

NAVAL AVIATION

NEWS



APRIL 1974



NAVAL AVIATION NEWS

FIFTY-SIXTH YEAR OF PUBLICATION

Vice Admiral William D. Houser

Deputy Chief of Naval Operations (Air Warfare)

Vice Admiral Kent L. Lee

Commander, Naval Air Systems Command

THE STAFF

Captain Ted Wilbur Head, Aviation Periodicals
and History

Cdr. Rosario Rausa Editor

Dorothy L. Bennefeld Managing Editor

Robert L. Hensley Art Director

JOCS Dick Benjamin Associate Editor

Helen F. Collins Assistant Editor



Cdr. Nicholas Pacalo Contributing Editor

Harold Andrews Technical Advisor

COVERS — PH3 Ralph Romaguera took the front cover photo of a VSF-86 Naval Aviator boarding his A-4C aboard Ticonderoga (before she was decommissioned). On the back cover, a VMFA-251 Phantom prepares to take off from the Turkish Air Base at Cigili during recent Deep Furrow exercise. Photo is the work of PH1 John Sheppard. At left, PH1 Harry W. Hebb snapped his shutter as a Corsair II of VA-66 was coming aboard USS Independence (CVA-62). Independence was also participating in Deep Furrow.

Published monthly by the Chief of Naval Operations and the Naval Air Systems Command in accordance with NavExos P-35. Offices located at 801 North Randolph St., Arlington, Va. 22203. Phone: 202/692-4819, Autovon 22-24819. Annual subscription: \$10.90 check or money order (\$2.75 additional for foreign mailing) sent direct to the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. A single copy costs 95 cents from GPO.

EDITOR'S CORNER

POT Charles "Cliff" Clifford won't go as far as the airline ad and say that he was born to fly, but he will admit he joined the Navy and became an aviation mechanic because "I knew I would be working on aircraft and would probably get to fly." Early in his career he was assigned to "rubber rockets," as he likes to describe blimps, and enjoyed more than two years as a flight engineer on lighter-than-air ships.

Then came parachute jumping, a form of flying in the purest sense of the word. Says Clifford, "There is just no way to describe the feeling of exhilaration — of the total freedom one gets while plummeting through the air at 200 feet per second." He eventually joined the Chuting Stars and accumulated some 700 jumps, meanwhile becoming a licensed jump instructor.



The 700 leaps were not without mishap. "I was making a night jump on a grass runway and the grass was wet," he explains. "My leg broke when it folded under me on impact. I soon discovered I couldn't move and so I lay there frantically waving my flashlight to keep planes from landing on me. The ground crew finally realized something was wrong and came after me."

Although he has logged thousands of crew-member hours in fixed wing aircraft, as well as airships, Clifford must have worn an ear-to-ear smile the day the Navy authorized use of the G.I. bill for commercial flight instruction. He immediately plunged into pilot training.

He is now a fully qualified instructor in some 15 different civilian aircraft, including multi-engine planes and gliders. When he's not pursuing normal duties as POinC of air schedules at NAS North Island, Clifford teaches others, including his wife, how to fly, at a nearby airport.

Three Oregonians have devoted countless hours in collecting, refurbishing and flying a sturdy fleet of old aircraft. Jack Lenhardt, Bill Compton and Jack Tillman often combine their talents and excite air show audiences with flight demonstrations of their



vintage machines which are painted, for the most part, in authentic color schemes. Included in their inventory are an SBD Dauntless, an FM-2 Wildcat, an SNJ advanced trainer and one of the few original-configuration N3N primary trainers. In addition, they feature an F6F-3, alleged to be the oldest of the reportedly 12 known Hellcats remaining.

Theirs certainly must have been a labor of love but they derive substantial pleasure in knowing they are responsible for preserving a living portion of Naval Aviation history.

A peculiar fascination with their hobby permeates the world of insignia collectors. Is it the color scheme, the curve of a heraldic shield, the bold simplicity of a trident aimed at a submarine, the caricatures? Perhaps the fad is similar to the one pursued by baseball-player card collectors.

Take Steve Ginsberg of Far Rockaway, N.Y. A young lab technician who has never served in the military, he nonetheless possesses one of the most impressive Naval Aviation insignia collections — almost 600 patches and decals. Further, his knowledge of aviation squadron history parallels that of many full-time historians.

Last summer, Ginsberg brought his bride to Washington, D.C., for a honeymoon. They did see some of the sights in the nation's capital. However, while a very patient, persevering and loving Mrs. Ginsberg looked on, the collector spent hour after hour, day after day, for the better part of a week, perusing the insignia and squadron files at the Naval Aviation history office. That's dedication all right!

With this issue, incidentally, NANews begins depicting additional insignias on the inside back cover. In this way we hope to feature a larger number of units than has been done previously under the one-squadron-per-month format.

Another First

Ltjg. Barbara Ann Allen became the Navy's first designated female aviator February 22 when she received her gold Navy pilot's wings in a ceremony at NAS Corpus Christi, Texas. She was followed five days later by Ltjg. Judy Neuffer who completed her training February 27. Ltjg. Allen will report to VR-30, NAS Alameda, Calif., where she will fly the C-1 *Trader*. Ltjg. Neuffer is slated for duty with VW-4 at NAS Jacksonville, Fla.

VS-31 Gets S-3A

The S-3A *Viking* was officially introduced into the Navy February 20 in ceremonies at NAS North Island, Calif. The first *Vikings* are being assigned to VS-31 at North Island which will provide training for future S-3 pilots, crewmen and maintenance personnel.

Angels and Hawks

NATC Patuxent River, Md., is evaluating the A-4F *Skyhawk* as a demonstration aircraft for the *Blue Angels*. A three-man team from the Flying Qualities and Performance Branch conducted the first phase of the evaluation in January at Palmdale, Calif. Meanwhile, the *Blue Angels* are familiarizing themselves with the *Skyhawk* at NAF El Centro, Calif., in preparation for their 1974 season.

YCH-53E

Sikorsky Aircraft's triple-turbine powered YCH-53E made its first flight March 1 at the company's Stratford, Conn., plant. The first flight, a month ahead of schedule, consisted of low altitude hovering and some limited maneuvering. The helicopter will undergo further manufacturer's ground and flight testing in preparation for a Navy Preliminary Evaluation this summer. A second development prototype is under construction.



NAP "If I had it to do all over again, I would," said MCPO Kenneth E. Milburn when he hung up his wings January 28. Master Chief Milburn was the last Naval Aviation Pilot in the Pacific Fleet. His departure leaves only one enlisted pilot still on active duty, MCPO Robert K. Jones, who is stationed at NS Rota, Spain. MCPO Milburn spent his last 12 years in the Navy flying C-54 *Skymasters* and C-130 *Hercules* with VC-3 at NAS North Island, Calif. During his career he logged over 9,000 flight hours, much of it during 13 years as a helicopter pilot.



II, Too Captain Thomas S. Rogers claims the distinction of commanding two aircraft carriers simultaneously. They are the 973-foot USS *Coral Sea* (CVA-43) and her 59-foot replica "Coral Sea II." Material and funds to build the small carrier were contributed by hobby shops and self-help units near NAS Alameda, Calif. Coral Sea II is presently giving various local groups a ride around San Francisco Bay. During the summer, it will travel up the Sacramento River to give inland recruiters a chance to showcase a model aircraft carrier and promote the Navy.



POW Study

The 162 surviving repatriated Navy and Marine Corps prisoners of war are now being scheduled to go to the Naval Aerospace Medical Institute, Pensacola, Fla., for periodic follow-ups of their physical and mental status. They will be examined six months after discharge from sick lists and annually thereafter for five years. The frequency of subsequent assessments will be determined later. Long-term effects on the POWs and their qualifications for continuing in a flight status will be determined. A data base for research and for adjudication of claims will be established by the information gained during the study.

Improved AA Training

Fleet aviation squadrons and aircraft carriers are now receiving enlisted men for duty who are more knowledgeable of Naval Aviation. After completing recruit training, airmen apprentices not eligible for Class A School attend a 16-day course which offers 80 hours of classroom instruction in various aspects of Naval Aviation. This is supplemented by training films, visits to fleet units at local naval air stations and instruction in the use of working tools used in the fleet.

