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Vice Admiral W. L. McDonald

Deputy Chief of Naval Operations (Air Warfare)

Vice Admiral E. R. Seymour

Commander, Naval Air Systems Command

STAFF

Captain Ted Wilbur Head, Aviation Periodicals
and History

Captain Dick Knott Editor

Helen F. Collins Managing Editor

Charles C. Cooney Art Director

JOC Kirby Harrison Associate Editors

Sandy Nye Russell



Cdr. Chuck Sammons Contributing Editor

Harold Andrews Technical Advisor

COVERS — Front, lonely vigil. A-4 Skyhawks on a darkened flight deck capture the mood of Christmas at sea. Back, USS Coral Sea pursues her mission of "Peace and good will." Inside spread, starters at Flint, Michigan's Captain Phogg Balloon Race upstage the Blue Angels.



Photo by PH2 George Mead



From the EDITOR'S NOTEBOOK

Fleet Admiral William Frederick Halsey, Jr., will unquestionably be remembered as one of the most colorful flag officers in the history of the U.S. Navy. Having already had a distinguished career as a surface officer, Halsey, then a captain, reported to Naval Air Station, Pensacola in July 1934 for flight training. He was designated a Naval Aviator on May 15 of the following year at the age of 52.

This was a period when a number of senior non-aviators were being groomed for higher command in Naval Aviation. Because of their age and rank, it was considered unreasonable and unnecessary to require these officers to undergo the same rigorous training imposed upon their more junior colleagues. An abbreviated course was therefore devised which would provide the necessary familiarity with aeronautical problems but which could not possibly confer the same flight skills and qualifications possessed by a fully trained Naval Aviator.

Capt. Halsey was not to be short-changed. Instead, he insisted on going through the complete syllabus, no holds barred. And that is exactly what happened.

We have dusted off a story which deals with this aspect of Adm. Halsey's career. It tells something of the kind of man Halsey was and his high regard for the wings he wore. The story was submitted some time ago by Rear Admiral Jackson R. Tate, now deceased, who was a frequent contributor to *Naval Aviation News*. This is the first time it has been printed.

"In 1935 I was detached as commanding officer of the VF-5 *Red Rippers* and ordered to Pensacola. There, I was assigned as C.O. of Training Squadron Five which had about 50 F4B-4 fighters and was the final stage before graduation and the pinning on of the Gold Wings. It was about this

time that the first group of selected senior officers came to Pensacola and made a few flights as passengers. Subsequently, they were issued Observers Wings — gold wings with a large O in the center.

"Later, other senior officers came to Pensacola for two or three months and were flown around in F-5Ls with a pilot who let them take the controls and called it solo. I am sure there were no real solo flights without a safety pilot. The Navy Department then issued them aviators' wings.

"Halsey, who had arrived in the spring of 1934, had startled everyone by announcing that he intended to take the entire course as any other student pilot. He wanted and expected to take all regular checks and would be marked as any other student.

"He went through the entire syllabus and finally arrived at Training Squadron Five (single-seater fighters) for gunnery, dive bombing, formation flying, acrobatics and night flying.

"One day Lieutenant Fitzhugh Lee (later vice admiral), operations officer and one of the top pilots in the squadron, scheduled Halsey for an acrobatic check, with himself as check pilot. Halsey fell all over the sky and never did complete a roll on top of a loop.

"Fitz gave him a down check and another hour of practice. When he landed, Halsey shook his head and said, "I sure had a bad hop there." After completing the extra time, Fitz Lee scheduled Halsey for another check but this time with Jack Raby as check pilot. The performance was better but still did not measure up and Raby gave him another down. As squadron commander, I assigned a final hour of practice and, on the last check, Fitz Lee, Jack Raby and I all checked him and averaged the three marks. The flight went well and he passed with a high mark.

"When he landed, Halsey was all smiles. He knew he had put on a good performance. He said it took a little time but the aircraft performed well once it knew who was boss.

"Halsey was the only one of those senior officers who, to my knowledge, took the same course to get his wings that any aviation cadet took. He

soloed, and by solo I mean he flew alone, in all the aircraft types and took all the regular student checks.

"I met up with Halsey again when he was Commander Aircraft Battle Force and I was on *Yorktown* as air group commander. Artie Doyle (Austin K. Doyle, later admiral) was air group commander on *Saratoga*.

"We went out as observers for Light Forces battle practice. I had Halsey in the rear seat of an SB2U-2 as top observer. I saw Artie pass below me, pointed him out to Halsey and said over the intercom, 'Let's go get him.' Halsey nodded his O.K. I dove down and the two air groups had quite a scrap. Suddenly, Doyle came on the air and said, 'Lay off. I have Commander Light Forces in the back seat and I don't think he likes this.'

"I replied, 'Hell, I have Halsey in the back seat and he's flying the plane!'"

Tate was assigned to Adm. Halsey again in late 1942 when he was C.O. of *Altamaha* (CVE-6) and Doyle had command of *Nassau* (CVE-16). The two commanding officers had just reported to Halsey in Noumea, New Caledonia. The admiral recalled the Light Forces episode with amusement and vowed he would not fly his flag on either of the two ships because it would give the two friendly rivals an opportunity to involve him in more wild escapades.

Adm. Tate recalled with obvious reverence, "He was a great officer, a great man and a real aviator who won his wings like the rest of us."



Admiral William F. Halsey, Jr.

DID YOU KNOW?

Seahawk Photo shows SH-60B *Seahawk*, the helicopter for LAMPS MK III, making a hard landing during evaluation of its landing gear and airframe at the Naval Air Test Center at Patuxent River. After the evaluation, the *Seahawk* went to the



Naval Air Engineering Center, Lakehurst, N.J., for shore-based recovery, assist, securing and traversing tests. The SH-60B serves as the air vehicle for the LAMPS system and will be deployed aboard frigates, destroyers and cruisers. Deliveries to the fleet are scheduled to begin in 1984.

Automatic Parachute Release

Vought Corporation has developed, with U.S. Navy funding, an automatic parachute release system that could save the lives of pilots who eject from their aircraft under adverse conditions. The new system, called SEAPAC (for sea activated parachute automatic crew release), has switches that are activated by sea water and then automatically release the parachute harness. The miniaturized SEAPAC is not much larger than a pack of cigarettes.

In strong winds which produce rough seas, pilots who ejected over water have sometimes been dragged by their chutes and drowned because the rough water prevented them from reaching parachute riser release mechanisms.

When the crewman hits ocean water after ejecting, the SEAPAC switches are activated by the sea water. The risers to the parachute are released and the wind takes the equipment out of the way. Other devices inflate the crewman's life raft and personal flotation apparatus. The automatic operation provides the maximum chance of survival even if the pilot is unconscious, incapacitated, in a state of shock or otherwise unable to perform manual actions required by survival systems now in use.

Under contract with the Naval Air Systems Command, Vought will begin producing retrofit kits for ejection seats used in the A-7E *Corsair II*. After the A-7E retrofits, other Navy aircraft are expected to receive the new equipment beginning in late 1981.

DID YOU KNOW?

Teamwork 80 Combined forces from eight NATO nations made amphibious landings and conducted exercises in the North Atlantic, English Channel, North Sea and Norwegian Sea from September 10 to 24. More than 60,000 personnel, 170 ships and 400 aircraft participated in the exercise, which was designed to demonstrate and improve the capability of the alliance to protect amphibious forces, as well as resupply shipping in time of crisis or war. The countries which took part were Canada, West Germany, Denmark, the Netherlands, Norway, Portugal, the United Kingdom and the United States.

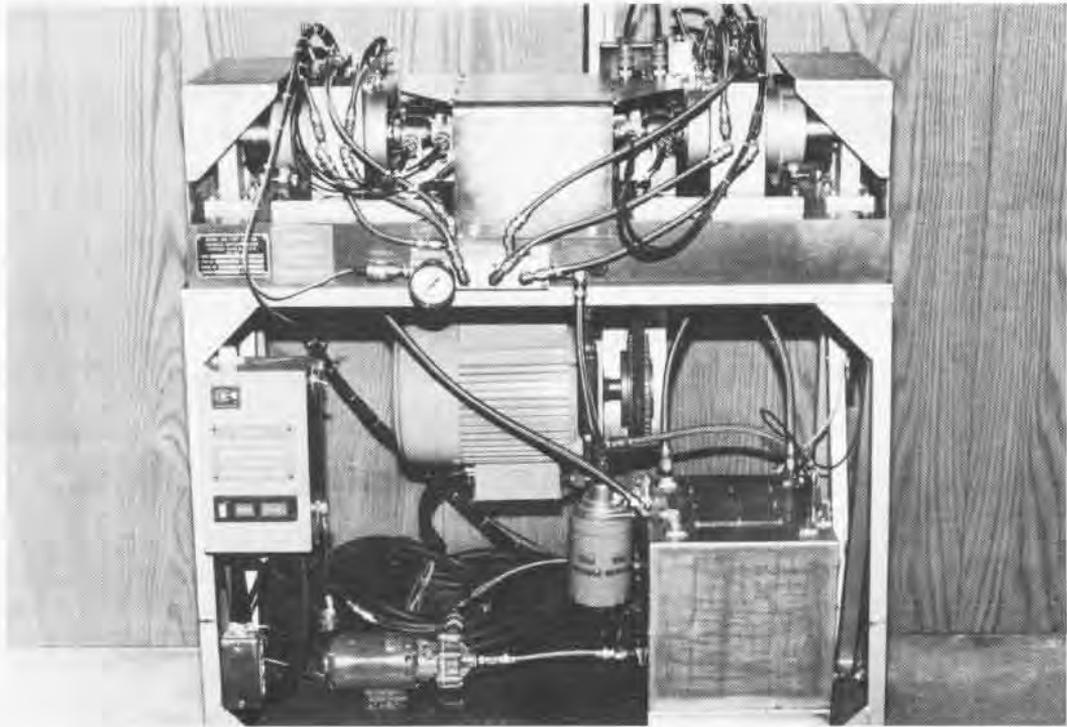
Key phases of the exercise included an amphibious landing in Norway, and the passage of military and merchant reinforcement and resupply shipping from the United States and from the United Kingdom to northern European ports. All faced simulated attacks from surface ships, submarines and aircraft, and were protected by warships, with cover provided by aircraft operating from bases in West Germany, Iceland, Norway, the United Kingdom and the U.S. Participating U.S. Navy ships included *Nimitz*, *Iwo Jima* and *Saipan*.

Pete Ross Trophy Marine Fighter-Attack Squadron 112 is the winner of the 1979-1980 Pete Ross Trophy. The award is presented annually to the Fourth Marine Aircraft Wing squadron with the best safety record. Emphasis is on pilot training syllabus accomplishment and flight safety. The award honors Marine 1st Lt. Joseph F. Ross who was killed during a training flight in 1950. His parents donated the marble and gold trophy.

During the award period, July 1, 1979, to June 30, 1980, the *Phantom* squadron deployed to six different training sites, amassing more than 2,800 accident-free flight hours while flying in a variety of aerial combat scenarios. VMFA-112's rating from the Marine Corps combat readiness evaluation system was 97 percent.

F. Trubee Davison Award Fighter Squadron 202 has won the F. Trubee Davison Award as the top reserve tailhook squadron for FY 1980. The award, sponsored by McDonnell Douglas Aircraft Corporation, was presented at the annual Tailhook Association convention in Las Vegas on September 13. The award is given in memory of Lt. Davison who, while a student at Yale in 1917, anticipated U.S. entry into WW I and organized a group of fellow students for flying lessons. The group formed the First Yale Unit, which became the first component of what later was the Naval Air Reserve. Many members of that unit distinguished themselves in combat in WW I.

VF-202 is the first Dallas-based fighter squadron to receive the award. It was one of 16 reserve tailhook squadrons in two air wings to compete. The award is based on achievement in weapons systems development, combat readiness and combat exercises, tactics development and general contribution to carrier aviation. VF-202 is proud of its 23,300 accident-free flight hours.



Spline Coupling Test Machine

By Jerry Robinette

As a result of 10 years of design and testing at the Naval Air Test Center, Patuxent River, Md., the Navy has begun to use drive shaft spline couplings made of nonmetallic material vice the standard metal-to-metal coupling. It is now necessary to accumulate reliability data on the new spline couplings so that designers can choose the appropriate coupling configuration for a given application. The tests required include checking the durability of the spline material, considering such aspects as shaft misalignment, loading, rotational speed, and temperature. Since flight tests of each spline coupling are impractical and possibly hazardous, and since suitable laboratory test apparatus is not available which could combine all the coupling stress parameters, an NATC team from the Systems Engineering Test Directorate and Technical Support Directorate has designed and fabricated a prototype spline coupling test machine under NavAir-SysCom sponsorship, using previous data obtained by Southwest Research Institute.

This equipment uses a closed-torque-loop loading technique. The machine allows the simultaneous

evaluation of four different spline configurations and the segregation of various lubricants for subsequent analysis of wear debris. The team also designed instruments for use with the machine that would retrieve the required spline wear data. The data consists of wear rate versus time, which can be compared to current metal couplings, present state-of-the-art couplings, or to military specifications to determine acceptability of the new material being tested.

The machine is designed for continuous unattended operation. To protect it during these periods, bearing temperature, lubrication oil pressure and level are continuously monitored by the associated instrumentation. Any deviation from preselected values results in the automatic shutdown of the test machine, and the reason for the shutdown is automatically recorded.

Three machines have been built and tested. The Naval Air Development Center, Warminster, Pa., and Kelly AFB, Texas, each received one last April, and the third remains at NATC's Systems Engineering Test Directorate.



GRAMPAW PETTIBONE

Good Hit – Wrong Ship

Two eager A-7E *Corsair* pilots were scheduled for a day visual, overwater bombing mission. The target was a Mk 35 SEPTAR (seaborne powered target) vessel in the offshore warning area. Mission brief included weapons delivery procedures, inertial navigation target location, target vessel photos, and range safety procedures.

