crusader, left, greets personnel at NAS Barbers Point's main gate. Marine F-4 flies with VMFA-321. On Midway's cat is a VF-151 Phantom. Below, VX-4 Phantom and NAS Corpus Christi's UH-1N.



Air



Shows

'76



Willow Grove

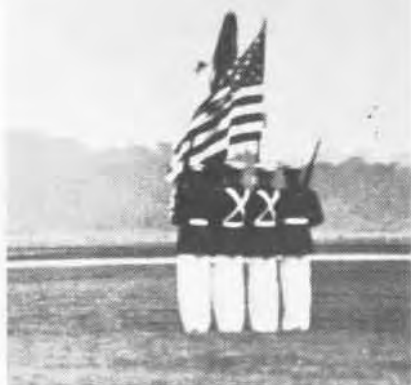
Charles Cooney

Summer is the season for air shows and those held in America's Bicentennial year attracted visitors in record numbers. In a three-day span through July 4 at NAS Willow Grove, more than 300,000 enjoyed the thrills of aviation on display. A host of events included the Navy's *Blue Angels* in their *Skyhawks* and Canada's *Snowbirds* in their Canadair CT-114 *Tutors*.



Patuxent River

Patuxent River's Air Expo drew 100,000 fans to the Maryland air station. Year in, year out, the Patuxent show draws raves and 1976 was no exception. The Blues were there, of course, along with Army's Silver Eagles doing their magic in OH-6A Cayuse helicopters, below left. Joining the guests was Miss Air Expo 76, Lesa King, left. Below, an F-14 Tomcat flies by the Marine Corps drill team while a father and son eye the sky, undaunted by a brief shower.



Air Shows '76



South Weymouth



What would you do if the *Blue Angels* offered their services for an air show and gave you just three weeks to get ready?

The answer is not simple. But one thing is certain if the offer is accepted. You go to work immediately, and you use the assets at hand.

That's what happened at Naval Air Station, South Weymouth the second week in July when a *Blue Angel* performance in Suffolk County, N.Y., was cancelled.

The offer included, along with the *Blues*, stunt pilot Bob Hoover with his two-plane aerobatic show for performances on July 30 and August 1. Add to this the operational aircraft at the air station, which could be used in fly-by and operational maneuvers.

Armed with this information, public affairs personnel issued a news release—to every media outlet in the six-state New England area. That first release, general in nature, announced the dates and times of Air Show '76 at NAS South Weymouth.

The advance publicity accomplished, the PAO planning brief started with a brain-storming session in which office personnel outlined ready assets which could be used to get the word out quickly and completely. Public affairs had recently coordinated a change of command ceremony at South Weymouth, so VIP lists and media contact files were up-to-date.

Because of the short lead time, tasks and assignments were outlined on a flip chart on a week-to-week basis. Activities were purposely scheduled in a manner that would build the publicity program to a crescendo the day before the show. If all went well, by the time the *Blues* took off for their practice show, the New England area would be saturated with word of the event.

It was decided to issue a news release once a week and send it to every newspaper in Massachusetts, New Hampshire and Rhode Island. Distribution on the final release would be expanded to include all radio stations in New England.

First follow-up action of the initial announcement was direct contact with television and radio stations in the Boston area. Now the alert was out. There would be an air show at South Weymouth in three weeks. The NAS

public affairs office, like most, is seriously undermanned for a project of this magnitude, so a call went out to the Selected Air Reserve community for help and two young lieutenants reported for a week of active duty to help with the show.

When the public affairs office received promotional material (24-sheet and counter-top posters, press kits and 16mm film clips) from the *Blue Angels*, the lieutenants were given the task of hand-carrying it to outlets which could advertise Air Show '76 the most, in the shortest time.

While making these personal contacts, the reserves arranged for three representatives from television, radio and press to fly with a *Blue Angel* before show time.

The radio representative broadcast his impression of the flight live from a *Blue Angel* A-4 *Skyhawk*. This proved to be one of the most successful advertisements of the show. He also broadcast live from a mobile unit at the air station the first day of the show.

Arrangements were made for one of the *Blue Angels* to appear on a 15-minute segment of a nationally syndicated talk program. Another member of the squadron was featured in a second television talk show, and the 16mm film clip provided by the *Blues* was used by a third channel in the Boston area.

All was going well. The weather was holding and preparations for the show were developing into an all-hands effort as show time approached. Maintenance personnel were making arrangements for a static display of all types of aircraft brought in from nearby bases. The public works people were building concession booths. Supply was completing negotiations with users of those booths. Public affairs, using more borrowed personnel, was sending invitations to more than 200 VIPs and friends of the Navy.

A highlight of the pre-show activity was to be the *Blue Angel* practice show on Friday. (The show began on Saturday.) More than 100 representatives of the news media were invited and arrangements were made for them to meet the *Blues*. A cocktail party at the officers club allowed the VIPs to do the same thing.



Two hours before show time, the South Weymouth field looked like this, left. During the day a local radio station broadcast from the show site, below. A South Weymouth Marine rappels from a hovering helo, far left.



Then it rained.

It had not rained for months in the New England area and nightly weather reports held none in prospect. Two days before the highlight of NAS South Weymouth's Bicentennial, however, it rained.

On Friday morning a fine mist swept over everything. In winter, that mist (becoming snow) often slows activities at the air station to a virtual standstill. Would it, in summer, wash away the air show?

Just when the faint-hearted began to mumble and cast their eyes at the lowering clouds, word got around that there would be no talk of cancellation. On that positive note, all hands continued preparations. But rain continued throughout Friday. The practice show was cancelled.

As rain continued to fall, the telephones in PAO rang almost constantly. Everyone wanted to know how bad the weather had to get before the show would be cancelled. The answer: "We are not cancelling at this point. There are no plans to cancel unless it is pouring rain at show time Saturday."

Saturday morning looked like a replay of Friday. The bad weather front had not moved out during the night. By 0730, the phones in PAO were at it again and, by 0805, PAO personnel were informing the news media that the show was still go.

The gates opened at 1000. It was still raining. Word was being passed to radio and television outlets that the affair would begin as scheduled. By 1400, the scheduled starting time, 20,000 rain-coated people were on hand.

The show did go on. Visibility continued to fade as the event progressed, however, and the *Blue Angels* cancelled at the last moment. Station aircraft and Bob Hoover took to the air for abbreviated maneuvers just below the dark and low-hanging clouds.

Sunday morning came and there was still no sign of the sun, but the weather guessers put out the word that all would be well by afternoon.

More calls to television and radio stations with word that Sunday's show would start at 1400 did little to alleviate the strain on the telephone switchboard. Again the gates opened and another rain-coated crowd began to arrive—even more than the day before.

