

NAVAL AVIATION

NEWS

In this issue :

MEDAL OF HONOR



APRIL 1976





NAVAL AVIATION NEWS

FIFTY-EIGHTH YEAR OF PUBLICATION

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COVERS — Front, President Ford addresses gathering at White House during Medal of Honor presentations to Rear Admiral James B. Stockdale and Lieutenant Thomas R. Norris (story on page 8). Dave Wilson took the photograph. Back, VC-8 drone retrieval action was filmed by Lt. Larry Ische (story on page 18). Here, VP-47 personnel, flanked by squadron P-3 Orions, form an A commemorating 24 continuous months of 12 Alpha-qualified crews. PH2 Dwight Nelson was the photographer.

editor's corner



U-Fly-It. The Shaper Manufacturing Company calls it that. It's a sort of toy which has become a popular training device for educators. It's been used as an aid in presenting subjects as varied as algebra, geometry, American history and aeronautics. It also helps develop visual-motor coordination and complements a government aerospace education program for students in grades three through twelve. Mr. Eugene S. Berlin is shown during a demo of U-Fly-It in New York.

The limping Greyhound. Lt. Tony Bruno was visiting the Naval Aviation Museum in Pensacola and couldn't resist photographing this C-2A "down" for a tire change. The *Greyhound* has since been reported "up."



One thousand traps. *NANews* has received numerous requests for a list of flyers who have made 1,000 or more carrier arrested landings. We have a few names on this honor roll but solicit the names of those qualified so that a definitive compilation can be made. Please write *NANews* or call us on autovon 222-4817/8/9.

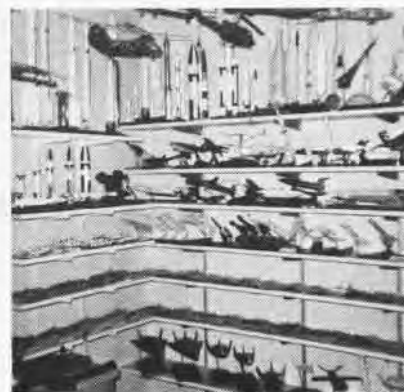
A flexible man. That's VAQ-132's Walter M. "Pappy" Snell, ADCS. Eight gold hash marks adorn his sleeve. In 34 years of service and travel around the world, Pappy has had so many different assignments that flexibility is a must with him. He joined up six days before Pearl Harbor. What's more, he was a CPO six years *before* his present division officer was born. That certainly calls for a little flexibility.



Who was that inspector? Lieutenant Ron Farin, General Washington's personal representative — at least VP-90's Lt. Kent Taylor says so. According to Taylor, his is the finest patrol squadron in the Navy and worthy of such scrutiny. After the formal inspection, the P-3 unit's C.O., Commander Jerry Lambden, accepted the Lieutenant's comments that hair and beards were entirely too short. The Skipper cringed a bit, though, when the revolutionary visitor toured an *Orion* and a member of the inspecting party declared "It will never fly."



Can you top this? Tom Hollywood of Orange Park, Calif., is quite a Navy enthusiast and model buff (see p. 2, *NANews*, December 75). But these pictures reflect an avocation which has to set some sort of record. Tom's been collecting factory models for 20 years. We didn't have room to publish three other photos showing a multitude of other aircraft suspended from the ceiling, and walls totally covered with insignia patches.



JetPlan

Interim results of a Navy test program show that JetPlan, a computerized flight planning and weather advisory service, may save substantial fuel, time and money.

A five-month evaluation by Atlantic Fleet P-3 *Orions*, on approximately 250 point-to-point trans-Atlantic and shorter flights, indicated that an average of 4,680 pounds of fuel and seven minutes of flying time were saved on each flight using JetPlan rather than manual flight plans prepared by Navy crews.

Pacific Fleet P-3 squadrons, flying out of Moffett Field, started using JetPlan on a limited test basis in 1974. Early finds showed that JetPlan was accurate within one percent and could produce savings of several thousand pounds of fuel per flight, which could increase on-station time for the P-3s by as much as one to two hours. Because of the excellent test results, the study was extended to the Atlantic Fleet in April 1975.

In the Navy-conducted tests, each P-3 crew prepared a manual flight plan for each flight, then requested a JetPlan from the Lockheed computer center for the same route and fuel load. The crew could use whichever plan it preferred. It recorded actual fuel burned, true air speed and time, and forwarded all the data to the naval air station handling the study. The results indicated that JetPlan gives the best route, fuel load, checkpoints, flight levels, etc., and up-to-the-minute weather conditions.

Guard and Reserve

The Executive Committee of the National Committee for Employer Support of the Guard and Reserve met in the Pentagon on February 3, 1976. Secretary of Defense Donald H. Rumsfeld and General George S. Brown, Chairman of the Joint Chiefs of Staff, spoke to the group.

The purpose of the National Committee is to develop an understanding of the role played by the National Guard and the Reserves in the defense of the United States as part of the "total force" program. It enlists the support of management to develop personnel practices which will encourage participation by their employees in the Guard and Reserve.

Since its formation in 1972, the National Committee has obtained the signatures of more than 318,000 employers on a statement of support. These employers represent almost 50 million employees, or more than 60 percent of the U.S. work force.

Integrated Target Control System

A contract for the development of an integrated target control system at the Pacific Missile Test Center has been awarded by the Naval Air Systems Command to Motorola, Inc. Installation of the equipment will begin in July 1977 with the system scheduled to become operational in December of that year.

It is a variation of the one developed by Motorola for NavAirSysCom when the military services were required to stop using portions of the ultra high frequency band shared with commercial communications services.

The system includes several varieties of stations to control surface and airborne target vehicles, including full-size service aircraft converted to unmanned target use. The target controller monitors takeoff and landing by observing the target aircraft out to ranges of about 20 miles. Two controllers can control the target during the critical takeoff and landing phases. One can control its lateral movement, and the other, its vertical movement and speed.

Primary control of the integrated target system is a transportable multi-target (up to six targets simultaneously), ground-based station with an operational range of 250 nautical miles. Control is maintained through monitoring numerous data displays on a console and the automatic plotting of the target's position on a map.

did you know?

There is also a light-weight control station with a range of 50 nautical miles for use aboard Navy ships at sea. This allows ships to conduct target exercises while underway far from any land-based facilities. Small missile-type targets are launched directly from the ship's deck and recovered later if not destroyed by direct hits.

New Fighter

The Navy has authorized McDonnell Douglas to begin full-scale development of the F-18 air combat fighter. McDonnell Douglas is the F-18 prime contractor for the airframe, with Northrop Corporation serving as



principal subcontractor. The latter will perform approximately 30 percent of the development work and 40 percent of the production work.

The F-18 will have a top speed of more than Mach 1.8 and a combat ceiling of about 50,000 feet. It will be powered by two low-bypass F404-400 engines, each in the 16,000-pound thrust class. This will give the aircraft a combat thrust-to-weight ratio significantly greater than one-to-one.

The aircraft will carry *Sidewinders* and *Sparrows* and an internal 20mm M61 gun mounted in the nose. Its weapons control system will be directed by a high-powered, multi-mode radar.

The F-18 is scheduled to make its first flight in mid-1978 and become operational with the fleet in 1982. The Navy plans to purchase 800, eleven for the flight test program.

Night Eyes

Beginning in October 1976, A-6E *Intruders* and A-7E *Corsairs* will be able to detect, identify and attack a wider variety of targets with much greater accuracy than with radar alone — thanks to the target recognition attack multi-sensor (TRAM) system now being evaluated at NATC Patuxent River. TRAM uses forward looking infrared (FLIR) sensors which enable flight crews to "see" at night.

The A-6E TRAM pictured here uses laser with air-to-ground ranging for conventional bombs and self-contained target designation for smart weapons. A TV-like picture is projected to the crew through a head-down dis-



play. The left "eye" contains a laser designator-ranger and the right, a laser receiver. A-7E imagery is superimposed with weapons system symbology on a head-up display (see *NANews*, November 1975, page 4).

To evaluate the two systems, NATC has developed battery-operated lights attached to bombs for night tracking and remote-controlled target boats for realism in documenting detection and identification capabilities.

This evaluation brings the fleet introduction of the TRAM system one step closer.

The Naval Air Systems Command provides overall project management and technical direction for TRAM.

Trapnell Field

On April 1, the airfield at NAS Patuxent River, Md., was named after the late Vice Admiral Frederick M. Trapnell, early test pilot and second commander of the Naval Air Test Center.

The runway complex at Patuxent River was designated Trapnell Field in ceremonies at which Admiral F. H. Michaelis, Chief of Naval Material, was guest speaker. A memorial will be erected at the site of the dedication.

VAdm. Trapnell was involved in Naval Aviation test and evaluation as early as 1930. While assigned to the flight test section at NAS Anacostia, he was a member of the Navy's first aerobatic team, the *Three Flying Fish*. He is credited with redesigning the hook-on mechanism on the airplane-carrying dirigibles *Akron* and *Macon*, and with improving the hook-on methods used.

VAdm. Trapnell became test coordinator at NATC in 1946, served as interim commander in 1947, and took command in 1949. That same year, the Institute of Aeronautical Sciences honored him with the Octave Chanute Award for his work with carrier-based jet aircraft.



Soft

The electromagnetic compatibility (EMC) safety of flight test (SOFT) program at the Naval Air Test Center, Patuxent River, Md., was begun in August 1973. A study of airplane and helicopter incidents prompted its adoption. The incidents were traced to electromagnetic interference (EMI), caused by instrumentation or electrical and avionics equipment modifications installed in aircraft for test purposes.

An EMC safety of flight test is required on all NATC-controlled aircraft prior to first flight when a plane's electrical or avionics system has been modified or instrumented in any way, regardless of the source of the modification or the location of flight tests.

The purpose of EMC SOFT is to insure that project modifications will not degrade the aircraft avionics systems nor lead to hazards in flight. The test consists of a thorough preflight inspection and an operational ground check of the modified aircraft. SOFT methodically checks out all the systems in the aircraft. Flight controls, engine performance and navigation systems, flight instrumentation, external stores release mechanisms and primary communications functions are exercised and evaluated for susceptibility to EMI. When feasible, project equipment is also evaluated for susceptibility to EMI generated by the aircraft systems.

The operation of electrical and electronic equipment together with or adjacent to other similar equipment is conducive to EMI problems. A wide spectrum of interference is possible among the many electrical and electronic units in an aircraft. Everything that carries a current radiates electromagnetic energy and every electronic device is, to some degree, susceptible to EM radiation.



grampaw pettibone

Night Caper

A pilot was scheduled for a practice intercept flight in an F-8 *Crusader*. He made an uneventful evening departure from the ship and completed his hop without incident. Upon returning to the ship for a night recovery, the F-8 was vectored for a carrier controlled approach (CCA). The approach power compensator did not appear to be working properly so the pilot flew a manual approach from three miles out, continuing to utilize CCA. The pilot called the "ball" with 3,800 pounds of fuel remaining. He experienced some difficulty discerning ball position due to very dim datum light intensity. The *Crusader* went low and slow in the middle to in-close, and then waved off. The LSO's comments were, "Wave-off, little low in the groove, not enough power in close, low, slow."

On the second pass, once again the pilot could not discern ball position due to dim datum light intensity but chose not to comment on it since he had heard no complaints from the other pilots in the pattern. The LSO advised, "You're a little high, easy

with the correction." The *Crusader* went low and decelerated to a slow condition, and the LSO called, "You're low, put on some power." The F-8 quickly increased its rate of descent



continuing to show a slow approach light, and the LSO rapidly called, "Power, power, wave-off, wave-off."

The aircraft was approximately seven seconds from the ramp when it was waved off. It was doubtful whether it would clear the ramp. The LSO called "rotate, rotate" approximately five seconds from the ramp to ensure best wave-off performance.

The aircraft remained slow and cleared the ramp by approximately four feet in a slight climb, in a very cocked-up wings-level attitude. After clearing the cross deck pendants, the port wing dropped sharply and the aircraft appeared to stall, the port wing striking the deck first, 70 feet past the #4 cross deck pendant. The *Crusader* at this time was 14 feet left of center line.

The aircraft then settled onto the main gear and departed the deck at about a 15-degree angle to port. The port main landing gear impacted the inboard datum light arm of the optical landing system and the aircraft settled rapidly in a slight nose-down attitude. At this time the LSO and air boss both called, "Burner, eject." The pilot selected afterburner and rotated to 20-25 degrees nose up, and ejected just prior to impact, approximately ten feet above the water in a wings-level attitude.

