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AVIATION'S
ENLISTED
AIR-GROUND
TEAM

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COVERS—Front: Rescue swimmer is hoisted up to an HSL-30 SH-2F during SAR training at NAS Norfolk (JOCS Kirby Harrison). Back: Sigonella T-Line crewmen hook up a tow bar to a station C-131 (PH1 Michael Wood).

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Enlisted Naval Aircrewmembers are a special lot with a long and proud heritage. After reading what the wet aircrew go through, you'll appreciate why they are "Tough Enough To Do the Job." Page 4.



The ground crews ashore and afloat have their hands full. Their business doesn't allow for planning, so they have to be prepared for anything. There's never a dull moment as you will realize when you read "A Day on the Line" at NAS Sigonella. Page 10.



Joseph Frosio witnessed 68 years of Naval Aviation. He joined the Navy in December 1917 and became one of the first Naval Aviation Pilots in March 1923. See "Enlisted Pilot Reflects on Career" on page 12.



Ever wonder about all the different kinds of wings Navy enlisted members currently wear? *NAVNews* has the answers for everything you've always wanted to know about "Naval Aviation Enlisted Wings" on page 13.



Hank Caruso's Seabirds salute the Naval Aviation enlisted ratings with a spread that sums it all up. From servicing ejection seats to tweaking the 'trons, Hank says, "For all you do... this one's for you!" Page 14.



VA-27 received the first Grampaw Pettibone Trophy for excellence in safety communications. The cast bronze trophy of Gramps was commissioned by Paul Warner in memory of Gramps' originator, Capt. Seth Warner, and Robert Osborn. Page 26.

Vice President George Bush was the key participant at the official inaugural marking the year-long observance of the Diamond Anniversary of Naval Aviation at the National Air and Space Museum, Washington, D.C., on January 22.

The highlight of the evening was the presentation of an oil painting by noted aviation artist, Captain Ted Wilbur, USNR(Ret.) to the Vice President. The painting, which depicts the Vice President in his WW II Torpedo Squadron (VT) 51 TBM *Avenger* will be on permanent display at the museum. The reception was also attended by Secretary of Defense Caspar Weinberger, Secretary of the Navy John F. Lehman, Jr., and Vice Admiral Edward H. Martin, Deputy Chief of Naval Operations (Air Warfare). The event, cosponsored by the Navy, the Smithsonian Institution, the National Air and Space Museum, and the Hearst Corporation, was the first of many planned for the year.

Vice President Bush received the Distinguished Flying Cross while attached to VT-51 in 1944. For more details of his Naval Aviation experience, see "Vice President Bush Calls WW II Experience 'Sobering'" on pages 12-15 in *NANews*' March-April 1985 issue.



From left to right, Frank Bennack, President, Hearst Corporation; VAdm. Edward Martin, DCNO(Air Warfare); Ted Wilbur, artist; Vice President Bush; and Dan Coleman, publisher, *Popular Mechanics*, and vice president of the Hearst Corporation, admire Wilbur's painting of George Bush in a WW II TBM *Avenger*. The painting will be on permanent display at the National Air and Space Museum, in Washington, D.C.

Diamond Anniversary Kickoff



NAS Pensacola's 75th Celebration Features Bob Hope and Much More Dial 800-AIR-NAVY for Details

Naval Aviation's official 75th birthday will be celebrated at NAS Pensacola. The celebration staff headed by Cdr. Charles W. "Chuck" Porter has been working closely with the City of Pensacola for several months on the program. Other members of the staff include Edith Carter; Margaret Flowers, the new NAS Pensacola Public Affairs Officer; Ens. Teresa M. Ward, USN, 2ndLt. Ed Hanna, USMCR; and 2ndLt. Drew Jones, USMC.

The May 3-11 schedule, called "Magic Week," looks like this:

May 3 — Fiesta of Five Flags 10K run.

May 3-11 — NAS Pensacola and USS *Lexington* Open House; self-guided walking tours of NAS historical sights; and CNATRA athletic events to include bowling, fishing,

golf, racketball, skeet shooting, softball, tennis etc.

May 7 — U.S. Marine Drum and Bugle Corps and Silent Drill team from Washington, D.C.

May 8 — Hall of Honor Enshrinement Ceremony at the Naval Aviation Museum; and the grand "Gala" at the Pensacola Civic Center featuring Bob Hope (who will be made Honorary Naval Aviator Number 17), the Washington Navy Band, the Naval Air Training Command Choir, and a winging ceremony of new Naval Aviators.

May 9 — Naval Aviation Schools Command graduation; and Olympic-style athletics award ceremony aboard *Lexington*.

May 10 — Sailing Regatta competing for the Cradle of Naval Aviation Cup; and the 75th Anniversary of Naval Air Show with the *Blue Angels*, Canadian *Snowbirds*, WW II *Cat* aircraft, carrier flight demonstrations and displays of the F-16, F/A-18, XV-15 tilt-rotor aircraft and Marine Corps *Harrier*.

During the following week, the City of Pensacola will have its Festival of Five Flags at which time it will salute 75 years of Naval Aviation with a parade on May 15.

For the latest details, call toll free 800-AIR-NAVY (800-247-6289) or log on to DIANA, the 75th Staff's electronic bulletin board (see page 28).

GRAMPAW PETTIBONE

No Room to Assume

"In the groove, do you have a ball?"

"Cobra 112, *Phantom* ball, state 4.3"

"Roger ball."

The carquel evolution continued. Then over the flight deck SRC-22VFH hand-phone circuit came a call of "Foul deck! Foul deck!" from the arresting gear officer (AGO). He had observed a cable support malfunction during arresting cable retract. The air boss, hearing the foul deck call, turned to switch the aft rotating beacon from green to red - to "close" the deck. Two flight deck crewmen ran into the landing area to inspect the arresting cable and repair the malfunctioning cable support bracket as an F-4, which had just landed, taxied clear of the landing area. The arresting gear maintenance officer, running aft to supervise the wire support repair, observed the AGO in the landing area with his outstretched arms crossed overhead - indicating a foul deck.

"Roger ball," acknowledged the controlling LSO. Cobra 112 appeared on the center line, wings level, with two men visible in the landing area.

"That's good. . .now hold it up there . . . a little more power."

"Right for lineup," called the backup LSO as the incoming F-4 neared the ramp.

"Bolter! Bolter! Bolter!" called the LSO as the *Phantom* landed. The arresting hook skipped the #3 wire but picked up #4. The *Phantom* slowed somewhat, then, with throttles at full power, became



The Spring has Sprung

airborne after the #4 arresting cable parted and whipped violently across the deck. Miraculously, no one was injured by the cable. The pilot assessed the situation and diverted his slightly damaged aircraft to a safe landing at a shore base.



Grampaw Pettibone says:

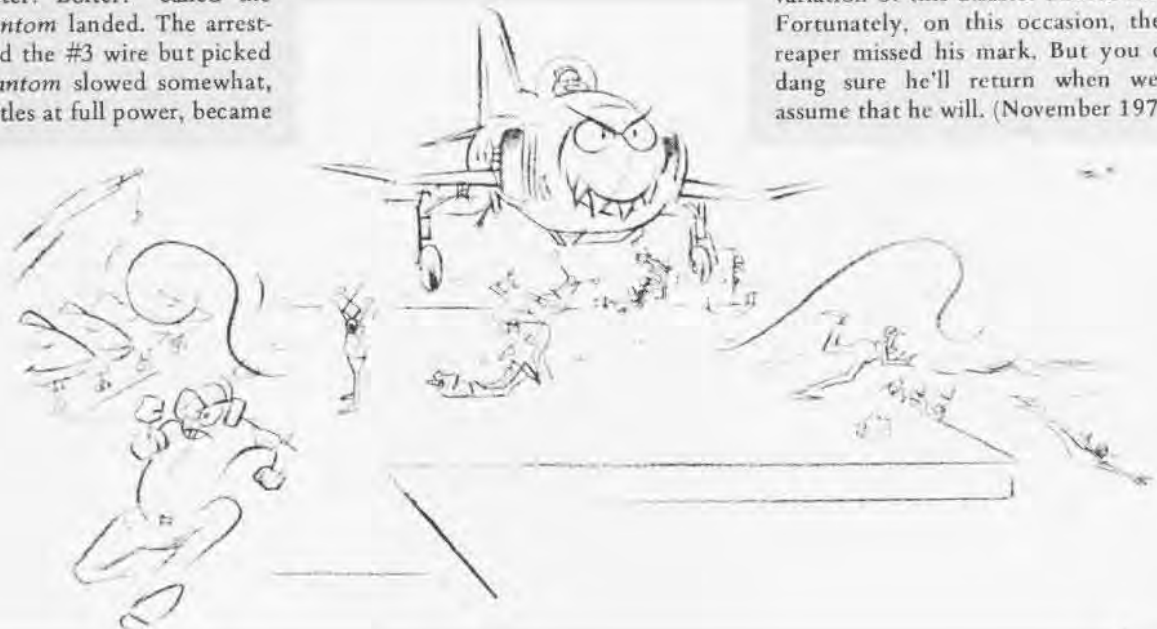
Holy assassinating assumptions! This is enough to make grown men cry, or even worse, die. It was more than miraculous

that no one was injured in this foul deck fiasco. The incident illustrates the potentially catastrophic results that can occur when well-trained and qualified members of the carrier aviation team "assume" things other than their own responsibilities.

The LSOs, directing their attention to the approaching aircraft, assumed the deck to be clear. They failed to observe the men in the landing area and assumed someone would tell them (the LSOs) if the deck were foul. The LSO phone-talker assumed the LSOs heard his repeated foul deck calls. The air boss assumed that the LSOs knew the deck was foul and assumed they would wave off the approaching F-4 since there was no chance for landing. He diverted his attention from watching the deck to getting more aircraft into the pattern, and failed to announce "foul deck" over the flight deck 5mc loudspeaker circuit.

The two wire-check crewmen directed all their attention to repairing the wire support, with no one "hawking" approaching aircraft. They assumed someone would warn them of impending danger. Fortunately, one of them spotted the landing F-4 in the nick of time and they fled the landing area as the aircraft passed over them.

Too many assumptions here! It seems to old Gramps that we go through some variation of this disaster almost annually. Fortunately, on this occasion, the grim reaper missed his mark. But you can be dang sure he'll return when we least assume that he will. (November 1979)



ILLUSTRATED BY *Osborne*

Misaligned Maintenance Misfortune

The mission, although unknown to this crew, was to be an unscheduled A-6E catapult ejection exercise following a 1330 launch. The aircraft, number 505, taxied into position on the number one catapult and was readied for launch. As the catapult fired, the B/N, in his normal procedure, turned his head to observe the left side of the cockpit. He saw the pilot's VDI control box come out of its mount and jam between the stick and the forward instrument panel, forcing the stick full aft. The B/N informed the pilot of the problem. Leaving the catapult, the aircraft immediately pitched 70 degrees nose up. The pilot was unable to move the stick forward. Realizing the situation, the B/N attempted to initiate ejection with the lower ejection handle, while pointing to the control box with his left hand and transmitting "eject" over the JCS. The aircraft climbed to 140 feet and began a slow right roll. The B/N exited shortly after the nose yawed to the right, at 60 degrees nose up and 80 kias. The pilot ejected after his third attempt to grab the lower handle. The aircraft continued to roll off to the right, pitched nose down and impacted the water 12 seconds after launch.



Grampaw Pettibone says:

Great sufferin' supervision! Accidents like this make your hair stand on end. One look at this maintenance program revealed more loose ends than a double tub of spaghetti.

On the evening before the accident, a fire control technician (AQ) was directed by his shop supervisor to troubleshoot four discrepancies on aircraft 505, located on the flight deck. The supervisor failed to notify maintenance control that the aircraft was going in or out of work at any time. The AQ corrected one discrepancy, troubleshooted another and was working on a third (B/N's VTR control box) when another AQ offered to assist with the fourth discrepancy, a malfunctioning VDI pilot's control box (PCB). They decided to troubleshoot the problem by swapping a good PCB from aircraft 504. The first AQ removed the good PCB from 504 and then went back to work on the B/N's VTR control panel. The second AQ connected the PCB cables and slid 504's box into place in 505 but did not secure any of its fasteners. When he discovered that the swap had not cured the discrepancy, he informed the

first AQ but failed to tell him the box was not secured. He left the suspected bad PCB on the pilot's seat and began to assist with the work on the B/N VTR. When this repair proved unsuccessful also, the second AQ left to work on another aircraft. The first AQ now secured the B/N VTR, closed the aircraft canopy, and took 505's original PCB to 504 and installed it.

He informed his supervisor of this action but did not mention the second AQ. A maintenance action form was signed off for the first discrepancy and time was logged against the others.

The supervisor was the only night shift quality assurance collateral duty inspector (CDI). Trusting the work of the technician, he made only a casual inspection of 505's cockpit from the B/N boarding ladder by shining a flashlight through the canopy. Rain showers

were falling on the flight deck and he did not want to open the canopy and get the parachute and cockpit devices wet. He knew of the cannibalization but failed to inform maintenance control.

The canopy was not opened again until one and one-half hours before launch. A thorough cockpit check was never made.

You would think that one of four guys (tech, CDI, plane captain or pilot) would have discovered this loose PCB. Particularly, when this very piece of gear has cost us aircraft and lives before by coming loose on cat shots. It should be considered a safety-of-flight item for CDI and preflight inspections.

Dang it all, gents, this is another costly example of how a job that's only half done is worse than one that isn't done at all. Just how many birds do we dump in the drink before we get the big picture?

(August 1980)



*Troops, tie off
the loose
ends!*

On the hoist, a rescue swimmer is pulled back aboard a CH-46D Sea Knight during training at the NAS Norfolk heliport.



Enlisted Aircrew: Tough Enough To Do The Job

Story and Photos by
JOCS Kirby Harrison

Enlisted aircrew are a tough lot. They are part of a tradition of *tough* that has been passed down since the earliest days of U.S. Naval Aviation — days long before they were known as “aircrew.” Back then, they were called observers, often flying in the open rear cockpit of a biplane.