Range control advised that a deep submergence support vessel was operating approximately 10 miles south of the target vessel. When cleared onto the target, the flight made a low-altitude identification pass and observed the SEPTAR vessel dead in the water. The flight then flew three 45-degree dive runs.

After these were completed, the flight leader established the pattern for low-altitude pop-up deliveries. Executing run-in at 200 feet to the target, the leader acquired a radar lock-on at six miles, which correlated visually with the vessel believed to be the target.

At three miles from the target, the lead pilot executed a pop-up maneuver, rolled ahead, and delivered one Mk 76 practice bomb from 600 feet altitude in a 10-degree dive. As the pilot pulled off, the range control officer advised the flight that they appeared to be over the support vessel instead of the SEPTAR. The flight leader immediately called "cease fire," regrouped his flight, and assessed the situation. Range control advised him that the deep submergence support vessel had incurred a direct hit amidsthips during his last bombing run,



point these gents had planned and executed a most professional flight and scored a nice hit. Unfortunately, it was on the wrong target.

The similar profile of the SEPTAR and the support vessel at low altitude, preoccupation with weapons delivery procedures, and failure to achieve a computer mark-on-top following the last high-angle delivery were factors which contributed to the flight leader mistaking the support vessel as the target vehicle.

Although not excusable, old Gramps knows for certain that far more than one stalwart aviator has been "red-faced" by a run or delivery on the wrong target, particularly overwater. I feel certain this flight leader will be more alert in the future.

Since this mission was the wingman's introduction to overwater weapons delivery, I'm certain he learned at least two things: 1) this stuff ain't so danged easy if a pro like his leader could err, and 2) it ain't too cool for the "wingy" to blindly follow the leader around the pattern and wind up in the same (but wrong) boat.

Had this been a live weapon the deep submergence support vessel may have been deeply submerged for real. Fortunately, no one was injured. When the irate crew of the bombed support vessel returned ashore, they found that the now wiser wingman had followed his also wiser leader to the other coast on a critical cross-country survival training mission.

Some pop-up!



Grampaw Pettibone says:

Holy sufferin' SEPTARS! Some days you just can't win. Up to this



Shroud-Bound Swimmers

This F-4 was the second aircraft in a two-plane section scheduled for a day CAP mission. The aircraft was spotted on catapult #2 and ready for launch. The hookup, nose-gear extension, and tension were routine. The acceleration to military power and transition to afterburner were smooth. Everything normal, the F-4 was launched.

After one-third catapult travel, the bridle parted. As the F-4 decelerated, the shuttle passed under the aircraft. A blossoming of the starboard engine afterburner plume signaled that the engine had been fodded.

Immediately realizing that aircraft end-speed would be insufficient, the crew ejected. The RIO departed the F-4 shortly after the aircraft cleared the bow. The pilot was unable to get out before the aircraft was below flight deck level. Both landed within 10 feet of each other at approximately 150 feet from the starboard side of the ship. Both crewmen used IRSOK (inflate raft, snap oxygen Koch) as a memory aid for the survival procedure. Each was able to release the right Koch fitting on water entry but both had difficulty releasing the left.

The RIO inflated the left side of his LPA, released his oxygen mask, and removed the shroud lines around his

neck. He then became aware of the lines entangling his legs and became very concerned. He jettisoned his seat pan, forced himself to remain calm and continued the effort to free himself. He felt pressure around his right ankle and was then pulled under water. After several sharp kicks, he managed to free himself from the shroud lines and bobbed frantically to the surface.

The pilot had removed his oxygen mask and was attempting, with little success, to free himself from the shroud lines. Realizing that they were entangled around the seat pan, he removed the seat pan right side fitting, then the left and pulled it out in front of him, which provided enough slack to free his legs. He tried to inflate the raft but it was too entangled. He then discarded the seat pan and found himself free.

Both men freed themselves about the same time, swam toward each other, and were recovered promptly by a Coast Guard motor whaleboat without further mishap.



Grampaw Pettibone says:

Holy sufferin' submersion! There is nothing like a nice midday dip in the drink, but we'd all prefer it not to occur in the middle of a catapult

stroke.

These crewmen owe their lives to timely diagnosis and reaction to a catastrophic situation requiring the ultimate in crew coordination. It appears that they were well trained and had prepared for such an emergency with IRSOK. The pilot remembers hanging in a cocked position during his short chute ride because of the shroud lines around the seat pan. He lost no time in attempting to free himself as soon as he hit the water.

The professional and prompt pick-up by the Coast Guard crew was superb and I'm sure most appreciated by this crew, particularly since no SAR helo was available.

These two fortunate gents were successful in untangling themselves where far too many aircrewmembers have not fared so well. We owe our aircrews every possible survival advantage including that following successful ejection.

Gramps is advised that the parachute systems department at the Naval Weapons Center, China Lake, is currently conducting a parachute entanglement avoidance technique test program, evaluating procedures to counter this water survival hazard. Test results will be included in the Naval Aviation water survival training program by early next year. Hurry it up, gents, we're bound in shrouds!

THE WICKED WITCH OF

USS *Wichita* plows through the dark blue waters of the Indian Ocean, as the aircraft carrier she is about to replenish approaches her side. On the bridge of AOR-1, Captain Tony Less issues a command which won't be found in the "book."

"Raise the witch!" he orders. Quickly, above the signal bridge, a mannequin which resembles that broomstick-borne lady in the Wizard of Oz appears in clear view of all hands. For Less, his crew of more than 400 and the *Sea Knight* helicopters anxiously waiting on the flight deck aft, this is their way of saying, "The Wicked Witch of the West is reporting for duty!"

There is little wasted motion as the carrier closes alongside the oiler. Lines and hoists are maneuvered into position. One of HC-11 Det Five's CH-46s rumbles into life. It will soon be aloft, making room for the second to emerge from its small hangar and become airborne. The exacting business of underway and vertical replenishment is about to begin. While the image of that witch flying above has comic aspects, the pace of the action and the practiced movements of its participants are clear evidence that U.S. Navy professionals are at work on the high seas.

The bow of each ship cuts sharply through the water. Speed is 12 knots, the optimum for unreping. (At 10 or fewer knots, steering is less effective.) Personnel on both ships rig their gear. The carrier crew fires a shot line so that the snake-like fuel hoses, some seven inches in diameter, can be slung into position. Winches are adjusted for the hoses and cables which will support the transfer of heavy pallet loads of supplies and jet engines.

Capt. Less is in charge from his station on the port side of the bridge. If a destroyer or second ship were also unreping, (from *Wichita's* starboard side), the X.O., Commander Gary Wilson, would man that wing of the bridge. The C.O. alone orders the tensioning of lines and commencement of pumping and transfer. He also monitors a phone line with his counterpart on the receiving ship.

There is a saying in Naval Aviation that goes back to WW II days: "Time is the most valuable weapon a carrier has. Don't ever waste it!" *Wichita* must adhere to that edict, whether she's servicing a super flattop, other ships, or taking on supplies herself. Unreps vary in length but can take four or more hours depending on circumstances. The quicker they're completed, the better for all concerned.

"Fortunately," says Less, "our crew is first-rate. These men know their stuff. During a recent unrep with *Ranger*, we transferred 800,000 gallons of DFM (distillate fuel marine) plus 200 pallets of ammo and stores, all in an hour and 15 minutes. Working with two connected replenishment rigs, that's a pallet going across every minute and a half. Our Senior Chief, Gene Hussey, and our deck force are particularly great. Underway replenishment is a way of life

By Commander Rosario Rausa



THE WEST - Plus Two



This witch stands lookout duty even when it isn't Halloween. The "thing that goes bump in the night" is just another pallet being dropped off.

for them and they do it exceptionally well."

There is a steady but not overbearing pressure to be precise throughout the unrep. "Being on time is critical," says Less, "and on occasion there's a little levity — if you can call it that — between aviators who command ships. When a CV joined up on us not long ago, the skipper sent me a message, in effect debriefing me on the rendezvous. 'I sat in your wake at zero eight nine point five degrees,' he said. 'The course is *zero nine zero!*'"

"What impresses me," says the skipper, "is that the men like their jobs. I think that's why they're so good at them. They can actually see their accomplishments and that translates to self-satisfaction. In the course of an unrep we might transfer 1.8 million gallons of JP-5, 2 million gallons of DFM, 80 to 100 pallets of ordnance, and enough food to augment provisions for the carrier for 10 days."

Less has developed a new dimension of respect for the "blackshoe" Navy experts in his crew. "Having been in aviation for over 20 years, I rely on them. They're the pros who have been doing this a lot longer than myself." At the same time, he admits to a special affinity for the helos, *Wichita's* "own little air wing," as he describes them. "With the help of the ground crew," he says, "they can lift one pallet, set it down and hook on another before you know it. Their performance is a ballet."

As in most nautical and aeronautical activities, relative motion is a part of everyday life. As an aviator, Capt. Less has an abiding respect for relative motion and formation work. (In addition to air wing and squadron commander assignments, he was skipper of the *Blue Angels*, the Navy's Flight Demonstration Squadron.) Drawing alongside a replenishment ship or another ship demands as much precision as an aerial maneuver executed in concert with other planes. Although totally confident in his crew, he knows there can be no lapses of attention when operating the ship, whether involved in unreping or proceeding solo.

"We were in San Francisco Bay just out of our home port at NAS Alameda," remembers Less. "There was a large merchant ship and a tug approaching on what was determined to be a collision course. We didn't have much room to maneuver. We had to speed up and arc our way around the two ships. It was a bit crowded out there. I felt a little like I was leading a flight through a line-abreast loop. You don't want a wing bobbing to disturb the planes alongside. Almost without knowing it, you're squeezing the bakelite off the control stick. I felt a little like that with the merchant ship and tug staring us down. Still, when we swung clear and headed out the Golden Gate, running the ship became fun again."

USS *Wichita* is formally described as a multi-product fleet replenishment ship. The first in her class, she was launched in 1968 and commemorates the heavy cruiser,

USS *Wichita* (CA-45) of WW II. AOR-1 has made numerous Western Pacific deployments. When stateside, the ship functions as a duty oiler for Third Fleet units.

Numbers tell much of the *Wichita* story. In a 1979 deployment she conducted 180 "alongside underway" replenishments. She and her *Sea Knights* from HC-11 transferred more than 30 million gallons of fuel, 2,200 tons of ammunition, and 1,400 tons of stores.

The ship displaces 41,000 tons, is 659 feet long with a 97-foot beam and 34-foot draft. Her twin engines generate 32,000 horsepower and give AOR-1 a 20-knot top speed. The crew consists of about 440 officers and men, including HC-11's Det 5. The ship was awarded the coveted Battle E in the competitive cycle which ended December 31, 1978.

There are a dozen replenishment stations on board, six on either side: the odd-numbered ones, starboard; even-

numbered, port. Each station handles a certain type of cargo: Two is a DFM station that is not normally used but once handled aviation gas (avgas). One, four, seven and ten are stream stations. That is, they are used for the transfer of pallets of food, ammunition and other material. Stations three, five, nine, two, six, eight and twelve are for transferring distillate marine fuel which powers ships, and JP-5, which powers aircraft. The fuel hoses, are color coded. DFM lines have red and blue bands around them, for in-

Hewitt gets a drink from *Wichita*.



stance, and JP-5 hoses have yellow and blue bands. They can sustain pressures of greater than 120 psi for extended durations.

Each station has a team assigned to it headed by a petty officer. A "doghouse," which resembles a miniature control tower, is located at each station. It contains various hydraulic and electrical controls for the winches and other components used in the replenishment operation. Although a sailor in the doghouse can manually operate the winches and related equipment, he normally adjusts them at the outset of operations and lets an automatic control system take over once refueling begins. Phone talkers assist the team leaders and wear headsets to tie into the communications network linking key players throughout the ship.