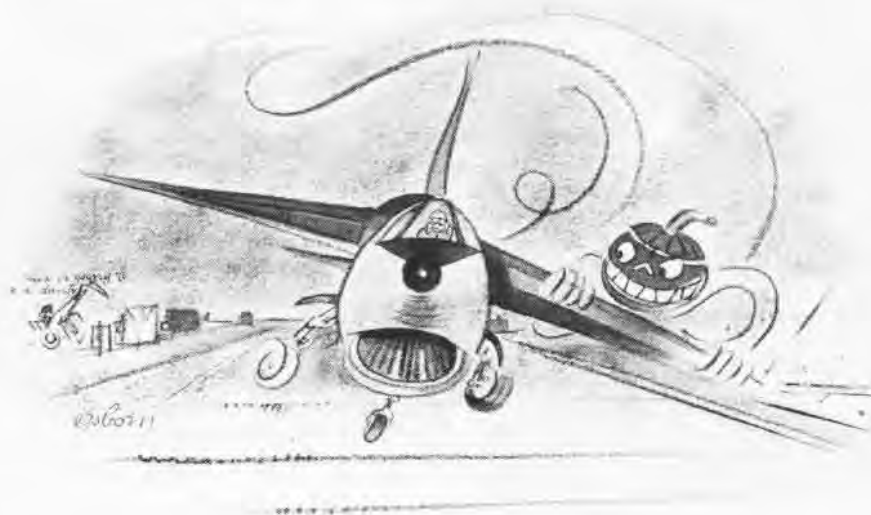
Ejection was normal. The SAR helo executed a successful pickup. The pilot was uninjured.



Grampaw Pettibone says:

Holy Hannah! Makes common sense to me — if you can't see somethin' because of dim light, turn the blasted switch up. If you have a problem seein' something, you concentrate on it, and the next thing you know you have a breakdown in your scan. Then anything can happen — as it did here!

Additionally, this gent did not utilize the wave-off technique as briefed. Lets face it, the F-8 ain't the easiest bird to bring aboard. You just have to pay attention to the task at hand. Do it!



ILLUSTRATED BY *Osborn*

How Dry I Am

Following a two-night RON, two Marine Aviators manned their T-33 for return to home plate. The flight plan called for a refueling stop at an AFB which was 75 miles and 30 minutes away. Preflight and takeoff were normal with the fuel counter indicating 365 gallons remaining, including 85 gallons in the fuselage tank.

The climbout was normal with ATC giving vectors. At about 15,000 feet the fuselage gauge indicated 80 gallons with the warning light on. Fuel level stabilized at this reading and the pilot notified ATC that the aircraft had a minor fuel transfer problem. He requested vectors direct to the AFB.

The pilot rechecked the fuel switches. He noted the fuel indication had increased to over 85 gallons and the warning light was out. ATC gave vectors direct to the AFB and, at about 30 miles out, an en route descent was approved.

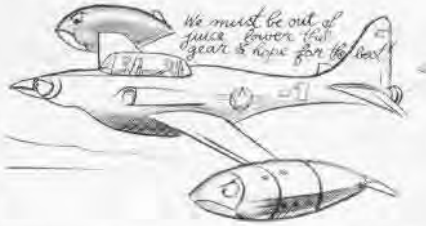
Approach control asked if special handling was required due to the fuel transfer problem. The pilot explained that no special handling was required but requested a short pattern. At six miles, the aircraft was passed to the tower for landing. The pilot lowered the gear and set flaps at 50 degrees. Shortly thereafter he transmitted that he was losing power. Both pilots checked the instruments and noted rpm was surging, fuel pressure fluctuating and exhaust gas temperature (EGT) decaying.

At this time the T-33 was at 125 knots. The rear seat pilot called flame-out, and also said, "Throttle back, check fuel switches and ignition." The pilot then transmitted, "Mayday, short final." The tip tanks were jettisoned.

A high sink rate developed and the aircraft descended rapidly. Just prior to touchdown, the pilot popped the stick back.

The aircraft hit tail first, then very hard on the main mounts and nose gear. At touchdown, the canopy was jettisoned. The pilot called for throttle, fuel and battery off. The aircraft rolled to a stop on the dry bed and the crew exited normally. No fire occurred.

The crash crew personnel arrived less than ten minutes after the accident. It was verified that the fuel counter in the front cockpit read 195



gallons and that the fuselage gauge read full. The aircraft was a strike.



Grampaw Pettibone says:

Great balls of fire! Another case of having the fuel, but not where the pilot thought it was. Apparently, earlier in the flight, neither the tip tank or leading edge tank switches were on to provide pressurization of the tanks and normal fuel flow.

The fuel gauge reading of 195 gallons was due to an attempted air start during which all the tank selector switches were open. Still, not enough fuel was transferred to assist in obtaining a relight.

In addition, this pilot forgot to "fly the airplane." With the long "dry bed" available the aircraft could have been landed without damage. Incidentally, I believe that the pilot could have gotten more help from his rear seat man; however, maybe he didn't know the fuel system either!?!

The Door

Two Marine Aviators departed in their VC-117D on a cross-country training flight. Destination was an AFB with intermediate stops scheduled at two naval air stations. The crew chief briefed the passengers on safety procedures, operation and position of seat belts and no smoking signs. Preflight, takeoff and the first part of the flight were normal. Three passengers were discharged at the first stop during a 45-minute refueling layover. The cargo door was opened two times by the crew chief during the stop, once to remove baggage and the sec-

ond time to place battens in the aircraft.

Departure on the second leg was normal. Although filed for 6,000 feet, the flight was cleared to 8,000. Weather conditions in the climb and at altitude were intermittent IFR with light to moderate turbulence in clouds. A lower altitude was requested to avoid turbulence and adverse headwinds. Approach control approved descent to 6,000 feet. Power was reduced and the nose was lowered to begin descent. At 6,500 feet, airspeed 160 to 170 knots, the cargo door came off the aircraft and struck the port horizontal stabilizer. The nose dropped abruptly and was not leveled until the aircraft bottomed out at 2,000 feet.

Fourteen degrees nose-up trim was required to maintain level flight. Maximum G loading did not exceed 2 Gs as estimated by both pilot and copilot throughout the flight. An emergency was declared and the crew vectored to the nearest suitable airfield. They maintained 160 knots.

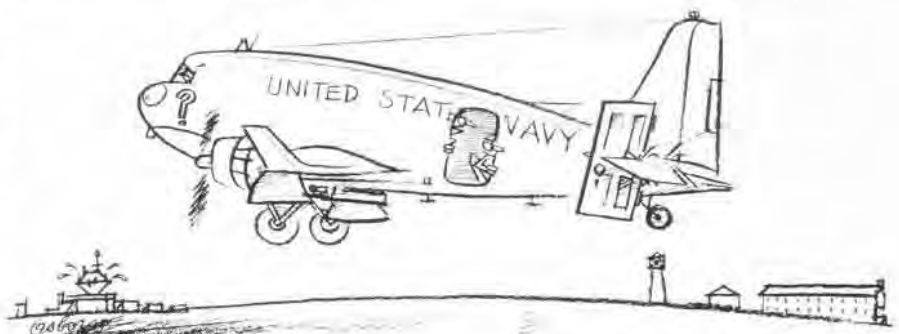
The pilot-in-command decided against a slow flight check at altitude. The landing and rollout were normal in all respects. The door remained lodged until it was forcibly removed from the horizontal stabilizer after the accident investigation.



Grampaw Pettibone says:

Jumpin' Juniper! When you think that one of our machines has been around long enough to finally have all the "bugs" worked out—bang, it happens. Who would have guessed that with all the modifications on this aircraft, the doors are still coming off!

In all honesty, these gents did a heck of a good job in recovering the aircraft and bringing her home. There is a story in all of this regardless of the age of your machine. The "bugs" may not be out of it. Be alert!



MEDAL OF HONOR

VIETNAM

Marine Corps

Sgt. Robert E. O'Malley
 1st Lt. Frank S. Reasoner
 LCpl. Joe C. Paul
 Capt. Harvey C. Barnum, Jr.
 SSgt. Peter S. Connor
 GSgt. Jimmie E. Howard
 Maj. Howard V. Lee
 2nd Lt. John J. McGinty III
 Maj. Robert J. Modrzejewski
 Pfc. Douglas E. Dickey
 Sgt. Richard A. Pittman
 Pfc. James Anderson, Jr.
 2nd Lt. John P. Bobo
 Sgt. Walter K. Singleton
 LCpl. Roy M. Wheat
 Pfc. Gary W. Martini
 Capt. James A. Graham
 Maj. Stephen W. Pless*
 Pfc. Melvin E. Newlin
 Sgt. Rodney M. Davis
 Sgt. Paul H. Foster
 Cpl. Larry E. Smedley
 Cpl. William T. Perkins, Jr.
 Sgt. Alfredo Gonzales
 LCpl. Jedh C. Barker
 2nd Lt. Terrence C. Graves
 Sgt. Lawrence D. Peters
 Cpl. Larry L. Maxam
 LCpl. Kenneth L. Worley
 LCpl. William R. Prom
 LCpl. Thomas E. Creek
 Pfc. Ralph H. Johnson
 Pfc. Robert C. Burke
 Pfc. Dewayne T. Williams
 Pfc. Oscar P. Austin



Pfc. Alfred M. Wilson
 Pfc. Robert H. Jenkins, Jr.
 Pfc. Ronald L. Coker
 Pfc. Jimmy W. Phipps
 Maj. Sando M. Vargos, Jr.
 Maj. James E. Livingston
 Cpl. William D. Morgan
 LCpl. Jose F. Jimenez
 SSgt. Karl G. Taylor
 LCpl. Thomas P. Noonan, Jr.
 LCpl. Lester W. Weber
 Pfc. Daniel D. Bruce
 Capt. Wesley L. Fox
 Pfc. Raymond M. Clausen, Jr.*
 LCpl. Richard A. Anderson
 LCpl. Emilio A. De La Garza, Jr.
 LCpl. James D. Howe
 LCpl. Keith Miguel
 Pfc. Bruce W. Carter
 GSgt. Allan J. Kellogg, Jr.
 Pfc. Ralph E. Dias

Navy

CMA3 Marvin G. Shields
 BM1 James E. Williams
 SN David G. Ouellet
 Lt. Thomas G. Kelly
 HM3 Wayne M. Caron
 Lt. Vincent R. Capodanno
 HM3 Donald E. Ballard
 Ltjg. Clyde E. Lassen*
 Ltjg. Joseph R. Kerrey
 HM2 David Robert Ray
 EN2 Michael E. Thornton

* Aviation action

For conspicuous gallantry and intrepidity . . .” President Gerald R. Ford began the citations accompanying the Medal of Honor presentations he made March 4 in a special White House ceremony.

Of the four honorees, two were U.S. Navy. Rear Admiral James B. Stockdale and Lieutenant Thomas R. Norris, USNR, received the award — the highest given for bravery in America. A total of 69 Navy and Marine Corps personnel have been presented the Medal of Honor for heroism in the Vietnam conflict.

Of these, four were cited for aviation-related action. RAdm. Stockdale is the third Naval Aviator to receive the medal for service in Vietnam. In January 1969, Maj. Stephen W. Pless, USMC, and Lt. Clyde E. Lassen, USN, were decorated. An aircrewman, Pfc. Raymond M. Clausen, Jr., USMC-R, received the award on June 15, 1971.

The first Naval Aviator awarded the Medal of Honor

was Ens. Charles H. Hammann during WW I (page 25).

The idea for the Medal of Honor was born during the Civil War. The U.S. Navy was the first service empowered to bestow the coveted medal. It was authorized by Congress and approved by President Abraham Lincoln on December 21, 1861. The bill was sponsored by Senator James W. Grimes of Iowa. President Lincoln described presentation of the medal as an “act to further promote the efficiency of the Navy.” On July 12, 1862, a similar medal was authorized for Army personnel. Both the Navy and Army medals were to be awarded only to enlisted men. Later, legislation was written to include officers among those eligible for consideration.

The medal is awarded “in the name of the Congress of the United States” and for this reason, it is often called the Congressional Medal of Honor. It is only on rare occasions that Congress awards Special Medals of Honor.



The President of the United States in the name of The Congress takes pleasure in presenting the MEDAL OF HONOR to

REAR ADMIRAL JAMES B. STOCKDALE
UNITED STATES NAVY

for service as set forth in the following

CITATION:

For conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty on 4 September 1969 while senior naval officer in the Prisoner of War camps of North Vietnam. Recognized by his captors as the leader in the Prisoners of War resistance to interrogation and in their refusal to participate in propaganda exploitation, Rear Admiral (then Captain) Stockdale was singled out for interrogation and attendant torture after he was detected in a covert communications attempt. Sensing the start of another purge, and aware that his earlier efforts at self-disfigurement to dissuade his captors from exploiting him for propaganda purposes had resulted in cruel and agonizing punishment, Rear Admiral Stockdale resolved to make himself a symbol of resistance regardless of personal sacrifice. He deliberately inflicted a near-mortal wound to his person in order to convince his captors of his willingness to give up his life rather than capitulate. He was subsequently discovered and revived by the North Vietnamese who, convinced of his indomitable spirit, abated in their employment of excessive harassment and torture toward all of the Prisoners of War. By his heroic action, at great peril to himself, he earned the everlasting gratitude of his fellow prisoners and of his country. Rear Admiral Stockdale's valiant leadership and extraordinary courage in a hostile environment sustain and enhance the finest traditions of the United States Naval Service.