Marine Corps Gunnery Sergeant Robert Guy Robinson was an observer, and one of those early enlisted airmen. On October 14, 1918, he and Marine pilot Lieutenant Ralph Talbot took their WW I DeHavilland DH-4 aloft to do battle over the fields of Belgium. Separated from their formation by engine problems, they were jumped by 12 German planes. In the ensuing melee, Robinson shot down one of the attackers. Moments later, he was hit by enemy fire and his elbow shattered. His normally reliable Lewis gun jammed. While Talbot desperately maneuvered, Robinson cleared the gun with one hand and continued to fight. Again the young Marine was hit, this time in the stomach. And again, through the thigh. Robinson collapsed over his gun.

Talbot shot down another enemy plane and dived to escape. Dodging ground fire, he crossed German lines at 50 feet and landed at a hospital where Robinson was treated for his wounds and survived. For their actions, Robinson and Talbot became the first Marine pilot and enlisted airmen to win the Medal of Honor.

As U.S. Naval Aviation grew, the role of



enlisted aircrew kept pace. In 1919, eight years before Lindbergh's historic solo transatlantic flight, a U.S. Navy NC-4 flying boat made the first crossing. The crew included Chief Machinist's Mate Eugene "Smokey" Rhoads. Reputed to be one of the best "engine men" in the Navy, Rhoads is given much credit for the success of the NC-4. On at least one leg of the trip, Rhoads actually climbed out of his open cockpit in mid-flight to make adjustments and repairs to keep the four big engines running.

Perhaps of even harder stock was Chief Mechanician E. H. Howard, the man Rhoads replaced on the flight. During routine maintenance the day before the NC-4 left Rockaway Beach, N.Y., on the first leg, Howard had inadvertently reached out and lost a hand in one of the whirling propellers. Dazed, he walked to the nearby dispensary and returned a few hours later with a hastily bandaged stump and implored Commander John Henry Towers to allow him to continue. Towers, the flight commander, reluctantly denied the request and Howard was taken to a

hospital.

By the start of WW II, enlisted aircrew were recognized as an indispensable part of Naval Aviation. They flew as observers, gunners, corpsmen, mechanics and radiomen, in everything from PBY *Catalinas* to TBF/TBM *Avenger* torpedo-bombers. In the early *Avengers*, aircrewmembers were gunners, one in a ball turret behind the pilot and the other at a "stinger" position in the belly looking aft. The introduction of the *Avenger* crews into battle was at Midway, and it was a rude overture. Of the six TBFs that went into the fray, only one came back. It returned with only the trim tab for longitudinal control, one wheel, and the torpedo bay doors were hanging open. One gunner was dead and the other wounded.

As PBYs found their way through the night with the newly discovered magic of radar to bomb Japanese shipping, the aircrews sprayed the enemy with machine gun fire from nose and waist positions. And when Navy and Marine Corps pilots and aircrew went down, enlisted aircrew were aboard the flying boats that pulled them from the sea. There is more than one documented incident of crewmen aboard a flying boat leaping into the ocean to pull an exhausted and wounded Naval Aviator to safety.

Retired Chief Aviation Ordnance Technician Warrant Officer Jim Correll was an enlisted aircrewman with VP-63's *Mad Cats*, a PBY squadron officially credited with sinking three German submarines and shooting down two JU-88 fighter planes.

"I was at North Island when WW II started," he recalls. "A leading chief came up to me and asked if I could fire a machine gun. I spent the next 23 years in Naval Aviation."

On Christmas Eve 1943, Correll was flying from England to North Africa. At about 0300, in a steady rainfall, Correll's plane encountered flack. "We had found the German fleet (actually six destroyers). We radioed the position and stayed around until the information was confirmed. The British caught [the German fleet]. It turned out to be the biggest sea battle of the Atlantic."

It was during WW II that enlisted aircrewmembers won their wings, although some in earlier years had worn the Naval Observer wings. In the spring of 1943, the Navy authorized the wearing of "Air Crew Insignia" by individuals, "having

served, subsequent to December 7, 1941, for a total period of three months as a regularly assigned member of the Air Crew of a combatant aircraft." The insignia consisted of a set of steel wings. Between them was a gold rondel and raised anchor. A scroll above held a star for each campaign, and on a scroll below were the words, "Air Crew." Those who received their wings prior to 1957 are still authorized to wear the WW II-style insignia. Those who received their wings later switched to the new gold wings presently authorized.

In Korea, enlisted aircrew found a new job. They had already begun to appear in helicopters. Rotary-wing aviation was coming into its own and, more often than not, enlisted aircrewmembers were aboard these revolutionary craft — mostly in the job of search and rescue.

After Korea, the value of the enlisted aircrewman grew in proportion to demands for greater skills and responsibility. They were loadmasters on larger cargo and passenger aircraft like the R6D *Liftmaster*. With the advent of high-speed tactical jet aircraft and air-to-air missiles, the job of the gunner became obsolete. But advancing technology opened up new areas. Patrol and antisubmarine aviation expanded, and enlisted aircrewmembers became adept in the operation of more and more technically sophisticated detection gear on planes like the P2V *Neptune* and HSS (SH-34) *Seabat* helicopter. Aboard aircraft like the P2V and P5M *Marlin*, they assumed the responsibility of flight engineers.

Expansion on enlisted aircrew training was minimal following WW II, despite an expanding role throughout Naval Aviation. Dozens of training facilities operated in the U.S. and even overseas. However, there was little continuity and the requirements varied greatly. As aircraft and systems grew more complex, it became obvious that central control and standardization of curriculum was needed.

By the late 1950s, the number of training facilities had been cut and a common curriculum instituted. As U.S. involvement in South Vietnam increased, so did the need for the skills of professional aircrews. In Southeast Asia, they were flying in everything from P-3 patrol missions off the coast of Vietnam to UH-1 helicopter combat with squadrons like HAL-3.

Off the coast of Vietnam, HC-7's *Big*



Sports events, like softball, pit enlisted aircrew classes against one another in friendly rivalry at the Naval Aircrew Candidate School, NAS Pensacola.

Mothers flew combat search and rescue missions from forward-deployed spots on the decks of destroyers. In armored and armed HH-3 *Sea Kings*, they met each strike mission as the aircraft returned to the carriers, ready to pick up survivors whose damaged planes couldn't make it. On frequent occasions, they went "in-country" to make rescues of downed U.S. pilots. From 1967 to 1973, the squadron is credited with saving more than 120 U.S. pilots and aircrewmen, more than half of them under combat conditions.

The Vietnam war provided impetus to eliminate duplication of effort and improve training. It was the same with enlisted aircrew. By 1979, the aircrew schools had been pared down to three, at the Norfolk, North Island and Pensacola naval air stations. A flight physiology program had been added, along with ejection seat simulators and a much more mentally and physically demanding syllabus overall. Four years later, NAS

Pensacola became home for all initial enlisted aircrew training, as well as specialized programs such as rescue swimmer and deep water environment survival training. The facilities at NAS North Island and NAS Norfolk became sites for the required four-year refresher training (refresher training is also available at NASs Jacksonville and Pensacola).

At the Naval Aircrew Candidate School, in Pensacola, the mandate is to provide Navy and Marine Corps candidates from operational squadrons and air stations with the basic survival training and physical conditioning needed to enhance their overall performance and probability of survival.

If it sounds simple *listen* more closely. The physical training emphasizes swimming. The preliminary, to ensure that candidates can swim, includes a one-mile swim wearing a flight suit. From there it goes to treading water and down-proofing techniques. To make it

realistic, candidates wear full flight gear, including helmets, flight suits, life preserver units, G-suits, boots and even gloves.

Then come the "dunkers". Remember the movie *An Officer and A Gentleman*? This is even tougher. In addition to the single-place water-landing simulator, there is a multi-place helicopter dunker. From the outside, it looks like an overgrown beer can with windows cut into it. Inside, it resembles a multi-place helicopter. The candidates normally go through four emersions. The first two are relatively easy. On the third and fourth, they must wear opaque goggles to simulate a night crash landing. With rescue swimmers and corpsmen standing by, the process is relatively safe. But for those involved, when the dunker hits the water with a great splash, rolls over in complete darkness and begins to sink all too quickly, fear and panic are separated from discipline and training by a very thin veneer.



Classroom studies play a major role in enlisted aircrew training. Approximately 40 women graduate each year.

The aircrew candidate is usually wet. If it isn't from salt water in Pensacola Bay or fresh water in a pool, it is sweat from the 1.5-mile run or the 600-yard obstacle course. The run begins easily enough with a shaded trail and short downhill. From there, it hits a series of ankle-deep sand traps, winds through the air station, up and down hills, and ends at the point where it began. Men must complete the course in 11:39 to qualify, women in 14 minutes. The obstacle course is an athlete's nightmare, of tires, walls, four-foot hurdles, balance beams, monkey bars and a maze. If that isn't enough for a sweat, there are three and five-mile conditioning runs and aerobics classes that make Jack LaLanne look like a whimp. There are boxing matches in which the candidates wear just enough protection to prevent injury, and just little enough that they feel every jolt of the opponent's glove. In a controlled helicopter crash, the crew might very well encounter the same kind of pounding. Boxing, the instructors maintain, teaches the confidence and presence of mind necessary to survive in such a situation.

To keep the training interesting, there are frequent "motivational" exercise sessions. Candidates caught day-

dreaming may find themselves paying a price in push-ups. Worse, they may find the entire class paying that price.

Sandwiched between the swimming and the sweat are classroom courses. Detailed lectures cover safety equipment and procedures, aircraft platform familiarization, American Red Cross first aid and cardiopulmonary resuscitation.

The five weeks close with a course in land survival. Candidates learn to eat, and almost enjoy, grubs, snakes and roots that Euell Gibbons would have tossed out. They learn how to find water and how to make it safe to drink. They learn to construct shelters and navigate through rough country. And, as a graduation present of sorts, they are then dropped off in small groups in remote areas of the Florida panhandle to practice what the instructors preach. We're not talking Miami Beach, here. The Florida panhandle is very rough, very desolate country, with little more than berries, roots and armadillos to keep body and soul together if you're living off the land. In the summer, the temperature may reach 100 degrees, and in the winter it gets a lot colder than anyone north of the Mason-Dixon Line could imagine. Maybe not three feet of snow and ice, but cold enough to make aircrew candidates with

little more than a handful of matches and a compass very miserable indeed.

The idea, say instructors, is to teach them that they can survive and, as a team, they can do even better.

"We stress teamwork from the day they arrive," says Aviation Machinist's Mate First Class Perry Pena, who like all the instructors has completed the course himself. "It is the single biggest motivator. If we see someone having a problem, usually all we have to do is pull someone else from the group aside and point out, 'Hey, you're about to lose one of your own.'"

Last year, the drop-on-request rate of loss in the school was less than 5 percent.

Aviation Electrician's Mate Airman Kasey Lambeth, 21, went through Class 85-13 last year. The school graduates approximately 40 women each year. Now at VRC-40 in Norfolk, she wears the gold aircrew wings with pride. Her friends have nicknamed her "Trapper," for her tendency to volunteer for any flight that ends in an arrested landing (trap) aboard an aircraft carrier. She already has 30 traps.

Two days before the final land survival phase, the lanky Virginian was pacing a friend through the obstacle course. With Lambeth shouting encouragement as she ran alongside, the friend scampered up the "chicken walk" and jumped from a seven-foot wall. As Lambeth jumped, she was momentarily distracted and landed on the side of her ankle. "It was a brand new experience in pain," she recalls. She had torn ligaments in her ankle. By the time an ambulance arrived, the ankle was swollen so badly corpsmen had to cut her flight boot from her foot.

"My ankle was already turning black and blue. I spent the night in the hospital. It's funny. When I first got to Pensacola, the guys had grumbled about having a woman in the class. Most of it was pretty good-natured, but I think a few really didn't like the idea. But you know, every guy in that class came to the hospital to visit me. They were terrific."

Two days after the accident, Lambeth wrapped and taped her ankle, laced on a boot two sizes too large, and was dropped with her class into the wilderness for the final survival phase. The ankle hurt, but the part she remembers best was the day they caught an armadillo. "I never knew they could move so fast...or taste so good. We must have been pretty hungry."



An enlisted aircrewman from VRC-40 doubles as a plane captain to turn up a C-1A Trader at NAS Norfolk.



An enlisted aircrew class at NAS Pensacola begins its 1.5-mile run. About 1,700 enlisted aircrew graduate annually.

The end of the five-week school is a graduation ceremony that does not include the passing out of the gold aircrew wings. The graduates are still weeks, even months away.

Some, from the top 10 percent of the class, are invited to stay for an additional four weeks of rescue swimmer training to qualify in search and rescue. To say it is more physically intense than the basic aircrew school is like saying Walter Payton is just another NFL running back.

Rescue swimmer school is made up of the top graduates from basic aircrew school and from volunteer enlisted aircrew already in the fleet. If the four weeks are demanding, there is extra incentive. Every candidate learns prior to accepting orders to the school that if he is dropped for any reason, he forfeits the entire aircrew program.

On graduation, they are assigned to helicopter squadrons or naval air stations, where they will fly as the "wet aircrewmembers" on search and rescue missions.

Some graduates of basic aircrew school are immediately sent to squadrons or air stations to begin training in the specific type of aircraft to which they are assigned. This may range from the RH-53E *Super Stallion* heavy-lift helicopter to the C-2 *Greyhound* long-

range, logistics cargo/passenger plane. Other graduates go on to schools, such as flight engineer training, aerial photography and antisubmarine, before assignment to a unit.

Upon arrival at their permanent duty station, the aircrew candidates are still faced with more work before receiving their wings. They must train for a specific position on a specific aircraft, anywhere from two to 11 months, and then complete a minimum of 50 hours of flight time in the aircraft, or completion of a CNO-approved aircrew training syllabus. The final hurdles are the open and closed-book NATOPS exams and a final checkride in the aircraft.

