NAVAL AVIATION NEWS

45th Year of Publication

JANUARY 1964

NavWeps No. 00-75R-3

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A GREAT NATIONAL LOSS AND SORROW

'We have suffered a great national loss and sorrow in the death of the Commander in Chief, President John Fitzgerald Kennedy. A man who knew war and hated it, he loved peace all the more and sought to make it secure in the world for your children and his. He will be remembered and honored forevermore for his valor and courage in serving that cause of peace. . . . Let us rededicate ourselves to the continuing tasks before us, remembering always that the price of our liberty is eternal vigilance.'—Lyndon B. Johnson, President of the United States

■ COVERS

Above, officers and men of the USS Independence, in the Mediterranean, conduct services in memory of their late Commander in Chief, John Fitzgerald Kennedy (portrait by Fabian Bachrach ©). Front cover is the AQM-37A, Navy's new high-performance expendable target for realistic weapons training.

NAVAL AVIATION NEWS

Selected BEST INTERNAL PERIODICAL 1963-64 by Federal Editors Assoc.

FORTY-FIFTH YEAR OF PUBLICATION JANUARY 1964

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■ THE STAFF

Issuance of this periodical approved in accordance with Department of the Navy Publications and Printing Regulations, NAXEXOS, P-35.

Published monthly by Chief of Naval Operations and Bureau of Naval Weapons to disseminate data on aircraft training and operations, space technology, missile, rocket and other aviation ordnance developments, aeronautical safety, aircraft design, power plants, aircraft recognition, technical maintenance and overhaul procedures. Send mail to Naval Aviation News, OP 05A5, Navy Department, Washington 25, D.C. Office located at 3704 Main Navy Bldg.; telephone Oxford 62252 or 61755. Annual subscription rate is $2.50 check or money order ($1.00 additional for foreign mailing) made payable and sent to Superintendent of Documents, Government Printing Office, Washington 25, D.C. Single copy costs $.25.

NAVAL AVIATION NEWS

NMSE has been Activated

Schoech Heads Material Support

The Naval Material Support Establishment—tying together the Navy's four major bureaus—was activated on December 2. Thus a single military commander was placed at the head of all Navy "producer" organizations.

Welding of the support establishment was recommended in a Navy Management Review and ordered into being by Secretary of the Navy General Order #5 last July. Full implementation of the reorganization is expected to be completed by July 1964.

The Navy's four material bureaus have been realigned under VAdm. William A. Schoech, Chief of Naval Material. The present chiefs of the four bureaus remain: RAdm. Kleber S. Masterson, BuWeps; RAdm. William A. Brockett, BuShips; RAdm. Peter Corradi, BuDocks; and RAdm. John W. Crumpacker, BuSandA.

In addition to the four bureaus, the Chief of Naval Material's command will include the Fleet Ballistic Missile (*Polaris*) Program and the Fleet Surface Missile System Projects (which manage the production of *Tartar, Terrier, Talos* and *Typhon* missiles). Managers of these projects, as well as the chiefs of the four bureaus, reported directly to the Secretary of the Navy in the past.

The Director of the Navy F-111B (TFX) aircraft program, which has been given special project status, will report directly to the Chief of Naval Material.

Staff and project appointments are as follows:

Vice Chief of Naval Material: RAdm. Ralph L. Shifley, currently Adm. Schoech's principal implementing staff assistant, and formerly ComCarDiv Seven, Seventh Fleet.

Deputy Chief of Naval Material (Programs and Financial Management): Adm. Shifley will also fill this billet.

Deputy Chief of Naval Material (Material and Facilities): RAdm. Bernard H. Bieri, Jr., Supply Corps, who has been Vice Chief of the old Office of Naval Material.

Deputy Chief of Naval Material (Research and Development): RAdm. Edward A. Ruckner, formerly Assistant Chief of Naval Operations (Training).

Deputy Chief of Naval Material (Management and Organization): Capt. John K. Leydon, who has been selected for promotion to the rank of rear admiral. He has been a member of the new organization's implementing group.

RAdm. Ignatius J. Galantin will continue to head the Fleet Ballistic Missile Program, and RAdm. Eli T. Reich, Surface Missile System Project.

Capt. Aubrey R. Seiler of BuWeps will have additional duty under the Chief of Naval Material as Project Manager for the F-111B. Capt Seiler's primary duty in the bureau is Manager of F-111B/*Phoenix* Weapons Program.

DOD Sets Accident Policy

On Newsmen at Off-Base Accidents

A new DOD directive—No. 5410.14—establishing uniform policy for dealing with U.S. news media representatives at the scene of military accidents that occur outside military installations has been disseminated by the Department of Defense.

Arthur Sylvester, Assistant Secretary of Defense (Public Affairs) said: "In my opinion, this common directive is a distinct improvement over previous varying policies of the military department, in that (1) it precludes the use of force by military authorities should a news media representative refuse to cooperate in the protection of Department of Defense classified material; and (2) it is premised on the assumption that the news media have the same interests as does the Department of Defense in the protection of classified information."

The military authority present is directed to request assistance of appropriate civil law officials in preventing compromise of classified material, and to seek the cooperation of the superiors of any offending news media representative, informing him of the gravity of the action.

The objective of the new policy is, according to Mr. Sylvester, to assure that newsmen covering a military accident can do their job without interference while, at the same time, providing for the protection of classified information or material.

Navy-Industry Seminars

Topic: Maintenance Management

Navy-Industry seminars were held last fall to discuss the many areas of importance in implementing the Navy's Integrated Maintenance Management concept, WR-30 (Weapons Requirement). Military and civilian personnel joined together in Chicago, Santa Monica and Washington, D. C., for the meetings.

About 1200 industry and government engineers met in the Washington seminar where the need for improving designs to simplify maintenance and to acquaint people with new requirements contained in WR-30 was stressed.

RAdm. K. S. Masterson, Chief of BuWeps, made introductory remarks to the group and stated that "maintainability and logistic support are vital in their relation to the total effectiveness of the Navy's defense weapons systems."

He added that "the purpose of this seminar is to acquaint you with and

discuss the Navy's approach to solving maintenance and support problems that have plagued us—solving them before they become problems."

ENS. JAMES P. KOCH *is shown here with his father, RAdm. George P. Koch, CNAResTra. Young Koch, a 1962 Naval Academy graduate, has completed his RAG training at Cecil Field, and is now with VF-33, in USS Enterprise.*

CVA-67 Building Bids Open

Three Yards Included in Invitation

The Navy issued invitations to three qualified private shipyards for construction bids on the attack aircraft carrier CVA-67, authorized in the FY 1963 Shipbuilding and Conversion Program.

The yards are Bethlehem Steel Company, Quincy, Mass., the Newport News Shipbuilding and Dry Dock Company, Newport News, Va., and the New York Shipbuilding Corporation, Camden, N.J.

CVA-67 was originally authorized as a conventionally-powered carrier. The decision, based on a public interest determination under the Vinson-Trammell Act (48 Stat 504), to award construction of the ship to a qualified private shipyard was originally announced August 22, 1962.

Procurement was deferred after the Navy proposed to the Secretary of Defense that the aircraft carrier incorporate nuclear power. After the recent decision to build CVA-67 as a conventionally powered ship as authorized by Congress, BuShips started updating plans and specifications and other documents comprising the "bid package" for CVA-67.

Invitations to bid on the construction were accompanied by existing contract plans and specifications. Modifications will be issued as they become available, during the bidding period. It is expected the award of CVA-67 will be made this coming April.

Navy Has a LUBA School

Course Set for Short Breathers

Helicopter Utility Squadron Two has organized a new school which offers a new concept in sea-air rescue. It utilizes a Limited Underwater Breathing Apparatus, or LUBA, and is conducted at Key West, Fla.

The LUBA unit is equipped with two bottles of compressed air and two regulators—one for his own use and one for the rescuee—containing about 20 minutes of air. Masks and fins are also used.

With this equipment, aircrewmen are able to enter turbulent waters which were denied them before, when on a rescue mission. It greatly facilitates the rescuers' ability to free downed pilots from shroud lines and other complications immediately below the surface.

A-5A Is Used in Research

Data for Supersonic Transport Study

NASA engineers and pilots, working in cooperation with the Federal Aviation Agency, have completed a series of studies using an A-5A *Vigilante* to simulate flight profiles of a supersonic transport (SST). The studies were made at NASA's Flight Research Center, Edwards, Calif.

Using the two-place Navy A-5A jet bomber, engineers study possible air traffic control problems and obtained operational data for planning future SST flights. The A-5A was used in the simulation tests because it has almost the same thrust-to-weight ratio as an SST at altitudes up to 50,000 feet.

Twenty-one simulated flights were programmed along busy federal airways converging on Los Angeles. The airplane was put in several phases of flight—takeoff, climb, level cruising, descent. In the climb up to 30,000 feet, subsonic speed was maintained. Then the airplane was flown in level flight at 50,000 feet at supersonic speed of Mach 1.7 (about 1120 mph). Simulated descents to lower altitude began with deceleration to Mach 1.4. The airplane was slowed to subsonic speed before getting down to 30,000 feet.

FAA controllers, monitoring the simulated flights, said they had no difficulties during the descent and landing phases. They had control problems, however, during the takeoffs and climbout phases because of greater speeds and faster climb.

Tests showed—as was expected—that, because of the greater speeds, pilots must be given more advance notice of changes in flight procedures, such as holding instructions and changes in altitude.

The study was made for NASA's Office of Advanced Research and Technology. It was under the direction of Donald L. Hughes, A-5A program manager, and W. H. Dana, project pilot, both of NASA Flight Research Center.

NASA PILOT, WILLIAM DANA, ENTERS A-5A COCKPIT PRIOR TO FLIGHT TO GATHER SST DATA

GRAMPAW PETTIBONE

No Light—No Taxi

The crew of a C-1A (TF) filed a combination VFR/IFR round robin cross country flight plan with a five-minute passenger stop at an Air Force base. The flight to the en route stop to drop a passenger was conducted on the VFR portion of the flight with the intention of proceeding IFR for the remainder of the flight.

The copilot contacted the AF tower for taxi instruction after the passenger departed. He was told to taxi back the same direction from which he had entered the parking ramp.

During the time the aircraft was parked in front of operations, it started to rain. This reduced visibility on the black ramp. The pilot picked up the yellow nose wheel line and taxiway lights on his left and proceeded toward what he thought was the throat to the parallel taxiway for the duty runway. A short time later the yellow line and taxiway markers disappeared, so the pilot requested further instructions from the tower. He understood the tower to say "continue straight ahead with a left turn at the blue lights." The tower controller changed the left

turn to a right turn and told the pilot to taxi south to the duty runway.

After a few hundred feet, the aircraft entered an unevenly paved area. At this point, the pilot started to apply brakes and reached for the taxi light. Before he could stop the aircraft or get the taxi light on, the nose wheel dropped into a concrete drainage ditch with the starboard prop contacting the edge of the ditch. The aircraft continued into the ditch, sustaining substantial damage.

Grampaw Pettibone says:

Great horned toadies! Our BuWeps friends in the hardware business obligated several hard-to-come-by bucks to put a taxi light and windshield wipers on this machine. To have a pilot utterly refuse to use them is downright disgustin'.

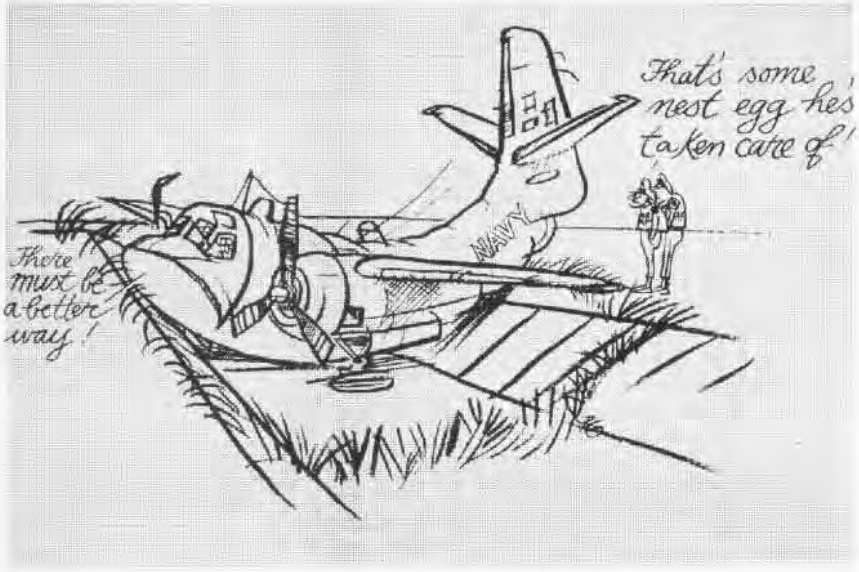
It'd be awfully easy to hold the tower operator partly responsible for the damage to this nice little bird, but there's just no way to take the monkey off the pilot's back. To go wanderin' around in an aircraft on a strange field or into an unlighted area just ain't smart. What's wrong with asking for a follow-me or, if necessary, shut the thing down and get towed in.

Thought for the day on this one, "When in doubt—don't!"

Close Shave

A flight of four AF-1E's departed MCAS CHERRY POINT on a cross country to Pensacola via NAS CECIL FIELD. Upon arrival at Cecil, the flight broke into two sections for penetration and GCA to landing. The wingman was instructed to take a chase position at five o'clock, stepped up, with a 500-foot interval on final approach.

The wingman planned to fly his chase position to minimums, then wave off and enter the pattern for a normal landing, but changed his mind at about the two-mile position on final. The flight leader requested that he land on this pass and the chase pilot, realizing that he was too close, began trying to set up a landing interval by reducing power. As he attained the desired 17.5 units (angle of attack) and a fair interval, he suddenly realized that the flight leader had landed in the center of the runway and he had reduced power to the point that an excessive sink rate was established. About this time, jet wash had him in more trouble than he bargained for and the aircraft contacted the ground on the right wing tip and main mount, about 400 feet short of the runway.



ILLUSTRATED BY Osborn

The nose gear sheared. The aircraft skidded 1500 feet down the runway.

This little saga should end here but, to continue in the same vein as exhibited during the approach, the pilot encountered more trouble when he tried to abandon the aircraft. He had trouble disconnecting his oxygen and radio leads, then unfastened the rocket jet fittings. After releasing the shoulder fittings, he attempted to stand, but soon realized he hadn't released his lap fitting. Again he attempted to stand, but found the leg fittings were still intact. He sat down for the third time and released them, then leaped from the aircraft and parted the emergency oxygen line as he did so.

Grampaw Pettibone says:

Holy mackerel! What was the great hurry to get on the ground? There is really nothin' against takin' it around and gettin' squared away for a comfortable approach and landing. This flight leader certainly helped a lot —after telling his wingman to land with him, he puts his bird smack dab in the middle of the runway. That's taking care of your buddy, but good.

One of the Board's recommendations was that in view of the difficulty and confusion experienced by the pilot in his egress from the aircraft, the squadron immediately institute a comprehensive training program concerning the equipment used and procedures for ditching, ejection, and egress from the aircraft in emergencies. Amen!

Low Lead—Wet Wingman

A flight of four A-1H's set out from a carrier in WestPac on a routine instrument hop briefed by the flight leader to perform section ADF approaches to the ship. The second section leader requested permission to make simulated instrument approaches to a field in southern Japan, but was told the field was too far away. He was to practice basic instruments within a 25-mile radius of the ship if ADF approaches were not available.

Individual section leaders continued the briefing for the flight and the second section leader briefed his wingman that they would proceed to the beach and practice approaches to the field. The wingman was also briefed that should ADF approaches not be available at the field, they would fly north along the east coast to observe the coast line in preparation for a planned navigation flight.

The four A-1H's (AD's) rendezvoused and after being informed that ADF approaches to the ship were not available, the leader broke the flight into sections to fly basic instruments as briefed.

The second section proceeded toward the beach at an altitude of 6500 feet. As they approached the beach, the leader put the section in a tactical formation, descended to 200 feet and proceeded north along the east coast of Japan. The flight progressed normally for the next few minutes with the wingman flying to the left side of the lead aircraft.

The section leader entered a slight left turn to go between two coastal islands and the wingman crossed over. As he started down to his original wing position, he felt a slight jolt and in a few seconds the aircraft entered a nose-down 30° left bank. The pilot felt as though the autopilot had engaged and immediately pulled the emergency release. Stick pressures were difficult to overcome and the aircraft descended to an altitude of 25 feet before the pilot could regain level flight.

After a few seconds in level flight, the aircraft suddenly pitched nose up. Then the pilot saw fire coming from the wing fold area.

Level flight was extremely difficult to maintain, and as the fire was observed to be progressing rapidly through the wing, the pilot decided to get the aircraft into the water as soon as possible. He lowered the flaps and hook, opened the canopy and checked his shoulder harness before hitting the water in a wings-level attitude at approximately 100 knots.

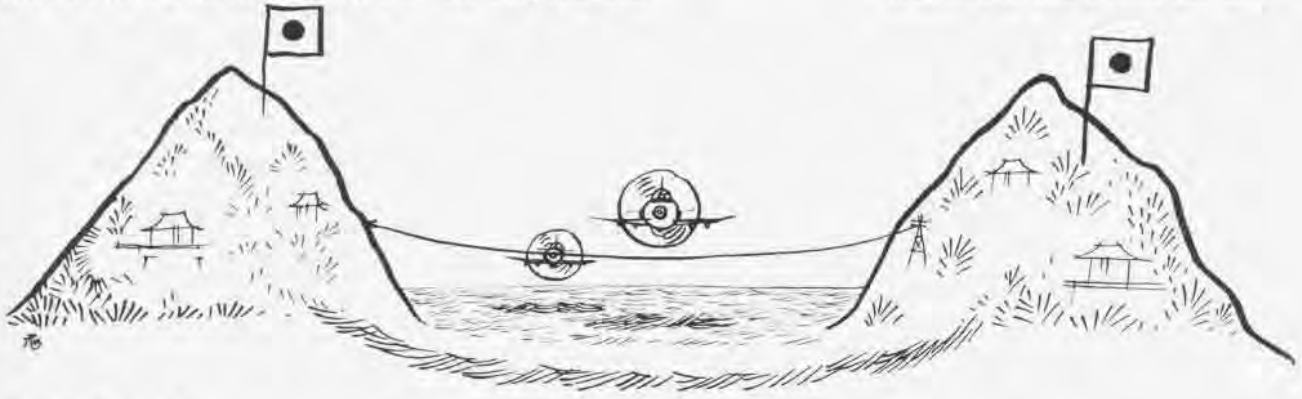
After the aircraft came to a rather abrupt stop, the cockpit filled with water and the forward part of the aircraft quickly sank four or five feet below the surface. The pilot released his lap belt and pulled himself to the surface. When he looked back, the tail of the plane was the only part above the water and it disappeared in a matter of seconds. He immediately inflated his Mae West and ignited a smoke flare to let his section leader know he was O.K. In approximately 10 or 15 minutes, he was rescued by the crew of a Japanese fishing boat.

The pilot was unaware that he had severed two 6000-volt power lines running between the mainland and an island until after the accident.

Grampaw Pettibone says:

Shades of Walter Mitty! This daring section leader really led his unsuspecting wingman into a booby trap. Witnesses observed the "Able Dogs" to be flying at an altitude of 50 to 75 feet. During the investigation it was established that the power cables were 60 feet above the water.

The division leader briefed the flight to practice basic instruments in the vicinity of the ship, but evidently the second section leader didn't think too much of that idea and decided to do a little aerial exploring on his own. There is nothing against a properly briefed syllabus type low-level navigation flight, but it's just plain poor headwork to pull a stunt like this.



YOU CAN BE TRAINED AS A TEST PILOT

WHETHER YOU fly helicopters, jet or turboprop airplanes you can be a test pilot. The route to this achievement is not hedged by obstacles. Many a Naval Aviator is eligible. It is a challenge and opportunity. Of course, you must take certain steps to get into one of the three programs available. If you do, it will mean work, but work that will bring its rewards for being a real pro and doing an exciting job.