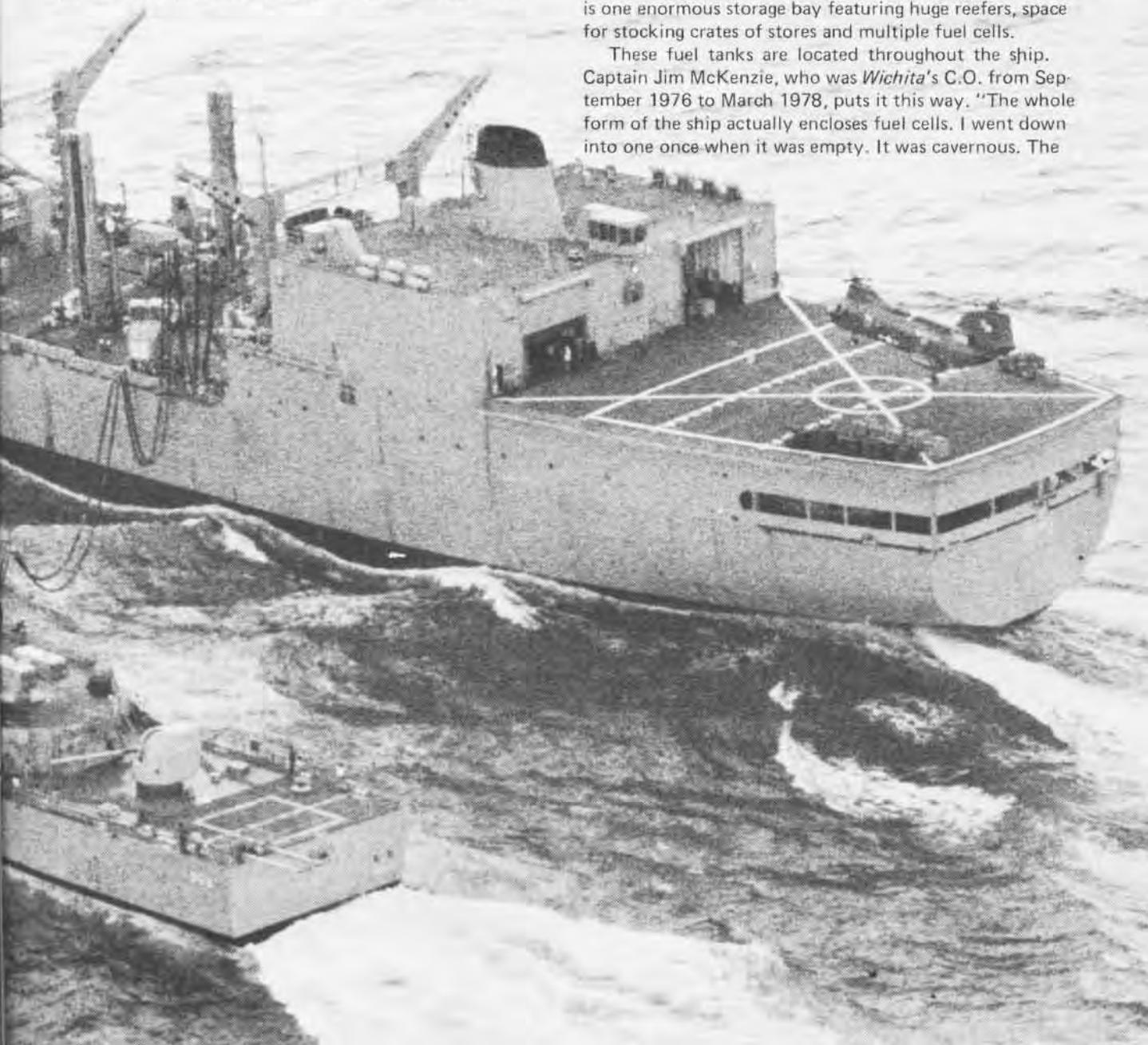
Once alongside a smaller ship, *Wichita* will fire a shot line to the receiving ship to begin the hook-ups for the stream and fueling stations. When unreping a CV, however, the flattop's personnel initiate the shot line. As one

observer pointed out: "The carriers wouldn't like a shot line, which carries a weight at one end, possibly striking one of their aircraft."

The shot line is then attached to a small but sturdy messenger line which is later attached to a rig messenger line — which in turn is attached to the span wire. The shot line and the small messenger are hand-over-hand manually pulled to the receiving plugs. Once the rig messenger has been pulled to the receiving ship, a winch is then employed to pull the span wire and/or the refueling rig across. This in itself takes considerable time and gets to be laborious but once a boatswain's mate gets the procedures squared away things move quickly.

Wichita features three elevators — forward, amidships and aft — by which material is transported from the lower chambers in the ship to the main bay level and, ultimately, topside. The aft elevator raises to the flight deck area for processing cargo there. Essentially, the interior of the ship is one enormous storage bay featuring huge reefers, space for stocking crates of stores and multiple fuel cells.

These fuel tanks are located throughout the ship. Captain Jim McKenzie, who was *Wichita's* C.O. from September 1976 to March 1978, puts it this way. "The whole form of the ship actually encloses fuel cells. I went down into one once when it was empty. It was cavernous. The



only light was from a hatch up above. It was as impressive as it was eerie." Adds McKenzie, "When you're at sea with partially filled tanks and it's fairly quiet, you can hear the fuel sloshing gently like a giant snoring."

A fleet of forklifts and men to operate them move the pallets — laden with everything from lettuce to hamburger, 20mm ammo to missiles — to the elevators for delivery topside. Fully loaded, *Wichita* can carry over five million gallons of DFM, nearly three million gallons of JP-5, over 100,000 gallons of its own DFM, and many thousands of tons of food and other stores. And once the ship has delivered its load, *Wichita* must hustle back to a shore depot or a merchant vessel to replenish itself, take on more cargo and rendezvous with other thirsty and hungry ships.

Paramount to the total unrep/vertrep operation is safety. Although a pallet is seldom dropped aboard *Wichita* and mishaps are kept to a minimum, safety instruction and vigilance are constant, especially in view of all the winches and similar gear with heavy, moving parts.

Lieutenant Commander Tom Stites, Det Five's OinC, has 1,200 hours in his logbook, 1,000 of them in *Sea Knights*. A graduate of Ball State and former school teacher, he is not at all reluctant to say, "My worst day in Naval Aviation has been better than my best day teaching school." In other words, he likes his work.

He is responsible for the two CH-46s, aircrews and his ground support team. He considers his helos perfect vehicles for the workhorse duty of hauling pallet after pallet of supplies, usually short distances, in all kinds of wind and sea conditions.

Det Five has six pilots, one ground officer and 18 enlisted personnel, six of whom are aircrewmembers. Although they are a tightly knit unit within themselves, the Det's people are fully integrated into the ship's company team. Referring to the Det and AOR-1's crew, Capt. Less emphasizes, "We are *Wichita*."

"It normally takes nine months to qualify as an aircrewman," says Stites. "All are qualified wet swimmers, capable of completing our subsidiary mission of search and rescue. We're lucky in Det Five. All of our troops are truly dedicated and take their jobs very seriously."

An average vertical replenishment flight leg is two hours long. After about six airborne hours, which a *Sea Knight* often flies in a busy working day, the aircraft's rotor heads must undergo a preventive maintenance examination. But those who fly the *Sea Knights* get all the flight time they could want. Every two hours, one pilot will step down from the rotation allowing the spare man in. The aircrewmembers change off in a similar manner. The flyers quite often get 50 hours or more per month, totaling, on a six-month deployment, between 200 and 300 hours in the sky. Even Capt. Less inks a few CH-46 hours in his logbook. "When we're in port or at anchor" he says, "I try to keep my hand in and fly the bird."

All of the HC-11 *Gunbearer* dets have the same call

sign, *Sideline*. That call sign has significant meaning. "We are not limited to head-on approaches and can sideline to landings or a hover," says Stites. "While some helos have less flexibility, in the sense that they are restricted to an into-the-wind approach, the CH-46 can proceed to a spot from virtually any quadrant with the wind blowing up to 30 or more knots.

The *Sea Knight's* twin rotors give us the better control," he goes on. "The task force's direction of movement doesn't normally hinder us. We seldom have to terminate operations due to winds."

Working the hoists, toting the pallets, and making approaches and liftoffs in the dark is another challenge that *Gunbearers* face.

"As it is with most night flyers, the fatigue factor enters the picture after dark," explains Stites. "Normally, we're VFR, day or night, but we do occasionally operate in all-weather conditions. At night, even when the visibility's good, there's an extra strain. We fly a lot of formation 'on the ship's deck or lights.' Generally, we're concentrating so hard on flying formation on the ship that a ship's turn will most often go unnoticed.

The *Sea Knight* can also carry passengers, up to 20 at a time. Its total payload, passengers or cargo, is 4,000 pounds although it can haul up to 6,000 pounds under certain circumstances. The Det's maintenance crew can change a rotor head and an engine on board the ship and perform essentially all the tasks of an organizational level maintenance activity.

Det Five's aircrewmembers actually lie down on the job. Two make each vertrep flight. They stretch out, stomach down, on the deck amidships. Facing each other from across a hell hole through which the cable and cargo hook are actuated, they actually direct operations. One man guides the pilots of the CH-46 — "Easy left . . . easy down . . . over the load" — while the other manually connects the *Sea Knight's* cargo hook through a hole in a large braided rubber pendant held up by ground personnel. This pendant is part of a net which encircles the pallet. (A cradle arrangement vice net is used for missiles.) On the crewman's signal, the *Sea Knight* and its load rise and fly away.

The *Sea Knights* can also take on cargo through a ramp at the rear of the aircraft. In addition, a hoist with a rescue sling is available and mounted externally for emergency-type missions.

While the pilots use landing signal enlistedmen in the course of operations, their two aircrewmembers are the real keys to success. These enlisted men must accurately judge distances and closure rates, tasks made all the more difficult at night when depth perception is a critical factor.

When making normal landing approaches, the pilots utilize *Wichita's* glide slope indicator, a valuable aid featuring a vertical row of lights colored red, amber and green. By keeping the amber light in view, the aircraft maintains a proper glide slope.

A Wichita Sea Knight sets a pallet down gently on a carrier flight deck.



One item that Stites, his crew and their counterparts would like to see aboard *Wichita* and ships like her is tacan, a navigational aid with distance-measuring equipment. AOR-1 will get theirs later but in the meantime they must use the low frequency homer, the only device now available. Tacan will make their job much easier, especially when visibility is poor.

Det Five's parent squadron, HC-11, is home-based at NAS North Island. It is comprised of a central staff and seven teams which become "detachments" when deployed. At least one team is always ashore. Dets are assigned to AOR, AE and AOE-type ships.

"The team concept promotes morale," says Commander Dave O'Neill, *Gunbearer* C.O. "Whether ashore or deployed, each unit has its own aircraft and crew. Each competes against the others, trying to achieve the best state of readiness. As a result, everyone's readiness improves."

Formed in October 1977, HC-11 is comparatively young but it is a major element in the Mobile Logistics Support Force which keeps ships at sea replenished.

"Vertrep remains one of the most challenging and rewarding jobs in Naval Aviation," says Cdr. O'Neill. "Our flyers work in a low-level environment most of the time, traveling at speeds up to 70 and sometimes 90 knots with heavy external loads. They operate in a strategically critical part of the world — the far Pacific and Indian Oceans. Fortunately, Commander Fleet Air, Western Pacific and the units of CTF-73 are doing a remarkable job supporting the overall effort and our dets, helping them transport huge volumes of goods and people over great distances."

Adds the C.O., "The *Sea Knight* with its ability to turn on a dime and operate satisfactorily with 30-knot, direct crosswinds is an ideal vehicle which our highly trained crews put to maximum effective use."

A *Gunbearer* flyer remarked that vertrep pilots like himself develop the "strongest forearms in the Navy." The cause: All those countless and constant — albeit small — control movements demanded in their line of precision flying. It may not be glamorous labor but there is none more important in Naval Aviation today.

Former C.O. Capt. McKenzie confirms that the world of underway and vertical replenishment is neither spectacular nor glamorous. "The hours are long and there is an element of danger ever present with all that fuel and armament aboard. But if the Navy didn't have ships like *Wichita* or helicopter units like Det Five, it would have to invent them to satisfy the needs of the fleet."

Capt. Less reiterates the high value placed on time — that most valuable weapon. "Joining up precisely where and when we're supposed to, giving the carrier or destroyer or other ship what it needs, and getting her away quickly so she can continue her mission is what our job is all about. It's as tough as it is rewarding."



CH-46 Sea Knight makes a pickup.





By Captain Dick Knott



They were like ghosts from the past, stubby, corpulent F4F *Wildcats*, sleek long-nosed F4U *Corsairs*, shark-mouthed P-40 *Warhawks* with wicked grins, and a host of others warming up on the grassy parking area. A Messerschmitt 108 utility plane in camouflage colors seemed out of place in this group as did a Junkers Ju 52 transport which had once flown Adolf Hitler around Europe to visit his generals and inspect newly acquired pieces of real estate. All of these aircraft were in mint condition and it was almost as if they had just rolled off the assembly line.

The occasion for all this activity was the Oshkosh '80 Air Show sponsored annually by the Experimental Aircraft Association. An estimated 200,000 people were on hand that day to watch the *Warbirds of America* re-enact some of the great air battles of WW II. It turned out to be a spectacular show with episodes from Pearl Harbor to Midway, North Africa to the Ploesti oil fields. It was pure nostalgia complete with pyrotechnics. Young as well as old were entranced as a stately formation of B-17 *Flying Fortresses* roared overhead at 500 feet, and a Grumman *Wildcat* engaged a Japanese *Zero* in a mock duel to the death.

The *Warbirds of America* are a group of aviation enthu-

siasts dedicated to locating, restoring and operating WW II aircraft. In recent years they have expanded their scope to include more modern military aircraft like the AD *Skyraider* and the F9F *Panther* jet. They have not limited themselves to U.S. aircraft and members boast ownership of Axis as well as Allied warplanes.

These restored aircraft represent a sizable investment in time, effort and dollars. Yet this is far from an exclusive club of fat cats whiling away the hours with expensive toys. The majority of the members are persons of moderate means and several of the aircraft are owned and maintained by groups of two or three enthusiasts who have pooled their resources. One B-17 *Flying Fortress* has 20 proud owners. Seldom has an airplane received more care and attention.

The *Warbirds* have a consuming interest in aviation and a fascination with the planes that shaped the destiny of the world in the early 1940s. Some take great delight in tracking down one of these old planes tucked away in a dilapidated hangar or overgrown by brush at the end of an abandoned airstrip. Others get satisfaction from painstaking restoration efforts or from careful research into the history of a particular type. Paint schemes, squadron markings, and



Two warbirds in a section takeoff.

even individual embellishments are meticulously duplicated.

As may be expected, the real fun is in the flying. One member who takes particular pleasure in this aspect is Captain Walt Ohlrich, USN(Ret.), a former skipper of VA-95 (the *Green Lizards*) and *Warbird* No. 1. Like most owner-members, he does the restoration work on all his own aircraft and currently owns an SNJ trainer. But most of all he likes to get up in the air. A member of the organization characterized him as "one of those people who just can't get enough of flying."

The description fits him well. Back in the early 1960s, while still on active duty, Capt. Ohlrich purchased a Navy surplus F8F *Bearcat*. He restored it to peak condition and flew it in the Reno, Nev., air races. There he met Air Force Korean War ace Bob Love. They came up with the idea of forming an organization to facilitate the restoration and maintenance of old military aircraft. In 1966, the *Warbirds of America* was incorporated in California with Ohlrich as the first president. Under his direction, the organization expanded rapidly and eventually came to include members from all states and a number of foreign countries. Today, the *Warbirds of America* is a division of the Experimental Aircraft Association with 1,200 members and over 200 vintage aircraft.