Most of the Navy's enlisted aircrew are from aviation ratings, however there are exceptions. The corpsmen rating is one of these. They are qualified aircrew, working as in-flight specialists aboard search and rescue helos or medical evacuation transport aircraft.

At 30, Hospital Corpsman First Class John Lancaster is an in-flight specialist. He is also qualified as a first aircrewman aboard the UH-1 *Huey* search and rescue helos out of NAS Lemoore, Calif. The nine corpsmen assigned from the hospital and air station there are qualified for second aircrewmen. They not only assist the pilot by calling

distances at landing zones and carrying out normal aircrew duties, but are also skilled emergency medical technicians (EMTs). They are level one EMT-qualified by the State of California, intravenous certified, authorized to use the MAST trousers designed to protect victims of mass trauma, and skilled in trauma victim stabilization. In addition to almost daily training flights into the mountains around Lemoore, the Navy sent the aircrew corpsmen to a one-week climbing school.

Last November, Lancaster participated in a particularly novel mission out to El Capitan, a sheer 3,000-foot rock spire rising from a valley floor in Yosemite National Park. A climber was stranded more than halfway up the rock side. Cold weather had come in and his ropes had frozen. He was out of food and water. Authorities asked for military assistance and Lancaster was on duty.

"The wind was blowing pretty hard, and the pilot was holding a hover less than 20 feet from the rocks. I could feel the tail of the helo rocking back and forth while we lowered new gear, food and water to [the climber's] spot on a tiny ledge. The thing is, it wasn't me, or the pilot, or any one person. It was everyone working together, doing what we're trained to do. That's what saved that guy. Funny thing. The guy went on and finished the climb before he went down."

Lancaster is one of approximately 185 aircrew qualified corpsmen in the Navy, and just one of more than 10,000 enlisted aircrewmen at nearly 250 squadrons and aviation units.

According to Aviation Electrician's Mate Chief Ray Stanley, in the aircrew detailer's office, those who win their wings and leather flight jacket quickly discover it isn't about gold insignia and leather jackets. "Those are nice, but what aircrew is really about is pride and tradition."

It's about people who are tough enough to do a tough job. ■

NAS Sigonella

A Day on the Line

By Lieutenant E. H. Lundquist

We're open 24 hours a day, seven days a week, 365 days a year," says Aviation Electrician's Mate Chief (AEC) Chris Christensen, leading chief on NAS Sigonella's transient line. "We never close."

Christensen oversees the 28 personnel who serve on the "T-Line," responsible for launching, recovering and servicing of transient aircraft at the busy Italian air base and NATO maritime airfield. The U.S. naval air station at Sigonella is a tenant command which takes up about one-third of the air base. Two squadrons are home-ported here, Fleet Logistics Support Squadron (VR) 24 and Helicopter Combat Support

Squadron (HC) 4. There is always a deployed patrol squadron at Sigonella. Presently it is VP-49. Sigonella also has two C-12s, three C-131s and a VP-3A as station aircraft.

The flight line is busy. A B5 maintenance stand is positioned so the Operations Maintenance Division (OMD) can work on a C-131. Two more are in place under the engines of a visiting VR-22 C-130 *Hercules* from Rota, Spain. An ambulance transfers a stretcher-bound patient to a waiting VR-24 CT-39G *Sabreliner*, which departs immediately for a hospital in Naples. An NF2 portable light cart is towed over to an HC-4 CH-53E *Super Stallion*, while VR-24 personnel wash one of their C-2A *Greyhounds*.

Contractor personnel maintain one of the station C-12s, while Navy and Marine technicians work on their F/A-18 *Hornets* before the aircraft return to USS *Coral Sea*. One T-Line crewman goes out to marshal a C-131 for "turn-up," while one of his shipmates plugs an NC-8 power unit into the aircraft to start it.


The yellow helmets and vests with silver reflective "Ts" catch the afternoon sun, making the show colorful and interesting.

There are fuel trucks and small security department three-wheel "lizards." A large portion of the flight line is dug up for construction of a new hangar for HC-4.

Everywhere there is noise.

A C-5 *Galaxy* lands, the second in 30 minutes. As the T-Line brings the aircraft

PH1 Michael Wood



A Marine gives an F/A-18 a freshwater wash-down on Sigonella's busy flight line. Aircraft from four Hornet squadrons deployed aboard USS *Coral Sea* are rotated to Sigonella periodically for cleaning, maintenance and corrosion control.



A CH-53E Super Stallion from HC-4 sits on Sigonella's ramp. CVW-13 Hornets are in the background.

PH2 Ron Ambroseno

in, a C-23 leaves, a P-3 comes in, and a C-2 unfolds its wings and heads to the hold short line. The C-5 is so high and big that the T-Line crew seems small. C-5s can't be towed at Sigonella. They must be parked correctly the first time.

An Air Force bus picks up the crew which will stay overnight. Another Air Force team moves its cargo, while a Military Airlift Command detachment stands ready to perform any maintenance.

There is an incredible variety of aircraft at Sigonella. There are NATO E-3s, French *Mirages*, Dutch F-27s, German F-4s, Malaysian A-4s and RAF *Nimrads*, to name a few. Venerable RAF *Shackletons* park beside brand-new F/A-18s. U.S. Air Force aircraft range from small C-21s and C-23s to C-141s and huge C-5s. In FY 85, Sigonella's transient line handled over 3,000 visiting aircraft, not counting those from carrier air groups or wings, Marine air wings or station aircraft.

The Italians handle their aircraft on their side of the base at Sigonella, and the local squadrons "take care of their own" on the flight line. Aircraft destined to go to the air terminal with passengers or cargo are handled at the terminal, leaving the many transients passing through Sigonella, as well as station aircraft, to be handled by the T-Line.

The T-Line never looks the same from one day to the next. This busy place requires four-section duty from 1615 until 0715 the following day. Launching aircraft starts with making sure there's proper fire-fighting equipment available. The director marshals the aircraft

using hand signals, assisted by his wing walkers who escort the aircraft being moved so they do not hit another plane or object.

When the pilot starts turning his engines, the T-Line crew scans the area to ensure it is free of foreign object debris and that the aircraft has a clear turn zone. "We insure a proper and safe start," Christensen says. "We check for smoke, fire, leakage and any abnormalities.

"When the aircraft gets clearance, we taxi it out of a congested area so that it's clear of any other plane or equipment," he says.

"To recover aircraft," Christensen says, "we essentially do the same in reverse. We have to look at the ramp and decide where to put the aircraft, if it has any special requirements, and whether other aircraft will be able to move or receive maintenance. We always have to be ready for the unexpected."

Local crews know their way around, he says, but transients need help in getting their fuel, liquid oxygen, hydraulic fluid, lubricants or other servicing. They might need assistance in offloading passengers and cargo, or the crew might need billeting.

"This is often their first view of Sigonella," the chief says. "We want it to be a good impression." Transient crews typically want to know where the exchange is, and where to exchange money and get transportation. "Our people are ready to help out."

Dealing with the many nationalities that visit Sigonella's T-Line is one of the most interesting parts of the job. "Being

the first people whom [visitors] meet makes us ambassadors of NAS Sigonella and the United States," says Aviation Boatswain's Mate First Class Ken Tenpenny, the T-Line's leading petty officer.

Personnel at Sigonella sometimes take part in international events. The world knows that an Egyptian 737 was diverted there carrying the alleged *Achille Lauro* hijackers, but many other events have taken place in the Mediterranean that have involved Sigonella in some way.

T-Line sailors are expected to qualify in every job on the line and they are urged to become licensed to operate as many different types of equipment as possible, ranging from electrical power units to tow tractors.

"Some of my people have eight to 10 licenses. Some are used rarely, but some are used everyday," Christensen says.

Sigonella's AIMD handles intermediate level maintenance and the OMD performs organizational level maintenance. "If a transient aircraft goes down," he says, "even though we're actually three different divisions, we're one team when it comes to quickly getting that aircraft up."

The T-Line supplies "Follow Me" trucks to escort vehicles and aircraft out on the airfield. It is also responsible for maintaining the three E-28 and two E-5 arresting gears at Sigonella.

The T-Line's dispatcher stays in constant contact with the tower and air terminal to keep up with the flow of traffic. Chief Christensen has a shift supervisor and field supervisor to help direct T-Line personnel.

New personnel start out as wing walkers and, within six months, they can take care of any aircraft.

"Just six months out of school, my sailors are handling the world's best aircraft," he says. "They are responsible for the aircraft's movement, clearance and overall safety. That's a big responsibility," Christensen says.

T-Line sailors know their job is important.

"It's an important link in NATO," says ABH1 Bill Sands.

"Sigonella is the lifeline of the Mediterranean," adds Christensen.

But perhaps ABE3 Charles Miller best sums up the T-Line's importance, "These pilots depend on me and how well I know my job." ■

Enlisted Pilot Reflects on Career

By JO2 Russ Sawyer

The lines of his face may each represent a decade from this past century. His times from this period were joyous, fulfilling, sad, unfortunate, but rarely forgettable. For this man, for that face, the memories are as vivid as the handshake is strong. Joseph Frosio is no ordinary aviator. He is 93 years old. He is history.

Born April 10, 1892, Frosio decided to "help whip the Kaiser" and, in December 1917, stormed his recruiting station in San Diego. When the recruiter asked Frosio if he was interested in becoming an aviator, it was like a duck taking to water.

In the spring of 1918, Frosio joined 100 others in commissioning NAS San Diego. At that time, he was a machinist's mate second class. In 1920, Frosio finally requested flight training and made it into the second enlisted men's flight training class at Pensacola. He was assigned to Class 7 and had soloed in N-9s when his "cockiness" got him booted out of school.

"I thought I was getting pretty damn good at that time. During a formation takeoff, I neglected beach courtesies and the plane's slipstream ahead of me sent me tumbling in. The skipper, A. C. Read, had a little talk with me and I was justifiably dropped from the class."

In late 1922, Frosio got a second chance for his wings. A special class of about 10 students was set up at North Island to train ship-plane pilots. They trained in Curtiss JNs and Liberty-engine DeHavillands. Frosio received his Naval Aviation Pilot designation March 3, 1923.

Frosio's naval career continued until 1926, when he came face to face with the prospect of qualifying on *Langley*, the Navy's first aircraft carrier.

"That was quite an experience," Frosio recalls. "Here I was, way up in the sky looking down at something that resembled a matchbox, thinking, 'I must



Joe Frosio proudly displays his 1972 Silver Eagle award.

be crazy, I'm turning back.' Well, it was funny how the whole situation turned out. The pilot in front of me was the bossman. He was in charge of the rest of us and he was consoling me, telling me not to worry about it. As it turned out, he beached his plane and I landed on board like it was duck soup, though I was scared as hell. He was so upset that he said, 'Damn you, Frosio, you think you're so good, you go up there and land a dozen more times.' Well, he was the boss and that's what I had to do....

"When they sent us out on a mission, it was 'good luck, guys, see you around.' We didn't have radar or any of that fancy stuff."

In 1935, Frosio requested duty at NAS Lakehurst, not knowing it would entail 0430 weather hops on a daily basis. And he was a witness to the *Hindenburg* disaster in May 1937.

"We [my wife and I] heard the landing cables strike our house's roof when the thing came by," Frosio remembers. "They [airships] had made many landings at Lakehurst before, and it was ironic because the base sailors' liberty would be secured so they could assist in the landing. Well, they always complained about [the airships] coming in, but you would never have thought those guys would risk their lives when other folks were running away from the burning wreck.

"You see, the base residential areas of Lakehurst were only about 500 yards away from the *Hindenburg*. My wife and I saw the entire thing. It was like a silent movie. You didn't hear any screams, just the visual [experience] of seeing that thing on fire."

Two years later, after 20 years of naval service, Frosio retired — only to return in 1942 as a warrant officer machinist. He requested refresher flight training, and his wings were reissued May 1, 1943. Following that, he went to Guantanamo Bay, Cuba, for a 16-month tour. There, he was promoted to ensign and lieutenant junior grade. Reporting back to Pensacola to train British pilots, Frosio made lieutenant in July 1944. He finally retired "for good" on December 31, 1947.

Frosio's career certainly did not slow down after military retirement. He obtained his bachelor's degree in education from Florida State University in 1953 and his master's degree two years later.

For his work with local boys' clubs, Frosio received a number of awards. He is currently one of the oldest living Silver Eagles, an organization for all Navy, Marine Corps and Coast Guard enlisted pilots.

Frosio's sons shared their father's love of the Navy. "My two sons were both Navy. One is retired and my other boy was shot down over Hanoi on November 12, 1966. He is still missing in action. He was the commanding officer of Attack Squadron 12."

When comparing today's Navy with the Navy of the past, Frosio notes, "Today's enlisted man gets more consideration than he did in my day. I'm glad to see it has changed over the years." ■

Just before press time, NANews learned of Mr. Frosio's death on January 30.

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Naval Aviation Enlisted Wings

Besides the insignia that Naval Aviation enlisted personnel wear on their sleeves for their respective aviation ratings, they may also earn various wings signifying other special achievements and skills.



Naval Aircrew



Combat Aircrew

A winged breast insignia for enlisted aircrew members was first established during WW II. The wings had a center disk containing a fowl anchor with a scroll below reading "AIR CREW" and a bar above with stars. In 1958, this design was redesignated Combat Aircrew insignia. It remained in use by the Marine Corps but was discontinued by the Navy, which adopted Naval Aircrew wings with the "AC" superimposed over an anchor in a disk. Combat Aircrew wings are presently worn by Marine Corps enlisted personnel and some limited duty and warrant officers who qualified for them previously. Naval Aircrew wings are worn by qualified Navy and Marine Corps enlisted members.