CVN-70 Named

The Navy's fourth nuclear-powered carrier, CVN-70, has been named in honor of the Honorable Carl Vinson in recognition of his extraordinary contributions to national defense over a 51-year period of elected service in the House of Representatives, from 1914 to 1965. He served as a member and Chairman of the House Naval Affairs Committee from 1917 to 1947 and as a member and, later Chairman, of the House Committee on Armed Services from 1947 to 1965.

Double Duty

Over a thousand cars lined the deck of USS *Enterprise* (CVAN-65) February 4 when the nuclear-powered carrier returned to NAS Alameda, Calif., after a six-month yard period at the Puget Sound Naval Shipyard, Bremerton, Wash. Also making the trip with the ship were 615 dependents, over 100 cats, dogs and birds, 90 motorcycles, 45 pickups and campers, 12 boats and several tons of household goods. While being overhauled, the carrier was altered to accommodate the F-14 *Tomcat*.





GRAMPAW PETTIBONE

Distracted?

A lieutenant commander who was to be the flight leader of a four-plane ordnance flight briefed the other members. This was the flight leader's second flight of the day, the first being an hour-and-a-half ordnance flight in an A-4 *Skyhawk* in which he flew as a wingman. The flight completed its pre-flight activities and departed the field without incident.

The ordnance flight was completed and the flight leader, with the three other *Skyhawks*, was returning to home field. The flight, on making initial call-up, was informed that there would be a three to four minute delay due to work in progress on the runway. The leader then opted to take the flight to the initial point for re-entry.

At this time, the flight was cleared to break. After what appeared to be a normal break, the leader was concerned about establishing a good interval for his flight so he deliberately delayed activating speed brakes and lowering his gear and flaps until the beam position. He then extended his speed brakes, reported abeam with gear and expressed his intention to land.

As the *Skyhawk* continued its approach, the flight leader's attention was diverted to the cockpit to check a previous gripe on the aircraft. He had flown this same aircraft on his



first flight and had experienced a compressor stall at low rpm; he was, therefore, scanning his engine performance indicator while continuing his approach. His attention then focused on the angle-of-attack indexer which appeared not to be working. (A previous discrepancy had been noted regarding the indexer not working, but the discrepancy had been corrected.)

The pilot felt that this, then, was a repeat of the gripe and shifted his attention to the angle-of-attack indicator. He later stated that he found

the indicator needle at approximately the four o'clock position. Throughout the final portion of the approach, he requested the wind two different times after hearing the tower report a change in the initially reported surface winds. The tape transcript shows only one request by an unknown source for surface winds.

The pilot then tried to locate the wind sock in order to ascertain surface winds for himself. Continuing his approach, he landed the A-4 *wheels and flaps up*.

Initial touchdown was approximately 1,000 feet from the approach end. The aircraft continued up the runway for approximately 1,500 feet where the port station triple ejector rack engaged the arresting gear pendant.

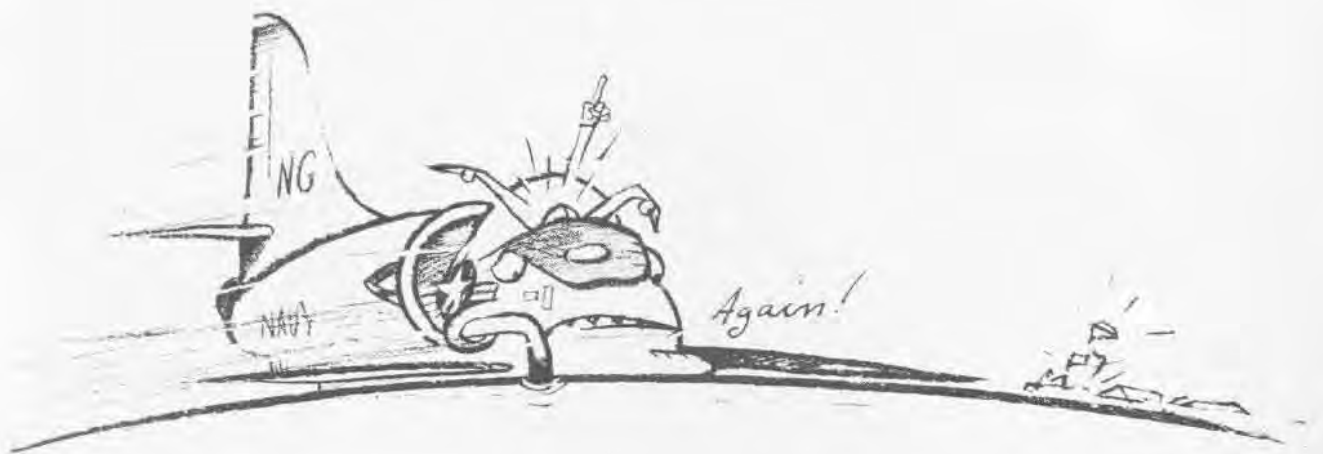
The aircraft came to rest on the port side of the runway. Fortunately there was no fire and the pilot was not injured. The aircraft sustained substantial damage.



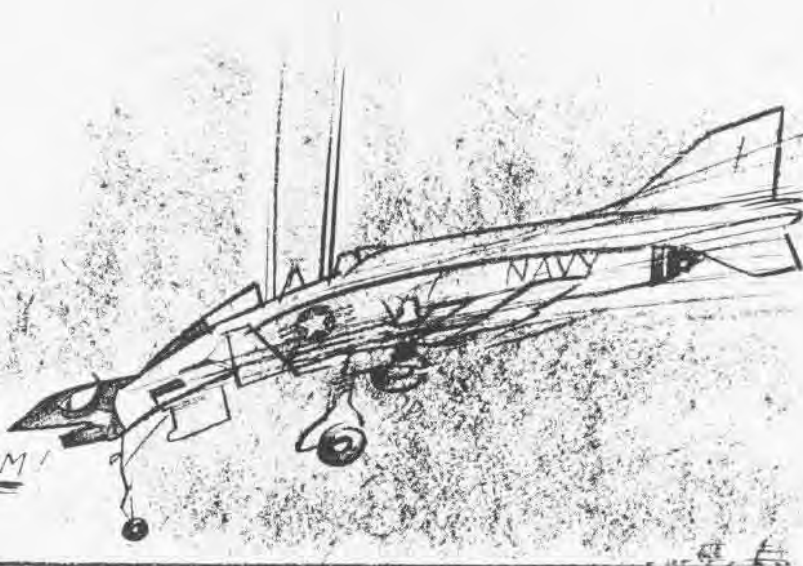
Grampaw Pettibone says:

Holy mackerel, it happened again! Everytime I believe all has been said or done about belly whoppers, an aerial jockey makes me out a liar. This driver was just not attuned to that old adage "a break in habit pattern is the signal for a rollers-up landing."

This lad even reported the gear down at the 180-degree position. The driver was occupied, or should I say



The Foggy
BOTTOM!



“distracted,” by everything: maintaining proper interval, checking the angle-of-attack indexer, concern with surface winds, just watching everything — except the wheels and flaps. Sure is funny that when a wheels-up landing occurs, everyone jumps on the bandwagon with a multitude of reasons on how it coulda been prevented: use of wave-off lights, where was the wheels watch, the tower shoulda broadcast a wave-off and on and on and on! Fact of the matter is, if the driver had followed the checklist, it wouldn't have happened. Too simple! As one man put it, “The buck stops here (in the cockpit).”

Disappearing Runway

A Marine captain and his RIO were scheduled for a two-plane practice night intercept mission in F-4 *Phantoms*. Briefing, preflight and departure were normal in all respects. The radar intercept mission went smoothly and without incident.

After completion of the mission, the two F-4s began their return to base. The flight leader requested individual descents to a radar vector GCA final with a touch-and-go to the VFR pattern. The controller acknowledged and the two-plane flight broke up for individual approaches.

At 15 miles, the accident F-4 lowered the landing gear and flaps. The runway was in sight and the pilot felt that he could see the entire field. Descent to 2,000 feet was given and

the pilot still had visual contact with the field.

The controller had broadcast that a fog bank was lying off the end of the runway and, as the aircraft reached 3,000 feet altitude, the crew began to lose contact with the field. At approximately six nautical miles, the GCA controller stated that they could not do a touch-and-go because the field was IFR. The F-4 acknowledged and stated they would make a full-stop landing.

At this point, the controller stated they were on GCA final and gave a descent and vector. The aircraft continued inbound and was essentially on glide path — with minor deviations. At approximately 1,000 to 1,200 feet, they entered the fog bank, flying completely on instruments.