Gerald R. Ford



The President of the United States in the name of The Congress takes pleasure in presenting the MEDAL OF HONOR to

LIEUTENANT THOMAS R. NORRIS
UNITED STATES NAVAL RESERVE

for service as set forth in the following

CITATION:

For conspicuous gallantry and intrepidity in action at the risk of his life above and beyond the call of duty while serving as a SEAL Advisor with the Strategic Technical Directorate Assistance Team, Headquarters, U. S. Military Assistance Command, Vietnam. During the period 10 to 13 April 1972, Lieutenant Norris completed an unprecedented ground rescue of two downed pilots deep within heavily controlled enemy territory in Quang Tri Province. Lieutenant Norris, on the night of 10 April, led a five-man patrol through 2,000 meters of heavily controlled enemy territory, located one of the downed pilots at daybreak, and returned to the Forward Operating Base (FOB). On 11 April, after a devastating mortar and rocket attack on the small FOB, Lieutenant Norris led a three-man team on two unsuccessful rescue attempts for the second pilot. On the afternoon of the 12th, a Forward Air Controller located the pilot and notified Lieutenant Norris. Dressed in fisherman disguises and using a sampan, Lieutenant Norris and one Vietnamese traveled throughout that night and found the injured pilot at dawn. Covering the pilot with bamboo and vegetation, they began the return journey, successfully evading a North Vietnamese patrol. Approaching the FOB, they came under heavy machine gun fire. Lieutenant Norris called in an air strike which provided suppression fire and a smoke screen, allowing the rescue party to reach the FOB. By his outstanding display of decisive leadership, undaunted courage, and selfless dedication in the face of extreme danger, Lieutenant Norris enhanced the finest traditions of the United States Naval Service.



Gerald R. Ford

Corpus



By Lt. Edward L. Solder and
Ens. Dale J. Lampton

If you drive toward NAS Corpus Christi along Ocean Drive, coming from downtown, the route takes you past fine homes and rolling green parks. Until 1939 that same lovely, scenic, residential strip was a sandy wasteland choked with mesquite, sparsely dotted with houses, some fishing shacks and narrow piers along the shoreline. And before that, the story goes, a savage band of Indians, the Karankawas, roamed the dunes. During the era of the Spanish Main, galleons loaded with the treasures of the new world sailed back to Spain along these shores. Storms, pirates and errors of navigation took their toll. To this day treasure hunters seek pieces of eight beneath the ever shifting dunes.

The city of Corpus Christi began as a frontier trading post about 1838. It remained an obscure settlement until, for a time, it served as headquarters of General Zachary Taylor's army in 1846 during the war between the United States and Mexico. Many years later, in 1926, the modern port of Corpus Christi was opened. Its seawall was finished in 1940. Today it is a combination of booming industry and expanding tourist trade, a seaport surrounded by farms and ranchland, serving the crescent-shaped area of Texas known as the coastal band. Naval Air Station, Corpus Christi, 35 years old on March 12, and its tenants comprise the area's largest industry with their huge civilian-military payroll.

As the 1930s drew to a close, the United States became more and more concerned about the war in Europe. The race for preparedness began. The draft started. The 1938 Naval Expan-

sion Act authorized procurement of enough planes to bring the number to "not less than 3,000." The day after the Germans occupied Paris in June 1940, the authorized strength was increased to 10,000 planes. The following month it jumped to 15,000 (well on the way to the ceiling of 27,500 authorized in 1942). The Navy's need to expand its pilot training program was urgent.

High on the priority list for naval aviation ground facilities was a second training station for pilots comparable to Pensacola. Corpus Christi, like Pensacola, had a moderate year-round climate, room for expansion and plenty of airspace. It offered areas suitable for both seaplanes and landplanes. It was the logical site for the Navy's new university of the air.

In 1939 a Naval Affairs Subcommittee from the House of Representatives showed up for a look around. The

Christi



members spent most of their time on the 2,050 acres ten miles southeast of the city. In June 1940, President Franklin D. Roosevelt, an avid supporter of aviation and a former Secretary of the Navy, signed an appropriation bill providing money for the construction of NAS Corpus Christi.

This is the only place in the world where a passing truck can splatter mud in your eyes and at the same time kick dust in your face.

In a short time, giant shovels began to change the face of the land. An inhospitable snake-infested area soon became a complex of runways, seaplane hangars, paved roads and buildings. But, the project was not without its difficulties. For months the rainfall was twice what was normal and it was necessary to use crawler-type tractors

VT-28 Trackers stand ready for duty outside squadron hangar. Photo of 1941 flight line was taken from top of the hangar which VT-27 uses today. A jubilant cadet chalks a thumbs-up arrow beside his name to show that he has passed a flight test.





in the mud and standing water. When the summer heat arrived, mud changed to dust within a few hours under the hot sun. High winds whirled the dried earth into dust storms which tormented the workers, slowed construction and damaged equipment. During the excavation for foundations, no sooner was a hole dug than the sand filled it up again. Wind and sea action made it necessary to construct quay walls and bulkheads along the waterfront as supports for the shifting sand until it settled. An unusual problem was the nearness to the air station of a wild-burning gas well which spewed out saltwater as well as gas. The high winds carried saltspray all over the station, causing metal to rust and wires to corrode. Eventually the fire was extinguished and the well was capped.

From every state in the Union they come, to get their training as sea-going warriors of the air.

Cadet training began on April 1, 1941. In addition to the naval air station there were six auxiliary stations. With the exception of Kingsville, they were named in honor of men who gave their lives for Naval Aviation: Chase, Cuddihy, Cabaniss, Rodd, and Waldron Fields.



An SNB Beechcraft which was used in multi-engine training is at left. With his ground crew, a cadet gets a seaplane, on a wheeled cradle, started toward the water.

Primary flying was taught by Squadron 11. The cadets got their first taste of flying in the Stearman N2S *Kaydet*. They learned basic formation flying from Squadron 12. Vought OS2U-2 *Kingfishers* and Vultee SNVs gave the cadets the feel of the heavier aircraft they would fly later. Squadron 13 taught them instrument flying in the all-metal SNJ *Texan*. Squadron 14 trained the cadets in advanced fighters and fighter tactics, using the Grumman F2F-1 and F3F. Teaching advanced formation flying and dive bombing was the job of Squadron 15. For training in taking off and landing on water, the cadets went to Squadrons 17 and

18. The training planes were, first, the NAF N3N and Vought OS2U, later Consolidated's PBY. After 1943, primary flying at Corpus Christi was replaced by multi-engine training, in Beechcraft SNBs and JRBs.

By the end of 1941, the naval air station was turning out 300 new pilots every month. After Pearl Harbor this number doubled, and by war's end more than 35,000 aviators had earned their wings at the Texas base.

From the wartime peak of 21,067 pilots trained in 1944, peacetime anticipation was to train less than ten percent of that number.



Cadets learned to recognize types and makes of aircraft by studying models. At right, 1943 photo of SNJ Texan which was training plane used for instrument flying.

The years following World War II brought many changes in naval air training. Manpower shortages plagued the training program. The release of ground officers left portions of instruction to aviators who were unprepared. The shortage of enlisted men kept planes on the ground which should have been flying. A flight-line engineering and work program was added to the syllabus. Thus, the cadets serviced their own planes and aided in 30-hour checks. The manpower shortage in 1947 reduced NAS Corpus Christi to a subordinate command. However, the picture brightened late in 1948 when Naval Air Advanced Train-

ing Command headquarters moved from Jacksonville to Corpus Christi. When the Korean War began in 1950, the pace and scope of activity increased again.

In the early Fifties, Corpus Christi moved into the jet age with the arrival of the Lockheed TV-2, Grumman F6F *Hellcats*, F8F *Bearcats* and F4U *Corsairs* were the props flown and the old reliable SNJs and SNBs continued in service. The Navy was involved with flying boats until the mid-Sixties and student pilots were trained in the Martin PBM *Mariners* and P5M *Marlins*. From November 1948 to 1955, the air station was also home for the *Blue*



Angels on two different occasions. In 1955 the *Blues* moved to Pensacola.

In late 1959, the station's overhaul and repair department closed. As employer of most of the 4,000 civilian workers at the base, it had become southern Texas' largest industry. Most of the civilian jobs were eliminated. In 1961, though, the Army began looking for a large maintenance facility for its growing air arm. It was not long before the Army Aeronautical Depot Maintenance Center became — and still is — a tenant of the air station. Many of the old overhaul and repair employees went back to work in almost the same kind of jobs. Corpus Christi lists among its other tenants today a naval construction battalion unit, a Marine Aviation training support group, a Coast Guard air station, and Navy and Marine reserve units.

The sky over Corpus Christi is the world's biggest classroom.

Naval Air Training Command headquarters transferred to Corpus Christi from Pensacola in 1972. Training Air Wing Four, one of eight similar commands in the U.S. under Naval Air Training, was established to provide basic and advanced training to students in the prop pipeline. The unified com-



mand concept streamlines flight training, and students now make one transfer — from primary training at Pensacola to one of the wings.

Four squadrons report to Commander Training Air Wing Four — VTs 27, 28, 29 and 31.

VT-27 is responsible for basic flight instruction in the T-28 *Trojan*. VT-29

provides airborne instrument and celestial navigation training for student NFOs in T-29Bs and C-117s. VTs 28 and 31 have the job of multi-engine prop training and operate the TS-2A *Tracker*.

But the central goal at NAS Corpus Christi remains constant, training skilled flyers for the fleet.



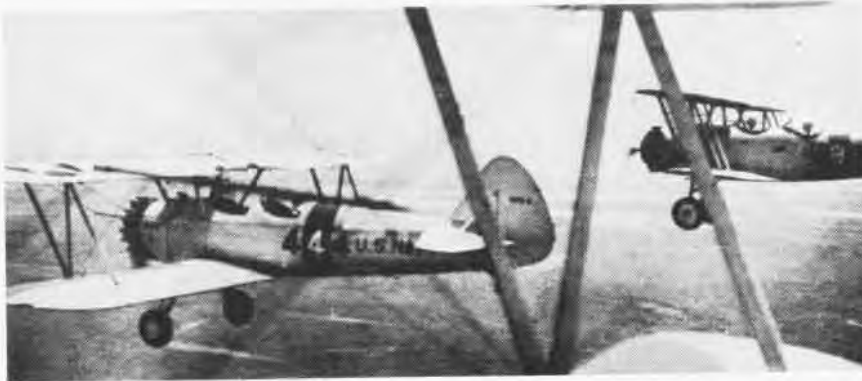


The mission of the Naval Air Training Command is to train pilots and NFOs for duty with the fleet.

OS2U Kingfisher was one of earlier aircraft used to train students in taking off and landing on water.



Lt. E. W. Allen, instructor, congratulates first seven cadets to solo at Corpus Christi, late 1941.



In Stearman primary training planes, student aviators learned the art of flying in formation.



Aircraft based on board *J. F. Kennedy* keep flight deck busy. SecNav J. William Middendorf visits JFK in the Med.



Mediterranean Operations

Five years ago, it was obvious that the focus of carrier-based operation was the Western Pacific but the current status board reveals an entirely different posture.

Today Naval Aviation records are being set and surpassed daily in the Mediterranean. When USS *J. F. Kennedy*, with CVW-1 aboard, deployed in July 1975, two new aircraft were introduced to the Med, the S-3A *Viking* and the F-14 *Tomcat*.

This was the first operational deployment of the *Viking*. Despite the normal difficulties of transitioning, VS-21 amassed 541 flight hours during 17 operating days in September, a squadron record. In October, VS-21 successfully completed its 1,000th accident-free S-3 carrier landing. This milestone was achieved while initial carrier qualifications were going on for 16 plane commanders.

Tomcat squadron VF-32 was also rolling up records in the other new Med arrival. In September, VF-32's commanding officer, Commander Jerry Knutson, became the first East Coast F-14 centurion. The same month, the squadron flew 578 hours, the most ever flown in a single month by an F-14 squadron. This pace resulted in an average of 180 flight hours and 75 arrestments per pilot.

While the newest members of the aircraft inventory were getting the attention, the proven warriors were carrying on. VAQ-133, the EA-6B squadron onboard *Kennedy*, flew more hours during this cruise than any EA-6B squadron flew during a single Vietnam deployment. By mid-cruise all VAQ-133 aircrews had passed the centurion mark.

However, *Kennedy* and CVW-1 represented only half the carrier force in

the Med during December. USS *Independence* and CVW-7 picked up the beat of carrier ops after they returned from *Ocean Safari 75*.

As the striking arm of the Sixth Fleet, the carrier task force operates in support of American as well as NATO interests and in support of NATO land forces in its southern region. The carrier task force commander, Rear Admiral E. J. Carroll, directs carrier ops in the Mediterranean. With operating days limited by fuel conservation, every steaming day is used to its maximum potential.