Two hours before the show, the rains came. They swept in from the Atlantic with a vengeance. The biggest rainstorm to hit South Weymouth in months whipped across the runways, washed along the taxiways and parking aprons and completely obliterated the ready and waiting aircraft.

Then the rain faded away. It was gone nearly as fast as it came. The sun came into view along with great patches of sky. It was still 90 minutes to takeoff. That sun and sky saved the day.

When two parachutists from Fort Devens jumped from their small aircraft to officially open the Sunday show, more than 100,000 persons were on hand.

The weather continued to clear. Scattered clouds made it impossible for the *Blues* to fly a complete demonstration. The pilots did their thing at lower altitude, though. The effect was, as expected, exciting in the best tradition of the Navy's Flight Demonstration Squadron.

NAESU Tech Rep

By PH1 Bob Woods



Have you ever wondered who that guy in civilian clothes is or what he is doing poking around aircraft on the flight line?

He's probably one of the many technical representatives attached to the Naval Aviation Engineering Services Unit (NAESU).

These tech reps work side by side with squadron personnel, giving advice on problem areas. They have the know-how and are there to help. Each is an expert in a particular field of aviation.



Navy civilian technical specialists Lloyd Stinson, top, and Bill Mackey, above, go over problem areas of F-14 with crewmen at NAS Oceana. In Naples Kaman rep R. C. Belisle, right, and crewman discuss matters unique to helicopters.



NAESU is a world-wide Navy organization which provides field engineering assistance and instruction to Naval Aviation activities. This includes installation, maintenance, repair and operation of all types of systems and equipment.

The NAESU is a field activity of the Naval Air Systems Command under the command of Commander G. R. Thoen with headquarters at the Naval Base, Philadelphia. There are four regional NAESU offices, located with Commander Naval Air Force, Atlantic Fleet at Norfolk, Commander Naval Air Force, Pacific Fleet at San Diego, Commander Naval Air Training at Corpus Christi, and Chief Naval Reserves at New Orleans.

Each regional office directs the efforts of NAESU detachments and offices located at major operating bases and outlying operating points throughout the world. There are 48 NAESU activities exercising administrative control of engineering technical service tasks for 119 locations, including some ships. Within the NAESU organization there are approximately 1,700 civil service and contractor technical representatives.

In the Atlantic Fleet's sphere of

operations approximately 600 come under the command of Commander N. E. Branch, officer in charge of the Atlantic Regional Office. About 225 work out of the Norfolk area.

In order to maintain the ability to respond rapidly to fleet requirements, NAESU develops and trains teams of Navy engineering technical specialists which are then deployed throughout the world. These specialists are broken down into two groups, military and civilian.

In addition, NAESU contracts for the services of contractor engineering technical specialists to meet special task requirements throughout the life cycle of a weapons system.

The contractor personnel are employed during or immediately following the introduction of new equipment or systems. They are also used by NAESU when an urgent requirement develops which cannot be handled by Navy personnel.

NAESU specialists cover the entire spectrum of aviation equipment including electronics, electrical components, engines, airframes, ground support equipment, ordnance and aviators' equipment.

There are a few representatives

within NAESU who are one-of-a-kind technical specialists representing their companies. In Norfolk, John Boughey comes from England's Martin Baker Aircraft Company Ltd., manufacturer of ejection seats used by the Navy's jet aircraft. He has a counterpart in the Pacific command.

There are also two civil service tech reps who service the Atlantic area's sphere of operations as specialists in aircraft engine test cells and oil labs.

At present there are 49 engineering technical services billet descriptions within NAESU supporting approximately 105 programs within Naval Aviation. These programs range from aircraft and their components to the support and specialty equipment needed to support the aircraft and those components for special tasks or missions.

NAESU is a multi-million dollar operation working in support of a multi-billion dollar aviation inventory.

The next time you see that civilian-clothed guy wandering around the flight line, don't fret. It's probably a NAESU civil service or contractor tech rep helping to keep the Navy's aircraft flyable.



Aboard Independence, Vought representative Ralph Kemmerle, above, fields questions from crewmen as McDonnell rep Ed Reynolds, right, inspects F-4 radar reflector.





PEOPLE PLANES AND PLACES

Lt. Chuck Potter of VFP-63 Det 5 photographed two VF-142 *Tomcats* over *America* in the Mediterranean Sea during her recent cruise. The *Tomcats* are loaded with *Phoenix*, *Sparrow* and *Sidewinder* missiles. Below, two SH-3Hs of HS-7 are holding on *America's* starboard quarter.



A CH-46 crew chief of reserve squadron HMM-764 peers through the "Hell Hole" as the ground rushes by. To safely



haul external cargo, such as the 5,500-pound, water-filled steel ball below him, the crew chief must keep track of the ball in relation to the helicopter and the ground—a practice which often causes nausea. External cargo hauling is the answer to delivering supplies to places where a helicopter cannot land.

VAW-88 of North Island has received the first E-2B *Hawkeye* for use by the Naval Air Reserve. The squadron, commanded by Cdr. W. F. Knobloch, will move to Miramar in early 1977 and begin transition training in the E-2B. Its complement of 74 personnel will expand to 198.

Four naval reserve squadrons have been performing 50 percent of the Bermuda-based VP-11 fleet patrol missions. The reservists came from VP-62, Jacksonville, VPs 64 and 66, Willow Grove, and VP-68, Patuxent River. For a five-month span—July through December—the four squadrons have been sending crews and support personnel on consecutive two-week active duty training periods. The evolution allowed the active duty personnel time to participate in fleet exercises and other fleet tasks. It gave the reservists an opportunity for on-the-job training while contributing to the fleet mission.

On September 25, VP-93 was officially established at NAF Detroit.

Changes of command:

Midway: Cdr. T. C. Koehler relieved Cdr. J. W. Lovell.

Ranger: Capt. D. L. McCrimmon relieved Capt. J. T. Nicholson.

Saratoga: Capt. C. B. Hunter relieved Capt. R. F. Dunn.

ComCarGruOne: RAdm. P. H. Speer relieved RAdm. A. J. Monger.

ComNavForlce: Capt. J. T. Weir relieved Capt. J. R. Farrell.

NAS South Weymouth: Capt. R. T. Radcliffe relieved Capt. F. E. Sequeira.

PatWing-11: Capt. C. O. Prindle relieved Capt. R. A. Martini.

VA-93: Cdr. Wally Wright relieved Cdr. William Dougherty.

VA-146: Cdr. R. L. Howson relieved Cdr. L. A. Sanders.

VP-26: Cdr. J. S. Yow relieved Cdr. R. P. Berg.

VS-38: Cdr. A. A. Thresher II relieved Cdr. G. K. McCauley.

VT-86: Cdr. D. W. Seykowski relieved Cdr. J. S. Warner.



Saratoga's flight deck resembles rush hour traffic as hundreds of crew members' cars are transported aboard her during a two-day transit from Mayport, Fla., to the shipyard at Portsmouth, Va.