During the approach, the GCA controller informed the F-4 that the outside observer had visual contact. This information and the knowledge that they had seen the field earlier made the pilot confident that he would be able to see the runway soon. He saw the strobe lights flashing and looked out of the cockpit to his right to see where they were. He looked back into the cockpit and saw *1,500 feet/minute descent on the VSI*. He added full power to initiate a wave-off and the plane immediately hit the runway and bounced, becoming airborne immediately. The pilot called for minimum fuel GCA to expedite his landing.

The pilot now began having severe

control problems with the aircraft. The RIO informed him that there was a hole in the left wing (caused by the left strut protruding through the skin) and that it was getting hot in the rear cockpit. The pilot noted that the aircraft tried to stall even though the airspeed indicated 200 knots. The PC-1 hydraulic pressure was now indicating zero.

As the F-4 lined up with the runway, the RIO said he was going to get out. The pilot acknowledged and, when the RIO asked if the pilot wanted to go, the pilot said “Yes.” The RIO then initiated command ejection from the back seat.

Ejection sequence was normal for both pilot and RIO. They landed on the runway with no injuries.



Grampaw Pettibone says:

Jumpin' Jehoshaphat! What in the world was this gent thinkin' about? Although he had all of his instrument and NATOPS requirements, he still drove his machine in a manner to allow it to go below minimums.

Unfortunately he got no help from anyone. The RIO was no help when he interrupted the GCA transmissions at a critical time or when he didn't tell the pilot they had reached decision height (or, I should say, were passing through it). This guy didn't know when to talk and when to shut up. The final controller didn't help either when he failed to inform the pilot of the latest ceiling and visibility. All in all, a pretty bad show — all the way around.

H E A D W A Y

Mrs. Glenn Martin wore a bonnet when she went up with her son.



in H E A D G E A R



Ely flew with a sandlot helmet.



Naval Aviator #1, T. G. Ellyson, 1911.



Eddie McDonnell wears 1915 vintage headgear.

In the first days of Naval Aviation in 1911, a flier could well have been issued a pair of auto goggles and a sandlot football helmet. But by 1915, aviators were being issued a felt-lined, snug-fitting leather headpiece with attached chin strap and thin protruding pouches to envelop the ears. Later, during WW I, the helmet was manufactured with much harder leather, as were the new cylindrical ear protectors.

The February 1918 issue of *CNO's (Aviation) Weekly Report* cited "the safeguard of these leather helmets." It noted that a seaplane had nose-dived 800 feet, totally wrecking the seaplane, but that the aviator, except for facial bruises, was uninjured and had been spared his life because "he wore the regulation helmet."

From that day to this, aviation authorities have been attempting to prevent accidents and preclude injuries, particularly to the skull. A survey of Navy impact accidents from 1959 through 1963 indicated that in all aircraft accidents only 11 percent of the aviators were able to leave their planes prior to impact. In the case of jets, only 27 percent ejected before the crash. This analysis reinforced the re-



Lt. Towers, Naval Aviator #3, with 1918 "safeguard."



WW I overseas outfits belie cartoon in *The Gas Valve*, station newspaper of NAS Paimboeuf, France.

THE GAS VALVE

PERMISSION AND QUOTE
VOL. 1 - NO. 8

PERMISSION
DATE: OCT. 11, 1951

ALL AVAILABLE CASH IN BONDS

Retirees From Other Stations Not Expected to Put Palumbo's Par From Head of List

Last Saturday night the Fourth Liberty Loan drive closed with an excellent showing for Paimboeuf. Although the reports from other stations have not come in, we are well in the vanguard. That every man has done his duty and that every available man has given into Bonds is certain. Because we have not ascertained any budding millionaires, we are not in the lead as far as figures go, but since every man has done his utmost we have fulfilled our duty to the limit.

On October 12th, a short talk by the Captain brought out a large number of Bond purchasers and the station's holdings were doubled.

The Sixth division had, up to that time, held the lead for per capita subscriptions. With heroic efforts on the part of the Royal Fourth Division men, the Sixth was passed, and the Fourth now stands at the head of the list with a per capita subscription of 78.17 and a total of \$550.

The station in its grand total subscribed \$4,200, with an average of \$6.72 per man. The following table gives the results in detail:



A MESSAGE FROM OUR SKIPPER

The best two weeks of the station's history have passed, and the commanding officer is glad of the opportunity. *The Gas Valve* has offered its commendation to the officers and men for their splendid showing during the period of change.

The gas plant hasn't blown up, the hangar hasn't blown down, and even some of the leaks around the barracks have melted away into the sea and complicated system of trenches. The station has shown an "Old Navy" spirit in meeting the Liberty Loan drive. Slips have been handled in the correct way in a decided fashion of late and a certain bit of outstanding was carried on in record time.

The last liberty party to Navies covered itself with glory by having no overflows. New officers and men are fitting well and will make some of the oddest haste for their positions. *The Gas Valve* has changed hands and still is able to go to press. Now it remains for all hands to make of next a desert spot. After that we agree with D. S. Grant in wanting an unconditional surrender from the German Kaiser.

THE COMMANDING OFFICER.

Meanwhile, the Germans were experimenting with electrically heated face masks.

quirement to provide airborne personnel with headgear capable of good impact protection.

Helmets have thus changed with the demands and requirements of the times. By the late Sixties, not one standard "hardhat," but various mission-oriented helmets had been developed, many of which are still in use today. The APH-6D, for example, is the current standard, single-visor helmet for fixed-wing pilots together with the optional dual visor C model. The SPH-3 is used in rotary wing aircraft, in the OV-10 *Bronco* and in NavShips hovercraft. The HGU-25/P is for flight deck personnel, helo passengers and personnel aboard COD aircraft.

In various stages of operational test and evaluation are: the HGU-27/P for airborne sonar crewmen; the HGU-33/P lightweight, form-fitting tactical helmet for VF and VA aviators; and the HGU-34/P lightweight, protective helmet scheduled to replace the APH-6D.

Thus a continuing program of research and evaluation in helmet design will yield improvements in the future just as it has in the past.



Apollo Soucek carried a hot water bottle.



Chief Pilot Sam Darling, 1928.

A Couple of Headliners

When Lt. Apollo Soucek set the world's altitude record of 39,140 feet in 1929, he performed the feat virtually with do-it-yourself equipment. He wore directly next to his skin a one-piece, fur-lined suit, boots, golf socks and a combined helmet and face mask, both also lined with fur. He fashioned his own oxygen breather which included a hot water bottle purchased at a local drug store. "Sockum" Soucek's brother, Ltjg. Zeus, devised a pair of wired goggles equipped with an electric heating element and a battery, but Zeus arrived with them too late for the scheduled flight and Apollo took off wearing a regular pair painted with several coats of antifrost solution.

An incident involving another kind of head covering occurred with one of the "hottest" (and daring) pilots among the enlisted flying personnel of VF-2B, Chief Aviation Pilot Sam Darling. During war games conducted by the fleet off Panama, Sam took off from Saratoga in a "flipper turn" around the bridge and almost knocked Admiral Reeves' hat off. The admiral sent instructions that henceforth the AP should keep his wheels on deck until he reached the forward end of the flight deck. On his next takeoff, Sam gunned his plane straight down the deck until it literally dropped from view, disappearing over the bow. Moments later it was sighted skimming the water, never more than six feet above the waves, all the way to the horizon. An old timer remarked, "Sam was so good the admiral probably wouldn't have grounded him even if his hat had been knocked off."



Fighter-type headgear of WW II.



Bull Halsey wore ball cap on the bridge.



Helmeted ace.



WW II rain gear.



H-3 fiberglass protective helmet came in with jet age and Korean Conflict. New goggles replaced old 1944 WW II issue. (Corsair at left flew 150 missions in the two wars.)



A span of 40 years in haberdashery, left, and a shorter transition in VMF(AW)-114 in late Fifties. (APH helmet, far right, replaced H-3.)



They, too, wore headgear: Marine mascot, space-flying chimp and Navy mutt.





Not Martians, just modernized gear for VF-142.



What's inside? The three-pound helmet for flight deck personnel, left, incorporates a transmitter in the right ear pad and receiving equipment in the left pad, center. Photo at right confirms that "through the ages, the helmet had great esthetic value."



Pressure chamber headgear.



Crash crewman readies for Apollo recovery.



Not eye makeup, just the reflection of two Blue Angel Phantoms on the visor of the slot position pilot.



Developmental integrated oxygen helmet system.