Since our NATO allies are interested in Sixth Fleet activities, *Kennedy* and *Independence* host a steady stream of foreign flag officers, ministers, diplomats and foreign media representatives. Visitors witness firsthand the level of readiness and convey this message to their constituents.

THREAT SIMULATION

The jet, with its snub nose and camouflage paint job, looks like something out of a Korean War movie. There is one important difference, however. As it cruises high among the clouds, the pilot sits inside building 53 at the Pacific Missile Test Center, Point Mugu, Calif. He flies the aircraft from a simulator with a special television screen hookup. The jet, a QF-86H drone, has a television camera in its nose, enabling the man on the ground to actually control the flight. The concentration is mainly on takeoffs and landings.

The purpose of Point Mugu's Threat Simulation Department is to "realistically simulate the environment encountered in a war," says Commander Roy Cobb, threat simulation officer. This is partially accomplished through the use of aircraft converted to target drones, such as the QF-86H, and missile targets, such as the orange BQM-34A *Firebee*. The converted aircraft include three bright orange QF-4B *Phantoms* and ten QT-33As.

The QF-86H simulates a low-cost, highly-maneuverable light-weight

fighter threat, while the QF-4B *Phantom* is used as a full-size, high-altitude supersonic target.

Although a drone, the QF-4B can also be flown by a two-man crew, and can be used as a target control escort plane—to control other unmanned drone aircraft. In fact, crews fly the QF-4Bs out to San Nicolas Island where the QF-4B unmanned takeoffs and landings occur. The QF-4Bs can also be controlled by an escort plane or by men on the ground.

The most common missile target is the *Firebee*, the "workhorse of the fleet." Manufactured by Teledyne Ryan Aeronautical Company, the BQM-34A is remotely controlled, capable of speeds up to 550 knots and altitudes from 50 to 50,000 feet, and can be air or ground launched. It is recoverable at sea, by either helicopter or boat.

The Threat Simulation Department maintains, operates and repairs the missile targets. Each missile target has an approximate lifespan of three flights, with about five or six targets being launched weekly.

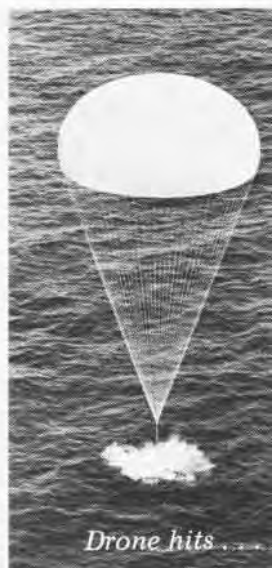
By PH2 Barbara Wisegarver



HOOK THAT DRONE



Lt. Larry Igohe



Drone hits



Morris: Easy u

By Ltjg. Jesse Ashcraft

Photos by PH2 T. P. Pompillio

Drone recovery procedures for the SH-3 *Sea King* used to be a function of individual squadron SOP. But Fleet Composite Squadron Eight, Roosevelt Roads, Puerto Rico, has changed this. Its methods have been evaluated and adopted following a conference held at the Pacific Missile Test Center. Final approval and an official Natops change are expected shortly. The following is a description of how VC-8 does it.

Earlier in the day a BQM had been launched by a P-2 *Neptune* as the "enemy" airplane in a missile exercise.

It had been shot at by Marine F-4s and monitored by Navy ships' radar. This was the drone's fifth flight and it would probably fly five more times before being replaced. (One BQM drone flew 22 times before saltwater corrosion and fast-paced operational stress rendered it unusable.)

Now an H-3 *Sea King* transitions to a 40-foot hover over the blue Caribbean. LCdr. Rodney Whalen checks the engine gauges and tells his crews to "rig out." First making sure his life-line is secured firmly to the deck, AE2 Mike Garcia opens the passenger door and descends the ladder. He sits down on the second step and looks aft toward the sonar well. There, AE2 Dan Morris lowers a ten-foot drone hook

through the sonar well to Garcia. Garcia snags the hook with a pole, called "shepherd's hook" because it resembles a shepherd's staff. With it he pulls the drone hook to his side. Then, he uncouples the two and tosses the shepherd's hook back inside the helo. The drone hook is then connected to the aircraft's cargo sling by a 30-foot cable.

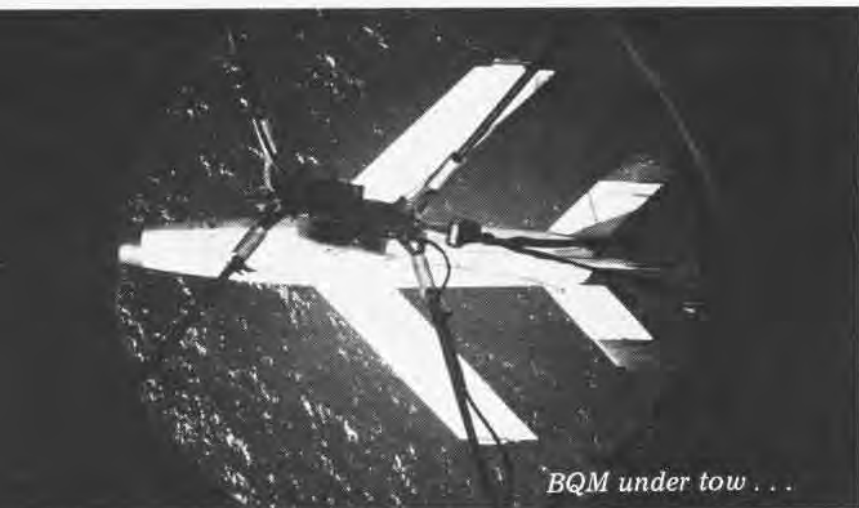
Meanwhile, Lt. Larry Graves, piloting from the left seat, sizes up the situation. The parachute had ejected smoothly on splashdown. There are no shroud lines entangling the *Firebee* to hamper its retrieval, so, a crewman need not enter the water to untangle the lines. The drone is not in an unusual attitude; it is floating upright.



Helo approaches . . .



Garcia monitors the action



BQM under tow . . .



Recovery complete.

Garcia deploys a canvas loop. It is decided that the drone can be safely raised and, while suspended below the *Sea King*, flown back to the base.

With the drone hook firmly in his grasp, Garcia turns back toward the cockpit. With his free hand he gives a thumbs-up to the pilots. "Soaptree control, Saltspray 21 is entering recovery," LCdr. Whalen reports. Lt. Graves flies toward the floating projectile.

Forty feet below and 50 yards away on a 45-degree bearing line off the port bow, the BQM-34 bobs like a giant orange cork. The water around the drone is green from the dye automatically released to make it easier to find. Its saltwater-activated homing

signal, received by the helo's UHF radio, also helps pinpoint the drone's position.

Lt. Graves maneuvers the *Sea King* into a hover just above and to the right of the BQM. As the rotor wash strikes the drone's rudder, the drone turns and points directly to the passenger door, presenting its canvas loop to Garcia. As the drone swings into position, he leans forward, gunner's belt snugly around his waist, the lifeline pulling taut. He connects the hook to the loop. He then scrambles back up the passenger steps and secures them.

Almost immediately, Morris, still leaning over the sonar well, begins giving directions. "Easy left . . . easy up . . . easy forward . . . easy up . . .

tension coming on the line." The H-3 sways momentarily as the cable tightens. Lt. Graves adds power until a full 95 percent registers on the torque gauge. Morris reports that the drone has cleared the water and is draining. The speed is increased to 30 knots. When the *Firebee* is completely drained and flying nicely, the airspeed and altitude are increased. LCdr. Whalen reports "a drone in the sling" to Soaptree control while he reduces the power setting. The entire evolution has taken less than 60 seconds.

Back at Roosevelt Roads, the crew will place the drone on a large water mattress, release the hook and head back out for another, now floating 50 miles north of Puerto Rico.

Edo—producers of sonars, loran receivers, aircraft armament equipment, helicopter-towed hydrofoil platforms, seaplane floats and, for the Navy 30 years ago, a small batch of observation scout seaplanes.

An earlier builder of aircraft floats, Edo became the major U.S. manufacturer of seaplane floats during the Thirties. WW II found them building floats for the Navy's seaplanes: OS2U *Kingfishers*, SO3C *Seagulls*, and SC *Seahawks* (NANews, August 1975) and various prototypes.

In 1943, it was evident that the latest Navy seaplane, the SO3C, had grown too heavy for its 550-hp Ranger engine. Underpowered, the SO3Cs were withdrawn from service. Edo was given the job of developing smaller combat-worthy VOS seaplanes, using the same Ranger engine. These would supplement the larger *Seahawks* which were also under development, and would fit into existing battleship and cruiser hangars.

Starting from scratch, Edo's designers met the challenge, incorporating combat requirements (radar, armament and gunfire protection) in an attractive single-place seaplane with typical folding wings. It was some 2,000 pounds lighter and smaller than other combat-equipped seaplanes. A simple landplane landing gear could replace the floats for ferry purposes.

The XOSE-1's first flight took place after V-J Day, on December 28, 1945. After the war, the program continued. Two-place versions had also been ordered: the combat-equipped XOSE-2 and the non-combat XTE-1 trainer.

Flight testing of the XOSE-1 revealed flying quality problems typical of many late WW II and early postwar experimental models. NATC tests highlighted these in the summer of 1946, and Edo undertook the necessary fixes. Correction of these led to stall problems, and it was January 1947 before all the problems were resolved. Meanwhile, work on the two-place versions continued. However, postwar financial cutbacks led to reduction of the total program to six XOSE-1s and two each of the two-place versions.

Incorporation of the final fixes delayed the program, with the first XOSE-2 flying July 24, 1947, followed by the first XTE-1 on September 11. Demonstration flight tests of the XOSE-1 suffered from continuing engine problems, while the two-place airplanes were found to have directional stability problems due to the larger canopy. A larger fin was incorporated on the XOSE-2s, but the XTE-1s were accepted "as is" when interest in the program waned.

Early in 1948, XOSE-1s were delivered to NATC; BIS trials were under way in May. But the handwriting was on the wall. Helicopters were on their way to taking over capital ship flying. The XOSE development was cancelled in the late summer. Two -1s continued in use for a short time before joining the others in premature retirement.





XOSE-1



OSE



Span	37'11.6"
Length	31'2.5"
Height (on beaching gear)	14'4.5"
Power plant	Ranger V-770-8 550 hp
Maximum speed	175 knots
Service ceiling	21,900'
Range	780 nm

Crew	XOSE-1	single place
	XOSE-2, XTE-1	two place

Armament	XOSE-1	two .50 cal. machine guns
		two 350-lb. depth bombs
	XOSE-2	one .50 cal. machine gun
		one 350-lb. depth bomb



XOSE-1



XOSE-2



LUV STORY PLUS ONE

By Kiddy Karr

In June 1917 the Navy opened up a dirigible school at Wingfoot Lake near Akron, Ohio, where flight training was to be given in the Good-year non-rigid dirigibles of the B class as well as kite and free balloons. The commanding officer was Lt. Louis H. Maxfield, a mighty fine man.

He had a big airedale named Lanny who quickly became the favorite of all hands except on chilly or rainy mornings when he would nose his way into the tents in which we slept and try to get in bed with us to get warm. He was very playful. If we paid no attention to him when he wanted to play, he would lightly grab our pant leg and try to pull us out, or gently nip a hand or leg to let us know he was there.

His favorite sport was chasing rabbits in a nearby swamp. He would come back, joyfully galloping up the company street, covered with slimy mud. Then someone would go out and turn the hose on him, which he thoroughly enjoyed.

I believe it was in July when an inspection party arrived from Washington. It included the Assistant Secretary of the Navy, a couple of admirals and some civilians. We were all lined up between the tent rows in undress whites but the officers were in dress whites with medals and campaign ribbons — a fine sight.

Just as the inspection party started down the street we saw Lanny emerge from the swamp and head for camp. The inspection party was right in front of me when Lanny approached from the opposite direction. He was dripping mud and green scum from the swamp but he was so happy to see his master he reared up, threw his legs on both sides of Lt. Maxfield's neck and plastered mud all over the front of that beautiful white uniform. "Down! Dammit!" he shouted, but the damage was already done — Maxfield was a sight!

No one dared to laugh, although it was a most comical sight! At last, one of the civilians could hold it no longer and let out a rousing haw, haw, haw and everyone followed suit. The inspection parade went on, with a newly decorated skipper. From that day on the name Lanny was never heard again. He was Dammit to all hands, even his master.

Dirigible flying always started very early in the morning when the air was most stable. Handling lines hung down all around the ship with a crewman on each. The pilot would sing out, "Hands off," and, if the ship did not rise fast enough, the pilot would order, "Hold it," and the lines would be grabbed and pulled down and more sand ballast would be unloaded. When the lift was satisfactory, he would yell,



"Hands off," and open the throttle of the Curtiss OXX engine and away they would go into the wild blue yonder.