Let's look at the ground rules for getting into the field of test piloting. First requirement is that you be a lieutenant (junior grade), lieutenant, or lieutenant commander, and be on sea duty at the time you make your application. There are certain requirements for the various programs available, and these are put down in BUPERS Instruction 1331.3D. The three programs in which Naval Aviators are eligible are as follows:

U. S. Naval Test Pilot School. Well known throughout the Navy, this school is located at Patuxent River, Md., also the home of the Naval Air Test Center which tests nearly all new aircraft produced for the Navy. The Test Pilot School trains pilots to conduct the tests of aircraft for which the Center is responsible. The NTPS training lasts approximately eight months. Ten officers are selected for classes which convene each February, July and October.

USAF Aerospace Research Pilot School. Class quota controllers for this school at Edwards Air Force Base try to have two Naval Aviators in each scheduled training class. Classes convene in January, May and September. Aviators taking the course are trained to test and evaluate new aircraft, manned space vehicles and related aerospace equipment. This course lasts a year.

British Empire Test Pilot School. This course offers the Naval Aviator life abroad at Farnborough, Hampshire, England. This school provides the British Ministry of Supply with aviators qualified to fly experimental aircraft. Like the Aerospace Research Pilot School at Edwards, the British equivalent seeks two U. S. Naval Aviators for classes which convene each February. The course lasts ten months.

All three courses provide academic study in aerodynamics, stability and power plant analysis, and related aeronautical engineering subjects. The flight syllabus gives the officer continuing flight experience in modern aircraft as well as training in reporting the data gathered.

At the Edwards AFB school, the pilot practices in various flight simulators that exhibit characteristics of manned spacecraft.

One thing BUPERS Instruction 1331.3D makes clear is that, if the applicant qualifies, he can be selected for any one of the three school training programs, regardless of the one requested.

What is required in the way of academic qualification? For enrollment in the U. S. Naval Test Pilot School and the British Empire Test Pilot School, you must have completed college physics and mathematics through college algebra and have had recent pilot experience in operational aircraft.

In the case of the USAF Aerospace Research Pilot School, you must be 32 years old or less at the time you apply and have a Bachelor's degree in engineering, physical science or mathematics. Furthermore, the candidate must have at least 500 hours as a pilot in *helicopters, jet or turboprop aircraft,* or *supersonic fighters or trainers* (or any combination), or have acquired at least 1000 hours as a pilot. Note that the schools are not open to just the jet set type.

Your application should be submitted at the appropriate time, that is, while you are on sea duty, no sooner than 12 months before your normal rotation ashore. Your application should include:

- Total number of flight hours.
- Number of day and night carrier landings.
- Completed Officer Preference and Personal Information Card (NavPers 2774—current revision).
- Educational background. If you're uncertain as to whether a college transcript is on file in your records, submit one with the application you send in.
- A 4x5-inch picture of yourself (format prescribed in BUPERS Manual, Art. B-2210-2d).

Include in your application the promise not to resign or request inactive duty (if you are USNR) while in training and an agreement that you will serve for at least one year for each six months of training you receive. Your obligation begins with the end of your training.

Your commanding officer must endorse your application. He should give an evaluation of your temperament and motivation as well as a statement concerning your ability as a pilot.

Selections to fill the various test pilot training quotas are made by boards that convene approximately two to four months before the courses open.

Board meets during	*To select students for classes convening in*
June	September, October
October	January, February
March	May, July

All selections are geared to specific classes. Your sea-to-shore rotation must be consistent with a class convening. So check those dates.

'Tomcats' Top Safety Mark

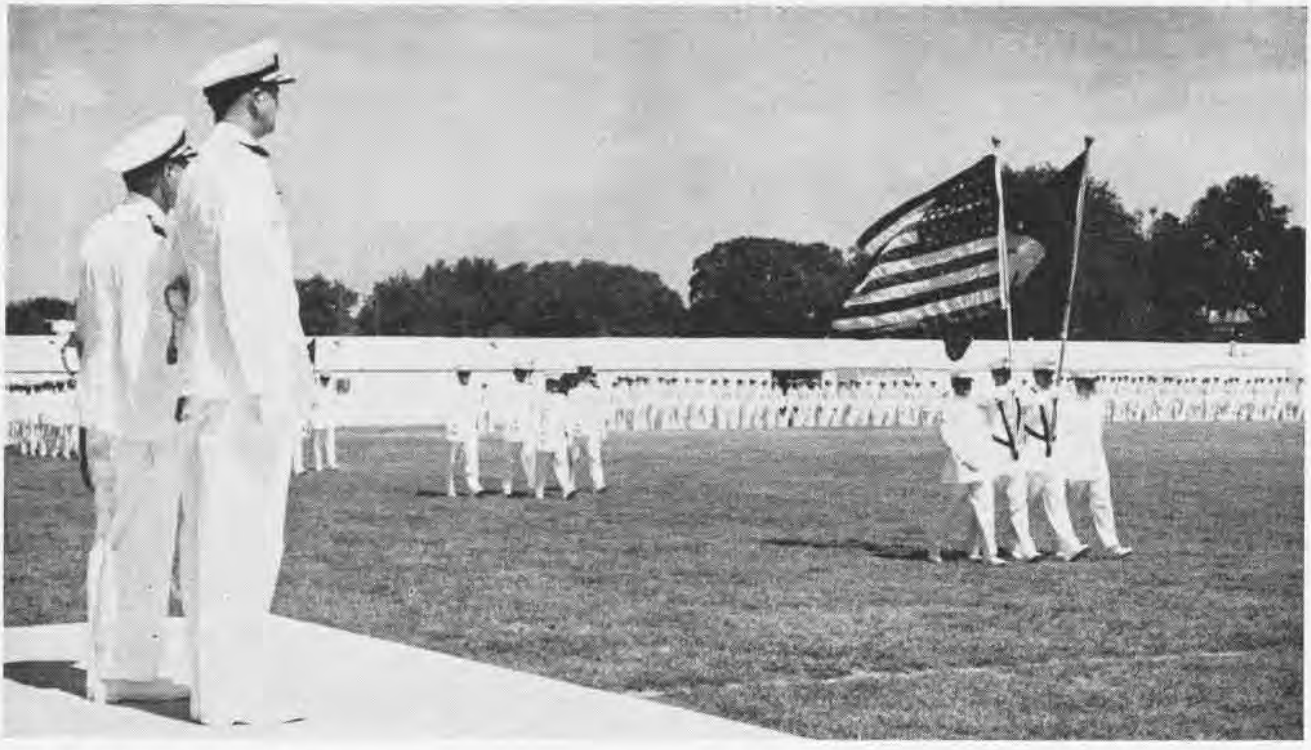
VMA-311 Logs 15,000 Safe Hours

Marine Attack Squadron 311 became the first MAG-33 squadron to go over the 15,000-hour safety mark this year when they picked up their ninth consecutive Air-FMFPac Quarterly Aviation Safety award.

LCol. W. L. Walker, the VMA-311 skipper, congratulated all hands for their work in reaching the goal.

The *Tomcats* started their safety string while they were deployed to the Far East in the spring of 1961. The subsequent period included familiarization stage flying, instruments, advanced tactics, close air support, special weapons, advanced instrument training and air-to-air "buddy" refueling. Field mirror landing practice and carrier duty were also included.

VMA-311 is based at MCAS EL TORO.



Oldest and First

PENSACOLA CELEBRATES FIFTIETH YEAR

PENSACOLA's Naval Air Station is 50 years old this month. To the residents of the northwest Florida city (1960 population, 56,000) the air station represents the major "industry" of the Gulf Coast region.

To the more than 100,000 men who have received Navy Wings, the air station represents a sort of Mecca, the place where many thousands first tasted the thrill of powered flight.

To the buyers of postcards, Pensacola is the "Cradle of Naval Aviation" or the "Annapolis of the Air." To many Naval Aviators, it is "where my in-laws live" or "where I'm going to retire" or the birthplace of their children.

Pensacola is many things to many people. To several hundred young men reporting there monthly, fresh from college campuses and Fleet activities, it is the beginning of a new life; the place where they will receive their first aviation indoctrination courses.

Since the Navy placed its first airplane on the white sand of Pensacola Bay that January day in 1914, NAS PENSACOLA has been part of the expanding force known as Naval Aviation, a force of 25,000 officers and 159,000 enlisted men at stations and aboard ships around the world.

The air station today is the site of the Pre-Flight School, the Naval Aviation Officer School, the School of Aviation Medicine, Aviation Medical Center, Naval Air Technical Training Units, the Naval Aviation Museum, an extensive Overhaul and Repair Department; it provides for docking and sustenance of the training carrier, USS *Lexington*. In all, some 20,000 civilian and military personnel work and live aboard the Naval Air Station.

Pensacola's business day is completely involved in Naval Aviation.

NAS FLAG

PENSACOLA'S GOSLING

ALMOST ALL *the officers of the Aviation Corps, USN, in 1914 are shown here, left to right: Lt. V. D. Herbster, Lt. W. M. McIlvain, Lt. P. N. L. Bellinger, Lt. R. C. Saufley, Lt. J. H. Towers, LCdr. H. C. Mustin, Lt. B. L. Smith, Ens. G. deC. Chevalier, and Ens. M. L. Stolz.*

NAS is headquarters for Chief of Naval Air Training, VAdm. Fitzhugh Lee, and for Chief of Naval Air Basic Training, RAdm. Daniel F. Smith, Jr. It is the base of operations for the *Blue Angels,* Navy's flight demonstration team, and for the *Chuting Stars,* a parachute demonstration team that has won wide acclaim.

From his offices, Adm. Lee also directs the activities of the Naval Air Advanced Training Command at Corpus Christi, Texas, the Naval Air Technical Training Command, Memphis, Tenn., and the Naval Air Reserve Training Command, Glenview, Ill., and the Naval Aviation Medical Center at Pensacola. His domain, stretching from coast to coast, is easily the largest shore command in the United States Navy.

The primary business today—as it was 50 years ago—is teaching young men how to fly "the Navy way." As the first air station, Pensacola set the pattern for all that were to follow.

JANUARY 20, 1914, was a typical winter's day in Pensacola. Temperatures ranged from an overnight low of 60 degrees to a daytime high of 68. Light southwesterly winds brought in a steady supply of warm air from the Gulf of Mexico under partly cloudy skies.

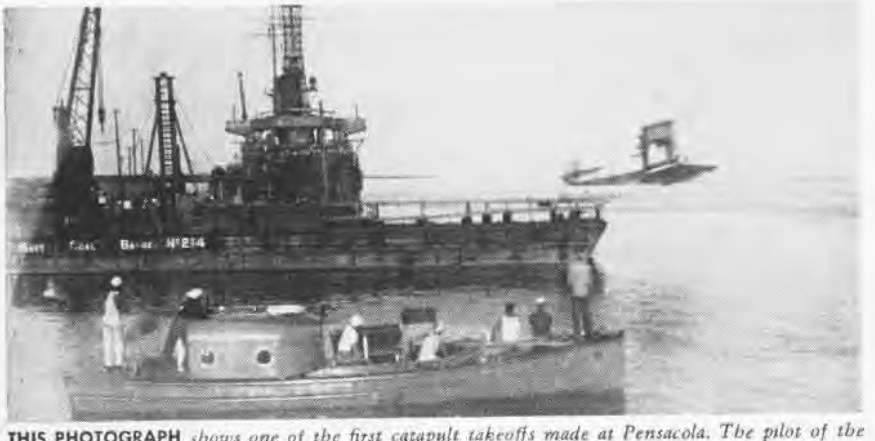
At 0800, LCdr. Henry C. Mustin, (Naval Aviator #11), Commanding Officer of the USS *Mississippi,* went ashore to supervise the establishment of the Naval Aeronautic Station as a small group of sailors and officers commenced unloading the *Mississippi* and the collier *Orion.* Aboard the two ships was all of the U.S. Navy "aviation camp" that had been located at Annapolis, except for the Marine element.

Naval Aviator #3, Lt. John H. Towers, was there, too, watching as the crew began offloading tents, airplanes and equipment for the flying school he was to command. Included in his inventory were seven aeroplanes of three different types, some spare parts and large tent hangars.

By mid-afternoon that day, all of Naval Aviation had been sent to the cluttered sand beaches of what once had been the busy Pensacola Navy Yard. Founded in 1824, the yard had been active until 1911; it had served as a final port when Adm. Farragut embarked for the Battle of Mobile Bay.

U. S. Naval Aviation did not have an auspicious beginning at Pensacola.

LCdr. Mustin's first letter to Washington, dated that day, reported: "Found some buildings quite usable, a construction and repair shop full of excellent tools, a lookout tower; however, the beach was in a fearful state with wreckage of all kinds, bricks, stones and old railroad iron. This is the reason it will take two weeks to start the school. Tomorrow will start ship's crew clearing away wreckage and building runways. This morning



THIS PHOTOGRAPH *shows one of the first catapult takeoffs made at Pensacola. The pilot of the airplane being launched off barge is Lt. Kenneth Whiting for whom Whiting Field is named.*

it looked like the ruins of a prehistoric city."

As senior officer present, LCdr. Mustin assumed additional duties as officer in charge of the station.

Lt. Towers had orders to "take charge of the establishment of a flying school . . . in addition to your duties on board the *Mississippi*."

Capt. Mark Bristol, later to receive the title of Director of Naval Aeronautics, had given Lt. Towers a set of written instructions on how to conduct his school.

"It is most important to get the Flying School established and the work started. I want you to submit a plan for the organization of the school at once, as soon as you can prepare it. I want you also to next submit a plan for the course of instruction and the requirements for qualification of air pilots. Then you will submit a set of safety orders or instructions for air pilots both under instruction and those qualified.

"Every accident in flying or defect in material must be promptly reported. A thorough investigation must determine fully the causes.

"You will not allow any student or apprentice air pilot to continue under instruction who has not natural aptitude. You will not allow anyone to disregard the safety orders or the rules for flying. You will report such cases immediately. Your success will depend upon being 'hard as nails' right from the beginning.

"Experience is the best teacher known, hence the number of hours of flying by each machine and each officer or man under instruction will be a good measure of the instruction work accomplished. The test of materials is obtained by the hours of useful work as compared to the hours available. The idle hours for personnel and material must be accounted for so as to show the necessity.

"No effort must be spared to prevent human fatalities, not only on account of the results, but in order to do away with the morale effect. Acci-

FUNCTIONAL COMMANDERS *of today's Naval Air Training Command: Vice Admiral Fitzhugh Lee, CNATra (seated, center); RAdm. R. A. Brandley, CNAVanTra (L); RAdm. D. F. Smith, Jr., CNABATra (R); standing, left to right, RAdm. L. C. Newman, ComNavMedCen; RAdm. Allen Smith, Jr., CNATechTra; and RAdm. George P. Koch, CNAResTra.*

EARLY STUDENTS *at Pensacola and a few instructors, seated, left to right are: Saufley, Bellinger, Whiting, Mustin, Read, Johnson, Cunningham, Evans, Hass; and standing, left to right, Paunack, Spencer, Bartlett, Edwards, Bronson, Corry, Norfleet, McDonnell, and Scofield.*

dents that result in fatal or even serious injuries will give us a black eye and seriously interfere with progress. I do not recommend overcautious action to the detriment of progress, but let clear headed discretion rule. . . ."

While running of the school was his primary chore, Lt. Towers also had responsibility for conducting experiments related to the aeronautical organization. He promptly asked permission to conduct tests on newly-designed propellers, two new motors (including a Renault motor and a Wright 60-hp motor), a new control device, and a catapult-launching device.

Setting up the new station was an all-hands project. LCdr. Mustin reported, "The more work we have done on the beach, the worse condition we have found it in." He surmised that the hurricane of 1906 had brought much wreckage to the yard beaches, then had dumped sand on top of everything.

First flight for the new station was logged on February 2, 1914, a 20-minute journey by Lt. Towers and Ens. Godfrey Chevalier (Naval Aviator #7) over the Naval Reservation and Bayou Grande.

Before the flying course was approved, the station's training program came almost to a halt. On April 20, Lt. Towers with three aircraft, three pilots and 12 enlisted men embarked in the USS *Birmingham* to conduct observation flights off Tampico, Mexico. One day later, the *Mississippi* with Ltjg. P. N. L. Bellinger (Naval Aviator #8) and three student pilots set out for Vera Cruz to aid in the crisis. Ltjg. Bellinger flew the first observation flights of the war and his airplane sustained the first aerial damage. When things got dull at Tampico, Lt. Towers conducted training flights in the area.

The beginning of World War I in Europe added to the woes of the new training program, which received Bureau of Navigation approval on April 22, 1914.

Just prior to the aviators' exodus to Tampico, Capt. Bristol had become impatient at the rate of progress in Pensacola. LCdr. Mustin wrote, "I assure you there is no loafing in the flying school; the students when not flying are working on motors (without help from mechanicians) and they have gotten very busy in the theory as well as the practical work since they saw the proposed course of instruction."

HOME OF THE BLUE ANGELS *is another proud title Naval Air Station, Pensacola, claims.*

In the early weeks of Pensacola's progress, the *Mississippi* had been the aeronautics ship. It was home and headquarters for the senior officer, since LCdr. Mustin and his aviators were still assigned to the ship.

When the European nations commenced firing, this ship/officer relationship resulted in some organizational problems that "paralyzed" the training program. The *Mississippi*, sold to Greece, was relieved by the USS *North Carolina*. By autumn of 1914, Mustin, Bellinger and several other pilots were in Europe aboard the *North Carolina*. Lt. Towers was in London as an "observer." Two other pilots were in Paris and Berlin as observers; they were placed in those cities because "aeronautics is playing a part in war and very little is known of the science and art of aeronautics."

Because the aeronautics ship *(North Carolina)* had gone, men at Pensacola were left without pay accounts, small stores and clothing sources. On November 16, 1914, following appeals to Washington, headquarters for the Naval Aeronautics Station was moved ashore. Mustin was given the title of commandant of the station in 1915.

By the time America entered the war in Europe, only 48 men had undergone heavier-than-air training as Navy and Marine pilots. Naval Aviation had a total complement of 239 enlisted men and an inventory of 54 airplanes, one airship, three balloons and one air station.

In the 19 months following U.S. entry into the war, Naval Aviation had grown to a strength of 6716 officers and 30,693 men in Navy units; 282 Marine aviators and 2180 men in Marine units. Some 570 aircraft and 18,000 men and officers were sent overseas.

Much of the first three years had been spent in testing machines, instruments, motors and catapults. In April, 1915, Lt. Bellinger was catapulted in a flying boat from a barge in Pensacola Bay. He flew to a new American altitude record of 10,000 feet later that month. Within a year, Lt. R. C. Saufley (Naval Aviator #14) had raised the mark to more than 16,000 feet.

The air station was the scene of

many "firsts" in areas other than flight. The first aviation radio laboratory was established there in 1916 to conduct experiments with airborne radio. A school for "mechanicians" was set up simultaneously with the Flying School to train men in the maintenance of airplanes. Experiments were conducted in magnetic compasses and aerial cameras.

When war changed the pace from flurry to fury, Pensacola was changed from a primary flight training base to an advanced training center. Its mission during the war was to train pilots in the new art of fighting in the air. Students received early training at bases around the country, many of them receiving a polishing off at Pensacola.

All early Pensacola training was in seaplanes and the hydroplanes of the era. It was not until the carrier became a reality that landplane training commenced at Pensacola.

Pensacola became an advanced training base and its population jumped to keep up with the times. Increased emphasis on the flying school forced the mechanics school to move to Great Lakes. LTA training, which had been established in 1916, remained only briefly at Pensacola. The test/experimental unit already had been moved to Hampton Roads.

Helping to build up the early strength of Naval Aviation were college units which had been training around the country with their own aircraft on their own time, the forerunners of the Naval Air Reserve. Only a few days before the U. S. declared war, the first of these units, 29 men at Yale, had been enlisted in the Naval Reserve Flying Force and had departed for West Palm Beach for formal training.