Fiberglass "bonnets" for two of first females to start flight training.



HELIOPS

Story and Photos
by PH3 R. G. Edmonson, CCGLant



Helicopters have proved their value since they were first introduced into the fleet around the time of the Korean War. Their role in national defense has been enlarged with search and rescue, antisubmarine warfare and vertical replenishment (vertrep). With the increased use of helicopters, concern has mounted for the safety of flight crews, flight deck personnel and several million dollars worth of complex flying machinery.

Since the late Sixties, Navy efforts to improve the safety of helo operations have included material standardization for aviation facility ships, such as cruisers, destroyers and amphibious and service force ships. Training flight operations personnel in uniform handling techniques is also accomplished.

The Atlantic Fleet Helicopter Operations School plays an integral role in the standardization process. Run by Helicopter Combat Support Squadron Six at NAS Norfolk, Va., under the direction of Commander Naval Air Force Atlantic, the school provides four days of helicopter familiarization for men and officers of aviation facility ships.

There are two courses: landing signalman enlisted (LSE), attended by 15 enlisted men each week; and, bi-weekly, the helicopter familiarization course attended by the same number of officers. More than 2,500 students have participated in the two courses which began in November 1970.

The LSE class begins with the basics of flight deck operations — standard NATOPS hand signals, procedures for personnel transfer and Stokes litter, helicopter in-flight refueling and vertical replenishment. This is supplemented by field training in one of the squadron's CH-46Ds. After extensive briefing, using models and training aids, students practice on a simulated flight deck outlined on the runway. Operations go on day and night. Lt. R. G. Fenn, officer in charge of the school, explains that field training gives the LSE student "his first exposure to helicopters on a stable platform rather than a rolling deck."

LSE instructors AT1 Louis R. Baird, above left, ADJ1 Cobert L. Mickens, left, and ADJ1 R. J. Gerhardt, right, instruct students in field sessions at Heliops school.





LSE student, left, signals CH-46D in a night landing. Above, another student signals the pilot to lock wheels as instructor looks on. During field training, one LSE student, below, signals the pilot while the other acts as a hookup man in vertrep teamwork. At right, a student hooks a load under a hovering CH-46D.

Students in the officers' course also get field training — oriented toward a supervisory role. "The officers learn how to conduct flight evolutions on their ships," Lt. Fenn says. "They have to supervise the flight deck, note safety problems and prevent any mishaps. It is vital that they be experts at the LSE's job."

The officer familiarization course also stresses procedures in certifying aviation facility ships for flight ops.

Commanding officers, executive officers, operations and vertrep control officers of all aviation facility ships must be graduates of the familiarization course. Lt. Fenn says that other officers involved with helicopter evolutions also attend the school, among them flight deck, helicopter control and supply officers.

Of all the techniques and procedures taught at the "Heliops" school, safety remains the most important.

ADJ1 R. J. Gerhardt, one of the LSE class instructors, notes that "For many of these non-aviation people, we are their first contact with Naval Aviation. If they get a good feeling about us, maybe they'll have a good attitude toward the pilots who are trying to land on their ships."





The last fixed landing gear biplanes operating as combat types in a U.S. Navy carrier air group were the Vought SBU-1s. VS-41 (scouting squadron in those days) gave up its last ones in May of 1940. When the SBU-1s entered service in late 1935, they were the first of the then new VSB (scout dive bomber) types to enter service. The SBUs were also unusual among Chance Vought's production aircraft in not having a company or Navy-assigned popular name.

Typical of aircraft built at the end of the biplane era, the SBU had an all-metal structure, largely fabric covered, an enclosed pilot's cockpit and a controllable pitch propeller. The engine was the P&W R-1535 *Twin Wasp, Jr.* On the production aircraft, a new engine cowling design was introduced which was considered a major advance in air-cooled engine cowling design.

The prototype of the SBU series was a two-place fighter, the XF3U-1, which initially flew in late spring of 1933. Competing with the Douglas XFD-1 as a two-place carrier fighter, the XF3U-1 was found to have slightly better performance; however, the Navy's two-place-fighter program was dropped. By this time the VSB concept had come into being and the XF3U-1's characteristics suited this role. Vought built a new prototype, revised to fulfill the VSB mission as effectively as possible. This prototype was designated XSBU-1, and its successful trials, after it received a larger tail, led to a contract for 84 production SBU-1s. These were assigned to VSs 3B, 2B and 1B, with the remaining aircraft being individually assigned to many different fleet units.

In late 1936, 40 additional aircraft were ordered as SBU-2s, these going initially to reserve squadrons. The SBU-2 differed only in detail from the -1. Between these two orders, 15 export versions were built for the Argentine Navy as V-142As. The SBUs served well as both scouts and dive bombers with the three fleet VS squadrons (all subsequently being given new squadron numbers) until gradually replaced by more modern types. As the SBUs were phased out of fleet and reserve service, they became advanced trainers at Pensacola and Corpus Christi. There they continued in service well into WW II, the last airplanes being scrapped in 1944.



SBU-1 flag plane



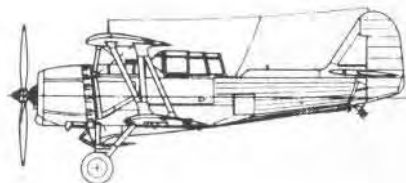
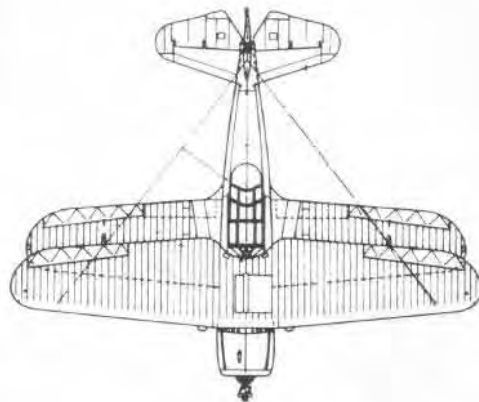
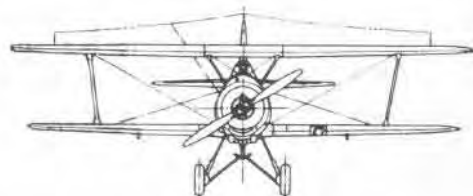
GHT SBU

SBU-1



SBU-1, -2

Wing span	33'3"
Length	27'9"
Height	11'11½"
Power plant	
SBU-1 P&W R-1535-82	700 hp
SBU-2 P&W R-1535-98	700 hp
Maximum speed	205 mph
Service ceiling	24,500'
Range	850 miles
Armament	
.30 machine gun, fixed, synchronized	
.30 machine gun, flexible, rear cockpit	
one 500-lb. bomb or two 100-lb. bombs	



SBU-2



PEOPLE



PLANES



AND

Training Squadron 28, NAS Corpus Christi, Texas, marked its 125,000th accident-free flight hour in February. The training squadron amassed the total over the past five years, during which it received four Chief of Naval Operations Safety Awards.

Patrol Squadron 49, NAS Jacksonville, Fla., has accumulated 90,000 accident-free flight hours over an 11-year span. VP-49, presently deployed to Keflavik, Iceland, flew P-5 *Marlins* before receiving P-3 *Orions*.

USS **Lexington** (CVT-16) celebrated her 31st anniversary February 17 while in the yard in Mobile, Ala. The carrier had recorded her 329,000th arrested landing before departing her home port in Pensacola, Fla. *Lexington* has also seen service as a CV, CVA and CVS. She relieved USS *Antietam* (CVS-36) as the Navy's training carrier in December 1962. Her designation was officially changed to CVT in January 1969. While performing her training duties, CVT-16 averages 4,100 landings per month. She is commanded by Captain Donald E. Moore.

While USS *Hancock* (CVA-19) was returning from her latest deployment, 15 of her crewmen decided to run a **marathon**. Forced dropouts and injuries cut the field to 11 men who took turns lapping the flight deck for an hour at a time. When the carrier entered San Francisco Bay, the marathon team had circled the flight deck almost 10,000 times, covering 4,740 miles. Among those participating were (from left) Ed James, Joe Lucero, Fred Land, Dave Quattrociocci, Jeff Wilkes, Troy Smith and James Wright.



Captain A. R. Ackley assumed command of **NARU Point Mugu**, Calif., January 12. He relieved Captain David S. Ailes who has served as the unit's C.O. since it moved to Point Mugu from NAS Los Alamitos, Calif., in February 1971. Capt. Ackley previously served as X.O. of NAS Whidbey Island, Wash.