Dammit got the idea it would be fun to grab one of the handling lines as the ship started up and let it lift him off the ground and then drop back. Someone said, "Dammit is getting in his flight instruction!" It was a joke until Dammit got to hanging on too long and seemed to get a kick out of swinging around and wiggling before he would let go and drop down. This worried us all, so Lt. Maxfield ordered him tied to the framework of the hangar door just before final take off. This made Dammit furious.

Nearly a week went by but the leash held the dog. One morning, just as the crew got the "hands off" and Lt. Maxfield gave it the gun, Dammit lunged against the leash and it broke!!! Like a shot he tore after the ship and gave a leap. He caught a handling line and was "up-up-and away." He hung on until he was at least 40 feet in the air. Evidently he did not realize how fast the ship was rising and, of course, hanging by his jaws he could not see how far below the ground was.

He was about level with the pilot's cockpit so it must have been sheer torture for Lt. Maxfield. He had to look out and see his dear dog twisting and turning as he hung onto the line with his jaws while the ground slipped rapidly away. He couldn't do anything about it. The ship would have to be over 100 feet in the air before enough gas could have been valved out to bring it back to earth. And this would take time — far too long to expect

Dammit to support his body with his jaws. So the flight had to go on.

It affected all of us. A cadet put his arm across his eyes and said, "I don't want to see him hit. . . ." A Lt. Coil kept shaking his head and saying over and over, "No, no, no." At last, at about 40 feet, Dammit's jaws relaxed. He fell away from the ship. I saw him give a jerk and level out which likely saved his life. If he had hit on his tail it would no doubt have broken his back. Luckily, the ground where he hit had been plowed in the spring and was a little softer than the turf. But he hit with a loud thump and lay motionless.

One of the students picked him up and carried him into the hangar and laid him on a pile of ballast sacks. Everyone was sad because Dammit was a favorite with all hands. Then, one leg twitched and someone shouted, "He's alive!!!" and we all rushed over to him. Evidently the shock had knocked the breath out of him for he soon raised his head and wagged his tail. Later he got up on shaky legs and walked! There were no broken bones and in half an hour he was running around good as new and seeming to enjoy all the extra attention he was getting from everyone.

As Lt. Maxfield's ship approached for a landing, Lt. Coil said, "Get Dammit out there on the field so Lt. Maxfield can see him as he comes in." He did see him for he started madly waving his arms. So did the others when they saw Dammit was alive. It was touching to watch Lt. Maxfield when he got out of the ship. There were tears in his eyes when he took Dammit in his arms for he had not

expected to see him alive again. It must have been a very trying instruction flight for him with his mind on both subjects at once.

After quarters the next morning, instead of falling out and going to get the blimp out of the hangar, the duty officer just stood there — waiting. When Lt. Maxfield and Dammit came around the corner of the hangar, Lt. Pennoyer called out, "Dammit, front and center." Lt. Maxfield marched him out in front of the company and said, "Sit." — Dammit sat! Then Lt. Pennoyer read to the animal an official reprimand for disobedience of orders (and general mopey on the poop deck) followed by designating him a "K-9 Aviator for lighter than air." Then a metalsmith hung a huge pair of wings made of tin around Dammit's neck. When he said, "Fall out." Dammit proudly trotted over to Lt. Maxfield to show him his "blimp wings," for he had indeed *soloed* in a blimp.

Dammit had learned his lesson. Never again did he make a move toward catching a handling line when a blimp started up!



Dammit poses with part of the lighter-than-air class at Akron. Maxfield is second from right.



Black Dog was another "airship" canine in Naval Aviation. He served 13 years, grabbing ground lines used to control the takeoffs and landings of Navy balloons and blimps. His devotion to airships and the men who kept them flying is legend among the veterans of LTA (lighter-than-air). His service during World War II and 12 years thereafter is immortalized on a plaque at the "Home of LTA," Naval Air Station, Lakehurst, N.J.

During his turbulent career Black Dog served at four different air stations, won the "Quarter Wing" of LTA, got his leg entangled in a handling line and hung suspended from an aircraft for over an hour before being rescued, and was awarded "Top Headline Maker of the Day" by a radio station. He had his decaying teeth pulled at the dental clinic and possessed a service record, filed with the records of the men in the airship squadron.

Black Dog's history dates to 1944 when the little mongrel became attached to the men of Airship Utility Squadron Detachment based at Fisher's Island, N.Y. He received his Quarter Wing after flying the minimum required hours. He served with Airship Patrol Squadron 12 (ZP-12) and in ZP-2 at South Weymouth, Mass., Glynco, Ga., and Lakehurst. Black Dog assisted the ground handling crews in manning the takeoff and landing lines of the Navy's airships. He was usually the first to retrieve, in his teeth, one of the ropes used to help guide a blimp to a landing and the last to relinquish the line on takeoff. The end man on the line invariably felt the tug and heard the growl of Black Dog, whether it was day or night, rain or shine, sleet or snow. To some, he was a nuisance; to most, an amusement.

Blackie was once struck on the back by a ship which took a deep dip after takeoff and was rushed to the vet. Another time the tip of his tail was clipped by a whirling propeller.

One night in 1955, as a hurricane was gathering force, an airship took off with a line entwined around one of Black Dog's hind legs, lifting him with the blimp. With the ship's searchlight, the pilot discovered the dog, dangling head down, flying through the night air. The pilot requested permission to return to the base and made a low, slow pass over the field where waiting crewmen grabbed Black Dog, more dead than alive. He had been airborne upside down for an hour and seventeen minutes. He spent two months in the animal clinic. Station WSB of Atlanta awarded him "Headliner of the Day" on its five star final newscast.

Black Dog slowed down a bit after Navy dentists had to remove his teeth, weakened with age and years of rope tugging.

Today, in Hangar Five at Lakehurst stands a headstone inscribed: "Black Dog, 1939-1957, A Good Shipmate."





Macchi

Porto Corsini 1918



A. Parker, W. B. Haviland and C. J. Coatsworth, in Venice, Italy, in 1918.



Baron Luigi de Riseis, who took photographs obtained by Mr. Peter Kilduff.

These photographs were obtained through the efforts of Naval Aviation history buff, Peter Kilduff. They were indirectly received from the widow of an Italian pilot who trained American flyers serving in Italy in 1918. They were taken in and around Porto Corsini, a village on the Adriatic Sea about 70 miles south of Venice. An American bombing station had been established there to launch attacks against the Austrian naval base at Pola on the other side of the Adriatic. Of particular interest are the views of Ens. Charles H. Hammann who won the Medal of Honor for actions in that area, and the Macchi seaplane flown by Ens. Ludlow, whom Hammann rescued during a mission.

Kilduff and an Italian colleague who is a WW I aero enthusiast, Rinaldo D'Ami, are seeking further information about the Americans flying with the Italians. This information will become part of a feature they hope to present in *The Cross and Cockade Journal*.

If you have such information, please contact Peter Kilduff, 57 Sefton Drive, New Britain, Conn. 06053.



Ens. Hammann, first Naval Aviator to be awarded the Medal of Honor.



touch and go

To Save a Life

"Attention to brief! Today's weather will be . . ."

The instructor began the final search-and-rescue classroom session at Helicopter Antisubmarine Squadron One, Jacksonville, recently. He issued a rapid bombardment of safety precautions, weather conditions and last minute details as part of his preflight brief for the upcoming open-sea rescue exam. Everyone furiously took notes.

When the brief ended, the students scurried toward a waiting aircraft. They ran in a bent position under the whirling rotor blades and climbed aboard, found their seats and strapped in. The chopper lifted off almost immediately. Within seconds, it was over the St. Johns River.

Everything seemed to go like clockwork. The students moved to the open door of the aircraft and, at the signal from the pilot, jumped into the water for a simulated SAR exercise.

Members of the Navy SAR teams actually get into the water to assist victims back to the helicopter rather than merely dropping a sling and letting the downed person handle the maneuver himself.

The *Seahorses* of HS-1 have been conducting SAR training since October 1, 1971, when the school was moved to NAS Jacksonville from Quonset Point, R.I. Today, it's the only authorized SAR school on the East Coast.

Lt. J. J. Toone is the SAR division officer. Working with him are his secretary, SN B. Cornelious, AWC T. E. Dotson and seven instructors: ADJ1 G. H. Parks, ADJ2s A. F. Sloniker and K. Moncrief, AMS2s J. W. Jordan

and D. C. Walters, AW2 R. Murray and HM2 R. O. Crayne.

The syllabus covers four weeks — 160 hours of training which include more than 90 hours in the water. Candidates learn the meaning of back pack, survivors rescue sling, and other techniques while memorizing the course "bible" — NWP-42.

Candidates must also demonstrate their swimming abilities, endurance capabilities, team swimming and no-hands swimming which is used when pulling a victim through the water. They simulate exiting a helicopter by leaping from a special 15-foot platform.

Rescue tactics are taught in the water. One instructor sums up the HS-1 SAR training thus, "We do not use the gentle lifesaving techniques taught by the Red Cross. We must take charge. A drowning person can be frantic. We must be in command. If necessary, we will even use force to gain control. The victim won't be angry once he realizes he's safe."

In addition to water training, the candidates are taught emergency first aid and parachute disentanglement. They are introduced to a variety of aviation equipment and are advised on proper personal living habits such as diet, rest and activity while off duty.

During the second and third weeks of training, candidates learn about harnesses, hardware, flotation devices, and canopy escape methods. They also participate in a one-half mile "buddy swim." This phase of the school concludes with a simulated night-rescue exercise in the NAS indoor pool.



The final week of the program prepares the trainee for the simulated open-sea rescue activities. If the student can successfully rescue the instructor, he earns the coveted title of SAR wetcrewman.

"It's a great feeling to know that I could be the difference between life and death for a pilot, aircrewman or anyone downed at sea," one student explains.

SAR students come from various ratings: AW, AE, ADJ and HM. After completing A school, the training is required for AWs because a large part of their job involves being in a flying status. Those "first term" AWs who cannot qualify as SAR wetcrewman are usually required to change their rating.

Upon completion of the training, wetcrewmen are assigned to helicopter squadrons, naval air stations and ship SAR Dets.

In a mere four-week span, the HS-1 SAR school pushes the candidate toward one goal — obtaining the skills that may one day save a life.

Michele L. Stewart

Sixty-Six, Gone but Not Forgotten

One of the Navy's faithful servants, best known and associated with the *Apollo* manned space flights, was struck from the inventory when it crashed last year off the California Coast. "Old 66" is gone, but not forgotten.

Sixty-six was an SH-3D. The aircraft had the distinguished record of participating in five *Apollo* capsule pickups and was subsequently slated for presentation to the Smithsonian Institution upon the close of its operational life.

Since the inception of America's space program in 1958, the Navy has been assigned prime responsibility

for the at-sea recovery missions. More than 200 ships, numerous aviation squadrons and underwater demolition teams have supported operations in both the Atlantic and Pacific. Although the prime recovery ships were changed from mission to mission, the SH-3D helicopter with side number 66 remained.

Due to the exposure of nationwide television and press, 66 quickly became one of the most widely known and photographed helicopters in the Navy. Assigned to Helicopter Antisubmarine Squadron Four stationed at NALF Imperial Beach, 66 participated in the recovery of astronauts in the *Apollo 8, 10, 11, 12*



and 13 missions.

Today, the awareness of the contribution to the recovery mission by HS-4 and 66 continues. All helicopter model kits of the SH-3 series are provided with HS-4 squadron markings with side number 66. No other individual helicopter model has been so precisely identified. It should be long remembered.

I.Cdr. D. A. Mohr

TDs Do More

NANews recently received a letter from the Fleet Aviation Specialized Operational Training Group, Pacific Fleet, Detachment Moffett, concerning the Tradevman article of our enlisted rating series (November 1975). The letter reads in part, "... the following may be of interest to your readers:

"The article emphasized the role of the TD as a flight instructor and, while he does instruct, the TD's responsibilities normally assume the following order: maintenance, operation, instruction. Here at FASOTraGruPac, the TD is responsible for attaining not only a complete knowledge of training device systems but also a thorough understanding of simulated and actual aircraft systems. This



requires the TD to know the total weapons system, its full capabilities and missions.

"As a technician, the TD works on such varied equipment as hydraulic, pneumatic, mechanical and electronic computational systems and, in some cases, closed circuit television and air conditioning. You mentioned in your

article that the TD is familiar with state-of-the-art electronics. Here at FASOTraGruPac, TDs do operate and maintain some of the newest hardware and utilize the most sophisticated test equipment available anywhere, from digital computers capable of performing over one million operations per second to nine-ton capacity hydraulic cockpit motion systems.

"Some pictures in your article were slightly dated showing Tradevmen attached to FAETUS working on electronic equipment. While these people may still be in the service, FAETUS is not. In January 1972, CNO changed the name to FASOTraGru to more properly reflect our mission."