The Navy Space Systems Activity, the only research and development field activity of the Naval Electronic Systems Command, was 10 years old in August.

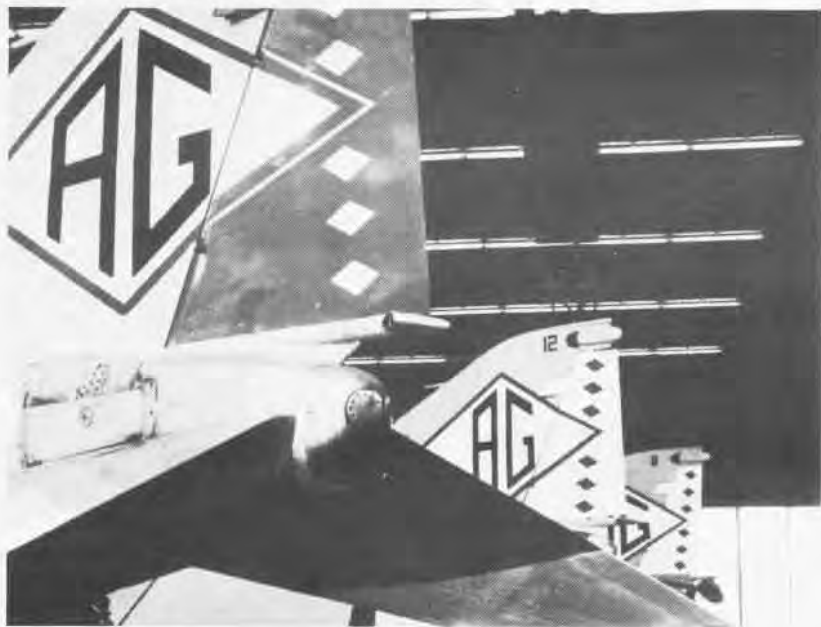
Its mission is to conduct engineering and management support functions related to space systems development for Navy application. Its engineers work with the Air Force Space and Missile System's Fleet Satellite Communications, NavStar Global Positioning System and Defense Meteorological Satellite program offices. Its engineers are also working on the conceptual phase of a tactical satellite system.

The *Wake Island Avengers* of VMA-211 have relocated to MCAS El Toro from Iwakuni, Japan, as part of Operation *Key Joint*, a large transPacific exchange of aircraft and men. They were replaced by the VMA-223 *Bulldogs* from MCAS Yuma. The reason for these transfers is to increase unit readiness.

VX-4 celebrated its 25th anniversary September 15. Capt. Richard Burnett is the commanding officer.

Thirteen months after its launch from Point Mugu, a BQM-34S *Firebee* target drone has been found nearly 6,000 miles away beached on an islet of the Eniwetok atoll. Although it's most unusual for a hit target to float for such a long time, this is not the longest time known. A BQM-34A launched in 1971 was found three and one-half years later floating between the Hawaiian and Midway Islands.

The *Diamondbacks* of VF-102 bid goodbye to the brilliant red tail markings of their F-4Js. The squadron will now be identified by a sleek white tail design, as seen in the background, when it goes aboard *Independence* next year.



A VF-14 *Tomcat* from *John F. Kennedy* intercepted a Russian *Badger D* during Operation *Teamwork*, the largest NATO exercise of its kind since D-Day. The Soviet-built TU-16 is an electronic countermeasure and photo reconnaissance version of the twin-jet engine bomber.





**THE
AVIATION
STOREKEEPER**



The Naval Air mission requires a variety of aircraft, tailored to specific assignments. In turn, each aircraft type has its own individual equipment consisting of many components.

It takes a heap of hardware to keep today's high-performance Navy aircraft flying. There are parts, and parts, and parts of parts. Thousands of them make up the airplane. Periodically this equipment has to be replaced or repaired because of wear and damage.

For the thousands of different types of planes and helicopters deployed around the Free World by the U.S. Navy, the inventory of spare parts includes hundreds of thousands of different items and is valued at billions of dollars. The inventory includes power plants, pipes, wings, nuts, washers and bolts, tires, tachometers, and much, much more. The prices range from a few cents to several hundred thousand dollars each. Ordering all these things, keeping track of them, properly storing them, and seeing that they are on hand where and when needed is the job of the Aviation Storekeeper (AK). There are currently more than 3,500 enlisted AKs serving throughout the Navy.

In 1948, the Navy recognized that without adequate spare parts ready-at-hand at all times the Naval Air mis-

sion would be greatly impaired. The AK rating was established as a specialty rating in fulfilling these requirements.

AKs are assigned duty with fleet aviation squadrons, aircraft intermediate maintenance departments, supply departments ashore and on any ship that has an aviation unit attached.

The AK works with all types of aeronautical supplies—ordering, checking, storing, preserving and issuing. He must also record each step of this work or else the accountability would quickly get out of hand. He not only must record it, but record it with complete accuracy. A single error could cause waves up and down stream—the wrong part to the wrong aircraft at the wrong time.

To keep up with technological advances and the state of the art in his field, the Aviation Storekeeper constantly monitors incoming mail and files what is pertinent. He builds up a reference library of catalogs, manuals, charts, allowance lists and indices. He can later use these to identify and order parts and components. Since he is in the front line of the supply chain, he is also able to make corrections to official publications. But the AK is not always office-bound.

Much of his time is spent preserving and storing flight clothing and aeronautical equipment, spare parts

and a wide variety of other items. He must operate labor-saving equipment such as the forklift and hand pallet to help move heavy or bulky supplies.

A rating as specialized as Aviation Storekeeper requires considerable training. After screening at Aviation Familiarization School, candidates enter Aviation Storekeeper School at NTTC Meridian, Miss. There they learn how to process flight clothing and other aviation material; how to pack and protect delicate equipment and seal it against the elements; and how to crate for shipping or storage. They study stock control and use of naval accounting procedures. They learn to use duplicators, office machines and other office equipment. The trainee is drilled in laboratory mock-up situations dealing with actual on-the-job problems in all facets of supply support.

When the candidate has completed training, he is ready to join the ranks of Aviation Storekeepers, to which approximately 500 men and women are assigned each year.

The whole—the aircraft and its mission—is no greater than the sum of its parts, and it is the Aviation Storekeeper who controls the parts. He is an indispensable link in the chain of enlisted persons who support the Naval Air mission.



One

By Harold "Kiddy" Karr
Illustrations by Lt. Peter Mersky, USNR



Day in May

It is an early May morning somewhere on the Western Front in France. The east is brightening and there are signs of life among the tents in a little grove of trees near Soissons. The tails of the planes are tucked into the edge of the trees, seeking concealment. Mechanics are working on a couple of them. They have been laboring all night to get them ready for the day's work to come. When the ships fly, the mechs will sleep.