Commander Doug Clarke, C.O. of VA-93, touched down on the flight deck of USS *Midway* (CVA-41) February 20 and recorded his **1,000th** carrier arrested land-



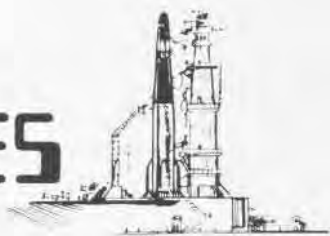
ing. Cdr. Clarke was flying an A-7A *Corsair II* when he made the landing during air operations in the South China Sea.

Captain Thomas S. Rogers, Jr., relieved Captain Paul A. Peck as C.O. of USS **Coral Sea** (CVA-43) January 25. After the change of command, Capt. Peck was promoted to rear admiral. He will report to CinCLantFlt as Chief of Staff for Personnel Administration and Logistics. Capt. Rogers previously was C.O. of USS *Flint* (AE-32).

The Aviation Boatswain's Mate School at NATTC Lakehurst, N.J., has graduated its first **female ABs**. They are ABHAA Charlene Langham and ABHAN Patricia S. Younge who followed Charlene in the next class.

USS **Independence** (CV-62) is completing an eight-week yard period at the Norfolk Naval Shipyard, Portsmouth, Va. Two of the carrier's gigantic screws and the non-skid surfaces on the flight and hangar decks were replaced and other required repairs were made.

PLACES



Crewmen from the attack carrier USS **Franklin D. Roosevelt** (CVA-42) responded to a call from the Greek Red Cross in January and donated over 400 pints of blood. The blood will be used to treat Greek children suffering from Mediterranean anemia, a disease which attacks the red corpuscles in the blood. Over 1,000 Greek children receive periodic transfusions from the Red Cross and other agencies.

Captain R. E. Gallatin, C.O. of the Nuclear Weapons Training Group, Pacific, NAS North Island, presented the "hook" to Captain R. E. Davis, F/RF-4 weapons sys-



tem manager, NARF North Island, January 24. The hook endows Capt. Davis with the office of presiding president of the Tailhook Association for 1974.

Fighter Squadrons 201 and 202, NAS Dallas, Texas, recently completed a year-long series of exercises between their F-8 *Crusaders* and F-106 *Delta Darts* from the USAF's Interceptor Weapons School.

Several times during the year the squadrons sent flights to Tyndall AFB, Fla., for a week of mock aerial battles with the Air Force interceptors. Each



exercise began with briefings on aircraft performance, order of engagement and safety.

During the flights, the adversary aircraft were under separate ground radar control to simulate actual combat conditions. Included were simulated combat air patrol, escort and air intercept missions, with the adversaries trading roles to give each pilot training in the offensive and defensive problems of each mission.

When the Marine Corps Enlisted Pilots Association met at MCAS El Toro, Santa Ana, Calif., January 22, they were surprised by a message that was literally out of this world. The message, relayed by NASA headquarters in Houston, Texas, read:

"Greetings from the Marine on the 85-day FAC mission. I'm up where the flak can't get me and I can see everything. Have a great evening. *Semper Fi.*"

The message was signed by Lieutenant Colonel **Gerald Carr**, USMC, commander of *Skylab IV*.

Little did Ens. J. R. Brodengeyer know how much commotion he would cause when he made his first flight in an A-7 *Corsair II* at NAS **Cecil Field**, Fla., January 23. Everything had gone well during the flight, but after he landed he was directed to taxi his aircraft to the base of the control tower instead of proceeding to the fuel pits. What had he done? It didn't take the reception committee at the tower long to inform the ensign that he had just completed the air station's two millionth flight operation since the radar air traffic control center was installed in July 1962.



Giant

USS Enterprise (CVAN-65), in drydock at Puget Sound Naval Shipyard, Bremerton, Wash., dwarfs cruisers and destroyers of the mothball fleet nearby.



What is It?

It's a Rolls-Royce Olympus 201-powered Vulcan aircraft of Nos. 9 and 35 Squadrons (which make up the Near East Air Force Bomber Wing). Unit is based at Royal Air Force Base Akrotiri, Cyprus.



One of a Kind

SSgt. Orville A. Matott, H&MS-14, MCAS Cherry Point, N.C., is the owner of this unusual means of transportation. The "Samlow" is used as a taxi in Thailand.



SuperDuperCarrier

CVA-5966? No! Forrestal (CVA-59) and America (CVA-66), tied up on opposite sides of Pier 12 at Norfolk, create the illusion.





Source of Technical Data

ACCENT

The Naval Air Technical Services Facility (NavAirTechServFac) is an efficient and essential field activity of the Naval Air Systems Command. Located in northeast Philadelphia on the Aviation Supply Office compound, it operates for one prime purpose—to provide the fleet with technical manuals and documentation containing operational, outfitting and repair information for Navy aircraft, wherever needed and as quickly as possible. This service, familiar to all maintenance personnel, consists of procuring and distributing maintenance manuals, technical drawings and work unit code

manuals, as well as making sure they are kept current. These are processed and distributed through the latest information storage and retrieval techniques. NavAirTechServFac also maintains and distributes a vital element of overhaul and repair information—engineering drawings.

How does NavAirTechServFac provide this service to the fleet? How does operational, outfitting and repair information get to the maintenance man who really needs it? The process begins when NavAirTechServFac data management personnel sit down with contractors and Navy engineers and

technical writers and hammer out details and procedures for new technical manuals or for the updating of old material; details, such as how can the maintenance task best be written, how many pages are involved, how much production costs will be, how long it will take for the whole job including the printing and distribution. Data specialists in aircraft, missiles, avionics, airborne and ground support equipment, instruments and armaments integrate the technical data requirements for various manuals needed for specific aircraft. The manuals cover all types of naval aircraft at all main-



Left, Mr. Ralph Ragomo and Cdr. Powell review engineering drawing. Opposite, Lois Burke and Frances Fox work in source files.

By Commander W. W. Powell
Commanding Officer

Photos by Connie Lewis

ON SERVICE

tenance levels and include detailed, step-by-step procedures for removal and replacement, troubleshooting and repair, and illustrated parts breakdowns. Wherever urgent formal changes of less than 12 pages are involved, rapid action changes (RACs) are produced for insertion into manuals.

In the case of publications supporting an aircraft weapons system that is no longer in production, the task of updating the maintenance manual is accomplished by engineers and publications experts at the naval air rework facilities (NARFs) or other naval

field activities such as weapons centers and ordnance stations. Again, NavAirTechServFac data specialists manage and coordinate the effort.

Vital inputs from the fleet in the form of unsatisfactory material/condition reports (URs), special investigation requests and messages alert this team of engineers and data specialists to the need to incorporate a new change.

Whether it's a new manual for an aircraft still in production or a change to an existing manual, the maintenance information is written in preliminary form and verified for accuracy by fleet

personnel to make sure that the procedures accomplish the job to be done. The formal manual is then printed and distributed.

NavAirTechServFac maintains about 25,000 different technical manuals in the Naval Air Systems Command inventory. These manuals are distributed to 10,000 addressees. About 500 changes per week to this address list are required to keep current information in the hands of the users. Each year NavAirTechServFac processes more than 400 requests for a complete outfitting of technical libraries, about 1,500 requests from aviation fleet



ACCENT ON SERVICE

libraries for special updating and about 7,000 individual requests relating to special technical manual requirements.

Storage gets to be a problem with such vast amounts of data. This is especially true of the large number of engineering drawings that are needed for depot level overhaul and repair. To solve the storage problem and also facilitate the distribution of engineering drawings, NavAirTechServFac has devised a computerized system that quickly permits identification and distribution of engineering drawings to the Navy's overhaul and repair activities, such as the NARFs, as well as to the Aviation Supply Office for use in buying spares. In managing the NavAirSysCom engineering drawing repository, NavAirTechServFac main-

tains and distributes almost 8 million engineering drawings on microfilm.

The work unit code manual is also prepared and distributed to the fleet by NavAirTechServFac. As every maintenance man knows, these manuals provide listings of numeric codes for identifying system or subsystem components so that maintenance actions may be fed back into the Navy maintenance and material management system (3M).

A key member of the publication team, the Naval Publications and Forms Center, is located next door to NavAirTechServFac. Here the NavAir publications are stocked, packaged and mailed to the fleet, either on automatic distribution or in response to special requests. The shelf stock is

sufficient to permit 98 percent of the orders to be filled immediately.