Naval Aviation is well represented in terms of both members and aircraft. Former Navy Lieutenant Bill Ross flew F9F-2 *Panthers* from USS *Boxer* in Korea with VF-721. He has owned 15 warbirds in his lifetime, including several old Navy fighters, and now flies a P-38 *Lightning* which he maintains with tender loving care. "Preservation is the key issue," says Ross. "These old aircraft are an important part of our American heritage and someone has to make sure that there are a few left for future generations."

One husband and wife team owns several warbirds, including a Grumman (General Motors-built) FM-2 *Wildcat* and a Curtiss P-40 *Warhawk* painted desert pink like those used in North Africa. Pete Parish, a former Marine Corps officer and his wife, Sue, a Womens Air Force Service Pilot (WASP) in WW II, sponsor a unique aviation museum in Kalamazoo, Mich., where visitors can watch the restoration process in progress.

John Schafhausen flew both the FM-2 *Wildcat* and the F6F *Hellcat* with VF-52 during WW II. Although he left the Navy when that conflict ended, he did not lose his love of flying or his special fascination for the fast fighters of that historic era. In 1973, he purchased an F4U-7 *Corsair* and inadvertently rode it into the movies. "I was finally discovered by Hollywood in 1977," he says jokingly.

"Because I owned the *Corsair*, I went with it and had a very enjoyable two years of flying for the television show *Baa, Baa, Black Sheep*."

Former Naval Aviator Ray Stutsman, whose last active duty was with VJ-62, now owns and flies a P-51 *Mustang* fighter. Recently, he and Dr. Dick Deiter ferreted out an old COD-configured TBM *Avenger* in a dusty hangar in California where it had been sitting in a preserved state for over 20 years. It still had its Navy paint, complete with pilot and plane captain's names stenciled on the side.



Above, ex-Panther jet pilot Bill Ross now flies a P-38 *Lightning*. Preservation is the key issue, he says. Below, Pete Parish attends a briefing before a performance by vintage aircraft at Grumman's 50th Anniversary celebration.

JOC Kirby Harrison



Stutsman is now trying to locate these men to learn something of the history of this aircraft.

Ex-Aviation Ordnanceman Tommy Wofford also owns and flies a TBM while former Seabee George Enhorning has a P-51 *Mustang*, a rare P-40K and is currently involved in the restoration of an F8F *Bearcat*. Commander Bob Ferguson owns and flies an F4U-5NL night fighter of which he is especially proud, as well as a P-51 *Mustang*. Former Navy Lieutenant John Ellis, who flew F-4 *Phantoms* with VF-31 at NAS Oceana, now pilots a beautifully restored T-28. Retired Lieutenant Commander Roy Fancher keeps

his hand in with his T-34 trainer. Still others like Major Gus Limbach, USMCR (Ret.), and Lieutenant Commander Gene Chase, USNR (Ret.), like to fly a Japanese *Zero* fighter (replica) which was restyled from an SNJ trainer for the motion picture *Tora, Tora, Tora*. Chase also owns and flies his own restored SNJ.

Safety of flight gets prominent emphasis by the *Warbirds of America*. This is an essential part of any program for dealing with fast, high-performance aircraft. Since every major warbird type is represented in the organization, a system of model managers has been adopted to provide a

JOC Kirby Harrison



Top, wheels down, hook down. Alexis Dupont's Wildcat is complete with paint and markings from early WW II. Above, Warbird No. 1 Capt. Walt Ohlrich readies his Grumman F8F-2 Bearcat racer for takeoff. Left, Corsair driver John Schafhausen relaxes on the "Baa, Baa, Black Sheep" set with actor Robert Conrad.

means of disseminating and exchanging information in each category. The model manager has the manuals and offers a written examination so that those who own or fly a particular aircraft can evaluate their own flight proficiency and maintenance procedures. Cross-pollination with those who have military flying experience is encouraged. Capt. Ohlrich, for example, plans to hold a safety seminar in formation flying next spring. *Warbirds* will fly their own aircraft to Chesterfield County Airport in Richmond, Va., for the two-day course. Commanders Bob Ferguson and Obie O'Brian will be on hand to lend their assistance. Most people are surprised to learn how few of the old

WW II aircraft are still in existence. They remember that thousands of these unwanted machines of war were scattered about in the late 1940s and 50s, many available at bargain prices. But time has changed all that. Some have been torn up for scrap and melted down, others have been incinerated as part of fire-fighting demonstrations. Some have been lost in accidents, while many have just deteriorated into junk. Today, the number of surviving examples is relatively small and dwindling. But if the *Warbirds of America* have anything to say about it — and they are not known for their reticence — some of these proud relics will be flying for many years to come.

JOC Kirby Harrison



Above, Pete Parish taxis past a TBM Avenger and a J2F Duck at Grumman-Calverton, N.Y. Right, John Schafhausen cinches up his chute for a movie flight in his F4U-7 Corsair.





Top, Capt. Ohrich and his SNJ restoration. Above, Gene Chase and Gus Limbach like to play the "bad guy" parts in this SNJ made up like a Japanese Zero. Left, Ray Stutsman found this COD-configured TBM in an old hangar where it had been gathering dust for 20 years.

Sentimental Journey

By Cdr. G. W. Lundy and Lt. D. A. Frasier

With two turning and two burning, DP-2H BuNo 148343 hummed and whistled into the break at Davis-Monthan Air Force Base at an impressive (for a P-2) 250 knots. After a smooth landing, old GF-03 taxied proudly into the compound at the Military Aircraft Storage and Disposal Center. Officially, at 0930, 7 July 1980, for the first time in over 35 years, the Navy no longer had a P-2 *Neptune* in active service.

Born during World War II, the *Neptune* was designed by the Lockheed Aircraft Company as a night antiship bomber. In 1946, a specially configured version called the *Truculent Turtle* flew nonstop from Perth, Australia, to Columbus, Ohio, a distance of 11,236 miles. During the 1950s and early 1960s the P-2 became the mainstay of ASW patrol aviation in the U.S. Navy. Since then, the *Neptunes* have served in a variety of functions from bombers to gunships. In the late 1950s, P-2s of Fleet Composite Squadron Eight (VC-8), modified as drone launch platforms, began operations from NAS Roosevelt Roads, P.R. Launching the Ryan KDA *Firebee* drone for fleet train-



ing, the P-2s established the feasibility of airborne target drone launches on a routine basis.

VC-8 conducted the Navy's last official flight which began at Roosevelt Roads on the morning of 5 July 1980. It was bright and sunny, as is almost every day in the Caribbean. The crew was comprised of Lieutenant Commander Marty Merrick, pilot, Commander George Lundy, copilot, AD2 Joe Meyer, plane captain, AT2 Tim Fitzgerald, 1st technician, and AD2 Richard Bivens. Cdr. Lundy, the squadron X.O. and an attack pilot, was just beginning his P-2 career while LCdr. Merrick was ending his with over 3,500 hours in various models of the venerable airplane. Most of the crew had not yet been born when old GF-03 was built. The send-off was appropriately recorded and it is fair to say that more than one squadron member experienced a lump in the throat as GF-03 heaved herself into the air and headed out to sea for the last time.

The first leg of the journey ended at NAS Pensacola. There, only a few old-timers noticed or recognized the significance of the event. To most who saw her, she was just

an antique aircraft passing through.

In Albuquerque, however, there was more interest. Here, the crew of GF-03 encountered members of the U.S. Forest Service who were awaiting a call to fight a reported fire in the hills nearby. They too flew a P-2 and it was gratifying to learn that although the *Neptune's* role in the Navy was but a few hours from termination, at least one of the old birds would continue to perform a useful service in aviation. As might be expected, the conversation quickly got down to planes and flying. Each group showed the other its aircraft and equipment. After some P-2 reminiscing, a walkie-talkie sounded the alert and the Forest Service pilots raced for their plane. Within minutes, the red and white *Neptune* roared down the runway as if to say, "There's plenty of life in the old girl yet."

The last leg of the journey to Davis-Monthan was all too short and a little sad. As GF-03 flew along the airways, a skeptical controller asked, "Is that really a P-2, a P-2 *Neptune*?" It was indeed and its final flight signaled the end of an era.

naval aircraft

The Army Air Corps' Bell P-39 *Aircobra*, so well publicized in the early WW II period, is familiar to most aviation history buffs. Over 9,500 were built, seeing combat service in many WW II theaters. Its Navy counterpart, the XFL-1 *Airabonita*, existed only as a single prototype and is one of the Navy fighters that never made it into the limelight.

In 1938, the Navy held a major fighter design competition, looking for a significant advance in performance over the first carrier monoplane fighter prototypes then in the flight test stage: the Brewster XF2A-1 (later developed as the *Buffalo*), Grumman XF4F-2 (later modified into the *Wildcat*), and Seversky privately built NF-1. From the new designs submitted, three were awarded contracts, representing three widely different approaches to high-performance carrier fighters: Vought's XF4U-1 prototype of the famed WW II *Corsair*, Grumman's twin-engine XF5F-1 *Skyrocket*, and Bell's XFL-1, powered by a liquid-cooled

Allison engine. The objective was to obtain maximum fighter performance by innovative, but practical, design approaches.

Bell's proposal in the competition drew heavily on the design of the XP-39, construction of which was then well under way. The Allison V-1710 engine, mounted amidships behind the pilot's cabin, drove the propeller through an extension shaft. This feature and the overall configuration were very similar to the P-39. However, the wing area was increased; armament changed to one .50 and two .30 machine guns and internal wing bomb racks for 40 anti-aircraft bombs; landing gear changed from tricycle to tail wheel; coolant radiators moved to an underwing location aft of the landing gear wells; turbo-supercharger was replaced by gear-driven; special high-lift flaps were fitted; and catapulting and arresting provisions were added.

Following award of a contract in November 1938, when the XP-39 was making its initial flights, the XFL-1 mock-up was inspected at Buffalo, N.Y., in December, with generally satisfactory results; revised carrier suitability provisions were found satisfactory in February, 1939. Some concern was felt by Bell and Navy BuAer engineers over the aft location of the center of gravity (c.g.) but, after some discussion, it was decided not to move the wing aft or otherwise revise the basic design. During the design develop-

AIRABONITA

Navy testing, March 1941



Buffalo, May 1940



Buffalo, February 1941



ment and recognizing XP-39 flight test results, increased wing dihedral was incorporated. This and other typical development problems delayed the first flight from the scheduled fall of 1939 to May 13, 1940.

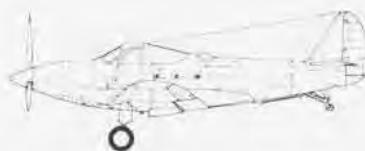
Early flights showed a need for major modifications to the engine air intake system and the tail surfaces and also revealed that considerable ballasting in the nose was required for proper balance and stability. Subsequent changes and flight testing resulted in satisfactory characteristics except for the major aft c.g. location problem. BuAer and Bell finally agreed to delivery of the airplane for flight testing with nose ballast. However, the guns could not be installed with the ballast in place and, therefore, the Navy could not fully evaluate the airplane in its intended fighter role. By March 1941, when the XFL-1 went to NAS Anacostia for Navy flight testing, it had already been decided that the FL design would not become a production model. Navy tests indicated additional deficiencies in ship-board characteristics. In the fall of 1941, the XFL-1 was returned to Bell for correction of deficiencies, sufficient to allow its use as an experimental aircraft, particularly to test anti-aircraft bombs. Redelivered in early 1942, it actually saw little further use and was scrapped during the war years at Patuxent River after test activities were relocated there.

Bell flight test, Summer 1940

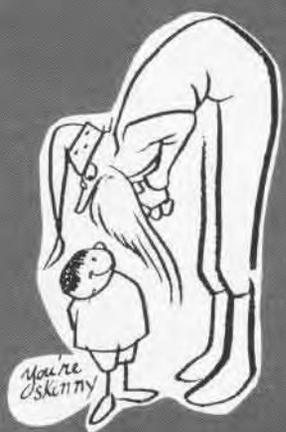
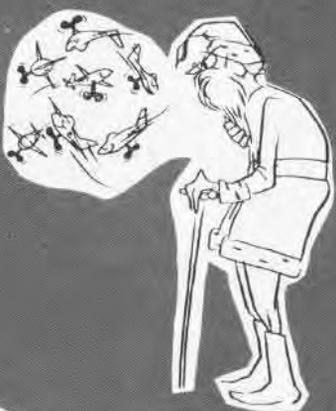


XFL-1

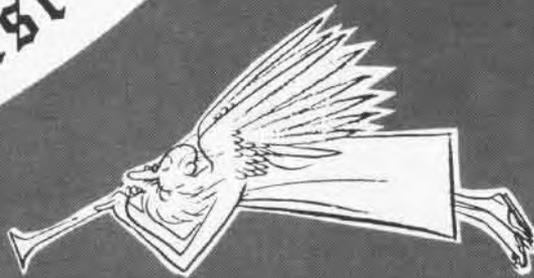
Span	35'0"
Length	29'9"
Height	11'5"
Engine	
Allison XV-1710-6	1,150 hp
Maximum speed	333 mph
Service ceiling	33,000'
Maximum range	965 miles
Armament	
one .50 machine gun	
two .30 machine guns	
forty 20-lb. anti-aircraft bombs	



... Ghosts of



Christmas Past



NAVAL AVIATION

NEWS



TOUCH AND GO

Evacuation Drill

When members of Reserve Fleet Logistics Support Squadron 55 staged a recent aircraft evacuation drill, maximum realism was injected into the problem, which included a panicky passenger and a back injury.

"I've been on evacuations before, so I figured they'd tell you things like 'there are pregnant women aboard' and what to do about them," explained YN3 Nina Smith.

The "flight" began with the standard pre-flight indoctrination and the customary "Hope you have a good flight."

Moments later the senior flight attendant calmly asked, "Would you please evacuate the aircraft." One response to this request was a realistic "panic" by a passenger planted by the planners of the drill.