Two days ago the airfield was a cow pasture with a few trees. The troops leveled off some hummocks, put up a wind sock and we were in business. It's amazing what a self-contained air force we have in the French 55th. We've got commissary, transportation and recon departments as well as quarters and our own "chasse" and photo planes — all under one command.

The sentry shakes me awake. I can't remember where I am. The luxury of a tent, a cot and awakening warm is unusual. And it has been over a month since the 55th Air Photo Squadron was run out of a school building near Chalons. There are increasing demands for photo reconnaissance farther north. Headquarters is reduced to tents, cots and bedding rolls. There were "handkerchief" awnings over the engines for night work.

But, to growing boys, we had something very important — a field kitchen! I heard there were no chefs in the French Army. When they put on the uniform they became cooks. But, oh, what cooks! They made life not only liveable; but sometimes even enjoyable.

We had no "bat boys." There were what we called "garsohns" (boys). This

morning one was up early. He had buckets of water for us to wash with and a charcoal brazier to warm our hands. Since I'm due for the dawn patrol, I won't get to sample the little sausages and white bread fried in the grease which we heard our cuisine scout had liberated somewhere yesterday.

My mechanic hunts me up and tells me he has put a new wheel and tire on the SE-5 I am to fly this morning. I had made a flat-tire landing followed by a ground loop yesterday. Several bullet holes have been patched up and my mechanic is ready to start as soon as I finish drinking breakfast. (Coffee-cognac, 50-50, was standard for the dawn patrol.)

It hurts to smell that sausage cooking and to have to wait a couple of hours for mine. I'm glad I'm not flying a rotary this morning. The odor of burning castor oil reminds me of delicious things to eat — muffins, pancakes, waffles. I should mention that our grub scouts are French orphans in their teens who were in the area east of Metz that was overrun by the Hun last year. They do odd jobs around the squadron for food and a place to sleep.

They also help rig the awnings over the engines if there is any night work to be done. We let the awnings droop down all around. One evening some light must have shown. About midnight we received a nasty bombing that cost us both planes and men.

The photo plane is a *Brisfit* (a converted Bristol fighter) with a 225-hp Rolls engine. There are three types of chasse birds: three SE-5s, three Sopwith *Camels* and two *Nieuports*. Each has its advantages. The SE-5s will out-climb and out-dive the rotaries but are heavier. Everyone likes them in

combat because there is no gyro force generated. They are more vulnerable to gunfire, however, as is any plane with a water-cooled engine.

I have often heard a bullet hit a cylinder and the scream of the ricochet. But the engine never stopped.

The best procedure for protecting the photo plane, with the chasse planes, against a gaggle of Fritzie's is the vertical ladder. At least eight planes are stacked up to 4,000 meters at 500-meter intervals. When photo signals he's ready to start his run, number one on the ladder dives down and in front of him and "walks" his rudder along with short zooms; his machine gun peppers the trenches below him to make Heine pull in his neck.

Near the end of the photo run, number two chasse comes down to back up number one and put more lead in the pudding. Guns on the photo plane are not tipped down at the trenches. Photo has firepower ahead and to the rear if the gang is jumped by Udet and his cadets, and he has to break off his photo run and fight. The entire ladder drops down, each chasse taking turns at a firing run.

This morning we are to make two passes up the middle of the strip, one each way, 50 meters to the side and parallel.

The target area is where a breakthrough occurred yesterday afternoon. It is northwest, between Soissons and Laon. The mission should not take more than an hour and a half, if there are no complications.

Standby photo today will be a beat up old DH-9. Both other photo planes are being repaired.

The SE-5s will be at the top of

the ladder at 4,000 meters, the others stair-stepped below. I'll be number three which means that I'll make the parallel return run inside the German trenches and over their secondary trenches. I'll also help number two finish up the first run.

I have two Vickers synchronized with the prop and a Lewis on the top wing shooting outside the prop arc. One Vickers is mounted to shoot downward at the trenches, the other Vickers and the Lewis fire straight ahead. Usually there is only one Vickers and one Lewis on the SE-5, so I have an advantage. On my approach power dive I can use my Lewis by tipping over and aiming at the trenches and save my level Vickers for dogfighting.

Our orders, however, are most emphatic: "Avoid all air combat if possible!" They figure our pictures are more valuable than a couple of Huns.

Unfortunately, we can't get the brass to raise the recon altitude from 400 meters. At that height it's like shooting ducks for the Mausers in the trenches. It's worse if you hit a stretch where a machine gun is waiting.

We start up and are soon taking off at intervals for a climbing rendezvous over the field. Each plane flies five degrees behind the one above. If the chase birds are in correct formation you can see every rung of the ladder. We can see arm signals of the number one and are ready to drop down in sequence. Joined, the ladder turns around to pick up the photo plane and head to the target. I'm glad I drew a low rung this morning because it's quite chilly, even with my fur-lined flying suit. It's frosty up there at 4,000 meters.

Photo takes his position and each of us wishes for three extra pairs of eyes. We search 360 degrees of open sky for Fritz. If there are clouds it's much worse. There is nothing the Hun likes better than to bury a flight of *Fokkers* and *Albatrosses* in a cloud with one watchdog at the edge to catch us as we come along.

Photo signals the start of his first mapping run. Everything happens at once. Number one tips over and fires a warm-up burst. He increases speed, losing height to swing in front of photo and then he squirts bullets like a garden hose. Two eases down to help on the last half of the firing.



Then I drop down, ready to make the turn at the end of the run and back up number two as we reverse over the trenches. Two pulls out and I'm on my own for half a run until number four gets in position to double up on me.

Number four barely gets in position when he catches a bullet. He wiggles his wings, banks to the right and starts down in a shallow glide angle which, hopefully, will carry him beyond no-man's-land to the Allied

trenches. Suddenly, I feel the plunk plunk of bullets tearing into my SE-5. No water comes back in my face and the old Hisso purrs on. Quickly I fly out of range.

I see number four land near a shell hole. He hits the dirt, spins around 270 degrees and waves. He's O.K.

The area has been mapped, so we head for home. Time for a circus. It helps us to decompress after the tension of the last 90 minutes.

You would think the photo was a



Hun plane. Everyone makes runs on him from all angles. Off to one side a couple of Frogs (French pilots) have a looping contest with a couple of *Camels* or *Nieuports*. We weren't supposed to have a circus this morning because we lost a plane. But since the pilot survived, the flight leader justified the fun.

Back at the field each plane is gassed immediately and inspected for damage. The chief pilot and chief engineer decide which planes can

make the next go. Those selected are rolled to the edge of a grove of trees, their tails tucked in as far as possible. A mottled green and brown canvas is pulled over the top wing for camouflage.

As soon as we get out of the planes and wipe the castor oil off our faces we head for the field kitchen. It is bright and clear, the grass is dry, so we picnic around the cooker. Were it raining, we would grab a plate and crawl under a wing.