D. B. Brown, OinC

CVW-1 Decorates for Bicentennial

Carrier Air Wing One, which returned from a Mediterranean deployment aboard *John F. Kennedy* in January 1976, commemorates the Bicentennial by depicting patriotic themes on squadron aircraft. These symbols include various renditions of red, white and blue, aircraft inscribed with names of legendary naval heroes, variations of the first Old Glory

and a silhouette of the traditional Blue Jacket. The designs will remain until 1977.

Starting from the top left corner and going clockwise around the CVW-1 seal, with the Liberty Bell at bottom center last, these are the Bicentennial markings of the wing's units: VA-34, VAQ-33, VF-14, VA-72, HS-11, VA-46, VF-32, VAW-125 and VS-21.



THE AVIATION ELECTRONICS TECHNICIAN

Six and a half decades ago Naval Aviation was little more than a dream. Pilots flew "aeroplanes" by the seat of their pants then, and flying was relatively simple. Today, the Navy's air force is a complicated arena of electronics. Its aircraft have highly sophisticated systems of communications involving radio, radar and electronic equipment. Technological evolutions have conferred uncanny powers on

Navy aircraft. The pilot's ability to navigate, locate, track and identify friend or foe, and to communicate, has become superhuman — all through scientific advancements in electronic equipment.

Accuracy in operating and maintaining this gear is vitally important and demands technical excellence. To ensure peak performance, the Navy has created a special enlisted rating, the

Aviation Electronics Technician (AT). These men and women maintain the advanced-technology radio, radar and electronics equipment that is carried on Navy aircraft, from supersonic fighters to hovering helicopters. They are responsible for the operating efficiency of equipment used for communications, navigation, automatic landings, identification of friendly and enemy aircraft, and electronic countermeasures. Their work is in three basic categories: equipment testing and analysis, maintenance and repair, and administration.

Since the idea of the AT rating began to germinate in the minds of Navy planners in the mid-1940s, many changes have occurred in the avionics field to arrive at what is the present-day AT's responsibilities.

The AT rating idea became a reality in 1948 with the merging of two other ratings — the Aviation Radioman (ARM) and Aviation Electronics Technicians Mate (AETM), which was the Aviation Radio Technician (ART) until 1945 — to create the AT. The Navy continued to keep, as a separate rating the AL, Aviation Electronicsman, until 1956.

As weapons systems maintenance became too complicated, in the Fifties and Sixties, to be done by one rating, others were created to lighten the AT's duties. The Aviation Antisubmarine Warfare Operator (AW) and Technician (AX) and Aviation Fire Control Technician (AQ) are three of the offspring from the AT rating.

Throughout the ensuing years many boards, study groups and technical training conferences reviewed and made recommendations concerning the already quite specialized AT rating. Those concerned in 1955 found it impossible to qualify electronics personnel in the lower pay grades to maintain the wide variety of equipment

Gripe sheet, right, tells the AT where the problems are on individual aircraft. ATAN Michael J. Myer, VA-42, left, checks out a malfunction on an Intruder radio.



ENLISTED RATING SERIES

installed in modern aircraft. They further considered that it would be better, upon mobilization, to have an AT fully qualified in the maintenance of only communications equipment rather than one man who possessed only fundamental knowledge.

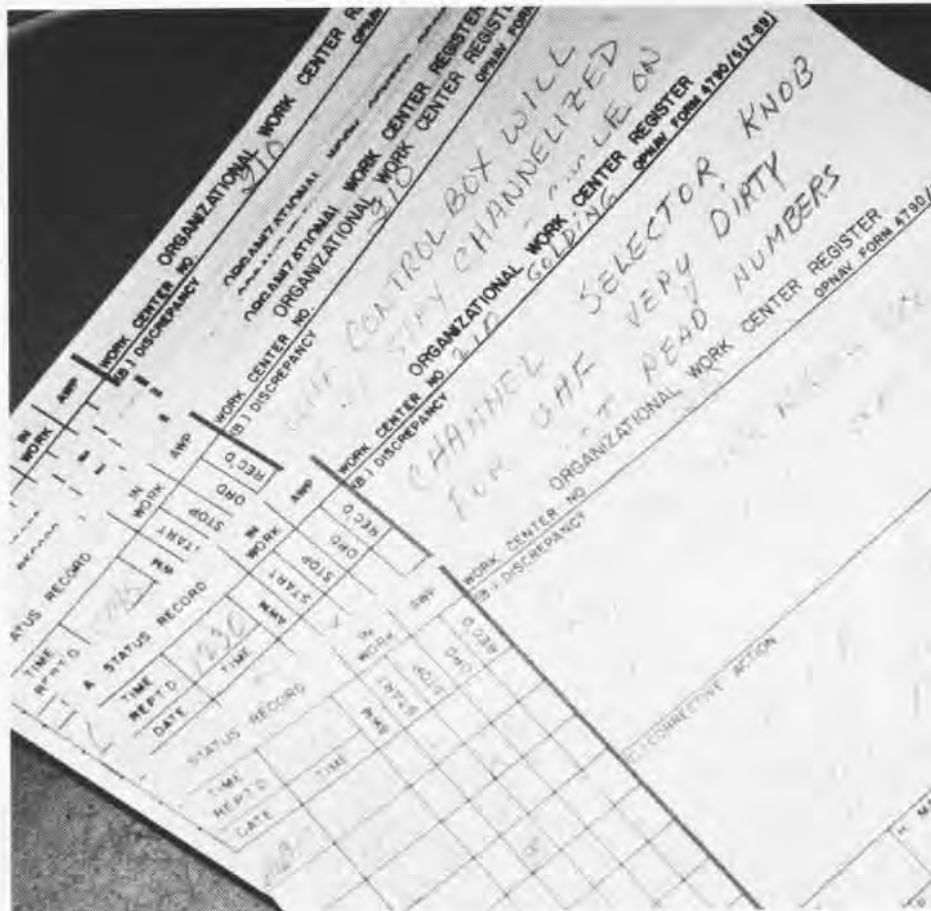
So many proposals and changes have been considered that it is impossible to include them all here. There was at one point, however, a proposed emergency service rating structure for the AT general service rating as follows:

- ATS—Airborne Sonar Operator-Repairman
- ATG—Ground Equipment Repairman
- ATR—Radar-IFF Operator-Repairman
- ATN—Communications-Navigation Equipment Operator-Repairman
- ATE—ECM Operator-Repairman
- ATW—AEW-CIC Repairman/Radar Operator
- ATO—ASW Operator-Repairman
- ATA—Aerological Equipment Repairman
- ATT—Target Drone Operator-Repairman

This proposal was never implemented but, in January 1956, these AT emergency service ratings were made official: ATN, Communications and Navigation Equipment; ATR, Radar; ATS, Antisubmarine Warfare.

Also, in November 1956, the AL, Aviation Electronicsman, merged into the AT rating. The convergence was accomplished within a two-year period, but not without much gnashing of teeth throughout the fleet. As in all changes, there were those who felt it would never work and those who felt it was the only way. For a while, even though it was the AT rating on paper, it was two ratings in reality. The AT specialized in radar operation and maintenance, and the former AL specialized in radio.

In 1961, the Secretary of the Navy approved the establishment of the



Aviation Antisubmarine Warfare Technician (AX) which consumed the duties of the ATS. Also in the works in the early Sixties was the Airborne CIC Operator (ATW), disestablished in February 1965. As 1970 approached, the remaining ATR and ATN gave way and became the AT general service rating with associated training skills in the various avionics areas identified by Navy enlisted classifications. At least for the present, this system seems to be the most satisfactory.

If one were to consult the Navy enlisted classification manual, he would most likely be amazed at the variety of job possibilities available to the AT today. For example, and some of these cross over into other ratings, there exist AT classifications in antisubmarine warfare, fire control, navigational maintenance, aircraft systems maintenance and a special series of flying, totaling 135.

This and the fact that aviation systems have changed so rapidly account

for the necessity for ATs to be trained and retrained on a continuing basis. An AT's career could go something like this:

First, assume that the volunteer knows what he wants. When he ditty-bops out of the recruiter's office, he's a six-year obligor (as opposed to a regular four-year enlistee) as an Aviation Electronics candidate. He also meets all the necessary qualifications — U.S. citizen, security clearance eligibility, etc. — and passes all his schools in sequence during training.

Airman Apprentice Electro Airedale completes boot camp and is transferred to Millington, Tenn., for basic schooling in avionics and electronics. He goes through a 20-week class A technical school. Here, Electro is introduced to such things as superheterodyne radio receivers, practical receiver-circuits analysis and amplitude-modulated radio transmitters. He studies basic electrical systems of aircraft motors, generators and electrical

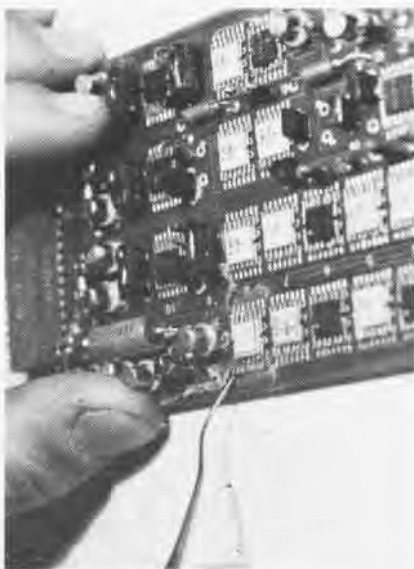
circuits. He learns to troubleshoot aircraft radio receivers and transmitters. He is taught the workings of synchro systems, automatic radio compasses, VHF and UHF electronics equipment and radio altimeters. He digs into the theory, operation and maintenance of radar and other pulse circuits. A thorough indoctrination in electronics supply system, basic radar theory, aircraft radar and test equipment, radar counter-measures and special radar circuits is acquired.

A 26-week Advanced First Term Avionics School (for six-year obligors only) follows. Electro studies mathematics and physics. He learns the principles of solid state and vacuum tube circuits, digital and analog computers, transmission, reception and maintenance.

From here, Electro Airedale, depending on the duty and the specific type of aircraft he will be ordered to maintain, could go to one of the many FRAMP (fleet readiness aviation maintenance program) squadrons, i.e., VA-42 and the A-6. For specialized training, he could be assigned to a FASOTraGru (fleet airborne specialized operational training group), an NAMTG (naval air maintenance training group), or an RCVW (readiness air wing). Whatever his training pattern, Electro Airedale is highly trained and ready for the fleet.

Assume again that Electro has now advanced through the rating to AT2. He has just received orders from the VP squadron he's been with for the past two years to a VA on the East Coast. Since he'll be working with *Intruders*, his detailer orders him, via the East Coast A-6 FRAMP, VA-42, to his squadron. FRAMPs are where the AT receives his transitional training when he goes from one aircraft to another.

At VA-42, Electro Airedale, along with personnel in other ratings, will be trained in the procedures to keep the *Intruders* in an up status. He will become acquainted with the A-6 black boxes. He will attend a formal school concerning the theories of A-6 electronics. And then receive a period of on-the-job training on an aircraft, applying the theories he has learned. If additional training is necessary after Electro joins his squadron, he may be



sent to one of the other training units.

The modern-day AT could be aptly described as a kind of electronics systems doctor. Like a doctor, he gives regular checkups. He analyzes findings, makes a diagnosis and prescribes treatment.

He uses specialized test equipment for measuring voltage, resistance, current and other electrical factors. He doctors with dials. He's an MD with a meter who checks control settings, wires, fuses, transistors and other components. After the checkup comes diagnosis, isolating the specific malfunction and locating its cause.

Treatment is most often a matter of



replacing a defective part, sometimes a tiny component, at other times, an entire module. Avionics gear is usually modular in design with quick replacement features enhancing air readiness. This way, defective components or modules enter electronics repair shops without penalizing the air mission with downtime.

When defective gear enters his repair shop, the AT keeps careful records to profile parts performance and system reliability. He orders and stocks appropriate parts by knowing which components have the heaviest use and which do the lighter work. He anticipates his supply needs by knowing which equipment is rugged, which is delicate, which has a short lifespan and which lives longest.

Aviation Electronics Technicians inspect and maintain all types of avionics and some antisubmarine warfare and fire control equipment. They work with detection, reconnaissance, communication, display and special-purpose systems. They maintain target drones, pilotless aircraft and all their components and testing devices. The AT inspects and maintains navigation radio equipment. He schedules preventive maintenance at specific intervals according to operational use. He's a skilled expert who works on radio transmitting, receiving, relaying and direction-finding gear. He understands altimeters and electronic interrogating and transponding equipment. He works with distance-measuring and time-difference devices. He also inspects and maintains aviation radar and all its display components and testing equipment.

The AT may be assigned to the avionics division of a squadron maintenance department, a naval air station or an aircraft carrier. The AT who qualifies can be assigned as an inflight technician, radar and radio operator and to various other tasks. He can also be assigned to work in calibration labs. Later in his career, the AT may become an instructor in one of the various training activities.