The pace of aviation quickened during the entire war period, but its growth was almost halted following the Armistice. In the 1920's, the Navy began adding shore units at reserve bases and the biggest step forward came with the enactment of the Aviation Cadet Act in 1935. This program was designed to bring in college graduates for a year of training after which they served three years of active duty as cadets before receiving their commissions as ensigns, USNR, or second lieutenants, USMCR.

THE CHUTING STARS, *Navy Parachute Exhibition Team, are based at Pensacola when not on tour deploying brightly colored parachutes and colored smoke in air shows throughout country.*

NAS PENSACOLA played a part in all of the expansion of the 30's, but its greatest period of growth was during World War II. Of the outlying fields now extant at Pensacola, only Corry Field had been built prior to 1940.

Named after Naval Aviator #23, LCdr. William Corry, who was given the Congressional Medal of Honor for heroic rescue attempt in a crash that led to his own death, Corry Field was first located at Pensacola City Field. It was moved to its location near the main station in 1927. Now inactive, Corry Field is the home of the Naval Communications Training Center.

Second of the satellite fields was Saufley, which was commissioned in 1940 and named after the early aviator who set many of the early flight records.

Ellyson Field, now home of the Navy's only helicopter training squadron, was placed in operation late in 1941. It bears the name of the Navy's Number One Aviator, Cdr. Theodore Ellyson, who made the first successful catapult launch in 1912.

In response to the need for a greatly increased force of Naval Aviators following the Pearl Harbor attack, Pensacola quickly put into commission Bronson Field, named after Naval Aviator #15, Clarence Bronson; Barin Field, Baldwin County, Ala., named after one of the first Naval Reserve Aviators, Lt. Louis Barin, an innovator in the aerobatics art; and Whiting Field, near Milton, Florida, honoring the name of Capt. Kenneth Whiting, Naval Aviator #16. Bronson and Barin Fields, commissioned in 1942, are no longer active bases although Barin Field had a short re-birth during the 1952-54 era of the Korean conflict. Whiting Field is still in use.

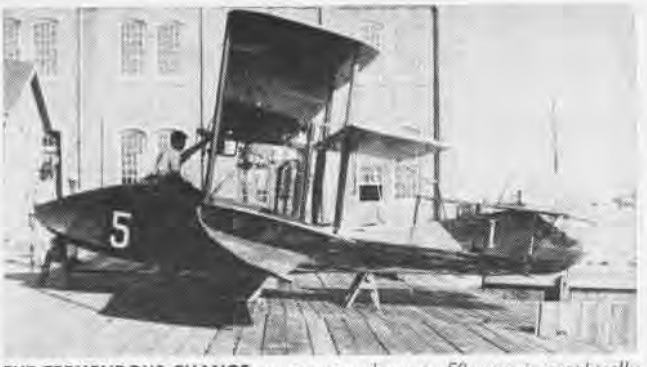
The Pensacola complex has had a major field addition in Forrest Sherman Field. Gone are the too-short runways and water hazards of Chevalier Field, which was the "home" landing field for so many years.

Sherman Field is located to the west of the main administration area and storied Fort Barrancas, overlooking the entrance to Pensacola Bay. It serves as base for the logistic aircraft attached to all units at NAS and for training jets, too.

It is from Sherman Field that the famed *Blue Angels* and *Chuting Stars* operate on their cross-country public relations endeavors through ten months of the year. The *Angels* and *Stars*, like the Training Command Band, Choir and Starflight Tumbling Team, are integral parts of the U. S. Navy's recruiting effort.

The Naval Aviation Medical Center was deeply involved in the NASA *Mercury* program recently concluded, assigned to the recovery phase of the astronaut operation. A program in training Flight Surgeons has been located at Pensacola since 1939.

Part of the Pensacola complex, too, is the training carrier assigned for the "tailhook training" part of the flight schedule. The USS *Lexington* is presently assigned, having relieved the USS *Antietam* a year ago. Docking of the larger class of carrier was made possible in 1961 with the dredging of a



THE TREMENDOUS CHANGE *in training planes in 50 years is graphically depicted by the photographs: the one, an AB-5 aircraft used in 1914 at Pensacola, and the other, the sleek-lined, jet-powered North American T-2A over the Naval Air Training Complex of Pensacola today.*

much deeper channel in Pensacola Bay.

The on-board NAS population always has reflected the needs of the Fleet; in 1964 the non-flyer Observer has taken his place as a student of importance equal to that of the pilot. This reflects the modern Navy's need for highly trained specialists to assist pilots in two-place aircraft, such as the F-4B *Phantom II*, to fill electronics specialty roles in early warning aircraft, to maintain power plants and to provide intelligence data.

Today NAS PENSACOLA provides more than the mere beginning of aviation training. An "average" flight candidate may be recruited/procured by a representative of CNATra's functional command, CNAResTra. Then he reports to NAS Pensacola as a Preflight student, is passed along to pilot training in the Basic Command and the Advanced Air Training Command. If after a Fleet tour he chooses to return to civilian life, he may become part of the Naval Air Reserve, which represents full circle training.

An Observer trainee passes to units of the Naval Air Technical Training Command for advanced phases of his aviation training. Enlisted men training for Fleet aviation tasks are also students of the Memphis-based CNATechTra command.

Last year the air station became the site of the Naval Aviation Museum, a collection point of the mementos of the changing world of Naval Aviation.

From that early morning of January 20, 1914—when the site "looked like the ruins of a prehistoric city"—Naval Aviation's first air station has grown, changed and prospered with the times. Today it is historic, without a prefix.

VICE ADMIRAL FITZHUGH LEE, USN

Chief of Naval Air Training

Vice Admiral Lee is descended from a distinguished line of American fighting men. His father, George Mason Lee, was a Colonel in the U. S. Army; his grandfather, Fitzhugh Lee, was a General in the Confederate and U. S. Armies, and was Consul General in Cuba during the Spanish-American War; his great-grandfather, Sidney Smith Lee, brother of General Robert E. Lee, was an Admiral in the Confederate and U. S. Navies, and his great-great grandfather was Henry (Light Horse Harry) Lee, of Revolutionary fame. His mother, Mrs. Katro Larabee Burton Lee, was the daughter of General George Hall Burton, U. S. Army.

A 1926 graduate of the U. S. Naval Academy, Adm. Lee reported for a short tour in the USS *Oklahoma*, for duty in connection with fitting out the USS *Lexington*. He served in that carrier from her commissioning December 14, 1927, until August 20, 1928, being aboard when on a run from San Pedro, Calif., to Honolulu, she broke the 24-hour steaming record for three successive days, and set a new record of 74 hours, 34 minutes, for the passage, 2228 nautical miles, from the United States to the Hawaiian Islands. "Nothing so big ever went so far so fast."

Detached from the *Lexington* in August 1928, he reported to NAS Pensacola for flight training. Designated a Naval Aviator September 16, 1929, he joined in October Bombing Squadron One, later designated VF-5, based on the *Lexington*.

He next came to Pensacola in June 1936 as a flight instructor. In 1938 he joined VF-6 based on the USS *Enterprise*. In December 1938 he was transferred to duty as Executive Officer of Scouting Squadron Five, based on USS *Yorktown*, in which capacity he served until January 1940.

As Air Officer and X.O. of the USS *Essex*, 1942-44, he participated in action at Marcus Island, the Gilberts, Tarawa, the Marshalls and Kwajalein. As C.O. of the USS *Manila Bay*, he took part in the invasions of Leyte, Mindoro and Lingayen Gulf.

The majority of his WW II service was in the Pacific. VAdm. Lee was instrumental in streamlining news channels for meeting expanding needs for press copy, radio and pictorial coverage of activities in the Pacific Ocean Area. He was awarded the Navy Cross and Gold Star, Navy Unit Commendation, Legion of Merit, and Commendation Ribbon for WW II service.

In recent years, he was ComCarDiv 5 from 1957 until 1958 when he assumed duty as Chief of Naval Air Technical Training at NAS Memphis. On March 31, 1960, he assumed the duties of Deputy Commander in Chief, U. S. Atlantic Fleet, and Chief of Staff and Aide to the Commander in Chief, U. S. Atlantic Fleet, with the accompanying rank of Vice Admiral.

VAdm. Lee began his tour of duty as Chief of Naval Air Training in October 1961. ★★★★

A LITTLE PIECE OF SOLDER

THE WRIGHT B-1 *hydroaeroplane is salvaged after Herbster's 1912 crash in San Diego Bay, wing panel and floats in foreground. Evidence from repairs recently led surviving crewman to identify aircraft's engine, only major item still existing from Naval Aviation's beginning.*

When Naval Aviation was in its very beginning stage—even before the establishment of the first air station at Pensacola—the enlisted men who maintained the airplanes were improvisation experts. There were few spare parts. If a part needed fixing, the "mechanician" made a new part or improvised something that would work temporarily. Among the early "volunteers" for aviation was Dale B. Sigler, who, in 1911, was assigned to work with Lt. John Rodgers, Naval Aviator #2, with a particular aeroplane, the B-1.

More than 50 years later, Mr. Sigler made a journey to New England with Mr. Lee M. Pearson, Bureau of Naval Weapons Historian, to see if a once-abandoned engine was, in fact, the one on which he worked in 1911 and 1912. This is the story behind the story of the identification of the B-1's power plant, now recognized as "the one piece of major aeronautical equipment to survive from the beginnings of Naval Aviation."

By Lee M. Pearson

ENSIGN V. D. HERBSTER'S flights in the Navy's Wright B-1 aeroplane on March 1, 1912 had a routine beginning as described in the aircraft log. The temperature at San Diego was a brisk 64 degrees, but a stiff gusty wind may have made Herbster cautious as he made three solo flights totaling 38 minutes before he ventured to take up a passenger. On this latter flight, he had climbed to 100 feet when a gust struck his right wing, throwing the aircraft out of control. He headed down to pick up speed and struggled with the controls. He later recorded that he got no response from the warp (Wright machines used warping wings rather than ailerons) or the vertical rudder and that as he neared the water and tried to level out, the plane did not respond to horizontal rudder. He plunged into the bay and the flimsy wooden and fabric structure crumpled either upon impact or during later salvage operations.

What had begun as a routine flight ended as a routine accident. Glenn Curtiss, who was flying nearby, landed and offered to rescue the survivors, thereby attempting to obtain a headline at the expense of his archenemies, the Wright Brothers. Neither Herbster nor his passenger was seriously hurt and, spurning the offer of aid, they awaited a Navy boat.

The tone of the aircraft log became almost lackadaisical as it described repair and reconstruction: "Took machine apart, put in new ribs, rebuilt planes; took engine apart; repaired crankcase; overhauled engine; assembled aeroplane. . . ." No one could have predicted that over 50 years later a clue would be found in this episode that would lead to positive identification of an old obscure Wright four-cylinder engine as the one piece of major aeronautical equipment to survive from Naval Aviation's beginnings.

The alertness of Harvey Lippincott, President of the Connecticut Aeronautical Historical Association (and an employee of Pratt & Whitney Aircraft) and the excellent memory of Mr. Dale B. Sigler, the surviving member of the crew of the Navy B-1 aircraft, made such identification possible and pointed up the value of this most important item of museum equipment.

The sequence of events thus involved is more complex and seemingly less related than a Perry Mason mystery. The key member of the cast, Mr. Sigler, now 79 years "young," was assigned to Naval Aviation as an enlisted man in the summer of 1911. Mr. Sigler was born and reared in Oregon's Douglas fir country and worked as a young man in his father's sawmill. A smattering of electrical skill enabled him to enlist in the Navy as an electrician in 1908 in time for the Great White Fleet's round-the-world cruise. Sigler, in 1911 when assigned to the pre-dreadnought *Nebraska*, witnessed his first aircraft flight while the Fleet was at its winter drill grounds at Guantanamo Bay.

Venturing to predict that the Navy would find aircraft of use, he found that he had made a dare. His shipmates challenged him and he had to back down or request aviation duty. And so it was on July 27, 1911, that the Watch Officer on the *Nebraska* recorded that during the forenoon watch Electrician First Class D. B. Sigler was transferred to Dayton, Ohio,

"for duty in connection [with] Wright aeroplane works."

By that time Naval Aviator No. One, Lt. T. G. Ellyson, and No. Three, Ltjg. John H. Towers, were flying under the tutelage of Glenn Curtiss at Hammondsport, New York, while No. 2, Lt. John Rodgers, was being trained by the Wright Brothers at Dayton, Ohio. Sigler recalls that he was the only Navy enlisted man ordered to Dayton, but that two men, Percie Coffey and Chief Gunners Mate H. H. Wiegand, similarly were sent to Hammondsport for training. Theoretical and practical training required about two weeks and the excellence of Sigler's instruction was proven when the Wright Company sent him to an aviation meet at Chicago as one of their "mechanicians."

In early September Sigler reported to Annapolis where he was told that according to his orders he need obey no one but Lt. John Rodgers, but John Rodgers had flown out in the Wright B-1 and no one knew when he would return. Looking for something to do, Sigler went over to Greenbury Point, the most prominent of several peninsulas directly across the Severn from the Naval Academy and the site that had been selected for the Navy's first aviation camp. There he talked to Chief Carpenter's Mate J. Alfred Erickson, who was in charge of clearing the field and erecting hangars. Erickson, a Swedish immigrant—who is still living at Annapolis—needed someone to blast stumps. Sigler, drawing upon some of his experiences in clearing timber land, volunteered to be blasting expert and powder monkey.

In a few days Rodgers returned with his B-1 but immediately went on leave to assist Calbraith Perry Rodgers, his double cousin, in making the first transcontinental flight. He returned and resumed flying for the Navy in mid-November. In the meantime Ellyson and Towers had arrived with their Curtiss A-1 and A-2 and a fourth officer, Ens. V. D. Herbster, had been ordered to the camp for training in the Wright B-1. The enlisted crew was also enlarged to include Electrician Judson E. Scott and Chief Electrician D. L. Bronson. They soon learned that the field and hangars were in line of fire and dangerously close to the midshipmen's rifle range. Despite this unexpected peril, these officers and men devoted their efforts to becoming familiar with the aircraft and their capabilities as a step in learning how aviation could be of most use to the Navy.

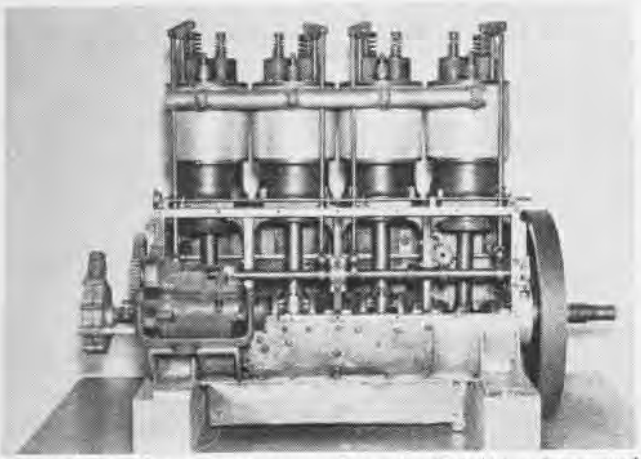
When winter approached, the officers, planes and several of the men were packed up and shipped to the warmer climate of San Diego where Ellyson had begun flight training the previous year. Here Herbster had the "routine" flight and the "routine" accident.

One phase of the accident was not quite routine. Somehow a small segment was broken from the cast aluminum crankcase of the engine. It was also cracked in one or two other spots. The stock of spare parts did not include engines. As Mr. Sigler recalls, the Wright Company was swamped with a backlog and could not send them an immediate replacement. Ingenuity was required to keep one-third of the Navy's air force from being grounded for an indefinite period. Moreover, the plane crew had their hands full, replacing broken ribs and reconstructing the aeroplane.

Somehow outside assistance was obtained, whether from a local machine shop, the naval station or the Wright Company. Sigler wondered how the engine could be repaired and through kibitzing and conversation learned that efforts were to be made to utilize molten metal to weld or solder the aluminum fragment to the crankcase. When this proved impossible, a piece of sheet metal was shaped to the crankcase and secured with stove bolts. Eighteen days after the accident, Rodgers and Herbster resumed flying. In the six weeks before camp was broken for the move back to Annapolis, the cycles of accident, repair and reconstruction of the aircraft and overhaul of the engine were repeated twice more; down time decreasing with each incident, two weeks for the second and eight days for the third.

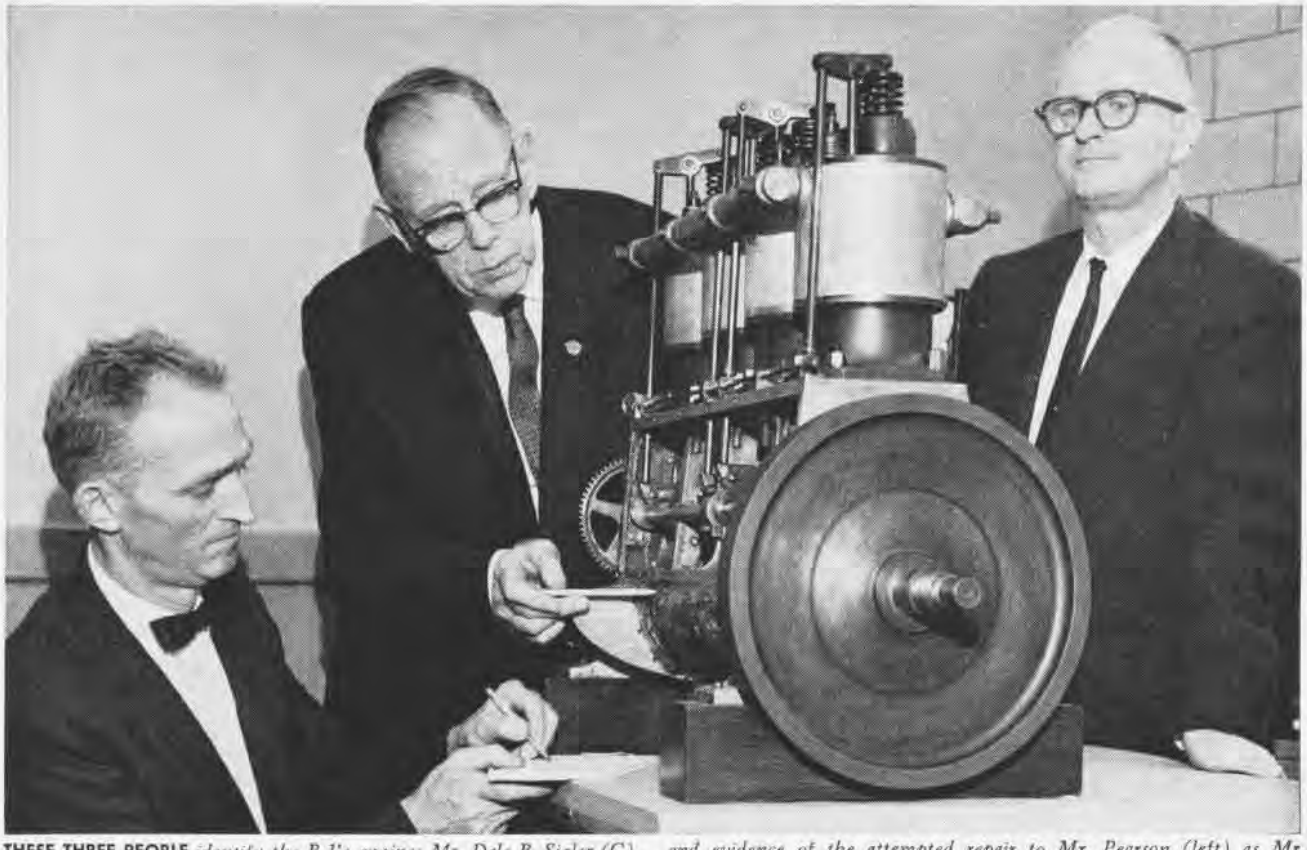
Sigler's enlistment expired before the departure from San Diego and he returned to his native Oregon. Events which had transpired in connection with aviation in 1911 and 1912 remained, however, as a sharp contrast to his later life, thereby greatly increasing the accuracy of his recall.