In spite of some bullet holes in the SE-5, it's given an "up" and run out on the carpet for takeoff. This may be a hot mission for we will be three or four miles inside the German lines. We'll be covering for the photo at 1,000m with only six chase planes. We won't have to go over 3,000m. If we get in a melee I'll handle my wagon as if it were full of eggs. One of those bullet holes could be in line with the lower front wing spar. I prefer coming home with two wings instead of one.

The word is passed, up and at 'em, so we head for the line. One of the *Brisfit* armored photo planes has been repaired so the photographer feels better about his backside. Plus, I'll be a lot more comfortable. I'm scheduled to fly it this afternoon.

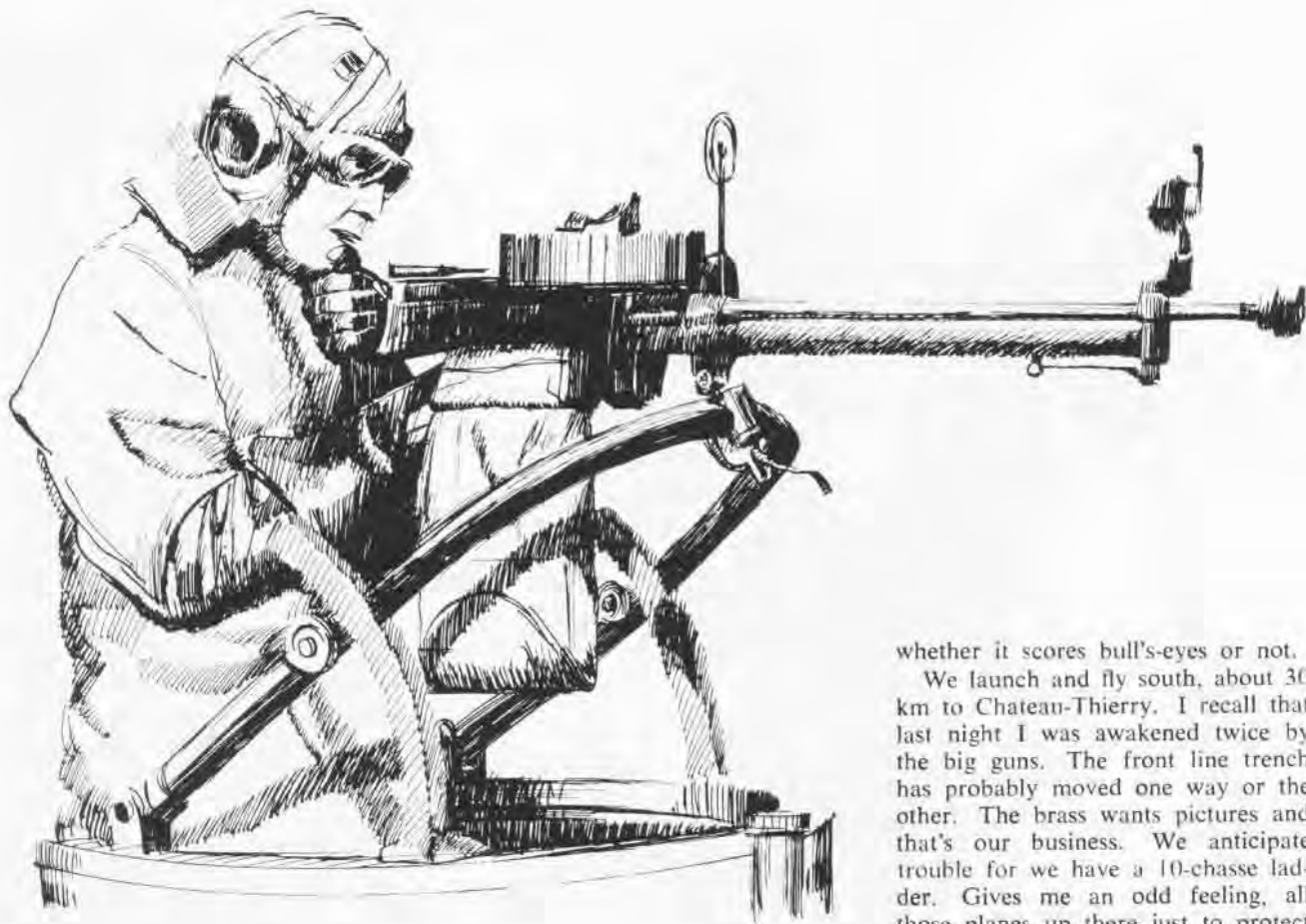
We launch and head out in close formation. Lead signals take station and three of us head upstairs. The other three stay down nearer photo. I see clouds ahead which are not to my liking. Heine could be in them. I watch them closely.

Our guide line in the target area is a tall slender tower, more like a steeple. We can see it ahead and prepare for fireworks. Sure enough, about five minutes from the target, black birds come out of the clouds.

There are cockades and crosses all over the sky. I see an *Albatross* dive toward photo. I forget all about gentle treatment for my buddy and push her over. I ready the gun and although I am not in range, I fire a few rounds so *Alby* will know he's being chased. As I get closer I shoot another burst. The air is bumpy, though, and it looks as though my bullets went everywhere but into that *Alby* nacelle. The *Albatross* rolls out to port. I look for photo. There he is, making his run over target. Number one is near *Alby*, so I go down to give him some company.

Ahead of me fire flowers start blooming. I tip over and look for an ack-ack sight. I fire the low-angle gun and follow up with both of the bore-sighted machines. I see my tracers going into the root of the fire. The Huns keep shooting. But we fly past the gun positions. Neither photo nor I are hit.

I see a flamer with a nice big cross on its wing. It's going straight down, out of control. It's a *Fokker*. One.



less to make life miserable for us.

I look around and quickly count six planes with cockades. I give two whoops and a holler even if I can't hear them above my Hisso. The dog-fight is over, Photo signals he is finished and the leader signals *Sall, Hypo, William*—exercise complete, return to base. We whip up the horses and head home.

We surely have something big to celebrate. All planes returned and one Heine shot down. There will be no chance of disputing the kill.

I think that Jock, the Australian, is in the *Camel* with the hourglass painted on it. I see everyone flying past him and wiggling wings accompanied by a couple of zooms. I figure he must be the one who bagged the *Fokker*. This means a big night for everyone except those on dawn patrol. They will have to be sober in the morning. I remember the binge they threw for me on my 31st day in the

squadron, a milestone of survival. Every 30 days after that it was repeated. Each celebration got wilder as the odds grew higher.

After landing I see all hands congratulating Jock. At the field kitchen we fuel up for another photo mission, due out as soon as the planes are gassed. My SE-5 is downed for a thorough inspection. I evidently picked up some more bullet holes.