Individuals holding the aircrewman Navy enlisted classification code (NEC) are regularly assigned duties aboard both fixed and rotary-wing aircraft. Missions include long-range patrol, antisubmarine warfare, airborne early warning, carrier on board delivery logistics/tactical support, and search and rescue.

Aircrew personnel represent a cross section of most of the enlisted aviation occupational fields. The only rating for which an aircrew NEC is mandatory is that of aviation antisubmarine warfare operator.



Aviation Warfare Specialist

A second set of Navy enlisted wings was adopted in 1980, with the implementation of the Enlisted Aviation Warfare Specialist program. These wings carry a center shield with a fowl anchor and scroll below reading "AIR WARFARE." They are presented to petty officers who have served at least two years of sea duty in an aviation assignment aboard ships, aviation squadrons/detachments or aviation-related staffs afloat. The designation Aviation Warfare Specialist signifies that an individual has acquired specific skills, knowledge and military experience, and has demonstrated exceptional professional competence while assigned to an aviation unit.

Aviation personnel who qualify are authorized to wear Aviation Warfare Specialist wings, and the letters AW in parentheses are added to their rating designations. The specialty is not open to officers, but limited duty and warrant officers who qualified prior to commissioning retain the privilege of wearing their wings.



Basic Parachutist



Parachutist

In years past, parachute riggers, now called aviation survival equipmentmen, were required to make at least one jump with chutes they had packed. This is no longer a requirement. The Navy does,

however, continue to operate a parachutist's program at NAS Lakehurst, N.J., for those assigned to jump billets requiring this specialized training. The courses are attended by both officers and enlisted personnel, many of whom are not connected with the aviation community.

Three weeks of instruction and five static-line jumps earn a student the silver Basic Parachutist device, consisting of an open parachute flanked on each side by wings curving upward and inward to join the edge of the canopy. After another five jumps, a Basic Parachutist may upgrade his qualification to Parachutist, who wears an insignia featuring a gold open parachute centered on straight, silver wings.

The prerequisite for an advanced naval parachutist course is 25 jumps, and another more advanced course results in certification as a jumpmaster.

Marines earn their Basic Parachutist wings at the Basic Airborne School, Fort Benning, Ga., or another airborne school approved by the Commandant. The qualifications for earning Parachutist wings are the same as for Navy personnel.



Marine Aerial Navigator

The evolution of the Navigator wings made the complete circle in the Marine Corps. Enlisted Navigators changed insignias several times during a 25-year period but began and ended with Navigator wings. In 1951, they switched to Naval Aviation Observer wings, then to Naval Aircrew wings in 1968, and back to the Navigator wings, with a compass in the center superimposed over two fowl anchors, in 1976. Known today officially as Marine Aerial Navigator wings, they are also worn by Marine warrant officer Navigators. ■

PLOTTING

Enlisted personnel plotting a career course in today's Navy have a wide variety of choices in the aviation field. From aviation boatswain's mate to aircrew survival equipmentman, the jobs are challenging and rewarding for the individual and essential to Naval Aviation's mission.

The following are brief descriptions of the enlisted aviation ratings and some of the jobs performed in each. General qualifications common to many of these ratings include physical strength and manual dexterity; competence with hand tools, test equipment and machines; and the ability work well as a team member. Other requirements may be skills in speaking, writing, math and record-keeping and performing detailed work. More information is available from recruiters or Navy career counselors.



Aviation Boatswain's Mate (AB)

Aviation boatswain's mates play an important part in launching naval aircraft quickly and safely from land bases or ships. This includes preparing and fueling aircraft prior to takeoff and securing them after landing.

They may specialize in catapult and arresting gear launching and landing aircraft on the flight deck of an aircraft carrier (ABE); moving aircraft, rescue gear, cranes and similar equipment (ABH); or fuels (ABF). Later in their careers, ABs can earn the advanced AB rating that requires supervision of all these individual specialties.

The ABE rating is closed to women.

What They Do

- Perform ground or deck duties involved in the takeoff or landing of aircraft.
- Operate, maintain and repair aircraft launching and recovery equipment.
- Perform crash fire-fighting duties and maintain fire and rescue equipment.



Air Traffic Controller (AC)

Like civilian air traffic controllers, Navy ACs are responsible for the safe and orderly movement of aircraft into and out of air facilities. They also control the movement of aircraft and vehicles on the taxiways and issue flight clearances to pilots



Thanks . . .

For fitting the helmets
and stuffing the vests
For rigging the 'chutes and
the seats and the rest . . .



For stocking the parts
and filling out forms
For battling the schedules
and paperwork swarms . . .

All Seabirds Illustrations copyrighted by Hank Caruso

YOUR CAREER COURSE

by radio. In the Navy, the landing area may be the deck of an aircraft carrier or an airfield.

ACs must be U.S. citizens and eligible for security clearance.

This is a five-year enlistment program.

What They Do

- Control air traffic at airfields and on aircraft carriers.
- Direct air traffic by means of radio, radar and flashing light signals.
- Provide aircraft with information regarding air traffic, navigation and weather conditions, including local ceiling, visibility and clouds.



Aviation Machinist's Mate (AD)

Aviation machinist's mates are aircraft engine mechanics. They inspect, adjust, test, repair and overhaul aircraft engines. They specialize primarily in jet engines, but a few specialize in reciprocating (piston) engines. ADs also perform routine maintenance, prepare aircraft for flight and assist in handling aircraft on the ground.

What They Do

- Maintain and service aircraft and their systems (fuel, oil induction, cooling, compression, combustion, turbine and exhaust).
- Handle and service aircraft on the ground and on ships.
- Evaluate jet engine performance, using jet test cells for fixed turbojet engines.



Aviation Electrician's Mate (AE)

Aviation electrician's mates are aircraft electricians. They maintain a wide range of electrical and navigational equipment in aircraft, including power generators; power distribution systems; lighting systems; flight instrument systems; and fuel, temperature and pressure-indicating systems. They are also trained in computers to support state-of-the-art equipment.

AEs must be U.S. citizens and eligible for security clearance.

What They Do

- Test, install and maintain aircraft instruments and electrical equipment, including generators, motors and lighting systems.
- Perform electrical troubleshooting.
- Maintain inertial navigation systems.



Aerographer's Mate (AG)

Aerographer's mates are the Navy's meteorological and oceanographic experts. They are trained in the science of meteorology and physical oceanography and learn to use instruments that monitor weather characteristics, such as air pressure, temperature, humidity, wind speed and direction. They distribute weather information to aircraft, ships and shore activities.

AGs must be U.S. citizens and eligible for security clearance.

What They Do

- Collect, record and analyze weather and oceanographic information.
- Prepare up-to-date weather maps and oceanographic data.
- Operate, program and maintain computers and related equipment.



Aviation Storekeeper (AK)

Aviation storekeepers ensure that materials and equipment needed for Naval Aviation activities are available in good order. They do jobs equivalent in civilian life to inventory clerks, warehousemen, forklift operators, shipping and receiving agents, supply clerks and typists.

What They Do

- Keep fiscal records of the facility.
- Order, store, check and issue naval aircraft and aeronautical equipment and accessories, including flight clothing.
- Organize and set up files for correspondence, reports, stock cards and other accounting systems.



Aviation Structural Mechanic (AM)

Aviation structural mechanics install, maintain and repair the metal structures of aircraft, movable aircraft parts and their control systems, and aircraft body surfaces.

They also maintain and repair utility systems, such as aircraft air conditioning, heating, pressurization and oxygen; safety devices, such as canopy and ejection systems; fire

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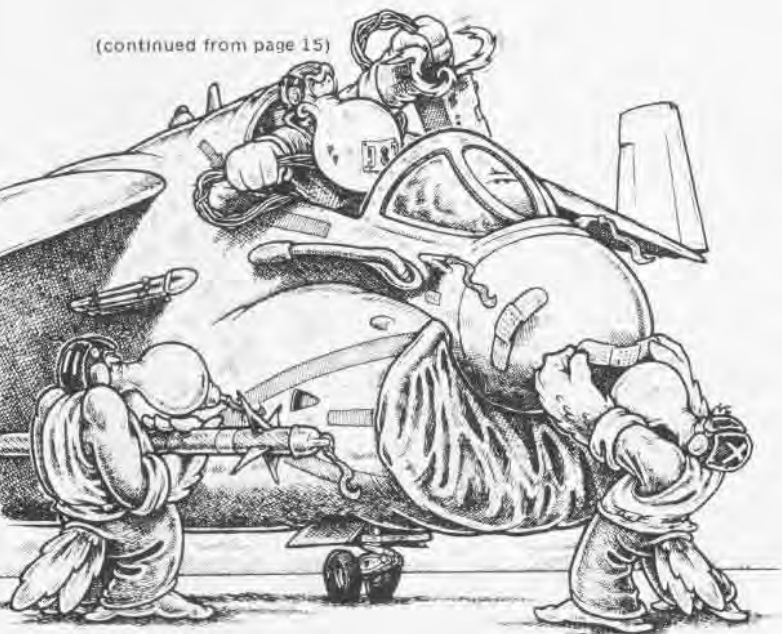


Naval Aviation's Enlisted Personnel



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(continued from page 15)



For bending the metal and tweaking the 'trons
For greasing the fittings and loading the bombs . . .

detection and extinguishing systems, and safety belts and harnesses. They may specialize in safety equipment (AME), hydraulics systems (AMH) or metal structures (AMS).

What They Do

- Maintain and repair aircraft parts and equipment.
- Maintain operating efficiency of air conditioning, pressurization, oxygen systems and ejection seats.



Aviation Ordnanceman (AO)

Aviation ordnancemen are aircraft armament (weapons) specialists. They are in charge of storing, servicing, inspecting and handling all types of weapons and ammunition carried on Navy aircraft.

AOs must be U.S. citizens and eligible for security clearance.

What They Do

- Inspect, maintain and repair aircraft mechanical and electrical armament/ordnance systems.
- Service aircraft guns and accessories.
- Assemble, test and maintain air-launched guided missiles.



Aviation Fire Control Technician (AQ)

Aviation fire control technicians are electronics specialists responsible for the upkeep of weapons control systems on Navy aircraft. These systems incorporate solid-state radars and computers.

Enlistment in this rating presents the opportunity for personnel to enter the Advanced Electronics Field after certain training criteria are met. The active duty obligation is six years — a four-year regular enlistment with a two-year extension due to prolonged training.

AQs must be U.S. citizens and eligible for security clearance.

The rating is closed to women.

What They Do

- Operate, maintain and repair fire control (weapons direction) equipment used to launch and control missiles and for bomb delivery.
- Operate test equipment such as analog and digital-computerized test benches, multimeters, digital voltmeters and oscilloscopes.



Aviation Support Equipment Technician (AS)

These technicians operate, maintain, repair and test the ground equipment used in handling, servicing and maintaining aircraft and aircraft equipment. They specialize in electrical components (ASE); hydraulics and structures (ASM); and mechanical functions (ASM).

What They Do

- Replace electrical components of power generating units.
- Use precision measuring equipment and electrical test equipment.
- Identify characteristics of electrical and electronic circuit parts.



Aviation Electronics Technician (AT)

Aviation electronics technicians maintain the advanced radio, radar and electronics equipment on aircraft. They are responsible for the operating efficiency of equipment used for communications, navigation, automatic landings and identification of friendly and enemy aircraft. Their work is in three basic categories: equipment testing and analysis, maintenance and repairs, and administrative tasks.

Enlistment in this rating presents the opportunity for personnel to enter the Advanced Electronics Field after certain training criteria are met. The active duty obligation is six years — a four-year regular enlistment with a two-year extension due to prolonged training.

ATs must be U.S. citizens and eligible for security clearance.

What They Do

- Test, maintain and repair airborne electronics equipment
- Check and repair navigational and search equipment
- Make comprehensive circuit repairs of component parts, assemblies and subassemblies.



Aviation Antisubmarine Warfare Operator (AW)

In fixed-wing aircraft and helicopters, aviation antisubmarine warfare operators handle airborne electronic equipment used in detecting, locating and tracking

submarines. They also operate radars to provide information for aircraft and surface ship navigation.

People in this rating may also act as helicopter rescue crewmen. The selection process for the helicopter training pipeline is made at the Naval Aircrewman Candidate School, Pensacola, Fla.

AWs must be U.S. citizens and eligible for a secret security clearance.

This rating is closed to women.

What They Do

- Operate highly sophisticated acoustic signal-processing equipment to detect, locate and track submerged submarines.
- Perform aircraft-to-target intercepts, using airborne radars and electronic surveillance equipment.
- Operate radar and magnetic detection equipment for aircraft navigation and target acquisition.



Aviation Antisubmarine Warfare Technician (AX)

Aviation antisubmarine warfare technicians are electronics technicians responsible for keeping antisubmarine warfare systems and equipment in good operating condition. Aircrew volunteers perform in-flight maintenance of airborne electronics systems. AXs also debrief flight crews and perform some administrative tasks.

Enlistment in this rating presents the opportunity for personnel to enter the Advanced Electronics Field after certain training criteria are met. The active duty obligation is six years — a four-year regular enlistment with a two-year extension due to prolonged training.

AXs must be U.S. citizens and eligible for security clearance.

What They Do

- Aircrew volunteers perform in-flight maintenance of airborne electronic systems.
- Perform a wide range of electronic shop operations.
- Maintain operating efficiency of ASW equipment.



Aviation Maintenance Administrationman (AZ)

Aviation maintenance administrationmen perform a variety of clerical, administrative and managerial duties necessary to keep aircraft maintenance activities running smoothly.

AZs must be U.S. citizens and eligible for security clearance.

What They Do

- Schedule aircraft inspections.
- Keep charts that show trends in aircraft systems reliability.
- Perform a wide range of clerical and administrative duties related to aircraft maintenance, such as preparing reports and correspondence, filing and typing.



Photographer's Mate (PH)

Photographer's mates are the Navy's professional photographers. They operate different kinds of cameras on a variety of assignments. PHs cover news events and provide photographs for release to Navy and civilian publications or for use in historical documents.