The camp, upon its return to Annapolis, was relocated immediately northwest of the Engineering Experiment Station, where it was convenient for



B-1 ENGINE *with access plate removed; patch which hid and preserved evidence of soldering is secured to aluminum crankcase by many screws.*

FIRST NAVAL *aviation camp at Greenbury Point, Wright B-1 and enlisted crew: Sigler at controls; on his left, Scott, and far left, Wiegand.*



THESE THREE PEOPLE *identify the B-1's engine: Mr. Dale B. Sigler (C), whose memory provided the confirmation, points out the fractured area and evidence of the attempted repair to Mr. Pearson (left) as Mr. Lippincott of Connecticut Aeronautical Historical Association looks on.*

serious engine experimentation. The four-cylinder Wright engine was removed from the B-1 and a Mead engine and a Gyro (rotary) were tested both in the laboratory and in operation. When a new six-cylinder Wright engine was received, it was not put in the B-1; instead, a new Wright type machine, the B-2, was constructed for it. Later a four-cylinder Sturtevant engine was installed in the B-1.

No documentary evidence is available to show the later history of the discarded four-cylinder Wright engine with the patched crankcase. It may have been left at the Engineering Experiment Station. After an engine laboratory was established at the Washington Navy Yard, it may have then been sent in as an historic relic of an already forgotten past. In the mid-Twenties when the engine laboratory was transferred to the Naval Aircraft Factory in Philadelphia, the engine undoubtedly went along and eventually found its way into the AEL museum. A 1952 report of engines in the museum at the Aeronautical Engine Laboratory contains photographs of the engine clearly showing the sheet metal patch on the crankcase; the text described it as a 1909 Wright engine—an old and rare type and therefore precious, but gave no hint as to its unique history. When this museum closed, the engine was transferred to the National Air Museum, its significance forgotten.

The first clue as to the great importance of the history of the engine was recognized by Mr. Harvey Lippincott after the Connecticut Aeronautical Historical Association had borrowed the engine from the National Air Museum. Mr. Lippincott became curious about the patch on the crankcase, related it to the two obscure words from the aircraft log, "repaired crankcase," deduced that it must have been in the B-1 aircraft, and obtained from Mr. Sigler such corroboration as could be provided from examining a photograph.

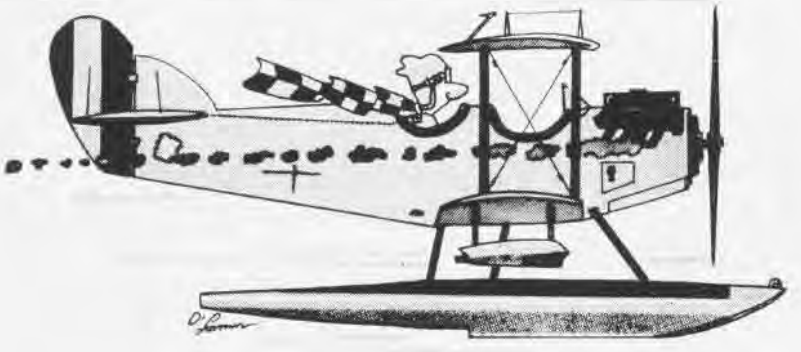
Nothing was known to have survived from the Navy's first aviation camp. Thus verification would turn the engine into a rare museum piece. Reasoning on this basis, the Navy arranged to bring Mr. Sigler from Portland, Oregon, for the purpose of examining the engine and giving an independent determination. Prior to the examination, Mr. Sigler had explained that the crucial evidence would be that of the attempted welding.

An instructor in Pratt & Whitney aircraft service school found it a simple task to remove the 51-year-old sheet metal patch and scrape away the cardboard gasket material. As the long-covered portion of the crankcase emerged, a small triangular-shaped piece could be seen that had broken completely off from the crankcase. It had been carefully refitted to its original location and secured to the patch by a stove bolt. A vee-shaped groove was clearly apparent where the edges of the fracture had been chamfered to receive molten metal and a small amount of solder was still lodged within the groove.

Thanks to Mr. Lippincott and Mr. Sigler, a truly valuable Naval relic has been completely authenticated.

'I FEEL LIKE AN EXPERIENCED BIRD'

The letter home after solo is a solid tradition. It is the new pilot's way of trying to describe the indescribable joy of flying alone. Such a letter was sent home, too, by Joel Townsley Rogers, Harvard '17, after his first unfettered flight. The letter, dated February 14, 1918, and dug from Mr. Rogers' family files, is published as a backward look at early Pensacola days. Designated Naval Aviator #434, he became a writer of aviation stories and mysteries. Now 69, he lives in Washington.



I flew at noon, soaring to 2600 feet.

DEAR DAD AND MOTHER.

It seems to be about time to tell you a little about this game of flying, since I have been at it a week alone, and feel already like an experienced bird.

A week ago today I took my first solo flight on trembling and uncertain wings. I didn't fly high and I didn't fly far, keeping within a modest 1200 feet of the old kindly earth (or the waters which cover it). It was sunset, and I flew straight against the sun, my airplane cutting the air like the ribs of the phantom ship in Coleridge's "Ancient Mariner".

It's not the flying but the alighting which is hard for the beginner. After 25 minutes of doubtful and wavering wondering I decided to come down, and cautiously pushed the nose down. Down till I could hear the wires between the wings sing in the wind, and watch the water soaring up against me. At the right instant I pulled the nose up till I was skimming over the water, and when I had lost all speed and was hovering a foot above the waves, I set her in with a little swash and turned her towards the hangar.

Not much of a trip, as flying goes. As comparable to real flight as the first venture of a savage in a log canoe on an inland river is to the navigation of an ocean liner. But it was my first venture, and the river had been crossed. I knew that I could fly alone and, more important, could bring the plane back uninjured alone. Up till last Thursday evening I'd had my doubts.

Friday was a clear day, with the air as smooth as silk, and the water with just enough ripple to make it easy for a baby aviator to aviate. I flew at noon, soaring this time to 2600 feet, and again later in the evening, both times for an hour. Saturday morning I flew again, going up to 3000. With each flight I could feel myself learning the air as I never could with an instructor, discovering what I could trust my machine to do; beginning to sense, to feel the winds that blow above the world as a sailor feels the sea. The sound of the motor has become as regular and reverberant in my ears as the beat of my own pulse, and I can tell when it is laboring too hard in a turn or pounding too loudly in a descent as well as I can tell when my heart is laboring too hard under stress or pounding too loudly under excitement.

Saturday it was decided to give us a half holiday, since we'd been getting in so much flying during the past week. None of us wanted the holiday except the mechanics, since it was a beautiful day, most wonderful in the air. But we must take it perforce, and I was robbed of another hour's ride.

Monday I got up at 5:15 with a contingent to fly early, but when I arrived at the beach at 6:00 I found all planes in use. I got two flights during the day, however, to keep me warmed up.

Tuesday was a windy day, a strong breeze blowing from the sea from the earliest morning hour. I took off first at noon, heading directly into the wind till I had flying speed and I could lift straight off the water. As soon as I had risen to 500 feet I turned to go with the wind. My plane was still doing 55 or 60 miles an hour, but the wind was doing 30, and I watched land and water scud along beneath me. I headed back into the wind, climbing.

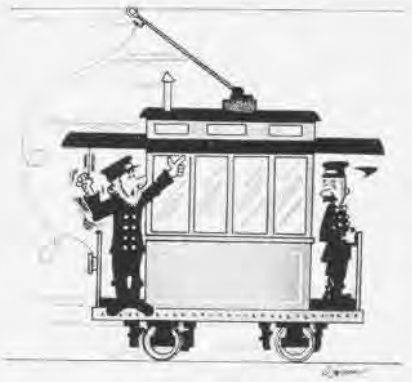
I kept into the wind for 5 or 10 minutes. I could hear my engine beat and feel the wind rush past. I had all the sensation of forward flight, yet looking overside I could see a little part in the city of Pensacola hovering straight beneath a wing edge without motion. In relation to the ground I was remaining absolutely stationary. To any one looking up at my plane it must have appeared "hung on a sky hook". If I'd leveled out the wings, I could have made progress against it, since the plane's flying speed was greater than that of the counter wind. But lifting her constantly, I managed to balance her nicely in that position, not moving a thousand yards, while the altimeter registered 1500, 2000, 3000 feet. I turned then so the wind was on my port bow, and with the wing bent to the wind again had the sensation of forward speed. Though looking below, I could see the land sidle like a crab. It was great fun. Earth was something in which I had no part, with only the air important.

Illustrated by
Lt. Neil F. O'Connor

I climbed to 4000 in this sideways motion, then cut the throttle till the propeller was barely turning over, and nosed her down. 'Round and 'round in spirals, till I was down to 500 feet, then put on power again ("gave her the gun" as we say here) and sailed along crosswind again close above the hangars, my true course being on a line with the right wing. In the late afternoon I went up again. But the wind had died, and it wasn't exciting.

Wednesday we awoke to a foggy morning. The bay was smooth, rippled only by a shadow of wind. I arose at 8, holding the plane low. But at 200 feet I ran into a bank of fog. All I could see was the machine and a gray wall around. Occasionally the fog lifted for a moment to give glimpse of a sandy beach or smooth water below, perhaps a boat on it. Then I'd be shut in again as if in a little room, with the motor roaring away. It would have been fun, only for the danger of other planes as benighted as I was. I had no desire for a midair contest of strength between two planes flying head-on at sixty miles an hour.

I steered by compass, keeping 200 feet, seeing no advantage in climbing, since the fog might be several thousand feet deep. (I learned later that it was only about 600 feet, and I could have risen into clear sailing.) I couldn't well go much lower, for fear of striking ships' masts or trees on shore. To add to the difficulty, my engine was bad, and wheezed along at a bellowing rate. I couldn't trust her on the turns. When the fog lifted again for a moment I saw houses underneath which I couldn't locate. I was crossing a narrow strip of land. When the fog rolled away once more, I found myself wandering up a swampy creek, known locally as a bayou. I made a sharp turn, and in a little time recognized the buildings and long docks of Pensacola. I decided I'd had enough of plain sailing, and came on home.



. . . as if 'hung on a sky hook.'

At noon I went up again. The fog was high enough now to be called a cloud. I sailed along at 700 feet. Occasionally the gray wool would enwrap and I would nose down for a hundred or 200 feet to clear weather. The water was calm, and in lieu of better sport I practiced landings, tucking her in smoothly.

At sunset I went up for my last hop of the day. The clouds had cleared away except for a few in the west, enough to give fire to the departing day. In two long circles of the bay I rose to 4500 feet, and wheeled around there watching the sun, a small red ball in purple veils, go down. Then, because it was nearly 6 and getting dark, I cut the gun and swooped down.

This has now endured till Friday, although it bears the date of Thursday. Yesterday I went up at 8 a.m. again. The same strong wind as of Tuesday beat in from the southwest and the Gulf and I tried the same crosswind runs and skyhooks. Twice I rose to 3000 and swooped down to 500 again. I'd been out an hour and ten minutes—and was due back in an hour—and was bowling along somewhat heavily in the teeth of the wind at 800 feet towards home, when my engine began to miss and my wings to waver. I nosed her down to gain speed and closed the throttle. She went down towards the water and I opened the throttle again, but the engine wouldn't respond. So I had to make a landing, just around the point from home. Just as I settled on the water the propeller stopped ("the stick went dead", we'd say). So there was nothing to do but sit and take it calmly.

One of the swift sea-sleds the Navy keeps stationed around the bay came rushing up to inquire with anxiety whether I was hurt. It then rushed off again. After a time a launch came rushing up with scarcely less speed, circled around me, and cast me a rope. I made it fast to my pontoon, and settled back in my seat, the wash of the slow waves almost driving me asleep. At 500 yards or so from shore a little one-lung motor boat, capable of navigating the shallow water near the shore, came up. I cast off from the launch and made fast to it, and was towed to the beach.

Broken piston? Cracked cylinder? Nothing like that. I'd stayed up too long and run out of gas.

At noon I got another ride while most of the fliers were gone to lunch. I took care this time to have gas for an hour and a quarter's flight, not wanting to waste another hour with a tow-in. This time I went up in a steady climb to where my altimeter was trembling at the 5300 mark, which was a good solid mile. It was the highest I've ever been, though in comparison to the 3-mile altitudes at which men habitually observe and fight above the battle lines it was too near to earth.

Little and exceedingly unlifelike the world looked. The bay, with a circumference of a quarter of a hundred miles was a millpond, which I wondered if I could ever light on. The rolling land of farm and prairie was a flat puzzle, the roads little brown ribbons running straight or irregularly across squares and triangles of forest green and heather brown which I knew were fields and woods. I should have liked to climb another mile, but I looked at my clock and found I'd been out an hour and ten minutes, with only 5 minutes more of gas, and me ten miles from home. I nosed her down in circling right and left spirals to 1000 feet, and beat it while the beating was good for home and gas. Within two miles, just about where I'd come down in the morning, I heard the telltale miss. But by throttling down and allowing the plane to settle lower and lower, I made a landing in front of the hangar and taxied home, with a few drops to spare. I'd been flying an hour and a half.

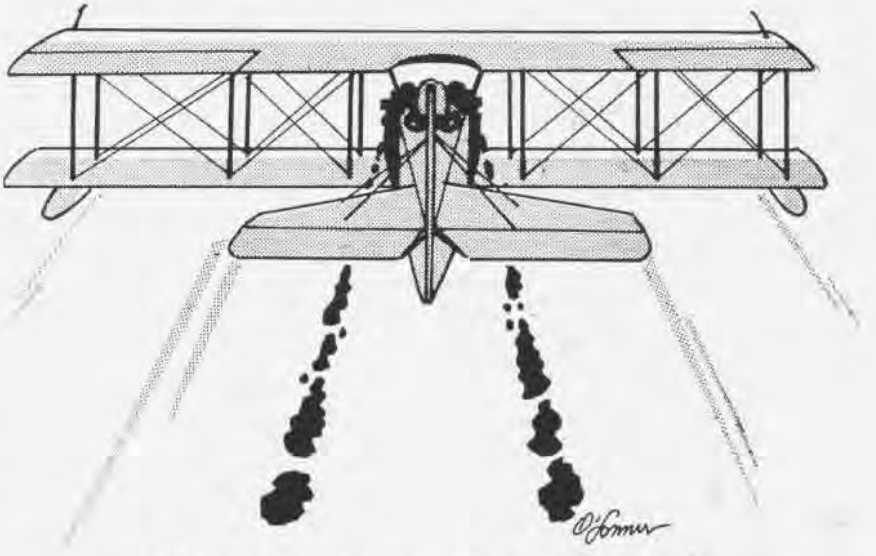
Just as soon as I got out of the machine I found another waiting for me. I hadn't had any lunch, but I figured I could miss that. I hopped in, and shot her across the water and into the air. The air was what is known as bumpy up to 500 feet, with little pockets and eddies which would slap the tail down or hit one wing or knock the rudder askew. I hadn't gone a hundred feet before my engine started skipping like a schoolgirl with a new rope, and would fail me altogether in the act of counteracting a bump. I was afraid of putting a $10,000 machine in the bay and getting two weeks without flying ("on the beach", to translate it into the vernacular) and perhaps losing chance for my commission, so I circled back for home. At the same place where I had settled early in the morning I settled again, making a good landing with the engine feebly sputtering. By nursing it tenderly I managed to tack against the strong wind and get home.

It was some kind of carburetor trouble, and I went to sleep in the machine while the mechanics fixed it. In an hour it was ready again. I decided this time to take up an instructor, since we are supposed to take advanced instruction after every five hours of solo, and I'd had 13 and a half without any. We ran into fog at a thousand feet, and the instructor, feeling himself responsible for the machine, took the controls. He lost his way (I could feel that he didn't have as good a sense of direction or balance as I had, since he was flying with one wing low) and flew around contrary to the course. When the fog lifted for a moment he saw his error, and swooped around. He then decided it was too high flying, and after steering some erratic courses he came down below the fog. He tried to show me some landings, but the fog was settling and the sea was rough, so we came home.

I now have 13 and a half hours of solo. I must do 30 before I can take my naval aviator tests. And after that I must do several hours of flying in other types of machines and practice bomb-dropping and machine-gunnery before I get my commission. It is a long time, yet I think I can see my way to finishing in three weeks of good weather.

We are going now pretty steadily from 5:30 a.m. till 7:30 at night, when we finish cleaning up the planes.

JOEL



By nursing it tenderly, I managed to get home.

FLEET OF MODEL *planes built by Doxstater, AT1(AC), are displayed around Red Ripper insignia. From lower left are: Curtiss F6C-3; Boeing F4B-1 and F4B-2; Curtiss BFC-2; Grumman F4F-3, F4F-4, F6F, F6F-5P; Chance Vought F4U-4; McDonnell F2H-2 and -4; Vought F-8A, F-8E.*

RED RIPPERS' HISTORY ON A SMALL SCALE

DOC DOXSTATER *paints markings on F-8E model belonging to former Red Ripper C.O.*

THE RED RIPPERS of VF-11 are reaping benefits from the patience, skill and spare time of Clarence "Doc" Doxstater, AT1(AC) at NAS Los ALAMITOS, Calif. He builds special scale model airplanes to show changes in design over the past 50 years.

Doc's interest in the *Red Rippers* began in June 1961 after reading a brief history about them. He did research on the *Rippers* and began building models to represent all the types of aircraft they have used since 1927.

Since all the model kits were not available, Doc made modifications from other kits. No decals were used; all markings on the models were hand-painted. If a part or piece was missing from the kit, he made his own.

Doc has now built a fleet of 22 completed models with four more to follow.

CURTISS HAWK *flown by Rippers in 1927-29 as compared to sleek 1000-mph F-8 today.*

ASW Trainer to be Built

Sylvania Electric Gets Contract

The Electronic Systems Division, Sylvania Electric Products, Inc., has been awarded a contract by the Naval Air Development Center, Johnsville, Pa., to develop a research tool designed to study ASW programs in the laboratory. Called a real-world-problem generator, the system will simulate actual situations that ASW aircraft face in locating and destroying enemy subs. Navy scientists will thus be able to "fly" a complete ASW mission in a 500-by-500-mile area of ocean.

Sylvania will supply a submarine control station, a problem control station situation display and real-time buffer (signal processor), all of which will work with a computer system and a mock-up of ASW aircraft. The devices will facilitate the design of an integrated airborne ASW system which is expected to improve the Navy's ability to cope with high-speed enemy submarines. It also will permit an evaluation of proposed equipment improvements and compare the compatibility of existing programs with those under investigation for future use.

Richard M. Osgood, general manager of the operation, states that "the computer will provide a programmed problem to be solved and will take into consideration the location of . . . surface ships, aircraft and submarines. Information from the computer will be fed into the real-time buffer for conversion from analog-to-digital or digital-to-analog data. This data, fed to appropriate control stations, will be graphically displayed on plotting surfaces. The position of surface ships, aircraft and submarines will be continuously determined and the relative positions in terms of elevation, range, and bearing of each vehicle will be calculated."

ATR School Record Broken

Coast Guardsman Knows his Radar

A Coast Guardsman set an all-time record average in the NATTC Aviation Electronics Class "A" School radar course at Memphis. Robert J. Landefeld, AL1, had a final mark of 94.7. Previous record was 94.4. Landefeld was presented a letter of commendation from Capt. James A. Masterson, NATTC commanding officer.

DAEDALIONS SEEK NAVAL AVIATORS

LT. JIM PYLE, *USN(Ret), former deputy FAA chief, speaks, as MGen. Earl Hoag, USAF(Ret), and Col. Bernt Balchen, USAF(Ret), famed pilot for Adm. Richard E. Byrd, listen to his remarks.*

THE ORDER of Daedalions has announced that it is now inviting participation of Naval and Marine Aviators.

The Daedalions are prepared to offer trophies to Naval and Marine Aviators similar to the ones now presented annually to USAF and Civil Aviation fliers.

In the 30 years since its founding, the Daedalions have sought to develop and encourage air-mindedness and the improvement and expansion of flight safety. They also promote aviation careers for young men.