As the manager of NavAirSysCom's technical documentation program, NavAirTechServFac has participated in introducing some new and innovative concepts. The maintenance information automated retrieval system (MIARS), being jointly developed by NavAirSysCom and NavAirTechServFac, will revolutionize the entire technical manual writing, storage and distribution system as we know it in paper form. Under MIARS, several entire maintenance manuals are filmed on a single roll of 16mm microfilm. Reader-printers are being provided to fleet squadrons as well as ship and shore stations. MIARS film cartridges containing those manuals necessary



Left, Commander Bill Benner with diagram reproduced by MIARS reader-printer. Above, Mrs. Susan Regan holds MIARS cartridges over a bulky stack of technical data which can be retained in MIARS cartridges for easy accessibility by maintenance personnel.

to maintain aircraft weapons systems are being distributed to activities at all levels of maintenance. In addition to the saving in storage and distribution, MIARS promises to eliminate the requirement for maintenance personnel to spend long hours making page changes to technical manuals. Complete MIARS cartridges containing up-to-date information and changes will be available to the fleet much more quickly than changes in the old paper format.

Another improvement in the format of maintenance manuals is the work package. This concept incorporates into one package all the steps that are required to perform a single maintenance task. This will eliminate the need to research through several books

to accomplish the job. Work package format is being written into all new maintenance publications now being procured.

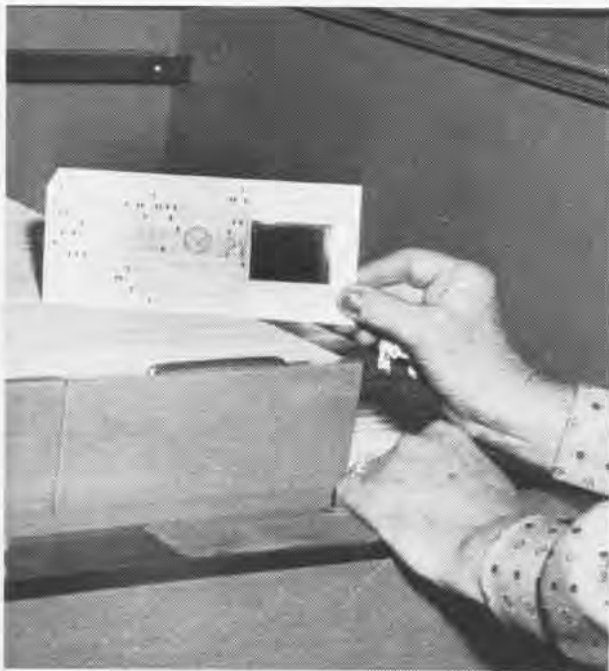
NavAirTechServFac is also participating in a current effort initiated by the Chief of Naval Material to make maintenance manuals more readable and more easily understood.

Under recent reorganization plans, the commanding officer, NavAirTechServFac has been double-hatted as the naval air technical documentation officer (NavAir Air-04A4) and reports in NavAir headquarters directly to the Assistant Commander for Logistics/Fleet Support, Rear Admiral R. S. Miller. Technical documentation personnel who were previously assigned to NavAir headquarters are being

moved from Washington to the Philadelphia area. A NavAirTechServFac liaison office will remain in Washington.

NavAirTechServFac is also the administrative office for *Naval Aviation News*.

The Naval Air Technical Services Facility takes pride in its service to the fleet. NavAirTechServFac maintains a customer service effort on a 24-hour basis to help resolve any problem concerning technical manuals, accepting telephone requests from personnel all over the world. Calls coming in after normal working hours are recorded so that every request gets action. The telephone numbers are Autovon 442-2909, or commercial (215) 697-2909.



Above, aperture card encases microfilm depiction of engineering drawing. Right, Josephine Seibert searches one of the unit's myriad files for technical documents. NavAirTechServFac handles thousands of requests for aircraft systems data each year.



USS Intrepid Says Goodbye

By JO3 J. Arthur Riccio

The Navy's last antisubmarine warfare carrier was decommissioned March 15 when USS *Intrepid* (CVS-11) was placed in the Reserve Fleet during a ceremony at NAS Quonset Point, R.I.

After *Intrepid* returned from her last deployment to the Mediterranean in July 1973, the noise of air hammers, sandblasters and acetylene torches echoed across the carrier pier. She was the first carrier to complete the ship's force portion of inactivation in her home port—away from a shipyard.

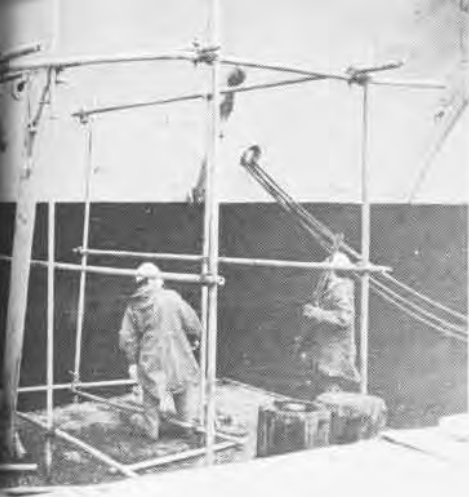
The carrier's reduced crew spent its time preserving the ship in the best possible condition without making costly and unnecessary repairs. Offices and shops were dismantled and the equipment redistributed to other Atlantic Fleet ships and shore activities. Then every external porthole, hatch and vent was sealed.

Over 420 tons of sandblasting grit was used to remove rust from the ship's exterior surfaces. The sandblasting cut many man-hours of work and achieved better results than chipping and grinding. The crew also put a temporary seal on the flight deck, with the necessary equipment and preservation materials being trucked in from Philadelphia, Pa.

Some work, however, cannot be done without shipyard facilities. After the carrier was decommissioned, she was towed to the Philadelphia Naval Shipyard for a three-month industrial inactivation phase. While in the yard, the carrier's catapult cylinders are being removed, the mast unstepped, the hull below the waterline sandblasted and the flight deck permanently sealed. Dehumidified air will be pumped

Intrepid's reduced crew worked hard since last July to ready the carrier for decommissioning. Crewmen perform routine maintenance to pneumatic tools, below; rig scaffolding to work on outer hull, above; and chip away loose paint, above right.





throughout the airtight ship as a rust preventative.

Since her commissioning August 16, 1943, *Intrepid* has seen duty as a CV, CVA and CVS. Her gunners were credited with destroying 13 enemy planes and assisting in the destruction of five others during WW II. At the same time, the carrier's air groups shot down 266 enemy planes, destroyed 298 more on the ground, sank 69 ships and damaged 178 others.

She was placed out of commission in reserve March 22, 1947, and reactivated five years later for transfer to the East Coast. She was converted to a modern attack carrier at the Norfolk Naval Shipyard and reclassified as CVA-11 June 18, 1954. The following year she entered the yard in Brooklyn, N.Y., to receive a new, reinforced angled deck and a mirror landing system. She was reclassified a CVS in 1961.

Intrepid twice saw duty with the U.S. space program. The first time was in May 1962 when she was the primary recovery ship for LCdr. Scott Carpenter's *Mercury 7*. The second was in 1965 when she recovered Astronauts Gus Grissom and John Young and their *Gemini* spacecraft.

On April 4, 1966, the carrier sailed to Vietnam for duty as a CVA. She made three consecutive deployments to SEAsia.

During her last cruise, *Intrepid* was modified to act as a CV in the Mediterranean where she developed and improved techniques of attack and ASW aircraft integration that are fundamental to the CV concept.

After her inactivation is completed, the 30-year-old carrier will quietly lie in her resting place, waiting for another chance to sail the seas.





Intrepid's island is outlined by flames from a Kamikaze strike in WW II, far left. One of six Canadian S-2F Trackers is hoisted aboard the carrier to reward the pilots, left. An A-1 Skyraider is ready to launch from Intrepid on an air strike over Vietnam, center left. The carrier's seal, center right. Intrepid (CV-11) in Newport News, Va., shortly after she was christened in 1943, bottom. The Gemini spacecraft flown by Astronauts Grissom and Young is made ready for hoisting aboard the carrier, below.