Wherever he serves, the AT is well-schooled in handling miniaturized modular avionics. He is a polished craftsman who can cope with the complex and intricate systems which keep today's naval aircraft on station.



An AT's work requires an intelligent mind, concentration, know-how and steady hands. Top left, the well-trained hands of an AT clean an integrated circuit chip and make

it like new. Left, the hands of AT2 John Engleman test a transistor with the aid of an oscilloscope. Above, AT2 Jerry Rowe pinpoints malfunction in a piece of navigation gear.



PEOPLE PLANES AND PLACES

Although the P-3C *Orion* is not normally considered a SAR aircraft, 18 fishermen adrift in the North Atlantic are very grateful for its abilities to pinpoint their burning vessel's position within an 80,000-square-mile area.

It was 1630, December 18. The sun had already set. Crew Four of VP-56 was 200 miles out of Keflavik on a routine patrol mission. An unexpected message was re-



ceived by radio-teletypewriter requesting its assistance hundreds of miles southwest of Iceland. A search and rescue effort was in progress for the *Tummas*, a fishing vessel from the Faeroe Islands.

An extensive radar search of the area was necessary. The cloud layer extending down to 1,000 feet precluded any visual search. After completing a surface plot, the crew discovered the *Orion's* radar altimeter was malfunctioning.

Communication was established with another search aircraft, an Air Force C-130. After the local altimeter setting was passed, the crew members decided to return one last time to an unidentified contact to see if they could get below the undercast. Hemstitching the cloud base, the crew was closing on the radar blip when an emergency flare rose in front of them. As they circled the spot, two more flares were sighted. Since visual cues were useless, two radio-signal-emitting sonobuoys were launched, acting as homing devices for subsequent rescue efforts. The C-130 radioed the vessel's position. An hour later, another fishing vessel, the *Reynsatindur*, had been vectored alongside by the C-130 and the 18 fishermen were rescued from their life-rafts in the arctic seas. The fire-scarred vessel was taken in tow. No injuries were sustained.

In another rescue, a Navy UH-1N helicopter picked up four jet pilots from VT-2 who had ejected over the Gulf of Mexico on February 5. The helicopter

crew responded to a distress call from NAS Corpus Christi.

The two instructor pilots and their two students were forced to eject following a collision of the two T-2C *Buckeyes*. They were on an ACM mission.

NAS Corpus Christi recently consolidated all local helicopter assets to provide support for just such incidents in the South Texas training area.

Changes of command:

HSL-30, Norfolk: Cdr. J. M. Hatcher relieved Cdr. W. J. Phario.

HS-7, Jacksonville: Cdr. H. R. Price relieved Cdr. R. H. Jesberg.

VXE-6, Antarctica: Cdr. D. A. Desko relieved Cdr. F. C. Holt.

RVAH-6, Key West: Cdr. C. D. Rowley relieved Cdr. L. H. Butsch.

RVAW-120, Norfolk: Cdr. H. J. Bernsen relieved Cdr. J. D. Larison, Jr.

PMRF Hawaii: Capt. R. C. Jones relieved Cdr. R. J. Bolerjack.

VA-22, Lemoore: Cdr. A. M. Dunden relieved Cdr. J. Calvert.

VF-114, Miramar: Cdr. W. J. Davis, Jr., relieved Cdr. R. S. Parker.

After eight months in WestPac, USS *New Orleans* has returned to San Diego.

She deployed in July for her third spacecraft recovery since she was commissioned in 1968. This time she recovered the American crew of the *Apollo-Soyuz* test project. On July 24, Thomas Stafford, Donald Slayton and Vance Brand, the astronauts of *Apollo*, and the command module were hoisted aboard



New Orleans 350 miles west of Hawaii. This was the last splashdown recovery in the space program. Future missions will effect landing on dry land using sophisticated re-entry vehicles.

New Orleans arrived in WestPac in August as flagship for Amphibious Ready Group Alfa. During the course of this deployment, she participated in several amphibious exercises and visited Singapore, Hong Kong, Bangkok, Manila and Cebu in the Philippines and Keelung, Taiwan.

New Orleans' primary duty is to transport troops and equipment for amphibious

operations and to land them by means of helicopters during the vertical envelopment phase of an assault. The ship is staffed and equipped to control antisubmarine helicopters as part of a coordinated ASW system. *New Orleans* provides a temporary hospital evacuation ship off shoreline combat zones. Her medical facilities rival those of many shore-based hospitals. With the surgical team aboard, she can provide first-class medical services for emergencies or natural disasters within range of her helicopters.

The Navy and Marine Corps Medal was awarded posthumously to AA Nicholas G. Instasi who drowned after pushing two children from the clutches of a riptide off a Jacksonville, Fla., beach in August 1975. The medal was accepted by the VS-30 sailor's wife. The citation describes the incident:

"... upon hearing the cries of two young children who were caught in an undertow . . . and being swept out into the Atlantic Ocean, Airman Instasi, with complete disregard for his own safety, . . . plunged into the surf and effected the rescue of the two young children from the riptide in which he himself became caught. His courageous and prompt actions in the face of great personal risk undoubtedly saved the two children. . . ."

Miramar Aces Lt. Randy Cunningham and Lt. William Driscoll have been added to the Fighertown Fighter Aces Hall of Fame.

There are about 40 Fighter Aces who have been inducted into the Hall of Fame.

The last induction took place in 1970. To qualify for the honor and title Fighter Ace, one is required to log five or more aerial victories.

Cunningham scored his five kills during the Vietnam conflict. He is also recognized as the first all-missile Ace, the first F-4 *Phantom* Ace and the first aviator to shoot down three MiGs in one engagement. Cunningham flew two combat cruises for a total of 200 missions.

Driscoll also scored his kills in Vietnam while flying in the rear seat with Cunningham during the engagements. Driscoll is the only RIO to become an Ace.

Two Naval Air Reserve squadrons have been awarded the MUC for contributing "significantly to the missions of the Pacific and Atlantic Fleet" from December 1971 to September 1974. VAQs 208 and 308 received the awards for providing "timely and vital logistic support" through carrier-on-board delivery of high priority

maintenance parts and for transoceanic inflight refueling and pathfinder services. Both squadrons are based at NARU Alameda.

Other records and awards:

HMM-766 has logged 20,000 accident-free flight hours flying the UH-34D and CH-46 from 1959 through 1975.

VP-22 received the Coastal Command Trophy for the 18-month competitive cycle ending December 31. The award is for maintaining the highest airborne ASW proficiency.

Cdr. J. R. Wilson, Jr., recorded his 1,000th arrested landing when he caught the wire with his F-14A *Tomcat* aboard *Enterprise* recently. The event was a first for the back seat NFO, Ens. T. Carson, who will fly regularly with Wilson. Carson was four years old when Wilson made his first arrested landing.

Cdr. J. B. Lusk, X.O. of VF-143, made his 100th F-14 arrested landing while operating from *America*.

Cdr. P. H. Lineberger, C.O. of VF-103, has logged his 900th carrier arrested landing. VF-103, NAS Oceana, is currently deployed aboard *Saratoga*.

HSL-33, the first operational LAMPS squadron, has accumulated over 10,000 accident-free flight hours since its establishment on July 31, 1973.

The *Fighting Aardvarks* of VF-114 gave up the last of their *Phantoms* in preparation for their coming transition to F-14s. In formal ceremonies, the last *Aardvark Phantom* was transferred to VF-111. At-



tending the ceremony are, left to right, Cdr. D. Pederson, CVW-15, Cdr. H. Alexander, VF-111, RAdm. L. A. Snead, ComFitAEWWingPac, Cdr. R. S. Parker, VF-114, and Cdr. W. K. Byng, CVW-11.

- 1911 Embryo office of Naval Aviation transferred from the General Board and established in the Bureau of Navigation.
- 1914 Aviation detachment under Lt. John H. Towers joined Atlantic Fleet forces operating off Tampico in the Mexican crisis.
The Secretary of the Navy was advised that the St. Louis Aviation Reserve had 44 members available to serve in the Mexican crisis, 20 of them furnishing their own planes.
Pensacola aviation detachment under Ltjg. P. N. L. Bellinger, joined military operations at Veracruz.



- 1915 AB-2 flying boat launched from a barge, piloted by Lt. P. N. L. Bellinger.
- 1917 U.S. declared state of war with Germany. Combined strength of Naval and Marine Corps Aviation was 48 officers, 239 enlisted men, 54 airplanes, one airship, three balloons and one air station.
The Secretary of the Navy established standard flight clothing: tan sheepskin long coat, short coat and trousers, moleskin hood, goggles, black leather gloves, soft leather boots, waders, brogans and life belts.
Navy's first airship, DN-1, made first flight at Pensacola. Performance was unsatisfactory and after two more flights, it was grounded and never flown again.
- 1918 The Secretary of the Navy approved plan for air operations in Dunkirk-Zeebrugge region against German submarine support facilities by a unit later designated the Northern Bombing Group.
First Marine Aviation Force was formed at Marine Flying Field, NAS Miami, Fla. It later became the Day Wing of the Northern Bombing Group.

- 1919 Lt. W. F. Reed, Jr., reported to NAS Pensacola for "aerographical" duty, first such assignment to a naval air station.
- 1919 Seaplane Squadron of Fleet Air Detachment left Guantanamo for U.S. after almost seven weeks of fleet exercises in which squadron operated entirely afloat with no support from shore bases.
LCdr. Richard E. Byrd secured bubble levels from Naval Observatory which he adapted to navigational sextants. This provided an artificial horizon which made it possible to use the instruments for astronomical observations from aircraft.
- 1922 First all-metal airplane designed for Navy made its first flight—the ST-1 twin-engine torpedo plane.
- 1923 Naval Research Laboratory reported that radio control of aircraft had been demonstrated in an F5L and was satisfactory up to ten miles.
- 1925 First flush-deck catapult launching of landplane, a DT-2, from *Langley*, moored to its dock at San Diego.
First night landings, on USS *Langley* at sea off San



- Diego. There was one earlier, an accidental landing in February when Lt. H. J. Brow stalled while practicing night approaches.
- 1926 The Secretary of the Navy directed that Naval Academy graduates receive 25 hours of flight instruction during their first year of sea duty.

APRIL

- 1930 Among the terms of a Naval Treaty signed at London were limitations placed on aircraft carriers and ships designed primarily for aircraft operations.
- 1933 The rigid airship USS *Akron* (ZRS-4) crashed in severe storm off Barnegat Light, N.J.
- 1941 Glider development program began at Naval Aircraft Factory for personnel and equipment transport.
- 1942 From a position at sea USS *Hornet* launched 16 B-25s under Lieutenant Colonel J. H. Doolittle for raid on Tokyo, the first attack on Japan.



A Night Fighter Development Unit was established (Project Affirm) to develop and test night fighter equipment for the Navy and Marine Corps, to develop tactics and train officers and men for night fighter squadrons.

Air Operational Training Command established with headquarters at Jacksonville, Fla.

- 1943 First jet flight by a Naval Aviator was made by Capt. Frederick M. Trapnell in the Bell XP-59A jet Airacomet at Muroc, Calif. (see page 5).
- 1944 Air-sea rescue squadrons (VHs) formed in Pacific Fleet to provide rescue and emergency service in forward areas.
- 1945 First combat employment of only automatic homing missile used in WW II when PB4Ys launched two *Bat* missiles against enemy in Borneo.
- 1948 In first carrier launchings of planes of their size and weight, two P2V-2 *Neptunes* made JATO takeoffs from *Coral Sea* off Norfolk.
Two F9F-2B *Panthers* of VF-191 launched from *Princeton* in Korean War, the first Navy use of a jet fighter as a bomber.
- 1956 Flight of two P2V *Neptunes* and two R5D *Skymasters* of VX-6 from Christchurch, New Zealand, to McMurdo Sound was first air link with Antarctica.
- 1957 Pensacola had first angled deck carrier for use in flight training when USS *Antietam* reported to CNATra.
Naval Aviation Medical Center commissioned at Pensacola.
- 1959 Project *Mercury* astronauts named, four of them Naval Aviators; LCol. J. H. Glenn, USMC, Lieutenant Commanders W. M. Schirra and A. B. Shepard, and Lt. M. S. Carpenter.
- 1960 Navigation satellite *Transit 1B* placed into orbit, from Cape Canaveral.
- 1961 A C-130 of VX-6 evacuated an acutely ill Russian scientist from Byrd Station, Antarctica, to Christchurch, New Zealand, first flight to Antarctica in winter.
- 1965 Seventh Fleet carrier pilots join battle in South Vietnam with strike against Viet Cong positions.
During Dominican Republic revolt, HMM-264 helo pilots, embarked on USS *Boxer* (LPH-4), evacuated American nationals.
- 1967 Seventh Fleet carrier aircraft launched first strikes on MiG bases in North Vietnam.
- 1970 CVWRs 20 and 30 commissioned, followed by CVSGRs 70 and 80. Twelve VP and three VR squadrons joined these under the control of Commander Naval Air Reserve Force.
- 1974 *Nimbus Star*, minesweeping of Suez Canal, begun by HM-12, supported by VR-24 Det Rota.
First Navy *Harpoon* missile fired from P-3 *Orion*.
- 1975 Helicopters from USS *Hancock* and USS *Okinawa* airlifted Americans and other nationals from Phnom Penh, Cambodia.
Amphibious Group One helicopters evacuated Americans and thousands of refugees from South Vietnam.
Dedication of Naval Aviation Museum.