The Daedalions' organization was formed in 1934 at Maxwell Air Force Base by a group of World War I fliers attending a reunion. Early members were primarily from the Army Signal Corps and Army Air Corps. Today's membership includes almost all present and past distinguished Air Force officers plus outstanding civilians associated with aviation.

Since there were by comparison very few Naval Aviators at the time of the founding of the Daedalions, there are a very few Naval and Marine members today. Prominent Naval Aviators are being extended invitations to join the organization. The Order's officers are seeking to arrange for the presentation of suitable trophies to Naval and Marine Corps units which deliver outstanding performance. The objective is to create "a true brotherhood of airmen."

The Daedalions now award the USAF trophies for aviation safety, maintenance and supply effectiveness. They also present an award each year to the civilian pilot "who has done the most for civilian air safety."

The name of the Order is derived from the legendary artificer, Daedalus, who fabricated wings for himself and his son, Icarus, with which to flee imprisonment on Crete. While Daedalus flew safely, his son flew too near the sun which caused the wax, with which the feathers were held together, to melt. Icarus fell to the waters below and was drowned. Daedalus recovered the body, buried his son and flew to Sicily. There he built a temple to Apollo and hung up his wings as a personal offering to the gods.

NAVY WINGS

U.S. NAVY

ROYAL NAVY

ROYAL NAVY (SLEEVE)

URUGUAY

NETHERLANDS

WEST GERMANY

ARGENTINE

FRANCE

AUSTRIA, WW I

GERMANY, WW I (LAND)

GERMANY, WW I (SEA)

THE ANCIENT ORDER of Collectors has another entrant, LCdr. Keith D. Boyer who is serving with Utility Wing, Pacific. He collects wings.

A collection is usually begun without the collector's realizing he is about to embark on an avocation. LCdr. Boyer says that his collection started when he obtained the Italian wings as a souvenir during TAD with a NATO command. "I collected one from each country visited by the USS *Intrepid*, the ship I was stationed in. I now have about 110.

"Most of the old types, which are no longer used," he explains, "are reproduced from the original dies, as the originals are too scarce and expensive.

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AVIATOR WINGS
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ANDARD TYPE
TRONAUT WINGS

NATO WINGS

U.S. AIR FORCE U.S. NAVY U.S. ARMY
ROYAL NAVY ROYAL AIR FORCE BRITISH ARMY
PORTUGAL FRENCH AIR FORCE FRENCH NAVY ITALIAN AIR FORCE
NETHERLANDS AIR FORCE
WEST GERMAN AIR FORCE WEST GERMAN NAVY
NORWEGIAN AIR FORCE GREEK AIR FORCE
DANISH AIR FORCE
BELGIUM AIR FORCE CANADIAN AIR FORCE

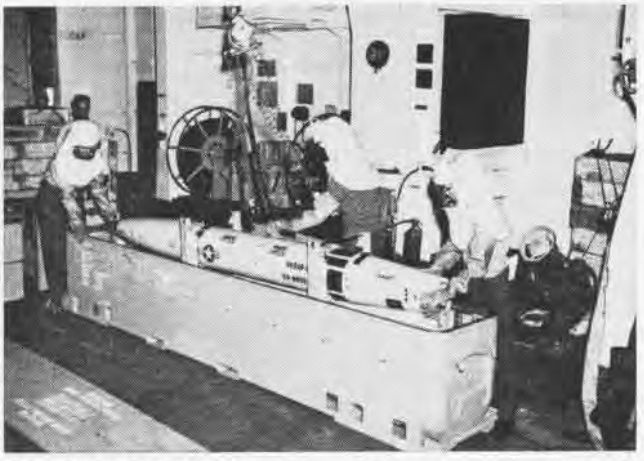
I AM STILL missing many, mostly eastern European, and wings of the newly independent nations as well as obsolete wings of present nations, and the wings of nations which no longer exist."

LCdr. Boyer has limited his collection to various pilot types, but many other varieties exist, such as the chaplain wings of Argentina.

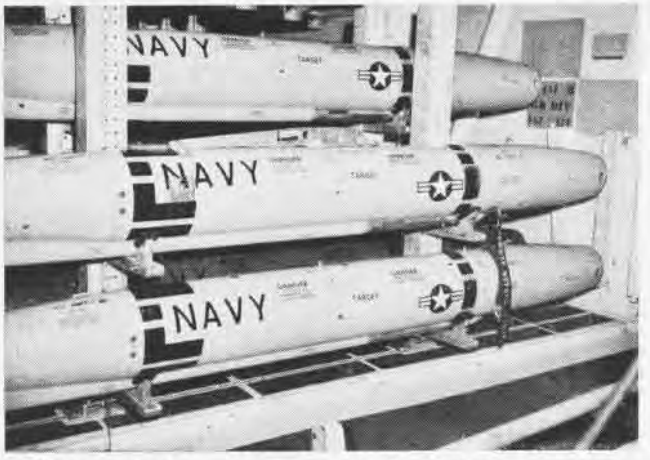
Insignia can generally be classified in three groups: the circular French style, the British woven type, and the U.S. metal type. The Danish wings are a mixture—woven, with a metal shield in the center.

There is great variety as to where the wings are worn—some on the left arm, upper or lower portion, others above the breast pockets, either side.

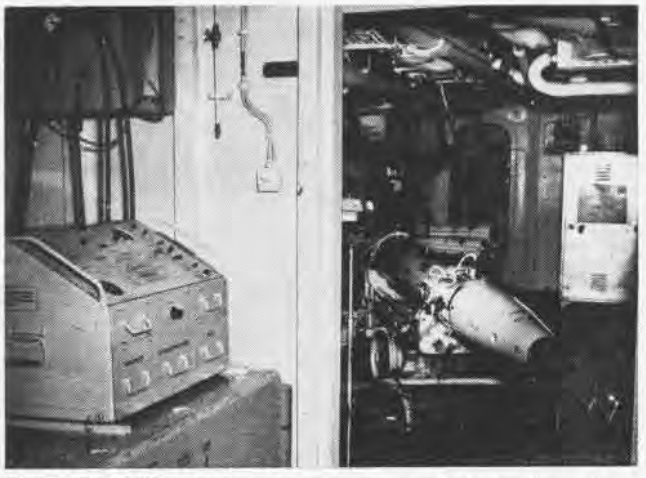
SOMETHING NEW TO SHOOT AT



THE DEPLOYABLE TARGET *is designed for shipboard handling. The protective clothing was an extra precaution for initial tests.*



AQM-37A MISSILE *targets are stowed aboard ship in a magazine modified for modular stowage of liquid Bullpup missiles.*



SEMI-AUTOMATIC *checkout equipment, standard handling equipment and ease of assembly permit fast target preparation for flight.*

ON USS MIDWAY, *men install the wings, fins, canards and nose section quickly by virtue of the simplicity of the design.*

SHIPBOARD SUITABILITY *tests aboard USS Ticonderoga and at Patuxent and carrier ops on Midway prove seaworthiness of target.*

THE VF-21 *Phantom II, with a AQM-37A liquid-rocket-powered target aboard, is launched from attack carrier, USS Midway.*

By LCdr. William B. Shirley, USN

FIGHTER Squadrons at NAS MIRAMAR have been the enthusiastic participants in the initial Fleet introduction of the Navy's new AQM-37A missile target at Naval Missile Center, Pt. Mugu. During day and night missile firing operations VF-21, VF-96, VF-121 and VF-142 have reported good results in acquiring the radar-augmented target with the air-intercept radars. Several direct hits have been scored on the target with both *Sparrow III* and *Sidewinder* missiles.

The high-performance expendable target, previously known as the XKD2B-1, was designed and developed under a BUWEPS contract by the Beech Aircraft Corporation, Wichita, Kans. Air-launched from carrier aircraft, the AQM-37A target flies a preprogrammed flight profile selected during target checkout. A selection of flight profiles ranging from Mach 0.9 at 1000 feet to Mach 2.0 at 70,000 feet is available.

The "round of ammunition" concept was stressed in the design of the AQM-37A target which accounts for the ability to store the target aboard ship in modular stowage magazines configured for liquid *Bullpup*. The prepackaged, liquid-rocket-propelled target requires only a minimum of preparation for launch. Within an hour the target can be quickly readied.

While deployed aboard USS *Midway* for air group operations in September, VF-21 conducted an exercise designed to prove the operational feasibility of the AQM-37A concept. Shipboard handling of the targets posed no problems. Five catapult launches and three arrested landings of VF-21 F-4B aircraft with attached targets were successfully conducted.

Two targets were successfully launched from VF-21 F-4B's during the exercise. One target performed a Mach 1.3 mission at 50,000 feet, and the other target flew a low altitude mission at 1000 feet and Mach 0.9. Both targets provided excellent presentations for squadron intercept training and missile firing. Cdr. G. M. Even, Commanding Officer of VF-21, recommended that other squadrons be encouraged to utilize the AQM-37A for shipboard missile exercises as the launching gear becomes available.

The AQM-37A target is now in production. Delivery of the first 150 production targets was completed in December. An additional 400 targets are planned for 1964. Targets for Fleet use were shipped to Naval Weapons Station, Seal Beach, Calif., and NWS YORKTOWN, Va., for Nav-AirPac and NavAirLant distribution.

ROUND OF AMMUNITION *concept was stressed in designing the AQM-37A and prepackaging of the liquid-rocket-propelled target keeps preparation for launch to less than an hour.*

AT AIR MISSILE CENTER, *Point Mugu, the A-4 Skyhawk, the F-3 Demon and the F-4 Phantom II, from left, are qualified for launching the AQM-37A. It is expected that the F-8 Crusader (right) will be qualified for shore-based operations at a future date.*

GULL GRAY NEW FOR SHOREBASED ASW

THE TRANSITION to a gray paint scheme for all carrier aircraft, several years ago, left AEW *Connies* and Maritime Patrol SP-2 *Neptunes*, SP-5 *Marlins*, and P-3 *Orions* as the only operational aircraft with their recent Navy blue and white top paint job. But they, too, will change to the new "Gull Gray Look."

Anti-submarine Warfare Group Delta is a special task group established to accelerate development of ASW tactics, doctrine and operating procedures for Maritime Patrol (VP) aircraft. Task Group Delta has been busy conducting basic and advanced ASW exercises with its one and one-half squadrons and other cooperating forces since September of 1961.

Early in these operations, it became apparent through post-exercise analysis that one of the weak points in existing tactics was the increased likelihood of visual sighting of MP aircraft by snorkelling submarines before *Jezebel* localization could be effected. Further study revealed that several factors were involved, such as the low altitude required for certain localization tactics, and the high contrast against a gray or blue sky provided by the blue-black and white paint scheme.

The problem was attacked from several possible approaches, but one of the most easily correctable factors, of course, seemed to be the paint design of the aircraft. This was substantiated by the fact that when Canadian *Argus* aircraft, painted a light gray-green, participated in Delta exercises, there were far fewer visual sightings by submarines than those reported on *Neptunes* and *Marlins*.

Queries of submarine officers yielded the general opinion that gray S-2 *Trackers* also were much harder to spot than SP-2, SP-5, or P-3 aircraft, under all daylight conditions.

As a result of these findings, the unsuitability of the current paint scheme was reported in the third progress report by Task Group Delta. It was pointed out that modern submarine tactics prescribe only very limited use of air search radar, and that MP/ASW tactics call for maximum use of a passive mode, while employing *Jezebel* localization. Thus, visual detection by both adversaries remains a prime factor. The blue or blue-black paint design was originally conceived for application where Maritime Patrol aircraft operated in areas of enemy air superiority and attempted to avoid visual detection *from above*. The blue-black blended well with the sea surface and served this end well.

Later, it was decided to paint the upper half of all *Neptunes* and *Marlins* white, so as to lower the interior temperature due to heat absorption. This was quite helpful in hot weather, but was operationally unsuitable, as it provided maximum contrast with the background whether viewed *from above or below*.

The problem was outlined by Commander Fleet Air Wings, Atlantic, in a letter to CNO in June of 1963, and received favorable endorsements by ComNavAirLant, ComASWForLant, and CinCPacFlt. As a result, the Chief of Naval Operations approved the change of paint scheme to gull gray.

Economy considerations dictate against an immediate general repaint program. CNO has set forth a procedure whereby active inventory aircraft are repainted during regular PAR/Overhaul, and new production P-3A *Orions* will come off the Lockheed line with the new paint scheme.

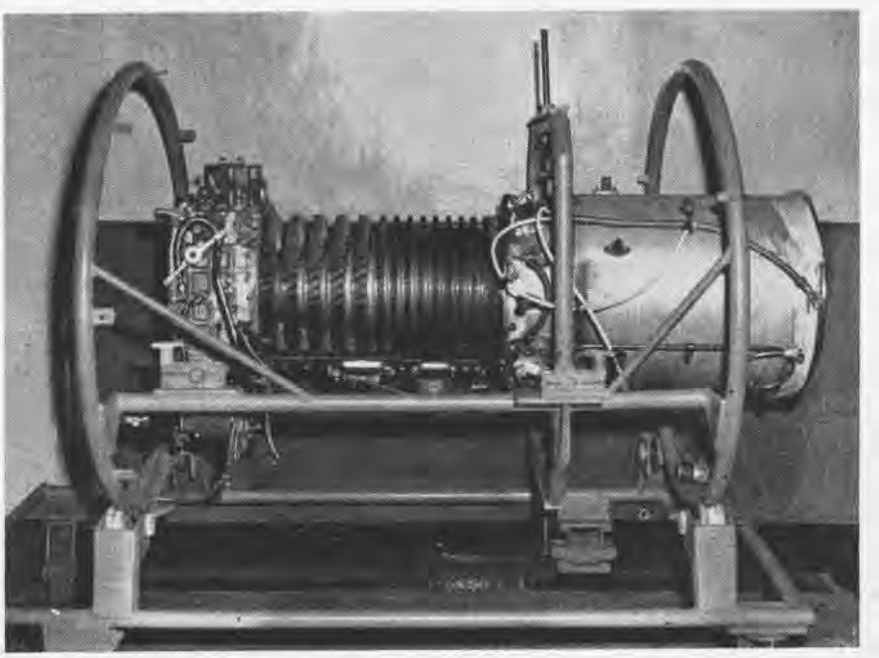
The first "gull gray" Maritime Patrol aircraft to join the Fleet was SP-2E, Buno. 131449, scheduled to go to VP-7 in Jacksonville. This marked the end of the "big blue whales" so familiar to submarines and surface ships throughout the world. They now will become the more deceptive "Galloping Gray Ghosts of Maritime Air."

Sikorsky Lauds HMM-264

Cited for Record Safe Helo Hours

Marine Medium Helicopter Squadron 264 located at MCAF NEW RIVER, N.C., received a plaque from Sikorsky Aircraft Corporation for completing 25,000 accident-free flying hours.

Mr. P. W. Holt, vice president of programs for the helo company, presented the plaque to Maj. William C. Carlson, commanding the squadron.



A ROTATING SUPPORT STAND *for an aircraft engine is the result of some cooperative designing by the men in the power plant section of MARS-17 at MCAS Iwakuni, Japan. The original drive to build such a stand is credited to MSgt. R. C. Clements, NCO in charge of the power-plant section. GySgt. Chester R. Schmidt expanded Clement's idea and drew up the plans. The Marines adapted the basic design from an Air Force stand, modifying it so as to leave the compressor free and to allow easy access for maintenance. The roll-over stand gives the repair wizards a 360-degree look at a sick engine and reduces the man/hours necessary to do the work.*

YOUNG CADETS GROW UP WITH THE NAVY

BOYS LIKE to do things in a group. For many reasons, when their energies are combined toward a certain purpose, enjoyment seems to be forthcoming. And, when these young men can learn and gain experience from their endeavors, they should be enthusiastically supported by a responsible and adult group. The Navy is ready to do this.

The U.S. Naval Sea Cadet Corps, sponsored by the Navy League, is a comparatively young organization, but one which has grown steadily in popularity since its beginning in January of 1959. Designed to inaugurate interested young men from the ages of 11½ to 17 into the ways of Navy life, the Corps has two programs which are active at Naval Reserve Training Centers and air stations. These programs, the Navy League Cadet Ships and U.S. Naval Sea Cadet Divisions, attempt, as RAdm. W. J. Catlett, USN (Ret.), Executive Director of the Corps, states, "to put a new kind of Navy 'man' in uniform in junior high schools and every phase of community life."

A sea cadet program, in general, consists of four essential elements: a committee of five or more Navy League personnel dedicated to the concept of youth training; retired and inactive reserve officers who volunteer to work with young men; a highly selected and well motivated group of cadets; and supporting facilities, including Naval Reserve training aids and classrooms.

NAS SEATTLE'S *Blue Angel Sea Cadet Squadron proudly posed with their namesakes when the flight demonstration team performed there. Comprised of 55 cadets, the unit trains on weekends.*

The Chief of Naval Air Reserve Training heartily endorses activities of the Cadet Corps. Groups currently in commission are located across the U.S. at air stations which include South Weymouth, Lakehurst, Jacksonville, Dallas, Glenview, Alameda and Seattle. Other localities where interest in starting programs has been shown are New York, Atlanta, Norfolk and Olathe. Cadet units are also associated with a number of ships including the carriers *Wasp, Ranger, Midway, Roosevelt, Forrestal* and *Hancock.*

The *Blue Angel* Sea Cadet Squadron at NAS SEATTLE is an example of an effective unit within the Corps. Commanded by Cdr. John A. Wallace, it is comprised of 55 cadets ranging in age from 14 to 17. The squadron spends each weekend at the air station.

Youths study various specialties offered in the aviation field and learn the principles of military discipline. They undergo practical on-the-job training and work alongside active duty personnel in fields of their choice. Named after the Navy's flight demonstration team, the *Blue Angels* have impressed Seattle officers and men with their enthusiasm and mature attitudes.

Sea Cadet Corps have existed since the late 19th century throughout the world. There are 23,000 cadets in training in Great Britain, 16,000 in Canada, lesser numbers in Australia, New Zealand, India, Pakistan, South Africa, Belgium, Portugal, Italy, Spain, Germany, and the Scandinavian countries. The U.S. Navy's Sea Cadet program embraces 80 units and is on the increase. Former cadets have enlisted in the Naval Reserve, and some are in their first year at the Naval Academy and NROTC units. According to RAdm. Catlett, "The program offers the Navy a powerful new force toward awakening America to its . . . opportunities for young men and reaches fulfillment when they serve as officers and men in the active Navy."

SEA CADET *receives on-the-job instruction in hydraulic system of an NAS Seattle P-2.*

MARTY EGGAN, *BMC, teaches line-handling procedures to Cadet D. F. Jenner at Seattle.*

OLD PBM'S NEVER DIE. *This hulk is completely instrumented to furnish information for design of a seaplane which can rest nearly motionless in the open ocean in all weather conditions. At the present time, it can be seen sitting out at sea off Point Loma, near San Diego, Calif.*

The first sailor on his first ship—a Neanderthal man crouching on a floating tree trunk—was probably seasick. Seafaring men for countless generations have stood or knelt with bowed head at deck's edge, but not to contemplate or meditate. With insolent disregard for rank or station, seasickness strikes—from the lowest land-lubber to the most-striped admiral. Even the superlative Admiral Lord Horatio Nelson was unspared, for he suffered intensely throughout his career.

The age-old yearning of the sea-sick sailor for a small still island may at last materialize into reality. The Tilt-Float Helicopter and the Vertical Float Seaplane have demonstrated a startling ability to rest nearly motionless in the open ocean.

TILT

By Eugene Handler, BuWeps

THE HISTORY of operational helicopters spans 20 years. Throughout this time many were fitted with inflatable floats to give a limited amphibious capability, but only recently have helicopters been designed for routine use in open water. Demonstrations of the Navy HUP-2 *Seacopter* in 1957 and the Sikorsky S-62A in '58 showed that these aircraft could safely operate in wind and wave conditions previously considered suitable only for flying boats and float planes. An increasing appreciation by the Bureau of Naval Weapons of the potential usefulness of amphibious helicopters has occurred during the production of several types of rotary wing aircraft able to operate on the ocean, and, in some cases, able to remain seaworthy with engines inoperative. The hazards of ditching are minimized by the inherent stability and flotation of the Boeing CH-46A and the Sikorsky CH-53A. If either craft is forced down at sea, the pilots, crew and passengers will normally remain in the aircraft until rescued, rather than face the ordeal of escaping from a sinking capsized helicopter and huddling, cold and wet in a cramped and tossing fragile raft. Furthermore, the upright helicopter is easily salvaged.