The *Brisfit* I'll be in this afternoon has a strut Lewis so I can pull a trigger if need be. This gun is bore-sighted to hit directly in front and 200m lower for the special benefit of the Hun trenches. There are many silver streaks on the armor plate, which is considered lucky. Only a few of the photo planes are equipped to mount a Lewis on the inboard set of struts, with the long Bowden control cable to the front seat. No one knows how many Huns it has tallied. But it is a great psychological boost

whether it scores bull's-eyes or not.

We launch and fly south, about 30 km to Chateau-Thierry. I recall that last night I was awakened twice by the big guns. The front line trench has probably moved one way or the other. The brass wants pictures and that's our business. We anticipate trouble for we have a 10-chasse ladder. Gives me an odd feeling, all those planes up there just to protect photo and me in the *Brisfit*.

Number one relays the signal that a marker has been sighted and we are on course. Some other aircraft must be operating nearby for now and then I see some ack-ack high up. Photo fires a short warm-up burst from his Vickers. It reminds me to do the same. We are about to dive in up to our necks. I see the marker and change course slightly to fly right over it. Photo pats me on the shoulder. He's securing the gun and ready for the photo run. The German artillery flashes seem huge. I can almost feel the concussion, shortly after each flash.

My head's on a swivel. Up to now, photo has been watching our tail. But he's humped over his camera, stopwatch in his hand, taking pictures. No other aircraft are sighted. There seems to be less rifle fire from the trenches. Now and then I hear a bullet or two hit the armor and ricochet off harmlessly.

Photo signals the run is complete. We move over 30m for the reverse

run. Strange. Busy as we are, I feel the pangs of hunger. Was it Napoleon who said an army travels on its stomach?

The ladder makes a wide swing over Allied lines. I see some fishtailing by the fighters to prevent over-running each other. We roll out for the second run.

I steady up on course and a chasse zooms down in front of me. His tracers rip into the trenches. Streaks of fire rise from the ground but we wind our way by unharmed.

I see ack-ack up ahead. Tracers increase. But I'm more worried about the stuff coming up from below. I squeeze the trigger on the strut Lewis. I'm too far away but some bullets hit the trench. German fire decreases a bit. The Lewis targets in too far ahead of us for good results. But every little bit helps keep Fritz's head down.

A machine gun sparkles ahead and below. I fire a burst from the Lewis. One of the *Camels* swings beyond us and shoots away. The enemy still pumps the tracers at us. Our fighters, with their Vickers guns, spew bullets into the earth.

I duck instinctively from a neck-face of tracers ahead.

Suddenly, a splash of hot water strikes me in the face. My goggles are instantly covered, blinding me for the moment. We have taken a hit in the cooling system. It's been said that if fire doesn't erupt within 90 seconds, you've got a fair chance. I look for a place to put down. I think we have enough altitude to get past the German trenches and back to our lines.

There's no flame or smoke, but the hot water steams out. No way to dodge it. So, I just sit there and take it, stretching out my glide. The ground comes up all too fast. For a precious moment I doubt we can make it to the friendlies. I sense the cold hand of fear grabbing my throat.

Photo fires a burst at the trench rifle fire and I hear a long spurt of bullets wing by. A black cross races overhead.

The engine will seize any second now. I've cut the rpms well down to stretch our descent.

The water is getting hotter. The engine's burning up. I yell to photo, "You O.K.?" He shouts, "Scratched." He's been wounded in the arm. We must try to salvage the films and the camera if possible.

We float over no-man's-land. I begrudge every foot of height we lose coming down. Another volley of tracers whips by from behind us. That black cross knows he's got us on the run. The terrain is all shell holes and pleated barbed wire. This will be the last landing for the *Brisfit*.

Photo yells, "Camera all clear." He has removed the clamps and has the films in a shoulder bag. Abruptly, the engine stops. I search for a smooth patch of earth and see an entanglement of wires we must clear. I plan a seaplane-type landing, leveling off low. Close to the ground I pull the nose up into a stall, hoping the landing gear will collapse as we hit.

I kick hard left rudder and using the last bit of flying speed, swing around almost 90 degrees. Bang! We're down. The landing wheels fold nicely. Complete stop. We jump out of the plane, feeling momentarily naked. Seems we're in the middle of battle. Some Limeys are exchanging fire with the Germans, taking the heat off of us. The Huns are concentrating on the plane. Photo and I wiggle on our bellies, dragging the camera and film bag.

Photo's bleeding a little but otherwise he's O.K. Our GIs are yelling encouragement to us as we worm our way towards them. For what seems like miles, we travel on our stomachs in the dirt. Occasional eruptions signal bullets ripping up the turf. We draw near the trench. A few more wiggles and we'll be home.

Wild commotion erupts. Fritz has come out to blow up the gas tank on the plane. Troops from our side go over the top to repel them. There's a ferocious exchange of fire. Photo and I half swim, half crawl through a muddy shell hole. Finally we slither into the trench.

A corpsman scampers to us. Quickly, he goes to work on photo. The bone is not broken and no artery is

cut. Within minutes he's bandaged up, his arm in a sling. I mention the belly armor on the *Brisfit* and the soldiers say they will try to collect it after dark. Looking at the crumpled pile of what was an airplane, it occurs to me this is my fourth crash. The ricochet streaks on the armor are barely visible as I take a last look at the plane. We are lucky men.

A British captain comes by and takes our names and outfit. He will see that the 55th is advised that we are safe. Minutes later we are zig-zagging through the trenches. A soldier is detailed to carry our camera and film bag. He tells us how the ground fighting is going. He's also anxious to know about the air war. Without malice, he says, "At least you're not sleeping in the mud."

We hustle over a rise and the battle is soon behind us. I see an Austin and its driver waiting.

What luxury. An automobile for the ride home. The driver must be a dirt track racer. He dodges the shell pocks, motor lorries and groups of soldiers on foot with uncommon skill.

Back at the 55th I am surprised — and disappointed. Our reception is less than exuberant. It occurs to me that what happened to us has become commonplace, a routine event. The Skipper congratulates us, especially photo, for saving the films. We are back in time to have the films included in the day's consignment to the laboratory in St. Dennis (outside of Paris).

When I tell the gang how photo performed, they give him a cheer. He'll likely get another palm for his Croix.

Keyed up as I am from our close call, I don't think I'll be able to eat supper. One taste of that steaming stew and my appetite comes back. Why is it that French stew is so much better than that which Americans make? Perhaps it's the nature of the work which makes anything hot taste good.

I receive a drumhead court-martial for losing an almost new armored photo plane. Later, it's into the sack for some rest. It is another day in May tomorrow.