This self-portrait by Navy artist Reuter Dahl shows Lt. Bellinger flying him over Veracruz in the C-3. It appeared in a Collier's magazine article, *The Seagoing Flyers*, in June 1914.



April 1914

ACTION AT VERACRUZ

By Clarke Van Vleet

United States Naval Aviation received its first call to combat during the Mexican crisis of April 1914. The infant naval air force was "mobilized" at Pensacola, Fla., where an embryo aviation camp and school had been set up three months before.

It consisted of six officer pilots, four student pilots, twenty-three enlisted men and an assortment of eight aeroplanes. The officer in charge was LCdr. Henry "Rum" Mustin who also served as the commanding officer of the station's ship, the aeronautical training ship USS *Mississippi*.

The first message to mobilize Naval Aviation for Mexican waters was received April 19th at Pensacola by flotilla commander Captain, William Sims aboard USS *Birmingham*. It read: "Direct commanding officer aeronautic station report you for service one aeroplane section consisting two flying boats or hydro-aeroplanes, one spare boat or pontoon, two spare motors, two hangars, tentage for personal and other necessary spares and outfits. Lt. Towers in charge with Lt. Smith and Ens. Chevalier and ten mechanics."

The decision had been made to intervene in Mexico to restore the "dignity and rights" of the United States against, not the Mexican people, but the dictator, General Victoriano Huerta, "calling himself the provisional president of Mexico."

Upon receipt of the orders in Pensacola to ready an aeronautic section, Mustin decided to ship, on *Birmingham*, a Curtiss flying boat, the C-5 (just redesignated the AB-5), and one standard Curtiss hydroplane, the A-4 (AH-2). Lt. Jack Towers was in charge and with him went Lt. Barney Smith, the second Marine after "Cunny" Cunningham to become a Naval Aviator, and Ens. "Chevy" Chevalier who had soloed the year before at Guantanamo. Ten mechanics, a cook and a mess attendant made up the rest of the section.

At daybreak, Monday, April 20, *Birmingham* came alongside the Pensacola pier where personnel and planes of the First Aeronautic Section were unloaded. The cruiser and destroyers had no sooner cleared the harbor for Tampico, Mexico, when another message came through directing Mustin to ship with *Mississippi* for Veracruz with a second detachment.

Mustin had little choice of planes

— only two serviceable craft remained — the Curtiss C-3 (AB-3) flying boat and the Curtiss A-3 (AH-3) hydro. Mustin selected Lt. Pat Bellinger, who had soloed the year before at Guantanamo, as the officer in charge of the Second Aeronautic Section. The other men were student aviators Lt. "Caswell" Saufley and Ensigns Melvin Stolz and Walt La Mont. Pilot Lt. Vic Herbster and Marine student flyer Lt. Mac McLivain were left behind in Pensacola "to mind the store."

The tense situation reached its peak when, in the early morning hours of the 21st, news was received in Washington that a German merchant ship was to dock the same day at Veracruz with a shipment of arms for the Huerta

government. Secretary of the Navy Josephus Daniels sent a cablegram to Rear Admiral Frank Fletcher's flotilla watchfully waiting off Veracruz: "Seize custom house. Do not permit war supplies to be delivered to Huerta government or any other party."

At 8:00 a.m., off Veracruz, April 21, Marines and sailors of the gunboat USS *Prairie* and the battleships *Utah* and *Florida* began preparing to take over the port area of the city. Sniper fire hindered initial movement in the dock area and reinforcements were sent in as the decision was made to take the whole city. By 11:00 a.m., April 22, it was taken.

Mississippi arrived off Veracruz the evening of the 24th with both planes

Bellinger (right) with crewmen in front of the A-3. The plane was hit by rifle fire on May 6 while on reconnaissance over enemy positions.



Flights included photo reconnaissance, search for mines in the harbor and an observation flight for a U.S. unit under attack.



hooked to their hoists ready for lowering into the sea. As its first mission, the Second Aeronautic Section was directed to search the harbor for mines. The next morning, the C-3 was lowered into the water with Pat Bellinger at the controls. Choppy water precluded spotting mines, but the two flights of April 25 represented the first day of combat for an American aeroplane, a pilot and an observer (Stolz).

There were four flights on the 27th — two searching for mines, one a test run and the other an observation flight. Bellinger was rapidly becoming the "work horse" aviator at Veracruz, piloting all missions performed by the

second section. He was usually accompanied by either La Mont, Saufley or Stolz.

Between April 25 and May 16, 45 flights, totaling just over 22 hours, were conducted in the performance of various official missions, including several short test hops. Notable among these were the first search for enemy mines by a U.S. plane, the first photographic reconnaissance on April 28, an observation flight on May 2 for a U.S. unit under attack, and a request to spot a sunken wreck which was endangering ships navigating the harbor.

During these operations, the earliest and the latest modes of transport met

at the aviation camp as mounted "pony express" messengers brought requests from U.S. commanders for surveillance of the situation by aeroplanes. One mission attracted particular attention when Bellinger and Saufley returned from a flight on May 6 and the mechanics found bullet holes in the plane's wings. The press promptly reported them as the first marks of combat on an American aeroplane.

Other firsts were also scored. In what might be dubbed the first flight of a combat airborne field artillery forward observer, Captain H. L. Newbold of the Fourth Field Artillery was taken up to look over the situation on

May 8. The Navy's first aviation combat artist also flew and sketched at Veracruz. Henry Reuter Dahl went up with Bellinger and "demonstrated to my own satisfaction the possibility of making, in a few minutes, a sketch map for military purposes. It could be made by a scout in half an hour 3,000 feet in the air secure against rifle fire."

During this time, *Birmingham* was anchored off Tampico. On May 24, she was finally ordered to Veracruz and the First Aeronautic Section joined the second. But, by this time, the military situation had come to a standstill.

Mustin felt that much had been learned at Veracruz. He had a chance to reflect on many things and concluded that, despite the disadvantages of the situation, "The trip has been a very valuable one in the line of future development of Naval Aviation." He

insisted on a minimum of one flight per day to keep the engines tuned up and to show the fleet that the new air arm could engage in sustained operations. He also started training classes.

Duty at Veracruz for the aviators ended June 13 when they were ordered back to Pensacola. They returned to the building of both the new air station and Naval Aviation in general. Huerta went into exile in July and the last troops of General George Funston's U.S. Army brigade, which had taken over occupation duties from the Marines and Navy men on April 28, pulled out in November 1914.

Mustin continued, until his death in 1923, giving "unstintingly of his scientific knowledge and inventive talent to the advancement of early Naval Aviation," as so aptly put by his widow. Towers went on to eventually head the

Navy's division of NC flying boats which ventured to be the first airplanes to fly the Atlantic Ocean in 1919. One plane of the group, the NC-4, succeeded in being the very first plane to span that sea. Bellinger continued attracting attention with such feats as breaking various high-altitude flying records. Chevalier became the first pilot to land on America's first aircraft carrier, USS *Langley*, in 1922. Sadly, he crashed to his death in November of that year. Saufley, too, died in a crash after being in the air eight hours, 51 minutes, attempting to set an American flight duration record in June 1916. Stolz was a victim of an air accident before he completed his training. These were the destinies of some of the men who first took U.S. Naval Aviation into combat, pioneering America's call for air power.



U.S. pilots who responded to America's first call to air combat are (left to right) Lieutenants Herbster, McIlvain, Bellinger, Saufley and Towers, LCdr. Mustin, Lt. Smith, and Ensigns Chevalier and Stolz. Ens. La-Mont is not pictured.

Blues Need Blue Angels

In November 1976, the *Blue Angels* will replace three demonstration pilots. The selection will be made in August.

Applications should be made in April or May by letter to the Commanding Officer, Navy Flight Demonstration Squadron, via the applicant's C.O., with a copy to the Chief of Naval Personnel (Pers-433B). The officer's preference card should also reflect his desire for assignment to the *Blues*.

Officers applying should be career members of the regular Navy or Marine Corps, highly motivated to represent the Navy before the public. They should be on or rotating to shore duty from a tactical air squadron and should possess, by November 1, a minimum of 1,500 flight hours.

Marital status is not a consideration, but a demonstration pilot can expect to be away from home approximately 65 percent of his tour.

At the end of the 1976 season, replacements will also be required for the events coordinator (LT 1320) and maintenance officer (LT 1520).

Further information may be obtained from the Commanding Officer, Navy Flight Demonstration Squadron, NAS Pensacola, Fla. 32508; telephone: 904-452-2583, autovon 922-2583.

Hancock

I must tell you about my feelings when I saw the October 1975 issue of *Naval Aviation News*. My nephew Jeffrey Troxell who is attending college and is enrolled in the Naval Aviation program has a subscription so he passed his copy along to me. As I opened the issue I saw USS *Hancock* (CV-19) from 2,000 feet taken by Lt. B.W. Harmon of VA-55. It took me back some 30 years when I flew from *Hanna* during WW II. In fact, I was a member of the original Air Group 7 under Commander Lamade that was at the commissioning of *Hancock* when she was launched in early 1944. She served well with the Third Fleet un-



der Admiral Halsey. It was also my honor to have a son serve aboard *Hanna* during the Vietnam conflict, so I share with my son Dan the experience of serving on the same ship. May not be big news but we don't mind that, for Dan and I share a deep feeling for the oldest ship in service. I heard from Tom Keating of the Hancock Insurance Company, which is the sponsor of this mighty ship, that CV-19 is scheduled for retirement in 1976. This ship should be included in the list of ships that have served our country and what better time than now during our bicentennial celebration.

I would hope that many of my squadron mates of VB-7 will see the October issue of *Naval Aviation News*, also members of Air Group 80, Air Group 6 and the many air groups that followed. The official score that appeared on the island has long disappeared, so I ask you to take a look and see what I am talking about. This is a picture of the aircrew in front of the island.

William P. Colleran
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Navy Flight Surgeons

Plans are under way to establish a Society of U.S. Navy Flight Surgeons to advance the science, art and practice of aerospace medicine and its application to

Naval Aviation and the mission of the U.S. Navy. Announcements have been mailed to active duty Navy flight surgeons, aviation medical officers, clinical specialists with a subspecialty as flight surgeons, and retired flight surgeons whose addresses were available to the Bureau of Medicine and Surgery.

Individuals who join the society prior to or during the Annual Scientific Meeting of the Aerospace Medical Association (May 10-13 at Bal Harbour, Fla.), will become charter members. The initiation fee of \$5.00 will also serve as the first year's dues.

The first meeting of the society will be held in Bal Harbour on May 10, 1976. A constitution and by-laws will be adopted; four officers and six members of the board of governors will be elected.

The society will sponsor a Command Flight Surgeon of the Year Award and the annual Richard E. Luehrs Memorial Award for outstanding performance in the practice of operational aviation medicine.

For additional information contact Captain Frank H. Austin, Jr., MC, Director of Aerospace Medicine (Code 51), Bureau of Medicine and Surgery, Department of the Navy, Washington, D.C. 20372. Telephone: 202-254-4361, or autovon: 294-4361.

Kudo

I am presently attached to VA-82 and enjoy each issue very much. We were very impressed with the pictorial essay on the history of Naval Aviation in the October 1975 issue. A very imaginative work.

Charles S. Lannom, Ltjg., USNR
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Reunions

The Battle of the Coral Sea Association will hold its seventh annual reunion May 7-9, 1976, at Disney World, Fla.

Squadron VF-42 will hold its reunion at Disney World, Fla., May 6-7, 1976.

For information on these reunions, write Box 1172, Rockville, Md., 20850.

VF(n)91 is planning a 30-year reunion. Anyone knowing the whereabouts of K. J. Baldwin; S. R. Crawford; C. Denby-Wilkes, Jr.; W. J. Hoy; or R. G. Poirier, please contact Paul Irvine, 728 James Street, Syracuse, N.Y., 13202, phone: (315) 474-7801.

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Flying over San Diego Bay are SH-2F Seasprites from the four Pacific Fleet LAMPS units. Helicopter Antisubmarine Squadron Light 31 is the readiness squadron. HSLs 33, 35 and 37 provide operational detachments. Based at NAS North Island, Calif., except for HSL-37 from NAS Barbers Point, Hawaii, they fly ASW support missions for cruisers and destroyers. Photo is work of PHCS(AC) R. L. Lawson.