Their work may include portrait photography, photographic copying, aerial photography for mapmaking and reconnaissance, and the preparation of training films and other types of motion pictures. They are also responsible for camera maintenance and repair, as well as film processing.

PHs must be U.S. citizens eligible for security clearance.

This is a five-year enlistment program.

What They Do

- Operate, maintain and repair various types of cameras for a variety of uses.
- Perform duties as members of flight crews.
- Operate laboratory and darkroom equipment for film processing.



Aircrew Survival Equipmentman (PR)

Aircrew survival equipmentmen are responsible for keeping parachutes and other aviation survival gear in proper working condition.

What They Do

- Inspect, maintain and repack parachutes, flight clothing and other types of survival equipment.
- Inspect and test safety equipment.
- Maintain and test flight clothing and other types of survival equipment such as rubber life rafts, life jackets, oxygen breathing apparatus, protective clothing, signal equipment, air-sea rescue equipment and aircraft seat ejection system parachutes. ■



For all you do . . . this one's for you!

By Harold Andrews

The North American *Mitchell* medium bomber of WW II is best remembered, especially in a naval context, for the 16 Army B-25s launched from USS *Hornet* and led by then Army Lieutenant Colonel James H. Doolittle for the first U.S. raid on Tokyo in April 1942. In contrast, the use of 706 *Mitchells* (of the total of 9,816 B-25s built) as Marine PBJs is largely a "forgotten aspect of WW II air warfare.

In keeping with other Army (and Navy) aircraft during the 1939-41 military buildup, the B-25 was ordered into production "off the drawing board." North American's design was based on a company-financed attack-bomber prototype flown early in 1939 and inherited many of its design features, such as its twin-engine, mid-wing, twin-tail configuration and tricycle landing gear. However, it was a new design, carrying more than twice the bomb load and increased defensive armament, with a five-man crew. All *Mitchells* were powered by two Wright R-2600 engines. The first production B-25 flew in August 1940. Subsequent flight testing dictated a number of changes, one of which, the reduction in dihedral of the wing panels outboard of the engine nacelles, resulted in the *Mitchell's* characteristic gull wing.

Further improvements in defensive armament and incorporation of combat survivability features led to the B-25's A and B models. The latter, with armament

deletions and increased fuel, was used in the Doolittle raid. Major wartime production came with the C model, which also went into production as the D at North American's WW II Kansas City production plant. These latter two models were the first to become PBJs, delivered as PBJ-1Cs and 1Ds starting in February 1943. The first Marine squadron, VMB-413, was established in March. It was followed by seven other Marine PBJ squadrons established that fall, along with four more later that did not deploy before VJ Day. Many other PBJs were assigned to Marine operational training squadrons.

B-25s were already widely used against the Japanese by the Army Air Force, and Marine use from their island bases in the South Pacific was planned. With a six-man crew, as compared to the



B-25

two to three-man crews of other carrier-type bombers used by the Marines, an extensive crew training program was required along with the usual operational training. By the end of the year, both VMB-413 and the second squadron, VMB-423, were on their way to the South Pacific, flying their first bombing missions in March and May 1944, respectively.

In addition to the Cs and Ds, two 75mm



PBJ-1D



PBJ-1J

Mitchell

PBJ-1D



cannon-equipped B-25Gs became PBJ-1Gs. The Gs were basically Cs with a revised nose to provide for the hand-loaded cannon installation. Major improvements, including power-operated twin .50 tail guns and two side-mounted, forward-firing .50s on each side below the cockpit, were incorporated in the H and J versions which followed. Some of these reflected field mods that had been incorporated in earlier versions. The H had a 75mm cannon, similar to the G, while the Js were built with the bombardier/navigator nose of the C/Ds.

Various radar installations were made in many of the Navy/Marine PBJs: belly-mounted in place of the belly turret of the C and Ds, nose-mounted above a modified solid nose, and in a wing tip nacelle. Wing racks were fitted for external bomb carriage, as well as zero length rocket launchers at a later date. External carriage of a torpedo under the bomb bay, with the doors open, was also developed and tested during 1944.

Like the Army B-25s, the Marine PBJs were used in strikes against Japanese strongholds — generally flying at low levels. Losses were mostly due to ground fire rather than enemy aircraft. The 75mm cannon was not effective; only three shots could be fired in one pass. It was also unpopular, because the gunner was covered with burnt powder and debris each time the breech was opened to reload! Both the Army and the Marines found additional forward-firing .50s more effective and production of the Hs was discontinued. Other Marine uses were for night heckler missions, as well as night attack when the radar had been fitted.

One Navy PBJ-1H underwent a special transformation. Equipped and strengthened for catapulting and arresting, successful land-based tests were succeeded by carrier trials on USS *Shangri-La* in late 1944. These trials were aimed at the future, for larger, longer range carrier aircraft, rather than for PBJ operations.

During WW II, the *Mitchell* was used by many countries in addition to the U.S., particularly Great Britain and Russia. At the end of the war, the Marine PBJs were rapidly phased out. A handful were transitioned to Navy test and development use, the last being stricken in 1948. Foreign use continued, and the Air Force used the *Mitchell* as the TB-25 for both advanced training and utility through the fifties. The last was retired in 1959. ■

PBJ-1H



PBJ-1J



Length	53'7"
Height	16'4"
Span	67'7"
Gross weight	34,000 lbs.
Engines	Two Wright R-2600-13/-29 1,700 hp
Performance (bomber):	
Max speed	274 mph
Service ceiling	20,600'
Range	1,560 mi.
Crew	6
Armament: Six .50 fixed guns; seven .50 flexible guns; up to 4,000 lbs. bombs, or one Mk 13 torpedo, or up to 20 rockets.	

The assistance of John Elliott in making this article possible is greatly appreciated.



Eight Selected for Hall of Honor

Eight men who have made major contributions to Naval Aviation will be inducted into the Hall of Honor at the Naval Aviation Museum, in Pensacola, Fla., on May 8, 1986. The individuals, who were carefully chosen by a selection committee, are:

Major General Marion E. Carl, USMC
Fleet Admiral William F. Halsey, USN
Mr. Edward H. Heinemann, aircraft designer
Rear Admiral David S. Ingalls, USNR
Captain Donald B. MacDiarmid, USCG
Vice Admiral Robert B. Pirie, USN
First Lieutenant Robert G. Robinson, USMCR
Vice Admiral Frederick M. Trapnell, USN

This year's selection of inductees is unique, because three of the pioneers in Naval Aviation — MGen. Carl, Mr. Heinemann and VAdm. Pirie — are still living.

Bronze plaques of these eight men will be displayed alongside the faces of 22 other inductees who have been enshrined since the Hall of Honor was dedicated on October 14, 1981.

The following is a list of the newest group of inductees along with a short biography of their careers.

Marion E. Carl, Major General, USMC — Marion Carl was commissioned a second lieutenant and designated a Naval Aviator in 1939. He earned the Navy Cross for leading an outnumbered Marine fighter squadron at Midway. He earned

a second Navy Cross at Guadalcanal. Carl attended the U.S. Naval Test Pilot School and later made the first carrier landings and takeoffs with the P-80 *Shooting Star*. He also earned the distinction of becoming the first Marine helicopter pilot. Carl received a fourth Distinguished Flying Cross for setting a world's speed record in the Douglas *Skystreak* in 1947. He commanded the Marine Corps' first jet fighter squadron, VMF-122, and later formed the first jet aerobatic team. From 1949 to 1952, he commanded the carrier section of the flight test division at Patuxent River. He received the Octave Chanute Award for Notable Contribution to Aeronautical Sciences. Carl also received a fifth Distinguished Flying Cross when he set the unofficial altitude record in the Navy's Douglas *Skyrocket*. He completed Air War College in 1959 and served with the Joint Chiefs of Staff in 1961.

William F. Halsey, Fleet Admiral, USN — As vice admiral, Commander Aircraft Battle Force, and Commander Carrier Division Two, Halsey engaged the Japanese in the first U.S. offensive two months after Pearl Harbor. He was designated Commander of Task Force 16 on April 10, 1942 (formed for the famous Halsey-Doolittle raid on Tokyo), while still Commander Carrier Division Two. Eight days later, he was advanced to Commander of the South Pacific Force. The following October, his fleet defeated the Japanese in the Battle of Santa Cruz and later in the Battle of Guadalcanal. He commanded Navy, Marine, and Army ground and air forces

during the next 16 months and was highly successful.

Halsey assumed command of the Third Fleet in June 1944, which was responsible for destroying the Japanese forces in the Palaus, Philippines, Formosa, Okinawa and the South China Sea, "inflicting greater loss on the Japanese fleet than had ever been suffered by any fleet." His recommendations for an early landing at Leyte resulted in a greatly shortened Pacific campaign. Halsey's Third Fleet was responsible for launching the final strikes on Japan and combined with the British for the first U.S.-British bombardment of Japan proper.

Edward H. Heinemann, aircraft designer — Heinemann was identified with airplane design and development for most of his career. He started with the Douglas Aircraft Company in 1926 as a draftsman. In 1927, he became the chief draftsman of International Aircraft, in 1928, he joined the Moreland Aircraft Company as the assistant chief engineer; in 1932, he became a project engineer for Northrop Corporation and in 1936 became Chief Engineer; in 1958, he was selected as vice president of military aircraft engineering for Douglas Aircraft Company; in 1960, he joined Guidance Technology, Inc., as executive vice president; and in 1962 became corporate vice president for General Dynamics.

Heinemann was responsible for the design and development of the following aircraft: Moreland trainer; SBD dive-bomber; R3D-1 (DC-5) transport; DB-7, A-20, A-24 and A-26 attack-bombers; XCG-8 gliders; SB2D-1 and BTD-1 dive-bombers; AD attack-bomber; TB2D torpedo-bomber; D-558 jet research airplane; D-558-2 rocket research airplane (first to fly Mach 2); F3D jet night fighter; A2D turboprop attack-bomber; A3D jet heavy attack-bomber; F4D-1 and F5D-1 jet interceptors, and A4D jet light attack-bomber.

David S. Ingalls, Rear Admiral, USNR — David Ingalls left Yale to enlist in the U.S. Naval Reserve Flying Corps. He earned the distinction of becoming the Navy's first and only ace in WW I. After the war, Ingalls finished Yale and then Harvard Law School. He was admitted to the bar in 1923. He is responsible for cosponsoring the Aviation Code of Ohio (which became the model for codes of other states). In 1929, he became the Assistant Secretary of the Navy for Aeronautics and he brought the five-year Aviation Test and Development Program to completion in four years. He was commissioned a lieutenant commander in the Naval Reserve in 1931 and attained the rank of rear admiral in 1955.

Ingalls served on active duty during WW II and contributed in large measure to extending the sphere of effective air transportation service in the Pacific, and greatly aided in the development of the Naval Air Transport Service.

Donald B. MacDiarmid, Captain, USCG — Capt. MacDiarmid was commissioned an ensign in 1929 and appointed a Coast Guard aviator in 1938. He served at many stations, receiving a commendation for combat duty in 1943 and a Distinguished Flying Cross while commanding officer of NAS San Diego in 1946.

MacDiarmid is recognized for developing open-ocean seaplane landing techniques using an all-volunteer crew which conducted landings in various sea states in order to formulate emergency procedures. He also pioneered the development of a rational doctrine for offshore landing and takeoff of the seaplane, which was adopted by the Coast Guard and the Navy. It became part of the National Search and

Rescue Manual and later the International Civil Aviation Organization. MacDiarmid was designated Coast Guard Helicopter Pilot Number 177 in 1953.

Vice Admiral Robert B. Pirie, USN — Robert B. Pirie graduated from the Naval Academy on June 3, 1926, and was designated a Naval Aviator in June 1929. A variety of aviation assignments followed, including air operations officer for Commander Air Force, Pacific Fleet for which he received the Legion of Merit for outstanding service from October 1942 to March 1943. He next served as executive officer of the carrier *Mission Bay* in hunter-killer operations in Atlantic waters. He returned to the Pacific for duty from July 1944 until March 1945 as chief of staff and aide to Commander Carrier Division 25 and later Commander Carrier Division 4 as part of Task Force 58. During this period, he participated in the assault and capture of the Marianas, the assault and capture of Palau; the initial raid on the Philippine Islands, Okinawa and Formosa; the Battle of Leyte Gulf; and the South China Sea raid. For services during this period, he was awarded the Silver Star Medal; and a second Legion of Merit and the Bronze Star Medal, both with Combat V. After the war, he was the first head of the Department of Aviation at the Naval Academy and in a later tour became Commandant of Midshipmen. Following many impressive assignments, he became Deputy Chief of Naval Operations (Air) and was awarded the Distinguished Service Medal for exceptional meritorious service. He retired from active duty November 1, 1962.

Robert G. Robinson, First Lieutenant, USMCR — Robinson enlisted in the Marine Corps in 1917 and was sent to France with the First Marine Aviation Force as an observer. In 1918, while conducting an air raid into Belgian territory, his plane was attacked by enemy scouts, and in the ensuing fight he shot down one of the planes. Six days later, his plane and one other were attacked by 12 enemy scouts. After shooting down one of the enemy planes, he was struck by a bullet which destroyed most of his elbow, and his gun jammed. He cleared the jam with one hand and continued to fight until he collapsed after receiving two more bullet wounds. Robinson, shot 13 times in the abdomen, chest and legs, with his left arm virtually blown off at the elbow, helped his pilot bring the plane down in Belgian territory. His arm, hanging by a single tendon, was grafted back on by the Surgeon General of the Belgian Army. Robinson received the Medal of Honor for this action. He was discharged in 1919 and appointed a 2nd Lieutenant in the Marine Corps Reserve.