"He scared me," related YN3 Smith. "I didn't know if he was serious. It gives me cold chills now just to think about it, because he really did a good job of acting.

He just went berserk."

Most of the passengers did not know what to expect, having been recruited at random from other units at NAS Alameda. Many had never flown in the C-9B Skytrain jet being used, and even fewer had taken the "ride down the slide," as one passenger described his emergency exit from the aircraft.

Further realism was added with the presence of the NAS crash crew and medical emergency vehicles. The imaginative planners had included a situation for these units in the form of a passenger who "fell," injuring his back as he came off the slide. Only later was it learned that he had not been injured but was part of the drill.

More than 90 occupants of the C-9B were evacuated in just 43 seconds. A final touch of realism was added when flares were lit to aid the rescue party in locating the downed plane and its survivors.

The safety standdown and evacuation drill were part of an ongoing safety program of the all-jet Naval Reserve squadron. VR-55 is proud of its record of never having injured a passenger or damaged a cargo, and intends to keep things that way.



YN3 Nina Smith prepares to hit the slide in an emergency evaluation drill.

LDO Aviator Program Open to Enlisted

The Secretary of the Navy has approved establishment of a Limited Duty Officer (LDO) aviator program for paygrades E-5 through E-7.

Previous Navy programs open to enlisted personnel for pilot training ended in 1973 with the retirement of four Marine master sergeants. These programs, however, did not include an officer commission as the normal process.

The first 35 enlisted personnel selected for the program will be ordered to Pensacola in April 1981.



Naval Aviators from the enlisted ranks have been part of the Navy for a long time. These 10 posed for a group portrait in 1917.

After completing aviation officer indoctrination, primary flight training and maritime (prop) training, the new officers will be assigned to an initial three-year tour as primary flight instructors.

Subsequent assignments will be to a variety of aircraft

carrier billets, such as assistant flight deck officer or assistant aviation fuels officer. Shore tours will include the training command and naval air station billets. Later sea tours will include carriers, afloat staffs and some overseas air stations.

Details of the program and instructions for application are carried in CNO message 231643Z, September 1980, NAVOP 159/80. For additional information not carried in the message, call (202) 694-5593/4 in Washington, D.C., autovon 224-5593/4.

SERGRAD Program

The Selectively Retained Graduate (SERGRAD) program, aimed at keeping training squadrons manned at 100 percent, is apparently working at least to the satisfaction of both the squadrons and individuals selected.

"I can remember when I was sitting in the cockpit as the student with the instructor right behind me, waiting to take over if necessary. Now that's changed, and I'm in charge, evaluating the student pilot," says Ensign Paul Markovits in explaining his decision to go into the SERGRAD program.

Ens. Markovits is one of 121 SERGRADs assigned to the naval air station in Corpus Christi, Texas. All are flight school graduates whose above-average abilities during training were obvious, and who either volunteered or were nominated for SERGRAD.

Those now serving with training squadrons at Corpus Christi have undergone eight to nine weeks of additional instructor training at Training Air Wing Four with emphasis on "advance thoughts in the (T-44) airplane," according to Lieutenant Commander John R. Aranyos, officer in charge of the instructor training unit at the wing. "Overall we have been very pleased with the SERGRADs whom we have trained," he adds.

Officers selected for the program spend an additional 14-18 months, in the squad-

rons to which they were assigned, actually instructing Naval Aviators. And with continued good standing, they are guaranteed preferential assignment to a warfare specialty upon completion of their tours. For graduates of VT-28 and VT-31 at Corpus Christi, that warfare specialty is either a patrol squadron, fleet air reconnaissance squadron, or carrier airborne early warning squadron.

"I enjoy instructing and I find it very rewarding," says Ensign Wendi Bryan, assigned to VT-31.

Ens. Bryan will not be guaranteed an assignment to warfare specialty due to present restrictions on women serving in combat units, but she points out, "It's a good opportunity for me to bide my time to see if they open up any new positions for women."

Flying is part of a SERGRAD's daily routine. "I would say I average about

40 hours of flight time per month," says Lieutenant Junior Grade Brian Meyerriecks, assigned to VT-27. "But it might be about 60 hours this month, because I got in a few extra hours flying cross-country."

Lieutenant Commander George L. Hart, student control officer at the Naval Air Training Command, emphasizes that SERGRADs are an integral part of Naval Aviation. "They are supposed to be given jobs in the squadrons to expand their experience as naval officers, and not just as flyers." Lieutenant Junior Grade Mark S. Kozicz, a SERGRAD and assistant student control officer at VT-27, reaffirms that policy. "I think serving as a SERGRAD will make me better able to handle the fleet experience when I do go, because I can learn more about the Navy and I'll know how to work at the ground jobs, like the one I have here."

RM3 Vince Vidal



Ltjg. Brian Meyerriecks (left) and Ltjg. Mark S. Kozicz discuss the job.

PEOPLE · PLANES · PLACES

Awards

VA-115 was selected as ComNavAirPac's A-6 Battle E winner for the January 1, 1979-June 30, 1980 competitive cycle, marking the second consecutive win for the *Eagles*. Led by Cdr. R. C. Franz, the squadron is deployed aboard *Midway* as part of CVW-5. In competing for this award, VA-115 flew



over 8,000 flight hours, 70 percent of which were at sea, and delivered over 10,000 pieces of ordnance during 36 major exercises. The *Eagles* are also consecutive winners of the CNO Safety and ComMAAtVAQWingPac Maintenance Excellence Awards and have won the Adm. C. Wade McClusky trophy.

LCdr. Edward A. Luedeking, flight instructor at VT-23, Kingsville, was awarded the Air Medal with Bronze Star for first award for averting an air disaster which could have cost him his life and that of his student, Ens. Mark Davis, as well as the loss of a jet trainer. On July 27, 1979, Luedeking's T-2C was impacted from below and behind by another aircraft shortly after takeoff. Through skilled airmanship, and despite the loss of many key instruments and one engine, he was able to return to Kingsville with partial power on the remaining engine and make a successful landing.

Navy personnel at Key West recently earned the Humanitarian Service Medal following their participation in and support of the Cuban refugee resettlement operation this year. Since the first freedom flotilla boat docked in Key West last April 27, thousands of Cuban exiles have been processed. From May through July, military personnel worked around the clock to provide food, security, news media liaison and relocation for the Cubans.

Records

A LAMPS ship safety record was achieved by HSL-36 Det 6 while deployed aboard *Paul* (FF-1080) during a Med cruise. *Paul's* C.O., Cdr. David P. Micalchuck, rode in the det's SH-2 to record the ship's 600th accident-free flight. Pilot of the helo was LCdr. Thomas Freeland, OinC of Det 6, home-based at Mayport, Fla.

LCdr. Richard Jaeger of HSL-37 recorded his 1,000th daytime destroyer deck landing in an H-2 recently, while instructing other squadron pilots aboard *Badger* (FF-1071) off the coast of Hawaii. To the uninitiated, landing a helicopter on a destroyer or frigate may not seem difficult, but to the experienced LAMPS H-2 pilot, the maneuver requires more pilot skill, crew coordination and, in case of aircraft malfunction, has less chance of survival than most helo landings. Lack of visual cues, small pitching decks, tricky winds and the closeness of obstructions must all be overcome to make such a landing.

The Naval Air Reserve Force surpassed the 100,000-hour accident-free milestone on August 6, 1980. The record was achieved by personnel in 50 squadrons, associated units, detts, wings, naval air stations and facilities, and naval air reserve units. Sixteen different types of aircraft ranging from the C-118 to the F-4N, in a variety of missions, were used to attain this zero-accident rate.

Several units recently achieved safe flying milestones: VF-51, 20,000 hours; HC-3, 45,000; NavAirDevCen, 6 years; VS-31, VAW-88 and VAQ-132, all 10 years.

Rescue

AQ2 Cletus Groner of VF-114, Miramar, was recommended for the Navy and Marine Corps Medal in recognition of his heroic action in a recent emergency. After working the late shift one night, he was driving home on an interstate highway when he saw a car hit an embankment and burst into flames. After pulling the trapped occupant from the wreckage and extinguishing the flames on his clothing, Groner remained with him until paramedics arrived and the victim was transported by helo to a hospital. PO Groner said his Navy firefighting training helped him to remain calm and to know how to handle the situation. "I wasn't afraid of the fire," he said, "I just wanted to get the victim out."

Honing the Edge

The *Black Lions* of VF-213, Miramar, won the air station's first annual derby. Under the leadership of C.O. Cdr. Monroe Smith, the squadron outscored all other fleet units and earned 14 competitive Es. Two aircrews, Lt. Davey "Buck" Jones/LCdr. Steve "Pops" Letter, and Lt. Steve "Kodak" Klein/LCdr. Jim "Niceguy" Nise tied for the highest score per engagement.

Peleliu (LHA-5) has had a busy schedule since being commissioned in May 1980. On her maiden voyage from Pascagoula, Miss., to Long Beach, Calif., she carried a composite Marine Corps helicopter detachment aboard. It was comprised of CH-53s, CH-46s and UH-1Ns, and Marines from HMH-361, HMM-163 and HML-167. Flight ops were conducted during transit providing



valuable training for ship's company and the Marine det, as well as the opportunity to log *Peleliu's* first 500 landings. In photo, a CH-53 from HMH-361 launches from her deck.

A Marine Corps OV-10 *Bronco* was launched for the first time from an amphibious ship as part of NATO Exercise *Teamwork 80*. This *Bronco* was one of four which flew from *Saipan* while in the Sound of



Sleat, Scotland. The twin-engine, propeller-driven aircraft has a 2.2-cubic meter cargo bay with a 1,350-kilogram capacity and can accommodate five paratroopers, six combat-equipped infantrymen, or two litter patients and an assistant.

A CH-53 *Sea Stallion* from HMH-461, New River, lifts and carries an OV-10 *Bronco* in preparation for NATO Exercise *Teamwork 80*. The helo crew brought its craft to a hover, then lowered a cargo hook to a ground crew, who attached the hook to a sling cradling the observation plane. The *Sea Stallion* then circled the airfield

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carrying the *Bronco*. CH-53s will be used during *Teamwork 80* to return OV-10s to *Saipan*. *Broncos* aren't cleared to land on aircraft carriers because the arresting gear, designed for other aircraft, gets in the way.



A dissimilar air combat training exercise got under way recently when five F-15 *Eagles* from the 58th Tactical Fighter Squadron, Eglin AFB, arrived at Key West. The *Blackbirds* of VA-45 hosted the one-week event, performing in the adversary role with their TA-4 *Skyhawks*. Activities consisted of 48 sorties and 96 DACM engagements, giving the VA-45 pilots an opportunity to observe the performance characteristics of the F-15 and discuss the various tactics employed by Air Force fighter pilots. LCdr. Tim Higgins, *Blackbird* training officer, commented, "The F-15 is an impressive aircraft. Their pilots are real pros and they fly as a team. You've really got to work hard for a shot."

Et cetera

P-2 *Neptune* BuNo 150279 touches down on the runway at Barbers Point where it will be displayed at the main gate, replacing an F-8 *Crusader* which was turned over



to MCAS Kaneohe Bay. The aircraft was recently taken out of mothballs at Davis-Monthan AFB, Ariz., and flown to the air station. Leslie Ozawa, editor of *Pointer*, took the photo as it arrived after the 12-hour flight across the Pacific from Moffett Field.

The *Blue Angels* announced the names of seven officers who have been selected for the 1981 team. They are: LCdr. Stuart Powrie, Marine Maj. Tim Dineen, Lts. Bob Stephens and Kevin Miller. Also selected were the news events coordinator, Lt. Bud Hunsucker; maintenance officer, LCdr. Al Edmonson; and flight surgeon, Lt. Kevin Wand.

The copilot of an H-3 made an approach to a ship at sea, taking signals from the LSO on the deck. As the aircraft hovered above the deck and the LSO directed the helo, a history-making event was taking place for the Navy. Why was this landing a special one? In this case, the copilot and LSO are husband and wife. LCdr. Dwayne Oslund, aircraft handling officer on *Belleau Wood* (LHA-3), and Lt. JoEllen Oslund, a naval reserve pilot with HC-194, North Island, have been married for two years. This particular landing was the first one on a U.S. Navy ship for JoEllen since she became a

member of a reserve squadron, and the first landing of this type for a woman helicopter pilot in a reserve squadron.

Gil Gerard, star of the TV series "Buck Rogers," receives instruction from VF-121's Lt. Jeff Nickerl, left, while the plane



captain, AMHAN Charles Haselkamp, finishes strapping "Buck" into the back seat of an F-4J. The *Pacemakers* hosted Gerard's introduction to Navy fighter squadron operations which culminated in a flight in the *Phantom*. Miramar's VF-121 is the West Coast F-4 fleet replacement squadron whose mission includes training of combat-ready replacement aircrews, developing and reviewing F-4 combat tactics, and providing general support and guidance to fleet and shore activities concerned with F-4 operations.

Anniversary

Oceana-based VF-143 was joined recently by Miss America, Cheryl Prewitt, while she and her entourage were touring the Far East with the annual Miss America USO troupe. The squadron was celebrating its 30th birthday while deployed aboard *Eisenhower* in the Arabian Sea. The *Dogs* began their story at Alameda when they were called into combat in Korea in 1950, flying F4U-4 *Corsairs*. The squadron transitioned to jets in 1953 with F9F-2 *Panthers*,

and then, in the late Fifties, changed aircraft twice — to F9F-8 *Cougars* and F3H *Demons*. In 1962, the F-4 *Phantom II* became the *Dogs'* aircraft. The squadron transitioned to F-14 *Tomcats* in 1975.

Change of Command

CNATra: RAdm. Edward H. Martin relieved RAdm. Joseph J. Barth.

HSL-36: Cdr. Martin J. Polsenski relieved Cdr. Charles Kiseljack.