AMD - A Man In Demand

The following is an interview conducted with Vice Admiral Kent L. Lee, Commander of the Naval Air Systems Command. Admiral Lee is also the Officer Designator Advisor to the Chief of Naval Operations for the Aeronautical Engineering Duty Restricted Line of the Navy and is the primary consultant to the Chief of Naval Operations on the Aeronautical Engineering Subspecialty which includes both the AED (NANews, March 1974) and AMD officer programs.

NANews: Are you satisfied with the AMD program?

Admiral Lee: Yes. The AMD program was developed to provide full-time professional maintenance for Naval Aviation. We believe we now have a high quality and dedicated corps of officers. From the initial selection of the original 100 AMD officers in 1968, emphasis has been placed on quality rather than quantity. The 1520 officers are now filling the most demanding and challenging fleet maintenance billets and are establishing an enviable reputation.

What opportunities are available to an officer interested in the AMD program?

I believe there are both great opportunities and challenges for a young officer in aviation maintenance. He will manage aviation maintenance for the Navy, a rapidly growing field. Throughout his career he will be serving in carefully selected key billets that will assure an effective maintenance effort.

Opportunities for promotion and advanced education are high. In the not too distant future we will have an AMD flag officer. AMDs will also be given an opportunity to command NARFs and perhaps other NavAir facilities.

Will educational requirements for AMD candidates change in the foreseeable future?

There is no plan to change the present requirement which specifies a degree in the field of engineering, science, management or administration. During the formation of the AMD community, the bachelor's degree entrance requirement was re-



laxed to form an initial cadre of fleet-experienced maintenance officers; however, a degree is now required. In the beginning, only about 57 percent of the AMD officers had degrees. At present, approximately 82 percent hold academic degrees equal to or more advanced than a bachelor's degree. It is evident that those who did not possess a degree have been spending some time in school. It should be pointed out that officers who do not completely fulfill the educational requirements may apply for the AMD program and their applications will be considered in accordance with the needs of the service.

What personal attributes do you feel the ideal AMD officer should possess?

First, in addition to those leadership qualities I would expect in every naval officer, he should be highly motivated to accept the challenges

he will encounter in the aviation maintenance arena. Secondly, as he progresses through the various maintenance echelons, he must have the capability of developing that high degree of management expertise required to coordinate and control complex, multimillion-dollar maintenance organizations. Lastly, he must have a desire for the necessary fleet exposure to keep him abreast of "real world" situations.

Has the "grow-your-own" philosophy in regard to recruiting efforts progressed at a satisfactory rate?

The grow-your-own philosophy has been marginally successful. The growth rate of the community is less than initially planned due largely to officer strength reduction policies which have had an impact on accessions at the ensign level. The AMD community is now approximately 72 percent manned. We must ensure that it reaches full strength by the end of this decade. On the positive side is the outstanding performance of the grow-your-own officers. The exceptional retention rate of over 55 percent will ensure the continuing high standards established by the senior AMD officers.

Any additional comments?

Naval Aviation Maintenance is big business, and growing each year. It requires continuous professional management. The need for full-time maintenance specialists in Naval Aviation was the prime reason for establishing the AMD community. The 1520 officers have successfully filled a gap in the support of naval aircraft and I am pleased with the reputation they have established throughout the Navy.



The Aeronautical Maintenance Duty (AMD) Officer faces one of the most difficult and challenging tasks in the Naval Aviation community. He must be an expert in maintenance management in a day and age when its practice is becoming increasingly complex, expensive and demanding. Though comparatively small in number, the specialists of the restricted line have made a dynamic impact in the maintenance field and are continuing to do so both ashore and at sea.

Long gone is the era when aircraft status data was retained in the worn-edged green memorandum book often seen jutting from the hip pocket of a busy chief petty officer. Implementation of the 3M system, computerization and a corresponding sophistication of aircraft systems have placed a hefty burden on the men responsible for keeping the Navy's air arm at peak efficiency and readiness. The men who maintain the planes have had to increase their skills commensurate with the ever-growing complexity of weapons systems.

This need to provide a cadre of highly motivated, fully trained career maintenance managers of the highest caliber has long been recognized in the Navy. However, it wasn't until the 1960s that high level attention was specifically focused on this area and progress began with the establishing of the Aeronautical Maintenance Duty Officer program. This program constitutes the other half of the Aeronautical Engineering Duty Officer program (*NA News*, March 1974).

The dramatic increase in cost and diversity of weapons systems and related support equipment in recent years has made the problem of coordinated maintenance effort a critical one. The lack of men, material and



AMDs at sea. Above, Lt. Dave Mozgala of Independence's AIMD oversees engine repair. Below, aboard Enterprise, Lt. Steve Riordan of AIMD checks problem with crew chief ADJC Hudson.



AMD- A Man in Demand

money only aggravated and attributed to the inability to ensure the optimum readiness posture of aeronautical equipment. A high degree of management coordination had to be assured in order to obtain a proper balance between operational requirements. A program had to be implemented to provide, train and retain officer specialists at all levels of maintenance.

It took time and study, but eventually recommendations were realized which entailed the development of this sorely needed program and career patterns for professional maintenance officers.

The AMD officer designator (152X) became a reality in 1968. The Naval Air Systems Command was designated sponsor of the program. The first AMD officer selection board convened in December 1968 and the results produced what has since come to be known as the "first 100 AMD officers."

There are 500 AMD officer billets today, 365 of which are currently filled. A "grow-your-own" philosophy, in which 152X officers are brought into the community at the ensign level, has been in effect since the origination of the program. The Restricted Line Transfer Board provides inputs at the upper levels. Newly commissioned officer sources are OCS, NROTC and flight program transferees. Quality rather than quantity has been the byword since the beginning.

The AMD's duties vary according to the level of maintenance to which he is assigned. A single AMD officer is usually assigned at the organizational or squadron level. He becomes involved in the direct support of squadron aircraft.

It has always been a matter of pride and professionalism to have as many aircraft in an "up" status as possible. Squadron AMD officers often function as "super-supervisors" to see that this is achieved. They must manage personnel as well as the hardware assets at hand.

Intermediate level maintenance includes aircraft intermediate maintenance departments (AIMDs) at naval air stations or aboard aircraft carriers. The AIMD aboard ship, for example,

is manned by approximately 300 personnel who repair and return to embarked squadrons approximately 3,800 components each month. Four or more AMD officers are normally assigned and oversee the AIMD's duties.

AIMDs ashore are sprawling complexes of highly sophisticated equipment. Some of the larger AIMDs may have assets valued at between \$30 and \$50 million. They may be manned by 600 personnel responsible for supporting 200 or more aircraft. It is readily apparent, therefore, how vital the AMD officer's job is in helping manage these enormous assets.

Depot level is the third and highest level of maintenance. Maintenance efforts here involve major repair of aircraft and related components, modification of weapons systems and complete rework of aircraft, engines, avionics systems and support equipment.

The AMD program is designed so that each officer, as far as possible, is exposed to all three maintenance levels. As he achieves higher rank, he becomes well fortified to serve in executive management capacities in the Naval Air Systems Command.

Overall, the AMD officer splits his career between sea and shore duty assignments through the rank of commander. At sea, he may serve in squadrons, on air wing staffs or aboard carrier AIMDs. Ashore, he may be assigned to air station AIMDs, replacement training squadrons, technical training activities or to major fleet and headquarters staffs as a maintenance management specialist.

Regardless of where he works, the AMD officer devotes his entire efforts toward strengthening the managerial and material support base of the naval establishment. There is a wide range of challenging jobs for him through all phases of the maintenance field, including policy-making assignments in the Office of the Chief of Naval Operations, in the Naval Material Command and the Naval Air Systems Command.

Potential and performance are the most important criteria for selection to the program. Advanced education degrees are desirable; however, a bachelor's degree is all that is required. Once selected, an officer may

avail himself of programs which offer advanced degrees. Non-flying officers, ensign and above, are eligible for consideration. Aviators or NFOs who agree to terminate flying duties may also apply for the program.

The demands for skilled AMD officers will certainly continue in consonance with new developments which



AMD officers at NAS Miramar's AIMD are actively involved with the F-14 and other new systems. Above, Tomcat brake assembly is scrutinized. Above right, VAST station performs self-test sequence. Far right, VF-1 Tomcat wheel well is examined. AMD officers have made important impact on goal of keeping today's aircraft flying. Right, VA-22 Corsairs.

are now in the early conceptual stages. These include advanced air superiority fighters, vertical/short takeoff and landing systems, thrust-augmented wings, supersonic expendable engines, tactical aerial mobility platforms and lift-plus-lift-cruise systems.