Frederick Mackay Trapnell, Vice Admiral, USN — VAdm. Trapnell graduated from the U.S. Naval Academy in 1923 and earned his wings in 1927. While stationed aboard the airship *Macon*, he received public recognition from the Chief of the Bureau of Aeronautics for the development of gear and methods for airplane hook-on to dirigibles. He performed a large amount of the hazardous flight testing while at Anacostia and Patuxent River, and was recognized by the Secretary of the Navy for his role in flight testing. Trapnell received the Legion of Merit with Combat V, Bronze Star, Presidential Unit Citation Ribbon, American Campaign Medal, and WW II Victory Medal, among others. He retired with the rank of rear admiral in October 1951, but was advanced to vice admiral based on his combat awards. ■

"Why did my bird go down just when we need it the most?"

"Why can't they fix it immediately so I can get on with the mission?"

"What is Maintenance Control thinking of?"

By AW1 Pete Lister, USNR

All Naval Aviators and aircrewmembers have one thing in common. They are mission-oriented, driven to get the job done. And, to do it, they need the right tools. The tools, in this case, are the numerous subsystems in their modern naval aircraft.

The questions above have been asked at least once by every aircrew member anxiously looking forward to the next mission. They illustrate the misunderstanding that sometimes develops between what the Operations Department and the pilot want and what the Maintenance Department can provide on a moment's notice.

The dilemma is as old as the aviation profession.

From maintenance's perspective, its primary responsibility is not just the next flight. Its job is the consistent, efficient and effective use of personnel and equipment to maintain maximum squadron combat readiness. It's a tough job because it involves balancing aircraft availability with operational commitments, workload requirements and personnel assets.

Efficient operation of any large organization of highly trained and motivated people requires a centralized control point through which all information and recommendations must pass. At the squadron level, this central point is called Maintenance Control, the keystone of squadron operations. The job doesn't get done without healthy aircraft.

Taking a close look at what Maintenance Control has to deal with on almost an hourly basis can give some insight into why these questions surface from time to time.

As part of every preflight, Maintenance Control personnel and the aircraft commander thoroughly review the aircraft discrepancy book. All maintenance discrepancies during the last 10 flights, and all preceding gripes still outstanding, are checked by the aircrew. Then the pilots do their visual preflight of the aircraft after which they



AZ1 Hettie Boyce places a MAF on VP-68's Maintenance Control visual display board.

Maintenance Control: Keystone of Squadron Ops

strap on their bird and prepare for takeoff.

If the aircraft goes down, it is immediately reported to Maintenance Control where a maintenance action form (MAF) is prepared to document the discrepancy and a job control number is assigned so the system can track this particular gripe. Copies of the MAF are placed on the visual display board in Maintenance Control, entered in the aircraft's discrepancy book, and sent to the work center that must correct the problem and the quality assurance branch. A lot of people get involved in a hurry.

Now let's look at it from the work center supervisor's viewpoint. His decision on how to best handle the problem is based almost entirely on how well the pilot explains the gripe on the yellow sheet. It helps to write what *actually* happened, when it happened, and what was happening when it happened.

If the job covers a part that's repairable,

the paperwork continues and yet another MAF is initiated. If the part is to be cannibalized from another aircraft, a MAF is written for the original gripe, then another has to be written for the cannibalization and, finally, the missing part from the second plane must be accounted for. Now, instead of one removal and one installation, the same limited manpower pool has two removals and two installations for the same job. All of this costs man-hours. Nevertheless, Maintenance Control takes it all in stride and does its best to satisfy everyone's needs.

Patience goes a long way. If the pilot doesn't get the aircraft he wants with the equipment he needs right away, there's probably a good reason.

One way to help the process along is for those on both sides of the Maintenance Control counter to be thorough, precise and professional, and tell it like it is. ■

You Keep Flying'Em, I'll Keep Fixing'Em

This article was submitted anonymously by a VMFP-3 mechanic to the newspaper at MCAS El Toro, Calif., Flight Jacket.

I am an aircraft mechanic. Not so long ago, I was working on the flight line when I noticed a young pilot walking in my direction.

It seemed to be especially hot that day. A few minutes earlier, forgetting I had grease and soot on my hands, I used them to wipe the sweat from my forehead, which, of course, left a black smudge. I'm sure that I was quite a sight to the pilot, a new officer to our squadron.

He stopped and peered into the side of the aircraft from which I had just removed a panel. He looked around, then gave an approving nod. It was plain to see that he had something to say other than the casual conversation we had indulged in up to then.

"Lance Corporal, can I ask you a question? Why do you people do it? What is it that keeps you in the service? Why do you work in the heat, snow and rain fixing airplanes day and night?" he asked.

I stood there, not really sure how to answer his questions. Before I could collect my thoughts, he had to leave. It was a hot mission and he had to go to a debriefing.

I thought about the lieutenant and his questions much that evening and the next day. Finally, I came up with an answer. I was ready for our next unscheduled meeting, but I never saw him again. I later found out that he was from a WestPac detachment. But I will answer the lieutenant, and any others, this way.

I know I'll never slip the surly bonds of earth, but I can fix your laughter-silvered wings. I know I'll never strap an RF-4B on my back or travel footless halls of air. But when I walk the flight line, you come to me to see if you can do those hundreds of things I've never dreamed of. I'll never soar where lark or eagle fly; but my spirit is with you on each of your flights.

When I go home in the morning to rest while most are just getting up to begin their day, I sleep well. Screaming children, chatting wives, doorbells and

street sweepers do not disturb me. But the distant roar of your engines often wakes me from my deepest sleep.

I've read that you imagine you become a part of your aircraft; that man and machine become one, that your airplane seems to read your mind and react almost before your gloved hand moves the controls. You imagine that steel, aluminum and titanium become muscle, bone, nerve and sinew. If you can feel the pulse of your aircraft by planting your feet on the rudder pedals, then I'm the surgeon who replaces the cables, valves, motors and bell cranks that are the imagined strength that moves your living rudder.

I'm the specialist who has serviced, topped off, drained, filtered, purged and pressurized the fluids that you imagine to be the life's blood of your friend. I've tweaked and peaked, tightened, torqued and tuned, milked and measured, routed and rerouted, fitted, fixed, filed, beat, bent, banged and buckled each vital part of metal on your companion.

Now, sir, I do not mean to belittle you for the things you feel about your airplane. I feel things, too.

Much of the time I feel less than happy about the location of a certain part and I'll call it a bucket of bolts. Sometimes I'll holler at it when it comes home broken during special occasions such as on my wedding anniversary. I'll gripe and groan and tell it that it's just so many rivets flying in close formation.

Then there are other feelings — feelings that can't be explained as one watches a reflected sunset on its polished aluminum skin. I've sat on a tool box and watched the moon rise, twisted and distorted through its canopy.

There is also a satisfaction I get as I service a part of the airplane you'll probably never see. Perhaps it's a rivet high on the tail or a clamp somewhere under your seat.

I've seen cables and wires, pressure seals and lines, and bulkheads and formers — all painted zinc chromate green. I know where each one goes, what it does, and what will happen if it doesn't do what it is supposed to do.

It's hard for me to imagine that you

think of this airplane as *yours* when I think of the blood I left in the engine bay, the skin from my knuckles up in the hellhole, and the little piece of scalp I left hanging on the antenna of *your* airplane's belly. I remember the rib I cracked when I hit the pitot tube the wet morning I fell off *your* airplane. I've been bumped, bruised, pinched, poked, soaked, cut, scratched, scraped, skinned, burned, frozen, squeezed, nicked, picked, smacked, cracked and shocked. My hands generally hurt and my knees are usually sore from kneeling under or crawling over *your* plane. And there is almost always grease under my fingernails.

My utility uniforms are stained and worn but they're comfortable. Can you say the same about your flight equipment? My cover only weighs a couple of ounces, and it doesn't cause hot spots on my head like your helmet. I'm not the one who has to wear the oxygen mask that causes your face to sweat and itch. As an aircraft mechanic, I don't worry about being ejected, passed over, bird-struck or mid-aired. If I get punched out, all I have to worry about is a loose tooth. And the last time I was grounded, I was 12.

Sir, I am happy turning wrenches in the United States Marine Corps. I am grateful to be an American and proud to wear the uniform.

I know that in other parts of the world there are airmen and officers who wear different uniforms than we do. And they work on and fly aircraft that have different markings. Their views on right and wrong, God, and family are also different. Sometimes this difference is threatening. That's why I stand out in the rain and cold once in a while to make sure that *our* aircraft are ready — ready to ensure that others pose no threat to us and our way of life. For I know that *our* airplane will never be used to start a war. It's a deterrent that guards a great way of life.

Our country doesn't really ask that much of you or me in exchange for the life we so often take for granted. So, sir, I promise: If you keep flying'em, I'll keep fixing'em. ■



Secretary of the Navy John Lehman and Cdr. Joseph Sciabarra, C.O. of VA-27, stand beside the Grampaw Pettibone Trophy during the award ceremony January 15.

several years. These articles have been published in a variety of military and civilian publications including, *Proceedings, Approach, Fathom, Driver and The Hook.*

In addition to Secretary Lehman, other distinguished guests at the ceremony included Mr. Robert Osborn and Mr. Paul Warner, son of Captain "Seth" Warner, the originator of Grampaw Pettibone. Paul Warner, the award's sponsor, commissioned the Grampaw Pettibone Trophy as a perpetual memorial to his

VA-27 Earns First Gramps Trophy

The *Royal Macs* of Attack Squadron (VA) 27 officially became the first recipients of the Grampaw Pettibone Trophy January 15 during a ceremony at the Officers' Club on the Washington Navy Yard, in D.C.

Commander Joseph P. Sciabarra, C.O. of the NAS Lemoore, Calif.-based squadron, accepted the award from Secretary of the Navy John Lehman, who was the luncheon's keynote speaker.

The Grampaw Pettibone Trophy, which

will be awarded annually, recognizes the individual or organization that contributes the most toward aviation safety awareness through communications (published articles, posters, pamphlets, television and radio broadcasts, etc.). The officers and enlisted personnel of VA-27 earned the right to have their squadron's number embossed on the 200-pound trophy because they have written more than 80 safety-related articles over the past



Mr. Paul Warner, son of the originator of Grampaw Pettibone, is congratulated by SecNav for his diligent effort in commissioning the Gramps Trophy.



Mr. Robert Osborn, far right, poses with former Grampaw Pettibone writers Capt. Andrew W. Bright, USNR(Ret.) and Capt. Nicholas Pacalo, USNR(Ret.). Bright wrote the column in the 1940s and Pacalo in the 1970s.

father and Robert Osborn. At the ceremony, Secretary Lehman took official custody of the trophy on behalf of the Naval Aviation community.

Forty-three years ago, then-Lieutenant Commander Seth Warner, attached to the Bureau of Aeronautics in Washington, D.C., was horrified at the grim Naval Aviation safety reports. So he came up with Grampaw Pettibone — the old, irascible, white-bearded, bespectacled Naval Aviator who still bellows advice and admonishment in the pages of *Naval Aviation News*. Warner asked Robert Osborn, then a Navy lieutenant, to illustrate his character and Gramps first appeared in *NA News'* predecessor, *The News Letter*, in its January 15, 1943 issue. Grampaw Pettibone has been a mainstay in the pages of *NA News* and has played a significant role in helping to keep Naval Aviators safety conscious. ■

Diamond Anniversary Celebration Schedule of Events

Throughout this year, many exciting happenings are planned to commemorate Naval Aviation's 75th birthday. The following schedule lists confirmed events. Updates to the schedule can be found on the 75th Anniversary National Staff's electronic bulletin board DIANA and in future issues of Naval Aviation News.

March

1	75th Anniversary Celebration	MCAS Yuma, AZ
7-9	Brevard Salute to Naval Aviation TICO Warbird Airshow '86	Titusville, FL
16-22	Sun and Fun Air Show Warbirds of America	Lakeland, FL
22-23	Brevard Salute to Naval Aviation Port Canaveral Seafood Festival	Port Canaveral, FL
24	Celebration of 1st Yale Unit	New Haven, CT
29	Air Show	Luke AFB, AZ
30	Air Show	NAF El Centro, CA

April

5-6	Air Show	Tallahassee, FL
11-13	Brevard Salute to Naval Aviation Naval Aviation Art & Model Show	Melbourne, FL
12-13	Air Show	Savannah, GA
19-20	Air Show	Corpus Christi, TX
22-25	Brevard Salute to Naval Aviation 23rd Space Congress	Cocoa Beach, FL
25-27	Brevard Salute to Naval Aviation Indian River Festival	Titusville, FL
26	NAS Lemoore 25th Anniversary	Lemoore, CA
27	Air Show	China Lake, CA

May

1-3	Brevard Salute to Naval Aviation NBDC Industrial Appreciation Expo	Titusville, FL
2	Vancouver Worlds Fair	Vancouver, British Columbia
3	Fiesta of Five Flags 10K Run	Pensacola, FL
3-4	Air Show	MCAS El Toro, CA
5-11	75th Anniversary "Magic Week" and Gala	Pensacola, FL
5-6	NC-4 Reenactment Flight Visit	NAF Washington, DC
6-8	NC-4 Reenactment Flight Begins	Rockaway, NY
8	NC-4 Reenactment Flight Stopover	NAS S. Weymouth, MA
8	Open House	NAS Fallon, NV
8	Open House	NAS Agana, Guam
8	Picnic and Barbecue	NAS Kingsville, TX
8	75th Anniversary Celebration	NAS Chase Field, TX
9-14	NC-4 Reenactment Flight Stopover	Chatham, MA
9	75th Anniversary Party	ASO, Philadelphia, PA
10	Open House	NADC Warminster, PA
15	NC-4 Reenactment Flight Stopover	Halifax, Nova Scotia
16	NC-4 Reenactment Flight Stopover	Trepassey, Newfoundland
16-17	Air Show	NAF Washington, DC
17-20	NC-4 Reenactment Flight Stopover	Horta, Azores
17	Armed Forces Day Scout World	Jacksonville, FL
19	Air Show	Annapolis, MD
20	NC-4 Reenactment Flight Stopover	Ponta Delgada, Azores
23-26	Women On Wings '86	Fairfax, VA
25	Air Show	Breckenridge, TX
27	NC-4 Reenactment Flight Stopovers	Ponta Delgada, Azores; Lisbon, Portugal
30	NC-4 Reenactment Flight Stopovers	Lisbon & Figueira, Portugal; El Ferrol, Spain
31	NC-4 Reenactment Flight Stopover NC-4 Flight Completed	El Ferrol, Spain
31	Air Show	Plymouth, England
		Knoxville, TN

June

1	Air Show	Knoxville, TN
5-8	American Fighter Aces Convention	NAS Miramar, CA
7-8	London International Air Show	London, Ontario
7-8	Open House	MCAS Cherry Point, NC
11	NDW Summer Pageant	Washington Navy Yard, DC
14-15	High on Kalamazoo '86 Air Show	Kalamazoo, MI
21-22	Air Show	Fargo, ND
28-29	Air Show	Mount Comfort, IN
28-30	75th Anniversary Celebration	Hammensport, NY



Biasco, Jesus Romero and Salvador Mafe Huertas. *Falklands Witness of Battles*. Frederico Domenech SA Publishing. 1985. Illustrated. \$25.00.