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E-2C, improved radar	Sep	29	decommissioned	Oct	28	Porto Corsini, 1918	Apr	25
performance	Nov	38	<i>Saratoga</i> , flight			Quantico or bust	Jul	16
F-5E, flight record	May	5	operations	Oct	8	Reflections	May	8
F-8, last fighter	Sep	35	<i>Tarawa</i> (LHA-1)	Nov	8	Reserves	Jun	26
photo <i>Crusader</i>	Sep	30	Combat cameramen	Jul	28	Silhouettes	May	24
F-14, aboard <i>Enterprise</i>	Jan	18				65 years of naval		
antenna test	Jan	5	D — H			aircraft	May	12
at VF-101	Sep	3	Drone recovery	Apr	18	Smoke screen	Mar	24
F-18, contract	Apr	4	Enlisted ratings			Thousand to one	Jul	25
Markings	Dec	18	Aviation electrician's			<i>Torch</i> , North African		
NC-4, historical	Nov	22	mate	Oct	36	landing	Nov	34
S-3A, VS-41	Jul	8	Aviation electronics			<i>Triad</i>	May	20
SH-3D, #66	Apr	27	technician	Apr	28	<i>Truculent Turtle</i>	Sep	26
T-44A, tested	Nov	5	Aviation machinist's			Turntable and traps,		
US-3A, tests	Jun	4	mate	Jan	24	early	Aug	8
	Sep	4	Aviation storekeeper	Dec	30	Veracruz, 1914	Apr	36
Air racer	Mar	36	Aviation structural			WW I flying	Dec	32
Air shows	Dec	22	mechanic	Feb	34			
Antenna test	Jan	5	Exercises					
<i>Arapaho</i>	Jun	30	<i>Ocean Safari '75</i>	Jan	26	Insignia, carrier		
Awards			<i>Valiant Heritage</i>	May	32	<i>Bon Homme Richard</i>	Jul	C3
Blanchard (VAdm.			Fellowes, Jack, My song	May	22	<i>Enterprise</i>	Jul	C3
Rosendahl)	Mar	5	Flight deck operations,			<i>Hancock</i>	Jul	C3
Britannia	Jul	5	<i>Saratoga</i>	Oct	8	<i>Langley</i>	Jul	C3
Environmental quality	Sep	5	Flight jacket, Me and my	Oct	26	<i>Lexington</i>	Jul	C3
Isbell, Arnold Jay	Jul	5	Glenn, John, interview	Feb	30	<i>Ranger</i>	Jul	C3
Liberty Bell	Jul	5	Gramps, Brunswick	Aug	24	<i>Shangri La</i>	Jul	C3
Luehrs, Richard E.	Jul	5	Headgear	Aug	34	<i>Yorktown</i>	Jul	C3
Maintenance, CNO			Helicopter simulators	Mar	27	Insignia, historical		
(VP-40)	Oct	29	Historical articles			First	Jan	C3
Medal of Honor,			Battle Problem IX	Jan	22	VB-5	May	C3
Norris and Stockdale	Apr	8	Big bombs	Jul	34	VCS-8	May	C3
Parsons, William S.	Jul	5	First ejection	Oct	18	VF-2	May	C3
Safety, CNO	Dec	5	First trap	Jan	8	VF-4	May	C3
Sledge, LCDr. Villard C.	Aug	4	Glenn, John, interview	Feb	30	VF-71	May	C3
Thach, Jimmy	Dec	4	Insignia, first Navy			VO-2	May	C3
Battle of Coral Sea,			and Marine Corps			VO-4	May	C3
anniversary	May	38	Aviation	Jan	41	VP-4	May	C3
			Log	Jan	16	VP-5	May	C3
Bicentennial, see Historical				Feb	28	VP-7	May	C3
articles				Mar	22	VP-42	May	C3
<i>Blue Angels</i>	Jun	8		Apr	34	VP-81	May	C3
Bow traps, explanation	Aug	2		May	18	VP-102	May	C3
British squadrons visit	Jul	22		Jun	24			
Brown shoes	Oct	22		Jul	32	VS-5	May	C3
				Aug	26	VS-11	May	C3
						VS-12	May	C3

Subject	Issue	Page	Subject	Issue	Page	Subject	Issue	Page
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VS-72	May	C3	Loening Amphibian	Feb	20	rotor, new	Feb	4
VT-1	May	C3	OSE	Apr	20	RPV VATOL	Oct	3
VT-5	May	C3	PM	Nov	20	survival gear	May	34
Insignia, squadron			<i>Vindicator</i>	Mar	20	target recovery system	Jul	3
<i>Blue Angels</i>	Jun	C3	Naval air stations			target tow, RMK19	Mar	5
CAEW Wing-12	Feb	C3	Corpus Christi, history	Apr	10	tire retreads	Mar	4
CVW-5	Feb	C3	Cubi Point, kindergarten	Aug	32	tracking radar system	Aug	5
CVW-9	Feb	C3	New Orleans, history	Feb	22	TRAM evaluation	Apr	4
FASOTraGruLant	Aug	C3	Norfolk, NARF	Mar	8	transmitter recorder,		
FASOTraGruPac	Aug	C3	Patuxent River,			tested	May	3
H&MS-29	Nov	C3	Trapnell Field	Apr	5	Reserves, history	Jun	26
HSL-31	Apr	C3	Saufley Field,			NAS-608	Nov	18
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MAG-16 Det	Nov	C3	Remember	Dec	14	Review of 1975	Feb	8
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VF-143	Oct	C3						
VF-213	Aug	C3						
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VMFA-212	Mar	C3						
VP-44	Mar	C3						
VP-56	Oct	C3						
VS-33	Oct	C3						
VT-29	Aug	C3						