The Coast Guard has shown outstanding initiative in revising its rescue techniques to profit from the excellent rough water capabilities of the HH-52A. This version of the S-62A has been repeatedly used to make rescues which could not have been accomplished by a hovering helicopter. The -52A has landed in heavy surf, in the open ocean, and alongside a swamped boat to take aboard exhausted, unconscious, or injured persons. Prompt use of the SAR rescue platform eliminated the hazards associated with the rescue procedures from a hovering helicopter.

More than rough water survivability is required, however, for a completely effective rescue vehicle. Even the crews of whale boats, which certainly are seaworthy, are frequently hampered or effectively incapacitated by the crafts' violent motions in a seaway. A boat floating nearly motionless in rough water would permit the rescue crew to work rapidly and efficiently, unencumbered by strenuous efforts to brace themselves against erratic and savage pitching and rolling. If a helicopter with engines idling were able to remain nearly motionless in a seaway, the crew could not only devote all their efforts to successful rescues, but would also be freed from the hindrance of rotor downwash, a factor adversely affecting countless rescues.

The designs of present-day amphibious helicopters in general are derived from either the S-62A or the HUP-2 *Seacopter*. Although seaworthy, neither possesses power-off steadiness and habitability in rough water. In 1957, a "tilt-float" system was proposed by the author as a configuration having minimum reaction to rough water. Long

THE HUP-2 SEACOPTER *was the first true amphibious helicopter to be planned and designed to meet rigid Navy seaplane specifications.*

FROM THE HUP-2, *much was learned as is apparent to one studying the lines of the CH-46A. Fuel tanks provide the lateral stability needed.*

slender floats would be carried horizontally for minimum aerodynamic drag in flight and operations from fields, flight decks and calm or sheltered water. When rough water capability is required, the floats are rotated vertically for maximum draft and minimum response to waves.

A powered model tilt-float helicopter was built for tests with various float systems by the Gyrodyne Company of America. Following the successful model program, Gyrodyne converted a DSN-1 into the first tilt-float helicopter. The original set of floats with length/diameter ratio of 6 and 100% reserve buoyancy was only partially effective. The second set, with length/diameter ratio of 7 and 70% reserve buoyancy, proved more satisfactory because of reduced stability and lessened response to waves. During these tests a cyclic pitch autopilot was used at the pilot's discretion. By setting the rotors in flat pitch and operating the engine at flight rpm and partial throttle, the pilot could exchange the rotors' kinetic energy for pitch-stabilizing moments to reduce the helicopter's angular motions. The lack of damping in heave was a serious deficiency.

Model tests at the Stevens Institute of Technology demonstrated the effectiveness of horizontal damping plates at the lower ends of the floats in reducing heave, roll and pitch. The DSN-1 is being fitted with damping plates which rotate about their longitudinal axes to become fin-like surfaces as the floats rotate from vertical to flight positions. Since the model tests indicated that automatic aerodynamic stabilization was no longer required, the cyclic control autopilot was removed. The tiltcopter is again being operated in rough water this winter and spring.

The tilt-float concept has been extended to flying boats. The BuWeps hydro-ski PBM-5 demonstrated that a seaplane can routinely take off and land in rough water; but this capability has significance only if it can perform duties beyond the capabilities of landplanes by operating on the water in the performance of a mission. Convair studied the applicability of tilt-floats to seaplanes and modified a model PBM to represent a "vertical-float" flying boat. The floats were fitted with end plates. When the model was set adrift, pitch and roll seldom exceeded one degree and heave was virtually eliminated in short waves, but, of course, occurred in the equivalent of ocean swells where, however, vertical accelerations were acceptably low.

Although the model tests showed the effectiveness of vertical floats, a full-scale evaluation was required to collect additional information and data necessary for the design of an operational system.

An elderly PBM with four rigid floats is used as a test vehicle. The floats raise the hull about twelve feet above the ocean surface, clear of all but the largest waves encountered in sea states 4 and 5. Pumps can vary the degree of immersion allowing the effectiveness of various submerged float lengths to be

TWO VERSIONS *of the S-62A helicopters reflect the seaplane traditions of Sikorsky. Above is the commercial version; the other is the U.S. Coast Guard search and rescue HH-52A. Such a helicopter comes right down on the water, increasing the probability of a successful rescue.*

SCALE MODEL *tilt-float helicopter rests in water with floats in normal flight position.*

observed. An unmodified PBM is used as a basis of comparison permitting a definitive appraisal to be made of the vertical floats' effectiveness. Seaplane motions are recorded. Strain gauges on the float system provide information concerning the forces resulting from various sea states. Motion pictures are taken from the seaplanes and escorting ships. Self-induced noises as relating to sonar background are measured.

The most important component of an effective weapons or rescue system is its personnel. A naval crew and two engineers are assigned to each seaplane. During tests each crew is set to work operating various electronic training devices or performing routine tasks, thereby approximating the activities of sonar teams on our hypothetical ASW or SAR flying boat. Comparisons of the habitability of the seaplanes are made by exchanging crews. The control seaplane's motions occasionally become intolerable and the crews then alternate on the vertical float seaplane.

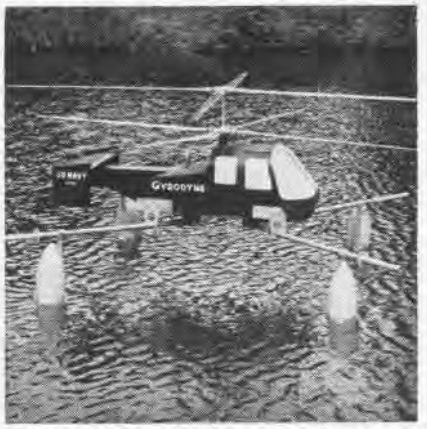
The PBM "floating Texas tower" results to date have shown that in 5 and 6-foot waves the vertical floats reduce pitch amplitude from about 3½° to 0.6°-0.8° and the frequency from 20 cycles per minute to only three per minute; so that the degrees of pitch per minute are reduced by 96%!

Rigid floats for a large aircraft would be unacceptably cumbersome, but fortunately there are various ways to build expandable or inflatable floats suitable for a full-size installation. Concentric cylindrical segments, reminiscent of the old-fashioned drinking cups, could be extended pneumatically into a rigid float and quickly retracted by exhausting the air. Convair proposed that pivoted channels be rotated from in-flight positions along the hull to vertical positions, locked in place, and inflatable cylindrical floats be expanded from within the channels. Prior to takeoff, the floats would be retracted into the channels and swung back to the hull. Floats could be rotated and a telescoping extension expanded, or possible accordion-type floats be housed in wings, sponsons, or the hull.

An operational float system could be extended and the seaplane raised to its floating platform stance within a minute after it has landed and come to rest. Retraction of the floats prior to takeoff could be accomplished in about 15 seconds.

CONCURRENTLY with the PBM and DSN programs, Hydronautics, Inc. was engaged in an analytical investigation of a generalized tilt-float system represented by an arbitrary number of finned floats at arbitrary angles of pitch and cant. A mathematical study of the effect of all basic parameters on the float system's dynamic response to waves included a digital computer analysis of the many hypothetical combinations of various distributions of the vehicle load among the floats, their aspect ratios, pitch and cant angles, float head aspect ratios, fin widths, wave lengths, heighths, headings, and the vehicle's radii of gyrations and center of gravity. After the dynamic response characteristics of natural frequency and damping ratio were determined from the non-linear equations of pitch and heave motions in calm water, their incorporation into the equations of dynamic response of the system in waves provided rational design criteria.

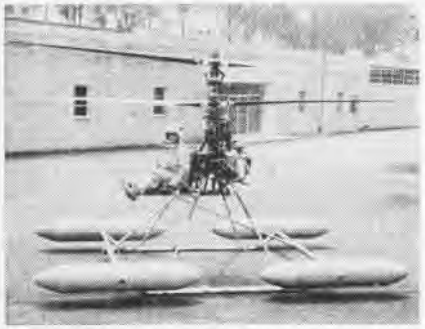
Tilt and vertical float capabilities were demonstrated during the successful model and full scale DSN-1 and



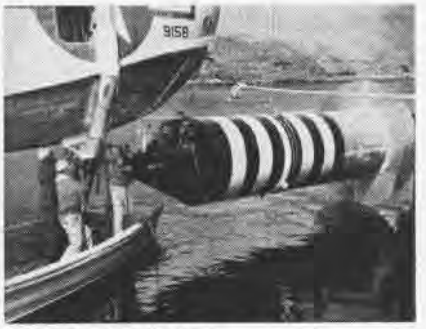
SCALE MODEL *floats tilted to vertical position minimize motion in rough water state.*

PBM programs. It is now timely to plan for the conversion of a modern service helicopter into a prototype open-sea rescue tilt-float helicopter. The optimum location of hand grips and foot holds on the hull and floats and the most effective use of rescue platform ramp and large hatches should be verified by simulated rescues with a well-equipped mock-up. Assignment of the converted helicopter to shore and carrier units would provide experience leading to recommendations of improvements for inclusion into a production Open Sea Rescue Helicopter having capabilities beyond those of any present day aircraft.

The vertical float seaplane represents a breakthrough for ASW aircraft—providing a combination of capabilities of cruise speed, range, payload, and seakeeping unequalled by any ship, hydrofoil boat or aircraft in existence. The new feature making this aircraft feasible, the ability to float on station with a minimum of motion, is being defined, so that the vertical float seaplane can be developed into a true open-ocean, vehicle for anti-submarine warfare.



THE GYRODYNE *DSN-1 Tiltcopter is fitted with simplified system which is manually operated.*



MEN ARE INSTALLING *a vertical float on the bow of a PBM for design experimentation.*

THE INTERVIEW

By Lt. Rosaria Rausa, USNR

A FRINGE of milk-white beard and deep-set grey eyes set off the crude ridge-like lines of the old man's face. He managed to look both satanic and angelic at the same time. His hands lay folded together atop the simple black desk and the young officer noticed, with some reverence, the gnarled strength in them.

The old man spoke. His voice, like everything else about him, was formidable.

"Well, son," he said gravely, "Tell me what happened."

The officer fidgeted in his straight-backed chair and placed his hands on his knees so that they wouldn't perspire. He cleared his throat nervously, feeling the intense gaze aimed at him from across the desk.

"Sir," he started, "First of all, I'd like to say how sor—"

"Excuse me, son," interrupted the elder. "Before you begin let me advise you that sentiment and regret mean little to us up here. I'm certain you're sorry. In cases like yours I make that assumption from the start. But," he continued, relaxing in the chair and pulling his hands back in unison so that they formed a pointed resting place for his bearded chin, "I'm only interested in the basic facts—causes and effects."

The officer sighed heavily and sadly noted that his hands were perspiring anyway. He pulled a handkerchief from a pocket, fumbled with it momentarily, then quickly wiped it across his brow. "I suppose it's too late to worry now," he thought.

Aloud he said, "I understand, sir."

The old man slowly nodded.

"Well, I've been a pilot for—that is, I, ah-h-h, *had* been a pilot in the Navy for nearly five years," the young man said. "I flew single-engine, single-seat planes mostly—had quite a lot of carrier experience. And, like most aviators, I liked to fly low."

The officer hesitated in thought.

"It's really quite easy to explain, sir," he continued. "I got a tremendous boot out of skimmin' the tree tops and watching things go by in a blur."

Like cuts from a newsreel film memories flickered through the young officer's mind. He felt forgotten enthusiasm swell up inside him and a trace of that enthusiasm became evident in his voice.

The old man was cognizant of the change, but his expression, all granite, remained unaltered.

The young man, recognizing his own fervor, hoped that some of it might rub off and appease his pensive listener. But apparently his hopes were vain ones and the grey eyes that at another time might have emanated gentleness and understanding, were like clear, cold, marbles.

"Sir," he said bravely, "it's no big secret—just like a lot of pilots, when the occasion or opportunity presented itself, I let down to the deck, watching for other airplanes, of course, and whizzed over the terrain in a, well—in a state of elation I guess you'd call it."

"Pardon me for interrupting again, son," said the old man. "Do you imply then, that this state of exhilaration was not readily available when flying at a higher altitude?"

"There are so many facets to the flying game, sir," said the officer, "it's hard to say. Of course, I enjoyed doing just about anything in an airplane."

Illustrated by
Lt. Neil F. O'Connor, USN

The young man hesitated again and leaned forward on the desk in a gesture that could only be interpreted as one of pleading. The lines of a frown formed in the narrow crevice between the old man's eyes and the officer briskly retracted himself as if he were a cat which had inadvertently pawed a hot stove.

"To be perfectly honest," he said, "I'd have to answer *no* to that question."

"I see," said the old man unflinchingly. "Please continue."

"Yes, sir," the officer obeyed. "We were in the Mediterranean the day it, ah-h-h-h-h, happened. The ship was engaged in what we call a strikex, that is, a strike exercise. We launched on low-level strike missions and proceeded individually to simulated targets located throughout the coastal countries in the Mediterranean. We were briefed thoroughly and advised that our minimum clearance altitude was 500 feet above the ground.

Recollection of the day brought the beginnings of a smile to the young officer's face—the first smile since the interview began.

"It's was a gorgeous day for flying. Winds were light and the sea was as still as a mill pond. I was kicked off the number one catapult and rolled out of a clearing turn to the east. Smack ahead of me the sun, bright as a ripe orange, was sliding up behind a pair of islands about 15 miles in the distance."

The officer felt more relaxed. Swept up with visions of that day, he looked away from the old man. He was smiling broadly, now. He went on.

'What a feeling, zapping down the river.'

"Both the over-water and over-land legs to the target were routine. I was on time all the way, obeying the altitude rules, and hit my target right on the button.

"I started back—I was flying the reciprocal route of my inbound track—and was about 100 miles inland when I whipped by a checkpoint. It was a narrow gap separating two mountains which opened to a long, narrow valley.

"The valley was split in half by a gently winding river that caught the rays of the morning sun and glistened like copper. It was a beautiful thing to see. The floor of the valley was covered with rich undergrowth and green trees. It spread gracefully from either side of the river right up through the foothills of the parallel mountain ranges.

"A few towns were scattered throughout the valley, adding an extra touch of character. The whole thing made me thankful that I was an aviator and able to behold such a breathtaking scene.

"So, it was too much to resist. I eased the plane down to about a hundred feet, being real careful to trim her up nice and steady. I lined up with the river and eased down just a little more so that I was probably 30 or 50 feet above the tree tops.

"What a feeling, zapping down that river! I think I was even smiling in the cockpit."

The young man was certainly reliving the moment for suddenly, as if he'd been slapped, his expression changed. The elder was not surprised. He'd seen this startled, poker-faced look before. A grave silence hung embarrassingly in the room.

"Don't be afraid, son," said the old man. For the first time since the conversation started his tone was not portentous.

"Well, sir," said the officer, forcing control of himself, "I was about halfway through the valley when, directly in front of me, I saw something sparkle or glisten, silver-like.

'You can leave now.'

"By the time my hands at the controls got the signal from my brain, it was too late. I had about two or three frozen seconds to realize that I'd gone through a frame-like structure and complex of power lines. I don't recall hearing a sound, but I do remember the whirlpool effect of being flipped over, like in some crazy nightmare.

"The ground was green. Then it got black. Then it seemed to get bigger and bigger. . . ."

Again an ominous silence filled the room. The two men looked at each other blankly. After a moment the old man stood up quite wearily.

"Is that all, son?" he said quietly.

The young officer, head bowed, saw that his hands were sweating profusely. "Yes, sir," he answered.

"You can leave now, then," said the elder, pressing a small button at the end of his desk. The door to the office slid open soundlessly. The officer arose and stepped out into the misty whiteness. He stood for a moment, contemplatively, then turned for another look at the man in the white beard.

But the office was closed.

He read the two-lined title on the door again: INTERVIEW ROOM—DEPARTMENT OF UNNECESSARY DEATHS.

Grampaw Pettibone says:

Amen! I've been yakkin' and hollerin' about the dangers of flathattin' for more than 20 years and that 'exhilarating feeling' still hits some of our younger pilots. The Naval Aviation Safety Center computer tells me we're still losin' pilots and planes at the rate of about one a month because of unauthorized low-level flying. This bit of fiction—written by a young pilot recently returned from carrier duty—is offered as it was written, 'A Story to Live By.'

As a wise man once said: "Flat-Hatting is a form of flying that discourages longevity. . . . The term itself is said to have arisen from an incident in which the wheel of a low-flying plane struck a pedestrian on the head and crushed a new top hat he was wearing. Besides being grounded for quite a stretch, the pilot had to buy the pedestrian a new hat costing $12.50, including tax. Hence, the name 'Flat-Hatting'—which is probably as good a name as any."

He goes on to say, "Flat-Hatting is a no-good way to fly. In other words, don't do it."—*Flat-Hatting Sense*, 1944.

SUBROC, NEW NAVY ANTI-SUBMARINE MISSILE

SUBROC, an underwater-launched missile, has completed a major testing program and is moving toward a place on the Navy's operational anti-submarine weapons team.

Details of the submarine-launched rocket have been revealed by the Navy and Goodyear Aerospace Corporation.

The missile is launched horizontally from a submarine's torpedo tubes by conventional methods. After clearing the submarine, a rocket motor powered by solid fuel ignites underwater and propels the missile upward and out of the water.

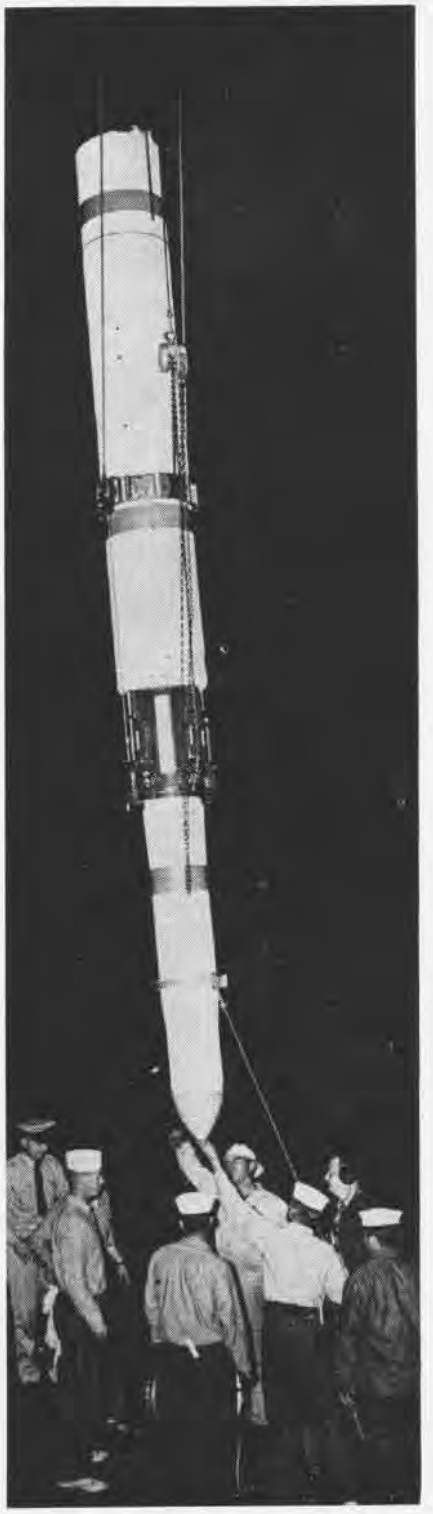
A lightweight inertial guidance system directs *Subroc* toward a target. At a predetermined range, rocket motor and depth bomb separate, the bomb continues to the target under control of its guidance system. Upon supersonic re-entry into the water, a device cushions the shock, the bomb sinks and its nuclear warhead explodes.