The somewhat awkward title of this paperbound book notwithstanding, this volume can be considered a definitive work on the 1982 Falklands conflict involving Great Britain and Argentina.

The book contains many color and black and white photographs of both forces, including aircraft, aircrew and ships. Many of the pictures will be new to U.S. readers. Of particular interest is the small but interesting color section which includes striking shots of Argentine A-4s, in pre-war gray as well as the camouflage scheme applied during the conflict.

Both sides are adequately covered in the diary of the war. Maps clearly illustrate the geographical positioning of the two nations' forces. The last portion of the book is devoted to an in-depth series of tables detailing losses and a day-by-day account of the action.

An unusual, well-researched and well-presented book. Certainly a must for modellers attempting to represent aircraft involved in the conflict as well as for researchers in modern warfare.

Ryan, Paul B. *The Iranian Rescue Mission: Why It Failed*. U.S. Naval Institute, Annapolis, Md, 21402. 1985. 185 pp. Illustrated. Indexed. \$13.95.

The takeover of the U.S. Embassy in Tehran, Iran, and the subsequent internment of 53 U.S. citizens on November 4, 1979, is one of the darkest chapters in modern history. For 444 days, America as a nation was held hostage and forced to endure verbal, visual and political insults at the hands of a radical foreign government which refused to negotiate the release of the prisoners it had illegally taken.

In this book, the author does an admirable job of telling the events of the takeover while not dwelling on the political aspects of the event, and the planning and execution of the aborted rescue mission in April 1980. Ryan, a retired Navy captain, discusses the selection of leaders and the role of faulty weather intelligence and training. He also details the selection of vehicles for the rescue, RH-53D *Sea Stallions* and C-130 *Hercules*.

This is a fascinating, well-written book chronicling an incredible chapter in U.S. history and military operations.

DIANA Electronic Bulletin Board

DIANA is a public access electronic bulletin board serving the 75th Anniversary Program and *Naval Aviation News (NA News)* magazine.

Anybody with a modem-equipped computer can dial up DIANA and obtain the latest official information on 75th Anniversary festivities, correspond with the Diamond Anniversary staff, and send stories and squadron news directly to *NA News*.

Also available on DIANA are CHINFO press releases, *NA News* stories which are available for reprint, historical facts, schedules of events, public domain software, and an electronic mail feature for users who wish to exchange messages. Already, more than 1,000 people have used DIANA since it went on line on December 1, 1985.

The bulletin board is located at the 75th Anniversary headquarters in the Washington Navy Yard and is on line 24 hours a day, seven days a week.

Questions regarding DIANA should be directed to Commander Matt Costarakis, DIANA SYSOP, commercial (202) 475-2739/40/41/42 or autovon 335-2739/40/41/42.

To log on DIANA dial:

475-1973 — from Washington, D.C. area

202-475-1973 — from outside D.C. area

335-1973 — via autovon

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7 bits, 1 stop bit, even parity

NA News encourages authors to submit articles via DIANA or on the following computer diskette formats.

Actrix (Access Matrix) SS

Associate

ATR 8000 (Atari)

Avatar TC10, 48 tpi

Beehive Topper

Byad CP/M-80

Columbia Commander M964 & CP/M-80

Compupro 10 5x1024

Cromemco CDOS

Datavue DV80

DEC VT180; Rainbow 100

CP/M-80/86 & MS-DOS

DECmate II WPS-8 & CP/M

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Epson QX-10 CP/M, Valdoes Goupil III CP/M

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Lobo Max 80 CP/M

Magic

Morrow Designs

NCR Decision Mate 5

NEC PC8001a & PC8801a CP/M & NEC-DOS

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TI Pro CP/M-80 SS

Toshiba T100

TRS80 Color Computer

TRS80 Mod III FEC CP/M

FEC T80C, Holmes,

Hurricane Labs, Memory Merchant

TRS80 Mod IV CP/M Plus

Montezuma & 1.44

Wang MAWS CP/M

Xerox 820 II SSDD

Zenith w/Magnolia, Z90, w/CDR CP/M, &

Z100 CP/M

Zorba SS

NANews AND History DIRECTOR RETIRES



JOCS Kirby Harrison

Upon retirement, Capt. Knott was awarded the Legion of Merit from VAdm. E. H. Martin.

Following this tour, Capt. Knott's duties included assignment to Politico-Military Affairs in the Office of the Chief of Naval Operations, 1968-1971; Department of State, 1971-1973; commanding officer of the Navy Recruiting District, Atlanta, Ga., 1973-1976; and the Office of the Joint Chiefs of Staff, 1977-1980. During this period, Capt. Knott wrote his first book, *The American Flying Boat: An Illustrated History*, which was published in 1979.

Capt. Knott became editor of *NANews* in 1980. In addition to writing numerous articles for the Navy's oldest periodical, Capt. Knott penned *Black Cat Raiders of World War II*, which was published in 1981. In 1982, he became Special Assistant for Publications and Operational Records (OP-O5D) and Head, Aviation Periodicals and History (now AIR-07D4).

During this last tour on active duty, Capt. Knott concentrated much of his energy in expanding and promoting the Naval Aviation History Office. Through his leadership, that office significantly expanded its operations and responsibilities to include accumulating additional historical documentation vital to the preservation of Naval Aviation history. In addition, Capt. Knott, who has more than 4,000 flight hours, enthusiastically supported and contributed to *NANews'* reputation as one of the Department of Defense's premiere periodicals. For all his efforts during his final tour, Capt. Knott was awarded the Legion of Merit January 31 from Vice Admiral Edward H. Martin, Deputy Chief of Naval Operations (Air Warfare).

The Naval Aviation community will continue to benefit from Capt. Knott's many improvements to *NANews* and his countless initiatives associated with the History and 75th Anniversary of Naval Aviation Programs.

On February 1, *Naval Aviation News* (*NANews*) and the Naval Aviation History Office lost to retirement a boss who was a successful leader as well as a good friend.

Captain Richard C. "Dick" Knott, who served as Special Assistant to the Deputy Chief of Naval Operations (Air Warfare) for Publications and Operational Records from January 1982 to February 1986, retired after 32 years of naval service. His vast knowledge of aviation history and tireless devotion to *NANews* and the Naval Aviation History Office will be missed by the people assigned to each area. Capt. Knott's absence will also be felt by the 75th Anniversary of Naval Aviation National Staff, a group of public affairs, history and publication specialists who were brought together to plan and coordinate the celebration.

Under Capt. Knott's adept leadership, this epoch in military history took root and will receive worldwide coverage through newspapers and magazines, television and radio news and feature programs, and through countless

regional, national and international festivities.

Capt. Knott began his career as an Aviation Machinist's Mate in 1948. He later earned a Bachelor of Science degree from the University of Maryland, attended Officer Candidate School and was commissioned an ensign in February 1957.

After being designated a Naval Aviator in October 1958, Capt. Knott flew Martin P-5M *Marlins* with Patrol Squadron (VP) 45 at NAS Bermuda. In 1961, he served as the assistant professor of Naval Science with the Navy ROTC unit at Villanova University, Pa. While there, he earned a Master of Arts degree.

From 1964 to 1967, Capt. Knott flew P-3A *Orions* while attached to VP-16 at NAS Jacksonville, Fla. During this tour, he deployed to Vietnam.

He subsequently served with the Military Armistice Commission which was involved in handling the armistice violations and release negotiations for the crew of the USS *Puebla*, the cargo ship captured by North Korea in 1968.

STATE OF THE ART

Pressure Relief Valve

The Aircrew Survival Systems Program, Weapons Quality Engineering Center, Naval Weapons Station, Yorktown, Va., recently evaluated a problem and came up with a solution that will make life a little easier and safer for fleet aviation personnel. The pressure relief valve, a critical component of the liquid oxygen converter system, had an adjustment screw whose port was of a threaded design. The screw's port could not be held and adjusted without considerable effort, which made precise adjustment difficult. Yorktown recommended that the adjustment screw's port be changed so that a standard Allen set screw wrench could be used to make adjustments safely, easily and quickly, with a high degree of pinpoint accuracy. The Naval Air Systems Command endorsed the change. The manufacturer retooled for the design change and began supplying the fleet with new pressure relief valves incorporating the redesigned adjustment screws.

First S-3B Vikings

Two S-3 *Vikings* that underwent modification to an operationally-enhanced "B" version were delivered to the Navy recently by Lockheed-California Company.



Bob Ferguson, Lockheed

Designed to improve the aircraft's antisubmarine warfare capabilities and to add an antisurface warfare capability, the modification includes enhanced acoustic processing and radar, expanded electronic support measure coverage, a new sonobuoy receiver system, an electronic countermeasures system, and the *Harpoon* missile aircraft command and launch control system.

After the improved *Vikings* successfully complete operational evaluation at NATC Patuxent River, Md., the Navy could approve fleet modification of as many as 160 S-3As.

PEOPLE · PLANES · PLACES

Awards

VFA-113's Lt. Jeff Crutchfield received the Admiral Wesley L. McDonald Leadership Award for Junior Officers recently during a ceremony at NAS Lemoore. Chosen from a field of 11 nominees, Crutchfield's award was based on his time spent supervising 45 people in the maintenance department's aircraft division. The lieutenant says that his leadership success comes from understanding his people and having genuine concern for them.

VS-24 was recognized as the top VS mining squadron for the period from October 1, 1984, to September 30, 1985. The Mine Warfare Command, based in Charleston, S.C., took a composite score of all mining readiness certification inspection missions to determine each squadron's overall accuracy. The *Scouts* beat the competition hands down.

Honing the Edge

"You will experience stress," said the strong and distinctive female voice. "It's not normal for you to throw your body out of an airplane," declared PO1 Anne Mooney, addressing a new group of students, who in three weeks hoped to earn their silver "jump" wings in the naval parachutist course at NAEC, Lakehurst, N.J.

The school began September 1, 1924, to provide training in parachute equipment development and parachute testing, packing and jumping techniques. It was the first one of its kind in the Navy.

Today, the school is divided into five training regimens: Aircraft Survival Equipmentman's (PR) "A" school, "C" school, and three courses of instruction in parachuting. Each Navy-trained parachutist must rig and pack his own parachute and be prepared to precision-jump into a small area. Additionally, students must be in good physical condition when they arrive at Lakehurst.

But the emphasis is on safety at the

center. Classes are kept small so individual instruction and safety can be maximized. During jump operations, the staff turns out with a full crew. "We ensure safe, precise and effective training every step of the way," said GySgt. Richard Hiatt, parachute operations officer. "Then it all comes together to provide the best with the best."

Et cetera

A historical precedent was recently set on board USS *Midway* (CV-41) by the Command Master Chief of VF-161, SMCM Jonathan Hess, when he qualified as officer of the deck (OOD) of an aircraft carrier. This is believed to be the first time an enlisted person has become OOD-qualified aboard *Midway*.

Hess, a veteran with 33 years in the Navy, started his OOD training in August 1984. After becoming junior officer of the watch, it took approximately 14 months for the former tugboat skipper to qualify.

During ceremonies on October 19, 1985, VFA-303 became the first Naval Reserve squadron to accept the F/A-18 *Hornet*, marking the beginning of a new era for the Reserves. "This is what we have been striving for since the establishment of the Naval Reserve," said SecNav John F. Lehman, Jr. "Gone, never to return, are the days of the Naval Reserve being equipped with obsolescent fleet equipment." VFA-303, as part of Carrier Air Wing Reserve 30, proved its efficiency in transitioning to the new aircraft by winning CVWR-30's bombing derby last August during the wing's annual AcDuTra period in which the squadron trained on the *Hornet*.

The author of *Paper Lion* tangled with a *Hornet* recently. George Plimpton added a new accomplishment to his already long list by not only flying in a Navy F/A-18 *Hornet*, but also landing aboard USS *America*. The trap was the climax of two days of intensive physiological and flight training at NASs Cecil Field and Jacksonville, Fla., after which Plimpton flew with VFA-106 for his orientation flight.

An article he is writing for *Popular Mechanics* will discuss his firsthand look



This photograph shows Plimpton concentrating as he releases his parachute harness during survival training at the FASOTraGru-Lant, Jacksonville pool.

at the opportunities in Naval Aviation of the 1980s. The Navy Recruiting Command coordinated Plimpton's training for the article in support of aviation recruiting efforts.



JO2 Jeff Wooddell

By the numbers. . . This unusual occurrence is rarely seen, let alone photographed. On October 18, 1985, *America* (CV-66), *John F. Kennedy* (CV-67), *Nimitz* (CVN-68) and *Dwight D. Eisenhower* (CVN-69) were all lined up in a row at NS Norfolk. The uniqueness of this event is that the ships were in numerical order. According to ComNavAirLant public affairs officials, the last time four carriers were in port together was approximately 20 years ago and they were not moored in numerical order. This photo was taken with the assistance of the public affairs office on board *Mount Whitney* (LCC-20).