NAS Cecil Field: Capt. Jerry Terrell relieved Capt. Ken Moranville.

NS Keflavik: Capt. Peter T. Smith relieved Capt. Thomas J. Keene.

TraWing-1: Capt. John E. Paganelli relieved Capt. William W. Hargrave, Jr.

VC-6: Cdr. David A. Lefavour relieved Cdr. David H. McCulloch.

VF-101: Cdr. David E. Frost relieved Cdr. Francis J. Dougherty.

VP-11: Cdr. Glenn W. Ritchey, Jr., relieved Cdr. John M. Evans.

VP-23: Cdr. Edward L. Naro relieved Cdr. Peter C. Baxter.

VS-33: Cdr. Charles B. Hoover relieved Cdr. Raymond P. Miller.

VT-27: Cdr. James E. Joplin relieved Cdr. Arthur L. Kilpatrick.

PROFESSIONAL READING

O'Leary, Michael, *United States Naval Fighters of World War II in Action*, Poole, Dorset, U.K.: Blandford Press, Ltd., 1980. 160 pp. \$17.95.

This is the story of six U.S. fighters used or developed during WW II. The operational histories of the *Buffalo*, *Wildcat*, *Hellcat*, *Corsair*, *Tigercat* and *Bearcat* are described in detail. This book is liberally illustrated with black and white photos and line drawings of four of these six aircraft.

The

Golden Eagles

In 1911, while attending Crane Tech in Chicago, I became deeply interested in aviation. I was 14 at the time. At every opportunity I went out to McCormick Field where several flying machines were hangared and two or three were being built in huge tents supplied by Harold McCormick. He had bought the land, had leveled it for a flying field and loaned the tent hangars free of charge to anyone building or flying a plane there. He himself was building a plane there, too. The engines of these planes ranged from 15 to 35 horsepower.

A graduate engineer friend of mine, William C. Dennis, suggested that we build small model gliders from which we might learn some facts about stability imparted by dihedral angle of the wings, movement of the center of pressure and various arrangements of tail surfaces.

These we launched from second-story windows. Many of them crashed but others repaid us for all our work. They became our early "text-books" on aeronautical engineering. Few, if any, books on the subject had been published.

My first powered flight was made with Ted Archer in a 35-horsepower, one-seat biplane of the Curtiss Pusher type. I sat on the wing with my feet

By H.H. Karr,
NAP #1 (Deceased)

dangling over, hanging onto a wire on one side and a bamboo strut on the other. The plane bounced badly when the air was rather rough, so it was easy to believe Ted's accusation that my fingers made dents in the strut. This flight pointed to a career I was to follow for the rest of my life — through two world wars.

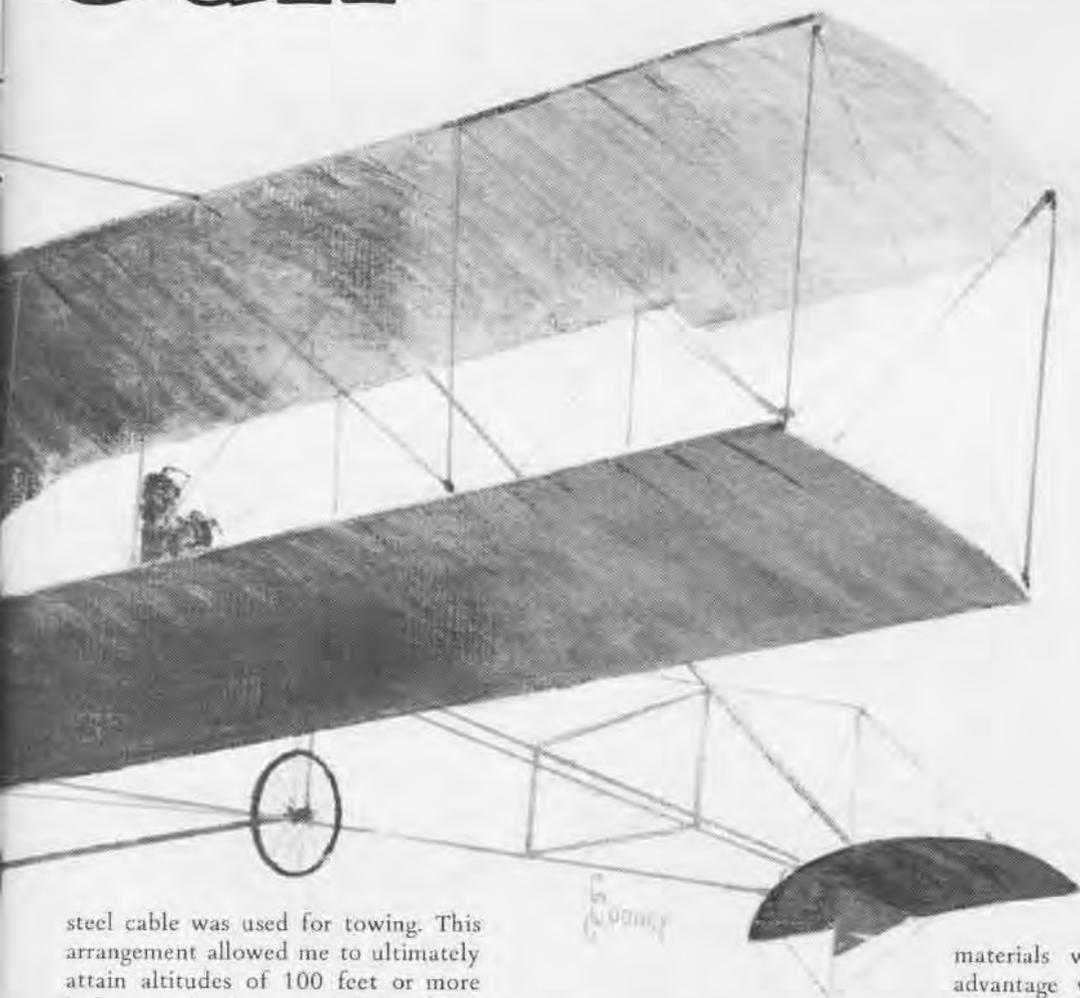
There were no flight instructors at Chicago then. Would-be pilots often built their own man-carrying gliders to be towed by automobiles and cut loose for short flights. For \$20 I bought a partially wrecked glider which was stored in a barn near the field. With the aid of Crane's woodshop, Bill Dennis, Ted Archer and I rebuilt and modified it. Using the knowledge gained from flying models, we gave our lower wing a 5-degree dihedral angle and added 30 percent more tail surface than in conventional

gliders. This added greatly to the inherent stability. Wing spars were made from spruce; struts were bamboo; landing gear struts were ash; brace wires came from a piano factory in Chicago. A tough Japanese paper made a fine wing covering when varnished. We had very small bicycle wheels for landing gear.

A schoolmate, Ken Bahe, had the use of his father's auto for towing and the glider would start to lift off at 35 miles per hour. At first I barely left the ground but, as I became more accustomed to the controls, I got braver and gained altitude. We had the conventional rudder but used a shoulder-yoke control to warp the upper-wing trailing edge for lateral control. A light but very strong



Gull



steel cable was used for towing. This arrangement allowed me to ultimately attain altitudes of 100 feet or more before cutting loose and flying down to the ground in 20 to 45-second flights. No one piled up time very fast on gliders, but the first time I was borne aloft, I was no longer an earthman but an *aviateur-pilote*, as the French called them. Of course, it was not all smooth sailing — gusty winds, rough air and inexperience took their toll — so we learned woodworking as well as flying.

In June, Bill Dennis and I were able to buy a five-cylinder, 50-horsepower French rotary Gnome *monosoupape* (one valve) aircraft engine. It had powered an exhibition plane brought to the U.S. by a French pilot who had been killed when his plane crashed.

Aircraft engines were scarce in those days and the American pilots seemed to be afraid of the gyro effect of the rotating cylinders, so we were able to get it very cheap. Then we started to build an airplane around it. That is, we began the research and development phase of building one.

We were starting from scratch. With Ted Archer's practical experience, Bill Dennis' engineering knowledge and all the help the faculty at Crane Tech cheerfully furnished, we really had many more advantages than many of the early pilots.

Too many fatal crashes had convinced us that positive testing of

materials was necessary. Our great advantage was having access to the shops and laboratories of Crane. The staff was already air-minded and ready to cooperate with us, but designing the testing equipment for the materials used was our own problem.

In a large city such as Chicago, many materials (in the crude) were available which small towns did not have. A lumberyard near the field found it profitable to stock spruce and ash, since these were the two main woods used in early aircraft. We made our own plywood for wing ribs by trimming down spruce to 1/6 inch, gluing two layers together at 90 degrees, and then reinforcing them with small spruce strips (much as it was done in later years on wooden

planes). To make them lighter we cut openings with a chisel.

We determined the strength of the wood by loading small strips to the breaking point, then finding the ratio of increase in strength with larger pieces. High-tensile-strength wire was obtainable from that Chicago piano factory, a metal supply house had steel materials in various alloys in plate and tubing for strut fittings, etc. — very convenient.

The bamboo for struts gave us many headaches. Being hollow, it did not conform to our figures on strength of solid woods, and it varied in strength even though the diameter might be the same. Since the wing struts took only compression stresses, they weren't so vital, but the bamboo members of our outrigger tail had to stand torsion, bending and flexing; therefore, each one had to be tested separately.

Generally, the airfoils were covered with muslin or some other closely-woven light fabric, stretched tight, tacked and varnished. But our success with the varnished Japanese paper on the glider sold us on its use. The other pilots at the field poked fun at us because we carefully tested many of the pieces they merely eyeballed. We did the same on many parts which were not in critical stress areas.

The strength of wing spars was a real problem. We had to compute the decreasing loading-per-foot toward the wing tips, with little but common sense to guide us. A professor at Crane suggested that we determine known stress distribution of railroad bridge truss designs and convert them to wood with a relatively short span but deep truss. We did this but it took hours at the slide rule. Bill claimed he wore out a new rule on the job but, since his greatest interest in the plane was the engineering and not the flying, he was getting just what he wanted.

We made all of our own fittings from medium strength steel, heating and bending it to suit our templates. For the round struts we used sections of round tubing welded to the plates; but cross-bracing in the nacelle required square sockets — not so easy to make. Our major problem was the

large steel-plate engine mount since it would transmit far greater torque and thrust than encountered on any other plane on the field. The stress had to be spread over the wing and nacelle because of the gyro effect of the rotating cylinders.

And always there was the designer's bugaboo — excessive weight. We checked some of the other planes on the field and found they all had very heavy wing and horsepower loadings. It was a wonder that some of them were able to fly at all. We did have the big advantage of a light, air-cooled engine — no radiator, pipes, hoses or water to add to our weight. The *monosoupape* type of power plant weighed as low as 2.97 pounds per horsepower while the La Rhone, another air-cooled rotary, ran as high as 3.67 pounds.

In those days we had a factor of safety on a given plane. Later, in WW I we were quite conscious of it. The British SE 5 chase plane, for example, was said to have a factor of safety of five. By this standard, the Nieuport 18 must have been near two for I have seen a Nieuport shed its wings on a pullout of a dive with no throttle. I have hauled back on the stick of an SE 5 after a 1,000-meter power dive and still had a solid airplane. The safety factor was little known back in 1911, but we were working toward it and keeping accurate records of all of our tests.

We designed and made all our test equipment and were quite proud of it. We had three machines for testing the loading of strips: one real light, one for working in ounces and one which would reach a half-ton load. These all had to be calibrated since they were the pivoted-arm type. We designed and built equipment to test torsion, tension, deflection under compression, and tear for fabrics and paper.

As a result, Crane Tech got the reputation of having a testing laboratory which could test anything — much to the chagrin of our bitter rival, Lane Tech. We had named our bird the *Gull*, but the faculty at Crane said we had picked the wrong bird —

we should have dubbed it the crane since Crane was its mother.

As soon as we were ready to lay the keel, Harold McCormick came out to the field and assigned us a tent hangar. It was large enough for the glider, too, which was a big help. I was continuing the glider flights, so we saved time by not having to haul it back and forth to our barn. The free tent hangars were Harold McCormick's contribution to the cause of aviation.

All during the winter of 1911-12 I alternated between the classroom, the shops, the tent hangar and glider flying — whenever the weather permitted. I progressed to the point where I was making 45 and 60-degree turns from altitudes nearing 100 feet before casting off the tow cable. I could visualize flying a powered machine.

Ted Archer volunteered to test fly the *Gull*. After that I expected to step from the glider to the 50-horsepower plane, but when Lincoln Beachey dropped in one day, he looked at our ship and was interested. He advised me to get some powered-flight instruction. None of our planes had dual controls, so he said he would give me several flights in his Curtiss Pusher. I had five or six flights with him and he was surprised at the proficiency I had acquired with the glider. He was a fine pilot and a fine man, generous with his time, machine and gasoline. He would not let me pay for the flights or the gasoline. (I was terribly saddened when I heard he had a fatal crash on the West Coast.)

We were quite surprised at the results of our comparative tests on Japanese paper and the other fabrics we were using. A section of our varnished paper held almost the same load as the fabrics and it was far easier to apply and repair. In those days, it was a problem to secure the paper to the lower surface of the airfoils because of their negative camber. But by using glue, a reinforcing strip along the rib and some tiny tacks, we avoided separation troubles.

Finally, in mid-summer the plane was completed and ready to test. The throttle had no control between

"open" and "closed," so we had to short out the magneto intermittently to reduce rpm — particularly tricky when starting. Our engine was built to run full power between 900 and 1,000 rpm, and we ordered a special higher-pitch propeller which was handmade partially from laminated spruce.