Subroc is the first missile to use a rocket engine underwater and to attain supersonic velocities in the air phase of its trajectory.

A fire control system utilizing a digital computer is part of the weapon system. Although no distance-to-target was announced, a spokesman said, "It has the advantage of being able to detect targets at great distances and to fire missiles in rapid succession, an important defense against 'wolfpack' tactics."

RAdm. W. T. Hines, BUWEPS deputy chief, says the Navy is building some 25 nuclear-type submarines capable of seeking hostile subs and destroying them with *Subrocs*.

PERISCOPE VIEW *of Subroc catches swirl of smoke and fire as new ASW missile heads for its target. Missile, which has solid-fuel rocket motor, will re-enter sea and detonate under water.*



TWO-TON MISSILE *is lowered to the deck of a submarine during Subroc's testing program.*

SELECTED AIR RESERVE

RADM. G. P. KOCH *(right), CNAResTra, presents Edwin Francis Conway Memorial Trophy to Capt. L. L. Bangs, C.O., NAS Olathe. Trophy signifies Olathe is "outstanding in all respects."*

New Mobilization Orders

Commencing in October, many Selected Reserve Officers drilling with units located in COMS 5, 6, 8, and 9 received a new type mobilization order prepared by the Naval Reserve Manpower Center, Bainbridge, Md. In approximately 60% of the cases, these new "MOB" orders directed each officer to the same billet in which he is presenty assigned. These orders remain effective until one or more of the following changes in status occur:

1. The officer transfers from a Selected Reserve category to the Active Status Pool or to Stand-by category.

2. A change in grade occurs necessitating an assignment to a billet requiring a more senior officer.

3. An officer becomes ineligible for a sea assignment because of age or physical qualifications.

4. A reassignment is made because an officer possesses a critical qualification for a mobilization billet that requires his special skills.

Alameda Skylift

In November, nearly 100 Weekend Warriors from VR-874 at NARTU ALAMEDA, flew to Rota, Spain for two weeks of active training duty.

They airlifted a ton of concentrated food and children's clothing to Orphanages in Spain and Italy in three C-54 Navy transports.. In the lead plane was Cdr. John Sahaida, commanding officer of VR-874.

From Rota the Reservists flew logistical support missions to six different countries for the Sixth Fleet in the Mediterranean.

The food was donated by the nonprofit Meals for Millions Foundation in Los Angeles. The 1000 pounds equaled 8000 meals when mixed with native diets. Called multi-purpose food, the concentrate consists of a soy bean base with minerals and vitamins needed for nutrition.

The clothing for orphans was given by the Society of St. Vincent de Paul of Alameda County.

Midwesterners in Spain

In its two-week training period overseas, NAS GLENVIEW's Naval Reserve Fleet Tactical Support Squadron 722 maintained an operational schedule covering more than half a million air miles and over 300 flight hours.

VR-722, made up of officers and men from the St. Louis and Chicago areas and commanded by Cdr. Carl Cochran, piloted their C-54 aircraft from Rota to Naples to Athens to Rhodes to Rome to Izmir to Wiesbaden and onward in compiling a superior record for the training period. The squadron lifted personnel, mail and cargo to the hard-operating units of the Sixth Fleet.

On the arrival of VR-722 in Rota, the squadron was entertained with band music, cold drinks and a flamenco party featuring the famous Joselito Troupe from Sevilla. On their last day at Rota, the fliers gave Mayor Antonia Mana Zafra a squadron medallion in a ceremonial demonstration.

Overwater Navigation Training

Long distance overwater navigation may soon be routine for reserve navigators of Marine Transport Squadrons 216 and 353 at NAS SEATTLE.

Seattle's Marine Air Reserve Training Detachment started the new training program last fall with an overwater flight seaward from Seattle to El Toro. Plans call for possibly two such flights each month to keep all reserve navigators and flight radio operators up-to-date.

With LCpl. Gerald R. McGowen as student navigator and Sgt. John A. Rosenlund handling overseas high frequency radio contacts, the C-119F *Flying Boxcar* left Seattle at 2200 one Friday evening and headed 150 miles to sea before turning south toward California. This is normally an overland 900-mile flight with no navigator needed.

Detachment members GySgt. Robert R. Buysse, navigator, and SSgt. Robert A. Van Nostrand, flight radio operator, monitored their reserve counterparts through the 1400-mile training flight.

LCpl. McGowen, a graduate of the Marine Corps Navigators School, got in eight hours of night celestial navi-

gation practice, and Sgt. Rosenlund kept contact with Wake Island and Hawaii to relay his calls to McClellan AF Base in California. Atmospheric difficulties prevented direct contact.

By the time the reserve transport arrived off Los Angeles, it was 300 miles at sea and directly on course. It turned inland and landed at El Toro.

After a 24-hour layover, reserve pilots took off for the return trip to Seattle, following a reverse course over the Pacific. Eight hours of daylight celestial navigation by McGowen brought the C-119 back to Seattle on Sunday afternoon to complete the weekend's drill.

Pilots on the round trip were Maj. Wallace P. Muthersbaugh, Capt. James M. McEniry and Capt. Richard W. Icenhower, all of VMR-353, and 1st Lt. Thomas R. Jensen, VMR-216.

First in Recruiting

A mark of honor was bestowed on LCdr. Bernard L. Elias, Weekend Warrior at NAS ATLANTA, when he was presented the SecNav Commendation for recruiting achievement at a ceremony held in his honor.

LCdr. Elias is the first person on inactive duty whose interest, initiative and individual accomplishment influenced the Secretary of the Navy to change the award regulations. Prior to April 1963, the award could be given only to active duty personnel.

Early in 1961, LCdr. Elias, a freelance photographer from Asheville, N.C., and a member of NAS ATLANTA's Air Wing Staff 67, realized there were a large number of Navy veterans in his home town area. By expending an undetermined number of hours in making personal contacts, he recruited 137 veterans for Naval Air Reserve Program for Atlanta in the last two years.

Naval Reservist of the Year

Alameda's Naval Reservist of the Year, Lorrin G. Kroska, AKI, was presented an inscribed plaque by Edwin C. Whiting, state president for California of the Navy League of the United States. Guest of honor at the Navy Day luncheon where the presentation was made at Oakland, Calif., was Paul B. Fay, Jr., the Under Secretary of the Navy. Kroska serves with Air Wing Staff 87 at NARTU.

CAPT. J. N. DURIO *(R), commanding officer, NAS Atlanta, presented LCdr. B. L. Elias the SecNav commendation for recruiting achievements.*

Actor Takes on New Role

A promising actor-singer has recently taken on a new role. Don Stewart, who had the male lead as a prince in the musical, "The Student Gypsy," has been commissioned a lieutenant (junior grade) in the Naval Air Reserve. He will be flying jet aircraft from NAS NEW YORK, Floyd Bennett Field.

He already has 1500 hours logged as a jet pilot, and he wants to keep up his flying proficiency. He served in the U.S. Air Force for five and a half years.

While in the USAF, he studied voice and appeared as soloist with the Miami Symphony and other orchestras. Upon his release from the service he entered show business and made his Broadway debut in "Camelot."

Lt. Stewart has appeared on Talent Scouts, "Play Your Hunch," the Merv Griffin Show, and many other shows.

Honored Three Times in Six Years

Cdr. Louis H. Glassman, an associate professor of George Washington University, commands Bureau of Naval Weapons Training Unit 661 which recently received the Noel Davis Trophy for proficiency for the third time in six years. The presentation was made at NARTU ANDREWS AFB by VAdm. William A. Schoech, Chief of Naval Material. The cited unit is comprised of officer personnel who are among the nation's top technical experts.

Army-Navy Use of Olathe

Arrangements have been completed for the joint Army-Navy use of NAS OLATHE, making available an additional Army aviation training facility.

Use of a portion of the air station facilities will make it possible for the Army to meet aviation training requirements without opening a new installation.

The Army plans to conduct fixed wing primary and instrument flight training at NAS OLATHE. Flight instruction will be conducted in Army aircraft maintained by a contractor.

Present plans call for this additional flight training school to be operational in time to accept the first class of students by the middle of this year. Subsequent classes will be phased in on a periodic basis, until peak officers and enlisted student loads are reached.

The additional facility is required to accommodate increased Army requirements for aviation. Fort Rucker, Alabama, which will continue to operate at full capacity, will be utilized primarily for advanced training.

ACTOR BECOMES RESERVIST *as Capt. J. J. Hinman II, C.O. of NAS N. Y., swears in Don Stewart. Stewart is a singer and jet pilot.*

AT SEA WITH THE CARRIERS

THIS AIR-TO-AIR *view of three S-2E Trackers of Air Anti-submarine Squadron 38 was photographed over Pacific waters. The squadron is home-based at NAS, North Island, California.*

PACIFIC FLEET

BENNINGTON (CVS-20)

Bennington's enlisted Marine authorization has been increased from 46 to 55 in response to a recent request to the Commandant of the Marine Corps. Recent landing party training sessions have emphasized the role of the individual and fire teams and squads in the basic combat formations. PFC Jim Paynter, aboard, reports that "the enthusiastic response of the sailors assigned under Marine supervision has produced an efficient and smooth-working unit." About 150 men from the deck divisions are working with the Marine detachment.

V-2 Division in the *Bennington* cut a cake celebrating the 33,000th catapult launch.

CORAL SEA (CVA-43)

The 121,000th arrested landing was made aboard *Coral Sea* by Ltjg. R. W. Hewgley of VA-153. Detachment One of VR-21 based at NAS ATSUGI made the unit's 5000th carrier landing when Lt. Jon Simpson, COD pilot, landed aboard CVA-43 in a C-1A *Trader*.

BON HOMME RICHARD (CVA-31)

Preparing for WestPac deployment, VF-191, VA-192, VF-194, VA-195, VA-196, VAH-4, VAW-11, VFP-63, and HU-1 entered an intensive refresher training program. The CVG-19 units are scheduled to board *Bon Homme Richard*.

Capt. George S. Morrison became the 14th commanding officer of CVA-31 when he relieved Capt. Raymond P. Kline, who became Chief of Staff to ComCarDiv Nine.

HANCOCK (CVA-19)

Capt. T. D. Harris, commanding the *Hancock*, is the most recent addition to the exclusive Ten Thousand Trap Club. Capt. Harris met the minimum requirement—10,000 arrested landings aboard an aircraft carrier during one tour as C.O.—when Lt. W. N. Leslie of VA-121 set down in an A-4B *Skyhawk*. The landing was the 62,157th trap aboard since her angled flight deck was added during reconversion in 1956.

KEARSARGE (CVS-33)

This happened to two pilots in Japan after launching on a routine training flight from the *Kearsarge:* They experienced engine trouble and were forced to eject, landed several hundred yards apart, reunited in a cruising taxicab, received medical treatment at a village dispensary, and spent the night in a Girl Scout Camp.

Impressed with the kindness of the villagers and dispensary staff, the pilots, LCdr. John W. Bradford and Lt. W. A. Wessling, later returned, laden with gifts of medical supplies.

KITTY HAWK (CVA-63)

En route to the Far East and her second tour with U.S. Seventh Fleet, *Kitty Hawk* underwent ORI in Hawaiian waters. Scheduled ports of call include Okinawa, Sasebo, Yokosuka,

WHEN USS BENNINGTON *(CVS-20) arrived at Long Beach, before her current deployment, she was greeted by tug boats, sailboats and water-spouting fireboats (photo by G. W. Burgess, PH3).*

THE REMOTE CONTROL *console of PLAT system installed in Independence is operated by A. L. Bender, AN. He selects best camera view.*

CAPT. J. P. LYNCH, *commanding the carrier Yorktown, greets RAdm. J. M. Arnold, ComNavAirPac force material officer, aboard CVS-10.*

Kobe, Hong Kong, and the Philippines.

Lt. P. M. Commons of VA-115 logged the carrier's 18,000th arrested landing aboard. Among the celebrants marking the occasion were Capt. H. H. Epes, Jr., commanding the carrier, and RAdm. T. W. South, ComCarDiv 7.

TICONDEROGA (CVA-14)

Using a basic idea given them by Capt. J. P. Weinel, *Tico's* commanding officer, three men aboard designed and built a special buoy that is intended to simplify and hasten search-and-rescue operations at sea.

Ben Swanson, ATC, Elton Forbes, AE1, and Claude Freeman, AHS3, started and finished the job in less than a month. The buoy's main components are a radar reflector, two white lights, and dye marker capsules.

To form the body of the buoy, they welded two metal barrels together. They attached a steel post and two round, crossed, stainless steel plates to the top, to serve as radar reflectors for searching ships. At the base, they inserted salt water batteries which power twin lights at the buoy's top. Also at the base is a protruding steel rod tipped with a metal disc. Upon contact with the water, two dye markers are released.

LIFESAVING *buoy is designed, built by Freeman, AMS2, Swanson, ATC, and Forbes, AE1.*

To test all of the buoy's components, *Ticonderoga* dropped the buoy over the side on a dark night and held a man overboard drill. Then, accompanied by destroyers *Prichett* and *Cowell*, CVA-14 steamed about 10 miles away, intentionally losing contact with the buoy.

Reversing course, the ships retraced their path in a parallel pattern. *Tico* reported visual sighting of the buoy at five miles, quickly followed by

TWO TERRIER *guided missiles aboard USS Kitty Hawk frame the USS Arizona monument at Pearl Harbor when carrier visited the 50th state.*

DOUBLE CENTURIONS *of VF-213 aboard Hancock are Lts. D. C. Weaver (L), D. L. Huntress, D. A. Pederson, and (kneeling) LCdr. J. M. Pauld.*

sightings from the destroyers. Retrieved by one of the destroyers, the buoy was placed in a barrel of salt water; the twin lights burned for about eight hours.

The buoy possesses several additional advantages for life saving at sea. It has a life ring around its middle and has sufficient buoyancy to support two men indefinitely. A ship's lookout can spot it easily, as can men in the water. It drifts at approximately the same rate a man does.

VALLEY FORGE (LPH-8)

Chow hounds aboard the amphibious assault carrier *Valley Forge* rejoice in her nickname, "The Happy Valley." They have occasion to. During her FRAM II renovation, the ship's mess deck arrangements have been greatly improved. In tackling the job, the old mess deck was completely stripped of everything: tile, tables, benches, even paint. A muted "cocoa cream" paint was put on, new formica-top tables and fiber glass swivel bucket seats were installed. A light tan tile was laid on the deck, and new fluorescent fixtures now give off a "cozier" light.

The scullery was moved to the old first class messing area, which permits a "flow concept" in serving the 2700-man crew. The men move aft from the serving lines to their tables, then on to the scullery, and finally exit from the messing area.

In another wrinkle, a menu-planning board is composed of department representatives, to give the crew more say in what foods are selected.

ATLANTIC FLEET

ENTERPRISE (CVAN-65)

Nine Congressmen and 11 accompanying government personnel flew aboard the *Enterprise* in two groups to view an impressive demonstration of firepower conducted by the *Big E's* air group, CVG-6. The carrier also played host to 285 members of the staff and student body of the Armed Forces Staff College, 35 students of the Naval War College, and 165 students of the National War College.

During an 18-month tour with VA-66, which began in January 1962, Capt. Richard A. Miller, USAF, became the *Enterprise's* first Air Force Centurion. Capt. Miller is on exchange duty.

A SCALE MODEL *of the combat intelligence center in USS Wasp is examined by VAdm. P. H. Ramsey, ComNavAirLant (L), as changes in it are explained by Capt. E. R. Fickenscher, C.O.*

This month, the carrier is slated to receive a complete Electronic Accounting Machine installation, similar to the one in *Forrestal.* It is designed to support the OpNav program developing and operating a Navy Standard Maintenance Management System. The system will process Maintenance Usage Data prepared by CVG-6 during the next Med deployment.

INTREPID (CVS-11)

Cdr. K. L. Morse, X.O. of HS-3, now has a giant-size yo-yo. It was presented to him by Cdr. Harris Rogers, X.O. of VS-27, in the *Intrepid.* The occasion? Cdr. Morse had just qualified as a helicopter Centurion aboard.

The 78,000th landing was logged aboard the *Fighting 1* by LCdr. Vaughn E. Wilson and Lt. Bob Kreiner, in an S-2 *Tracker.*

The Capt. Arnold Jay Isbell Trophy was presented to VS-27 and HS-3 by VAdm. E. B. Taylor, Commander Anti-submarine Warfare Forces Atlantic. Cdr. J. P. Shaffer and Cdr. J. C. Wilkins, C.O.'s of VS-27 and HS-3 respectively, accepted the trophies. Both units also won squadron battle efficiency E's. The helo squadron went on to win the CNO Safety Award, completing a clean sweep in her class.

ESSEX (CVS-9)

En route to the Med for a three-month deployment (completed last month), *Essex* had cause for celebration. The 29,000th accident-free starboard catapult shot was made. Launched was an S-2D *Tracker* piloted by Ltjg. Robert B. Bungarz of VS-39.

"Elogios a Col'on," said the men aboard as they entered their first port of call, Barcelona, Spain. They formed the words on the flight deck of the carrier, in tribute to the city. Translated, the phrase means "Columbus be praised."

Shortly after arrival in the city, men in the *Essex* learned that an orphanage was badly in need of a paint job and that the city's shore patrol headquarters was in need of repair. Two groups of volunteers visited the sites with paint brushes in hand. At the S.P. headquarters, the antiquated plumbing system had broken down and many smaller repair jobs were needed to be done. On their own liberty time, the group, organized by the ship's chief master-at-arms, A. C. Rollo, devoted two days to completing the job.

Malta was the next port of call and after it, the ASW carrier proceeded through the Suez Canal (*Essex* reported this her fourth transit of the Canal) to visit Saudi Arabia, Aden and Pakistan, returning to the Med via the canal.

At this point, a "travel agency"

AN SH-3A *Sea King assigned to Helicopter Anti-submarine Squadron Nine detachment aboard USS Essex (CVS-9) flies over the Atlantic.*

THE PILOT *of an A-6A Intruder heads across the flight deck of USS Forrestal toward the catapult for his first carrier qualifications.*

was organized aboard the carrier, to ensure plane, train and bus reservations for the crew when the *Essex* returned to home port, Quonset Point, R.I., shortly before Christmas.

Capt. J. M. West, commanding the carrier, had good reason to be proud of HS-9 based aboard. The squadron successfully "defended" a portion of Sixth Fleet's departure from Augusta Bay, by helping to detect, and theoretically destroy, two "aggressor" U.S. submarines.

Realizing success depended on quick saturation of the area, HS-9 put 12 of its SH-3A jet *Sea Kings* into the air, holding two in stand-by reserve. The subs were sighted and "sunk" within two hours.

Fleet observers were both pleased and impressed. Commander Task Group 60.2 messaged his congratulations to Cdr. T. H. Griffin, commanding the squadron: "The performance of your squadron during the sortie from the Fleet anchorage today was clearly outstanding. I know the difficulties in maintaining a high sustained mission-ready status with your birds. Well done to all hands." HS-9 had had 100 per cent availability.

FORRESTAL (CVA-59)

RAdm. Samuel R. Brown assumed command of Carrier Division Four in ceremonies aboard his flagship, USS *Forestal*. He relieved RAdm. John J. Hyland. Adm. Brown is a former commanding officer of CVA-59.

FRANKLIN D. ROOSEVELT (CVA-42)

Scheduled to return to Mayport, Fla., in time for Christmas holidays, the *FDR* completed major overhaul at New York Naval Shipyard.

During the yard period, her main propulsion plant was completely renovated, the flight deck was resurfaced and the angle deck catapult removed. The two forward cats and the arresting gear were reconstructed. Six of the ship's 10 five-inch-54 gun mounts were removed. Dining areas were air conditioned and modern ovens and deep fryers were added to the galleys.

Two new radar systems were installed: a longer range air-search radar and a landing control approach radar, which will eventually be capable of assuming control of an aircraft and landing it free of pilot assistance. New ultra high frequency antennas were added to extend communications facilities. A jet engine test unit was installed, capable of testing engines outside of aircraft under all conditions. A liquid nitrogen plant was added.