Change of Command

- Constellation*: Capt. Melvin D. Mun-singer relieved Capt. John F. Calhoun.
 CVW-8: Capt. Fred Lewis relieved Capt. Don Rainey.
 CVW-13: Cdr. Byron L. Duff re-lieved Capt. John P. Gay.
Forrestal: Capt. Timothy W. Wright relieved Capt. Daniel P. March.
 HC-4: Cdr. Peter W. Schempf relieved Cdr. James F. Scurria.
 HMH-464: LtCol. Charles T. Reilly, Jr., relieved LtCol. William H. Hoff.
 HS-11: Cdr. Allen A. Ferber relieved Cdr. James A. Curtis.
 HSL-35: Cdr. George A. Powell re-lieved Cdr. Richard J. Jaeger III.
 NAF Atsugi: Capt. Alger L. Wilson relieved Capt. Edwin B. Smedberg.
 VA-37: Cdr. Jeffrey Harrison re-lieved Cdr. Brian L. Lehman.
 VA-46: Cdr. Robert C. Klosterman relieved Cdr. Dean M. Hendrickson.
 VA-52: Cdr. James M. Burin relieved Cdr. Donald L. Sullivan.
 VA-87: Cdr. Raymond A. Dudderar relieved Cdr. Douglas G. Knappe.
 VAQ-33: Cdr. Arthur N. Rowley III relieved Cdr. Michael J. Marnane.
 VAQ-34: Cdr. Donald E. Mitchell relieved Cdr. Richard L. Affeld.
 VAQ-132: Cdr. W. K. Fincher relieved Cdr. Thomas S. Robison.
 VAQ-134: Cdr. John Dolquist relieved Cdr. Thomas W. White.
 VAW-113: Cdr. Frank J. Bush, Jr., relieved Cdr. Cameron B. Place.
 VF-43: Cdr. Peter C. Burggren re-lieved Cdr. Jerry B. Hodge.
 VF-74: Cdr. Michael F. Rioux relieved Cdr. Kenneth C. Burgess.
 VF-142: Cdr. Robert S. Schmidt relieved Cdr. Steven P. Letter.
 VFA-106: Cdr. John Peterson relieved Capt. D. J. L'Herault.
 VMFA-134: LtCol. Lawrence H. Kener relieved LtCol. Charles J. Quilter III.
 VMFA-251: LtCol. Thomas L. Wilker-son relieved LtCol. Dennis L. Doyle.
 VP-90: Cdr. James P. Kelly relieved Cdr. Dennis J. Faulds.
 VQ-2: Cdr. Terry Hanson relieved Cdr. E. A. Caldwell.
 VQ-4: Cdr. Eddie W. Hampshire re-lieved Cdr. Robert V. Downey.
 VRC-50: Capt. Donald M. Snyder relieved Capt. David P. Gauthier.
 VS-28: Cdr. Raymond J. Laturno III relieved Cdr. Braden J. Phillips.
 VS-38: Cdr. Gary B. McEwen relieved Cdr. E. R. Johnson.
 VX-4: Cdr. Larry G. Pearson relieved Capt. Henry M. Kleemann.



In Memoriam

Cdr. Michael J. Smith, a decorated Navy pilot with more than 4,300 flight hours, was the pilot on the ill-fated 11th mission of space shuttle *Challenger* when it exploded shortly after launch from the Kennedy Space Center, Fla., on January 28, 1986. The entire crew of seven perished.

A Naval Academy graduate and U.S. Naval Postgraduate School graduate, Smith flew A-6s and completed a Vietnam cruise aboard USS *Kitty Hawk*, returning home with the Navy Distinguished Flying Cross, three Air Medals and the Vietnamese Cross of Gallantry with Silver Star. He completed the U.S. Naval Test Pilot School in 1974 and served several tours of duty before being accepted as an astronaut candidate in May 1980. Survivors include his wife, Jane; and three children, Scott, 17; Alison, 15; and Erin, 9.

The other crew members aboard *Challenger* were: mission commander Francis R. Scobee; astronauts Ronald E. McNair, Ellison S. Onizuka and Judith A. Resnik; civilian engineer Gregory B. Jarvis; and schoolteacher Sharon Christa McAuliffe.

AOCS Museum

The Aviation Officer Candidate School (AOCS), Pensacola, FL, is establishing a museum and needs your help. AOCS is

looking for historical information on its beginnings and is interested in compiling a record of distinguished graduates, including aces, astronauts, admirals, politicians, corporate leaders and others of notable achievement. If you possess photographs, manuals, equipment or memorabilia, please contact MGySgt. D. W. Bearup, Chief Drill Instructor, AOCS, Naval Aviation Schools Command, Bldg. 633, NAS Pensacola, FL 23508-5400, autovon 922-3649 or commercial (904) 452-3649; or call the NASC Public Affairs Office at 922-4512 or (904) 452-4512.

Articles Desired

NA News is interested in publishing articles from active duty and reserve military personnel, history buffs and enthusiasts who want to write about Naval Aviation. The magazine is receptive to a wide range of articles concerning Naval Aviation history, personal experiences, profiles on officers and enlisted personnel, news and feature stories about squadrons and naval air stations, etc.

If you have an idea for a story, write or call the Editor, *Naval Aviation News*, Bldg. 159E, Room 512, Washington Navy Yard Annex, Washington, DC 20374-1595, (202) 433-4407/8/9 or autovon 288-4407/8/9, before submitting a manuscript. All feature articles should be no longer than eight double-spaced, typewritten pages and accompanied, preferably, by black and white 5x7 or 8x10 photographs. All manuscripts must include the author's name, duty station and work phone number. By-lines and photo credits will be given.

Thanks

Many times each year I am called upon to assist in the technical evaluation of parachute systems used after an ejection from various aircraft throughout the Navy and Marine Corps inventories. Unfortunately, after the dust settles and all the required reports have been completed, I'm usually unable to thank all of the people who were such a great help to me during the investigation process. I want to take this opportunity to thank you for your professionalism, pride and

untiring efforts, which help to make my job very rewarding.

Bruce W. Trenholm
Parachute Accident Investigation
Naval Weapons Center (Code 6412)
China Lake, CA 93555-6001

I noticed the rescue article in "People, Planes, Places," *NA News*, November-December 1985. As a Naval Aviator, it's a great feeling to know that we have crews who react so quickly to a downed pilot.

I'm the Marine pilot that Lt. Cdr. Roulstone's crew pulled out of the water on that July afternoon — and, I must say, none too soon. I would like to thank the crews from HS-6 and VAW-112 and personnel from *Enterprise* and *Texas* for their professionalism. Your timely action undoubtedly saved my life.

Capt. M. L. Graves, USMC
VMA-211
MCAS El Toro
Santa Ana, CA 92709-6025

Enterprise Cruise Book

I am a former Vietnam POW seeking a cruise book from USS *Enterprise's* November 1966-July 1967 WestPac cruise. Listed as KIA in February 1967 (note name on "In Memoriam" page), I was shot down too early to order the book. Will pay a fair price. Call autovon 686-4250/4215 or commercial (415) 869-4250/4215 or write:

Cdr. Gary Thornton
CSSP Pacific, Bldg. 17
NAS Alameda, CA 94501

V-5 Program

I am writing a history of the Naval Aviation V-5 Preflight Program used by the Navy in WW II. I want to contact individuals who were cadets at one of the preflight schools in North Carolina, Iowa, Georgia, or at St. Mary's or Del Monte in California to get their comments on the program.

Bruce L. Bennett
501 Loveman Ave.
Worthington, OH 43085

Patches Wanted

I would like to swap Navy and Marine Corps squadron and other aviation patches. I have a listing of nearly 100 duplicates to trade. Anyone interested

in a copy of the list, please send a self-addressed, stamped envelope.

SSgt. Leo Cabal, USMC
1317 Rica Ct.
Virginia Beach, VA 23456

UCLA NROTC Alumni

The NROTC Unit at UCLA is establishing an alumni association. It is requested that any alumnus who received a commission in the Navy or Marine Corps through this program, and who would like to become a member, please call (213) 825-9075 or write:

Commanding Officer
NROTC Unit, UCLA
405 Hilgard Ave.
Los Angeles, CA 90024

Naval Institute

I enjoyed reading "Diamond Anniversary Update" in *Naval Aviation News*, November-December 1985. We at the Naval Institute share your enthusiasm about the upcoming celebrations! Our plans for the anniversary year are extensive and indeed of interest to your readers.

The Naval Institute is sponsoring a Naval Aviation Essay Contest, with cash prizes of \$1,000, \$750 and \$500 to be awarded to the top three authors. For details, see the January 1986 issue of *Proceedings*.

Beginning in February, 16 new Naval Aviation paintings were introduced that will be unveiled throughout 1986, expanding our selection of available color prints in four-print portfolios.

April's *Proceedings* will feature a special 96-page supplement on Naval Aviation history. The October issue will be devoted to "Naval Aviation Today and Tomorrow" and that month the Naval Institute will sponsor a seminar in Pensacola on the same subject.

For more information about the Naval Institute's plans for this exciting year, write the U.S. Naval Institute, Annapolis, MD 21402 or call (301) 268-6110.

James A. Barber, Jr.
Executive Director

Wanted

The membership of the USN Armed Guard WW II Veterans Association is searching for their shipmates. Contact

USN Armed Guard Veterans, ATTN:
C. A. Lloyd, 5712 Partridge Ln., Raleigh,
NC 27609, (919) 876-5537.

Khe Sanh

I am the author of *Chosin: Heroic Ordeal of the Korean War*; *76 Hours: The Invasion of Tarawa*; and *The Root: The Marines in Beirut*. I am presently writing a narrative account of the siege of Khe Sanh (January-April 1967) and would appreciate hearing from anyone who served at or in support of the Khe Sanh Combat Base, including air and artillery.

Eric Hammel
1149 Grand Teton Dr.
Pacifica, CA 94044

Aircrew History

NA News is compiling a history of the evolution of U.S. Navy aircrewmembers and would like to receive anecdotes, photographs or any information to document this account. Please send all correspondence to JOCS Kirby Harrison, *Naval Aviation News*, Room 512, Bldg. 159E, Washington Navy Yard Annex, Washington, DC 20374-1595, autovon 288-4407/8/9, commercial (202) 433-4407/8/9.

Corrections to January-February 1986 issue of NANEWS:

Page 18 — The data gathered by the P-3 is analyzed by the enlisted sensor one and sensor two aircrewmembers, not by the "acoustic sensor suite."

Page 31 — The A-6 in photo is dropping Mk 82 general purpose bombs vice sonobuoys.

Page 32, "Aero Club" — SSgt. Steven J. Robeson, USMC, may now be contacted at HMT-301, MAG-16, 3rd MAW, MCAS(H) Tustin, CA 92710, autovon 997-7318.

NANEWS Distribution

In our readership surveys, we receive comments from enlisted aviation personnel that copies of *Naval Aviation News* are not available to them. For the current fleet distribution, each copy of the magazine should be shared by 10 people.

Please Pass This Copy Along

Reunions, Conferences, etc.

NAS New York reunion, September 26-28, Daytona Beach, FL. Contact Dan Bentien, P.O. Box 761, Palm Coast, FL 32037, (904) 445-4822; or Carmine Annunziato, 6300 E. Plum St., Inverness, FL 32652, (904) 344-1009.

VP-14/VB-102/VPB-102 WW II Pacific reunion, October 16-19, Washington, DC. Contact Allan R. Dresner, 7026 Wyndale St., N.W., Washington, DC 20015, (202) 966-5054.

NAS New Orleans proposed reunion in New Orleans, LA. Contact Christian T. Capdevielle, 331 Robinhood Rd., Covington, LA 70433, (504) 893-5255.

USS Ranger (CV-4) ship's company reunion, July 25-26, Brunswick Motor Inn, Lancaster, PA. Contact George Pyle, 8629 Oakleigh Rd., Baltimore, MD 21234, (301) 668-0260.

VP-11(F)/VP-51/VP-54/VP-101/VPB-101/PATSU 1-2 (1936-45) reunion, September 11-14, Normandy Inn, Minneapolis, MN. Contact Donald Hatcher, 8018 47th Ave. North, New Hope, MN 55428, (612) 533-8323.

U.S. Naval Test Pilot School reunion, April 26, Cedar Point Officers' Club, NATC Patuxent River, MD. Contact Lt.Cdr. Ken Reightier, Reunion Coordinator, USNTPS, NATC Patuxent River, MD 20670-5304, (301) 863-4107, autovon 356-4107.

USS Lexington CV-2 Club reunion, May 14-17, Sacramento, CA. Write Walt Kastner, 466 Ivy Glen Dr., Mira Loma, CA 91752.

Navy/Marine Air Traffic Control Symposium, March 25-27, San Diego, CA. Contact ACCS R. G. Moody or AC2 D. R. Gasparro, autovon 951-6927 or commercial (619) 437-6927.

USS Chantrelure AV-10 ship's reunion, October 1-4, Memphis, TN. Contact Mrs. Kenneth E. Boyd, Rt. 4-Box 145, Culpeper, VA 22701, (703) 854-5076.

USS Essex CV/CVA/CVS-9 ship's company reunion, June 10-14, Long Beach, CA. Contact Jack Gallagher, P.O. Box 3156, Lakewood, CA 90711-3156 or Al Shannon, 6244 Lemon Ave., Long Beach, CA 90805.

USS Enterprise (CV-6) reunions, June 14-15, Pendleton, OR; July 26-27, Denver, CO; and August 16-17, Plymouth, IN. Contact Ed Doss, P.O. Box 791, Westport, WA 98595, (206) 268-9742.

Marine Aviation reunion, May 3, MCAF Quantico, VA. Contact Judy Skinner, Reservation Secretary, MCAF Quantico, VA 22134-5060, (703) 640-2442.



naval aviation news