The *Gull* differed from the other planes at the field. The nacelle rested on the lower wing with the rear partly supporting the engine bearer plate (at the bottom). Our rudder and elevators were controlled by a conventional stick but the ailerons were hinged to the trailing edge of the upper wing. They were operated by a shoulder yoke, wired so that you leaned the way the wing would be depressed, which seemed more natural. The hinged ailerons were much easier to design and attach than the warped wing tips of the glider. Also, the hinged surface moved up and down, while the warped type only moved down. The partially enclosed tandem seats in the nacelle would be much more comfortable at 40 mph.

The magneto short switch on the upper end of the control stick was our only means of slowing the engine down for a glide and landing, or for taxiing. I don't know where the expression came from, but even then we were saying "blimping the gun," which meant intermittently opening and closing the switch.

Before we finished our taxi tests, we found that our engine had very poor oil scraper rings. The high viscosity of castor oil made the plugs foul much more frequently than usual. We kept a tightly-lidded can of acetone handy for washing the plugs when they fouled. And we kept a spare set in the acetone, ready for a fast plug change when needed.

The Gnome was of an unusual design in that it had only one push rod and one valve, the exhaust valve, visible per cylinder. The intake valve was self-actuating in the head of the piston. At the end of the exhaust stroke, the exhaust valve stayed open a short time and drew in some fresh air. When it closed, it created a partial vacuum which, with the inertia of the

valve weight, opened the intake valve and drew in a charge of the rich mixture. This was mixed with the fresh air, making a combustible mixture which was compressed and ignited on the next stroke of the piston. The rich mixture would have washed a mineral-base oil off the cylinder walls and bearings, so castor oil was universally used in all rotary engines. It may also have contributed to the health of the pilots who absorbed their daily dose of castor oil when they flew rotaries in WW I.

On the actual test flight, I rode in the observer or passenger seat with Archer manning the single set of controls. No ship could have performed smoother than ours. Ted's ship had a 35-horsepower engine. In this new one, when he took his thumb off the magneto short button, the plane seemed to leap ahead as though it had 100 horses rather than 50, leaving the ground in half the distance expected. He climbed to 1,000 feet very quickly and made gentle turns and zooms, trying it out to find what effect each change of the controls had on flight characteristics. He stayed up 30 minutes.

You never dared forget for a moment that the gyro effect was dangerous. A quick turn one way or the other could put you into what would later be called a powered spiral or a split-S stall. I took several instruction flights with Ted, preparing for the day when I would solo the ship. This was wise for I learned a lot by just watching Ted handle the machine.

I had butterfly trouble in my stomach when at last it was time for me to fly, time to fish or cut bait. I started up, gave the signal, and began rolling down the field. Up came the tail and in a few seconds I was off the ground and climbing rapidly in a straight line until I reached 1,000 feet. Then I followed Ted's sequence: gentle turns, practice in blimping the gun in a short glide, then climbing again before starting down for my first landing.

The puffs of oil smoke that followed each burst of power told me the cylinders were fouling with oil and

that I was landing just in time. I made a turn, headed into the wind, descending, and touched down. The landing was a good one. I didn't break anything but I was glad we had put extra-strength struts in the landing gear.

I soon learned that the secret of successfully flying the rotary engines was to make no turns less than 75 feet from the ground and to be ready to swing the stick full over to bring up the wing. I gained confidence with each flight and fell into the routine of landing at the end of any 40-minute flight to change plugs.

In August we heard the rumor that the Illinois Aero Club was going to hold proficiency tests in handling aircraft and issue pilot certificates to those who qualified. I was dividing my time between working on my plane and towing the glider for my friend Ken Bahe, who now was taking the glider up whenever he could. Up to now, there had been no specific designation as pilot. If you could fly your airplane, it was assumed that you were a pilot. Now we were to get our "bachelor degrees."

Soon the requirements were posted: "Take off in a straight line; climb to 1,000 feet; make four figure eights (right and left turns) without gaining or losing altitude; then land within 100 feet of a marker on the field; and have at least 20 hours solo in any planes on the field."

The tests were held September 20, 1912, and I was number nine to take the test and pass. It was decided that we would also have "wings" to prove we were pilots. Since there were so few of us, they found a ready-made, gold-filled pin with an eagle in flight, which cost \$1.75. The pins must have been real gold for mine is as bright as the day I put it on at the age of 15½.

While we were building the ship, we had the Gnome engine on a stand in the tent hangar. Looking back, I remember a veteran pilot looking at it and asking, "How much horsepower does it have?" When I told him, he shook his head and said, "That's too much power — it will kill you." I wonder what he would say about one of our super jets!

New Bird But Ace is the Same

Sitting in the cockpit of the F4U *Corsair*, Gregory "Pappy" Boyington looked as much at home as he did 35 years ago, when he led the famous Marine Corps *Black Sheep* squadron against the Japanese during WW II. Beneath an aging exterior, Pappy Boyington at 67 hasn't changed a lot. There are more wrinkles, and a leathery look from years of squinting against the sun, but the natural exuberance remains.

Ever the willing performer, Boyington was guest of honor at the Smithsonian Institution's Garber Facility for the unveiling of a newly restored F4U 1D *Corsair*. The *Corsair* was the aircraft which the *Black Sheep* and many other Marine and Navy squadrons flew with resounding success in WW II.

The plane had many nicknames, among them the *U-Bird* for its distinctive inverted gull wings, and *Whistling Death*, allegedly given by the Japanese because of the whistling sound the aircraft made at high speeds.

Story and photos
by JOC Kirby Harrison



"Pappy" Boyington tries the cockpit of the restored *Corsair* during unveiling ceremonies Oct. 6 at the Silver Hill, Md., restoration facility.



Gregory "Pappy" Boyington's Black Sheep Squadron poses in front of an F4U on an unidentified Pacific island during WW II.

But most important was the air superiority it gave American flyers. The *Corsair* was credited with an 11:1 ratio of kills-to-losses in action against Japanese aircraft. By the end of the war, *Corsair* pilots had shot down 2,140 enemy planes against a total loss of just 189 F4Us shot down in air-to-air combat.

At the ceremonies, Pappy Boyington ducked up into the aircraft's starboard wheel well with a borrowed pen to leave an autograph. And, later, he and more than a dozen of the *Black Sheep* posed beside the plane for photographers.

Looking back at the sleek *Corsair*, poised with its long nose pointed skyward, Boyington grunted.

"Of course, this one is a lot cleaner than we ever kept them," he remarked and grinned.

The restored *Corsair* will go on display at the Smithsonian's National Air and Space Museum in Washington, D.C., this winter as part of a rotating exhibit of rebuilt aircraft.

Smithsonian's restored F4U Corsair awaits public display at the institute's National Air and Space Museum.



1000 TRAPS

The following is a list of those flyers who have made 1,000 or more carrier arrested landings. Ranks may have changed. If we have missed listing you or someone else who is qualified for membership on this exclusive roster, please let us know.

Capt. H. D. Alexander
Capt. Robert B. Arnold
Cdr. Ronald N. Artim
Capt. Stanley R. Arthur
Cdr. Fred Baldwin
Cdr. W. D. Bradshaw
Capt. John S. Brickner
Capt. Edward F. Bronson
Cdr. Emory Worth Brown, Jr.
Capt. Norman D. Campbell
Capt. Guy Cane
Cdr. Roy Cash, Jr.
Capt. W. Lewis Chatham
Capt. Douglas L. Clarke
RAdm. Bryan W. Compton, Jr.
Cdr. Lewis W. Dunton III
Capt. Bud Edney
Cdr. L. L. Elmore
Capt. John L. Finley
Capt. James H. Flatley III
Cdr. Roger P. Flower
Capt. S. C. Flynn, Jr.
Cdr. George Gedney
Cdr. Robert W. Geeding
Cdr. Franklin H. Gerwe, Jr.
Cdr. R. W. Hamon
Cdr. Robert W. Hepworth
Cdr. Marshall A. Howard
Capt. Richard L. Kiehl
Cdr. J. E. Killian
Capt. H. P. Kober, Jr.
Cdr. James A. Lair

Cdr. Thomas V. LaMay
Capt. Bobby C. Lee
Capt. P. H. "Bud" Lineberger
Capt. R. E. Loux
Capt. Roger A. Massey
Cdr. James T. Matheny
Cdr. Hugh "Tony" Merrill
Cdr. Frederick P. Meyers
Capt. Thomas G. Moore
Cdr. J. A. Moriarty
Capt. Melvin D. Munsinger
Capt. "Moose" Myers
Cdr. W. R. "Buzz" Needham
Capt. A. J. Nemo
Cdr. J. P. Park
Cdr. J. W. Partington
Cdr. Richard K. Pottratz
Capt. W. V. Roeser
Capt. David N. Rogers
Cdr. Philip J. Rooney
Cdr. Raymond C. Schroeder, Jr.
Capt. James M. Seely
RAdm. William G. Sizemore

Capt. Leighton W. "Snuffy" Smith
Cdr. Robert E. Smith
Capt. William F. Sparr
Cdr. Gary L. Starbird
Cdr. Raymond F. Sullivan
Cdr. T. R. Swartz
Capt. Jeremy "Bear" Taylor
Capt. Robert C. Taylor, Jr.
Capt. Bert D. Terry
Capt. Dwight D. Timm
Capt. Charles L. Tinker
RAdm. Ernest Eugene Tissot
Cdr. R. E. "Gene" Tucker, Jr.
RAdm. Jerry O. Tuttle
Cdr. John M. Waples
Capt. George Watkins
Cdr. George E. Webb
Capt. D. R. Weichman
Cdr. William W. West
Capt. W. R. Westerman
Capt. Gary F. Wheatley
Capt. John R. Wilson, Jr.

NFOs

LCdr. Arthur E. Critser
Cdr. Jay H. Hall
Cdr. Marvin M. Krupp
Cdr. Richard J. McGuire
Cdr. J. A. Pieno, Jr.



Christmas '79 on Camel Station

By Dan McWilliams

Aircraft engines scream, plane crews scramble, and 30 tons of metal is shot into the air, shattering the morning stillness in the Arabian Sea. Another day begins. The day is Christmas — aboard the Pacific Fleet carrier *Kitty Hawk* on extended operational deployment with other units of the Seventh Fleet.

But the scenario could have taken place aboard any of the U.S. Navy ships at sea, away from home during the holiday that is traditionally a family holiday.

There was no Christmas at home last year for *Kitty Hawk* but the crew was not complaining. As Captain W. Lewis Chatham, then commanding officer, put it, "It's a difficult time to be away from home but the response of the crew has been tremendous."

Kitty Hawk had left San Diego seven months before for her twelfth tour of duty in the Far East. For the 5,000-man crew, it had been seven demanding months away from family and friends, each day bringing with it more than enough work to keep everyone busy. It wasn't PO Bob McPhail's first Christmas away from home. He felt that for him and a lot of the crew, knowing that the people back home were all behind them made separations easier to take.

On Christmas Day, the *Kitty Hawk* family gathered in the hangar bay for a musical show by the Seventh Fleet's Orient Express Band. Afterwards, ship and sailor for the most part spent a hard-earned day at rest. No flight operations, no drills, only a few precious hours to catch up on one's thoughts, letters or sleep. Tomorrow would arrive soon enough.



Kitty Hawk on an earlier deployment.



The Eminent Duck

By James B. Buchanan, ATC, USN(Ret.) (See VJ-1, July 1980, *NA News*, p. 22)

During the first week in December each year, Pearl Harbor is remembered in the newspapers and on radio and TV. It is doubtful, though, that anyone who was not alive on that fateful day can comprehend how in one split second the United States was catapulted from peacetime into total war.

There are many who remember where they were when the news broke and what they did the rest of that day and the next. James Buchanan has some vivid memories. He was there. This is his story.

From the smoldering devastation of the Pearl Harbor attack rose not a phoenix but a noisy, awkward, ugly duck, a Grumman J2F. It was this laboriously slow single-engine amphibian, manned by a pilot and a radio operator, that took off on patrol soon after the first attack had subsided. The radio operator of the little plane was also the gunner, armed with a single-shot Springfield 30.06 rifle — the aircraft's only armament!

Most of the PBVs at Ford Island had been caught on the ground by the Japanese and, of these, only one remained in flyable condition. A few which had been airborne at the time of the attack also survived but, for the most part, the Navy's patrol capability had been virtually eliminated. Two *Ducks* of VJ-1 had somehow avoided destruction and were pressed into service to locate the landing force which, it was widely believed, was certain to follow on the heels of the initial Japanese strike. Curiously enough, there was no sign of the invaders that first day and more patrols were scheduled for Monday, December 8.

I was the radio operator-gunner in the *Duck* flight that went out early that second day. VJ-1 had called on Patrol Wing Two to provide additional pilots and radiomen to fly some of the patrols until the PBVs were back in the air. I was already on TAD from VP-23 to PatWing Two Base

Radio, which in turn offered my services in response to VJ-1's request for help. I had been in on the development of a plan which the PatWing Two staff hoped might lead the enemy, through deceptive communications, to think the Navy had more patrol aircraft in the air than was actually the case. Since I was familiar with the plan, Base Radio was happy to have me in on its execution.

I reported in at 0530 Monday morning and picked up two copies of the communications plan, one for me and one for the pilot. The essential parts of the plan consisted of a list of 10 bogus call signs and the assigned times and frequencies for sending in plain language the OUT, PLAN and IN reports in Morse code on CW. Also, I was instructed to transmit Z signals requesting signal information from Base Radio as often as possible, using a bogus call sign each time. This was designed to insure that I used all of the call signs at least once during the flight.

At 0600 I met my pilot in the VJ-1 briefing room. He was pretty skeptical about the communications plan and cautioned me to make sure I got the PLAN reports out on time, saying, "I don't want any of our trigger-happy knuckleheads trying to blast us out of the sky because they don't know who we are." Then, eyeballing the 30.06 rifle that I had just shifted to my left hand, he said, "What the hell are you going to do with that?" I repeated my briefing instructions: "I am to protect you and our aircraft against attacking enemy planes by shooting them down with this gun, sir." The pilot delivered a few choice remarks, ending with an order: "At no time are you to point that gun forward. I repeat — at no time!"