LAKE CHAMPLAIN (CVS-39)

The 57,000th landing in *Lake Champlain* was made by Lt. Robert A. Maiellaro and Lt. Philip F. Gibber of VS-22. Also in the crew were William A. Stanaway, aviation metalsmith, and James H. Booth, aviation electronics technician.

INDEPENDENCE (CVA-62)

Independence dropped anchor at Taranto, Italy, for a four-day stay, during which men aboard accepted a challenge to a soccer game with an Italian Navy team. Though the Yanks had fun, the Italians trotted off with a 10-1 victory.

After intensive at-sea operations, the carrier rendezvoused with *Shangri La* and *Essex* and other Sixth Fleet units, at Augusta Bay, Sicily, for a weekend of planning conferences and critiques devoted to various Fleet exercises conducted during the previous two months.

The 52,000th landing aboard CVA-62 was made by Maj. Chuck Hiett, commanding VMA-324, while the 53,000th landing was made by LCdr. William Sallada of VA-86.

SHANGRI LA (CVA-38)

There's a lot of Russian talking going on aboard the *Shangri La*. Ens. Peter Downing of the carrier's Air Department is holding classes aboard several times a week. He's using USAFI course books and recordings. Similar courses in French and Italian are being offered to the crew by other linguists aboard.

Ltjg. J. T. Matheny of VF-13 logged *Shang's* 54,000th landing, in an F-3B *Demon*. He was congratulated by Capt. E. L. Dashiell, Jr., commanding the aircraft carrier.

WASP (CVS-18)

After an 11-year effort and with the cooperation of the Connecticut bureau of license issue, a former member of the USS *Wasp* (CV-7) now sports a tag with the identifying letters W-A-S-P. The ex-*Wasp* member is Mr. Joseph Sandor of Fairfield, Conn. Recently, he and another ex-member of the earlier carrier, Mr. William O. Pruitt, Jr., of Stratford, Conn., boarded CVS-18 and presented the ship's Gunnery Officer, LCdr. Carl L. Hokenson, Jr., with a portrait of their former ship.

In her current FRAM overhaul at Boston Naval Shipyard, *Wasp* is completely rearranging the CIC room. A Tactical Navigational Display System (TACNAV) is now being installed.

LCpl. Teaching English

Japanese Children are Students

LCpl. Edward A. Pate of Marine Air Base Squadron 12 is putting his off-duty hours at MCAS Iwakuni, Japan, to productive use. He is teaching everyday American conversation to Japanese students at the Matthew C. Perry School. An unpaid volunteer, he is working through the Japanese-American Cultural Friendship Association.

"I have never seen so many students of high school age so willing to learn," he said. His class is one of ten taught at the school, collectively teaching about 125 students. Other instructors devoting time to the JACFA include 1st Lt. William J. Ereneta of MABS-17 and Cpl. L. J. Huott of H&MS-12 avionics, conducting advanced classes; SSgts. R. E. D. Dane of MABS-17 and F. L. McLaughlin, VMGR-152, intermediate classes; two bandsmen of H&HS-1, Cpls. W. S. Bailey and J. A. McRee, and Cpl. George D. Mingori of MAG-12, supply, teaching basic classes.

Beyond the perimeter of Iwakuni, JACFA receives volunteer help in a variety of conversational coaching situations. Cdr. Henry E. Sodke of FAW-6 is president of the organization.

Ordnance Scientist Honored

'Astor' System Elicits Navy Award

The Navy's Distinguished Public Service Award was presented to Jack B. Robertson, Assistant Director of the Applied Physics Laboratory, University of Washington, Seattle, at a ceremony in Washington, D. C., November 1.

The award was based on Robertson's contribution to the development of the *Astor* nuclear weapon system.

Astor is an acronym for anti-submarine torpedo. The *Astor* weapon system is extremely effective for both anti-submarine warfare and for protection of our own submarines. It is often classed as a torpedo deterrent system.

Robertson headed the group at the APL that provided the technical direction of the program. He acted as scientific and management intermediary between the Navy and Industry. The Westinghouse Electric Corp., Baltimore, was the prime contractor.

The award ceremony was held in the office of James H. Wakelin, Jr., Assistant Secretary of the Navy for Research and Development.

Glynco Operates Servmart

Automated System now at Oakland

Most recent Servmart to open at a Navy shore facility is now operating at NAS Glynco, Ga. This is a self-service store operated like a commercial supermarket, permitting expeditious issuance of regular Navy supply items at a drastic reduction of paper work. This is the 34th such "store" in the Navy.

On the West Coast, the Navy Supply Center at Oakland, Calif., is now operating an automated materials handling system. Mrs. J. B. Spain, president of the Alvey-Ferguson Company of Cincinnati which installed the complex system, said during acceptance ceremonies:

"We all know the Navy is the biggest, the best, and the most courageous, but no matter how big, how best, how fearless, it is lost without supply—and this system is to help do the job of supply."

RAdm. H. C. Haynsworth, Jr., commanding the center, accepted the system after it had undergone extensive operational tests for more than a year.

Editor's Corner

HALLOWEEN AT SEA. Back in September, Ens. Jay Coupe, Jr., PIO on the USS *Essex*, was seen carrying a pumpkin under his arm as he headed for the ship. At the end of October, he carved it in the traditional manner and installed it in the carrier's wardroom "to ensure that *Essex* didn't forget how much fun halloween really is." The ship was in the Red Sea at carving time, half a world away from its New England home.

Black Noses, Too! Following the Marine Commandant's order changing shoes and accessory color from brown to black, the men of Marine Fighter Squadron 122 at Beaufort, S. C., went one step further. They removed the brown stain from the nose cones of the *Crusader* aircraft and dutifully applied black polish.

HALF A BELL IS BETTER THAN NONE. In August 1962, a group representing VF-213 stopped in a certain spa in Yokosuka, Japan. The occasion called for celebration of the acquisition of a ship's bell inscribed with the VF-213 crest. When the evening's celebration had ended, the bell was "missing." In August 1963, more than a year later, some of the 213-ers gathered together in the same spa and the bell was returned to the squadron. It caused some embarrassment, however. Before the bell was returned, the squadron had to pay certain "taxation" penalties. And—the side of the bell opposite the VF-213 crest had been engraved with a VA-216 crest.

Walleye, Gladeye, Sadeye, Fisheye. The new "eye" series of weapons has been the special concern of men and officers of NOTS China Lake. So, when Cdr. Waldo Born was briefed about the new hush-hush *Fisheye* weapon, he took the bait and went through an elaborately planned briefing and preparation for the first flight of the new weapon. Escorted out to a loaded aircraft and duly cautioned about the "sensitive VT fuze" of the *Fisheye*, Cdr. Born met the new weapon for the first time and nearly collapsed with laughter. The *Fisheye* consisted of a bath tub slung under the aircraft

FISH-EYE IS GLAD-EYED

wing, the tub "loaded" with six goldfish in water. The "fuze" consisted of a string that would permit the water and fish to be "dropped" on target. The joke—witnessed by Born's squadron mates—was initiated because he had once ordered his aircraft loaded "with everything including the kitchen sink."

MOST MISSPELLED? Nomination for "Most Misspelled" word in the aviation lexicon is HANGAR, the place where aircraft are stored and/or repaired. According to one prime source at the CNO administrative level, letter writers frequently spell it HANGER, which means a device for hanging one's clothes. It's "A for aviation" in *hangar*, for those interested in word-association games.

Flying Filter Filcher. A free-as-a-bird crow named Sam has infiltrated the housing area at NAS Glynco, Ga. A friendly bird, Sam has one habit that startles newcomers—he takes cigarettes from the mouths of persons passing by. Sam's owner, Cpl. Charles Milks, says his pet likes to snap the filters from cigarettes and place them in a special storage place. He also collects marbles, lollipops, bugs, thread, food and "anything else imaginable."

"AND HERE COMES THE FLEET . . ." TV-Radio M.C. Art Linkletter told this one on himself during a charity luncheon aboard the USS *Midway*: When Linkletter was a budding radio announcer he was sent to give an on-spot report of the First Fleet steaming into San Diego Bay. A California fog steamed in instead of the Fleet, but the young announcer kept reading an excited recitation of the Fleet's arrival as it was listed in a preliminary plan. After he "brought the Fleet in," Linkletter said he learned that the ships were still 20 miles out, waiting for the fog to lift.

Selective Service at the Bar. The Officer's Club at NAS Corpus Christi had an unusual "bonus" recently. A conference of 125 Naval Reservists from an eight-state area, gathered at Corpus Christi for discussions of the Selective Service system they would administer in event of mobilization, produced three men who apparently had forgotten that one never never enters an Officer's club bar with hat on head. The penalty—as every Naval Aviator knows—is a round for the house. (During the second week of active duty, no one entered covered.)

WAVES ABOARD SHIP. Question: "What would be the advantages of stationing Waves aboard ship?" An Inquiring Reporter at Long Beach Naval Station received the following replies:

"The galley, including the bake shop, could sure use a woman's touch."

"Morale! What's more pleasant than the sight of a woman once in a while, especially when you're out at sea for months on end?"

"Help! We have a grave shortage of mess cooks!"

A Wise Old Bird is the Pelican. The stray pelican that landed at NAS New Iberia recently, was pretty savvy. First, as the official state bird of Louisiana he was protected against hunters. Second, he landed on Federal property, giving him added "life insurance." And third—just to cinch his brightness—he landed in the refueling area of the NAS Exchange Service Station. (He flew away without getting service.)

DID YOU KNOW? A familiar sight at NAS Pensacola is the high brick wall that runs along the road in the Mustin Beach area. Legend has it that the wall was built to "keep away mosquitoes." It was once believed that the little pests could fly no higher than eight feet off the ground.

LETTERS

Who's First?

SIR: I was reading in the July 1963 issue an article, "At Sea With the Carriers." An incorrect statement was made in the article under "Atlantic Fleet; Saratoga (CVA-60)." The statement was, in effect, that the Saratoga was the first U.S. Aircraft Carrier to visit the French port of Marseilles since 1957.

This statement is in error. USS *Lake Champlain* (CVS-39) visited Marseilles during the summer of 1959.

LARRY D. EVANS, LT.

Fleet Tactical Support Squadron
VR-24 Detachment

Another Claim

SIR: On page 40 of the October 1963 issue of your magazine, Airborne Early Warning Squadron Four challenged VW-13's statement of having the first individual unit flag in Naval Aviation, with a date of 31 October 1962. We, the officers and men of Heavy Photographic Squadron 61, challenge both their statements.

In July 1961, the final designation of the squadron took place, and as of 17 August 1961, the "world famous" VAP-61 *Zappers* have had a squadron (unit) flag. It is proudly displayed, along with the national ensign, in our Commanding Officer's office, one on each side of the desk. Our squadron flag is also used in all appropriate ceremonies.

The design of the squadron emblem basically shows the mission of our squadron. It has two jet aircraft symbols flying over the globe, depicting our mission of providing aerial photographic intelligence for Naval Operations. The jet aircraft symbols are silver. The globe is gray and white, trimmed in dark blue. The background is light blue and is also trimmed in dark blue. The emblem is appliqued on a dark blue nylon flag.

GERALD L. MARSH, AME2

* On page 40 of the December 1963 issue of NANEWS, Heavy Attack Squadron Six claims that it had its own flag in March 1960. Can anyone beat that?

Help Wanted

SIR: I am a Midshipman First Class at the U. S. Naval Academy. During our first class year, each "Firstie" is required to write a research paper in order to graduate. In the summer of 1960 I attended airborne training at Ft. Benning, Ga. It seemed natural, then, for me to choose as my topic the use of the parachute, both as a weapon and as a lifesaver.

I would like to enlist your aid in compiling commentary letters of experience(s) with the parachute. In this respect it is desirable to have a short background of events leading to the experience(s). For instance, a flyer may relate the story of all controls going bad at once, necessitating an emergency exit. Perhaps someone may have had to "pop" a reserve, or was caught in a "Roman Candle" situation.

Other possibilities include campaign actions, airborne resupply operations, firefighting experiences, paramedical aid, research and development, or any other uses for a parachute. Pictures or diagrams will be of great value; however, since the research paper becomes a permanent file of the Naval Academy I regret that I will be unable to return the pictures.

MIDN' WILLIAM F. DUE, JR.

Rm. 6105, Bancroft Hall
U. S. Navy Academy
Annapolis, Md. 21412

Colorful Navy Career Ended

He Worked with Lindy and Earhart

Lt. Karl Kester ended a 30-year Naval career at NAAS SAUFLEY FIELD last November. During his career, he served with some of aviation's pioneers.

In 1935, he was aboard the early aircraft carrier, *Lexington*, and served as plane captain for an Army pilot, "Lucky" Lindbergh, who was learning to make carrier landings. Later, as mechanic on Amelia Earhart's Lockheed *Electra* during her stop at Hawaii, he became acquainted with the famous woman pilot. Kester was first on the scene when her first round-the-world attempt ended in a crash on takeoff from Hawaii. He was later stationed on a tugboat at Howland Island that received the last radio message from Miss Earhart before her second globe-circling flight ended mysteriously.

Lt. Kester entered the Navy as a seaman recruit and held 17 different rates and ranks, finally holding his current rank. He served in the Afro-European campaign during World War II. As a member of a patrol plane crew, he received two Air Medals and a Presidential Unit Citation for the sinking of two enemy submarines.

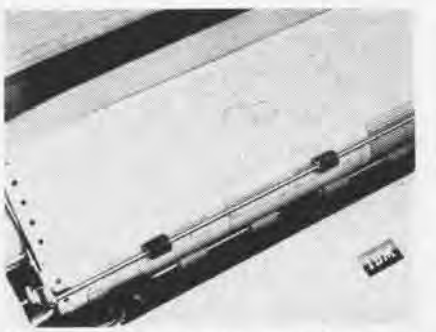
Immediately after the war he served at Guam where he participated in a mopping up campaign against reluctant enemy holdouts who were hiding in the caves and hills of the island. During the Korean conflict, he saw action in the USS *Essex*.

From 1953 to 1956, he was part of research and development teams in the carrier *Hancock*, evaluating steam catapults and, later, *Regulus* missile shipboard launching procedures. He developed methods for the *Regulus* which greatly extended its range.

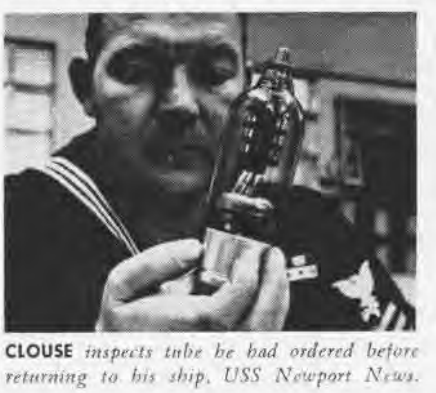
New Computer is Dedicated

Critical Supply Needs Met Swiftly

AT FLEET *Service Office, Norfolk Naval Supply Center, SK1 Ken Clouse delivers card.*



THE IBM 1410 *computer gives location of item and authority for bearer to pick it up.*



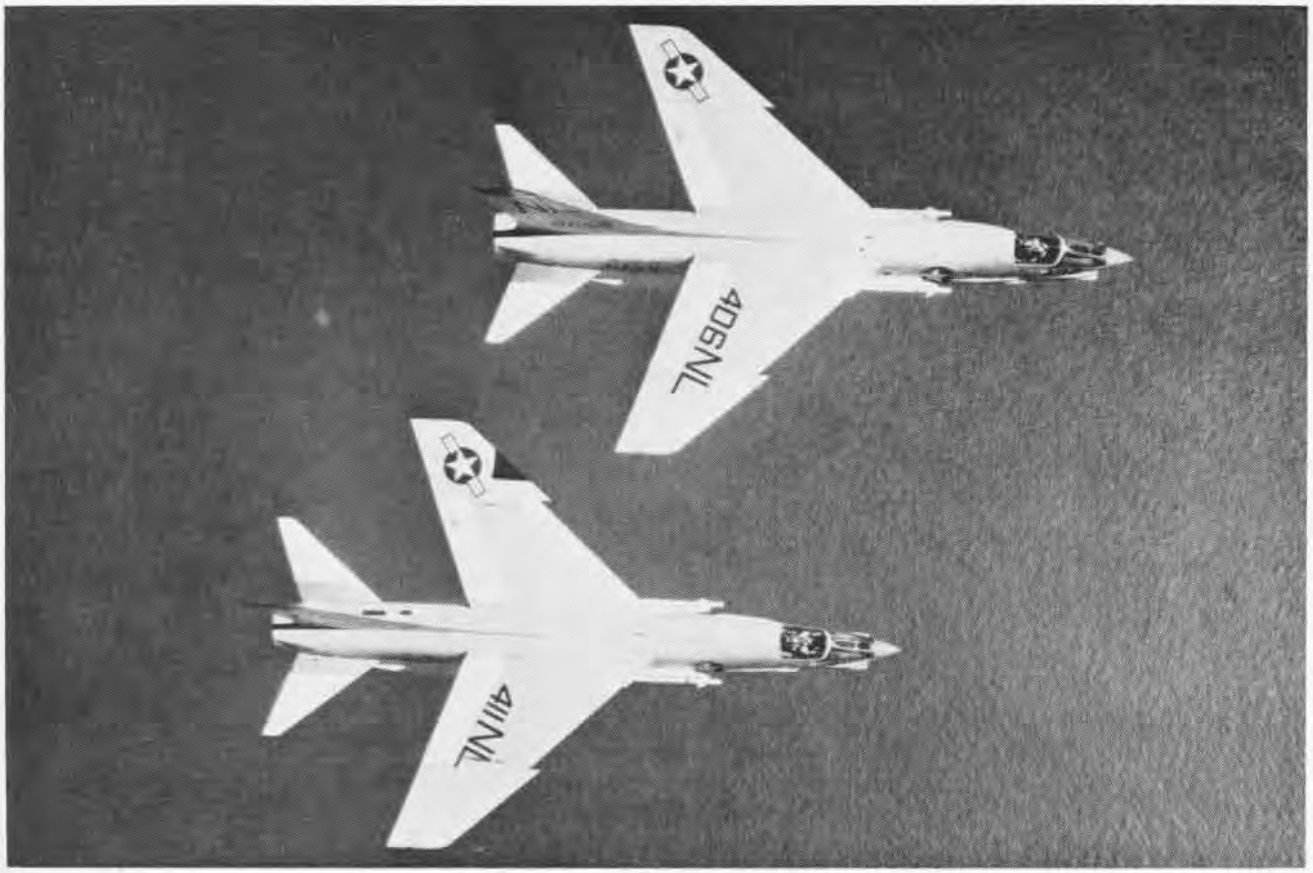
CLOUSE *inspects tube he had ordered before returning to his ship, USS Newport News.*

A powerful electronic computer is now operating for the Norfolk Naval Supply Center, responding instantly to world-wide demands for any one of nearly three quarters of a million items the center handles. It is an IBM 1410 data processing system capable of storing 280 million characters of information in its random access electronic memory. RAdm T. A. Long officiated at the dedicatory ceremonies.

The computer provides immediate answers to questions from remote terminals about: where material is stored; how much stock is on hand; what the status is of any specific order.

SQUADRON INSIGNIA

At the same time Fighter Squadron One Five Four received F-8 Crusaders in 1957, Milton Caniff, creator of 'Steve Canyon,' was commissioned to design a new emblem. The 'Black Knight' best portrays the squadron's mission—to stand girded in full armor ready to strike back at any enemy threatening our way of life. Based at NAS Miramar when not aboard USS Coral Sea, VF-154's C.O. is Cdr. H. R. Glindeman, Jr.



AWARD WINNING NEWS

Inevitably an editor asks, 'How're we doing?' He studies his pages carefully, but he can only make a subjective evaluation. That's why NANews sought an 'outside' criticism. This plaque is our answer—Best Internal Periodical in the Federal Editors Association's government-wide 1963-64 contest, based on readability, economy, appearance, and organization. We're most happy.

NAVAL AVIATION NEWS

NAVAL AVIATION NEWS