J — Q			R			S — Z		
Karr, Kiddy	Mar	24	Rating series, see			Sharks	Mar	28,
	Apr	22	Enlisted ratings				Nov	16
	Jul	25	Research			Shelton, Lyle, air racer	Mar	36
	Dec	32	acoustic test facility	Sep	5	Silhouettes	May	24
Landing system,			air speed indicator	Jun	3	Simulators, helicopter	Mar	27
microwave	Mar	34	<i>Arapaho</i>	Jun	30	Sixty-fifth anniversary,		
LHA-1	Nov	8	calibration	Feb	5	see Historical articles		
Log, see Historical articles			carrier air traffic control	Feb	4	Sixty-five years of naval		
Medal of Honor,			display system, F-18	Aug	5	aircraft	May	12
Stockdale and Norris	Apr	8	fiber optics	Aug	3	Squadrons		
Missiles, night attack			flight safety	Apr	5	HSL-36 Det, mission	Nov	31
weapons system	Oct	5	FLIR	Feb	3	VA-46, British visit	Jul	22
<i>Tomahawk</i>	Jun	5	fluorinated coatings	Jul	5	VA-127, mission	Aug	22
Monsoon, WestPac	Aug	37	fly-by-wire	Nov	4	VA-205, SERE	Oct	32
Museum, Sea and Air			headgear	Aug	34	VAQ-133, history	Jul	26
Ops Gallery	Sep	8	helo escape trainer	Jul	3	VF-101, F-14 training		
NAESU	Dec	26	integrated target control			squadron	Sep	3
NAF Warminster	May	36	system	Apr	3	VMFP-3, new name	Jan	29
NARF Norfolk	Mar	8	jet fuel	Nov	4	VP-24, Sigonella	Sep	38
National Air and Space			JetPlan, fuel	Apr	3	VP-65, training	Mar	32
Museum, see Air and			LAMPS, MK111	Oct	4	VP-68, AcDuTra	Jan	30
Space Museum			microwave imaging			VS-41, S-3A	Jul	8
Naval aircraft series			systems	Mar	3	Survey	Jul	39
A-1 <i>Triad</i>	May	20	missile test program	Aug	5	Survival gear, radios	Oct	33
Brewster <i>Buffalo</i>	Aug	20	mobile land target	Sep	3	training	May	34
De Havilland	Oct	20	night attack missile	Feb	3	vest	Feb	3
E-1B <i>Tracer</i>	Jul	20	night attack weapons			Target aircraft, MQM-74C	Jan	4
			systems	Oct	5	Tate, RAdm. J. R., Battle		
			no-drop bombing	Mar	3	Problem IX	Jan	22
			ocean surface conditions	Jun	4	Tech rep	Dec	26
			photographic			Threat simulation	Apr	17
			instrumentation	Aug	3	Trainer, KC-130	Jun	5
			radar, <i>Hawkeye</i>	Sep	29	Training, SAR	Apr	26
			ramjet, low volume	Jan	4	Warminster	May	36
				May	4	Weather, monsoon	Aug	37
				Jun	5			
			range tactical data					
			center	Oct	4			

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Please increase our subscription to *Naval Aviation News* to 45 copies.

Training Squadron Ten's mission is the basic training of Naval Flight Officers. The staff consists of approximately 100 Navy and Marine Corps officers and 225 enlisted personnel. There is also an average of 500 student Naval Flight Officers and Air Intelligence Officers on board. Due to the exceptionally large number of personnel concerned, we request the increase.

J. L. Wells, Ltjg., USNR
Asst. Aviation Safety Officer
VT-10
NAS Pensacola, Fla. 32508

Ed's Note: Wilco!

Kudos

Your June issue is truly a unique capture of a subject far more complex than the casual air show observer would imagine. It captured most artistically the frightening dramatics of a *Blue Angels* performance — not the death-defying, daredevil type of dramatics, but frightening in the implication as to what military aviation training can accomplish when pushed to the outer limits. It also captured each individual's deeply serious dedication to professional perfection and the aura of personal competence which results. These are the almost indescribable ingredients which hold air show audiences spellbound during the show and are remembered long after the flight performance is over. Congratulations!

W. B. Barrow, Capt., USN (Ret.)
Association of Naval Aviation, Inc.
Box 4124
Pensacola, Fla. 32507

Research

I am researching a book on biplanes, several chapters of which are devoted to Navy airplanes, specifically the Curtiss

NC-4 and *Hawks*, and Grumman's fighter biplanes.

Would anyone who flew or served with Curtiss *Hawk* or Grumman FF-1, F2F or F3F units contact me? I'm looking for pilots' observations, interesting or amusing anecdotes on operations and photographs.

I'll refund postage and answer all letters.

Mike Jerram
Aviation Writer and Photographer
20 Lindley Avenue
Southsea Hampshire PO4 9NU England

Reunion

The 24th reunion of former members of the crew, squadrons and Marines who served in *Lexington* (CV-2) from 1927 to 1942 will be held in Long Beach, Calif., May 11-14, 1977, at the Edge-water Hyatt House. For further information contact Walter D. Reed, P.O. Box 773, Oakland, Calif. 94604.

A reunion of VB-18 (later VA-7A) commanded by William "Doug" Carter on board USS *Leyte* in 1946-47 is being planned for September 1977. Contact James J. Richards, Box 726, Hammond, Ind. 46325 or William Carter, Box 602, Dubois, Wyo. 82513.

Gremilns

In the August 1976 issue you ran a picture and small article on our naval air station's Bicentennial flag. We all thank you for acknowledging our efforts. The article, however, was not completely correct. The flag was indeed constructed as you described. It wasn't made by NATO Patuxent River, though. It was constructed by the Naval Air Station/VQ-4 Bicentennial Committee.

Mary J. Fourcade, SN
Legal Office
NAS Patuxent River, Md.

Ed's Note: OK! OK! We do know that it is NATC.

C-130 History

In its 20-year operational history, the Lockheed C-130 *Hercules* has carved a colorful and dramatic career worldwide as a tactical transport, mercy bird, Antarctic explorer, hurricane hunter, forest-fire fighter, gunship, etc., etc.

J. E. Dabney, a writer in Lockheed-Georgia Company's NewsBureau, is appealing for leads on outstanding C-130 performances and personalities. Photographs are also sought.

Persons with information, leads and anecdotes on the *Herkey Bird* are asked to write Mr. Dabney at 3966 St. Clair Ct., Atlanta, Ga. 30319.

From Scratch

In regards to the photo appearing on bottom of page 31 in the August 1976 issue of *Naval Aviation News*, I happen to remember making both cakes while serving on USS *F. D. Roosevelt* (CVA-42).

I did not use Duncan Hines or Betty Crocker. I started from scratch — using a good old Navy recipe.

James Kenefick, MS2
NRMC Branch Clinic
NAS Chase Field
Beeville, Tex. 78103

Help!

As a long time reader of *Naval Aviation News* and one with a 35-year interest in Naval Aviation, I am hoping that you can help me.

In an effort to preserve some of our naval history, I have started a small collection of wings, badges, patches, rank insignia, rating badges and ribbons. If any of your readers have any of the items mentioned, old or new, cloth or metal, that they would be willing to donate to my collection, they would be greatly appreciated. I am also looking for flight manuals for any aircraft as well as aircraft and ship photos and postcards.

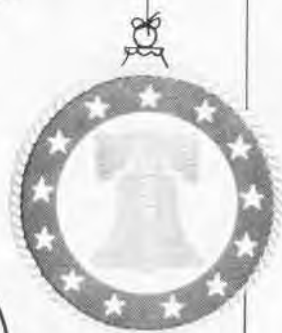
Kent Kistler
918 Georgia Dr.
DePere, Wisc. 54115

Short and Sweet

Whee! On November 21, 1917, I took an N-9 *one whole mile* above the earth. It took better than half an hour to get up that high. This was shortly before I qualified as a Naval Aviator in Pensacola.

A. K. Warren, Jr.
Naval Aviator #183
1088 Delaware Ave., Apt. 13F
Buffalo, N.Y. 14209

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