I sent the OUT report at 0705. From that point on, the flight was a hectic ordeal. At 800 feet, our assigned altitude for the patrol, the flight was turbulent. Also, because I might need to fire the gun at any time, my cockpit was left open and I had to contend with the blustering slipstream. Since the *Duck* wasn't designed to accommodate a 30.06 as part of its armament, I had no place to stow the rifle while working with the radio gear. Tuning coils were stored in a lower compartment in the *Duck*'s hull, and the radioman was obliged to raise the seat and climb down into the hull when one was needed. I had to hang the gun by its strap



Left, from the devastation rose an awkward, ugly Duck. Below left, eight Marines with Springfield rifles were stationed at the portholes of a Sikorsky JRS-1.



from a vertical metal post at the top of the back of my seat. There, it flailed against its strap to the rhythm of the bouncing plane and became a real menace to my back and head.

I had to send the first PLAN report 30 minutes after the OUT report, on a different frequency. This required changing the coils in the receiver and transmitter. Changing the receiver coil was simple because it was small and easily

manipulated. But the transmitter coil was larger and more difficult to handle.

I had to remove the coil to be changed and hold it as best I could while loosening the nuts of the replacement coil. The air was rough and as I struggled in this awkward position the gun butt would slam against my neck and head. After freeing the new coil, I then had to hold it straight out in front of me, align it with the opening in the transmitter, push it into place and tighten the nuts. Only then was I free to use both hands to stow the other coil down in the pontoon and tune the transmitter to the new frequency.

At 0732 my first bogus call sign went out transmitting a Z signal and at 0735 my second bogus call sign was used to send out a PLAN report. I now had 28 minutes to get set up for the 0805 PLAN on a new frequency that required going through the whole awkward procedure again! And after that, another repeat!

It was during a few minutes of respite before the 0835 PLAN that I turned my attention to the rifle. Up to that point I hadn't had time to poke my head out of the cockpit to do any observing. To find out firsthand what it was like to fire a single-shot rifle from the rear cockpit of the bucking *Duck*, I fired two rounds at a whitecap in the bay below, which disappeared before I got the second round loaded.

During debriefing, I expressed my views on the uselessness of a single-shot rifle as armament for the J2F, and on the cumbersome and time-consuming manipulations of the radio equipment for frequency hopping. No comment was made by the debriefing officer. Later that day, I learned that I was scheduled to fly the 0700 patrol again, the next day.

I checked in at VJ-1 operations for patrol briefing at 0630 on Tuesday and found that although the same communications plan was in effect, only one frequency was to be used. Also, our firepower had been greatly increased — eightfold, to be exact. Eight Marines, each with a 30.06 Springfield rifle and a supply of ammunition, were to be stationed at portholes, four to a side, lying athwartship, in our new patrol plane, a Sikorsky JRS-1!

JAN. TO DEC. INCLUSIVE 1980

Subject	Issue	Page	Subject	Issue	Page	Subject	Issue	Page
<i>Sparrowhawk</i> — The Airship Fighter,			engineering	May	8	x-ray, aircraft	Jun	5
Part 1	Apr	22	Naval aircraft series			Review of 1979	Feb	8
Part 2	May	20	FR-1 <i>Fireball</i>	Jul	20	SCORE program	Mar	31
Sweeny letters	Oct	32	HSL-1	Sep	20	Self-Help program,		
HMX-1, mission	Jan	8	TBY <i>Seawolf</i>	Mar	20	habitability	Oct	18
Home-porting, <i>Midway</i>	Mar	8	UH-1 <i>Huey</i>	Feb	20	SERGRAD program	Dec	29
<i>Hornet</i> , air show debut	Jan	4	XF7B-1	Nov	20	Simulators, air traffic		
desert tests	Oct	5	XF1-1 <i>Airabonita</i>	Dec	24	control	Feb	33
development	Nov	8	Naval air stations			flight crew	Nov	14
R&M	Sep	32	Chase Field, self-help	Oct	24	helo	Nov	18
update	May	4	Glenview, history	Mar	22	Smith, R. G., profile	Sep	8
Identification, aircraft	Nov	26	Naval Air Technical Services Facility,			<i>Sparrowhawk</i> — The Airship Fighter		
Insignia			QA divisions	Aug	19	Part 1	Apr	22
HMM-163	Feb	C3	Night Attack, Part 1	Jan	32	Part 2	May	20
HS-4	Dec	C3	Part 2	Feb	34	Squadrons		
HS-8	May	C3	1,000 traps	Dec	40	GMU-41, mission	Aug	31
VA-56	Feb	C3	Operational test director	Jun	32	HAL-5, <i>Ready One 80</i>	Jun	24
	Mar	C3	Overseas flying	Mar	16	HML-267, VIP transport	Jan	15
VA-205	Feb	C3	Pearl Harbor	Dec	44	HMM-263, aboard <i>Nassau</i>	Jan	26
VAW-115	Feb	C3	Petersen, VAdm. F. S.,			HMX-1, mission	Jan	8
VAW-122	Jan	C3	perspective	Jul	8	RVAH-7, disestablished	Jan	22
VC-5	Sep	C3	retires	May	2	VAW-121, 1979 awards	Sep	5
VF-84	Feb	C3	Physiology, air	Jan	18	VAW-123, anniversary	Jul	28
VF-151	Aug	C3	Pilot recall program	Jun	29	VC-1, mission	Jul	22
VF-154	Jun	C3	POWs, Hickerson and Hill	Sep	38	VC-8, mission	Jun	34
VMA-121	Feb	C3	Professional reading	Nov	33	VF-171, aviation ordnance-		
VMFA-333	Feb	C3		Dec	33	men	Jul	16
VMGR-252	Feb	C3				VF-213, anniversary	Jul	28
VP-92	Nov	C3				VFP-206, photo derby	Jul	32
VQ-2	Apr	C3				VFP-306, photo derby	Jul	32
VRF-31	Oct	C3				VMA-513, anniversary	Jul	28
VS-29	Jul	C3				VP-44, leadership	Nov	22
VS-38	Feb	C3				VR-48, established	Nov	34
VT-6	Feb	C3				VR-55, evacuation drill	Dec	28
International flight	Mar	16				VX-1, operational test		
LAMPS MK III	Jun	8				director	Jun	32
LDO aviator program	Dec	28				Survival, radio beacon	Mar	18
LTA reunion	Jul	34				suit	Mar	18
						Sweeny, John F., letters	Oct	32
						Technical manuals, NATSF	Aug	19
						Training, aircrew	Apr	31
						air physiology	Jan	18
						air traffic control trainer	Feb	33
						helo trainer	Jun	30
						<i>Ready One 80</i> , HAL-5	Jun	24
						<i>SeaBat</i> , EW exercise	Jul	18
						surface targets	Jun	31
						<i>Teamwork '80</i>	Dec	4
						undergraduate jet flight		
						system	May	16
						<i>Unitas XXI</i> , 21st year	Sep	3
						Vietnam Veterans Memorial	Feb	3
						VTXTS	May	16
						Warbirds	Dec	16
						<i>Wichita</i> (AOR-1), Wicked Witch		
						of the West	Dec	8
						<i>Yorktown</i> CV-10 Association	May	26

M-P

Martin, VAdm. Wm. I., night		
attack, Part 1	Jan	32
Part 2	Feb	34
Missiles		
<i>Harpoon</i> , fleet exercises	Nov	4
Royal Navy trials	Jun	3
<i>Phoenix</i> , first airborne		
launch	Aug	3
Museums		
Bradley Air	Feb	18
Curtiss, Glenn H.	May	34
Mustin, Henry C., sea sleds	Sep	34
NARF Alameda	Aug	8
NASA, astronaut candidates	Aug	8
space platform	Feb	4
space shuttle, first	Nov	3
Naval Academy, aero		

LETTERS

Perhaps some of your readers would know where I could purchase some photos. I am tired of having people ask me, "You flew in a what?" I want to show them.

William W. Grove
318 Post Avenue
Fayetteville, N.C. 28301

done best, providing insightful information and forging strong links among the members of the Naval Aviation community.

J. E. Doyle, Jr.
7184 University Station
Provo, Utah 84602

Our error

In the September 1980 issue of *Naval Aviation News*, I enjoyed your article on the HSL-1 helicopter, but believe that an extra zero crept into the maximum range, which should be 300 nm vice 3,000 nm.

Capt. R. E. Kirby, USN
Naval Air Development Center
Warminster, Pa. 18974

Oops! Our typewriter stutters — Ed.

Kudos and Request

I want to congratulate you on your September issue. Being a former *Skyhawk* mechanic, I am quite fascinated with the works of R. G. Smith.

I am researching the histories of VF-17, WW II, and VF-84 from the Fifties until the present, and would appreciate hearing from former members of VF-17, and VF-84 personnel, past and present.

James F. Crichton
5644 Radcliffe
Youngstown, Ohio 44515

Catapult Aircraft

I am researching to do a book on catapult aircraft which operated from cruisers and battleships. I would appreciate hearing from any of your readers who were involved in such operations.

Jerry Litwak
2066 S. Baker St.
Santa Ana, Calif. 92707

PV-1 Ventura

I have been searching for good photos of the old PV-1 *Ventura* for the last 35 years and have succeeded in not finding any. Having flown in them as turret gunner for four years, 1942-1945, in Brazil and the South Pacific, I learned to respect them for their durability and their ability to take a lot of punishment.

Diego Garcia

I read your Grampaw Pettibone article titled Indian Ocean Bingo and must comment that all other Naval Aviators should reconsider if their main purpose for going to Diego Garcia is liberty. There is cold beer in Diego Garcia, but that is all there is. If this is considered good liberty, I would recommend that you drop in at your nearest A.A. meeting. I am writing to inform you that Diego Garcia is not a resort area.

LCdr. M. J. Crisafulli, USN
NARF Alameda
NAS Alameda, Calif. 94501

Kudos

Congratulations! Your *Naval Aviation News* for October just arrived. It is superb. Over the many years, I have discovered that each issue of your magazine is a gold mine of information and I have used many items in my physics classes.

Rev. John M. Scott, S. J.
Creighton University
2500 California St.
Omaha, Neb. 68178

When the Navy officer recruiter was here on the Brigham Young University campus, I had a chance to read the September issue of *Naval Aviation News* which he had available.

On page 15, there big and beautiful was a *Whale* from my old unit. The article by Cdr. Rausa was excellent. Anyone who has even a nodding acquaintance with Naval Aviation is familiar with R. G. Smith's work. He succeeds in translating our experiences on to canvas in a way so that time will never be able to erase the memories or their poignancy. Smith's love for aircraft and his respect for the men who fly them are a tangible part of his work.

I am glad to see that *Naval Aviation News* is still doing the things it has always

Any Wildcat Drivers?

Reservists from the NORVA Det 0102 unit at Floyd Bennett Field in Brooklyn, N.Y. are restoring an FM-2 *Wildcat*. We would like to hear from former *Wildcat* pilots. We'd appreciate name, address and any interesting anecdotes. Please send to Virginia Manbeck, 1914 East 27th St., Brooklyn, N.Y. 11229.

Virginia Manbeck
Public Affairs
NORVA Det 0102

Wanted

One graduation book from the 14th Battalion, 1st Regiment Co. #078. Graduated from RTC Great Lakes, Ill., approximately 1972 or 1973. Willing to purchase. Tel. (312) 933-4833.

Debra R. Leonard
8920 South Chappel Ave.
Chicago, Ill. 60617

Reunions

VP-33

Former squadron members would like to hear from anyone who served in VP-33 during WW II. A reunion is tentatively planned for the fall of 1981. Send name and address to:

John R. Zubler
R.D. 2
Spring Mills, Pa. 16875

Test Pilot

The 33rd annual reunion and symposium of the Naval Test Pilot School will take place May 2, 1981 at NATC Patuxent River, Md.

USS Blackhawk

Reunion of USS *Blackhawk* and attached DesRons 5 and 29, May 8-10, 1981, at the Royal Quality Inn, San Diego, Calif. Contact Harold A. Marticke, 437 Elm Avenue, Chula Vista, Calif. 92010 or phone (714) 426-9526.

Aviation Law

A symposium on topics germane to aviation law will be held at the Hyatt Regency of Dallas, Texas, April 2-4, 1981. It is sponsored by the Journal of Air Law and Commerce of Southern Methodist University School of Law. For further information, contact David P. Dyer, at the university, Dallas, Texas 75275. Tel. (214) 692-3465.

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Led by Commander Robert A. Wildman, the Black Knights of Helicopter Anti-Submarine Squadron Four are home-based at NAS North Island, Calif. The squadron was established in June 1952 and was the first helo ASW squadron to deploy aboard an aircraft carrier, USS Rendova (CVE-41). In 1961, it achieved round-the-clock helicopter ASW capability with the SH-34J. HS-4 also participated in the recoveries of five Apollo missions – 8, 10, 11, 12 and 13. Flying the SH-3H Sea King, the squadron is attached to CVW-15 embarked in Kitty Hawk. In the insignia, the squares on the shield symbolize the search for any undersea foe. The fleur-de-lis symbolizes valor, and the top of the shield is shaped to represent the sea.



SQUADRON INSIGNIA



Once again we catch a glimpse of the special vision Christmas gives: "Peace on earth, good will to all." Yet the real world we live in crassly calls, "Not yet." But still how badly we need the vision! We need to keep before us that for which we all work, reach, and pray — "Peace and good will!"

Many of us must spend this Christmas far away from family and loved ones in our effort to fulfill that vision.

Wherever you may be this season may the Christmas message of God's love, God's involvement in our human destinies, and God's ability to bring "Peace on earth, good will to all" touch your life with all its simple power.

Charles L. Greenwood
Captain, CHC., USN
Senior Chaplain, U. S. Naval Academy