The Chief of Naval Operations, Admiral E. R. Zumwalt, Jr., has com-

mented on the importance of the AMD in the future support of these developing systems: "They will require sound management when introduced in the fleet. There is a particular need for highly motivated, fully trained maintenance managers in the operational forces. These managers must coordinate available support resources in

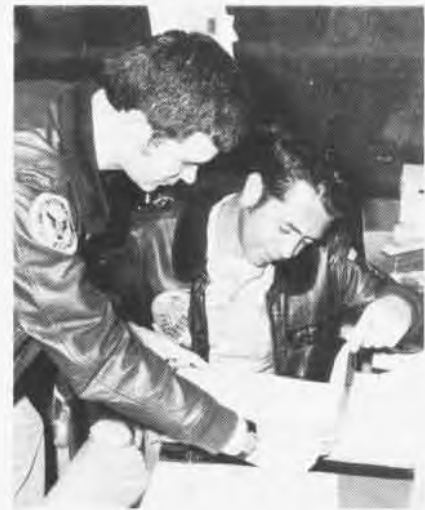
order to maintain an optimum readiness posture. The Aeronautical Maintenance Duty Officer has played a key role in the attainment of these standards of excellence in the maintenance of aircraft and weapons systems that we enjoy today. His contribution in future years will be even more important."



AMD- A Man in Demand



AMD Lt. Lee Goetz is shown at work as VA-46's material control officer. Above, he discusses avionics and nose landing gear problems with maintenance personnel. Below, he works with data retrieval system and reviews unit's equipment custody cards.



Photos on this page by AN D. J. Bunn



Left, Lt. Goetz examines Corsair corrosion area. Above, he coordinates rework induction/return dates for squadron A-7s. Below, fruits of the maintenance effort are realized with the successful launch of an "up" and "all systems ready" aircraft.



Letters

Oops

I probably am the umpteenth reader to write in concerning your aircraft recognition.

If that thing on the back cover of the February 1974 issue is a CH-47, I'll eat my rotor blades!

Tex Birdwell, Captain
Director, Naval Test Pilot School
NATC Patuxent River, Md. 20670

We goofed — it's a CH-46.

CV-23?

Hey! You goofed! And, I will say, you very rarely do. . . .

On page 31 of your January 1974 issue you state that the picture in the lower left shows a VA-195 *Skyraider* taking off from USS *Princeton* (CV-23). How about CVA-37?

I spent 51 months aboard her from '52 to '57 and considered it very good duty.

I might add that the pilot of the particular plane with the "kitchen sink" was Lt. Guy Bordelon. Last known, he was living in the Tidewater Area and was coordinator of the Azalea Festival a few years back. Another note of interest: Lt. Bordelon was also the first night ace during the Korean conflict, also accomplished aboard *Sweet Pea*.

Jerry S. Richter
8437 Benningfield Court
Norfolk, Va. 23503

Wildcat

We need help in locating parts needed for the restoration of a *Wildcat* for the National Air and Space Museum.

Grumman Aerospace Corporation is supporting a group of employees and retired personnel who have volunteered to restore an F4F-4 for future static display in the museum. The airplane, which has been in the Smithsonian collection for many years, is essentially intact and in good condition but there are some

missing parts which threaten the success of the project.

An R-1830-92 engine has been substituted for the original R-1830-86 and all accessory section and engine cowling is missing. Anyone knowing the location of a *Wildcat* or parts, or an R-1830-86 engine which can be donated (tax deductible) or purchased is asked to contact the writer by telephone or letter. Engine and parts need not be operable but should be restorable to display condition.

W. E. Scarborough
119 Turtle Cove Land
Huntington, N.Y. 11743
(516) 575-1315

Question

Has there ever been, in the history of Naval Aviation, a man designated a Naval Aviation Pilot that was a non-rated man (SN1 or 2) on active duty?

John D. Richards, AMM1, USN (Ret.)
561 9th
Imperial Beach, Calif. 92032

POW

Commander Jack Fellowes, subject of the feature article "Home from Hanoi" in the December 1973 issue of *Naval Aviation News*, shares with us the following letter he received from a friend.

December 17, 1973
WestPac — at sea

Dear Jack,

This morning I read your article in *Naval Aviation News*. It was absolutely the finest post-POW article or commentary I have seen because it gave such an honest, objective and, at the same time, moving account. Your comments made me prouder to be an American which, I realize, means little to you in terms of your tremendous sacrifice; yet, it still must be heartening for you to hear.

This may seem strange and you might even resent it, but at several points in the article I literally wept in passion for your situation (and no doubt for all POWs, to the extent I can associate your experiences with others I have heard).

Until our paths cross, all the best to you and, although I have not met them, what must be a super family!

With regards,
Jim

Naval Aviation Films

The following motion picture films are among the latest released by the Film Distribution Division, U.S. Naval Photographic Center.

MN-10999 (unclassified) *The Landing Signalman Enlisted — LSE — Helicopter Handling Signals — NATO Approved — Aboard Aviation Facility Ships*. Duties of the LSE, hand signals and safety measures used during helicopter operations — HIFR, medevac, personnel transfer and vertrep (27 minutes).

MN-11069A (unclassified) *The AMM-RL Program — Concepts and Responsibilities*. Basic concepts of Navy's aircraft maintenance material readiness list (AMMRL) program. Individual inputs and responsibilities required to make the program viable (25 minutes).

MN-11069B (unclassified) *The AMM-RL Program — The Individual Material Readiness List (IMRL)*. The management of GSE stock levels through the use of IMRL (28 minutes).

MN-11070D (unclassified) *Aircrew Rescue Procedures (A-6A)* (20 minutes).

MN-11092A (unclassified) *Lightning and Precipitation Static — Causes and Effect on Aircraft — Flash and Glow* (19 minutes).

MN-11092C (unclassified) *Lightning and Precipitation Static — Causes and Effects on Aircraft — Future Aircraft Design Problems* (6 minutes).

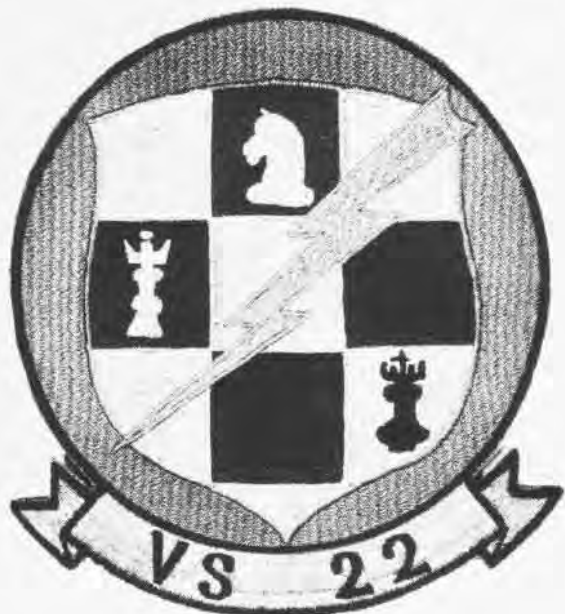
MN-11092D (unclassified) *Lightning and Precipitation Static — Causes and Effects on Aircraft — Future Aircraft Problems* (6 minutes).

MN-11208 (unclassified) *Nondestructive Metal Inspection — Dye Penetrant and Magnetic Particle Methods*. Use of the tools and methods employed in metal inspection to include dye penetrant and magnetic procedures (25 minutes).

MN-11209 (unclassified) *Plane Captain Responsibilities*. Training and responsibilities of plane captains to Class P students taking the aviation fleet preparation course with emphasis on basic and elementary levels of instruction (20 minutes).

MN-11213 (unclassified) *Inspection and Certification of Helicopter Facilities for Nonaviation Ships — A Safe Place to Land*. Problems associated with aviation facilities aboard nonaviation ships (24 minutes).

Instructions for obtaining prints of newly released films are contained in OpNav Instruction 1551.1E.



SQUADRON INSIGNIA



Fighter Squadron 51, deployed aboard Coral Sea (CVA-43), flies F-4Bs; Air Antisubmarine Squadron 22, flying S-2s from Cecil Field, Fla., will soon transition to S-3s; Fleet Composite Squadron 2, NAS Oceana, Va., has both A-4Es and US-2Cs; and Cecil Field's Attack Squadron 37 flies the A-7E.



NAVAL AVIATION

NEWS

